Cisco Active Network Abstraction 3.6.7 VNE Reference Guide

Version 3.6.7
October 14, 2009

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Text Part Number: OL-19647-01

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Preface

Revised November 24, 2009 OL-19647-01

Abstract

This Reference Guide lists the devices, software versions, topologies, modules, events, and technologies that are supported on the VNEs provided with Cisco Active Network Abstraction (Cisco ANA) version 3.6.7

Note This Guide contains a subset of the total list of VNEs supported by this version of Cisco ANA. For information about additional supported VNEs, contact Cisco Professional Services.

Audience

The audience for this document includes:

- Network viewers, who monitor the network and perform basic (non-privileged) system functions.
- Network operators, who perform day-to-day operations, such as creating business tags and maps, and controlling alarm life cycles.
- Network administrators, who activate services and configure the network.
- System administrators, who manage the system configuration and security.

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, 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

Related Documentation

Note We sometimes update the documentation after original publication. Therefore, you should also review the documentation on Cisco.com for any updates.

The following documentation is available for Cisco Active Network Abstraction 3.6.7:

Cisco Active Network Abstraction 3.6.7 User Guide

Cisco Active Network Abstraction 3.6.7 Administrator Guide

Cisco Active Network Abstraction 3.6.7 Documentation Guide

Cisco Active Network Abstraction 3.6.7 Installation Guide

Cisco Active Network Abstraction 3.6.7 Release Notes

Cisco Active Network Abstraction 3.6.7 Customization User Guide

Cisco Active Network Abstraction 3.6.7 Technology Support and Information Model Reference Manual

Cisco Active Network Abstraction 3.6.7 VNE Reference Guide

The Cisco Developer Community provides forums, blogs, wikis, and documentation for Cisco ANA developers. Refer to the following website for more information:

http://developer.cisco.com/web/ana/home

The following related document is available from the Cisco Developer Community website:

Cisco Active Network Abstraction Integration Developer Guide

CHAPTER 1

Introduction

This chapter introduces Virtual Network Elements (VNEs) and describes the types of information available in this Guide.

This chapter contains the following topics:

- Introduction to VNEs, page 1-1
- Understanding the Tables, page 1-2

Introduction to VNEs

VNEs (Virtual Network Elements) are independent software processes that run on the Cisco ANA Unit Servers. Each VNE is assigned to manage a single network element (NE) using the NE's management interfaces (for example, SNMP and Telnet). The VNEs maintain a live model, or abstraction, of each NE and the entire network.

As the VNE loads, it starts investigating the NE and automatically builds a live model of the NE, including its physical and logical inventory, its configuration and its status. After modeling the NE, the VNE begins negotiating with peer VNEs, which represent the peer NEs, in order to determine NE connectivity and topology at different layers. This model of the network topology, NE state, and NE inventory is constantly being updated by the VNEs, which track every change that occurs in the NEs and the network.

The VNEs communicate between themselves to analyze end-to-end flows, which provide information for root-cause and impact analysis, service path tracing, and more.

Understanding the Tables

This section presents legends that describe key information that can be found in the VNE support information chapters in this Guide

This section contains the following topics:

- Certification Level Legend, page 1-2
- Expedite Legend, page 1-2

Certification Level Legend

Table 1-1 describes the meaning of the certification levels found in the VNE support information tables in this Reference Guide.

Table 1-1 Certification Level Legend

Certification Level	Description
N	Not supported.
S	Supported.
V	Verified.

Expedite Legend

Table 1-2 describes the meaning of the Expedite column found in the service event (service alarm) tables in this Reference Guide.

Table 1-2 Expedite Legend in Service Event Tables

Value	Descriptions
Y	The service event is expedited by a syslog or trap generated by the device. This means that the syslog or trap causes the VNE to poll the device without waiting for the usual polling cycle, thus enabling quicker detection of the event.
N	The service event is not expedited. This means that the VNE will detect this event during the next regularly scheduled polling cycle.

CHAPTER 2

Overview—Supported Network Elements in Cisco ANA Version 3.6.7

This chapter provides an overview of network elements (NEs) that are supported by Cisco ANA Version 3.6.7 and includes the following sections:

- Supported Alcatel-Lucent Devices in Cisco ANA Version 3.6.7, page 2-1
- Supported Cisco Security Appliances in Cisco ANA Version 3.6.7, page 2-2
- Supported Cisco Gateways in Cisco ANA Version 3.6.7, page 2-3
- Supported Cisco Routers in Cisco ANA Version 3.6.7, page 2-3
- Supported Cisco Switches in Cisco ANA Version 3.6.7, page 2-10
- Supported Juniper Devices in Cisco ANA Version 3.6.7, page 2-16
- Supported Redback Devices in Cisco ANA Version 3.6.7, page 2-17
- Supported Generic Devices in Cisco ANA Version 3.6.7, page 2-17
- Supported Devices Not Included in VNE Reference Guide, page 2-18

Supported Alcatel-Lucent Devices in Cisco ANA Version 3.6.7

This document includes support information for the following Alcatel-Lucent devices:

- Alcatel-Lucent 7450 Ethernet Service Switch
- Alcatel-Lucent Intelligent Services Access Manager
- Alcatel-Lucent Riverstone
- Alcatel-Lucent CBX, GX, B-STDX Switches

Table 2-1 Supported Alcatel-Lucent Devices in Cisco ANA Version 3.6.7

NE Type	Product Name	SysOID	ANA Version	Certification Level
Alcatel-Lucent 7450 Ethernet Service Switch				
ess-7450	Alcatel ESS-7450	1.3.6.1.4.1.6527.1.6.1	3.5.2	V
ess-7450	Alcatel ESS-7450	1.3.6.1.4.1.6527.1.6.3	3.5.2	V

Table 2-1 Supported Alcatel-Lucent Devices in Cisco ANA Version 3.6.7 (continued)

NE Type	Product Name	SysOID	ANA Version	Certification Level
Alcatel-Lucent Intelligent Services Access Manager				
ISAM 7302	Alcatel-Lucent 7302 ISAM	1.3.6.1.4.1.637.61.1	3.6.0	V
ISAM 7330	Alcatel-Lucent 7330 ISAM	1.3.6.1.4.1.637.61.1	3.6.0	V
Alcatel-Lucent Riverstone				
CPU-RS1100	RS1100	1.3.6.1.4.1.5567.1.1.13	3.6.2	S
CPU-RS3100	RS3100	1.3.6.1.4.1.5567.1.1.11	3.6.2	S
Alcatel-Lucent CBX, GX, B-STDX Switches				
cbx500	Lucent CBX 500	1.3.6.1.4.1.277.1	3.6.0	S
gx550	Lucent GX 550 Switch	1.3.6.1.4.1.277.1	3.6.0	S
B-STDX 9000	Lucent B-STDX 9000	1.3.6.1.4.1.277.1	3.6.0	S
B-STDX 8000	Lucent B-STDX 8000	1.3.6.1.4.1.277.1	3.6.0	S

Supported Cisco Security Appliances in Cisco ANA Version 3.6.7

This document includes support information for the following Cisco Security appliances:

- Cisco Adaptive Security Appliance 5550 Series

Table 2-2 Supported Cisco Security Appliances in Cisco ANA Version 3.6.7

NE Type	Product Name	SysOID	ANA Version	Certification Level
Cisco Adaptive Security Appliance 5550 Series				
ciscoASA5550	Cisco ASA 5550 Security Appliance	1.3.6.1.4.1.9.1.753	3.6.3	S
ciscoASA5550sc	Cisco ASA 5550 Security Appliance	1.3.6.1.4.1.9.1.763	3.6.3	S

Supported Cisco Gateways in Cisco ANA Version 3.6.7

This document includes support information for the following Cisco gateways:

- Cisco AS5300 Series Universal Gateways

Table 2-3 Supported Cisco Gateways in Cisco ANA Version 3.6.7

NE Type	Product Name	SysOID	ANA Version	Certification Level
Cisco AS5300 Series Universal Gateways				
ciscoAS5300	Cisco AS5300 Access Server	1.3.6.1.4.1.9.1.162	3.6.0	S

Supported Cisco Routers in Cisco ANA Version 3.6.7

This document includes support information for the following Cisco routers:

- Cisco 800 Series Routers
- Cisco 1000 Series Routers
- Cisco 1600 Series Routers
- Cisco 1700 Series Modular Access Routers
- Cisco 1800 Series Integrated Services Routers
- Cisco 2500 Series Routers
- Cisco 2600 Series Multiservice Platform Routers
- Cisco 2800 Series Integrated Services Routers
- Cisco 3600 Series Multiservice Platform Routers
- Cisco 3700 Series Multiservice Access Routers
- Cisco 3800 Series Integrated Services Routers
- Cisco 7200 Series Routers
- Cisco 7400 Series Routers
- Cisco 7600 Series Routers
- Cisco 10000 Series Routers
- Cisco 12000 Series Routers
- Cisco XR 12000 Series Routers
- Cisco CRS-1 Carrier Routing System
- Cisco ASR 1000 Series Routers
- Cisco ASR 9000 Series Aggregation Services Routers
- Cisco MWR 2900 Series Mobile Wireless Routers

Table 2-4 Supported Cisco Routers in Cisco ANA Version 3.6.7

NE Type	Product Name	SysOID	ANA Version	Certification Level
Cisco 800 Series Routers				
cisco801	Cisco 801 ISDN Router	1.3.6.1.4.1.9.1.212	3.6.0	S
cisco802	Cisco 802 ISDN Router	1.3.6.1.4.1.9.1.213	3.6.0	S
cisco803	Cisco 803 ISDN Router	1.3.6.1.4.1.9.1.214	3.6.0	S
cisco804	Cisco 804 ISDN Router	1.3.6.1.4.1.9.1.215	3.6.0	S
cisco805	Cisco 805 Serial Router	1.3.6.1.4.1.9.1.245	3.6.0	S
cisco802J	Cisco 802 ISDN Router	1.3.6.1.4.1.9.1.295	3.6.1	S
cisco804J	Cisco 804 ISDN Router	1.3.6.1.4.1.9.1.296	3.6.1	S
cisco826QuadV	Cisco 826 ADSL Router	1.3.6.1.4.1.9.1.321	3.6.1	S
cisco806	Cisco 806 Broadband Router	1.3.6.1.4.1.9.1.384	3.6.0	S
cisco811	Cisco 811 ISDN Router	1.3.6.1.4.1.9.1.395	3.6.0	S
cisco813	Cisco 813 ISDN Router	1.3.6.1.4.1.9.1.396	3.6.0	S
cisco826	Cisco 826 ADSL Router	1.3.6.1.4.1.9.1.322	3.6.0	S
cisco827	Cisco 827 ADSL Router	1.3.6.1.4.1.9.1.284	3.6.0	S
cisco827H	Cisco 827 H ADSL Router	1.3.6.1.4.1.9.1.446	3.6.0	S
cisco827QuadV	Cisco 827-4V ADSL Router	1.3.6.1.4.1.9.1.270	3.6.0	S
cisco828	Cisco 828 G.SHDSL Router	1.3.6.1.4.1.9.1.382	3.6.0	S
cisco831	Cisco 831 Ethernet Broadband Router	1.3.6.1.4.1.9.1.497	3.6.0	S
cisco836	Cisco 836 ADSL over ISDN Broadband Router	1.3.6.1.4.1.9.1.499	3.6.0	S
cisco837	Cisco 837 ADSL Broadband Router	1.3.6.1.4.1.9.1.495	3.6.1	S
cisco876	Cisco 876 Integrated Services Router	1.3.6.1.4.1.9.1.568	3.6.1	S
cisco877	Cisco 877 Integrated Services Router	1.3.6.1.4.1.9.1.569	3.6.1	S
cisco878	Cisco 878 Integrated Services Router	1.3.6.1.4.1.9.1.570	3.6.1	S
cisco871	Cisco 871 Integrated Services Router	1.3.6.1.4.1.9.1.571	3.6.1	S
Cisco 1000 Series Routers				
cisco1003	Cisco 1003 Router	1.3.6.1.4.1.9.1.41	3.5.2	S
cisco1004	Cisco 1004 Router	1.3.6.1.4.1.9.1.44	3.5.2	S
cisco1005	Cisco 1005 Router	1.3.6.1.4.1.9.1.49	3.5.2	S
Cisco 1600 Series Routers				
cisco1601	Cisco 1601 Router	1.3.6.1.4.1.9.1.113	3.6.1	S
cisco1602	Cisco 1602 Router	1.3.6.1.4.1.9.1.114	3.6.1	S

Table 2-4 Supported Cisco Routers in Cisco ANA Version 3.6.7 (continued)

NE Type	Product Name	SysOID	ANA Version	Certification Level
cisco1603	Cisco 1603 Router	1.3.6.1.4.1.9.1.115	3.6.1	S
cisco1604	Cisco 1604 Router	1.3.6.1.4.1.9.1.116	3.6.1	S
ciscoPro1601	Cisco Pro 1601	1.3.6.1.4.1.9.1.117	3.6.1	S
ciscoPro1602	Cisco Pro 1602	1.3.6.1.4.1.9.1.118	3.6.1	S
ciscoPro1603	Cisco Pro 1603	1.3.6.1.4.1.9.1.119	3.6.1	S
cisco1605	Cisco 1605 Router	1.3.6.1.4.1.9.1.172	3.6.1	S
Cisco 1700 Series Modular Access Routers				
cisco1701ADSLBRI	Cisco 1701 ADSL Security Access Router	1.3.6.1.4.1.9.1.550	3.6.1	S
cisco1710	Cisco 1710 Security Access Router	1.3.6.1.4.1.9.1.200	3.6.1	S
cisco1711	Cisco 1711 Security Access Router	1.3.6.1.4.1.9.1.538	3.6.1	S
cisco1712	Cisco 1712 Security Access Router	1.3.6.1.4.1.9.1.539	3.6.1	S
cisco1720	Cisco 1720 Modular Access Router	1.3.6.1.4.1.9.1.201	3.6.1	S
cisco1721	Cisco 1721 Modular Access Router	1.3.6.1.4.1.9.1.444	3.6.1	S
cisco1750	Cisco 1750 Modular Access Router	1.3.6.1.4.1.9.1.216	3.6.1	S
cisco1760	Cisco 1760-V Modular Access Router	1.3.6.1.4.1.9.1.416	3.6.1	S
cisco1751	Cisco 1751 Modular Access Router	1.3.6.1.4.1.9.1.326	3.6.1	S
Cisco 1800 Series Integrated Services Routers				
cisco1801	Cisco 1801 Integrated Services Router	1.3.6.1.4.1.9.1.638	3.6.0	S
cisco1802	Cisco 1802 Integrated Services Router	1.3.6.1.4.1.9.1.639	3.6.0	S
cisco1803	Cisco 1803 Integrated Services Router	1.3.6.1.4.1.9.1.640	3.6.0	S
cisco1811	Cisco 1811 Integrated Services Router	1.3.6.1.4.1.9.1.641	3.6.0	S
cisco1812	Cisco 1812 Integrated Services Router	1.3.6.1.4.1.9.1.642	3.6.0	S
cisco1841	Cisco 1841 Integrated Services Router	1.3.6.1.4.1.9.1.620	3.6.0	S
Cisco 2500 Series Routers				
cisco2500	Cisco 2500 Router	1.3.6.1.4.1.9.1.13	3.6.0	S
cisco2501	Cisco 2501 Router	1.3.6.1.4.1.9.1.17	3.6.0	S
cisco2501FRADFX	Cisco 2501 Router	1.3.6.1.4.1.9.1.165	3.6.0	S
cisco2501LANFRADFX	Cisco 2501 Router	1.3.6.1.4.1.9.1.166	3.6.0	S
cisco2502	Cisco 2502 Router	1.3.6.1.4.1.9.1.18	3.6.0	S

Table 2-4 Supported Cisco Routers in Cisco ANA Version 3.6.7 (continued)

NE Type	Product Name	SysOID	ANA Version	Certification Level
cisco2502LANFRADFX	Cisco 2502 Router	1.3.6.1.4.1.9.1.167	3.6.0	S
cisco2503	Cisco 2503 Router	1.3.6.1.4.1.9.1.19	3.6.0	S
cisco2504	Cisco 2504 Router	1.3.6.1.4.1.9.1.20	3.6.0	S
cisco2505	Cisco 2505 Router	1.3.6.1.4.1.9.1.21	3.6.0	S
cisco2506	Cisco 2506 Router	1.3.6.1.4.1.9.1.22	3.6.0	S
cisco2507	Cisco 2507 Router	1.3.6.1.4.1.9.1.23	3.6.0	S
cisco2508	Cisco 2508 Router	1.3.6.1.4.1.9.1.24	3.6.0	S
cisco2509	Cisco 2509 Router	1.3.6.1.4.1.9.1.25	3.6.0	S
cisco2510	Cisco 2510 Access Server	1.3.6.1.4.1.9.1.26	3.6.0	S
cisco2511	Cisco 2511 Router	1.3.6.1.4.1.9.1.27	3.6.0	S
cisco2512	Cisco 2512 Access Server	1.3.6.1.4.1.9.1.28	3.6.0	S
cisco2513	Cisco 2513 Router	1.3.6.1.4.1.9.1.29	3.6.0	S
cisco2514	Cisco 2514 Router	1.3.6.1.4.1.9.1.30	3.6.0	S
cisco2515	Cisco 2515 Router	1.3.6.1.4.1.9.1.31	3.6.0	S
cisco2516	Cisco 2516 Router	1.3.6.1.4.1.9.1.42	3.6.0	S
cisco2517	Cisco 2517 Router	1.3.6.1.4.1.9.1.67	3.6.0	S
cisco2518	Cisco 2518 Router	1.3.6.1.4.1.9.1.68	3.6.0	S
cisco2519	Cisco 2519 Router	1.3.6.1.4.1.9.1.69	3.6.0	S
cisco2520	Cisco 2520 Router	1.3.6.1.4.1.9.1.70	3.6.0	S
cisco2521	Cisco 2521 Router	1.3.6.1.4.1.9.1.71	3.6.0	S
cisco2522	Cisco 2522 Router	1.3.6.1.4.1.9.1.72	3.6.0	S
cisco2523	Cisco 2523 Router	1.3.6.1.4.1.9.1.73	3.6.0	S
cisco2524	Cisco 2524 Router	1.3.6.1.4.1.9.1.74	3.6.0	S
cisco2525	Cisco 2525 Router	1.3.6.1.4.1.9.1.75	3.6.0	S
ciscoPro2501	Cisco Pro 2501	1.3.6.1.4.1.9.1.56	3.6.0	S
Cisco 2600 Series Multiservice Platform Routers				
cisco2610	Cisco 2610	1.3.6.1.4.1.9.1.185	3.6.0	S
cisco2610XM	Cisco 2610XM	1.3.6.1.4.1.9.1.466	3.6.0	S
cisco2610XM	Cisco 2610XM-DC	1.3.6.1.4.1.9.1.466	3.6.0	S
cisco2610XM	Cisco 2610XM-RP5	1.3.6.1.4.1.9.1.466	3.6.0	S
cisco2611	Cisco 2611	1.3.6.1.4.1.9.1.186	3.6.0	S
cisco2611XM	Cisco 2611XM	1.3.6.1.4.1.9.1.467	3.6.0	S
cisco2611XM	Cisco 2611XM-DC	1.3.6.1.4.1.9.1.467	3.6.0	S
cisco2611XM	Cisco 2611XM-RP5	1.3.6.1.4.1.9.1.467	3.6.0	S
cisco2612	Cisco 2612	1.3.6.1.4.1.9.1.187	3.6.0	S

Table 2-4 Supported Cisco Routers in Cisco ANA Version 3.6.7 (continued)

NE Type	Product Name	SysOID	ANA Version	Certification Level
cisco2613	Cisco 2613	1.3.6.1.4.1.9.1.195	3.6.0	S
cisco2620	Cisco 2620	1.3.6.1.4.1.9.1.208	3.6.0	S
cisco2620XM	Cisco 2620XM	1.3.6.1.4.1.9.1.468	3.6.0	S
cisco2620XM	Cisco 2620XM-DC	1.3.6.1.4.1.9.1.468	3.6.0	S
cisco2620XM	Cisco 2620XM-RP5	1.3.6.1.4.1.9.1.468	3.6.0	S
cisco2621	Cisco 2621	1.3.6.1.4.1.9.1.209	3.6.0	S
cisco2621XM	Cisco 2621XM	1.3.6.1.4.1.9.1.469	3.6.0	S
cisco2621XM	Cisco 2621XM-DC	1.3.6.1.4.1.9.1.469	3.6.0	S
cisco2621XM	Cisco 2621XM-RP5	1.3.6.1.4.1.9.1.469	3.6.0	S
cisco2650	Cisco 2650	1.3.6.1.4.1.9.1.319	3.6.0	S
cisco2650XM	Cisco 2650XM	1.3.6.1.4.1.9.1.470	3.6.0	S
cisco2650XM	Cisco 2650XM-DC	1.3.6.1.4.1.9.1.470	3.6.0	S
cisco2650XM	Cisco 2650XM-RP5	1.3.6.1.4.1.9.1.470	3.6.0	S
cisco2651	Cisco 2651	1.3.6.1.4.1.9.1.320	3.6.0	S
cisco2651XM	Cisco 2651XM	1.3.6.1.4.1.9.1.471	3.6.0	S
cisco2651XM	Cisco 2651XM-DC	1.3.6.1.4.1.9.1.471	3.6.0	S
cisco2651XM	Cisco 2651XM-RP5	1.3.6.1.4.1.9.1.471	3.6.0	S
cisco2691	Cisco 2691	1.3.6.1.4.1.9.1.413	3.6.0	S
cisco2610M	Cisco 2610M	1.3.6.1.4.1.9.1.418	3.6.0	S
cisco2610	Cisco2610	1.3.6.1.4.1.9.1.185	3.6.2	S
Cisco 2800 Series Integrated Services Routers				
cisco2801	Cisco 2801 Integrated Services Router	1.3.6.1.4.1.9.1.619	3.6.0	S
cisco2811	Cisco 2811 Integrated Services Router	1.3.6.1.4.1.9.1.576	3.6.0	S
cisco2821	Cisco 2821 Integrated Services Router	1.3.6.1.4.1.9.1.577	3.6.0	S
cisco2851	Cisco 2851 Integrated Services Router	1.3.6.1.4.1.9.1.578	3.6.0	S
Cisco 3600 Series Multiservice Platform Routers				
cisco3620	Cisco 3620 Multiservice Platform	1.3.6.1.4.1.9.1.122	3.6.0	S
cisco3640	Cisco 3640 Multiservice Platform	1.3.6.1.4.1.9.1.110	3.6.0	S
cisco3660	Cisco 3660 Multiservice Platform	1.3.6.1.4.1.9.1.205	3.6.0	S
cisco3661Ac	Cisco 3661Ac Multiservice Platform	1.3.6.1.4.1.9.1.338	3.6.0	S
cisco3661Dc	Cisco 3661Dc Multiservice Platform	1.3.6.1.4.1.9.1.339	3.6.0	S

Table 2-4 Supported Cisco Routers in Cisco ANA Version 3.6.7 (continued)

NE Type	Product Name	SysOID	ANA Version	Certification Level
cisco3662Ac	Cisco 3662Ac Multiservice Platform	1.3.6.1.4.1.9.1.340	3.6.0	S
cisco3662AcCo	Cisco 3662AcCo Multiservice Platform	1.3.6.1.4.1.9.1.342	3.6.0	S
cisco3662Dc	Cisco 3662Dc Multiservice Platform	1.3.6.1.4.1.9.1.341	3.6.0	S
cisco3662DcCo	Cisco 3662DcCo Multiservice Platform	1.3.6.1.4.1.9.1.343	3.6.0	S
ciscoSC3640	Cisco SC3640 Multiservice Platform	1.3.6.1.4.1.9.1.189	3.6.0	S
Cisco 3700 Series Multiservice Access Routers				
cisco3725	Cisco 3725 Multiservice Access Router	1.3.6.1.4.1.9.1.414	3.6.0	S
cisco3745	Cisco 3745 Multiservice Access Router	1.3.6.1.4.1.9.1.436	3.6.0	S
Cisco 3800 Series Integrated Services Routers				
cisco3825	Cisco 3825 Integrated Services Router	1.3.6.1.4.1.9.1.543	3.6.0	S
cisco3845	Cisco 3845 Integrated Services Router	1.3.6.1.4.1.9.1.544	3.6.0	S
Cisco 7200 Series Routers				
cisco7202	Cisco 7202 Router	1.3.6.1.4.1.9.1.194	3.6.0	V
cisco7206	Cisco 7206 Router	1.3.6.1.4.1.9.1.108	3.6.0	V
cisco7204	Cisco 7204 Router	1.3.6.1.4.1.9.1.125	3.6.0	V
cisco7204VXR	Cisco 7204 VXR Router	1.3.6.1.4.1.9.1.223	3.6.0	V
cisco7206VXR	Cisco 7206 VXR Router	1.3.6.1.4.1.9.1.222	3.6.0	V
cisco7201	cisco 7201 Router	1.3.6.1.4.1.9.1.821	3.6.4	V
Cisco 7400 Series Routers				
cisco7401ASR	Cisco 7401ASR	1.3.6.1.4.1.9.1.403	3.6.0	S
Cisco 7600 Series Routers				
cicso7604sysID	Cisco 7604 sysID Router	1.3.6.1.4.1.9.5.63	3.6.1	V
cisco7603	Cisco OSR 7603 Router	1.3.6.1.4.1.9.1.401	3.6.1	S
cisco7603S	Cisco 7603S Router	1.3.6.1.4.1.9.1.862	3.6.1	S
cisco7604	Cisco 7604 Router	1.3.6.1.4.1.9.1.658	3.6.0	V
cisco7606	Cisco 7606 Router	1.3.6.1.4.1.9.1.402	3.6.0	V
cisco7606s	Cisco 7606S Router	1.3.6.1.4.1.9.1.863	3.6.1	S
cisco7606sysID	Cisco 7606 sysID Router	1.3.6.1.4.1.9.5.54	3.6.1	S
cisco7609	Cisco 7609 Router	1.3.6.1.4.1.9.1.509	3.6.0	V

Table 2-4 Supported Cisco Routers in Cisco ANA Version 3.6.7 (continued)

NE Type	Product Name	SysOID	ANA Version	Certification Level
cisco7609S	Cisco 7609S Router	1.3.6.1.4.1.9.1.864	3.6.1	S
cisco7609sysID	Cisco 7609 sysID Router	1.3.6.1.4.1.9.5.55	3.6.1	S
cisco7613	Cisco 7613 Router	1.3.6.1.4.1.9.1.528	3.6.0	V
cisco7613sysID	Cisco 7613 sysID Router	1.3.6.1.4.1.9.5.60	3.6.1	S
cisco763sysID	Cisco 763 sysID Router	1.3.6.1.4.1.9.5.53	3.6.1	S
Cisco 10000 Series Routers				
cisco10005	Cisco 10005 Router	1.3.6.1.4.1.9.1.437	3.6.0	S
cisco10008	Cisco 10008 Router	1.3.6.1.4.1.9.1.438	3.6.0	V
Cisco 12000 Series Routers				
cisco12004	Cisco 12004 Router	1.3.6.1.4.1.9.1.181	3.6.0	V
cisco12006	Cisco 12006 Router	1.3.6.1.4.1.9.1.590	3.6.0	V
cisco12008	Cisco 12008 Router	1.3.6.1.4.1.9.1.182	3.6.0	V
cisco12010	Cisco 12010 Router	1.3.6.1.4.1.9.1.348	3.6.0	V
cisco12012	Cisco 12012 Router	1.3.6.1.4.1.9.1.173	3.6.0	V
cisco12016	Cisco 12016 Router	1.3.6.1.4.1.9.1.273	3.6.0	V
cisco12404	Cisco 12404 Router	1.3.6.1.4.1.9.1.423	3.6.0	V
cisco12406	Cisco 12406 Router	1.3.6.1.4.1.9.1.388	3.6.0	V
cisco12410	Cisco 12410 Router	1.3.6.1.4.1.9.1.394	3.6.0	V
cisco12416	Cisco 12416 Router	1.3.6.1.4.1.9.1.385	3.6.0	V
cisco12810	Csico 12810 Router	1.3.6.1.4.1.9.1.478	3.6.0	V
cisco12816	Cisco 12816 Router	1.3.6.1.4.1.9.1.477	3.6.0	V
Cisco XR 12000 Series Routers				
cisco12012	Cisco 12012 Router	1.3.6.1.4.1.9.1.173	3.6.0	V
cisco12004	Cisco 12004 Router	1.3.6.1.4.1.9.1.181	3.6.0	V
cisco12008	Cisco 12008 Router	1.3.6.1.4.1.9.1.182	3.6.0	V
cisco12016	Cisco 12016 Router	1.3.6.1.4.1.9.1.273	3.6.0	V
cisco12010	Cisco 12010 Router	1.3.6.1.4.1.9.1.348	3.6.0	V
cisco12416	Cisco 12416 Router	1.3.6.1.4.1.9.1.385	3.6.0	V
cisco12406	Cisco 12406 Router	1.3.6.1.4.1.9.1.388	3.6.0	V
cisco12410	Cisco 12410 Router	1.3.6.1.4.1.9.1.394	3.6.0	V
cisco12816	Cisco 12816 Router	1.3.6.1.4.1.9.1.477	3.6.0	V
cisco12810	Cisco 12810 Router	1.3.6.1.4.1.9.1.478	3.6.0	V
cisco12006	Cisco 12006 Router	1.3.6.1.4.1.9.1.590	3.6.0	V
cisco12404	Cisco 12404 Router	1.3.6.1.4.1.9.1.423	3.6.5	V

Table 2-4 Supported Cisco Routers in Cisco ANA Version 3.6.7 (continued)

NE Type	Product Name	SysOID	ANA Version	Certification Level
Cisco CRS-1 Carrier Routing System				
ciscoCrs16S	Cisco CRS-1 16-Slot Carrier Routing System	1.3.6.1.4.1.9.1.613	3.6.0	V
ciscoCrs8S	Cisco CRS-1 8-Slot Single-Shelf System	1.3.6.1.4.1.9.1.643	3.6.0	V
ciscoCrs4S	Cisco CRS-1 4-Slot Single-Shelf System	1.3.6.1.4.1.9.1.822	3.6.0	V
Cisco ASR 1000 Series Routers				
ciscoASR1002	Cisco ASR1002 Chassis,4 built-in GE, Dual P/S,4GB DRAM	1.3.6.1.4.1.9.1.923	3.6.5	V
ciscoASR1006	Cisco ASR1006 Chassis, Dual P/S	1.3.6.1.4.1.9.1.925	3.6.5	V
ciscoASR1004	Cisco ASR1004 Chassis, Dual P/S	1.3.6.1.4.1.9.1.924	3.6.6	V
ciscoASR1002F	Cisco ASR 1002-F	1.3.6.1.4.1.9.1.1116	3.6.7	V
Cisco ASR 9000 Series Aggregation Services Routers				
ciscoASR9010	Cisco ASR 9010 chassis	1.3.6.1.4.1.9.1.1017	3.6.5	V[1]
ciscoASR9006	Cisco ASR 9006 chassis with DC Power	1.3.6.1.4.1.9.1.1018	3.6.6	V
ciscoASR9006	Cisco ASR 9006 chassis with AC Power	1.3.6.1.4.1.9.1.1018	3.6.6	V
Cisco MWR 2900 Series Mobile Wireless Routers				
ciscoMWR2941	MWR-2941-DC	1.3.6.1.4.1.9.1.1014	3.6.6	V

[1]Support verified in ANA 3.6.6

Supported Cisco Switches in Cisco ANA Version 3.6.7

This document includes support information for the following Cisco switches:

- Cisco Catalyst 2900 Series Switches
- Cisco ME 3400 Series Ethernet Access Switches
- Cisco Catalyst 3500 XL Series Switches
- Cisco Catalyst 3550 Series Switches
- Cisco Catalyst 3560 Series Switches
- Cisco Catalyst 3750 Series Switches
- Cisco Catalyst 3750 Metro Series Switches
- Cisco Catalyst 4000 Series Switches
- Cisco Catalyst 4500 Series Switches
- Cisco Catalyst 4900 Series Switches

- Cisco ME 4900 Series Ethernet Switch
- Cisco Catalyst 6500 Series (CatOS) Switches
- Cisco Catalyst 6500 Series (IOS) Switches
- Cisco ME 6500 Series Ethernet Switches (6524)

Table 2-5 Supported Cisco Switches in Cisco ANA Version 3.6.7

NE Type	Product Name	SysOID	ANA Version	Certification Level
Cisco Catalyst 2900 Series Switches				
wsc2948gsysID	Cisco Catalyst WS-C2948 Switch	1.3.6.1.4.1.9.5.42	3.6.0	S
wsc2900sysID	Cisco Catalyst WS-C2900 Switch	1.3.6.1.4.1.9.5.12	3.6.0	S
catalyst296024TT	Cisco Catalyst 2960-24TT Switch	1.3.6.1.4.1.9.1.716	3.6.0	S
catalyst295048T	Cisco Catalyst 2950T 48 SI Switch	1.3.6.1.4.1.9.1.559	3.6.0	S
catalyst295024GDC	Cisco Catalyst 2950G 24 EI DC Switch	1.3.6.1.4.1.9.1.472	3.6.0	S
catalyst295024S	Cisco Catalyst 2950 24S Switch	1.3.6.1.4.1.9.1.430	3.6.0	S
catalyst295048G	Cisco Catalyst 2950G 48 EI Switch	1.3.6.1.4.1.9.1.429	3.6.0	S
catalyst295024G	Cisco Catalyst 2950G 24 EI Switch	1.3.6.1.4.1.9.1.428	3.6.0	S
catalyst295012G	Cisco Catalyst 2950G 12 EI Switch	1.3.6.1.4.1.9.1.427	3.6.0	S
cat2948gL3Dc	Cisco Catalyst C2948G-L3 Ethernet Switch	1.3.6.1.4.1.9.1.386	3.6.0	S
catalyst2950t24	Cisco Catalyst 2950T 24 Switch	1.3.6.1.4.1.9.1.359	3.6.0	S
catalyst295024C	Cisco Catalyst 2950C 24 Switch	1.3.6.1.4.1.9.1.325	3.6.0	S
catalyst295024	Cisco Catalyst 2950 24 Switch	1.3.6.1.4.1.9.1.324	3.6.0	S
catalyst295012	Cisco Catalyst 2950 12 Switch	1.3.6.1.4.1.9.1.323	3.6.0	S
cat2948gL3	Cisco Catalyst C2948G-L3 Ethernet Switch	1.3.6.1.4.1.9.1.275	3.6.0	S
catalyst2912MfXL	Cisco Catalyst 2912MF XL Switch	1.3.6.1.4.1.9.1.221	3.6.0	S
catalyst2924MXL	Cisco Catalyst 2924M XL Switch	1.3.6.1.4.1.9.1.220	3.6.0	S
catalyst2912XL	Cisco Catalyst 2912 XL Switch	1.3.6.1.4.1.9.1.219	3.6.0	S
catalyst2924CXLv	Cisco Catalyst 2924C XL Switch	1.3.6.1.4.1.9.1.218	3.6.0	S
catalyst2924XLv	Cisco Catalyst 2924 XL Switch	1.3.6.1.4.1.9.1.217	3.6.0	S
catalyst2924CXL	Cisco Catalyst 2924C XL Switch	1.3.6.1.4.1.9.1.184	3.6.0	S
catalyst2924XL	Cisco Catalyst 2924 XL Switch	1.3.6.1.4.1.9.1.183	3.6.0	S
catalyst2916m-xl	Cisco Catalyst 2916M XL Switch	1.3.6.1.4.1.9.1.171	3.6.0	S
catalyst2908xl	Cisco Catalyst 2908 XL Switch	1.3.6.1.4.1.9.1.170	3.6.0	S
Cisco ME 3400 Series Ethernet Access Switches				
3400-24TS	Cisco Me 3400 Switch-24 10/100 + 2 SFP DC PS	1.3.6.1.4.1.9.1.736	3.6.1	S[1]

Table 2-5 Supported Cisco Switches in Cisco ANA Version 3.6.7 (continued)

NE Type	Product Name	SysOID	ANA Version	Certification Level
3400-24TS AC	Cisco Me 3400 Software 24PT-10/100 Plus 2PT SFP AC PS	1.3.6.1.4.1.9.1.736	3.6.1	S[2]
3400-24TS DC	Cisco Me 3400 Software 24PT-10/100 Plus 2PT SFP DC PS	1.3.6.1.4.1.9.1.736	3.6.1	S[3]
cisco340024TSA	Cisco ME 3400-24TS-A Switch	1.3.6.1.4.1.9.1.736	3.6.1	S
cisco340024TSD	Cisco ME 3400-24TS-D Switch	1.3.6.1.4.1.9.1.737	3.6.1	S
3400G-12CS	Cisco ME 3400G-12CS Ethernet Access Switch	1.3.6.1.4.1.9.1.780	3.6.1	S[4]
ciscoMe3400g12CsA	Cisco ME 3400G-12CS AC Ethernet Access Switch	1.3.6.1.4.1.9.1.780	3.6.1	S
ciscoMe3400g12CsD	Cisco ME 3400G-12CS DC Ethernet Access Switch	1.3.6.1.4.1.9.1.781	3.6.1	S
3400G-2CS	Cisco ME 3400-2CS Ethernet Access Switch	1.3.6.1.4.1.9.1.825	3.6.1	S[5]
ciscoMe3400g2csA	Cisco ME 3400-2CS AC Ethernet Access Switch	1.3.6.1.4.1.9.1.825	3.6.1	S
ciscoMe3400eg2csA	Cisco ME 3400EG-2CS Ethernet Access Switch	1.3.6.1.4.1.9.1.1007	3.6.5	S
ciscoMe3400eg12Csm	Cisco ME 3400EG-12CS Ethernet Access Switch chassis	1.3.6.1.4.1.9.1.1008	3.6.5	V[6]
ciscoMe3400e24Tsm	Cisco ME 3400E-24TS Ethernet Access Switch chassis	1.3.6.1.4.1.9.1.1009	3.6.5	S
Cisco Catalyst 3500 XL Series Switches				
cat3524tXLEn	Cisco Catalyst 3524 PWR XL Switch	1.3.6.1.4.1.9.1.287	3.6.0	S
cat3548XL	Cisco Catalyst 3548 XL Switch	1.3.6.1.4.1.9.1.278	3.6.0	S
catalyst3508GXL	Cisco Catalyst 3508G XL Switch	1.3.6.1.4.1.9.1.246	3.6.0	S
catalyst3512XL	Cisco Catalyst 3512 XL Switch	1.3.6.1.4.1.9.1.247	3.6.0	S
catalyst3524XL	Cisco Catalyst 3524 XL Switch	1.3.6.1.4.1.9.1.248	3.6.0	S
catalystC3524PWRXLEn	catalystC3524PWRXLEn	1.3.6.1.4.1.9.1.515	3.6.1	S
Cisco Catalyst 3550 Series Switches				
catalyst355024	Cisco Catalyst 3550 24 Switch	1.3.6.1.4.1.9.1.366	3.6.0	S
catalyst355048	Cisco Catalyst 3550 48 Switch	1.3.6.1.4.1.9.1.367	3.6.0	S
catalyst355012T	Cisco Catalyst 3550 12T Switch	1.3.6.1.4.1.9.1.368	3.6.0	S
catalyst355012G	Cisco Catalyst 3550 12G Switch	1.3.6.1.4.1.9.1.431	3.6.0	S
cat355024Dc	Cisco Catalyst 3550 24 DC SMI Switch	1.3.6.1.4.1.9.1.452	3.6.0	S

Table 2-5 Supported Cisco Switches in Cisco ANA Version 3.6.7 (continued)

NE Type	Product Name	SysOID	ANA Version	Certification Level
cat355024Mmf	Cisco Catalyst 3550 24 FX SMI Switch	1.3.6.1.4.1.9.1.453	3.6.1	S
catalyst355024PWR	Cisco Catalyst 3550 24 PWR Switch	1.3.6.1.4.1.9.1.485	3.6.0	S
Cisco Catalyst 3560 Series Switches				
catalyst356024PS	Cisco Catalyst 3560-24PS Switch	1.3.6.1.4.1.9.1.563	3.6.1	S
catalyst356048PS	Cisco Catalyst 3560-48PS Switch	1.3.6.1.4.1.9.1.564	3.6.0	S
catalyst3560G24PS	Cisco Catalyst 3560G-24PS Switch	1.3.6.1.4.1.9.1.614	3.6.1	S
catalyst3560G24TS	Cisco Catalyst 3560G-24TS Switch	1.3.6.1.4.1.9.1.615	3.6.1	S
catalyst3560G48PS	Cisco Catalyst 3560G-48PS Switch	1.3.6.1.4.1.9.1.616	3.6.1	S
catalyst3560G48TS	Cisco Catalyst 3560G-48TS Switch	1.3.6.1.4.1.9.1.617	3.6.0	S
catalyst356024TS	Cisco Catalyst 3560-24TS Switch	1.3.6.1.4.1.9.1.633	3.6.1	S
Cisco Catalyst 3750 Series Switches				
catalyst37xxStack	Catalyst 3750-48/-24/-24T/-24TS/-24FS/Stack	1.3.6.1.4.1.9.1.516	3.6.0	S
catalyst375024	Cisco Catalyst 3750-24	1.3.6.1.4.1.9.1.511	3.6.4	S
catalyst375024PS	Cisco Catalyst 3750-24PS	1.3.6.1.4.1.9.1.536	3.6.4	S
catalyst375024T	Cisco Catalyst 3750-24T	1.3.6.1.4.1.9.1.514	3.6.4	S
catalyst375024TS	Cisco Catalyst 3750 - 24TS	1.3.6.1.4.1.9.1.513	3.6.4	S
catalyst375048	Cisco Catalyst 3750-48	1.3.6.1.4.1.9.1.512	3.6.4	S
catalyst375048PS	Cisco Catalyst 3750-48PS	1.3.6.1.4.1.9.1.535	3.6.4	S
catalyst3750G16TD	Cisco Catalyst 3750G-16TD	1.3.6.1.4.1.9.1.591	3.6.4	S
catalyst3750G24PS	Cisco Catalyst 3750G-24PS	1.3.6.1.4.1.9.1.602	3.6.4	S
catalyst3750G24TS1U	Cisco Catalyst 3750G-24TS-1U	1.3.6.1.4.1.9.1.624	3.6.4	S
catalyst3750G48PS	Cisco Catalyst 3750G-48PS	1.3.6.1.4.1.9.1.603	3.6.4	S
catalyst3750G48TS	Cisco Catalyst 3750G-48TS	1.3.6.1.4.1.9.1.604	3.6.4	S
catalyst3750Ge12Sfp	Cisco Catalyst 3750G-12Sfp	1.3.6.1.4.1.9.1.530	3.6.4	S
catalyst3750Ge12SfpDc	Cisco catalyst 3750G-12S-SD	1.3.6.1.4.1.9.1.688	3.6.4	S
catalyst3750G24WS50	Cisco Catalyst 3750G-24WS-50	1.3.6.1.4.1.9.1.779	3.6.4	S
catalyst3750E48TD	Cisco Catalyst 3750E-48TD	1.3.6.1.4.1.9.1.790	3.6.4	S
catalyst3750E24PD	Cisco Catalyst 3750E-24PD	1.3.6.1.4.1.9.1.792	3.6.4	S
catalyst3750E24TD	Cisco Catalyst 3750E-24TD	1.3.6.1.4.1.9.1.789	3.6.4	S
catalyst3750E48PD	Cisco Catalyst 3750E-48PD	1.3.6.1.4.1.9.1.791	3.6.4	S
catalyst3750G24WS25	Cisco Catalyst 3750G-24WS-25	1.3.6.1.4.1.9.1.778	3.6.4	S

Table 2-5 Supported Cisco Switches in Cisco ANA Version 3.6.7 (continued)

NE Type	Product Name	SysOID	ANA Version	Certification Level
Cisco Catalyst 3750 Metro Series Switches				
catalyst375024ME	Cisco Catalyst 3750 Metro 24-DC Switch	1.3.6.1.4.1.9.1.574	3.6.0	V[7]
Cisco Catalyst 4000 Series Switches				
wsc4003sysID	Cisco Catalyst 4003 Switch	1.3.6.1.4.1.9.5.40	3.6.0	V
wsc4006sysID	Cisco Catalyst 4006 Switch	1.3.6.1.4.1.9.5.46	3.6.0	V
catalyst4kGateway	Cisco Catalyst 4604 Access Gateway	1.3.6.1.4.1.9.1.318	3.6.0	V
cat4232L3	Cisco Catalyst 4006 Switch	1.3.6.1.4.1.9.1.300	3.6.0	S
cat4840gL3	Cisco Catalyst 4840G Switch	1.3.6.1.4.1.9.1.312	3.6.0	S
cisco4000	Cisco Catalyst 4000 Switch	1.3.6.1.4.1.9.1.7	3.6.0	V
Cisco Catalyst 4500 Series Switches				
cisco4500	Cisco Catalyst 4500 switch	1.3.6.1.4.1.9.1.14	3.6.0	V
cat4506	Cisco Catalyst 4506 switch	1.3.6.1.4.1.9.1.502	3.6.0	V
wsc4506sysID	Cisco Catalyst 4506 switch	1.3.6.1.4.1.9.5.59	3.6.0	V
cat4507	Cisco Catalyst 4507 switch	1.3.6.1.4.1.9.1.501	3.6.0	V
cat4503	Cisco Catalyst 4503 switch	1.3.6.1.4.1.9.1.503	3.6.0	V
wsc4503sysID	Cisco Catalyst 4503 Switch	1.3.6.1.4.1.9.5.58	3.6.3	S
catalyst4503E	Cisco Catalyst 4503E Switch	1.3.6.1.4.1.9.1.874	3.6.6	V
catalyst4507R-E	Cisco Catalyst 4507R-E Switch	1.3.6.1.4.1.9.1.876	3.6.6	V
catalyst4506E	Cisco Catalyst 4506-E Switch	1.3.6.1.4.1.9.1.875	3.6.7	V
catalyst4510	Cisco Catalyst 4510R Switch	1.3.6.1.4.1.9.1.537	3.6.7	V
catalyst4510RE	Cisco Catalyst 4510R-E Switch	1.3.6.1.4.1.9.1.877	3.6.7	V
Cisco Catalyst 4900 Series Switches				
catalyst4948	Cisco Catalyst 4948 Switch	1.3.6.1.4.1.9.1.626	3.6.1	S
catalyst494810GE	Cisco Catalyst 4948 10 Gigabit Ethernet Switch	1.3.6.1.4.1.9.1.659	3.6.1	S
Cisco ME 4900 Series Ethernet Switch				
ciscoMe492410GE	Cisco ME 4924-10GE Ethernet Aggregation Switch	1.3.6.1.4.1.9.1.788	3.6.1	S
Cisco Catalyst 6500 Series (CatOS) Switches				
wsc6009sysID	Catalyst 6009	1.3.6.1.4.1.9.5.39	3.6.0	V
wsc6506sysID	Catalyst 6506	1.3.6.1.4.1.9.5.45	3.6.0	V
wsc6509nebasysID	Catalyst 6509NEBA	1.3.6.1.4.1.9.5.61	3.6.4	V
wsc6509nebsysID	Catalyst 6509-NEB	1.3.6.1.4.1.9.5.47	3.6.0	V
wsc6513sysID	Catalyst 6513	1.3.6.1.4.1.9.5.50	3.6.0	V
wsc6509sysID	Catalyst 6509	1.3.6.1.4.1.9.5.44	3.6.0	V

Table 2-5 Supported Cisco Switches in Cisco ANA Version 3.6.7 (continued)

NE Type	Product Name	SysOID	ANA Version	Certification Level
wsc6504esysID	Catalyst 6504-E	1.3.6.1.4.1.9.5.64	3.6.1	V
wsc6503sysID	Catalyst 6503	1.3.6.1.4.1.9.5.56	3.6.1	S
cat6500FirewallSm	Catalyst 6500 Firewall Services Module	1.3.6.1.4.1.9.1.522	3.6.1	S
cat6500SslSm	Catalyst 6500 SSL Services Module	1.3.6.1.4.1.9.1.554	3.6.1	S
Cisco Catalyst 6500 Series (IOS) Switches				
cat6006	Cisco Catalyst 6006 Switch	1.3.6.1.4.1.9.1.280	3.6.0	V
ciscoWSC6509neba	Cisco Catalyst 6509-NEB-A Switch	1.3.6.1.4.1.9.1.534	3.6.0	V
cat6509Sp	Cisco Catalyst 6509-NEB Switch	1.3.6.1.4.1.9.1.310	3.6.0	V
ciscoWSC6503	Cisco Catalyst 6503 Switch	1.3.6.1.4.1.9.1.449	3.6.0	V
cat6506	Cisco Catalyst 6506 Switch	1.3.6.1.4.1.9.1.282	3.6.0	V
cat6509	Cisco Catalyst 6509 Switch	1.3.6.1.4.1.9.1.283	3.6.0	V
ciscoWSC6504E	Cisco Catalyst 6504-E Switch Chassis	1.3.6.1.4.1.9.1.657	3.6.0	V
ciscoWSC6513	Cisco Catalyst 6513 Switch	1.3.6.1.4.1.9.1.400	3.6.0	V
cisco6500VSS	Cisco Catalyst 6500 VSS	1.3.6.1.4.1.9.1.896	3.6.3	V
Cisco ME 6500 Series Ethernet Switches (6524)				
cisco6524 (ME-C6524GS-8S)	Cisco ME 6524	1.3.6.1.4.1.9.1.719	3.6.0	V
cisco6524 (ME-C6524GT-8S)	Cisco ME 6524	1.3.6.1.4.1.9.1.720	3.6.0	V

[1, 2, 3]Same as cisco340024TSA.Differs based on chassis/power supply.

[4]Same as ciscoMe3400g12CsA.Differs based on chassis/power supply.

[5]Same as ciscoMe3400g2csA.Differs based on chassis/power supply.

[6, 7]Support verified in ANA 3.6.6

Supported Juniper Devices in Cisco ANA Version 3.6.7

This document includes support information for the following Juniper devices:

- Juniper M-Series Multiservice Edge Routers
- Juniper ERX-1400 Series Edge Routers
- Juniper T-Series Core Platforms

Table 2-6 Supported Juniper Devices in Cisco ANA Version 3.6.7

NE Type	Product Name	SysOID	ANA Version	Certification Level
Juniper M-Series Multiservice Edge Routers				
Juniper M10i	Juniper Networks M10i Multiservice Edge Router	1.3.6.1.4.1.2636.1.1.1.2.11	3.5.2	S
Juniper M40e	Juniper Networks M40e Multiservice Edge Router	1.3.6.1.4.1.2636.1.1.1.2.8	3.5.2	S
Juniper M320	Juniper Networks M320 Multiservice Edge Router	1.3.6.1.4.1.2636.1.1.1.2.9	3.6.1	S
Juniper M5	Juniper Networks M5 Multiservice Edge Router	1.3.6.1.4.1.2636.1.1.1.2.5	3.6.1	S
Juniper M7	Juniper Networks M7 Multiservice Edge Router	1.3.6.1.4.1.2636.1.1.1.2.10	3.5.2	S
Juniper M20i	Juniper Networks M20i Multiservice Edge Router	1.3.6.1.4.1.2636.1.1.1.2.2	3.6.2	S
Juniper M120	Juniper Networks M120 Multiservice Edge Router	1.3.6.1.4.1.2636.1.1.1.2.18	3.6.4	S
Juniper ERX-1400 Series Edge Routers				
Juniper ERX-1410	ERX-1410	1.3.6.1.4.1.4874.1.1.1.1.1	3.6.0	S
Juniper ERX-1440	ERX-1440	1.3.6.1.4.1.4874.1.1.1.1.3	3.6.0	S
Juniper T-Series Core Platforms				
Juniper T640	T640	1.3.6.1.4.1.2636.1.1.1.2.6	3.6.2	S

Supported Redback Devices in Cisco ANA Version 3.6.7

This document includes support information for the following Redback devices:

- SmartEdge 800 Multiservice Edge Router
- Redback SMS Family

Table 2-7 Supported Redback Devices in Cisco ANA Version 3.6.7

NE Type	Product Name	SysOID	ANA Version	Certification Level
SmartEdge 800 Multiservice Edge Router				
Smart Edge 800	Smart Edge 800	1.3.6.1.4.1.2352.1.10	3.5.2	V
Redback SMS Family				
sms10000	Redback SMS 10000	1.3.6.1.4.1.2352.1.4	3.5.2	V
sms1800	Redback SMS 1800	1.3.6.1.4.1.2352.1.3	3.5.2	V
sms500	Redback SMS 500	1.3.6.1.4.1.2352.1.2	3.5.2	V
sms1000	Redback SMS 1000	1.3.6.1.4.1.2352.1.1	3.5.2	V

Supported Generic Devices in Cisco ANA Version 3.6.7

This document includes support information for the following Generic devices:

- Generic VNE

Table 2-8 Supported Generic Devices in Cisco ANA Version 3.6.7

NE Type	Product Name	SysOID	ANA Version	Certification Level
Generic VNE				
Generic device		1.3.999.3	3.6.0	S

Supported Devices Not Included in VNE Reference Guide

The following devices are supported by this version of Cisco ANA, but are not included in this Reference Guide:

- ADC BA40 DSLAM
- Alcatel ASAM
- Cisco 7300 Series Routers
- Cisco 7500 Series Routers
- Cisco AS5800 Series Universal Gateway
- Cisco Catalyst 1900 Series Switches
- Cisco SCE Service Control Engine
- ECI Hi-Focus DSLAM
- Lucent AnyMedia
- Lucent PacketStar PSAX
- Lucent Stinger MS+ DSL Access Concentrator
- Lucent Stinger MRT DSL Access Concentrator
- Lucent MAX TNT WAN access switch
- UTStarComm AN2000 IP-DSLAM

Note For more information about support for these devices, contact your Cisco Project Manager or Cisco Account Team.

CHAPTER 3

Support Information for Alcatel-Lucent Devices

This chapter contains support information for Virtual Network Elements (VNEs) that manage Alcatel-Lucent devices in Cisco ANA Version 3.6.7. For more information about the objects and attributes described in this chapter, see *Cisco Active Network Abstraction 3.6.7 Technology Support and Information Model Reference Manual*.

This chapter contains the following topics:

- Alcatel-Lucent 7450 Ethernet Service Switch, page 3-1
- Alcatel-Lucent Intelligent Services Access Manager, page 3-4
- Alcatel-Lucent Riverstone, page 3-7
- Alcatel-Lucent CBX, GX, B-STDX Switches, page 3-10
- Supported Technologies on Alcatel-Lucent Devices, page 3-16

Alcatel-Lucent 7450 Ethernet Service Switch

This section includes the following information about Alcatel-Lucent 7450 ESS devices (for information on the NE types supported in Cisco ANA Version 3.6.7, see Alcatel-Lucent 7450 Ethernet Service Switch):

- Alcatel-Lucent 7450 ESS—Supported Software Versions, page 3-2
- Alcatel-Lucent 7450 ESS—Supported Topologies, page 3-2
- Alcatel-Lucent 7450 ESS—Supported Modules, page 3-2
- Alcatel-Lucent 7450 ESS—Supported Technologies, page 3-3
- Alcatel-Lucent 7450 ESS—Supported Service Events, page 3-3

Alcatel-Lucent 7450 ESS—Supported Software Versions

Table 3-1 Supported Software Versions for Alcatel-Lucent 7450 ESS—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
3.0.R1	3.5.2	V
3.0.R7	3.5.2	V
4.0.R5	3.5.2	V

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Alcatel-Lucent 7450 ESS—Supported Topologies

Table 3-2 Supported Topologies for Alcatel-Lucent 7450 ESS—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.0

Alcatel-Lucent 7450 ESS—Supported Modules

Table 3-3 Supported Modules for Alcatel-Lucent 7450 ESS—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
M10-1GB-SFP	3.5.2	MDA 10 Ports 1-Gigabit Ethernet SFP	V
M16-OC12/3-SFP	3.5.2	MDA 16 Ports OC12/OC3 SFP	V
M8-OC12/3-SFP	3.5.2	MDA 8 Ports OC12/OC3 SFP	V
M16-OC3-SFP	3.5.2	MDA 16 Ports OC3 SFP	V
M4-OC48-SFP	3.5.2	MDA 4 Ports OC48 SFP	V
M1-10GB	3.5.2	MDA 1 Port 10 GigabitP	V
M2-OC48-SFP	3.5.2	MDA 2 Ports OC48 SFP	V
20-100ETH-SFP	3.5.2	MDA 20 Port 100FX	V
M20-1GB-TX	3.5.2	MDA 20 Ports 10/100/1000 Ethernet TX	V
M2-10GB-XFP	3.5.2	MDA 2 Ports 10Gig Ethernet XFP	V
M20-1GB-SFP	3.5.2	MDA 20 Ports 10/100/1000 Ethernet SFP	V
VSM-CCA	3.5.2	VSM Cross Connect	V

Table 3-3 Supported Modules for Alcatel-Lucent 7450 ESS—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
M5-1GB-SFP-B	3.5.2	MDA 5 Ports 10/100/1000 Ethernet SFP	V
M10-1GB-SFP-B	3.5.2	MDA 10 Ports 10/100/1000 Ethernet SFP	V
SFM-200G	3.5.2	200g CPM/SF module	V
SFM-100G	3.5.2	100g CPM/SF module	V
SFM2-200G	3.5.2	200g CPM/SF module	V
IOM-20G	3.5.2	2 x 10-Gig MDA IOM Card	V
M60-10/100ETH-TX	3.5.2	MDA 60 Ports 10/100 Ethernet TX	V
M60-10/100ET-TX	3.5.2	MDA 60 Ports 10/100 Ethernet TX	V
IOM-20G-B	3.5.2	2 x 10-Gig MDA IOM Card, B	V

Alcatel-Lucent 7450 ESS—Supported Technologies

The following technologies are supported by the Alcatel-Lucent 7450 ESS in Cisco ANA Version 3.6.7:

- IP, page 3-16
- Ethernet (IEEE 802.3), page 3-19
- Physical Equipment, page 3-31
- Base Logical Components, page 3-32
- Common, page 3-33

Alcatel-Lucent 7450 ESS—Supported Service Events

Table 3-4 Supported Service Events for Alcatel-Lucent 7450 ESS—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Card Up/Down	3.6.0	Y

Alcatel-Lucent Intelligent Services Access Manager

This section includes the following information about Alcatel-Lucent ISAM devices (for information on the NE types supported in Cisco ANA Version 3.6.7, see Alcatel-Lucent Intelligent Services Access Manager):

- Alcatel-Lucent ISAM—Supported Software Versions, page 3-4
- Alcatel-Lucent ISAM—Supported Topologies, page 3-4
- Alcatel-Lucent ISAM—Supported Modules, page 3-5
- Alcatel-Lucent ISAM—Supported Technologies, page 3-6
- Alcatel-Lucent ISAM—Supported Service Events, page 3-7

Alcatel-Lucent ISAM—Supported Software Versions

Table 3-5 Supported Software Versions for Alcatel-Lucent ISAM—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
2.0.0.16	3.5.2	V
2.3.1.15	3.5.2	V
2.4.2.4	3.5.2	V

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Alcatel-Lucent ISAM—Supported Topologies

Table 3-6 Supported Topologies for Alcatel-Lucent ISAM—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
ATM	ATM	3.5.2
Ethernet	Ethernet	3.5.2
Physical Layer	Physical Layer	3.5.2

Alcatel-Lucent ISAM—Supported Modules

Table 3-7 Supported Modules for Alcatel-Lucent ISAM—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
AACU-A	3.6.0	ADSL Alarm Control Unit version A (R3 equipment)	V
AACU-C	3.6.0	ADSL Alarm Control Unit version C (R4 equipment)	V
ABLT-D	3.6.0	MultiDSL POTS UD BVB LT standard version D	V
ABLT-E	3.6.0	Multi-DSL POTS Line Termination version E	V
ADLT-C	3.6.0	ADSL Line termination version C (4 lines)	V
ADLT-E	3.6.0	ADSL Line termination version E (4 lines)	V
ADLT-F	3.6.0	ADSL (Euro) Line termination version F (ISDN support, 4 lines)	V
ADLT-J	3.6.0	ADSL Line termination version J (12 lines)	V
ADLT-K	3.6.0	ADSL Line termination version K (12 lines)	V
ADLT-L	3.6.0	ADSL Line termination version L (24 lines)	V
ADLT-M	3.6.0	ADSL Line termination version M (12 lines)	V
ADLT-S	3.6.0	ADSL Line Termination version S - BVB enabled	V
ADLT-W	3.6.0	ADSL Line Termination version W - POTS/BVB ready	V
ADSE-A	3.6.0	ADSL Serial Extender version A	V
ADSE-B	3.6.0	ADSL Serial Extender version B	V
ADSE-C	3.6.0	ADSL Serial Extender version C	V
AICC-A	3.6.0	IMA ATM E1-NT 2 Mits Controller Card	V
ANY_BOARD	3.6.0	ANY_BOARD	V
ASCC-P	3.6.0	ASCC-P	V
ASCC-PE	3.6.0	PDH E3 Interface Controller Card	V
ASCC-S1	3.6.0	STM-1 Interface Controller Card	V
BSEC-A	3.6.0	Broad Band Shelf Extender Card	V
D1LT-A	3.6.0	DS1 Line termination version A	V
D1LT-B	3.6.0	4 T1 ports Using IMA Group	V
D3LT-A	3.6.0	DS3 Line termination version A	V
D3NT-A	3.6.0	DS3 Network Termination version A	V
D3NT-C	3.6.0	DS3 Network Termination version C	V
E1LT-A	3.6.0	E1 (IMA) Line Termination version A (4 lines)	V
E1NT-A	3.6.0	(Quad) E1 (IMA) Network Termination version A	V
E1NT-C	3.6.0	GANT-B motherboard and E1PL-B daughterboard (PLIM)	V
EBLT-A	3.6.0	ADSL2+ POTS Line Termination version A	V
EBLT-C	3.6.0	ADSL2+ POTS Line Termination version C	V
ECNT-A	3.6.0	7302 ISAM Combined network termination version A	V

Table 3-7 Supported Modules for Alcatel-Lucent ISAM—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
LTAC-C	3.6.0	Line Terminal ADSL Combiner Card	V
LTAC-D	3.6.0	Line Terminal ADSL Combiner Card	V
LTSC-A	3.6.0	Line Termination SHDSL Card	V
MACU-A	3.6.0	MiniRAM ACU version A	V
NBLC-A	3.6.0	Narrowband Line Card	V
SALT-A	3.6.0	1 Port OC3 Card	V
SALT-C	3.6.0	STM-1/OC3c (HCL based) Line Termination Unit version C	V
SANT-D	3.6.0	Synchronous (STM1) ATM Network Termination version D	V
SANT-E	3.6.0	GANT-A motherboard and SONI-A daughterboard (PLIM)	V
SANT-F	3.6.0	GANT-B motherboard and SONI-A daughterboard (PLIM)	V
SANT-G	3.6.0	Synchronous (STM1) ATM Network Termination version G	V
SHLT-B	3.6.0	SHDSL Line termination version B (12 lines)	V
SMLT-A	3.6.0	SHDSL Line termination version A (24 lines with IMA)	V
SMLT-B	3.6.0	SHDSL Line Termination Unit Version B(12 lines, with IMA)	V

Alcatel-Lucent ISAM—Supported Technologies

The following technologies are supported by the Alcatel-Lucent ISAM in Cisco ANA Version 3.6.7:

- IP, page 3-16
- Ethernet (IEEE 802.3), page 3-19
- ATM, page 3-23
- Point to Point, page 3-27
- DSL, page 3-28
- Physical Technologies, page 3-30
- Physical Equipment, page 3-31
- Base Logical Components, page 3-32
- Common, page 3-33
- Additional Technologies, page 3-35

Alcatel-Lucent ISAM—Supported Service Events

Table 3-8 Supported Service Events for Alcatel-Lucent ISAM—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Card In/Out	3.6.0	N
Link Down/Up	3.6.0	N
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	N
Card Up/Down	3.6.0	N

Alcatel-Lucent Riverstone

This section includes the following information about Riverstone devices (for information on the NE types supported in Cisco ANA Version 3.6.7, see Alcatel-Lucent Riverstone):

- Riverstone—Supported Software Versions, page 3-8
- Riverstone—Supported Topologies, page 3-8
- Riverstone—Supported Modules, page 3-9
- Riverstone—Supported Technologies, page 3-9
- Riverstone—Supported Service Events, page 3-10

Riverstone—Supported Software Versions

Table 3-9 Supported Software Versions for Riverstone—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
9.3.0.2	3.6.2	S
9.4.0.0	3.6.2	S
9.4.0.1	3.6.2	S
9.4.0.2	3.6.2	S
9.4.0.6	3.6.6	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Riverstone—Supported Topologies

Table 3-10 Supported Topologies for Riverstone—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.2
Physical Layer[1]	Physical Layer	3.6.2

[1]Only static

Riverstone—Supported Modules

Table 3-11 Supported Modules for Riverstone—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
CM	3.6.2	Control Module, Rev. 0	V
G3M-HTXB2-16	3.6.2	RS 3000 16-Port 10/100 TX Module via RJ-45 Rev. 4.0/0.1	V
G3M-GBCFM-02	3.6.2	2 port MPLS enabled GbE base module; requires GBICs Rev. 5.1	V
FLASH CARD	3.6.4	16/32Mb Flash card	S[1]
POWER SUPPLY	3.6.2	Power Supply 1	S
POWER SUPPLY	3.6.2	Power Supply 2	S
FAN	3.6.2	Fan 1	S

[1]Support is for all flash card sizes

Riverstone—Supported Technologies

The following technologies are supported by the Riverstone in Cisco ANA Version 3.6.7:

- IP, page 3-16
- Ethernet (IEEE 802.3), page 3-19
- Physical Equipment, page 3-31
- Base Logical Components, page 3-32
- Common, page 3-33

Riverstone—Supported Service Events

Table 3-12 Supported Service Events for Riverstone—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Link Down/Up	3.6.2	N
Device Unreachable	3.6.2	N
CPU Over Utilized	3.6.2	N
Memory Over Utilized	3.6.2	N
Device Unsupported	3.6.2	N
Module Unsupported	3.6.2	N
Port Flapping	3.6.2	N
Port Down	3.6.2	N
Cloud Problem	3.6.2	N

Alcatel-Lucent CBX, GX, B-STDX Switches

This section includes the following information about Alcatel-Lucent CBX, GX, B-STDX Switches devices (for information on the NE types supported in Cisco ANA Version 3.6.7, see Alcatel-Lucent CBX, GX, B-STDX Switches):

- Alcatel-Lucent CBX, GX, B-STDX Switches—Supported Software Versions, page 3-10
- Alcatel-Lucent CBX, GX, B-STDX Switches—Supported Topologies, page 3-11
- Alcatel-Lucent CBX, GX, B-STDX Switches—Supported Modules, page 3-11
- Alcatel-Lucent CBX, GX, B-STDX Switches—Supported Technologies, page 3-15
- Alcatel-Lucent CBX, GX, B-STDX Switches—Supported Service Events, page 3-15

Alcatel-Lucent CBX, GX, B-STDX Switches—Supported Software Versions

Table 3-13 Supported Software Versions for Alcatel-Lucent CBX, GX, B-STDX Switches—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
07.02.02.08	3.6.0	S
07.02.04.19	3.6.0	S
07.03.01.14	3.6.0	S
08.00.03.11	3.6.0	S
08.00.03.11	3.6.0	S
08.00.03.07	3.6.0	S

Table 3-13 Supported Software Versions for Alcatel-Lucent CBX, GX, B-STDX Switches—Cisco ANA Version 3.6.7 (continued)

Software Version	ANA Version	Certification Level
08.00.03.11	3.6.0	S
08.00.03.22	3.6.0	S
09.01.01.04	3.6.0	S
09.01.01.13	3.6.0	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Alcatel-Lucent CBX, GX, B-STDX Switches—Supported Topologies

Table 3-14 Supported Topologies for Alcatel-Lucent CBX, GX, B-STDX Switches—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
ATM	ATM	3.6.0
Framerelay	Framerelay	3.6.0

Alcatel-Lucent CBX, GX, B-STDX Switches—Supported Modules

Table 3-15 Supported Modules for Alcatel-Lucent CBX, GX, B-STDX Switches—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
V35-6	3.6.0	6-port V.35 i/o card	S
FE3-1	3.6.0	1-port Fractional E3 i/o card	S
PON-ETHER-2	3.6.0	PON R2.0 Ethernet UNI sub-card 2 port	S
BIO4-CH	3.6.0	Scorpion channelized BIO	S
BIO4-CH-OC12-1	3.6.0	Scorpion channelized OC12 PHY 1 port	S
BIO4-CH-STM1-2	3.6.0	Scorpion channelized stm-1 PHY 2 port	S
BIO4-CH-OC12-2	3.6.0	Scorpion channelized OC12 PHY 2 port	S
BIO4-CH-DS3-12	3.6.0	Scorpion channelized DS3 12 port	S
IOM6-CH-DS3-T3-6	3.6.0	Positron channelized DS3 6 port	S
IOM5-OC3-4	3.6.0	Positron OC3 ATM/POS card	S
IOM5-OC12-1	3.6.0	Positron OC12 ATM/POS card	S

Table 3-15 Supported Modules for Alcatel-Lucent CBX, GX, B-STDX Switches—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
IOM5-IP-SERVER	3.6.0	Positron IP Server card	S
HSSI-2	3.6.0	HSSI i/o card	S
NP-2	3.6.0	NP2	S
BIO4-CH-OC3-2	3.6.0	Scorpion channelized OC3 PHY 2 port	S
BIO4-CH-DS3-10	3.6.0	Scorpion channelized DS3 PHY 10 port	S
DSX1-10	3.6.0	10-port DSX-1 card	S
RS232-18	3.6.0	18-port X.21/V.24 I/O card, for STDX 3000/6000 only	S
RS232-8	3.6.0	8-port X.21/V.24 I/O card, for STDX 3000/6000 only	S
UT1-4-24	3.6.0	4-port 24-channel Un-Channelized T1	S
UE1-4-30	3.6.0	4-port 30-channel Un-Channelized E1	S
ATMDS3-1	3.6.0	1-port ATM DS3 UNI I/O card	S
ATME3-1	3.6.0	1-port ATM E3 UNI I/O card	S
PRI-4	3.6.0	4-port ISDN PRI I/O card	S
FT1-1-24	3.6.0	1-port 24-channel Fractional T1	S
E1-PRI-4	3.6.0	4-port E1 PRI I/O card	S
SFT1-4-24	3.6.0	4-port short haul 24-channel Fractional T1 card	S
SUT1-4-24	3.6.0	4-port short haul 24-channel Un-Channelized T1 card	S
ST1-PRI-4	3.6.0	4-port short haul PRI I/O card	S
T1-ATM	3.6.0	T1 ATM	S
E1-ATM	3.6.0	E1 ATM	S
ADS3-T3	3.6.0	ATM DS3 T3 (topaz)	S
ADS3-E3	3.6.0	ATM DS3 E3 (topaz)	S
CBR-DS1-S-4	3.6.0	4-port CBR T1 structured card	S
CBR-DS1-US-4	3.6.0	4-port CE T1 card	S
FE1-1-30	3.6.0	1-port 30-channel Fractional E1	S
CBR-E1-S-4	3.6.0	4-port CBR E1 structured card	S
CBR-E1-US-4	3.6.0	4-port CE E1 card	S
ATMIWU-1	3.6.0	1-port ATM-IWU STM-1/STS-3c card	S
TOC3-ATM-4	3.6.0	4-port Topaz OC3c/STM1 ATM card	S
TSTM1-ATM-4	3.6.0	4-port Topaz STM1 ATM card (OBSOLETE code)	S
SP-4	3.6.0	4x4 switching processor (new terminology is “sp-10”)	S
SP-8	3.6.0	8x8 switching processor (new terminology is “sp-20”)	S
ATMCS-1	3.6.0	1-port ATM-CS card (siemens)	S
TOC12-ATM-1	3.6.0	1-port Topaz OC12c/STM4 ATM card	S
TSTM4-ATM-1	3.6.0	1-port Topaz STM4 ATM card (OBSOLETE code)	S

Table 3-15 Supported Modules for Alcatel-Lucent CBX, GX, B-STDX Switches—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
UIO-6	3.6.0	6-port universal i/o card	S
ADS1-T1	3.6.0	Topaz 8 port T1 ATM	S
ADS1-E1	3.6.0	Topaz 8 port E1 ATM	S
ADS1-J2	3.6.0	Topaz 8 port J2 ATM	S
E1-12	3.6.0	12-port E1 i/o card	S
BIO1416	3.6.0	Garnet BIO1 4 PHY sub-cards 16 ports	S
BIO1OC34	3.6.0	Garnet BIO1 OC3 PHY sub-card 4 ports	S
BIO1OC121	3.6.0	Garnet BIO1 OC12 PHY sub-card 1 port	S
BIO1OC12X4	3.6.0	Garnet BIO1 OC12x4 PHY sub-card 1 port 4 channels	S
BIO1OC481	3.6.0	Garnet BIO1 OC48 PHY sub-card 1 port	S
NP1	3.6.0	Garnet Node Processor card	S
CP1	3.6.0	Control Processor	S
SF1	3.6.0	Garnet Switch Fabric card	S
TM1	3.6.0	Garnet Timing Module card	S
TFDS3-T3-6	3.6.0	6-port Topaz DS3 T3 Ultracore card	S
TFDS3-E3-6	3.6.0	6-port Topaz DS3 E3 Ultracore card	S
TFAST-ETHER-4	3.6.0	4-port Topaz Fast Ethernet Ultracore card	S
FAST-ETHER-2	3.6.0	2-port BSTDX Fast Ethernet Ultracore card	S
LS-OC3-1	3.6.0	1-port BSTDX OC3c/STM-1 Ultracore card	S
TCFDS3-T3-6	3.6.0	6-port Topaz Cell Frame Cell DS3 T3 Ultracore card	S
TCFDS3-E3-6	3.6.0	6-port Topaz Cell Frame Cell DS3 E3 Ultracore card	S
TOC3-CFC-2	3.6.0	2-port Topaz Cell Frame Cell OC3c/STM-1 Ultracore card	S
UIO-8	3.6.0	8-port V.35 i/o card	S
ATMCS-E3-1	3.6.0	1-port ATM-CS-E3 card (siemens)	S
BE1-ATM-12	3.6.0	12-port BSTDX E1 ATM card	S
BT1-ATM-12	3.6.0	12-port BSTDX T1 ATM card	S
BDS3-1-0	3.6.0	1 port BSTDX Channelized 3/1/0	S
GFETHER-4	3.6.0	Granite Topaz Fast Ethernet UC card	S
GFDS3-T3-6	3.6.0	Granite Topaz Frame DS3 UC card	S
GFDS3-E3-6	3.6.0	Granite Topaz Frame E3 UC card	S
GCHN-DS3-4	3.6.0	Granite Topaz Channelized DS3 card	S
G-SERVER	3.6.0	Granite Topaz Server card	S
FT1-4-24	3.6.0	4-port 24-channel Fractional T1	S
SP-30	3.6.0	8x8 sp with new PTS	S
SP-40	3.6.0	8x8 sp with new PTS and more memory	S

Table 3-15 Supported Modules for Alcatel-Lucent CBX, GX, B-STDX Switches—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
BIO3	3.6.0	Piranha GX550 Frame card	S
GENET-1	3.6.0	Piranha Gigabit Ethernet PHY	S
BIO1-DOWNLINK-1	3.6.0	GARNET DOWNLINK PHY card for shelf communications attachment	S
SHELF-UPLINK-1	3.6.0	1-port Shelf (fc) UPLINK card	S
SHELF-DS3-4	3.6.0	4-port Shelf DS3 transport card	S
SHELF-RED-DS3-4	3.6.0	4-port Shelf Redundant DS3 transport card	S
BRVX	3.6.0	BSTDX RVX Card	S
BCH-DS1-E1-12	3.6.0	12-port 9000 Channelized T1/E1 Card	S
FE1-4-30	3.6.0	4-port 30-channel Fractional E1	S
CBX-SUB-DS3	3.6.0	CBX Subrate DS3 Card	S
BIO1-DS3-4	3.6.0	Garnet BIO1 DS3 PHY sub-card 4 Ports	S
BIO1-E3-4	3.6.0	Garnet BIO1 DS3 PHY sub-card 4 Ports	S
ADS3-IMA-T3-3-28	3.6.0	TOPAZ Tsunami 3Port T3 IMA	S
ADS3-IMA-E3-3-30	3.6.0	TOPAZ Tsunami 3Port E3 IMA	S
BIO2-4-16	3.6.0	Garnet BIO2 4 PHY sub-cards 16 ports	S
SHELF-DS3-1-0-2	3.6.0	2 port GX250 DS3-1-0 Transport Card	S
SHELF-OC12-1	3.6.0	1 port GX250 OC12-OC3-DS3 Transport Card	S
BIO3-OC3-4	3.6.0	BIO3 OC3 ATM/POS PHY	S
BIO3-OC12-1	3.6.0	BIO3 OC12 ATM/POS PHY	S
FT3-1	3.6.0	1-port Fractional T3 i/o card	S
BIO3-IP-SERVER	3.6.0	BIO3 IP Server PHY	S
BIO3-OC12X4	3.6.0	BIO3 OC48 channelized PHY	S
BIO3-OC48-1	3.6.0	BIO3 OC48c PHY	S
GCHN-E1T1-32	3.6.0	Granite Topaz Channelized E1/T1 card	S
BIO-OSU-1	3.6.0	BIO OSU PHY sub-card 1 port	S
BIO-OSU-4	3.6.0	BIO OSU PHY sub-card 4 port	S
PON-DS1-4	3.6.0	PON DS1 UNI sub-card 4 port	S
PON-DS1-8	3.6.0	PON DS1 UNI sub-card 8 port	S
PON-R1ETHER-1	3.6.0	PON R1.0 Ethernet UNI sub-card 1 port	S
PON-R2ETHER-1	3.6.0	PON R2.0 Ethernet UNI sub-card 1 port	S

Alcatel-Lucent CBX, GX, B-STDX Switches—Supported Technologies

The following technologies are supported by the Alcatel-Lucent CBX, GX, B-STDX Switches in Cisco ANA Version 3.6.7:

- IP, page 3-16
- ATM, page 3-23
- Frame Relay, page 3-26
- Point to Point, page 3-27
- Physical Technologies, page 3-30
- Physical Equipment, page 3-31
- Base Logical Components, page 3-32
- Common, page 3-33
- Additional Technologies, page 3-35

Alcatel-Lucent CBX, GX, B-STDX Switches—Supported Service Events

Table 3-16 Supported Service Events for Alcatel-Lucent CBX, GX, B-STDX Switches—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Interface Status Down/Up	3.6.0	N
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Module Unsupported	3.6.0	N
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
Card Up/Down	3.6.0	Y

Supported Technologies on Alcatel-Lucent Devices

The following sections list the objects and attributes that are supported on Alcatel-Lucent devices in Cisco ANA Version 3.6.7 per technology:

- IP, page 3-16
- Ethernet (IEEE 802.3), page 3-19
- ATM, page 3-23
- Frame Relay, page 3-26
- Point to Point, page 3-27
- DSL, page 3-28
- Physical Technologies, page 3-30
- Physical Equipment, page 3-31
- Base Logical Components, page 3-32
- Common, page 3-33
- Additional Technologies, page 3-35

IP

Table 3-17 IP Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
IMO Name—IIPInterface				
IP Address	Y	Y	Y	Y
Subnetwork Mask	Y	Y	Y	Y
IP Interface Addresses Array	Y	Y		Y
Interface Name	Y	Y	Y	Y
Interface Description				Y
IP Interface State	Y	Y	Y	Y
OSPF Interface Cost				
Broadcast Address				
MTU				
Lookup Method				
Address Resolution Type			Y	
ARP Timeout				
Secured ARP				

Table 3-17 IP Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
ICMP Mask Reply				
IGMP Proxy				
HSRP Groups				
IP Multiplexing Table				
IANA Type			Y	
Containing CTPs				
Contained CTPs				
IMO Name—IIPMuxEntry				
Termination Point				
Destination IP Subnet				
IMO Name—IRoutingEntity				
Routing Table	Y	Y	Y	Y
ARP Entity		Y	Y	Y
Routing Table Changes			Y	
Name	Y	Y		Y
Logical Sons	Y	Y	Y	Y
IMO Name—IRoutingEntry				
Destination IP Subnet	Y	Y	Y	Y
Next Hop IP Address	Y	Y	Y	Y
Type	Y	Y	Y	Y
Routing Protocol Type	Y	Y	Y	Y
Outgoing Interface Name	Y	Y	Y	Y
IMO Name—IARPEntity				
ARP Table		Y	Y	
IMO Name—IARPEntry				
IP Address		Y	Y	
MAC Address		Y	Y	
Port		Y	Y	
Entry Type		Y	Y	
IMO Name—IIPPool				
IP Address Pool Entries				
Name				
Index				

Table 3-17 IP Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
IMO Name—IIPRangeBasedIPPoolEntry				
Start IP Address				
End IP Address				
Unused Addresses				
Used Addresses				
Reserved Addresses				
IMO Name—IIPSubnetBasedIPPoolEntry				
IP Subnet				
Unused Addresses				
Used Addresses				
Reserved Addresses				
IMO Name—HSRPGroupEntry				
Group Number				
Port Description				
Priority				
Coupled Router				
State				
Tracking Interfaces				
Virtual IP Address				
Virtual MAC Address				
IMO Name—ITunnelGRE				
Name				
Tunnel Destination and Source				
IP Address				
IP Interface State				
IANA Type				
Containing CTPs				
Contained CTPs				
Keep Alive Time				
Keep Alive Retry				

Ethernet (IEEE 802.3)

Table 3-18 Ethernet (IEEE 802.3) Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
IMO Name—ILinkAggregationGroup802dot3ad				
dot3adAggMACAddress				
dot3adAggActorSystemPriority				
dot3adAggActorSystemID				
dot3adAggActorAdminKey				
dot3adAggActorOperKey				
dot3adAggPartnerSystemID				
dot3adAggPartnerSystemPriority				
dot3adAggPartnerOperKey				
dot3adAggCollectorMaxDelay				
GroupNumber				
AggregationProtocolType				
MacAddress				
ChannelAdminStatus				
ChannelOperStatus				
IMO Name—IEthernet				
MAC Address	Y	Y	Y	
Duplex Mode				
Output Flow Control				
Input Flow Control				
IANA Type		Y	Y[1]	
Containing CTPs				
Contained CTPs				
Port Type				
IMO Name—IVlanInterface				
Mode				
Native VLAN Identification				
Virtual LAN Table				
IANA Type				
Containing CTPs				

Table 3-18 Ethernet (IEEE 802.3) Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
Contained CTPs				
vlanAdminType				
vlanencapType				
getAccess				
Allowed Vlans				
IMO Name—IVlanEncapMux				
IANA Type			Y[2]	
Containing CTPs				
Contained CTPs				
IMO Name—IIEEE802				
VLAN Identification	Y	Y	Y	
Binding Information				
Binding Status				
IANA Type		Y	Y	
Containing CTPs				
Contained CTPs				
IMO Name—IStpService				
StpProtocol				
StpMaxAge				
StpHelloTime				
StpBridgeForwardDelay				
StpInstanceInfoTable				
Same as ISystemService				
StpUplinkFastState				
StpBackboneFastState				
StpForwardDelay				
StpBridgeMaxAge				
StpBridgeHelloTime				
IMO Name—IMstService				
MstProperties				
Same as IStpService				

Table 3-18 Ethernet (IEEE 802.3) Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
IMO Name—IPvstpService				
UpLinkFast				
BackboneFast				
IMO Name—IMstProperties				
MstForceVersion				
MstCfgIdFmtSel				
MstExternalRootCost				
MstMaxInstances				
MstCfgIdName				
MstCfgIdRevLevel				
IMO Name—IStpInstanceInfo				
Object Identification				
StpBridgeId				
BridgePriority				
Designated Parent and Root Bridges				
StpRootCost				
IsRoot				
StpRootPort				
StpPortInfoTable				
STP Instance Id				
Vlan Id				
StpDesignatedBridge				
StpDesignatedRoot				
IMO Name—IMstInstanceInfo				
MstVlanIds				
Same as IStpInstanceInfo				
IMO Name—IPvstpInstanceInfo				
Protocol Type				
StpBridgeMaxAge				
StpBridgeHelloTime				
StpBridgeForwardDelay				

Table 3-18 Ethernet (IEEE 802.3) Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
StpProtocolSpecification				
StpVlanId				
StpForwardDelay				
StpMaxAge				
IMO Name—IRstpInstanceInfo				
StpForceVersion				
Same as IStpInstanceInfo				
IMO Name—IStpPortInfo				
StpPort				
StpPortPriority				
StpPortState				
StpPortPathCost				
StpPortEdgePort				
StpPortPointToPoint				
StpPortRole				
StpDesignatedPortIdentifier				
StpDesignatedBridge				
StpPortIdentifier				
StpPortBpduGuardState				
StpPortBpduFilterState				
IMO Name—IMstPortInfo				
MstPortHelloTime				
Same as IStpPortInfo				
IMO Name—IPvstpPortInfo				
PvstpPortFastState				
IMO Name—IEthernetChannel				
Group Number	Y			
Bandwidth				
Aggregation Protocol				
IANA Type	Y			
Containing CTPs				
Contained CTPs				

Table 3-18 Ethernet (IEEE 802.3) Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
Mac Address				
Admin Status				
Oper Status				

[1, 2]Only dot1q encap is supported.

ATM

Table 3-19 ATM Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
IMO Name—IAtm				
ATM Address				
Interface Type		Y		Y
VP and VC Ranges		Y		Y
VC Table		Y		Y
Cross-Connect Table				Y
IANA Type				Y
Containing CTPs				
Contained CTPs				
Tx Allocated Bandwidth				Y
Tx Maximum Bandwidth				Y
Tx UBR Allocated Bandwidth				Y
Tx CBR Allocated Bandwidth				Y
Rx Allocated Bandwidth				Y
Rx Maximum Bandwidth				Y
Rx UBR Allocated Bandwidth				Y
Rx CBR Allocated Bandwidth				Y

Table 3-19 ATM Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
IMO Name—IAtmVc				
Virtual Channel Identifier		Y		Y
Virtual Path Identifier		Y		Y
Shaping Profile				
Discarded and Received Input Data Counters		Y		Y
Dropped and Forward Output Data Counters		Y		Y
Ingress Traffic Descriptor		Y		
Egress Traffic Descriptor		Y		
Administrative Status		Y		Y
Operational Status		Y		Y
IANA Type				
Containing CTPs				
Contained CTPs				
IMO Name—IAtmTrafficDescriptor				
Traffic Descriptor Type		Y		
Service Category		Y		
Cell Loss Priority		Y		
Cell Delay Variation		Y		
Cell Dealy Variation Tolerance		Y		
Maximum High Priority and Aggregate Cell Rates		Y		
Minimum High Priority and Aggregate Cell Rates		Y		
Sustainable High Priority and Aggregate Cell Rates		Y		
Peak High Priority and Aggregate Cell Rates		Y		
Name		Y		
Index		Y		
IMO Name—IAtmTrafficShapingDescriptor				
Maximum Burst Size				
Sustainable and Peak Cell Rates				

Table 3-19 ATM Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
Cell Delay Variation				
State				
Buffer Size				
Cell Loss Priority Discarded Size				
Name				
Index				
IMO Name—IAtmTrunk				
Same as IAtm				
IMO Name—IAtmLogicalPort/Trunk				
Resource Management Cell Termination				
Resource Management Cell Generation				
Effective Check Input and Output Capacities				
Admin Status				
Oper Status				
Same as IAtm				
IMO Name—IAtmTrunkVc				
Destination Description				Y
Same as IAtmVc				
IMO Name—IIMAGroup				
AdminStatus				
OperStatus				
GroupNumber				
ImaVersion				
Speed				
ConfiguredBandwidth				
NumberOfLinks				
NumberOfActiveLinks				
MinimumNumberOfTxLinks				
MinimumNumberOfRxLinks				
ClockMode				

Table 3-19 ATM Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
FrameLength				
interfaceName				
groupStatus				

Frame Relay

Table 3-20 Frame Relay Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
IMO Name—Iframerelay/IFrTrunk				
Protocol Type				Y
VC Table				Y
Cross-Connect Table				Y
IANA Type				Y
Containing CTPs				
Contained CTPs				
IMO Name—IFrVc				
Data Link Connection Identifier				
Traffic Descriptor				
Discard and Received Input Data Counters				Y
Dropped and Forward Output Data Counters				Y
Ingress Traffic Descriptor				
Egress Traffic Descriptor				
Administrative Status				Y
Operational Status				Y
IANA Type				
Containing CTPs				
Contained CTPs				

Table 3-20 Frame Relay Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
IMO Name—IFRTrafficDescriptor				
Committed Rate				Y
Excess Burst Rate				Y
Name				Y
Index				Y
IMO Name—IFramerelayLogicalPort/Trunk				
Admin Status				
Oper Status				
Same as IFrameRelay				
IMO Name—IFrTrunkVc				
Destination Description				Y
Same as IFrVc				
IMO Name—IEncapsulation				
Virtual Connection Interface				Y
Binding Information				

Point to Point

Table 3-21 Point to Point Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
IMO Name—IVcBasedEncapsulation				
Virtual Connection				
Binding Information				
Binding Status		Y		
IANA Type				
Containing CTPs				
Contained CTPs				

Table 3-21 Point to Point Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
IMO Name—Iencapsulation (HDLC/PPP)				
Virtual Connection				Y
Binding Information				
Binding Status				
IANA Type				
Containing CTPs				
Contained CTPs				

DSL

Table 3-22 DSL Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
IMO Name—IDsl / IIdsl / ISdsl / Ishdsl				
Modulation Type				
Customer Identification		Y		
Traffic Descriptor		Y		
Same as IPhysicalLayer				
IMO Name—IADsl				
Maximum Reception and Transmission Bandwidth		Y		
Same as IDsl				
IMO Name—IADsl2				
Spectrum Traffic Descriptor		Y		
Traffic Descriptor		Y		
Same as IADsl		Y		
IMO Name—IAdsltraTrafficDescriptor				
Max, Min and Target Transmission and Reception Noise Margins				
Max, Min and Planned Target Transmission and Reception Bit Rates				

Table 3-22 DSL Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
Max Transmission Power Spectral Density				
Transmission and Reception Rate Adaption				
Channel type				
Name				
Index				
IMO Name—IAdsl2SpectrumTrafficDescriptor				
Max, Min and Target Transmission and Reception Noise Margins		Y		
Max, Min and Planned Target Transmission and Reception Bit Rates				
Name		Y		
Index		Y		
IMO Name—IIsdnLayer2				
Control Administrative Status				
Oper Status				
Channels Table				
IANA Type				
Containing CTPs				
Contained CTPs				
IMO Name—IIsdnChannel				
Control Administrative Status				
Oper Status				
IMO Name—IIsdnLayer1				
Same as IPhysicalLayer				

Physical Technologies

Table 3-23 Physical Technologies Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
IMO Name—ISonetSdh				
Specific Type				
Loopback Type		Y		Y
Scrambling Mode				Y
Same as IPhysicalLayer				
IMO Name—IDS0Bundle				
Bundled Time Slots				
Bundle Location				
IANA Type				
Containing CTPs				
Contained CTPs				
IMO Name—IDS1Pdh / IDS3Pdh				
Framing Type				Y
Cell Mapping Type				Y
Loopback Type				Y
Scrambling Mode				Y
Same as IPhysicalLayer				
portDescription				
internationalBit				
nationalBits				
framing				
lineCode				
cableLength				
recoveredClockingId				
clocking				
loopback				
alarmState				

Physical Equipment

Table 3-24 Physical Equipment Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
IMO Name—IChassis				
Description		Y	Y	Y
Equipment Holder Type		Y		
Contained Equipment Holders				
Contained Equipments				
Serial Number			Y	
IMO Name—IShelf				
Description	Y	Y		
Status	Y	Y		
Equipment Holder Type		Y		
Contained Equipment Holders				
Contained Equipments				
Serial Number				
IMO Name—IModule				
Module Name	Y	Y	Y	Y
Module Description	Y	Y	Y	Y
Software Version	Y	Y		Y
Operational Status	Y	Y	Y	Y
Hardware Type + Version	Y	Y	Y	Y
Managed IP Address		Y		Y
Redundant Equipment	Y			Y
Configured Redundancy	Y			Y
Redundancy Status	Y	Y		Y
Operational Status Last Changed	Y	Y		
Supported Physical Termination Points	Y	Y	Y	
Serial Number (soft property)	Y	Y	Y	Y
Slots Number				

Base Logical Components

Table 3-25 Base Logical Components Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
IMO Name—IManagedElement				
IP Address	Y	Y	Y	Y
Communication State	Y	Y	Y	
Investigation State	Y	Y	Y	
Element Category	Y	Y	Y	Y
Element Type and Key	Y	Y	Y	Y
Device Name	Y	Y	Y	Y
System Name	Y	Y	Y	Y
System Description	Y	Y	Y	Y
Up Time	Y	Y	Y	Y
Software Version	Y	Y	Y	Y
Vendor Identity	Y	Y	Y	Y
Memory and CPU Usage	Y			Y
DRAM Free				
DRAM Used				
Flash Device Size				
NVRAM Size				
Processor DRAM				
Sys Contact			Y	
Sys Location			Y	
Serial Number				
File Systems				
IMO Name—IContext				
Name				
Bounded Connections				
IP Address Pools				
Forwarding Components List				
Traffic Descriptors List				
Tunnel Containers List				
Data Link Aggregation Containers List				

Table 3-25 Base Logical Components Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
IMO Name—ISystemService				
Type				
Status				
Up Time	Y	Y		Y

Common

Table 3-26 Common Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
IMO Name—IPhysicalLayer				
Media Type	Y	Y	Y	Y
Clocking Source		Y		Y
Maximum Speed	Y	Y	Y	Y
Is Internal Port	Y			Y
Discarded Bandwidth				
Dropped Bandwidth				
Input Bandwidth				
Output Bandwidth				
Discarded and Received Input Data Counters	Y	Y		Y
Dropped and Forward Output Data Counters	Y	Y		Y
Administrative Status	Y	Y	Y	Y
Operational Status	Y	Y	Y	Y
Last Changed	Y	Y	Y	Y
IANA Type	Y	Y	Y	Y
Containing CTPs				
Contained CTPs				
Port Alias				

Table 3-26 Common Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
Location				
Sending Alarms				
Connector Description				
Part ID				
Connectort Serial Num				
Product				
Status				
Managed				
IMO Name—IBridge				
Bridge Table			Y[1]	
Type			Y	
MAC Address	Y			
IP Interface	Y			
Name	Y			
Logical Sons	Y		Y	
Vlan Type				
IMO Name—IBridgeEntry				
Destination MAC	Y	Y	Y	
Outgoing Interface		Y	Y	
IMO Name—IVcSwitchingEntity				
Cross Connect Table				Y
Cross Connect Table Size				Y
Logical Sons				Y

[1] 1.3.6.1.2.1.17.1.4.1 is mapping between port in the bridge table and ifindex of that port

Additional Technologies

Table 3-27 Additional Technologies Attribute Support on Alcatel-Lucent Devices—Cisco ANA Version 3.6.7

Attribute	7450 ESS	ISAM	Riverstone	CBX, GX, B-STDX
IMO Name—POS				
POS		Y		Y

CHAPTER 4

Support Information for Cisco Security Appliances

This chapter contains support information for Virtual Network Elements (VNEs) that manage Cisco security appliances in Cisco ANA Version 3.6.7. For more information about the objects and attributes described in this chapter, see *Cisco Active Network Abstraction 3.6.7 Technology Support and Information Model Reference Manual*.

This chapter contains the following topics:

- Cisco Adaptive Security Appliance 5550 Series, page 4-1
- Supported Technologies on Cisco Security Appliances, page 4-3

Cisco Adaptive Security Appliance 5550 Series

This section includes the following information about Cisco ASA 5550 Series security appliances (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco Adaptive Security Appliance 5550 Series):

- Cisco ASA 5550 Series—Supported Software Versions, page 4-2
- Cisco ASA 5550 Series—Supported Topologies, page 4-2
- Cisco ASA 5550 Series—Supported Modules, page 4-2
- Cisco ASA 5550 Series—Supported Technologies, page 4-2
- Cisco ASA 5550 Series—Supported Service Events, page 4-3

Cisco ASA 5550 Series—Supported Software Versions

Table 4-1 Supported Software Versions for Cisco ASA 5550 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
7.2(3)12	3.6.3	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco ASA 5550 Series—Supported Topologies

Table 4-2 Supported Topologies for Cisco ASA 5550 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.3

Cisco ASA 5550 Series—Supported Modules

Table 4-3 Supported Modules for Cisco ASA 5550 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
SSM-4GE-INC	3.6.3	SSM-4GE Included with ASA 5550 System	S

Cisco ASA 5550 Series—Supported Technologies

The following technologies are supported by the Cisco ASA 5550 Series in Cisco ANA Version 3.6.7:

- IP, page 4-4
- Ethernet (IEEE 802.3), page 4-6
- Physical Equipment, page 4-10
- Base Logical Components, page 4-11
- Common, page 4-12

Cisco ASA 5550 Series—Supported Service Events

Table 4-4 Supported Service Events for Cisco ASA 5550 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Primary HSRP Interface Active/Inactive	3.6.0	Y
All IP Interfaces Down / Active IP Interfaces Found	3.6.3	Y
Interface Status Down/Up	3.6.3	Y
Card In/Out	3.6.3	Y
Link Down/Up	3.6.3	Y
Device Unreachable	3.6.3	Y
CPU Over Utilized	3.6.3	Y
Memory Over Utilized	3.6.3	Y
Device Unsupported	3.6.3	Y
Discard Packets	3.6.3	N
Dropped Packets	3.6.3	N
Module Unsupported	3.6.3	N
Port Down	3.6.3	Y
Card Up/Down	3.6.3	Y

Supported Technologies on Cisco Security Appliances

The following sections list the objects and attributes that are supported on Cisco security appliances in Cisco ANA Version 3.6.7 per technology:

- IP, page 4-4
- Ethernet (IEEE 802.3), page 4-6
- Physical Equipment, page 4-10
- Base Logical Components, page 4-11
- Common, page 4-12

IP

Table 4-5 IP Attribute Support on Cisco Security Appliances—Cisco ANA Version 3.6.7

Attribute	ASA5550
IMO Name—IIPInterface	
IP Address	Y
Subnetwork Mask	Y
IP Interface Addresses Array	Y
Interface Name	Y
Interface Description	Y
IP Interface State	Y
OSPF Interface Cost	
Broadcast Address	
MTU	
Lookup Method	
Address Resolution Type	
ARP Timeout	
Secured ARP	
ICMP Mask Reply	
IGMP Proxy	
HSRP Groups	
IP Multiplexing Table	
IANA Type	
Containing CTPs	
Contained CTPs	
IMO Name—IIPMuxEntry	
Termination Point	
Destination IP Subnet	
IMO Name—IRoutingEntity	
Routing Table	Y
ARP Entity	Y
Routing Table Changes	
Name	Y
Logical Sons	Y
IMO Name—IRoutingEntry	
Destination IP Subnet	Y

Table 4-5 IP Attribute Support on Cisco Security Appliances—Cisco ANA Version 3.6.7

Attribute	ASA5550
Next Hop IP Address	Y
Type	Y
Routing Protocol Type	Y
Outgoing Interface Name	Y
IMO Name—IARPEntity	
ARP Table	Y
IMO Name—IARPEntry	
IP Address	Y
MAC Address	Y
Port	Y
Entry Type	Y
IMO Name—IIPPool	
IP Address Pool Entries	
Name	
Index	
IMO Name—IIPRangeBasedIPPoolEntry	
Start IP Address	
End IP Address	
Unused Addresses	
Used Addresses	
Reserved Addresses	
IMO Name—IIPSubnetBasedIPPoolEntry	
IP Subnet	
Unused Addresses	
Used Addresses	
Reserved Addresses	
IMO Name—HSRPGroupEntry	
Group Number	
Port Description	
Priority	
Coupled Router	
State	
Tracking Interfaces	
Virtual IP Address	
Virtual MAC Address	

Table 4-5 IP Attribute Support on Cisco Security Appliances—Cisco ANA Version 3.6.7

Attribute	ASA5550
IMO Name—ITunnelGRE	
Name	
Tunnel Destination and Source	
IP Address	
IP Interface State	
IANA Type	
Containing CTPs	
Contained CTPs	
Keep Alive Time	
Keep Alive Retry	

Ethernet (IEEE 802.3)

Table 4-6 Ethernet (IEEE 802.3) Attribute Support on Cisco Security Appliances—Cisco ANA Version 3.6.7

Attribute	ASA5550
IMO Name—ILinkAggregationGroup802dot3ad	
dot3adAggMACAddress	
dot3adAggActorSystemPriority	
dot3adAggActorSystemID	
dot3adAggActorAdminKey	
dot3adAggActorOperKey	
dot3adAggPartnerSystemID	
dot3adAggPartnerSystemPriority	
dot3adAggPartnerOperKey	
dot3adAggCollectorMaxDelay	
GroupNumber	
AggregationProtocolType	
MacAddress	
ChannelAdminStatus	
ChannelOperStatus	
IMO Name—IEthernet	
MAC Address	Y

Table 4-6 Ethernet (IEEE 802.3) Attribute Support on Cisco Security Appliances—Cisco ANA Version 3.6.7 (continued)

Attribute	ASA5550
Duplex Mode	
Output Flow Control	
Input Flow Control	
IANA Type	Y
Containing CTPs	
Contained CTPs	
Port Type	
IMO Name—IVlanInterface	
Mode	
Native VLAN Identification	
Virtual LAN Table	
IANA Type	
Containing CTPs	
Contained CTPs	
vlanAdminType	
vlanencapType	
getAccess	
Allowed Vlans	
IMO Name—IVlanEncapMux	
IANA Type	
Containing CTPs	
Contained CTPs	
IMO Name—IIEEE802	
VLAN Identification	
Binding Information	
Binding Status	
IANA Type	
Containing CTPs	
Contained CTPs	
IMO Name—IStpService	
StpProtocol	
StpMaxAge	
StpHelloTime	
StpBridgeForwardDelay	

Table 4-6 Ethernet (IEEE 802.3) Attribute Support on Cisco Security Appliances—Cisco ANA Version 3.6.7 (continued)

Attribute	ASA5550
StpInstanceInfoTable	
Same as ISystemService	
StpUplinkFastState	
StpBackboneFastState	
StpForwardDelay	
StpBridgeMaxAge	
StpBridgeHelloTime	
IMO Name—IMstService	
MstProperties	
Same as IStpService	
IMO Name—IPvstpService	
UpLinkFast	
BackboneFast	
IMO Name—IMstProperties	
MstForceVersion	
MstCfgIdFmtSel	
MstExternalRootCost	
MstMaxInstances	
MstCfgIdName	
MstCfgIdRevLevel	
IMO Name—IStpInstanceInfo	
Object Identification	
StpBridgeId	
BridgePriority	
Designated Parent and Root Bridges	
StpRootCost	
IsRoot	
StpRootPort	
StpPortInfoTable	
STP Instance Id	
Vlan Id	
StpDesignatedBridge	
StpDesignatedRoot	

Table 4-6 Ethernet (IEEE 802.3) Attribute Support on Cisco Security Appliances—Cisco ANA Version 3.6.7 (continued)

Attribute	ASA5550
IMO Name—IMstInstanceInfo	
MstVlanIds	
Same as IStpInstanceInfo	
IMO Name—IPvstpInstanceInfo	
Protocol Type	
StpBridgeMaxAge	
StpBridgeHelloTime	
StpBridgeForwardDelay	
StpProtocolSpecification	
StpVlanId	
StpForwardDelay	
StpMaxAge	
IMO Name—IRstpInstanceInfo	
StpForceVersion	
Same as IStpInstanceInfo	
IMO Name—IStpPortInfo	
StpPort	
StpPortPriority	
StpPortState	
StpPortPathCost	
StpPortEdgePort	
StpPortPointToPoint	
StpPortRole	
StpDesignatedPortIdentifier	
StpDesignatedBridge	
StpPortIdentifier	
StpPortBpduGuardState	
StpPortBpduFilterState	
IMO Name—IMstPortInfo	
MstPortHelloTime	
Same as IStpPortInfo	
IMO Name—IPvstpPortInfo	
PvstpPortFastState	

Table 4-6 Ethernet (IEEE 802.3) Attribute Support on Cisco Security Appliances—Cisco ANA Version 3.6.7 (continued)

Attribute	ASA5550
IMO Name—IEthernetChannel	
Group Number	
Bandwidth	
Aggregation Protocol	
IANA Type	
Containing CTPs	
Contained CTPs	
Mac Address	
Admin Status	
Oper Status	

Physical Equipment

Table 4-7 Physical Equipment Attribute Support on Cisco Security Appliances—Cisco ANA Version 3.6.7

Attribute	ASA5550
IMO Name—IChassis	
Description	
Equipment Holder Type	Y
Contained Equipment Holders	
Contained Equipments	
Serial Number	
IMO Name—IShelf	
Description	
Status	
Equipment Holder Type	
Contained Equipment Holders	
Contained Equipments	
Serial Number	
IMO Name—IModule	
Module Name	Y
Module Description	Y

Table 4-7 Physical Equipment Attribute Support on Cisco Security Appliances—Cisco ANA Version 3.6.7 (continued)

Attribute	ASA5550
Software Version	Y
Operational Status	Y
Hardware Type + Version	Y
Managed IP Address	
Redundant Equipment	
Configured Redundancy	
Redundancy Status	
Operational Status Last Changed	
Supported Physical Termination Points	
Serial Number (soft property)	Y
Slots Number	

Base Logical Components

Table 4-8 Base Logical Components Attribute Support on Cisco Security Appliances—Cisco ANA Version 3.6.7

Attribute	ASA5550
IMO Name—IManagedElement	
IP Address	Y
Communication State	Y
Investigation State	Y
Element Category	Y
Element Type and Key	Y
Device Name	Y
System Name	Y
System Description	Y
Up Time	Y
Software Version	Y
Vendor Identity	Y
Memory and CPU Usage	Y
DRAM Free	
DRAM Used	

Table 4-8 Base Logical Components Attribute Support on Cisco Security Appliances—Cisco ANA Version 3.6.7 (continued)

Attribute	ASA5550
Flash Device Size	Y
NVRAM Size	Y
Processor DRAM	
Sys Contact	Y
Sys Location	Y
Serial Number	Y
File Systems	
IMO Name—IContext	
Name	
Bounded Connections	
IP Address Pools	
Forwarding Components List	
Traffic Descriptors List	
Tunnel Containers List	
Data Link Aggregation Containers List	
IMO Name—ISystemService	
Type	
Status	
Up Time	Y

Common

Table 4-9 Common Attribute Support on Cisco Security Appliances—Cisco ANA Version 3.6.7

Attribute	ASA5550
IMO Name—IPhysicalLayer	
Media Type	Y
Clocking Source	
Maximum Speed	Y
Is Internal Port	Y
Discarded Bandwidth	
Dropped Bandwidth	
Input Bandwidth	

Table 4-9 Common Attribute Support on Cisco Security Appliances—Cisco ANA Version 3.6.7

Attribute	ASA5550
Output Bandwidth	
Discarded and Received Input Data Counters	
Dropped and Forward Output Data Counters	
Administrative Status	Y
Operational Status	Y
Last Changed	
IANA Type	Y
Containing CTPs	
Contained CTPs	
Port Alias	Y
Location	Y
Sending Alarms	Y
Connector Description	Y
Part ID	Y
Connectort Serial Num	Y
Product	Y
Status	Y
Managed	Y
IMO Name—IBridge	
Bridge Table	
Type	
MAC Address	
IP Interface	
Name	
Logical Sons	
Vlan Type	
IMO Name—IBridgeEntry	
Destination MAC	
Outgoing Interface	
IMO Name—IVcSwitchingEntity	
Cross Connect Table	
Cross Connect Table Size	
Logical Sons	

CHAPTER 5

Support Information for Cisco Gateways

This chapter contains support information for Virtual Network Elements (VNEs) that manage Cisco gateways in Cisco ANA Version 3.6.7. For more information about the objects and attributes described in this chapter, see *Cisco Active Network Abstraction 3.6.7 Technology Support and Information Model Reference Manual*.

This chapter contains the following topics:

- Cisco AS5300 Series Universal Gateways, page 5-1
- Supported Technologies on Cisco Gateways, page 5-4

Cisco AS5300 Series Universal Gateways

This section includes the following information about Cisco AS5300 Series gateways (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco AS5300 Series Universal Gateways):

- Cisco AS5300 Series—Supported Software Versions, page 5-2
- Cisco AS5300 Series—Supported Topologies, page 5-2
- Cisco AS5300 Series—Supported Modules, page 5-2
- Cisco AS5300 Series—Supported Technologies, page 5-3
- Cisco AS5300 Series—Supported Service Events, page 5-3

Cisco AS5300 Series—Supported Software Versions

Table 5-1 Supported Software Versions for Cisco AS5300 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
12.0(3)T1	3.6.0	S
12.1(10a)	3.6.0	S
12.1(11b)	3.6.0	S
12.1(22b)	3.6.0	S
12.19(22b)	3.6.0	S
12.3(10c)	3.6.0	S
12.3(3)	3.6.0	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco AS5300 Series—Supported Topologies

Table 5-2 Supported Topologies for Cisco AS5300 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.0
Physical Layer	Physical Layer	3.6.0

Cisco AS5300 Series—Supported Modules

Table 5-3 Supported Modules for Cisco AS5300 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
AS5300-8CE1-4T	3.6.0	Octal Port Channelized E1/PRI and 4T Card	S
AS5300-AMAZON2-CARRIER	3.6.0	Access Server MICA Modem Carrier Card	S
PM-DTD-12M	3.6.0	MICA 12-Modem Module Card	S
CPU-AS5300	3.6.0	AS5300	S
AS5300-4CE1	3.6.0	Quad Port Channelized E1/PRI Card	S
AS5300-DTD-CARRIER	3.6.0	Access Server MICA Modem Carrier Card	S
PM-DTD-6M	3.6.0	MICA 6-Modem Module Card	S

Cisco AS5300 Series—Supported Technologies

The following technologies are supported by the Cisco AS5300 Series in Cisco ANA Version 3.6.7:

- IP, page 5-4
- Ethernet (IEEE 802.3), page 5-6
- ACL, page 5-10
- Physical Equipment, page 5-11
- Base Logical Components, page 5-12
- Common, page 5-13

Cisco AS5300 Series—Supported Service Events

Table 5-4 Supported Service Events for Cisco AS5300 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
Card Up/Down	3.6.0	Y

Supported Technologies on Cisco Gateways

The following sections list the objects and attributes that are supported on Cisco gateways in Cisco ANA Version 3.6.7 per technology:

- IP, page 5-4
- Ethernet (IEEE 802.3), page 5-6
- ACL, page 5-10
- Physical Equipment, page 5-11
- Base Logical Components, page 5-12
- Common, page 5-13
- CDP, page 5-14
- Discovery Protocol, page 5-15

IP

Table 5-5 IP Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.7

Attribute	AS5300
IMO Name—IIPInterface	
IP Address	Y
Subnetwork Mask	Y
IP Interface Addresses Array	Y
Interface Name	Y
Interface Description	Y
IP Interface State	Y
OSPF Interface Cost	
Broadcast Address	
MTU	
Lookup Method	
Address Resolution Type	
ARP Timeout	
Secured ARP	
ICMP Mask Reply	
IGMP Proxy	
HSRP Groups	
IP Multiplexing Table	
IANA Type	
Containing CTPs	

Table 5-5 IP Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.7 (continued)

Attribute	AS5300
Contained CTPs	
IMO Name—IIPMuxEntry	
Termination Point	
Destination IP Subnet	
IMO Name—IRoutingEntity	
Routing Table	Y
ARP Entity	Y
Routing Table Changes	
Name	
Logical Sons	
IMO Name—IRoutingEntry	
Destination IP Subnet	Y
Next Hop IP Address	Y
Type	Y
Routing Protocol Type	Y
Outgoing Interface Name	Y
IMO Name—IARPEntity	
ARP Table	Y
IMO Name—IARPEntry	
IP Address	Y
MAC Address	Y
Port	Y
Entry Type	Y
IMO Name—IIPPool	
IP Address Pool Entries	
Name	
Index	
IMO Name—IIPRangeBasedIPPoolEntry	
Start IP Address	
End IP Address	
Unused Addresses	
Used Addresses	
Reserved Addresses	
IMO Name—IIPSubnetBasedIPPoolEntry	
IP Subnet	

Table 5-5 IP Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.7 (continued)

Attribute	AS5300
Unused Addresses	
Used Addresses	
Reserved Addresses	
IMO Name—HSRPGroupEntry	
Group Number	
Port Description	
Priority	
Coupled Router	
State	
Tracking Interfaces	
Virtual IP Address	
Virtual MAC Address	
IMO Name—ITunnelGRE	
Name	
Tunnel Destination and Source	
IP Address	
IP Interface State	
IANA Type	
Containing CTPs	
Contained CTPs	
Keep Alive Time	
Keep Alive Retry	

Ethernet (IEEE 802.3)

Table 5-6 Ethernet (IEEE 802.3) Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.7

Attribute	AS5300
IMO Name—ILinkAggregationGroup802dot3ad	
dot3adAggMACAddress	
dot3adAggActorSystemPriority	
dot3adAggActorSystemID	
dot3adAggActorAdminKey	
dot3adAggActorOperKey	

Table 5-6 Ethernet (IEEE 802.3) Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.7

Attribute	AS5300
dot3adAggPartnerSystemID	
dot3adAggPartnerSystemPriority	
dot3adAggPartnerOperKey	
dot3adAggCollectorMaxDelay	
GroupNumber	
AggregationProtocolType	
MacAddress	
ChannelAdminStatus	
ChannelOperStatus	
IMO Name—IEthernet	
MAC Address	Y
Duplex Mode	
Output Flow Control	
Input Flow Control	
IANA Type	
Containing CTPs	
Contained CTPs	
Port Type	
IMO Name—IVlanInterface	
Mode	
Native VLAN Identification	
Virtual LAN Table	
IANA Type	
Containing CTPs	
Contained CTPs	
vlanAdminType	
vlanencapType	
getAccess	
Allowed Vlans	
IMO Name—IVlanEncapMux	
IANA Type	
Containing CTPs	
Contained CTPs	
IMO Name—IIEEE802	
VLAN Identification	

Table 5-6 Ethernet (IEEE 802.3) Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.7

Attribute	AS5300
Binding Information	
Binding Status	
IANA Type	
Containing CTPs	
Contained CTPs	
IMO Name—IStpService	
Protocol Type	
Current and Bridge Max Age	
Current and Bridge Hello Time	
Current and Bridge Forward Delay	
Instance Information Table	
Same as ISystemService	
StpUplinkFastState	
StpBackboneFastState	
StpForwardDelay	
StpBridgeMaxAge	
StpBridgeHelloTime	
IMO Name—IMstService	
MstProperties	
Same as IStpService	
IMO Name—IPvstpService	
UpLinkFast	
BackboneFast	
IMO Name—IMstProperties	
MstForceVersion	
MstCfgIdFmtSel	
MstExternalRootCost	
MstMaxInstances	
MstCfgIdName	
MstCfgIdRevLevel	
IMO Name—IStpInstanceInfo	
Object Identification	
StpBridgeId	
BridgePriority	
Designated Parent and Root Bridges	

Table 5-6 Ethernet (IEEE 802.3) Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.7

Attribute	AS5300
StpRootCost	
IsRoot	
StpRootPort	
StpPortInfoTable	
STP Instance Id	
Vlan Id	
StpDesignatedBridge	
StpDesignatedRoot	
IMO Name—IMstInstanceInfo	
MstVlanIds	
Same as IStpInstanceInfo	
IMO Name—IPvstpInstanceInfo	
Protocol Type	
Current and Bridge Maximum Age	
Current and Bridge Hello Time	
Current and Bridge Forward Delay	
Same as IStpInstanceInfo	
StpVlanId	
StpForwardDelay	
StpMaxAge	
IMO Name—IRstpInstanceInfo	
StpForceVersion	
Same as IStpInstanceInfo	
IMO Name—IStpPortInfo	
Object Identification	
Priority	
State	
Path Cost	
Is Edge	
Is Point to Point	
Role	
StpDesignatedPortIdentifier	
StpDesignatedBridge	
StpPortIdentifier	
StpPortBpduGuardState	

Table 5-6 Ethernet (IEEE 802.3) Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.7

Attribute	AS5300
StpPortBpduFilterState	
IMO Name—IMstPortInfo	
MstPortHelloTime	
Same as IStpPortInfo	
IMO Name—IPvstpPortInfo	
PvstpPortFastState	
IMO Name—IEthernetChannel	
Group Number	
Bandwidth	
Aggregation Protocol	
IANA Type	
Containing CTPs	
Contained CTPs	
Mac Address	
Admin Status	
Oper Status	

ACL

Table 5-7 ACL Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.7

Attribute	AS5300
IMO Name—IAccessList	
Type	
Access List Entries	
Name or Id	
Index	
IMO Name—IAccessListEntry	
Entry Identification	Y
Action Logic	Y
Source and Destination Address	Y
Source and Destination Wildcard	Y
Protocol Type	Y
Source and Destination Port Ranges	Y

Table 5-7 ACL Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.7 (continued)

Attribute	AS5300
Source and Destination Port Action	Y
Protocol Specific Info	Y
Differential Services Code Points	Y
Type of Service	Y
Precedence	Y
Matches	Y

Physical Equipment

Table 5-8 Physical Equipment Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.7

Attribute	AS5300
IMO Name—IChassis	
Description	
Equipment Holder Type	
Contained Equipment Holders	
Contained Equipments	
Serial Number	Y
IMO Name—IShelf	
Description	
Status	
Equipment Holder Type	
Contained Equipment Holders	
Contained Equipments	
Serial Number	
IMO Name—IModule	
Module Name	Y
Module Description	Y
Software Version	Y
Operational Status	Y
Hardware Type + Version	Y
Managed IP Address	
Redundant Equipment	
Configured Redundancy	

Table 5-8 Physical Equipment Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.7

Attribute	AS5300
Redundancy Status	
Operational Status Last Changed	
Supported Physical Termination Points	
Serial Number (soft property)	Y
Slots Number	

Base Logical Components

Table 5-9 Base Logical Components Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.7

Attribute	AS5300
IMO Name—IManagedElement	
IP Address	Y
Communication State	Y
Investigation State	Y
Element Category	Y
Element Type and Key	Y
Device Name	Y
System Name	Y
System Description	Y
Up Time	Y
Software Version	Y
Vendor Identity	Y
Memory and CPU Usage	Y
DRAM Free	
DRAM Used	
Flash Device Size	Y
NVRAM Size	Y
Processor DRAM	
Sys Contact	Y
Sys Location	Y
Serial Number	Y
File Systems	

Table 5-9 Base Logical Components Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.7 (continued)

Attribute	AS5300
IMO Name—IContext	
Name	
Bounded Connections	
IP Address Pools	
Forwarding Components List	
Traffic Descriptors List	
Tunnel Containers List	
Data Link Aggregation Containers List	
IMO Name—ISystemService	
Type	
Status	
Up Time	

Common

Table 5-10 Common Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.7

Attribute	AS5300
IMO Name—IPhysicalLayer	
Media Type	Y
Clocking Source	
Maximum Speed	Y
Is Internal Port	Y
Discarded Bandwidth	
Dropped Bandwidth	
Input Bandwidth	
Output Bandwidth	
Discarded and Received Input Data Counters	Y
Dropped and Forward Output Data Counters	Y
Administrative Status	Y
Operational Status	Y
Last Changed	Y
IANA Type	Y

Table 5-10 Common Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.7 (continued)

Attribute	AS5300
Containing CTPs	
Contained CTPs	
Port Alias	Y
Location	Y
Sending Alarms	Y
Connector Description	Y
Part ID	Y
Connectort Serial Num	Y
Product	Y
Status	Y
Managed	Y
IMO Name—IBridge	
Bridge Table	
Type	
MAC Address	
IP Interface	
Name	
Logical Sons	
Vlan Type	
IMO Name—IBridgeEntry	
Destination MAC	
Outgoing Interface	
IMO Name—IVcSwitchingEntity	
Cross Connect Table	
Cross Connect Table Size	
Logical Sons	

CDP

Table 5-11 CDP Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.7

Attribute	AS5300
IMO Name—ICdpService	
cdpHoldtime	Y

Table 5-11 CDP Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.7 (continued)

Attribute	AS5300
cdpMessageInterval	Y
cdpDeviceId	Y
cdpState	Y
cdpVersion	Y
IMO Name—ICdpNeighbor	
remoteDeviceId	Y
remotePortId	Y
remoteIPAddress	Y
localPortId	Y

Discovery Protocol

Table 5-12 Discovery Protocol Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.7

Attribute	AS5300
IMO Name—IDiscoveryProtocol	
DiscoveryProtocolType	Y
Info	Y

CHAPTER 6

Support Information for Cisco Routers

This chapter contains support information for Virtual Network Elements (VNEs) that manage Cisco routers in Cisco ANA Version 3.6.7. For more information about the objects and attributes described in this chapter, see *Cisco Active Network Abstraction 3.6.7 Technology Support and Information Model Reference Manual*.

This chapter contains the following topics:

- Cisco 800 Series Routers, page 6-2
- Cisco 1000 Series Routers, page 6-3
- Cisco 1600 Series Routers, page 6-6
- Cisco 1700 Series Modular Access Routers, page 6-8
- Cisco 1800 Series Integrated Services Routers, page 6-10
- Cisco 2500 Series Routers, page 6-14
- Cisco 2600 Series Multiservice Platform Routers, page 6-16
- Cisco 2800 Series Integrated Services Routers, page 6-20
- Cisco 3600 Series Multiservice Platform Routers, page 6-24
- Cisco 3700 Series Multiservice Access Routers, page 6-28
- Cisco 3800 Series Integrated Services Routers, page 6-31
- Cisco 7200 Series Routers, page 6-34
- Cisco 7400 Series Routers, page 6-41
- Cisco 7600 Series Routers, page 6-45
- Cisco 10000 Series Routers, page 6-58
- Cisco 12000 Series Routers, page 6-61
- Cisco XR 12000 Series Routers, page 6-70
- Cisco CRS-1 Carrier Routing System, page 6-79
- Cisco ASR 1000 Series Routers, page 6-90
- Cisco ASR 9000 Series Aggregation Services Routers, page 6-95
- Cisco MWR 2900 Series Mobile Wireless Routers, page 6-99
- Supported Technologies on Cisco Routers, page 6-102

Cisco 800 Series Routers

This section includes the following information about Cisco 800 Series routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco 800 Series Routers):

- Cisco 800 Series—Supported Software Versions, page 6-2
- Cisco 800 Series—Supported Topologies, page 6-2
- Cisco 800 Series—Supported Technologies, page 6-3
- Cisco 800 Series—Supported Service Events, page 6-3

Cisco 800 Series—Supported Software Versions

Table 6-1 Supported Software Versions for Cisco 800 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
12.0(7)T3	3.6.1	S
12.0(4)XM	3.6.1	S
12.3(14)T	3.6.2	S
12.4(11)T	3.6.2	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco 800 Series—Supported Topologies

Table 6-2 Supported Topologies for Cisco 800 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
ATM	ATM	3.6.0
Ethernet	Ethernet	3.6.0
GRE Tunnel	GRE Tunnel	3.6.0
Physical Layer	Physical Layer	3.6.0

Cisco 800 Series—Supported Technologies

The following technologies are supported by the Cisco 800 Series in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111
- Physical Technologies, page 6-116
- VPN, page 6-120
- ACL, page 6-122
- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125
- Additional Technologies, page 6-127
- Local Switching, page 6-128

Cisco 800 Series—Supported Service Events

Table 6-3 Supported Service Events for Cisco 800 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Device Unreachable	3.6.1	N
CPU Over Utilized	3.6.1	N
Memory Over Utilized	3.6.1	N
Device Unsupported	3.6.1	N

Cisco 1000 Series Routers

This section includes the following information about Cisco 1000 Series routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco 1000 Series Routers):

- Cisco 1000 Series—Supported Software Versions, page 6-4
- Cisco 1000 Series—Supported Topologies, page 6-4
- Cisco 1000 Series—Supported Technologies, page 6-5
- Cisco 1000 Series—Supported Service Events, page 6-5

Cisco 1000 Series—Supported Software Versions

Table 6-4 Supported Software Versions for Cisco 1000 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOS 12.1(27)	3.6.1	S
IOS 12.1(22)	3.6.1	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco 1000 Series—Supported Topologies

Table 6-5 Supported Topologies for Cisco 1000 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.1
Framerelay	Framerelay	3.6.1
PPP/HDLC	PPP or HDLC	3.6.1
GRE Tunnel	GRE Tunnel	3.6.1
Physical Layer	Physical Layer	3.6.1

Cisco 1000 Series—Supported Technologies

The following technologies are supported by the Cisco 1000 Series in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111
- Frame Relay, page 6-114
- Point to Point, page 6-115
- Physical Technologies, page 6-116
- ACL, page 6-122
- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125
- Additional Technologies, page 6-127
- Local Switching, page 6-128

Cisco 1000 Series—Supported Service Events

Table 6-6 Supported Service Events for Cisco 1000 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Primary HSRP Interface Active/Inactive	3.6.1	N
Secondary HSRP Interface Active/Inactive	3.6.1	N
All IP Interfaces Down / Active IP Interfaces Found	3.6.1	Y
Interface Status Down/Up	3.6.1	Y
Link Down/Up	3.6.1	Y
Device Unreachable	3.6.1	N
CPU Over Utilized	3.6.1	N
Memory Over Utilized	3.6.1	N
Device Unsupported	3.6.1	N
Discard Packets	3.6.1	N
Dropped Packets	3.6.1	N
Port Flapping	3.6.1	N
Port Down	3.6.1	Y
Rx Over Utilized	3.6.1	N
Tx Over Utilized	3.6.1	N

Cisco 1600 Series Routers

This section includes the following information about Cisco 1600 Series routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco 1600 Series Routers):

- Cisco 1600 Series—Supported Software Versions, page 6-6
- Cisco 1600 Series—Supported Topologies, page 6-6
- Cisco 1600 Series—Supported Technologies, page 6-6
- Cisco 1600 Series—Supported Service Events, page 6-7

Cisco 1600 Series—Supported Software Versions

Table 6-7 Supported Software Versions for Cisco 1600 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
12.0(12)	3.6.1	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco 1600 Series—Supported Topologies

Table 6-8 Supported Topologies for Cisco 1600 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.1
Framerelay	Framerelay	3.6.1
PPP/HDLC	PPP or HDLC	3.6.1
GRE Tunnel	GRE Tunnel	3.6.1
Physical Layer	Physical Layer	3.6.1

Cisco 1600 Series—Supported Technologies

The following technologies are supported by the Cisco 1600 Series in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111

- Frame Relay, page 6-114
- Point to Point, page 6-115
- Physical Technologies, page 6-116
- ACL, page 6-122
- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125
- Local Switching, page 6-128

Cisco 1600 Series—Supported Service Events

Table 6-9 Supported Service Events for Cisco 1600 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Primary HSRP Interface Active/Inactive	3.6.1	Y
Secondary HSRP Interface Active/Inactive	3.6.1	Y
All IP Interfaces Down / Active IP Interfaces Found	3.6.1	Y
Interface Status Down/Up	3.6.1	Y
Card In/Out	3.6.1	Y
Link Down/Up	3.6.1	Y
Device Unreachable	3.6.1	N
CPU Over Utilized	3.6.1	N
Memory Over Utilized	3.6.1	N
Device Unsupported	3.6.1	N
Discard Packets	3.6.1	N
Dropped Packets	3.6.1	N
Module Unsupported	3.6.1	N
Port Flapping	3.6.1	N
Port Down	3.6.1	Y
Rx Over Utilized	3.6.1	N
Tx Over Utilized	3.6.1	N
BGP Neighbor Down	3.6.1	Y
Card Up/Down	3.6.1	Y

Cisco 1700 Series Modular Access Routers

This section includes the following information about Cisco 1700 Series routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco 1700 Series Modular Access Routers):

- Cisco 1700 Series—Supported Software Versions, page 6-8
- Cisco 1700 Series—Supported Topologies, page 6-8
- Cisco 1700 Series—Supported Modules, page 6-9
- Cisco 1700 Series—Supported Technologies, page 6-9
- Cisco 1700 Series—Supported Service Events, page 6-10

Cisco 1700 Series—Supported Software Versions

Table 6-10 Supported Software Versions for Cisco 1700 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
12.1(3)XP3	3.6.1	S
12.4(11)T	3.6.2	S
12.3(14)T	3.6.2	S
12.3(14)T7	3.6.4	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco 1700 Series—Supported Topologies

Table 6-11 Supported Topologies for Cisco 1700 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
ATM	ATM	3.6.0
BGP	BGP	3.6.0
Ethernet	Ethernet	3.6.0
GRE Tunnel	GRE Tunnel	3.6.1
Physical Layer	Physical Layer	3.6.1

Cisco 1700 Series—Supported Modules

Table 6-12 Supported Modules for Cisco 1700 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
WIC-1SHDSL-V3	3.6.0	1-port G.shdsl WIC with Four Wire Support (spare + system)	S
VWIC-2MFT-T1	3.6.0	2-Port RJ-48 Multiflex Trunk - T1	S
VWIC-2MFT-E1	3.6.0	2-port RJ-48 Multiflex Trunk - E1	S
VWIC-2MFT-T1-DI	3.6.0	2-Port RJ-48 Multiflex Trunk - T1 With Drop and Insert	S
VWIC-2MFT-E1-DI	3.6.0	2-Port RJ-48 Multiflex Trunk - E1 With Drop and Insert	S
WIC-1ENET	3.6.0	1-port ethernet WAN Interface card	S
MPC860	3.6.0	Power PC processor, such as in the Cisco 1700 Series	S
WIC-1DSU-T1	3.6.0	1-port T1/Fractional T1 DSU/CSU WAN Interface card	S
AIM-VPN/BP	3.6.0	DES/3DES VPN Encryption AIM-Base Performance	S
AIM-VPN/BPII	3.6.0	DES/3DES/AES and Layer 3 (IPPCP) Compression VPN Encryption AIM-Base Performance	S
AIM-VPN/EPII	3.6.0	DES/3DES/AES and Layer 3 (IPPCP) Compression VPN Encryption AIM-Enhanced Performance	S
WIC-1DSU-T1-V2	3.6.0	Updated one-port T1/fractional T1 DSU/CSU WIC	S
VWIC-1MFT-E1	3.6.0	1-Port RJ-48 Multiflex Trunk-E1	S
WIC-1ADSL	3.6.0	1-port ADSLoPOTS HWIC	S
WIC-1T	3.6.0	1-Port Serial WAN Interface Card	S
WIC-2A/S	3.6.0	2-Port Async/Sync Serial WAN Interface Card	S
WIC-2T	3.6.0	2-Port Serial WAN Interface Card	S
WIC-1ADSL-DG	3.6.2	1-port ADSLoPOTS WIC with Dying Gasp	S
WIC-1ADSL-I-DG	3.6.2	1-port ADSLoISDN Wan Interface Card	S
WIC-1B-U-V2	3.6.2	1-Port ISDN BRI NT-1 WIC	S
WIC-1SHDSL	3.6.2	One port G.shdsl WIC with 4-wire support	S

Cisco 1700 Series—Supported Technologies

The following technologies are supported by the Cisco 1700 Series in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111
- Frame Relay, page 6-114
- Point to Point, page 6-115
- Physical Technologies, page 6-116

- ACL, page 6-122
- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125
- Additional Technologies, page 6-127
- Local Switching, page 6-128
- BFD, page 6-129

Cisco 1700 Series—Supported Service Events

Table 6-13 Supported Service Events for Cisco 1700 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Card In/Out	3.6.1	Y
Link Down/Up	3.6.1	Y
Device Unreachable	3.6.1	N
CPU Over Utilized	3.6.1	N
Memory Over Utilized	3.6.1	N
Device Unsupported	3.6.1	N
Module Unsupported	3.6.1	N
Port Flapping	3.6.1	N
Port Down	3.6.1	Y
Card Up/Down	3.6.1	Y

Cisco 1800 Series Integrated Services Routers

This section includes the following information about Cisco 1800 Series routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco 1800 Series Integrated Services Routers):

- Cisco 1800 Series—Supported Software Versions, page 6-11
- Cisco 1800 Series—Supported Topologies, page 6-11
- Cisco 1800 Series—Supported Modules, page 6-12
- Cisco 1800 Series—Supported Technologies, page 6-12
- Cisco 1800 Series—Supported Service Events, page 6-13

Cisco 1800 Series—Supported Software Versions

Table 6-14 Supported Software Versions for Cisco 1800 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
12.3(14)T	3.6.2	S
12.4(11)T	3.6.2	S
12.4(3b)	3.6.2	V
12.4(3)	3.6.3	S
12.3(8)T11	3.6.4	S
12.4(12)	3.6.4	S
12.4(12b)	3.6.4	S
12.4(17)	3.6.4	S
12.4(5a)	3.6.4	S
12.4(5b)	3.6.4	S
12.4(8)	3.6.4	S
12.4(22)T	3.6.7	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco 1800 Series—Supported Topologies

Table 6-15 Supported Topologies for Cisco 1800 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
ATM	ATM	3.6.0
BGP	BGP	3.6.0
Ethernet	Ethernet	3.6.0
GRE Tunnel	GRE Tunnel	3.6.0
Physical Layer	Physical Layer	3.6.0

Cisco 1800 Series—Supported Modules

Table 6-16 Supported Modules for Cisco 1800 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
WIC-1T	3.6.0	1-Port Serial WIC	S
WIC-2T	3.6.0	2-port serial WIC	S
WIC-1DSU-T1-V2	3.6.0	1-port T1/Fractional-T1 CSU/DSU WIC	S
WIC-1ADSL	3.6.0	1-port asymmetric DSL (ADSL) over basic telephone service WIC	S
WIC-2AM	3.6.0	2-port analog modem WIC	S
VWIC-2MFT-T1-DI	3.6.0	2-port RJ-48 multiflex trunk-T1 with drop and insert data only	S
VWIC-2MFT-G703	3.6.0	2-port RJ-48 multiflex trunk-G.703ñ data only	S
VWIC-2MFT-E1-DI	3.6.0	2-port RJ-48 multiflex trunk-E1 with drop and insert data only	S
AIM-VPN-EPII-PLUS	3.6.0	Virtual Private Network (VPN) Module	V
C1841 MOTHERBOARD WITH 2 FAST ETHERNET	3.6.0	C1841 Motherboard with 2 Fast Ethernet	S
HWIC-16A	3.6.0	16-Port Async HWIC	S
HWIC-4A/S	3.6.0	4-Port Async/Sync Serial HWIC	S
HWIC-4T	3.6.0	4-Port Serial HWIC	S
HWIC-8A	3.6.0	8-Port Async HWIC	S
HWIC-8A/S-232	3.6.0	8-Port Async/Sync Serial HWIC, EIA-232	S
WIC-1ADSL-DG	3.6.0	1-port ADSLoPOTS WIC with Dying Gasp	S
WIC-1SHDSL-V3	3.6.0	One port G.shdsl WIC with 4-wire support	S
WIC-1T	3.6.0	1-Port Serial WAN Interface Card	S
WIC-2A/S	3.6.0	2-Port Async/Sync Serial WAN Interface Card	S
WIC-2T	3.6.0	2-Port Serial WAN Interface Card	S
WIC-1B-U-V2	3.6.2	1-Port ISDN BRI NT-1 WIC	S
WIC-1DSU-T1-V2	3.6.2	Updated 1-Port T1/Fractional T1 DSU/CSU WAN Interface Card	S

Cisco 1800 Series—Supported Technologies

The following technologies are supported by the Cisco 1800 Series in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111
- Frame Relay, page 6-114

- Point to Point, page 6-115
- Physical Technologies, page 6-116
- ACL, page 6-122
- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125
- Additional Technologies, page 6-127
- Local Switching, page 6-128

Cisco 1800 Series—Supported Service Events

Table 6-17 Supported Service Events for Cisco 1800 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Primary HSRP Interface Active/Inactive	3.6.0	Y
Secondary HSRP Interface Active/Inactive	3.6.0	Y
All IP Interfaces Down / Active IP Interfaces Found	3.6.0	Y
Interface Status Down/Up	3.6.0	Y
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	Y
CPU Over Utilized	3.6.0	Y
Memory Over Utilized	3.6.0	Y
Device Unsupported	3.6.0	Y
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
VPN Leak	3.6.0	N
Cloud Problem	3.6.0	N
BGP Neighbor Down	3.6.0	Y
Card Up/Down	3.6.0	Y

Cisco 2500 Series Routers

This section includes the following information about Cisco 2500 Series routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco 2500 Series Routers):

- Cisco 2500 Series—Supported Software Versions, page 6-14
- Cisco 2500 Series—Supported Topologies, page 6-14
- Cisco 2500 Series—Supported Modules, page 6-15
- Cisco 2500 Series—Supported Technologies, page 6-15
- Cisco 2500 Series—Supported Service Events, page 6-15

Cisco 2500 Series—Supported Software Versions

Table 6-18 Supported Software Versions for Cisco 2500 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
11.2(18)	3.6.0	S
12.0(17a)	3.6.0	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco 2500 Series—Supported Topologies

Table 6-19 Supported Topologies for Cisco 2500 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
ATM	ATM	3.6.0
BGP	BGP	3.6.0
Ethernet	Ethernet	3.6.0
Framerelay	Framerelay	3.6.0
Physical Layer	Physical Layer	3.6.0

Cisco 2500 Series—Supported Modules

Table 6-20 Supported Modules for Cisco 2500 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
CPU-2500	3.6.0	Cisco 2500 CPU card	S

Cisco 2500 Series—Supported Technologies

The following technologies are supported by the Cisco 2500 Series in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111
- Frame Relay, page 6-114
- Physical Technologies, page 6-116
- MPLS, page 6-117
- VPN, page 6-120
- ACL, page 6-122
- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125
- Additional Technologies, page 6-127
- Local Switching, page 6-128

Cisco 2500 Series—Supported Service Events

Table 6-21 Supported Service Events for Cisco 2500 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Primary HSRP Interface Active/Inactive	3.6.0	N
Secondary HSRP Interface Active/Inactive	3.6.0	N
All IP Interfaces Down / Active IP Interfaces Found	3.6.0	Y
Interface Status Down/Up	3.6.0	Y
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N

Table 6-21 Supported Service Events for Cisco 2500 Series—Cisco ANA Version 3.6.7 (continued)

Event Name	ANA Version	Expedited
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
Broken LSP Discovered	3.6.0	N
BGP Neighbor Down	3.6.0	N
Card Up/Down	3.6.0	Y

Cisco 2600 Series Multiservice Platform Routers

This section includes the following information about Cisco 2600 Series routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco 2600 Series Multiservice Platform Routers):

- Cisco 2600 Series—Supported Software Versions, page 6-17
- Cisco 2600 Series—Supported Topologies, page 6-17
- Cisco 2600 Series—Supported Modules, page 6-18
- Cisco 2600 Series—Supported Technologies, page 6-19
- Cisco 2600 Series—Supported Service Events, page 6-19

Cisco 2600 Series—Supported Software Versions

Table 6-22 Supported Software Versions for Cisco 2600 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
11.3(10)T	3.6.1	S
12.0(3)T3	3.6.1	S
12.2(15)T	3.6.1	S
12.2(17a)	3.6.1	S
12.2(8)T5	3.6.1	S
12.3(17a)	3.6.1	S
12.3(4)*	3.6.1	S
12.4(10)	3.6.1	S
12.3(15a)	3.6.2	S
12.3(3i)	3.6.4	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco 2600 Series—Supported Topologies

Table 6-23 Supported Topologies for Cisco 2600 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
ATM	ATM	3.6.0
BGP	BGP	3.6.0
Ethernet	Ethernet	3.6.0
Framerelay	Framerelay	3.6.0
Physical Layer	Physical Layer	3.6.0

Cisco 2600 Series—Supported Modules

Table 6-24 Supported Modules for Cisco 2600 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
ATM-AIM	3.6.0	AIM (Advanced Integration Module) supporting ATM features for Cisco 2600, 2600XM, 2691, 3660, and 3700	S
WIC-1ADSL	3.6.0	1-port ADSLoPOTS WAN Interface Card (System)	S
VWIC-1MFT-T1	3.6.0	1-Port RJ-48 Multiflex Trunk-T1	S
VWIC-2MFT-T1	3.6.0	2-Port RJ-48 Multiflex Trunk-T1	S
VWIC-2MFT-T1-DIR	3.6.0	2-Port RJ-48 Multiflex Trunk-T1 With Drop and Insert	S
VWIC-1MFT-E1	3.6.0	1-Port RJ-48 Multiflex Trunk-E1	S
VWIC-2MFT-E1	3.6.0	2-Port RJ-48 Multiflex Trunk-E1	S
VWIC-2MFT-E1-DI	3.6.0	2-Port RJ-48 Multiflex Trunk-E1 With Drop and Insert	S
NM-1T3/E3	3.6.0	One-port clear-channel T3/E3 network module	S
NM-1A-T3 AND NM-1A-E3	3.6.0	DS3/E3 ATM Network Modules for the Cisco 2600, 2800, 3600, 3700 and 3800 Series Routers	S
VIC-4FXS/DID	3.6.0	4-port FXS voice/fax interface card (Note	S
VIC2-2E/M	3.6.0	2-port E+M voice/fax interface card	S
VIC2-2FXS	3.6.0	2-port FXS voice/fax interface card	S
AIM-VOICE-30	3.6.0	AIM supporting voice/fax DSP features	S
VIC-2FXO	3.6.0	Two-port FXO voice/fax interface card [also see VIC-2FXO-M1]	S
NM-2FE2W	3.6.0	2 10/100 Ethernet 2 WAN card slot network module	S
NM-1FE2W	3.6.0	1 10/100 Ethernet 2 WAN card slot network module	S
NM-1FE1R2W	3.6.0	1 10/100 Ethernet 14/16 Token Ring 2 WAN card slot network module	S
NM-2W	3.6.0	2 WIC slot network module, (WAN I/F cards offered separately)	S
NM-1T3/E3(12)	3.6.0	1-port Clear Channel	S
NM-1CE1T1-PRI	3.6.0	1-port Channelized E1/T1/ISDN PRI network module	S
NM-2CE1T1-PRI	3.6.0	2-port Channelized E1/T1/ISDN PRI network module	S
NM-8AM-V2	3.6.0	8-port analog modem network module with V.92	S
NM-16AM-V2	3.6.0	16-port analog modem network module with V.92	S
NM-HDV2	3.6.0	IP Communications high-density digital voice network module	S
NM-CUE-EC	3.6.0	Cisco Unity Express Network Module Enhanced Capacity	S
NM-AIC-64(6)	3.6.0	Alarm monitoring and control network module; 64 contact points and 16 control points	S
NM-NAM	3.6.0	Network analysis module	S

Cisco 2600 Series—Supported Technologies

The following technologies are supported by the Cisco 2600 Series in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111
- Frame Relay, page 6-114
- Point to Point, page 6-115
- Physical Technologies, page 6-116
- VPN, page 6-120
- ACL, page 6-122
- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125
- Additional Technologies, page 6-127
- Local Switching, page 6-128

Cisco 2600 Series—Supported Service Events

Table 6-25 Supported Service Events for Cisco 2600 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
All IP Interfaces Down / Active IP Interfaces Found	3.6.1	N
Interface Status Down/Up	3.6.1	N
Card In/Out	3.6.1	Y
Link Down/Up	3.6.1	Y
Device Unreachable	3.6.1	N
CPU Over Utilized	3.6.1	N
Memory Over Utilized	3.6.1	N
Device Unsupported	3.6.1	N
Module Unsupported	3.6.1	N
Port Flapping	3.6.1	N
Port Down	3.6.1	Y
Card Up/Down	3.6.1	Y

Cisco 2800 Series Integrated Services Routers

This section includes the following information about Cisco 2800 Series routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco 2800 Series Integrated Services Routers):

- Cisco 2800 Series—Supported Software Versions, page 6-20
- Cisco 2800 Series—Supported Topologies, page 6-21
- Cisco 2800 Series—Supported Modules, page 6-22
- Cisco 2800 Series—Supported Technologies, page 6-23
- Cisco 2800 Series—Supported Service Events, page 6-24

Cisco 2800 Series—Supported Software Versions

Table 6-26 Supported Software Versions for Cisco 2800 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
12.3(11)T5	3.6.2	S
12.3(11)T6	3.6.2	S
12.3(14)T	3.6.2	S
12.4(11)T	3.6.2	S
12.4(17)	3.6.3	S
12.3(14)T7	3.6.2	V
12.4(1)	3.6.1	S
12.4(10)	3.6.1	S
12.4(12)	3.6.1	S
12.4(3)	3.6.1	S
12.4(5)	3.6.1	S
12.4(7)	3.6.1	S
12.4(8)	3.6.1	S
12.3(8)T11	3.6.4	S
12.3(8)T5	3.6.4	S
12.3(8)T6	3.6.4	S
12.3(8)T8	3.6.4	S
12.3(8)T9	3.6.4	S
12.4(13c)	3.6.4	S
12.4(13d)	3.6.4	S
12.4(17)	3.6.4	S
12.4(1a)	3.6.4	S
12.4(2)T2	3.6.4	S

Table 6-26 Supported Software Versions for Cisco 2800 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
12.4(22)T	3.6.7	V
12.4(15)T	3.6.7	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco 2800 Series—Supported Topologies

Table 6-27 Supported Topologies for Cisco 2800 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
ATM	ATM	3.6.0
BGP	BGP	3.6.0
Ethernet	Ethernet	3.6.0
Framerelay	Framerelay	3.6.0
GRE Tunnel	GRE Tunnel	3.6.0
Physical Layer	Physical Layer	3.6.0

Cisco 2800 Series—Supported Modules

Table 6-28 Supported Modules for Cisco 2800 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
NM-1T3E3	3.6.0	1-port clear-channel T3/E3 network module	S
NM-8AM-V2	3.6.0	8-port analog modem network module with v.92	S
NM-16AM-V2	3.6.0	16-port analog modem network module with v.92	S
NM-1CE1T1-PRI	3.6.0	1-port Channelized E1/T1/ISDN PRI network module	S
NM-2CE1T1-PRI	3.6.0	2-port Channelized E1/T1/ISDN PRI network module	S
NM-HD-2V	3.6.0	2-slot IP Communications voice and fax network module	S
NM-HDV2	3.6.0	IP Communications high-density voice and fax network module	S
NM-CUE-EC	3.6.0	Cisco Unity Express Voice-Mail Network Module extended capacity	S
NM-NAM	3.6.0	network analysis module	S
HWIC-1FE	3.6.0	1-port Fast Ethernet HWIC	S
HWIC-1GE-SFP	3.6.0	Cisco Gigabit Ethernet High-Speed Interface Card	S
HWIC-4T	3.6.0	4-Port serial HWIC	S
HWIC-16A	3.6.0	16-Port Async HWIC	S
HWIC-ADSL-BST	3.6.0	2-port HWIC with 1-port ADSLoPOTS and 1-port ISDN BRI-S/T	S
HWIC-2SHDSL	3.6.0	2-port G.SHDSL HWIC with 2-wire and 4-wire support	S
HWIC-4SHDSL	3.6.0	4-port G.SHDSL HWIC with 2-wire, 4-wire, and 8-wire support	S
WIC-1ADSL	3.6.0	1-port asymmetric DSL (ADSL) over POTS service WIC	S
WIC-1SHDSL-V3	3.6.0	1-port G.SHDSL WIC with 4-wire support	S
VWIC2-1MFT-T1E1	3.6.0	1-Port T1/E1 Voice/WAN with Drop + Insert	S
VWIC-2MFT-T1-DI	3.6.0	2-port RJ-48 multiflex trunk-T1 with drop and insert	S
VWIC-2MFT-E1-DI	3.6.0	2-port RJ-48 multiflex trunk-E1 with drop and insert	S
VWIC-2MFT-G703	3.6.0	2-port RJ-48 multiflex trunk-G.703	S
VIC2-2FXS	3.6.0	2-port VIC-FXS	S
VIC2-2BRI-NTTE	3.6.0	2-port VIC card-BRI (NT and TE)	S
WIC-1AM-V2	3.6.0	1-port analog modem WIC (updated version)	S
WIC-2AM-V2	3.6.0	2-port analog modem WIC (updated version)	S
HWIC-1ADSLI	3.6.0	1-port ADSL over ISDN HWIC	S
HWIC-4ESW	3.6.0	4-port Cisco EtherSwitch 10BASE-T/100BASE-TX autosensing HWIC	S
EM-4BRI-NTTE	3.6.0	4-port BRI voice and fax expansion module	S
HWIC-4AS	3.6.0	4-Port Async/Sync Serial HWIC	S
HWIC-8A	3.6.0	8-Port Async HWIC	S
HWIC-8A/S-232	3.6.0	8-Port Async/Sync Serial HWIC, EIA-232	S
NM-16A	3.6.0	16-Port Async HWIC	S

Table 6-28 Supported Modules for Cisco 2800 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
NM-1A-T3	3.6.0	1-Port DS3 ATM Network Module	S
NM-32A	3.6.0	32 port Asynchronous Module	S
NM-4A/S	3.6.0	4-Port Async/Sync Serial Network Module	S
NM-4B-U	3.6.0	4-Port ISDN-BRI with NT-1 Network Module	S
NM-4T	3.6.0	4-Port Serial Network Module	S
NM-8B-U	3.6.0	8-Port ISDN-BRI with NT-1 Network Module	S
WIC-1T	3.6.0	1-Port Serial WAN Interface Card	S
WIC-2AS	3.6.0	2-Port Async/Sync Serial WAN Interface Card	S
WIC-2T	3.6.0	2-Port Serial WAN Interface Card	S
NM-16AS	3.6.2	16-Port Async/Sync Serial Network Module	S
NM-1A-E3	3.6.2	1-Port E3 ATM Network Module	S
NM-1HSSI	3.6.2	Single port HSSI network module	S
NM-4B-ST	3.6.2	4-Port ISDN-BRI Network Module	S
NM-8B-ST	3.6.2	8-Port ISDN-BRI Network Module	S
WIC-1ADSL-DG	3.6.2	1-port ADSLoPOTS WIC with Dying Gasp	S
WIC-1ADSL-I-DG	3.6.2	1-port ADSLoISDN Wan Interface Card	S
WIC-1B-U-V2	3.6.2	1-Port ISDN BRI NT-1 WIC	S
WIC-1DSU-T1-V2	3.6.2	Updated 1-Port T1/Fractional T1 DSU/CSU WAN Interface Card	S
WIC-1SHDSL	3.6.2	One port G.shdsl WIC with 4-wire support	S
VWIC-1MFT-G703	3.6.7	1-Port RJ-48 Multiflex Trunk - E1 for unstructured G.703	V
HWIC-D-9ESW	3.6.7	9 Port FE Switch	V
VWIC2-1MFT-G703	3.6.7	1-Port T1/E1 Voice/WAN with D+I + unstructured E1 (G703)	S

Cisco 2800 Series—Supported Technologies

The following technologies are supported by the Cisco 2800 Series in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111
- Frame Relay, page 6-114
- Point to Point, page 6-115
- Physical Technologies, page 6-116
- VPN, page 6-120
- ACL, page 6-122

- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125
- Additional Technologies, page 6-127
- Local Switching, page 6-128
- CDP, page 6-132
- Discovery Protocol, page 6-132

Cisco 2800 Series—Supported Service Events

Table 6-29 Supported Service Events for Cisco 2800 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
All IP Interfaces Down / Active IP Interfaces Found	3.6.1	Y
Interface Status Down/Up	3.6.1	Y
Card In/Out	3.6.1	Y
Link Down/Up	3.6.1	Y
Device Unreachable	3.6.1	N
CPU Over Utilized	3.6.1	N
Memory Over Utilized	3.6.1	N
Device Unsupported	3.6.1	N
Module Unsupported	3.6.1	N
Port Flapping	3.6.1	N
Port Down	3.6.1	Y
Card Up/Down	3.6.1	Y

Cisco 3600 Series Multiservice Platform Routers

This section includes the following information about Cisco 3600 Series routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco 3600 Series Multiservice Platform Routers):

- Cisco 3600 Series—Supported Software Versions, page 6-25
- Cisco 3600 Series—Supported Topologies, page 6-25
- Cisco 3600 Series—Supported Modules, page 6-25
- Cisco 3600 Series—Supported Technologies, page 6-26
- Cisco 3600 Series—Supported Service Events, page 6-27

Cisco 3600 Series—Supported Software Versions

Table 6-30 Supported Software Versions for Cisco 3600 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOS 12.0(0.20)T	3.6.0	S
IOS 12.0(3)T3	3.6.0	S
IOS 12.0(4)T	3.6.0	S
IOS 12.0(5)	3.6.0	S
IOS 12.0(5)T1	3.6.0	S
IOS 12.0(6.5)T3	3.6.0	S
IOS 12.0(7)XK1	3.6.0	S
IOS 12.1(20)	3.6.0	S
IOS 12.2(12)	3.6.0	S
IOS 12.2(4)T1	3.6.0	S
IOS 12.2(8)T5	3.6.0	S
IOS 12.2(27)	3.6.2	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco 3600 Series—Supported Topologies

Table 6-31 Supported Topologies for Cisco 3600 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.0
Physical Layer	Physical Layer	3.6.0

Cisco 3600 Series—Supported Modules

Table 6-32 Supported Modules for Cisco 3600 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
PM-1E	3.6.0	One Port Ethernet	S
PM-C3600-1FE-TX	3.6.0	One port FastEthernet TX	S

Table 6-32 Supported Modules for Cisco 3600 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
NM-2FE-2W	3.6.0	FastEthernet/WAN	S
WIC-SERIAL-1T	3.6.0	WAN Interface Card - Serial (1T)	S
PM-4E	3.6.0	Four Port Ethernet	S
CPU-3600	3.6.0	Cisco 3600 CPU	S
PM-2CE1-UNBALANCED	3.6.0	Two Port Channelized E1/PRI (75 ohm, unbalanced)	S

Cisco 3600 Series—Supported Technologies

The following technologies are supported by the Cisco 3600 Series in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111
- Frame Relay, page 6-114
- Point to Point, page 6-115
- Physical Technologies, page 6-116
- MPLS, page 6-117
- MPLS-TE, page 6-119
- VPN, page 6-120
- PWE3, page 6-121
- ACL, page 6-122
- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125
- Additional Technologies, page 6-127
- Local Switching, page 6-128

Cisco 3600 Series—Supported Service Events

Table 6-33 Supported Service Events for Cisco 3600 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Primary HSRP Interface Active/Inactive	3.6.0	N
Secondary HSRP Interface Active/Inactive	3.6.0	N
All IP Interfaces Down / Active IP Interfaces Found	3.6.0	Y
Interface Status Down/Up	3.6.0	Y
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
VPN Leak	3.6.0	N
Cloud Problem	3.6.0	N
Broken LSP Discovered	3.6.0	N
MPLS Black Hole	3.6.0	N
Layer 2 Tunnel Down	3.6.0	N
MPLS TE Tunnel Down/Flapping	3.6.0	N
BGP Neighbor Down	3.6.0	N
Card Up/Down	3.6.0	Y

Cisco 3700 Series Multiservice Access Routers

This section includes the following information about Cisco 3700 Series routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco 3700 Series Multiservice Access Routers):

- Cisco 3700 Series—Supported Software Versions, page 6-28
- Cisco 3700 Series—Supported Topologies, page 6-28
- Cisco 3700 Series—Supported Modules, page 6-29
- Cisco 3700 Series—Supported Technologies, page 6-29
- Cisco 3700 Series—Supported Service Events, page 6-30

Cisco 3700 Series—Supported Software Versions

Table 6-34 Supported Software Versions for Cisco 3700 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
12.4(9)T	3.6.0	S
12.3(15b)	3.6.2	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco 3700 Series—Supported Topologies

Table 6-35 Supported Topologies for Cisco 3700 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.0
MPLS	MPLS	3.6.0
Physical Layer	Physical Layer	3.6.0
LAG	LAG	3.6.0

Cisco 3700 Series—Supported Modules

Table 6-36 Supported Modules for Cisco 3700 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
NM-16ESW	3.6.0	16 port 10/100 EtherSwitch NM	S
NM-1FE2W	3.6.0	1 10/100 Ethernet 2 WAN Card Slot Network Module	S
NM-2FE2W	3.6.0	2 10/100 Ethernet 2 WAN Card Slot Network Module	S
NM-2W	3.6.0	2 WAN Card Slot Network Module (no LAN)	S
NM-1T3/E3	3.6.0	1-Port Clear-channel T3/E3 Network Module	S
NM-1HSSI	3.6.0	Single port HSSI network module	S
NM-1CE1T1-PRI	3.6.0	1-Port Channelized T1 / E1 Modules with PRI Network Modules	S
NM-2CE1T1-PRI	3.6.0	2-Port Channelized T1 / E1 Modules with PRI Network Modules	S
VIC-2E/M	3.6.0	Two-port Voice Interface Card - EandM	S
VIC-2FXO	3.6.0	Two-port Voice Interface Card - FXO	S
VIC-2FXS	3.6.0	Two-port Voice Interface Card - FXS	S
VWIC-2MFT-G703	3.6.0	2-Port RJ-48 Multiflex Trunk - G.703	S
VWIC-2MFT-T1	3.6.0	2-Port RJ-48 Multiflex Trunk - T1	S
VWIC-2MFT-E1	3.6.0	2-Port RJ-48 Multiflex Trunk - E1	S
WIC-2AM	3.6.0	Two-port Analog Modem WAN Interface Card	S
WIC-1ADSL-I-DG	3.6.0	1-Port ADSLoISDN WAN Interface Card	S

Cisco 3700 Series—Supported Technologies

The following technologies are supported by the Cisco 3700 Series in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111
- Frame Relay, page 6-114
- Point to Point, page 6-115
- Physical Technologies, page 6-116
- MPLS, page 6-117
- MPLS-TE, page 6-119
- VPN, page 6-120
- PWE3, page 6-121
- ACL, page 6-122
- Physical Equipment, page 6-123

- Base Logical Components, page 6-124
- Common, page 6-125
- Additional Technologies, page 6-127
- Local Switching, page 6-128

Cisco 3700 Series—Supported Service Events

Table 6-37 Supported Service Events for Cisco 3700 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Primary HSRP Interface Active/Inactive	3.6.0	Y
Secondary HSRP Interface Active/Inactive	3.6.0	Y
All IP Interfaces Down / Active IP Interfaces Found	3.6.0	Y
Interface Status Down/Up	3.6.0	Y
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	Y
CPU Over Utilized	3.6.0	Y
Memory Over Utilized	3.6.0	Y
Device Unsupported	3.6.0	Y
Module Unsupported	3.6.0	Y
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
VPN Leak	3.6.0	Y
Broken LSP Discovered	3.6.0	Y
MPLS Black Hole	3.6.0	Y
Layer 2 Tunnel Down	3.6.0	Y
MPLS TE Tunnel Down/Flapping	3.6.0	Y
BGP Neighbor Down	3.6.0	Y
Card Up/Down	3.6.0	Y

Cisco 3800 Series Integrated Services Routers

This section includes the following information about Cisco 3800 Series routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco 3800 Series Integrated Services Routers):

- Cisco 3800 Series—Supported Software Versions, page 6-31
- Cisco 3800 Series—Supported Topologies, page 6-31
- Cisco 3800 Series—Supported Modules, page 6-32
- Cisco 3800 Series—Supported Technologies, page 6-33
- Cisco 3800 Series—Supported Service Events, page 6-33

Cisco 3800 Series—Supported Software Versions

Table 6-38 Supported Software Versions for Cisco 3800 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOS 12.3(14)T	3.6.2	S
IOS 12.3(14)T7	3.6.2	S
IOS 12.4(11)T	3.6.2	V
IOS 12.4(22)T	3.6.7	V

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco 3800 Series—Supported Topologies

Table 6-39 Supported Topologies for Cisco 3800 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
ATM	ATM	3.6.0
BGP	BGP	3.6.0
Ethernet	Ethernet	3.6.0
PPP/HDLC	PPP or HDLC	3.6.0
PWE3 (Martini)	Tunnel	3.6.0
GRE Tunnel	GRE Tunnel	3.6.0
VPN (VRF)	VPN	3.6.0
Physical Layer	Physical Layer	3.6.0

Cisco 3800 Series—Supported Modules

Table 6-40 Supported Modules for Cisco 3800 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
AIM-VPN/EPII-PLUS	3.6.1	DES/3DES/AES VPN Encryption/Compression	S
HWIC-16A	3.6.1	16-Port Async HWIC	S
HWIC-1GE-SFP	3.6.1	GigE High Speed WIC With One SFP Slot	S
HWIC-4A/S	3.6.1	4-Port Async/Sync Serial HWIC	S
HWIC-4T	3.6.1	4-Port Serial HWIC	S
HWIC-8A	3.6.1	8-Port Async HWIC	S
HWIC-8A/S-232	3.6.1	8-Port Async/Sync Serial HWIC, EIA-232	S
NM-16A	3.6.1	16 port Asynchronous Module	S
NM-16A/S	3.6.2	16-Port Async/Sync Serial Network Module	S
NM-1A-E3	3.6.2	1-Port E3 ATM Network Module	S
NM-1A-T3	3.6.1	1-Port DS3 ATM Network Module	S
NM-1CE1T1-PRI	3.6.1	1-Port Channelized E1/T1/ISDN-PRI Network Module	S
NM-1FE1R2W	3.6.1	1 10/100 Ethernet 1 4/16 Token-Ring 2 WAN Card Slot NM	S
NM-1FE2W	3.6.1	Network Module with One-Fast Ethernet and Two-WIC slots	S
NM-1GE	3.6.2	1 Port GE Network Module	S
NM-1HSSI	3.6.1	Single port HSSI network module	S
NM-1T3/E3	3.6.1	One port T3/E3 network module	S
NM-2CE1T1-PRI	3.6.1	2-Port Channelized E1/T1/ISDN-PRI Network Module	S
NM-2W	3.6.1	2 WAN Card Slot Network Module (no LAN)	S
NM-32A	3.6.1	32 port Asynchronous Module	S
NM-4A/S	3.6.1	4-Port Async/Sync Serial Network Module	S
NM-4B-S/T	3.6.2	4-Port ISDN-BRI Network Module	S
NM-4B-U	3.6.1	4-Port ISDN-BRI with NT-1 Network Module	S
NM-4T	3.6.1	4-Port Serial Network Module	S
NM-8B-S/T	3.6.2	8-Port ISDN-BRI Network Module	S
NM-8B-U	3.6.1	8-Port ISDN-BRI with NT-1 Network Module	S
WIC-1ADSL	3.6.1	1-port ADSL WAN Interface Card	S
WIC-1ADSL-DG	3.6.2	1-port ADSLoPOTS WIC with Dying Gasp	S
WIC-1ADSL-I-DG	3.6.2	1-port ADSLoISDN Wan Interface Card	S
WIC-1B-U-V2	3.6.2	1-Port ISDN BRI NT-1 WIC	S
WIC-1DSU-T1-V2	3.6.2	Updated 1-Port T1/Fractional T1 DSU/CSU WAN Interface Card	S
WIC-1SHDSL	3.6.2	1-port G.shdsl WIC (two wire only)	S
WIC-1SHDSL-V2	3.6.1	1-Port G.SHDSL WIC with Four Wire Support	S

Table 6-40 Supported Modules for Cisco 3800 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
WIC-1T	3.6.1	1-Port Serial WAN Interface Card	S
WIC-2A/S	3.6.1	2-Port Async/Sync Serial WAN Interface Card	S
WIC-2T	3.6.1	2-Port Serial WAN Interface Card	S

Cisco 3800 Series—Supported Technologies

The following technologies are supported by the Cisco 3800 Series in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111
- Frame Relay, page 6-114
- Point to Point, page 6-115
- Physical Technologies, page 6-116
- MPLS, page 6-117
- MPLS-TE, page 6-119
- VPN, page 6-120
- PWE3, page 6-121
- ACL, page 6-122
- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125

Cisco 3800 Series—Supported Service Events

Table 6-41 Supported Service Events for Cisco 3800 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Discard Packets	3.6.0	N

Table 6-41 Supported Service Events for Cisco 3800 Series—Cisco ANA Version 3.6.7 (continued)

Event Name	ANA Version	Expedited
Dropped Packets	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
BGP Neighbor Down	3.6.0	Y
Card Up/Down	3.6.0	Y

Cisco 7200 Series Routers

This section includes the following information about Cisco 7200 Series routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco 7200 Series Routers):

- Cisco 7200 Series—Supported Software Versions, page 6-34
- Cisco 7200 Series—Supported Topologies, page 6-36
- Cisco 7200 Series—Supported Modules, page 6-36
- Cisco 7200 Series—Supported Technologies, page 6-39
- Cisco 7200 Series—Supported Service Events, page 6-39

Cisco 7200 Series—Supported Software Versions

Table 6-42 Supported Software Versions for Cisco 7200 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOS 12.0(32)S6	3.6.0	S
IOS 12.1(10)E	3.6.0	S
IOS 12.1(19)E6	3.6.0	S
IOS 12.1(1a)	3.6.0	S
IOS 12.2(12)	3.6.0	V
IOS 12.2(15)B	3.6.0	V
IOS 12.2(15)T5	3.6.0	V
IOS 12.2(18.2)	3.6.0	V
12.2(31)SB3x	3.6.1	S
IOS 12.2(33)SRA	3.6.0	V
IOS 12.3(10)	3.6.0	V

Table 6-42 Supported Software Versions for Cisco 7200 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOS 12.3(12.10)	3.6.0	V
IOS 12.3(15a)	3.6.0	V
IOS 12.3(3)B1	3.6.0	V
IOS 12.3(7)XI7a	3.6.0	V
IOS 11.3(7)T	3.6.1	V
IOS 12.0(22)S5	3.6.1	V
IOS 12.0(23)S3.0619	3.6.1	V
IOS 12.0(23)S4	3.6.1	V
IOS 12.0(23)S6	3.6.1	V
IOS 12.0(23)S6.0412	3.6.1	V
IOS 12.0(24)S3	3.6.1	V
IOS 12.0(25)S2	3.6.1	V
IOS 12.0(26)S4	3.6.1	V
IOS 12.0(26)S5	3.6.1	V
IOS 12.0(26)S6	3.6.1	V
IOS 12.0(27)S1	3.6.1	V
IOS 12.4(11)T1	3.6.1	V
IOS 12.0(21)s7	3.6.2	S
IOS 12.2(18)s3	3.6.2	S
IOS 12.2(25)s2	3.6.2	S
IOS 12.2(25)s6	3.6.2	S
IOS 12.2(25)s9	3.6.2	S
IOS 12.3(10b)	3.6.2	S
IOS 12.3(10c)	3.6.2	S
IOS 12.3(10d)	3.6.2	S
IOS 12.3(20)	3.6.2	S
IOS 12.3(21)	3.6.2	S
IOS 12.3(6e)	3.6.2	S
IOS 12.3(6f)	3.6.2	S
IOS 12.3(17)	3.6.2	S
IOS 12.2(33)SRC	3.6.2	S[1]
IOS 12.2(27)SBC2	3.6.2	S
IOS 12.3(17a)	3.6.2	S
IOS 12.2(18)S12	3.6.2	V
IOS 12.0(33)S	3.6.2	S

Table 6-42 Supported Software Versions for Cisco 7200 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOS 12.0(33)S1	3.6.2	S
IOS 12.2(31)SB10	3.6.3	S
IOS 12.3(26)	3.6.4	S
IOS 12.2(31)SB12	3.6.4	S
IOS 12.2(31)SB	3.6.4	S
IOS 12.2(33)SRD1	3.6.6	V[2, 3]
IOS 12.2(33)SRC3	3.6.7	V[4]

[1, 2, 4]Physical Inventory for this IOS version is not modeled, as inventory data is not available via CLI or SNMP. For clarification, see the release notes for CDETS CSCtc43118.

[3]Support verified in ANA 3.6.6

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco 7200 Series—Supported Topologies

Table 6-43 Supported Topologies for Cisco 7200 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
ATM	ATM	3.6.0
BGP	BGP	3.6.0
Ethernet	Ethernet	3.6.0
Framerelay	Framerelay	3.6.0
MPLS	MPLS	3.6.0
PPP/HDLC	PPP or HDLC	3.6.0
Physical Layer	Physical Layer	3.6.0

Cisco 7200 Series—Supported Modules

Table 6-44 Supported Modules for Cisco 7200 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
PA-FE-TX	3.6.0	1-Port Fast Ethernet 100BaseTx Port Adapter	S

Table 6-44 Supported Modules for Cisco 7200 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
PA-4R-DTR	3.6.0	4-port dedicated Token Ring, 4/16 Mbps, half duplex (HDX) or full duplex (FDX)	S
PA-2T3+	3.6.0	Two-port clear-channel DS3 port adapter	S
PA-4R-DTR	3.6.0	4-port Token Ring Port Adapter	S
PA-8E	3.6.0	8-Port 10BaseT Ethernet Port Adapter	S
PA-4E	3.6.0	4-Port 10BaseT Ethernet Port Adapter	S
NPE-100	3.6.0	Cisco 7200 Series Network Processing Engine 100	S
NSE-1	3.6.0	Cisco 7200 Series Network Services Engine, NSE-1	S
NPE-150	3.6.0	Cisco 7200 Series Network Processing Engine 150	S
NPE-200	3.6.0	Network Processing Engine NPE-200	S
NPE-300	3.6.0	Network Processing Engine NPE-300	S
NPE-225	3.6.0	Cisco 7200 Network Processing Engine NPE-225	S
C7200-I/O-GE+E	3.6.0	Cisco 7200 Series 1-Port Gigabit Ethernet and 1-Port Ethernet Input/Output Controller	S
C7200-I/O-2FE/E	3.6.0	Cisco 7200 Series 2-Port 10/100 Auto-Sensing Fast Ethernet Input/Output Controller	S
ATM WAN OC3+ (MM) /PA-A1	3.6.0	ATM WAN OC3+ (MM) Port adapter, 1 port. Port adapter	S
C7200-IO	3.6.0	I/O controller with no Ethernet port	S
NPE-400	3.6.0	Cisco 7200VXR Network Processing Engine NPE-400, including 256 MB SDRAM	S
NPE-G1	3.6.0	Cisco 7200 Series NPE-G1 including 256 MB default DRAM and 64 MB default flash memory	S
PA-MC-8E1	3.6.0	8-port MultiChannel E1 Port Adapter	S
PA-MC-E3	3.6.0	1-port MultiChannel E3 Port Adapter	S
PA-MC-2T	3.6.0	2-port multichannel T1 with integrated channel service units (CSUs/DSUs)	S
PA-2FE-TX	3.6.0	2-Port Fast Ethernet 100Base TX Port Adapter	S
PA-T3	3.6.0	One-port clear-channel DS3 port adapter	S
PA-POS-OC3SMI	3.6.0	Single-Mode Intermediate Reach PoS, OC3 Port Adapter	S
PA-POS-OC3MM	3.6.0	MultiMode PoS, OC3 Port Adapter	S
PA-POS-OC3SML	3.6.0	Single-Mode Long Reach PoS, OC3 Port Adapter	S
PA-MC-2T	3.6.0	Two-port enhanced multichannel T3 port adapter	S
PA-A6-OC3SMI	3.6.0	1-Port Enhanced ATM OC3c/STM1 Singlemode (IR) Port Adapter	S
PA-FE-FX	3.6.0	1-Port Fast Ethernet 100BaseFx Port Adapter	S
PA-MCX-8TE1	3.6.0	8 port multichannel T1/E1 8PRI port adapter	S
PA-MC-2E1/120	3.6.0	2-Port Multichannel E1/PRI Port Adapter	S

Table 6-44 Supported Modules for Cisco 7200 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
PA-MC-T3	3.6.0	Single port enhanced multichannel T3 port adapter	S
CX-FEIP-1FX	3.6.0	1-port fast ethernet interface processor (100TX)	S
PA-A3-OC3SML	3.6.0	Single port ATM OC3c/STM1 Single Mode (LR) Port Adapter	S
PA-A3-OC3SMI	3.6.0	Single port ATM OC3c/STM1 Single Mode (IR) Port Adapter	S
PA-A3-OC3MM	3.6.0	Single port ATM OC3c/STM1 Multi Mode Port Adapter	S
OSM-1OC48-POS-SI	3.6.0	1-port OC-48/STM-16 SONET/SDH enhanced OSM, single-mode, intermediate-reach with 4 GE	S
WS-X6582-2PA	3.6.0	Enhanced FlexWAN Module, Fabric-enabled	S
WS-X6582-2PA	3.6.0	FlexWAN Module	S
PA-GE	3.6.0	Gigabit Ethernet Port Adapter	S
PA-MC-8TE1	3.6.0	8 port multichannel T1/E1 8PRI port adapter	S
NPE-G2	3.6.0	7200 series NPE-G2 engine with 3 GE/FE/E ports	S
PA-MCX-4TE1	3.6.0	4 port MIX-enabled multichannel T1/E1 with CSU/DSU	S
PA-8T1	3.6.1	8-port channelized T1	S
PA-CHSTM1	3.6.1	4 port channelized STM-1 card	S
PA-MC-STM1-SMI	3.6.1	1 port multichannel STM-1 single mode port adapter Spare	S
PA-MC-T3-EC	3.6.1	Enhanced 1 port multichannel PA	S
PA-POS-2OC3	3.6.1	2 Port Packet/SONET OC3c/STM1 Port Adapter	S
SA-VAM	3.6.1	VPN Acceleration Module	S
PA-H	3.6.1	1-Port HSSI Port Adapter, Spare	S
C7200-I/O-FE	3.6.1	7200 I/O FE Controller.	S
PA-A3-T3	3.6.1	1-Port ATM Enhanced DS3 Port Adapter	S
PA-A3-E3	3.6.1	1-Port ATM Enhanced E3 Port Adapter	S
WS-G5487	3.6.1	1000Base-ZX extended reach GBIC (singlemode)	S
WS-G5486	3.6.1	1000Base-ZX extended reach GBIC (singlemode)	S
WS-G5484	3.6.1	1000Base-ZX extended reach GBIC (singlemode)	S
VSA	3.6.1	VPN Service Adapter	S
PA-MC-2T3-EC	3.6.1	2 port multichannel T3 port adapter	S
PA-A6-OC3MM	3.6.1	1 Port Enh ATM OC3c/STM1 Multimode Port Adapter	S
VAM2	3.6.2	VPN Acceleration Module 2	S
PA-A6-T3	3.6.2	1Port Enh ATM DS3 Port Adapter	S
SA-VAM2	3.6.2	AES wide key crypto card	S
PA-POS-OC3	3.6.4	1-Port Packet/SONET OC3c/STM1 Port Adapter	S
7201	3.6.4	Cisco 7201 (c7201) processor	S
PWR-7200-DC	3.6.4	Cisco 7200 DC power supply	S
PWR-7200-AC	3.6.6	Cisco 7200 AC power supply	V

Table 6-44 Supported Modules for Cisco 7200 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
C7200-JC-PA	3.6.7	Cisco 7200VXR Series Port Adapter Jacket Card.	V
SFP-GE-S	3.6.7	1000BASE-Sx Short wavelength gigabit ethernet SFP.	V
SFP-GE-L	3.6.7	1000BASE-LH/LX pluggable transceiver	V
PA-MC-8TE1+	3.6.7	8-port multichannel T1/E1 8PRI port adapter	V
PA-T3+	3.6.7	1-port T3 Serial Port Adapter Enhanced	V
PA-2T3/E3-EC	3.6.7	Cisco 2-Port Clear Channel Enhanced Capability Port Adapter	V

Cisco 7200 Series—Supported Technologies

The following technologies are supported by the Cisco 7200 Series in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111
- Frame Relay, page 6-114
- Point to Point, page 6-115
- Physical Technologies, page 6-116
- MPLS, page 6-117
- MPLS-TE, page 6-119
- VPN, page 6-120
- PWE3, page 6-121
- ACL, page 6-122
- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125
- Additional Technologies, page 6-127
- Local Switching, page 6-128
- BFD, page 6-129

Cisco 7200 Series—Supported Service Events

Table 6-45 Supported Service Events for Cisco 7200 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Primary HSRP Interface Active/Inactive	3.6.0	N

Table 6-45 Supported Service Events for Cisco 7200 Series—Cisco ANA Version 3.6.7 (continued)

Event Name	ANA Version	Expedited
Secondary HSRP Interface Active/Inactive	3.6.0	N
All IP Interfaces Down / Active IP Interfaces Found	3.6.0	Y
Interface Status Down/Up	3.6.0	Y
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
VPN Leak	3.6.0	N
Cloud Problem	3.6.0	N
Broken LSP Discovered	3.6.0	N
MPLS Black Hole	3.6.0	N
Layer 2 Tunnel Down	3.6.0	N
MPLS TE Tunnel Down/Flapping	3.6.0	N
BGP Neighbor Down	3.6.0	N
Card Up/Down	3.6.0	Y

Cisco 7400 Series Routers

This section includes the following information about Cisco 7400 Series routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco 7400 Series Routers):

- Cisco 7400 Series—Supported Software Versions, page 6-41
- Cisco 7400 Series—Supported Topologies, page 6-42
- Cisco 7400 Series—Supported Modules, page 6-43
- Cisco 7400 Series—Supported Technologies, page 6-43
- Cisco 7400 Series—Supported Service Events, page 6-44

Cisco 7400 Series—Supported Software Versions

Table 6-46 Supported Software Versions for Cisco 7400 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOS 12.0(32)S6	3.6.0	S
IOS 12.1(10)E	3.6.0	S
IOS 12.1(19)E6	3.6.0	S
IOS 12.1(1a)	3.6.0	S
IOS 12.2(12)	3.6.0	S
IOS 12.2(15)B	3.6.0	S
IOS 12.2(15)T5	3.6.0	S
IOS 12.2(18.2)	3.6.0	S
IOS 12.2(31)SB3x	3.6.1	S
IOS 12.2(34)	3.6.0	S
IOS 12.3(10)	3.6.0	S
IOS 12.3(12.10)	3.6.0	S
IOS 12.3(15a)	3.6.0	S
IOS 12.3(3)B1	3.6.0	S
IOS 12.3(7)XI7a	3.6.0	S
IOS 12.0(22)S5	3.6.1	S
IOS 12.0(23)S3.0619	3.6.1	S
IOS 12.0(23)S4	3.6.1	S
IOS 12.0(23)S6	3.6.1	S
IOS 12.0(23)S6.0412	3.6.1	S
IOS 12.0(24)S3	3.6.1	S
IOS 12.0(25)S2	3.6.1	S
IOS 12.0(26)S4	3.6.1	S

Table 6-46 Supported Software Versions for Cisco 7400 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOS 12.0(26)S5	3.6.1	S
IOS 11.3(7)T	3.6.1	S
IOS 12.0(26)S6	3.6.1	S
IOS 12.0(27)S1	3.6.1	S
IOS 12.4(11)T1	3.6.1	S
IOS 12.2(33)SRA	3.6.2	S
IOS 12.2(28)SB	3.6.2	S
IOS 12.3(14)	3.6.2	S
IOS 12.0(33)S	3.6.2	S
IOS 12.0(33)S1	3.6.2	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco 7400 Series—Supported Topologies

Table 6-47 Supported Topologies for Cisco 7400 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
BGP	BGP	3.6.0
Ethernet	Ethernet	3.6.0
Framerelay	Framerelay	3.6.0
MPLS	MPLS	3.6.0
PPP/HDLC	PPP or HDLC	3.6.0
Physical Layer	Physical Layer	3.6.0
LAG	LAG	3.6.0

Cisco 7400 Series—Supported Modules

Table 6-48 Supported Modules for Cisco 7400 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
PA-FE-TX	3.6.0	1-Port Fast Ethernet 100BaseTx Port Adapter	S
PA-4R-DTR	3.6.0	4-port dedicated Token Ring, 4/16 Mbps, half duplex (HDX) or full duplex (FDX)	S
PA-2T3	3.6.0	Two-port clear-channel DS3 port adapter	S
PA-4R-DTR	3.6.0	4-port Token Ring Port Adapter	S
PA-8E	3.6.0	8-Port 10BaseT Ethernet Port Adapter	S
PA-4E	3.6.0	4-Port 10BaseT Ethernet Port Adapter	S
PA-MC-8E1	3.6.0	8-port MultiChannel E1 Port Adapter	S
PA-MC-E3	3.6.0	1-port MultiChannel E3 Port Adapter	S
PA-MC-2T	3.6.0	2-port multichannel T1 with integrated channel service units (CSUs)/DSUs	S
PA-2FE-TX	3.6.0	2-Port Fast Ethernet 100Base TX Port Adapter	S
PA-T3	3.6.0	One-port clear-channel DS3 port adapter	S
PA-POS-OC3SMI	3.6.0	Single-Mode Intermediate Reach PoS, OC3 Port Adapter	S
PA-POS-OC3MM	3.6.0	MultiMode PoS, OC3 Port Adapter	S
PA-POS-OC3SML	3.6.0	Single-Mode Long Reach PoS, OC3 Port Adapter	S
PA-FE-FX	3.6.0	1-Port Fast Ethernet 100BaseFx Port Adapter	S
PA-MC-8TE1	3.6.0	8 port multichannel T1/E1 8PRI port adapter	S
PA-MC-2E1/120	3.6.0	2-Port Multichannel E1/PRI Port Adapter	S
PA-MC-T3	3.6.0	Single port enhanced multichannel T3 port adapter	S
PA-A3-OC3SML	3.6.0	Single port ATM OC3c/STM1 Single Mode (LR) Port Adapter	S
PA-A3-OC3SMI	3.6.0	Single port ATM OC3c/STM1 Single Mode (IR) Port Adapter	S
PA-A3-OC3MM	3.6.0	Single port ATM OC3c/STM1 Multi Mode Port Adapter	S
PA-GE	3.6.0	Gigabit Ethernet Port Adapter	S

Cisco 7400 Series—Supported Technologies

The following technologies are supported by the Cisco 7400 Series in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111
- Frame Relay, page 6-114
- Point to Point, page 6-115
- Physical Technologies, page 6-116

- MPLS, page 6-117
- MPLS-TE, page 6-119
- VPN, page 6-120
- PWE3, page 6-121
- ACL, page 6-122
- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125
- Additional Technologies, page 6-127
- Local Switching, page 6-128

Cisco 7400 Series—Supported Service Events

Table 6-49 Supported Service Events for Cisco 7400 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Primary HSRP Interface Active/Inactive	3.6.0	N
Secondary HSRP Interface Active/Inactive	3.6.0	N
All IP Interfaces Down / Active IP Interfaces Found	3.6.0	Y
Interface Status Down/Up	3.6.0	Y
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
VPN Leak	3.6.0	N
Cloud Problem	3.6.0	N
Broken LSP Discovered	3.6.0	N
MPLS Black Hole	3.6.0	N
Layer 2 Tunnel Down	3.6.0	N

Table 6-49 Supported Service Events for Cisco 7400 Series—Cisco ANA Version 3.6.7 (continued)

Event Name	ANA Version	Expedited
MPLS TE Tunnel Down/Flapping	3.6.0	N
BGP Neighbor Down	3.6.0	N
Card Up/Down	3.6.0	Y

Cisco 7600 Series Routers

This section includes the following information about Cisco 7600 Series routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco 7600 Series Routers):

- Cisco 7600 Series—Supported Software Versions, page 6-45
- Cisco 7600 Series—Supported Topologies, page 6-46
- Cisco 7600 Series—Supported Modules, page 6-47
- Cisco 7600 Series—Supported Technologies, page 6-56
- Cisco 7600 Series—Supported Service Events, page 6-57

Cisco 7600 Series—Supported Software Versions

Table 6-50 Supported Software Versions for Cisco 7600 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOS 12.1(13)E6	3.6.1	S
IOS 12.1(20)E3	3.6.1	S
IOS 12.2(18)SXD	3.6.0	V
IOS 12.2(18)SXD2	3.6.1	S
IOS 12.2(18)SXD5	3.6.0	V
IOS 12.2(18)SXE	3.6.0	V
IOS 12.2(18)SXE*	3.6.0	S
IOS 12.2(18)SXE6b	3.6.0	V
IOS 12.2(18)SXF*	3.6.0	S
IOS 12.2(18)SXF7	3.6.2	S
IOS 12.2(33)SRA	3.6.0	V
IOS 12.2(33)SRA2	3.6.0	V
IOS 12.2(33)SRA6	3.6.3	S
IOS 12.2(33)SRB	3.6.0	V[1]
IOS 12.2(33)SRB*	3.6.3	S
IOS 12.2(33)SRB1	3.6.1	S[2]

Table 6-50 Supported Software Versions for Cisco 7600 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOS 12.2(33)SRB2	3.6.2	S
IOS 12.2(33)SRB3	3.6.3	S
IOS 12.2(33)SRB4	3.6.4	S
IOS 12.2(33)SRC	3.6.2	S
IOS 12.2(33)SRC1	3.6.3	S
IOS 12.2(33)SRC2	3.6.4	S
IOS 12.2(33)SRC3	3.6.7	V
IOS 12.2(33)SRD1	3.6.4	V[3]
IOS 12.2(33)SRD2	3.6.6	V
IOS 12.2(33)SXH2a	3.6.5	S

[1]12.2(33)SRB is not supported on Cisco 7603-S and Cisco 7609-S, as both devices provide incorrect sysoids.
[2]12.2(33)SRB1 is not supported on Cisco 7603-S and Cisco 7609-S, as both devices provide incorrect sysoids.
[3]Support Verified in ANA 3.6.7

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco 7600 Series—Supported Topologies

Table 6-51 Supported Topologies for Cisco 7600 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
ATM	ATM	3.6.0
BGP	BGP	3.6.0
Ethernet	Ethernet	3.6.0
Framerelay	Framerelay	3.6.0
MPLS	MPLS	3.6.0
PPP/HDLC	PPP or HDLC	3.6.0
Physical Layer	Physical Layer	3.6.0
LAG	LAG	3.6.0

Cisco 7600 Series—Supported Modules

Table 6-52 Supported Modules for Cisco 7600 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
4000W-DC	3.6.2	4000W DC PS for 7609/7613Chassis	S
6000W-DC	3.6.2	6000W DC PS	S
7600-ES+20G	3.6.6	7600 ES+ 20x1G Link DC	S
7600-ES+20G3C	3.6.6	7600 ES+ Line Card, 20xGE SFP with DFC 3C	V
7600-ES+20G3CXL	3.6.6	7600 ES+ Line Card, 20xGE SFP with DFC 3CXL	S
7600-ES+2TG	3.6.6	7600 ES+ 2x10G Link DC	S
7600-ES+2TG3C	3.6.6	7600 ES+ Line Card, 2x10GE XFP with DFC 3C	V
7600-ES+2TG3CXL	3.6.6	7600 ES+ Line Card, 2x10GE XFP with DFC 3CXL	S
7600-ES+3C	3.6.6	7600 ES+ Policy Forwarding 3C DC	S
7600-ES+3CXL	3.6.6	7600 ES+ Policy Forwarding 3CXL DC	S
7600-ES+40G	3.6.6	7600 ES+ 40x1G Link DC	S
7600-ES+40G3C	3.6.6	7600 ES+ Line Card, 40xGE SFP with DFC 3C	V
7600-ES+40G3CXL	3.6.4	7600 ES+ Line Card, 40xGE SFP with DFC 3CXL	S
7600-ES+4TG	3.6.6	7600 ES+ 4x10G Link DC	S
7600-ES+4TG3C	3.6.6	7600 ES+ Line Card, 4x10GE XFP with DFC 3C	V
7600-ES+4TG3CXL	3.6.6	7600 ES+ Line Card, 4x10GE XFP with DFC 3CXL	V
7600-ES20	3.6.1	Cisco 7600 Series Ethernet Services Card	S
7600-ES20-10G3C	3.6.1	Cisco 7600 ES20 line card, 2x10GE XFP with DFC 3C	S
7600-ES20-10G3CXL	3.6.1	Cisco 7600 ES20 line card, 2x10GE XFP with DFC 3CXL	S
7600-ES20-GE3C	3.6.1	Cisco 7600 ES20 line card, 20xGE SFP with DFC 3C	S
7600-ES20-GE3CXL	3.6.1	Cisco 7600 ES20 line card, 20xGE SFP with DFC 3CXL	S
7600-ES20-PROC	3.6.1	7600 ES20 PROC FRU	S
7600-MSFC4	3.6.1	c7600 MSFC4 Daughterboard	S
7600-PFC3C	3.6.5	RSP720 Policy Feature Card 3C	S
7600-SIP-200	3.6.0	SPA Interface Processor-200	S
7600-SIP-400	3.6.0	SPA Interface Processor-400	S
7600-SIP-600	3.6.0	SPA Interface Processor-600	S
7600-SSC-400	3.6.3	Cisco 7600 / Catalyst 6500 Services SPA Carrier Card-400 Rev. 2.0	S
ACE20-MOD-K9	3.6.3	Application Control Engine 20 Hardware	S
CEVFAN	3.6.1	Fan	S
DFC-3C	3.6.1	Distributed Forwarding Card 3C	S
DWDM-SFP-3033	3.6.7	Cisco 1000BASE-DWDM SFP 1530.33 nm	V
DWDM-SFP-3112	3.6.7	Cisco 1000BASE-DWDM SFP 1531.12 nm	V

Table 6-52 Supported Modules for Cisco 7600 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
DWDM-SFP-3190	3.6.7	Cisco 1000BASE-DWDM SFP 1531.90 nm	V
DWDM-SFP-3268	3.6.7	Cisco 1000BASE-DWDM SFP 1532.68 nm	V
DWDM-SFP-3425	3.6.7	Cisco 1000BASE-DWDM SFP 1534.25 nm	V
DWDM-SFP-3504	3.6.7	Cisco 1000BASE-DWDM SFP 1535.04 nm	V
DWDM-SFP-3582	3.6.7	Cisco 1000BASE-DWDM SFP 1535.82 nm	V
DWDM-SFP-3661	3.6.7	Cisco 1000BASE-DWDM SFP 1536.61 nm	V
DWDM-SFP-3819	3.6.7	Cisco 1000BASE-DWDM SFP 1538.19 nm	V
DWDM-SFP-3898	3.6.7	Cisco 1000BASE-DWDM SFP 1539.98 nm	V
DWDM-SFP-3977	3.6.7	Cisco 1000BASE-DWDM SFP 1539.77 nm	V
DWDM-SFP-4056	3.6.7	Cisco 1000BASE-DWDM SFP 1540.56 nm	V
DWDM-SFP-4214	3.6.7	Cisco 1000BASE-DWDM SFP 1542.14 nm	V
DWDM-SFP-4294	3.6.7	Cisco 1000BASE-DWDM SFP 1542.94 nm	V
DWDM-SFP-4373	3.6.7	Cisco 1000BASE-DWDM SFP 1543.73 nm	V
DWDM-SFP-4453	3.6.7	Cisco 1000BASE-DWDM SFP 1544.53 nm	V
DWDM-SFP-4612	3.6.7	Cisco 1000BASE-DWDM SFP 1546.12 nm	V
DWDM-SFP-4692	3.6.7	Cisco 1000BASE-DWDM SFP 1546.92 nm	V
DWDM-SFP-4772	3.6.7	Cisco 1000BASE-DWDM SFP 1547.72 nm	V
DWDM-SFP-4851	3.6.7	Cisco 1000BASE-DWDM SFP 1548.51 nm	V
DWDM-SFP-5012	3.6.7	Cisco 1000BASE-DWDM SFP 1550.12 nm	V
DWDM-SFP-5092	3.6.7	Cisco 1000BASE-DWDM SFP 1550.92 nm	V
DWDM-SFP-5172	3.6.7	Cisco 1000BASE-DWDM SFP 1551.72 nm	V
DWDM-SFP-5252	3.6.7	Cisco 1000BASE-DWDM SFP 1552.52 nm	V
DWDM-SFP-5413	3.6.7	Cisco 1000BASE-DWDM SFP 1554.13 nm	V
DWDM-SFP-5494	3.6.7	Cisco 1000BASE-DWDM SFP 1554.94 nm	V
DWDM-SFP-5575	3.6.7	Cisco 1000BASE-DWDM SFP 1555.75 nm	V
DWDM-SFP-5655	3.6.7	Cisco 1000BASE-DWDM SFP 1556.55 nm	V
DWDM-SFP-5817	3.6.7	Cisco 1000BASE-DWDM SFP 1558.17 nm	V
DWDM-SFP-5898	3.6.7	Cisco 1000BASE-DWDM SFP 1558.98 nm	V
DWDM-SFP-5979	3.6.7	Cisco 1000BASE-DWDM SFP 1559.79 nm	V
DWDM-SFP-6061	3.6.7	Cisco 1000BASE-DWDM SFP 1560.61 nm	V
DWDM-XENPAK-30.33	3.6.7	10GBASE-DWDM 1530.33 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-31.12	3.6.7	10GBASE-DWDM 1531.12 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-31.90	3.6.7	10GBASE-DWDM 1531.90 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-32.68	3.6.7	10GBASE-DWDM 1532.68 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-34.25	3.6.7	10GBASE-DWDM 1534.25 nm XENPAK (100-GHz ITU grid)	V

Table 6-52 Supported Modules for Cisco 7600 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
DWDM-XENPAK-35.04	3.6.7	10GBASE-DWDM 1535.04 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-35.82	3.6.7	10GBASE-DWDM 1535.82 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-36.61	3.6.7	10GBASE-DWDM 1536.61 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-38.19	3.6.7	10GBASE-DWDM 1538.19 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-38.98	3.6.7	10GBASE-DWDM 1538.98 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-39.77	3.6.7	10GBASE-DWDM 1539.77 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-40.56	3.6.7	10GBASE-DWDM 1540.56 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-42.14	3.6.7	10GBASE-DWDM 1542.14 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-42.94	3.6.7	10GBASE-DWDM 1542.94 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-43.73	3.6.7	10GBASE-DWDM 1543.73 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-44.53	3.6.7	10GBASE-DWDM 1544.53 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-46.12	3.6.7	10GBASE-DWDM 1546.12 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-46.92	3.6.7	10GBASE-DWDM 1546.92 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-47.72	3.6.7	10GBASE-DWDM 1547.72 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-48.51	3.6.7	10GBASE-DWDM 1548.51 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-50.12	3.6.7	10GBASE-DWDM 1550.12 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-50.92	3.6.7	10GBASE-DWDM 1550.92 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-51.72	3.6.7	10GBASE-DWDM 1551.72 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-52.52	3.6.7	10GBASE-DWDM 1552.52 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-54.13	3.6.7	10GBASE-DWDM 1554.13 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-54.94	3.6.7	10GBASE-DWDM 1554.94 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-55.75	3.6.7	10GBASE-DWDM 1555.75 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-56.55	3.6.7	10GBASE-DWDM 1556.55 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-58.17	3.6.7	10GBASE-DWDM 1558.17 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-58.98	3.6.7	10GBASE-DWDM 1558.98 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-59.79	3.6.7	10GBASE-DWDM 1559.79 nm XENPAK (100-GHz ITU grid)	V
DWDM-XENPAK-60.61	3.6.7	10GBASE-DWDM 1560.61 nm XENPAK (100-GHz ITU grid)	V
DWDM-XFP-30.33	3.6.7	10GBASE-DWDM 1530.33 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-31.12	3.6.7	10GBASE-DWDM 1531.12 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-31.90	3.6.7	10GBASE-DWDM 1531.90 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-32.68	3.6.7	10GBASE-DWDM 1532.68 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-34.25	3.6.7	10GBASE-DWDM 1534.25 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-35.04	3.6.7	10GBASE-DWDM 1535.04 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-35.82	3.6.7	10GBASE-DWDM 1535.82 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-36.61	3.6.7	10GBASE-DWDM 1536.61 nm XFP (100-GHz ITU grid)	V

Table 6-52 Supported Modules for Cisco 7600 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
DWDM-XFP-38.19	3.6.7	10GBASE-DWDM 1538.19 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-38.98	3.6.7	10GBASE-DWDM 1538.98 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-39.77	3.6.7	10GBASE-DWDM 1539.77 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-40.56	3.6.7	10GBASE-DWDM 1540.56 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-42.14	3.6.7	10GBASE-DWDM 1542.14 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-42.94	3.6.7	10GBASE-DWDM 1542.94 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-43.73	3.6.7	10GBASE-DWDM 1543.73 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-44.53	3.6.7	10GBASE-DWDM 1544.53 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-46.12	3.6.7	10GBASE-DWDM 1546.12 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-46.92	3.6.7	10GBASE-DWDM 1546.92 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-47.72	3.6.7	10GBASE-DWDM 1547.72 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-48.51	3.6.7	10GBASE-DWDM 1548.51 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-50.12	3.6.7	10GBASE-DWDM 1550.12 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-50.92	3.6.7	10GBASE-DWDM 1550.92 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-51.72	3.6.7	10GBASE-DWDM 1551.72 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-52.52	3.6.7	10GBASE-DWDM 1552.52 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-54.13	3.6.7	10GBASE-DWDM 1554.13 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-54.94	3.6.7	10GBASE-DWDM 1554.94 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-55.75	3.6.7	10GBASE-DWDM 1555.75 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-56.55	3.6.7	10GBASE-DWDM 1556.55 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-58.17	3.6.7	10GBASE-DWDM 1558.17 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-58.98	3.6.7	10GBASE-DWDM 1558.98 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-59.79	3.6.7	10GBASE-DWDM 1559.79 nm XFP (100-GHz ITU grid)	V
DWDM-XFP-60.61	3.6.7	10GBASE-DWDM 1560.61 nm XFP (100-GHz ITU grid)	V
FAN-MOD-9SHS	3.6.4	High-speed fan module	S
GLC-BX-D	3.6.6	1000BASE-BX10 SFP module for single-strand SMF, 1490-nm TX/1310-nm RX wavelength	V
GLC-BX-U	3.6.6	1000BASE-BX10 SFP module for single-strand SMF, 1310-nm TX/1490-nm RX wavelength	S
GLC-LH-SM	3.6.4	Short Wave fiber Gigabit Ethernet	S
GLC-SX-MM	3.6.7	1000BASE-SX SFP transceiver module for MMF, 850-nm wavelength	V
GLC-T	3.6.7	1000Base-T SFP Transceiver module for Category 5 copper wire	V
GLC-ZX-SM	3.6.7	1000BASE-ZX SFP transceiver module for SMF, 1550-nm wavelength	V
MSFC4	3.6.2	Multilayer Switch Feature Card	S

Table 6-52 Supported Modules for Cisco 7600 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
OSM-12CT3T1	3.6.0	12-port channelized/unchannelized CT3-T1	S
OSM-1CHOC12T3-SI	3.6.0	1-port channelized OC-12, SM-IR	S
OSM-1OC48-POS-SI+	3.6.0	Enhanced 1-port OC-48/STM-16 SONET/SDH OSM, SM-IR	S
OSM-1OC48-POS-SL+	3.6.0	Enhanced 1-port OC-48/STM-16 SONET/SDH OSM, SM-LR	S
OSM-1OC48-POS-SS+	3.6.0	Enhanced 1-port OC-48/STM-16 SONET/SDH OSM, SM-SR	S
OSM-2+4GE-WAN+	3.6.0	4-port Gigabit Ethernet WAN (GBIC) with two Layer 2 LAN ports; CEF256	S
OSM-2OC12-ATM-MM+	3.6.0	Enhanced 2-port OC-12/STM-4 ATM OSM, MM	S
OSM-2OC12-ATM-SI+	3.6.0	Enhanced 2-port OC-12/STM-4 ATM OSM, SM-IR	S
OSM-2OC12-POS-SI+	3.6.0	Enhanced 2-port OC-12c/STM-4c POS, SM-IR; CEF256	S
OSM-4OC12-POS-SI+	3.6.0	Enhanced 4-port OC-12c/STM-4c POS, SM-IR; CEF256	S
OSM-4OC3-POS-SI+	3.6.0	Enhanced 4-port OC-3c/STM-1c POS, SM-IR;	S
PA-1FE-TX, -FX	3.6.0	1-port Fast Ethernet port adapter	S
PA-2CE/PRI	3.6.1	Not Found	S
PA-2FE-TX, -FX	3.6.0	2-port Fast Ethernet port adapter	S
PA-4T+	3.6.0	T1/E1 port adapters	S
PA-A3-E3	3.6.0	ATM with traffic shaping port adapters	S
PA-A3-T3	3.6.0	ATM with traffic shaping port adapters	S
PA-MC-2E1/120	3.6.1	2 port multichannel E1 port adapter with G.703 120ohm interface	S
PA-MC-4T1	3.6.0	T1/E1 port adapters	S
PA-MC-8T1	3.6.0	T1/E1 port adapters	S
PA-MC-8TE1	3.6.1	8 port multichannel T1/E1 8PRI port adapter	S
PA-MC-STM-1	3.6.0	Multichannel STM-1 port adapters	S
PA-POS-2OC3	3.6.0	2-port POS OC3c/STM1 port adapter	S
PFC-3C	3.6.2	Policy Feature Card 3C	S
PFC-3CXL	3.6.1	Policy Feature Card 3Cxl (PFC3CXL)	S
PWR-2700-AC	3.6.3	2700W DC power supply	S
PWR-2700-DC	3.6.2	2700W DC power supply for CISCO7606	S
PWR-2700-DC/4	3.6.2	2700W DC Power Supply for Cisco 7604	S
PWR-6000-DC	3.6.4	6000W DC Power Supply	S
RSP720-3C-GE	3.6.1	route Switch Processor 720 with PFC3C	S
RSP720-3CXL	3.6.4	Catalyst 6500 Supervisor Module 720 base board	S
RSP720-3CXL-GE	3.6.1	Route Switch Processor 720 with PFC3CXL:	S
SFP-GE-L	3.6.4	1000BASE-LH/LX pluggable transceiver	S
SFP-GE-S	3.6.6	1000BASE-Sx Short wavelength gigabit ethernet SFP.	V
SFP-GE-T	3.6.6	1000BASE-T copper gigabit ethernet SFP.	V

Table 6-52 Supported Modules for Cisco 7600 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
SFP-GE-Z	3.6.6	1000BASE-Zx Extended reach gigabit ethernet SFP.	V
SFP-OC12-IR1	3.6.6	OC-12/STM-4 pluggable intermediate-reach (15 km) transceiver module, 1310-nm wavelength	V
SFP-OC12-LR1	3.6.6	OC-12/STM-4 pluggable long-reach (40 km) transceiver module, 1310-nm wavelength, LC connector	V
SFP-OC12-LR2	3.6.6	OC-12/STM-4 pluggable long-reach (80 km) transceiver module, 1550-nm wavelength, LC connector	S
SFP-OC12-MM	3.6.6	OC-12/STM-4 pluggable short-reach (2 km) transceiver module, 1310-nm wavelength, MMF, LC connector	S
SFP-OC12-SR	3.6.6	OC-12/STM-4 pluggable short-reach (2 km) transceiver module, 1310-nm wavelength, LC connector	V
SFP-OC3-IR1	3.6.0	Intermediate range, single-mode fiber	S
SFP-OC3-LR1	3.6.0	Long range, single-mode fiber	S
SFP-OC3-LR2	3.6.7	OC-3/STM-1 pluggable long-reach (80 km) transceiver module, 1550-nm wavelength, LC connector	V
SFP-OC3-MM	3.6.0	Short range, multimode fiber	S
SFP-OC3-SR	3.6.1	OC3/STM1 SFP, Single-mode fiber, Short Reach	S
SFP-OC48-IR1	3.6.7	OC-48c/STM-16c	V
SPA-10X1GE	3.6.0	10-port Gigabit Ethernet SPA, SFP Optics	S
SPA-10X1GE-V2	3.6.0	10-port Gigabit Ethernet SPA, SFP Optics	S
SPA-1CHOC3-CE-ATM	3.6.2	1-Port Channelized STM-1/OC-3 Shared Port Adapters	S
SPA-1XCHOC12/DS0	3.6.6	1-Port Channelized OC-12/STM-4 Shared Port Adapter	V
SPA-1XCHSTM1/OC3	3.6.0	1-port Channelized STM1/OC3 to DS0 SPA	S
SPA-1XOC12-ATM	3.6.0	1-Port OC-12c/STM-4c ATM SPA	S
SPA-1XOC12-POS	3.6.0	1-port OC-12c/STM-4c POS SPA	S
SPA-1XOC48-ATM	3.6.0	1 port OC-48c/STM-16 ATM SPA	S
SPA-1XOC48POS/RPR	3.6.7	1 port OC-48c/STM-16 POS/RPR SPA	V
SPA-1XTENGE-XFP	3.6.0	1-port 10 Gigabit Ethernet SPA, LANPHY XFP Optics	S
SPA-24CHT1-CE-ATM	3.6.0	24-Port Channelized T1/E1/J1 ATM CEoP SPA	S
SPA-2X1GE	3.6.0	2-port Gigabit Ethernet SPA, SFP Optics	S
SPA-2X1GE-V2	3.6.0	2-port Gigabit Ethernet SPA, SFP Optics	S
SPA-2X1GE-V2	3.6.2	2-Port Gigabit Ethernet Shared Port Adapter.	S
SPA-2XCT3/DS0	3.6.0	2-port Channelized T3 to DS0 SPA	S
SPA-2XOC3-ATM	3.6.0	2-port OC-3c/STM-1c ATM SPA	S
SPA-2XOC3-POS	3.6.0	2-port OC-3c/STM-1c POS SPA	S
SPA-2XOC48POS/RPR	3.6.1	1-port 10 Gigabit Ethernet Shared Port Adapter XFP based	S
SPA-2XOC48POSRPR	3.6.0	2 port OC-48 POS/RPR SPA with SFP Optics	S

Table 6-52 Supported Modules for Cisco 7600 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
SPA-2XT3/E3	3.6.0	2-port Clear Channel T3/E3 SPA	S
SPA-4X1FE-TX-V2	3.6.0	4-port 10/100 Ethernet SPA TX	S
SPA-4XCT3/DS0	3.6.0	4-port Channelized T3 to DS0 SPA	S
SPA-4XOC3-ATM	3.6.0	4-port OC-3c/STM-1c ATM SPA	S
SPA-4XOC3-POS	3.6.0	4-port OC-3c/STM-1c POS SPA	S
SPA-4XOC48POSRPR	3.6.0	4-port OC-48c/STM-16 POS/DPT/RPR SPA	S
SPA-4XT3/E3	3.6.0	4-port Clear Channel T3/E3 SPA	S
SPA-5X1GE	3.6.0	5-port Gigabit Ethernet SPA, SFP Optics	S
SPA-5X1GE-V2	3.6.2	5-Port Gigabit Ethernet Shared Port Adapter	S
SPA-8X1FE-TX-V2	3.6.0	8-port 10/100 Ethernet SPA TX	S
SPA-8XCHT1E1	3.6.0	8-Port Channelized T1/E1 SPA	S
SPA-IPSEC-2G	3.6.7	IpSec SPA with 2Gbps DES/3DES/AES	S
SPA-OC192POS-LR	3.6.0	1-port OC-192c/STM-64 POS/RPR SPA, SM-LR	S
SPA-OC192POS-XFP	3.6.0	1-port OC-192c/STM-64 POS/RPR SPA, XFP Optics	S
WS-6700-DFC3B	3.6.1	Catalyst 6500 Distributed forwarding card 3B	S
WS-6700-DFC3BXL	3.6.1	Catalyst 6500 Distributed forwarding card 3B XL	S
WS-C6509-E-FAN	3.6.0	High-capacity fan tray	S
WS-C6509-NEB-A	3.6.1	Enhanced 9-slot vertically oriented chassis	S
WS-CAC-3000W	3.6.4	Catalyst 6500 3000W AC power supply	S
WS-CAC-4000W-INT	3.6.4	4000W AC Power Supply, International (cable included)	S
WS-CAC-4000W-US	3.6.4	4000Watt AC Power Supply for US (cable attached)	S
WS-CAC-6000W	3.6.0	6000W AC power supply	S
WS-CAC-6000W	3.6.4	Cat6500 6000W AC Power Supply	S
WS-CDC-2500W	3.6.4	Catalyst 6000 2500W DC Power Supply	S
WS-F6700-CFC	3.6.0	Catalyst 6500 Central Fwd Card for WS-X67xx modules	S
WS-F6700-DFC3A	3.6.1	Distributed Forwarding Card 3	S
WS-F6700-DFC3BXL	3.6.0	Distributed Forwarding Card 3BXL (DFC3BXL) for use on CEF720 modules	S
WS-F6700-DFC3C	3.6.0	Distributed Forwarding Card 3C (DFC3C) for use on CEF720 modules	S
WS-F6700-DFC-3C	3.6.2	WS-F6700 Daughter Feature Card 3C	S
WS-F6700-DFC3CXL	3.6.0	Distributed Forwarding Card 3CXL (DFC3CXL) for use on CEF720 modules	S
WS-F6700-DFC-3CXL	3.6.2	WS-F6700 Daughter Feature Card 3CXL	S
WS-F6K-FE48X2-AF	3.6.0	IEEE 802.3af PoE daughtercard	S
WS-F6K-GE48-AF	3.6.0	IEEE 802.3af PoE daughtercard	S

Table 6-52 Supported Modules for Cisco 7600 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
WS-F6K-MSFC2	3.6.1	Multilevel Switching Feature Card Version 2 for Catalyst 6000 that is treated as a standalone system by the NMS	S
WS-F6K-PFC2	3.6.1	Catalyst 6500 L3 switching engine II	S
WS-F6K-PFC3BXL	3.6.0	Policy Feature Card 3BXL (PFC3BXL)	V
WS-F6K-PFC3CXL	3.6.0	Policy Feature Card 3CXL (PFC3CXL)	S
WS-F6K-VPWR	3.6.0	PoE Daughtercard	S
WS-F6K-VPWR-GE	3.6.0	PoE Daughtercard	S
WS-G6483	3.6.0	10GBASE-ER serial 1550 nm extended-reach OIM	S
WS-G6488	3.6.0	10GBASE-LR serial 1310 nm long-reach OIM	S
WS-SUP32-10GE-3B	3.6.0	Supervisor Engine 32	S
WS-SUP32-GE-3B	3.6.0	Supervisor Engine 32	S
WS-SUP720-3B	3.6.0	Supervisor Engine 720 with PFC3B	V
WS-SUP720-3BXL	3.6.0	Supervisor Engine 720 with PFC3BXL	V
WS-SVC-ADM-1-K9	3.6.3	Catalyst 6500 Cisco Anomaly Detection Module	S
WS-SVC-AGM-1-K9	3.6.3	Catalyst 6500 Cisco Anomaly Guard Module	S
WS-SVC-FWM-1-K9	3.6.0	Firewall blade for 6500 and 7600, VFW License Separate	S
WS-SVC-IDS2-BUN-K9	3.6.1	Cisco Catalyst 6500 Series Intrusion Detection System (IDSM-2) Service Module	S
WS-SVC-MWAM-1	3.6.0	Multi-Processor WAN Application Module	S
WS-SVC-NAM-1	3.6.0	Network Analysis module 1	S
WS-SVC-NAM-2	3.6.0	Network Analysis module 2	S
WS-X6148A-GE-TX	3.6.0	48 port 10/100/1000 RJ-45 Ethernet Switching Module	S
WS-X6148A-RJ-45	3.6.0	48 port 10/100TX RJ-45 Ethernet/Fast Ethernet Switching Module	S
WS-X6148FE-SFP	3.6.1	Catalyst 6500 48 port 100Base-X SFP module	S
WS-X6148-FE-SFP	3.6.0	48 port 100BASE-FX Fast Ethernet Switching Module	S
WS-X6148-GE-TX	3.6.0	48 port 10/100/1000 RJ-45 Ethernet Switching Module	S
WS-X6148-RJ-21	3.6.0	48 port 10/100TX RJ-21 Ethernet/Fast Ethernet Switching Module	S
WS-X6148-RJ-45	3.6.0	48 port 10/100TX RJ-45 Ethernet/Fast Ethernet Switching Module	S
WS-X6148X2-RJ-45	3.6.0	96 port 10/100TX RJ-45 Ethernet/Fast Ethernet Switching Module	S
WS-X6196-RJ-21	3.6.0	96 port 10/100TX RJ-21 Ethernet/Fast Ethernet Switching Module	S
WS-X6248A-TEL	3.6.0	48 port 10/100TX RJ-21 Enhanced Ethernet/Fast Ethernet Switching Module	S
WS-X6248-RJ-45	3.6.0	48 port 10/100TX RJ-45 Ethernet/Fast Ethernet Switching Module	S
WS-X6248-TEL	3.6.0	48 port 10/100TX RJ-21 Ethernet/Fast Ethernet Switching Module	S
WS-X6316-GE-TX	3.6.0	16-port Gigabit Ethernet RJ-45	S
WS-X6324-100FX-SM	3.6.0	24 port 100FX SingleMode Fast Ethernet Switching Module	S

Table 6-52 Supported Modules for Cisco 7600 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
WS-X6348-RJ-21	3.6.0	6500 48 port 10/100BaseTX (RJ-21)	S
WS-X6348-RJ-45	3.6.0	48 port 10/100TX RJ-45 Ethernet/Fast Ethernet Switching Module	S
WS-X6408A-GBIC	3.6.0	8-port Gigabit Ethernet GBIC Enhanced QoS Module	S
WS-X6408-GBIC	3.6.0	8-port Gigabit Ethernet GBIC	S
WS-X6416-GBIC	3.6.0	16-port Gigabit Ethernet GBIC	S
WS-X6502-10GE	3.6.0	1-port 10-Gigabit Ethernet	S
WS-X6516A-GBIC	3.6.0	16-port Gigabit Ethernet GBIC	S
WS-X6516-GBIC	3.6.0	16-port Gigabit Ethernet GBIC	S
WS-X6516-GE-TX	3.6.0	16 port 10/100/1000 Base-T Ethernet Switching Module	S
WS-X6548-GE-TX	3.6.0	48 port 10/100/1000 RJ-45 Ethernet Switching Module	S
WS-X6548-RJ-21	3.6.0	48 port 10/100TX RJ-21 Ethernet/Fast Ethernet Switching Module	S
WS-X6548-RJ-45	3.6.0	48 port 10/100TX RJ-45 Ethernet/Fast Ethernet Switching Module	S
WS-X6582-2PA	3.6.0	Enhanced FlexWAN Module;	S
WS-X6700-CFC	3.6.0	Centralized Forwarding Card	S
WS-X6704-10GE	3.6.0	4-port 10-Gigabit Ethernet	S
WS-X6708-10GE	3.6.7	CEF720 8 port 10GE with DFC Rev. 1.4	V
WS-X6724-SFP	3.6.0	24-port Gigabit Ethernet SFP	S
WS-X6748-GE-TX	3.6.0	48 port 10/100/1000 RJ-45 Ethernet Switching Module	S
WS-X6748-SFP	3.6.0	48-port Gigabit Ethernet SFP	S
WS-X6816-GBIC	3.6.0	16-port Gigabit Ethernet GBIC	S
WS-X6K-S1A-MSFC2	3.6.1	Catalyst 6000 Supervisor Engine 1A, 2 Gigabit Ethernet, plus MSFC2 and policy feature card (PFC)	S
WS-X6K-S2-MSFC2	3.6.1	Catalyst 6500 Supervisor Engine-2, 2GE, plus MSFC-2 / PFC-2	S
WS-X6K-SUP2-2GE	3.6.1	Supervisor 2 with 2 Gigabit Ethernet ports	S
XENPAK-10GB-ER	3.6.0	10GBASE-ER Serial 1550-nm extended-reach, single-mode fiber (SMF), dispersion-shifted fiber (DSF)	S
XENPAK-10GB-ER+	3.6.7	10GBase-ER transceiver module for SMF, 1550-nm wavelength, duplex connector	V
XENPAK-10GB-LR	3.6.7	10GBase-LR-XENPAK Module	V
XENPAK-10GB-LR+	3.6.1	10GBASE-LR XENPAK Module	S
XENPAK-10GB-SR	3.6.0	10GBASE-SR Serial 850-nm short-reach multimode fiber (MMF)	S
XFP-10GER-192IR+	3.6.6	Cisco multirate XFP transceiver module for 10GBASE-ER Ethernet and OC-192/STM-64 intermediate-reach (IR-2) Packet-over-SONET/SDH (POS) applications, SMF, dual LC connector	V
XFP-10GLR-OC192SR	3.6.4	OC192 XFP Single Mode Long Reach 2 (80km)	S

Table 6-52 Supported Modules for Cisco 7600 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
XFP-10GZR-OC192LR	3.6.6	Cisco multirate XFP transceiver module for 10GBASE-LR Ethernet and OC-192/STM-64 long-reach Packet-over-SONET/SDH (POS) applications, SMF, dual LC connector	V

Cisco 7600 Series—Supported Technologies

The following technologies are supported by the Cisco 7600 Series in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111
- Frame Relay, page 6-114
- Point to Point, page 6-115
- Physical Technologies, page 6-116
- MPLS, page 6-117
- MPLS-TE, page 6-119
- VPN, page 6-120
- PWE3, page 6-121
- ACL, page 6-122
- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125
- Additional Technologies, page 6-127
- Local Switching, page 6-128
- BFD, page 6-129
- Clocking, page 6-129
- Carrier Ethernet, page 6-131
- L2Channel, page 6-133

Cisco 7600 Series—Supported Service Events

Table 6-53 Supported Service Events for Cisco 7600 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Primary HSRP Interface Active/Inactive	3.6.0	N
Secondary HSRP Interface Active/Inactive	3.6.0	N
All IP Interfaces Down / Active IP Interfaces Found	3.6.0	Y
Interface Status Down/Up	3.6.0	Y
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
VPN Leak	3.6.0	N
Cloud Problem	3.6.0	N
Broken LSP Discovered	3.6.0	N
MPLS Black Hole	3.6.0	N
Layer 2 Tunnel Down	3.6.0	N
MPLS TE Tunnel Down/Flapping	3.6.0	N
BGP Neighbor Down	3.6.0	N
Card Up/Down	3.6.0	Y
Adaptive Polling	3.6.0	N
BGP link down	3.6.0	Y
LDP neighbor loss	3.6.0	Y
MPLS interface removed	3.6.0	Y
VSI Up/Down	3.6.7	N
VSI Admin Down	3.6.7	N
EFP Up/Down	3.6.7	N
EFP Admin Down	3.6.7	N

Table 6-53 Supported Service Events for Cisco 7600 Series—Cisco ANA Version 3.6.7 (continued)

Event Name	ANA Version	Expedited
EFP down due to error disabled	3.6.7	N
Vlan Tagged Interface Up/Down	3.6.7	N
Vlan Tagged Interface AdminDown	3.6.7	N

Cisco 10000 Series Routers

This section includes the following information about Cisco 10000 Series routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco 10000 Series Routers):

- Cisco 10000 Series—Supported Software Versions, page 6-58
- Cisco 10000 Series—Supported Topologies, page 6-59
- Cisco 10000 Series—Supported Modules, page 6-59
- Cisco 10000 Series—Supported Technologies, page 6-60
- Cisco 10000 Series—Supported Service Events, page 6-60

Cisco 10000 Series—Supported Software Versions

Table 6-54 Supported Software Versions for Cisco 10000 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOS 12.0(20)	3.6.1	S
IOS 12.0(22)S5	3.5.2	V
IOS 12.0(23)S*	3.5.2	V
IOS 12.0(23)S2	3.6.1	S
IOS 12.1(10)E	3.5.2	V
IOS 12.2(18.2)	3.5.2	V
IOS 12.2(24)S	3.6.1	S
IOS 12.2(24)S4	3.6.1	S
IOS 12.2(28)SB3	3.6.2	S
IOS 12.2(31)SB	3.6.1	S
IOS 12.2(33)SB1	3.6.7	V
IOS 12.3(7)XI7	3.6.1	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco 10000 Series—Supported Topologies

Table 6-55 Supported Topologies for Cisco 10000 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
ATM	ATM	3.6.0
Ethernet	Ethernet	3.6.0
MPLS	MPLS	3.6.0
PPP/HDLC	PPP or HDLC	3.6.1
Physical Layer	Physical Layer	3.6.1

Cisco 10000 Series—Supported Modules

Table 6-56 Supported Modules for Cisco 10000 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
ESR-1COC12-SMI	3.6.1	Cisco 10K 1 port channelized OC12	S
ESR-1GE	3.6.0	1-port Gigabit Ethernet	S
ESR-1OC-12/P-SMI	3.6.0	1-port OC-12/STS-12c/STM-4 OS/SDH, single mode, intermediate reach	S
ESR-1OC-12-ATM	3.6.0	1-port OC-12 ATM	S
ESR-24CT1/E1	3.6.0	24-port channelized E1/T1	S
ESR-4OC3-ATM-SM	3.6.0	4-port OC-3/STM-1 ATM, single mode	S
ESR-4OC3-CHSTM1	3.6.7	Four-port channelized STM-1/OC-3 SDH single mode line card	V
ESR-6CT3	3.6.0	6-port channelized T3	S
ESR-6OC3/P-SMI	3.6.0	6-port OC-3c/STS-3c/STM-1 POS/SDH, single mode, intermediate reach	S
ESR-8E3/DS3	3.6.2	8 port clear channel E3/DS3 Line Card	S
ESR-8E3DS3-ATM	3.6.7	8 Port Channelized E3/DS3 ATM line card	V
ESR-HH-1GE	3.6.0	1-port Gigabit Ethernet half-height	S
ESR-HH-4CT3	3.6.7	4 Port Channelized T3 Half-Height Line Card	V
ESR-HH-8FE-TX	3.6.0	8-port Fast Ethernet half-height	S
ESR-PRE1	3.6.1	Cisco 10K Performance Routing Engine-1	S
ESR-PRE2	3.6.1	Cisco 10K Performance Routing Engine-2	S
ESR-PRE3	3.6.1	Cisco 10K Performance Routing Engine-3	S

Cisco 10000 Series—Supported Technologies

The following technologies are supported by the Cisco 10000 Series in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111
- Frame Relay, page 6-114
- Point to Point, page 6-115
- Physical Technologies, page 6-116
- MPLS, page 6-117
- MPLS-TE, page 6-119
- VPN, page 6-120
- PWE3, page 6-121
- ACL, page 6-122
- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125
- Additional Technologies, page 6-127
- Local Switching, page 6-128

Cisco 10000 Series—Supported Service Events

Table 6-57 Supported Service Events for Cisco 10000 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Primary HSRP Interface Active/Inactive	3.6.0	N
Secondary HSRP Interface Active/Inactive	3.6.0	N
All IP Interfaces Down / Active IP Interfaces Found	3.6.0	Y
Interface Status Down/Up	3.6.0	Y
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N

Table 6-57 Supported Service Events for Cisco 10000 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
VPN Leak	3.6.0	N
Cloud Problem	3.6.0	N
Broken LSP Discovered	3.6.0	N
MPLS Black Hole	3.6.0	N
Layer 2 Tunnel Down	3.6.0	N
MPLS TE Tunnel Down/Flapping	3.6.0	N
BGP Neighbor Down	3.6.0	N
Card Up/Down	3.6.0	Y
Vlan Tagged Interface Up/Down	3.6.7	N
Vlan Tagged Interface AdminDown	3.6.7	N

Cisco 12000 Series Routers

This section includes the following information about Cisco 12000 Series routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco 12000 Series Routers):

- Cisco 12000 Series—Supported Software Versions, page 6-61
- Cisco 12000 Series—Supported Topologies, page 6-62
- Cisco 12000 Series—Supported Modules, page 6-63
- Cisco 12000 Series—Supported Technologies, page 6-69
- Cisco 12000 Series—Supported Service Events, page 6-69

Cisco 12000 Series—Supported Software Versions

Table 6-58 Supported Software Versions for Cisco 12000 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOS 12.0(23)S3	3.6.0	V
IOS 12.0(26)S	3.6.0	V
IOS 12.0(26)S1	3.6.0	V
IOS 12.0(26)S2	3.6.0	V

Table 6-58 Supported Software Versions for Cisco 12000 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOS 12.0(26)S3	3.6.0	V
IOS 12.0(26)S4	3.6.0	V
IOS 12.0(26)S5	3.6.0	V
IOS 12.0(26)S6	3.6.0	V
IOS 12.0(27*	3.6.0	S
IOS 12.0(28*	3.6.0	S
IOS 12.0(30*	3.6.0	S
IOS 12.0(31)S	3.6.0	V
IOS 12.0(31)S3	3.6.0	V
IOS 12.0(31*	3.6.0	S
IOS 12.0(32)S10	3.6.3	S
IOS 12.0(32)SY	3.6.0	V
IOS 12.0(32)SY2	3.6.0	V
IOS 12.0(32)SY3	3.6.2	S
IOS 12.0(32)SY4	3.6.7	V
IOS 12.0(32)SY5	3.6.3	S
IOS 12.0(32*	3.6.0	S
IOS 12.0(33)S	3.6.3	S
IOS 12.0(33)S1	3.6.7	V

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco 12000 Series—Supported Topologies

Table 6-59 Supported Topologies for Cisco 12000 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
ATM	ATM	3.6.0
BGP	BGP	3.6.0
Ethernet	Ethernet	3.6.0
Framerelay	Framerelay	3.6.0
MPLS	MPLS	3.6.0

Table 6-59 Supported Topologies for Cisco 12000 Series—Cisco ANA Version 3.6.7 (continued)

Topology Type	Link Type	ANA Version
PPP/HDLC	PPP or HDLC	3.6.0
GRE Tunnel	GRE Tunnel	3.6.0
VPN (VRF)	VPN	3.6.0
Physical Layer	Physical Layer	3.6.0
LAG	LAG	3.6.2

Cisco 12000 Series—Supported Modules

Table 6-60 Supported Modules for Cisco 12000 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
12000/16-AC-PEM	3.6.3	Cisco 12000 16-slot Enhanced AC PEM	S
12000/16-AC-PEM	3.6.4	GSR16 AC POWER SUPPLY	S
12000/16-AC-PEM	3.6.4	Cisco 12000 16-slot Enhanced AC PEM	S
12000/16-DC-PEM	3.6.3	Cisco 12000 16-slot Enhanced DC PEM	S
12000/16-DC-PEM	3.6.4	Cisco 12000 16-slot Enhanced DC PEM	S
12000/4-BLOWER	3.6.2	GSR 12404 Fan tray - cevFan12404FanTray7	S
12000/4-DC-PEM	3.6.4	Cisco 12000 4-slot DC PEM	S
12000/6-AC-PEM	3.6.4	Cisco 12000 6-slot Enhanced AC PEM	S
12000/6-DC-PEM	3.6.4	Cisco 12000 6-slot Enhanced DC PEM	S
12000-SIP-401	3.6.0	Cisco 12000 Series SPA Interface Processor-401	S
12000-SIP-501	3.6.1	Cisco 12000 Series SPA Interface Processor-501	S
12000-SIP-600	3.6.1	Cisco 12000 Series SPA Interface Processor-600	S
12000-SIP-601	3.6.1	Cisco 12000 Series SPA Interface Processor-601	S
12004E/20	3.6.3	Cisco 12004/12404 Enhanced Collapsed Fabric/Alarm card	S
12404E/80	3.6.3	GSR 12404 Enhanced Clock Scheduler Card	S
12810-CSC	3.6.7	12810 Clock Scheduler Card	S
12DS3-SMB	3.6.0	24 Port Copper DS3 Interface Line Card	S
16OC3X/POS-I-LC-B 16OC3X/POS-M-MJ-B	3.6.1	GSR16-Port OC3/POS MM/I Eng3 Release B	S
16-OC3X/POS-IR-LC	3.6.0	16-Port Packet-Over-SONET OC-3/STM-1 with Extended Feature Set Line Card (concatenated)	S
16OC3X/POS-IR-LC-B.	3.6.1	GSR 16-Port OC3/POS MM/I Eng3 Release B = 16OC3X/POS-IR-LC-B	S
1X10GE-ER-SC	3.6.1	1 Port 10Giga Ethernet Line Card	S

Table 6-60 Supported Modules for Cisco 12000 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
1X10GE-LR-SC	3.6.1	1 Port 10Giga Ethernet Line Card	S
3GE-GBIC-SC	3.6.0	4 Port Gigabit Ethernet Line Card (trident)	S
4GE-SFP-LC	3.6.1	4 port-GE line card for Cisco 12000	S
4OC12/POS-IR-SC-B	3.6.0	Enhanced 4 port OC-12 Intermediate Reach Line Card	S
4OC12X/ATM-IR-SC	3.6.0	GSR Edge Engine 48, ATM, 4 ports OC12/STM4 Single Mode Intermediate Reach Line Card	V[1]
4OC12X/POS-I-SC-B	3.6.0	4 Port OC12 SM Intermediate Reach POS	S
4OC12X/POS-I-SC-B	3.6.1	4 PORT OC12 POS B	S
4OC12X/POS-M-SC-B	3.6.0	5 port (Quad) OC-12 POS Card, Single Mode, Short Reach	S
4OC3/ATM-IR-SC	3.6.1	4 port OC3/STM1 ATM line MM/IR card	S
4OC3/ATM-MM-SC	3.6.1	4 port OC3/STM1 ATM line MM/IR card	S
4OC3X/ATM-IR-SC	3.6.1	4-port OC3/STM1 ATM Single Mode, intermediate reach ISE Line Card with SC connector	S
4OC3X/POS-IR-LC-B	3.6.1	GSR 4-port OC3/POS IR Eng3 release B	S
4OC3X/POS-LR-LC-B	3.6.1	GSR 4-port OC3/POS IR Eng3 release B	S
4OC3X/POS-MM-MJ-B	3.6.1	GSR 4-port OC3/POS IR Eng3 release B	S
4OC48E/POS-LR-SC	3.6.0	5 Port (Quad) Enhanced OC-48 Long Reach FC Connector Line Card	S
4OC48E/POS-SR-SC	3.6.0	5 Port (Quad) Enhanced OC-48 Short Reach SC Connector Line Card	S
4XOC48POS/RPR	3.6.1	4-port OC48/STM16 POS/RPR Shared Port Adapter = SPA-4XOC48POS/RPR	S
6CT3-SMB	3.6.0	18 Port Copper DS3 Interface Line Card	S
8FE-FX-SC	3.6.0	8-Port Fast Ethernet Line Card	S
8FE-TX-RJ45	3.6.0	8-Port Fast Ethernet Line Card	S
8FE-TX-RJ45-B	3.6.1	8-port 100baseTX, RJ45 connector type, version B	S
8OC3X/POS-IR-LC-B	3.6.1	GSR 8-Port OC3/POS MM/IR Eng3 Release B	S
8OC3X/POS-MM-MJ-B	3.6.1	GSR 8-Port OC3/POS MM/IR Eng3 Release B	S
8X1FE-V2	3.6.1	8-port Fast Ethernet Shared Port Adapter V2 = SPA-8X1FE-V2	S
BUS_BOARD	3.6.1	GSR16 BUS BOARD (16) =	S
CHOC12/DS1-IR-SC	3.6.0	Cisco 12000 Series 1-Port Channelized OC-12c/STM-4	S
COPPER-12DS3	3.6.0	12 Port Copper DS3 Interface Line Card	S
COPPER-6DS3	3.6.0	6 Port Copper DS3 Interface Line Card	S

Table 6-60 Supported Modules for Cisco 12000 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
CRS-16-ALARM	3.6.1	Cisco CRS-1 Series 16 Slots Alarm Board = CRS-16-ALARM	S
GSR10-AC-PDU	3.6.0	Cisco 12410 AC Power Distribution Unit (spare)	S
GSR10-ADVNCD-CSC	3.6.1	12010 Advanced Clock Scheduler Card	S
GSR10-ADVNCD-SFC	3.6.1	12010 Advanced Switch Fabric Card	S
GSR10-ALRM	3.6.1	12410, 12010 Alarm Card	S
GSR10-CSC	3.6.1	12410 Clock Scheduler Card	S
GSR10-SFC	3.6.1	Cisco 12410 Switch Fabric Card	S
GSR16/320-CSC	3.6.1	12416 Clock Scheduler Card	S
GSR16/320-SFC	3.6.1	12416 Switch Fabric Card	S
GSR16/80-CSC	3.6.1	Cisco 12016 80 Gbps GSR Scheduler/Fabric	S
GSR16/80-SFC	3.6.1	Cisco 12016 80 Gbps GSR Switch Fabric	S
GSR16-ALRM	3.6.0	Cisco 12016 GSR Alarm Card	S
GSR16-BLOWER	3.6.1	Cisco 12016, 12416 Blower	S
GSR-3GE	3.6.0	3 Port Gigabit Ethernet Line Card (trident)	S
GSR4/80-AC	3.6.2	GSR 12404 AC Power Supply - cevPowerSupply12404AC	S
GSR6-ADVNCD-CSC	3.6.1	12006 Advanced Clock Scheduler Card	S
GSR6-ALRM	3.6.1	12406, 12006 Alarm Card	S
GSR6-BLOWER	3.6.1	12406, 12006 Blower	S
GSR6-CSC	3.6.1	Cisco 12406 Clock Scheduler Card	S
GSR6-SFC	3.6.1	Cisco 12406 Switch Fabric Card	S
GSR8-CSC/ALRM	3.6.1	Cisco 12008 GSR Scheduler/Fabric/Alarm	S
GSR-8FE-FX	3.6.0	8 port Fast Ethernet card with Fiber Interface	S
GSR8-SFC	3.6.1	Switch Fabric	S
GSR-ALARM10	3.6.0	GSR Alarm module	S
GSR-ALARM16	3.6.0	GSR-Alarm	S
GSR-ALARM6	3.6.0	GSR Alarm module	S
GSR-BUS-BOARD16	3.6.0	GSR Bus Board for Power distribution	S
GSR-CLOCK-OC192	3.6.0	GSR Clock Scheduler	S
GSR-CSC	3.6.0	GSR Clock Scheduler Card	S
GSR-CSC12410	3.6.0	GSR 12410 Clock scheduler	S
GSR-CSC16	3.6.0	Scheduler/Fabric Card	S
GSR-CSC16-OC192	3.6.0	GSR 12406 Clock Scheduler Card	S
GSR-CSC16-OC192	3.6.0	GSR 12016 OC192 Clock Scheduler Card	S
GSR-CSC6	3.6.0	GSR Clock Scheduler	S

Table 6-60 Supported Modules for Cisco 12000 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
GSR-E48-ATM-4OC12-MM-SR-SC	3.6.0	GSR Edge Engine 48, ATM, 4 port OC12/STM4Multi Mode Short Reach Line Card	S
GSR-E48-POS-16OC3-SM-IR-LC	3.6.0	16 Port OC3 SM Intermediate Reach POS	S
GSR-E48-POS-OC48-SM-LR-SC	3.6.0	GSR 12406 Switch Fabric Card	S
GSR-E48-POS-OC48-SM-SR-SC	3.6.0	GSR, Edge Engine 48 Port OC-48 SRP Single Mode Long Reach Line Card	S
GSR-E48-POS-QOC12-SM-IR-SC	3.6.0	4 Port OC12 SM Intermediate Reach POS	S
GSR-E-OC192-SM-SR-SC	3.6.0	Enhanced 1 Port OC 192 Short Reach 2 FC Connector Line Card.	S
GSR-E-QOC48-SM-LR-SC	3.6.0	4 Port Enhanced OC 48 Short Reach SC Connector Line Card	S
GSR-E-QOC48-SM-SR-SC	3.6.0	4 Port Enhanced OC 48 Short Reach SC Connector Line Card	S
GSR-GEFE	3.6.0	GSR General Fan	S
GSR-PA-3GE	3.6.0	GSR 3 port Port Adapter	S
GSR-RP	3.6.0	GSR RoMman Recovery	S
GSR-SFC	3.6.0	GSR Switch Fabric Card	S
GSR-SFC12410	3.6.0	GSR 12410 Switch Fabric Card	S
GSR-SFC16	3.6.0	Switch Fabric Card	S
GSR-SFC16-OC192	3.6.0	GSR 12406 Switch Fabric Card	S
GSR-SFC6	3.6.0	GSR Switch Fabric Card	S
OC12/SRP-IR-SC-B	3.6.0	2 Port OC-12 Single Mode SRP Intermediate Reach Line Card	S
OC12/SRP-MM-SC-B	3.6.0	2 Port OC-12 Multi Mode SRP Line Card	S
OC-48E/POS-SR-SC-B	3.6.0	2 Port Packet Over Sonet OC-48, Single Mode, Short Reach, SC Connector Card	S
OC48X/POS-LR-SC	3.6.0	One-Port OC-48c/STM-16c POS/SDH ISE Line Card, Long Reach	S
OC48X/POS-SR-SC	3.6.0	One-Port OC-48c/STM-16c POS/SDH ISE Line Card, Short Reach	S
POS-EN-OC48-LR-SC	3.6.0	Enhanced OC-48 Long Reach SC Connector Line Card	S
POS-EN-OC48-SR-SC	3.6.0	Enhanced OC-48 Short Reach SC Connector Line Card	S
POS-EN-QOC12-IR	3.6.0	Enhanced 4 port OC-12 Intermediate Reach Line Card	S
POS-EN-QOC48-SM-LR-FC	3.6.0	4 Port (Quad) Enhanced OC-48 Long Reach FC Connector Line Card	S

Table 6-60 Supported Modules for Cisco 12000 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
POS-EN-QOC48-SM-LR-SC	3.6.0	4 Port (Quad) Enhanced OC-48 Long Reach SC Connector Line Card	S
POS-EN-QOC48-SM-SR-SC	3.6.0	4 Port (Quad) Enhanced OC-48 Short Reach SC Connector Line Card	S
POS-OC48-SM-SR-SC	3.6.0	1 Port Packet Over Sonet OC-48, Single Mode, Short Reach, SC Connector Card	S
POS-QOC12-MM-SR	3.6.0	4 port (Quad) OC-12 POS Card, Single Mode, Short Reach	S
PRP-1	3.6.0	Performance Route Processor-1	S
PRP-2	3.6.0	Cisco XR 12000 and 12000 Series Performance Router Processor-2	S
PRP-3	3.6.0	Performance Route Processor-3	S
PRP-4	3.6.0	Cisco XR 12000 and 12000 Series Performance Router Processor-4	S
SFP-OC48-IR1	3.6.1	OC-48c/STM-16c	S
SFP-OC48-LR2	3.6.1	OC-48c/STM-16c SFP, Long Reach (80km)	S
SPA-10X1GE	3.6.1	10-port 1 GbE Shared Port Adapter	S
SPA-1X10GE-L-V2	3.6.0	Cisco 1-Port 10GE LAN-PHY Shared Port Adapter	S
SPA-1XCHOC48/DS3	3.6.2	1-Port Channelized STM-16/OC-48 SPA.	S
SPA-1XCHSTM1/OC3	3.6.1	1-port Channelized STM-1/OC-3c to DS0 Shared Port Adapter.	S
SPA-1XOC12-ATM-V2	3.6.2	1-port OC12c SFP Optics ATM Shared Port Adapter	S
SPA-1XOC192POS-VSR	3.6.1	1-port OC192/STM64 POS VSR Optics Shared Port Adapter	S
SPA-1XOC3-ATM-V2	3.6.2	1-port OC3c SFP Optics ATM Shared Port Adapter	S
SPA-1XOC48POS/RPR	3.6.0	Port OC-48c/STM-16c POS/RPR Shared Port Adapter	S
SPA-1XTENGE-XFP	3.6.0	1-port 10Gigabit Ethernet Shared Port Adapter XFP based	S
SPA-1XTENGE-XFP-V2	3.6.0	1-port 10GbE Shared Port Adapter XFP based V2	S
SPA-24CHT1-CE-ATM	3.6.1	24-Port Channelized T1/E1/J1 ATM CEoP SPA	S
SPA-2CHT3-CE-ATM	3.6.2	2-port Channelized T3/E3 ATM + Circuit Emulation Shared Port Adapter	S
SPA-2X1GE	3.6.0	2 ports Gigabit Ethernet Shared Port Adapters	S
SPA-2X1GE-V2	3.6.1	2 ports Gigabit Ethernet Shared Port Adapters	S
SPA-2XCT3/DS0	3.6.1	2-port Channelized T3 to DS0 Shared Port Adapter	S
SPA-2XOC12-POS	3.6.0	2-Port OC-3c/STM-1 and OC-12c/STM-4 POS SPA	S
SPA-2XOC48POS/RPR	3.6.0	2-port OC48/STM16 POS/RPR Shared Port Adapters	S

Table 6-60 Supported Modules for Cisco 12000 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
SPA-2XT3/E3	3.6.1	2-port Clear Channel T3/E3 Shared Port Adapter	S
SPA-3XOC3-ATM-V2	3.6.2	1-port OC3c SFP Optics ATM Shared Port Adapter	S
SPA-4XCT3/DS0	3.6.0	4-port Channelized T3 to DS0 Shared Port Adapter	S
SPA-4XOC12-POS	3.6.0	4-port OC-12/STM-4 POS Shared Port Adapters	S
SPA-4XOC3-POS-V2	3.6.0	4-port OC-3c/STM1c POS Shared Port Adapter	S
SPA-4XT3/E3	3.6.1	4-port Clear Channel T3/E3 Shared Port Adapter	S
SPA-5X1GE	3.6.0	5-Port Gigabit Ethernet SPA	S
SPA-5X1GE-V2	3.6.0	5-Port Gigabit Ethernet SPA	S
SPA-8X1FE-TX-V2	3.6.0	8-port 10/100 Ethernet SPA TX (Fugu ASIC)	S
SPA-8X1GE	3.6.0	8-port Gigabit Ethernet Shared Port Adapter_V2	S
SPA-8X1GE-V2	3.6.2	8-port 1GbE SPA (Fugu ASIC)	S
SPA-8XCHT1/E1	3.6.1	8-port Channelized T1/E1 to DS0 Shared Port Adapter	S
SPA-8XFE-TX	3.6.0	8-port 10/100 Ethernet SPA with RJ-45	S
SPA-8XOC12-POS	3.6.0	8-Port OC-12c/STM-4 Multirate POS SPA	S
SPA-OC192POS-LR	3.6.0	1-port OC192/STM64 POS/RPR SMLR Optics	S
SPA-OC192POS-VSR	3.6.1	1-port OC192/STM64 POS/RPR VSR Optics	S
SPA-OC192POS-XFP	3.6.0	1-port OC192/STM64 POS/RPR XFP Optics Shared Port Adapter with XFP-10GLR-OC192SR	S
SPA-OC192RPR-XFP	3.6.0	1-port OC192/STM64 POS/RPR XFP Optics Shared Port Adapter = SPA-OC192RPR-XFP	S
SRP-OC12-MM	3.6.0	1 Port OC-12 Multi Mode SRP Line Card	S
SRP-OC12-SM-IR	3.6.0	1 Port OC-12 Single Mode SRP Intermediate Reach Line Card	S
SSRP-OC48-SM-LR	3.6.0	1 Port OC-48 SRP Single Mode Long Reach Line Card	S
SSRP-OC48-SM-SR	3.6.0	1 Port OC-48 SRP Single Mode Short Reach Line Card	S
XR-PRP-2	3.6.1	Cisco XR 12000 and 12000 Series Performance Router Processor-2	S

[1]Support verified in ANA 3.6.7

Cisco 12000 Series—Supported Technologies

The following technologies are supported by the Cisco 12000 Series in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111
- Frame Relay, page 6-114
- Point to Point, page 6-115
- Physical Technologies, page 6-116
- MPLS, page 6-117
- MPLS-TE, page 6-119
- VPN, page 6-120
- PWE3, page 6-121
- ACL, page 6-122
- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125
- Additional Technologies, page 6-127
- Local Switching, page 6-128

Cisco 12000 Series—Supported Service Events

Table 6-61 Supported Service Events for Cisco 12000 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Primary HSRP Interface Active/Inactive	3.6.0	N
Secondary HSRP Interface Active/Inactive	3.6.0	N
All IP Interfaces Down / Active IP Interfaces Found	3.6.0	Y
Interface Status Down/Up	3.6.0	Y
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N

Table 6-61 Supported Service Events for Cisco 12000 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
VPN Leak	3.6.0	N
Cloud Problem	3.6.0	N
Broken LSP Discovered	3.6.0	N
MPLS Black Hole	3.6.0	N
Layer 2 Tunnel Down	3.6.0	N
MPLS TE Tunnel Down/Flapping	3.6.0	N
BGP Neighbor Down	3.6.0	N
Card Up/Down	3.6.0	Y
Vlan Tagged Interface Up/Down	3.6.7	N
Vlan Tagged Interface AdminDown	3.6.7	N

Cisco XR 12000 Series Routers

This section includes the following information about Cisco XR 12000 Series routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco XR 12000 Series Routers):

- Cisco XR 12000 Series—Supported Software Versions, page 6-70
- Cisco XR 12000 Series—Supported Topologies, page 6-71
- Cisco XR 12000 Series—Supported Modules, page 6-72
- Cisco XR 12000 Series—Supported Technologies, page 6-77
- Cisco XR 12000 Series—Supported Service Events, page 6-78
- Cisco XR 12000 Series—Additional Information, page 6-79

Cisco XR 12000 Series—Supported Software Versions

Table 6-62 Supported Software Versions for Cisco XR 12000 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOX 3.4.0	3.6.0	V
IOX 3.4.1	3.6.0	V
IOX 3.4.3	3.6.3	V

Table 6-62 Supported Software Versions for Cisco XR 12000 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOX 3.5.0	3.6.1	S
IOX 3.5.1	3.6.1	V
IOX 3.6.0	3.6.3	V
IOX 3.6.1	3.6.3	V
IOX 3.6.2	3.6.5	V
IOX 3.6.3	3.6.7	V
IOX 3.7.0	3.6.4	V
IOX 3.7.1	3.6.4	V
IOX 3.8.0	3.6.6	V
IOX 3.8.1	3.6.7	V

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco XR 12000 Series—Supported Topologies

Table 6-63 Supported Topologies for Cisco XR 12000 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
BGP	BGP	3.6.0
Ethernet	Ethernet	3.6.0
MPLS	MPLS	3.6.0
PWE3 (Martini)	Tunnel	3.6.0
VPN (VRF)	VPN	3.6.0
Physical Layer	Physical Layer	3.6.0
LAG	LAG	3.6.2

Cisco XR 12000 Series—Supported Modules

Table 6-64 Supported Modules for Cisco XR 12000 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
12000/16-AC-PEM	3.6.4	GSR16 AC POWER SUPPLY	S
12000/16-AC-PEM	3.6.4	Cisco 12000 16-slot Enhanced AC PEM	S
12000/16-DC-PEM	3.6.4	Cisco 12000 16-slot Enhanced DC PEM	S
12000/4-BLOWER	3.6.2	GSR 12404 Fan tray - cevFan12404FanTray7	S
12000/4-DC-PEM	3.6.4	Cisco 12000 4-slot DC PEM	S
12000/6-AC-PEM	3.6.4	Cisco 12000 6-slot Enhanced AC PEM	S
12000/6-DC-PEM	3.6.4	Cisco 12000 6-slot Enhanced DC PEM	S
12000-SIP-401	3.6.0	Cisco 12000 Series SPA Interface Processor-401	S
12000-SIP-501	3.6.0	Cisco 12000 Series SPA Interface Processor-501	S
12000-SIP-600	3.6.0	Cisco 12000 Series SPA Interface Processor-600	S
12000-SIP-601	3.6.0	Cisco 12000 Series SPA Interface Processor-601	S
12810-CSC	3.6.7	12810 Clock Scheduler Card	S
12810-SFC	3.6.5	GSR 12810 Switch Fabric Card	S
12816-SFC	3.6.4	GSR 12816 Switch Fabric Card	S
12DS3-SMB	3.6.0	24 Port Copper DS3 Interface Line Card	S
16OC3X/POS-I-LC-B	3.6.0	GSR16-Port OC3/POS MM/I Eng3 Release B	S
16-OC3X/POS-IR-LC	3.6.0	16-Port Packet-Over-SONET OC-3/STM-1 with Extended Feature Set Line Card (concatenated)	S
16OC3X/POS-IR-LC-B	3.6.0	GSR 16-Port OC3/POS MM/I Eng3 Release B = 16OC3X/POS-IR-LC-B	S
16OC3X/POS-M-MJ-B	3.6.0	GSR16-Port OC3/POS MM/I Eng3 Release B	S
1X10GE-ER-SC	3.6.1	1 Port 10Giga Ethernet Line Card	S
1X10GE-LR-SC	3.6.1	1 Port 10Giga Ethernet Line Card	S
3GE-GBIC-SC	3.6.0	4 Port Gigabit Ethernet Line Card (trident)	S
4GE-SFP-LC	3.6.0	4 port-GE line card for Cisco 12000	S
4OC12/POS-IR-SC-B	3.6.0	Enhanced 4 port OC-12 Intermediate Reach Line Card	S
4OC12X/POS-I-SC-B	3.6.1	4 PORT OC12 POS B	S
4OC12X/POS-I-SC-B	3.6.0	4 Port OC12 SM Intermediate Reach POS	S
4OC12X/POS-M-SC-B	3.6.0	5 port (Quad) OC-12 POS Card, Single Mode, Short Reach	S
4OC3/ATM-IR-SC	3.6.0	4 port OC3/STM1 ATM line MM/IR card	S
4OC3/ATM-MM-SC	3.6.0	4 port OC3/STM1 ATM line MM/IR card	S
4OC3X/ATM-IR-SC	3.6.1	4-port OC3/STM1 ATM Single Mode, intermediate reach ISE Line Card with SC connector	S
4OC3X/POS-IR-LC-B	3.6.0	GSR 4-port OC3/POS IR Eng3 release B	S

Table 6-64 Supported Modules for Cisco XR 12000 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
4OC3X/POS-LR-LC-B	3.6.0	GSR 4-port OC3/POS IR Eng3 release B	S
4OC3X/POS-MM-MJ-B	3.6.0	GSR 4-port OC3/POS IR Eng3 release B	S
4OC48E/POS-LR-SC	3.6.0	5 Port (Quad) Enhanced OC-48 Long Reach FC Connector Line Card	S
4OC48E/POS-SR-SC	3.6.0	5 Port (Quad) Enhanced OC-48 Short Reach SC Connector Line Card	S
4XOC48POS/RPR	3.6.0	4-port OC48/STM16 POS/RPR Shared Port Adapter = SPA-4XOC48POS/RPR	S
6CT3-SMB	3.6.0	18 Port Copper DS3 Interface Line Card	S
8FE-FX-SC	3.6.0	8-Port Fast Ethernet Line Card	S
8FE-TX-RJ45	3.6.0	8-Port Fast Ethernet Line Card	S
8FE-TX-RJ45-B	3.6.1	8-port 100baseTX, RJ45 connector type, version B	S
8OC3X/POS-IR-LC-B	3.6.0	GSR 8-Port OC3/POS MM/IR Eng3 Release B	S
8OC3X/POS-MM-MJ-B	3.6.0	GSR 8-Port OC3/POS MM/IR Eng3 Release B	S
8X1FE-V2	3.6.0	8-port Fast Ethernet Shared Port Adapter V2 = SPA-8X1FE-V2	S
BUS_BOARD	3.6.0	GSR16 BUS BOARD (16) =	S
CHOC12/DS1-IR-SC	3.6.0	Cisco 12000 Series 1-Port Channelized OC-12c/STM-4	S
COPPER-12DS3	3.6.0	12 Port Copper DS3 Interface Line Card	S
COPPER-6DS3	3.6.0	6 Port Copper DS3 Interface Line Card	S
CRS-16-ALARM	3.6.0	Cisco CRS-1 Series 16 Slots Alarm Board = CRS-16-ALARM	S
GSR10-AC-PDU	3.6.0	Cisco 12410 AC Power Distribution Unit (spare)	S
GSR10-ADVNCD-CSC	3.6.0	12010 Advanced Clock Scheduler Card	S
GSR10-ADVNCD-SFC	3.6.0	12010 Advanced Switch Fabric Card	S
GSR10-ALRM	3.6.0	12410, 12010 Alarm Card	S
GSR10-CSC	3.6.0	12410 Clock Scheduler Card	S
GSR10-SFC	3.6.0	Cisco 12410 Switch Fabric Card	S
GSR16/320-CSC	3.6.0	12416 Clock Scheduler Card	S
GSR16/320-SFC	3.6.0	12416 Switch Fabric Card	S
GSR16/80-CSC	3.6.0	Cisco 12016 80 Gbps GSR Scheduler/Fabric	S
GSR16/80-SFC	3.6.0	Cisco 12016 80 Gbps GSR Switch Fabric	S
GSR16-ALRM	3.6.0	Cisco 12016 GSR Alarm Card	S
GSR16-BLOWER	3.6.0	Cisco 12016, 12416 Blower	S
GSR-3GE	3.6.0	3 Port Gigabit Ethernet Line Card (trident)	S
GSR4/80-AC	3.6.2	GSR 12404 AC Power Supply - cevPowerSupply12404AC	S
GSR6-ADVNCD-CSC	3.6.0	12006 Advanced Clock Scheduler Card	S

Table 6-64 Supported Modules for Cisco XR 12000 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
GSR6-ALRM	3.6.0	12406, 12006 Alarm Card	S
GSR6-BLOWER	3.6.0	12406, 12006 Blower	S
GSR6-CSC	3.6.0	Cisco 12406 Clock Scheduler Card	S
GSR6-SFC	3.6.0	Cisco 12406 Switch Fabric Card	S
GSR8-CSC/ALRM	3.6.0	Cisco 12008 GSR Scheduler/Fabric/Alarm	S
GSR-8FE-FX	3.6.0	8 port Fast Ethernet card with Fiber Interface	S
GSR8-SFC	3.6.0	Switch Fabric	S
GSR-ALARM10	3.6.0	GSR Alarm module	S
GSR-ALARM16	3.6.0	GSR-Alarm	S
GSR-BUS-BOARD16	3.6.0	GSR Bus Board for Power distribution	S
GSR-CLOCK-OC192	3.6.0	GSR Clock Scheduler	S
GSR-CSC	3.6.0	GSR Clock Scheduler Card	S
GSR-CSC12410	3.6.0	GSR 12410 Clock scheduler	S
GSR-CSC16	3.6.0	GSR Clock Scheduler	S
GSR-CSC16-OC192	3.6.0	GSR 12406 Clock Scheduler Card	S
GSR-E48-ATM-4OC12-MM-SR-SC	3.6.0	GSR Edge Engine 48, ATM, 4 port OC12/STM4Multi Mode Short Reach Line Card	S
GSR-E48-ATM-4OC12-SM-IR-SC	3.6.0	GSR Edge Engine 48, ATM, 4 ports OC12/STM4 Single Mode Intermediate Reach Line Card	S
GSR-E48-POS-16OC3-SM-IR-LC	3.6.0	16 Port OC3 SM Intermediate Reach POS	S
GSR-E48-POS-OC48-SM-LR-SC	3.6.0	GSR 12406 Switch Fabric Card	S
GSR-E48-POS-OC48-SM-SR-SC	3.6.0	GSR, Edge Engine 48 Port OC-48 SRP Single Mode Long Reach Line Card	S
GSR-E48-POS-QOC12-SM-IR-SC	3.6.0	4 Port OC12 SM Intermediate Reach POS	S
GSR-E-OC192-SM-SR-SC	3.6.0	Enhanced 1 Port OC 192 Short Reach 2 FC Connector Line Card.	S
GSR-E-QOC48-SM-LR-SC	3.6.0	4 Port Enhanced OC 48 Short Reach SC Connector Line Card	S
GSR-E-QOC48-SM-SR-SC	3.6.0	4 Port Enhanced OC 48 Short Reach SC Connector Line Card	S
GSR-GEFE	3.6.0	GSR General Fan	S
GSR-PA-3GE	3.6.0	GSR 3 port Port Adapter	S
GSR-RP	3.6.0	GSR RoMman Recovery	S
GSR-SFC	3.6.0	GSR Switch Fabric Card	S
GSR-SFC12410	3.6.0	GSR 12410 Switch Fabric Card	S
GSR-SFC16	3.6.0	Switch Fabric Card	S
GSR-SFC16-OC192	3.6.0	GSR 12406 Switch Fabric Card	S

Table 6-64 Supported Modules for Cisco XR 12000 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
OC12/SRP-IR-SC-B	3.6.0	2 Port OC-12 Single Mode SRP Intermediate Reach Line Card	S
OC12/SRP-MM-SC-B	3.6.0	2 Port OC-12 Multi Mode SRP Line Card	S
OC-48E/POS-SR-SC-B	3.6.0	2 Port Packet Over Sonet OC-48, Single Mode, Short Reach, SC Connector Card	S
OC48X/POS-LR-SC	3.6.0	One-Port OC-48c/STM-16c POS/SDH ISE Line Card, Long Reach	S
OC48X/POS-SR-SC	3.6.0	One-Port OC-48c/STM-16c POS/SDH ISE Line Card, Short Reach	S
POS-EN-OC48-LR-SC	3.6.0	Enhanced OC-48 Long Reach SC Connector Line Card	S
POS-EN-OC48-SR-SC	3.6.0	Enhanced OC-48 Short Reach SC Connector Line Card	S
POS-EN-QOC12-IR	3.6.0	Enhanced 4 port OC-12 Intermediate Reach Line Card	S
POS-EN-QOC48-SM-LR-FC	3.6.0	4 Port (Quad) Enhanced OC-48 Long Reach FC Connector Line Card	S
POS-EN-QOC48-SM-LR-SC	3.6.0	4 Port (Quad) Enhanced OC-48 Long Reach SC Connector Line Card	S
POS-EN-QOC48-SM-SR-SC	3.6.0	4 Port (Quad) Enhanced OC-48 Short Reach SC Connector Line Card	S
POS-OC48-SM-SR-SC	3.6.0	1 Port Packet Over Sonet OC-48, Single Mode, Short Reach, SC Connector Card	S
POS-QOC12-MM-SR	3.6.0	4 port (Quad) OC-12 POS Card, Single Mode, Short Reach	S
PRP-1	3.6.0	Performance Route Processor-1	S
PRP-2	3.6.0	Cisco XR 12000 and 12000 Series Performance Router Processor-2	S
PRP-3	3.6.6	Cisco XR 12000 and 12000 Series Performance Router Processor-3	V
PRP-4	3.6.0	Cisco XR 12000 and 12000 Series Performance Router Processor-4	S
SFP-GE-L	3.6.7	1000BASE-LH/LX pluggable transceiver	V
SFP-GE-S	3.6.7	1000BASE-Sx Short wavelength gigabit ethernet SFP.	V
SFP-GE-Z	3.6.7	1000BASE-Zx Extended reach gigabit ethernet SFP.	V
SFP-OC48-IR1	3.6.1	OC-48c/STM-16c	S
SFP-OC48-LR2	3.6.1	OC-48c/STM-16c SFP, Long Reach (80km)	S
SPA-10X1GE	3.6.0	10-port 1 GbE Shared Port Adapter	S
SPA-10X1GE-V2	3.6.2	10-port 1GbE SPA (Fugu ASIC)	V
SPA-1X10GE-L-V2	3.6.0	Cisco 1-Port 10GE LAN-PHY Shared Port Adapter	S
SPA-1XCHOC12/DS0	3.6.7	1-port OC12 Channelized DS0 line card	V
SPA-1XCHOC48/DS3	3.6.2	1-Port Channelized STM-16/OC-48 SPA.	S

Table 6-64 Supported Modules for Cisco XR 12000 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
SPA-1XCHSTM1/OC3	3.6.1	1-port Channelized STM-1/OC-3c to DS0 Shared Port Adapter.	S
SPA-1XOC12-ATM-V2	3.6.2	1-port OC12c SFP Optics ATM Shared Port Adapter	S
SPA-1XOC12-ATM-V2	3.6.4	1-port OC12c SFP Optics ATM Shared Port Adapter	S
SPA-1XOC192POS-VSR	3.6.0	1-port OC192/STM64 POS VSR Optics Shared Port Adapter	S
SPA-1XOC3-ATM-V2	3.6.2	1-port OC3c SFP Optics ATM Shared Port Adapter	S
SPA-1XOC3-ATM-V2	3.6.2	1-port OC3c SFP Optics ATM Shared Port Adapter	S
SPA-1XOC3-ATM-V2	3.6.4	1-port OC3c SFP Optics ATM Shared Port Adapter	V
SPA-1XOC48POS/RPR	3.6.0	Port OC-48c/STM-16c POS/RPR Shared Port Adapter	S
SPA-1XTENGE-XFP	3.6.0	1-port 10Gigabit Ethernet Shared Port Adapter XFP based	S
SPA-1XTENGE-XFP-V2	3.6.0	1-port 10GbE Shared Port Adapter XFP based V2	S
SPA-2CHT3-CE-ATM	3.6.2	2-port Channelized T3/E3 ATM + Circuit Emulation Shared Port Adapter	S
SPA-2X1GE	3.6.0	2 ports Gigabit Ethernet Shared Port Adapters	S
SPA-2X1GE-V2	3.6.1	2 ports Gigabit Ethernet Shared Port Adapters	S
SPA-2XCT3/DS0	3.6.1	2-port Channelized T3 to DS0 Shared Port Adapter	S
SPA-2XOC12-POS	3.6.0	2-Port OC-3c/STM-1 and OC-12c/STM-4 POS SPA	S
SPA-2XOC48POS/RPR	3.6.0	2-port OC48/STM16 POS/RPR Shared Port Adapters	S
SPA-2XT3/E3	3.6.1	2-port Clear Channel T3/E3 Shared Port Adapter	S
SPA-3XOC3-ATM-V2	3.6.4	3-port OC3c SFP Optics ATM Shared Port Adapter	S
SPA-4XCT3/DS0	3.6.0	4-port Channelized T3 to DS0 Shared Port Adapter	S
SPA-4XOC12-POS	3.6.0	4-port OC-12/STM-4 POS Shared Port Adapters	S
SPA-4XOC3-POS-V2	3.6.3	4-Port OC-3c/STM-1 POS SPA	S
SPA-4XT3/E3	3.6.1	4-port Clear Channel T3/E3 Shared Port Adapter	S
SPA-5X1GE	3.6.0	5-Port Gigabit Ethernet SPA	S
SPA-5X1GE-V2	3.6.0	5-Port Gigabit Ethernet SPA	S
SPA-8X1FE-TX-V2	3.6.0	8-port 10/100 Ethernet SPA TX (Fugu ASIC)	S
SPA-8X1GE	3.6.0	8-port Gigabit Ethernet Shared Port Adapter_V2	S
SPA-8XCHT1/E1	3.6.1	8-port Channelized T1/E1 to DS0 Shared Port Adapter	S
SPA-8XFE-TX	3.6.0	8-port 10/100 Ethernet SPA with RJ-45	S
SPA-8XOC12-POS	3.6.0	8-Port OC-12c/STM-4 Multirate POS SPA	S
SPA-IPSEC-2G-2	3.6.1	Cisco XR 12000 Series IPsec VPN Shared Port Adapter	S
SPA-OC192POS-LR	3.6.0	1-port OC192/STM64 POS/RPR SMLR Optics	S
SPA-OC192POS-VSR	3.6.0	1-port OC192/STM64 POS/RPR VSR Optics	S

Table 6-64 Supported Modules for Cisco XR 12000 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
SPA-OC192POS-XFP	3.6.0	1-port OC192/STM64 POS/RPR XFP Optics Shared Port Adapter with XFP-10GLR-OC192SR	S
SPA-OC192RPR-XFP	3.6.0	1-port OC192/STM64 POS/RPR XFP Optics Shared Port Adapter = SPA-OC192RPR-XFP	S
SRP-OC12-MM	3.6.0	1 Port OC-12 Multi Mode SRP Line Card	S
SRP-OC12-SM-IR	3.6.0	1 Port OC-12 Single Mode SRP Intermediate Reach Line Card	S
SSRP-OC48-SM-LR	3.6.0	1 Port OC-48 SRP Single Mode Long Reach Line Card	S
SSRP-OC48-SM-SR	3.6.0	1 Port OC-48 SRP Single Mode Short Reach Line Card	S
XR-PRP-2	3.6.1	Cisco XR 12000 and 12000 Series Performance Router Processor-2	S

Cisco XR 12000 Series—Supported Technologies

The following technologies are supported by the Cisco XR 12000 Series in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111
- Point to Point, page 6-115
- Physical Technologies, page 6-116
- MPLS, page 6-117
- MPLS-TE, page 6-119
- VPN, page 6-120
- PWE3, page 6-121
- ACL, page 6-122
- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125
- Additional Technologies, page 6-127
- Local Switching, page 6-128
- Carrier Ethernet, page 6-131

Cisco XR 12000 Series—Supported Service Events

Table 6-65 Supported Service Events for Cisco XR 12000 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
All IP Interfaces Down / Active IP Interfaces Found	3.6.0	Y
Interface Status Down/Up	3.6.0	Y
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
VPN Leak	3.6.0	N
Cloud Problem	3.6.0	N
Broken LSP Discovered	3.6.0	N
MPLS Black Hole	3.6.0	N
Layer 2 Tunnel Down	3.6.0	N
BGP Neighbor Down	3.6.0	N
BGP Process Down/Up	3.6.3	N[1]
Card Up/Down	3.6.0	Y
Adaptive Polling	3.6.0	N
BGP link down	3.6.1	Y
LDP neighbor loss	3.6.3	Y
MPLS interface removed	3.6.1	Y
Layer 2 cross connect down	3.6.0	N[2]
VSI Up/Down	3.6.7	N
VSI Admin Down	3.6.7	N
EFP Up/Down	3.6.7	N
EFP Admin Down	3.6.7	N
EFP down due to error disabled	3.6.7	N

Table 6-65 Supported Service Events for Cisco XR 12000 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Vlan Tagged Interface Up/Down	3.6.7	N
Vlan Tagged Interface AdminDown	3.6.7	N

[1]Indicates removal of the BGP configuration, not that the BGP process has crashed

[2]Expedited indirectly through port, link, and card events.

Cisco XR 12000 Series—Additional Information

As a prerequisite for the Cisco XR 12000 Series VNE, install the Cisco IOS XR Manageability Package on top of the IOS-XR version. In addition, the device configuration must contain the command, **xml agent tty**.

When creating the SNMP community, the SystemOwner should be specified.

Cisco CRS-1 Carrier Routing System

This section includes the following information about Cisco CRS-1 routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco CRS-1 Carrier Routing System):

- Cisco CRS-1—Supported Software Versions, page 6-79
- Cisco CRS-1—Supported Topologies, page 6-80
- Cisco CRS-1—Supported Modules, page 6-80
- Cisco CRS-1—Supported Technologies, page 6-85
- Cisco CRS-1—Supported Service Events, page 6-86
- Cisco CRS-1—Additional Information, page 6-87

Cisco CRS-1—Supported Software Versions

Table 6-66 Supported Software Versions for Cisco CRS-1—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOX 3.4.0	3.6.0	V
IOX 3.4.1	3.6.0	V
IOX 3.4.3	3.6.3	V
IOX 3.5.1	3.6.1	V
IOX 3.6.0	3.6.3	V
IOX 3.6.1	3.6.3	V
IOX 3.6.2	3.6.4	V

Table 6-66 Supported Software Versions for Cisco CRS-1—Cisco ANA Version 3.6.7 (continued)

Software Version	ANA Version	Certification Level
IOX 3.6.3	3.6.7	V
IOX 3.7.0	3.6.4	V
IOX 3.7.1	3.6.4	V
IOX 3.8.0	3.6.6	V
IOX 3.8.1	3.6.7	V

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco CRS-1—Supported Topologies

Table 6-67 Supported Topologies for Cisco CRS-1—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
BGP	BGP	3.6.0
Ethernet	Ethernet	3.6.0
LAG	LAG	3.6.0
MPLS	MPLS	3.6.0
Physical Layer	Physical Layer	3.6.0
PPP/HDLC	PPP or HDLC	3.6.0
PWE3 (Martini)	Tunnel	3.6.2
VPN (VRF)	VPN	3.6.1

Cisco CRS-1—Supported Modules

Table 6-68 Supported Modules for Cisco CRS-1—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
16OC48-POS/DPT	3.6.0	Cisco CRS-1 Series 16xOC48/STM16 POS/DPT Interface Module	V
1OC768-DPSK/C	3.6.6	Cisco CRS-1 1xOC768 DPSK+ (C-band) DWDM PLIM	V
1OC768-DPSK/C-E	3.6.2	1-Port OC-768/STM-256c (C-band) DPSK DWDM PLIM	S
1OC768-DPSK/C-O	3.6.2	1-Port OC-768/STM-256c (C-band) DPSK DWDM PLIM	S

Table 6-68 Supported Modules for Cisco CRS-1—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
1OC768-ITU/C	3.6.0	1 port OC768-POS-DWDM Plim	V
1OC768-POS-SR	3.6.1	1-port OC-768c/STM-256c PLIM, with short-reach optics (POS)	S
20-1GE-FLEX	3.6.7	Cisco CRS-1 Series 20x1GE Flexible Interface Module	V
2-10GE-WL-FLEX	3.6.7	Cisco CRS-1 Series 2x10GE WAN/LAN Flexible Interface Module	V
4-10GE	3.6.7	Cisco-CRS1 series 4x10GE interface module	V
4-10GE-ITU/C	3.6.0	Module Crs1 4x10 Ge CDwdm Plim	V
42-1GE	3.6.7	Cisco CRS-1 Series 42x1GE Interface Module	V
4OC192-ITU/C	3.6.1	Module CRS 1 4 ports OC192 C Dwdm Plim	S
4OC192-POS/DPT	3.6.0	Cisco CRS-1 Series 4xOC192/STM64 POS/DPT Interface Module	S
4OC192-POS/DPT-IR	3.6.0	Cisco CRS-1 Series 4xOC192/STM64 POS/DPT Interface Module/IR	V
4OC192-POS/DPT-LR	3.6.0	4OC192-POS DPT	V
4OC192-POS/DPT-SR	3.6.0	Cisco CRS-1 Series 4xOC192/STM64 POS/DPT Interface Module/SR	V
4OC192-POS/DPT-VS	3.6.0	4OC192-POS DPT	V
8-10GBE	3.6.0	8x10 Gigabit Ethernet port	V
8XOC3-OC12-PO	3.6.0	SPA POS 8XOC12 Card	S
CEVCPUCRS1ASMPROUTE	3.6.1	CPU CRS 1 Asmp Route	S
CEVCPUCRS1DSMPROUTE	3.6.1	CPU CRS 1 Dsmp Route	S
CEVCPUCRS1SPFC	3.6.1	CPU CRS 1 SPFC	S
CRS-16-AC-RECT	3.6.1	Cisco CRS-1 Series AC Pwr Rectifier for 16 slot LCC and FCC	S
CRS-16-AC-RECT	3.6.4	Cisco CRS-1 Series AC Pwr Rectifier for 16 slot LCC and FCC	S
CRS-16-ALARM	3.6.0	Cisco CRS-1 Series 16 Slots Alarm	V
CRS-16-DC-PEM	3.6.1	DC power entry module for line card chassis	S
CRS-16-DC-PEM=	3.6.4	Cisco CRS-1 Series DC PEM for 16 slot LCC and FCC	S
CRS-16-FC/D	3.6.1	Cisco CRS-1 Series 16 Slots Fabric Card/Dual	S
CRS-16-FC/M	3.6.0	Cisco CRS-1 Series 16 Slots Fabric Card / Multi	V
CRS-16-FC/S	3.6.0	Cisco CRS-1 Series 16 Slots Fabric Card Single	V
CRS-16-LCC	3.6.0	16 slots Line Card Chassis	V
CRS-16-LCC-FAN-CT	3.6.0	Cisco CRS-1 Series LC Chassis Fan Controller	V
CRS-16-LCC-FAN-TR	3.6.1	Cisco CRS-1 16 Slots FCC fan tray with fans	S
CRS-16-LCC-PS-ACD	3.6.1	AC Delta power shelf for line card chassis	S
CRS-16-LCC-PS-ACD=	3.6.4	Cisco CRS-1 Series AC Delta Power Shelf for 16 Slots LCC	S
CRS-16-LCC-PS-ACW	3.6.1	AC Wye power shelf for line card chassis	S

Table 6-68 Supported Modules for Cisco CRS-1—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
CRS-16-LCC-PS-ACW=	3.6.4	Cisco CRS-1 Series AC Wye Power Shelf for 16 Slots LCC	S
CRS-16-LCC-PS-DC	3.6.1	DC power shelf for line card chassis	S
CRS-16-LCC-PS-DC=	3.6.4	Cisco CRS-1 Series DC Power Shelf for 16 Slots LCC	S
CRS-16-RP	3.6.0	Module Crs1 16 slots RP	V
CRS-16-RP-B	3.6.0	Module Crs1 16 slots RP - B	V
CRS1-SIP-800	3.6.0	Module Crs1 SPA Interface Card	V
CRS-4-AC-SHELF	3.6.1	AC Power shelf	S
CRS-4-AC-SHELF	3.6.4	Cisco CRS-1 Series AC Power Shelf for CRS-4	S
CRS-4-AC-SUPPLY	3.6.1	AC power supplies	S
CRS-4-AC-SUPPLY	3.6.4	Cisco CRS-1 Series AC Supply for CRS-4	S
CRS-4-CH	3.6.0	4 slots Chassis	V
CRS-4-DC-INPUT	3.6.1	DC power input shelf	S
CRS-4-DC-INPUT	3.6.4	Cisco CRS-1 Series 4 Slot DC Input Shelf	S
CRS-4-DC-PIM	3.6.4	Cisco CRS-1 Series 4 Slot DC Power Input Module	S
CRS-4-DC-SUPPLY	3.6.1	DC power supplies	S
CRS-4-FAN-TR	3.6.1	Cisco CRS-1 4 Slots FCC fan tray with fans	S
CRS-4-FC	3.6.1	CRS-1 4-Slot Fabric Card	S
CRS-4-LCC	3.6.0	Cisco CRS-1 Series 4 Slots Line Card Chassis	S
CRS-8-AC-RECT	3.6.1	Cisco CRS-1 AC rectifier module	S
CRS-8-AC-RECT	3.6.4	Cisco CRS-1 Series AC Pwr Rectifier for 8 slot LCC	S
CRS-8-DC-PEM	3.6.1	DC power entry module for line card chassis	S
CRS-8-DC-PEM	3.6.4	Cisco CRS-1 Series DC Power Entry Module for 8 slot LCC	S
CRS-8-FC/M	3.6.1	Cisco CRS-1 Series 8 Slots Fabric Card/Multi	S
CRS-8-FC/S	3.6.0	Cisco CRS-1 Series 8 Slots Fabric Card Single	V
CRS-8-LCC	3.6.0	8 slots Line Card Chassis	V
CRS-8-LCC-ACD	3.6.1	Power Supply Crs 1 8 Slots AC Delta	S
CRS-8-LCC-ACW	3.6.1	Power Supply Crs 1 8 Slots ACW	S
CRS-8-LCC-DC	3.6.1	Cisco CRS-1 Series 8 slots with redundant DC power	S
CRS-8-LCC-FAN-TR	3.6.1	Cisco CRS-1 8 Slots FCC fan tray with fans	S
CRS-8-LCC-PDU-ACD	3.6.1	Cisco CRS-1 Series AC Delta PDU for CRS-8 LCC	S
CRS-8-LCC-PDU-ACD	3.6.4	Cisco CRS-1 Series AC Delta PDU for CRS-8 LCC	S
CRS-8-LCC-PDU-ACD	3.6.4	Cisco CRS-1 Series AC Delta PDU for CRS-8 LCC	S
CRS-8-LCC-PDU-ACW	3.6.1	AC Wye PDU	S
CRS-8-LCC-PDU-ACW	3.6.4	Cisco CRS-1 Series AC Wye PDU for CRS-8 LCC	S
CRS-8-LCC-PDU-ACW	3.6.4	Cisco CRS-1 Series AC Wye PDU for CRS-8 LCC	S

Table 6-68 Supported Modules for Cisco CRS-1—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
CRS-8-LCC-PDU-DC	3.6.1	DC PDU	S
CRS-8-LCC-PDU-DC	3.6.4	Cisco CRS-1 Series DC PDU for CRS-8 LCC	S
CRS-8-LCC-PDU-DC	3.6.4	Cisco CRS-1 Series DC PDU for CRS-8 LCC	S
CRS-8-RP	3.6.0	Module Crs1 8 slots RP	V
CRS-DRP	3.6.0	Cisco CRS-1 Series Distributed Route Processor	S
CRS-DRP-B-CPU	3.6.0	Cisco CRS-1 Series Distributed Route Processor	V
CRS-DRP-B-PLIM	3.6.0	Cisco CRS-1 Series Distributed Route Processor Front Accessory	V
CRS-DRP-CPU	3.6.0	Cisco CRS-1 Series Distributed Route Processor	V
CRS-DRP-PLIM	3.6.0	Cisco CRS-1 Series Distributed Route Processor Front Accessory	V
CRS-FCC	3.6.0	Cisco CRS-1 Series Fabric Card Chassis Only	V
CRS-FCC-FAN-TR	3.6.1	Cisco CRS-1 FCC fan tray with fans	S
CRS-FCC-FAN-TR	3.6.4	CRS-1 24-slot Fabric Chassis Fan Tray	S
CRS-FCC-LED	3.6.1	Fiber module LED card	S
CRS-FCC-OIM-1S	3.6.1	Optical single interface module (OIM)	S
CRS-FCC-OIM-2S	3.6.1	Optical dual interface module (OIM)	S
CRS-FCC-PS-ACD	3.6.1	CRS-1 Fabric Chassis AC Delta Power Supply	S
CRS-FCC-PS-ACD	3.6.4	CRS-1 Fabric Chassis AC Delta Power Supply	S
CRS-FCC-PS-ACW	3.6.1	CRS-1 Fabric Chassis AC Wye Option	S
CRS-FCC-PS-ACW	3.6.4	CRS-1 Fabric Chassis AC Wye Option	S
CRS-FCC-PS-DC	3.6.1	DC power shelf	S
CRS-FCC-PS-DC	3.6.4	CRS-1 Fabric Chassis DC Power Option	S
CRS-FCC-SC/GEW	3.6.1	Module Crs 1 Fcc SC Ge	S
CRS-FCC-SC-22GE	3.6.1	CRS-1 fan controllers	S
CRS-FCC-SC-GE	3.6.1	2-port Shelf controller Gigabit Ethernet	S
CRS-FCC-SFC	3.6.1	Switch fabric card (fabric card chassis) S2 switch fabric cards	S
CRS-FP40	3.6.7	Cisco CRS-1 Series Forwarding Processor 40G	V
CRS-MSC	3.6.0	Cisco CRS-1 Series Modular Service Card	V
CRS-MSC-20G-B	3.6.0	Cisco CRS-1 Series Modular Service Card B - 20G licenses	V
CRS-MSC-40G-B	3.6.0	Cisco CRS-1 Series Modular Service Card B - 40G licenses	V
CRS-MSC-B	3.6.0	Cisco CRS-1 Series Modular Service Card	V
CRS-XENPACK-10GB-LR	3.6.0	Cisco CRS-1 Series 8x10GbE Interface Module	S
OC192/POS-IR-SC	3.6.2	GSR 1 port Packet Over SONET OC-48c/STM-16 Single Mode Intermediate Reach with SC connector	S

Table 6-68 Supported Modules for Cisco CRS-1—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
SFP-GE-S	3.6.7	1000BASE-SX SFP transceiver module for MMF, 850-nm wavelength, extended operating temperature range and DOM support	V
SFP-GE-T	3.6.7	1000BASE-TX SFP (DOM), MMF, 550/220m	S
SFP-GE-Z	3.6.7	1000BASE-ZX SFP transceiver module SMF, 1550-nm wavelength, extended operating temperature range and DOM support	V
SPA-10X1GE	3.6.1	10-Port Gigabit Ethernet SPA	S
SPA-10X1GE-V2	3.6.1	10-Port Gigabit Ethernet SPA	S
SPA-1X10GE-L-V2	3.6.1	Cisco 1-Port 10GE LAN-PHY Shared Port Adapter	S
SPA-1X10GE-WL-V2	3.6.7	1-port 10 Gigabit Ethernet Wanphy Shared Port Adapter V2	V
SPA-1XCHOC12/DS0	3.6.2	1 port channelized OC12 to DS0 Shared Port Adapter	S
SPA-1XOC12-ATM-V2	3.6.4	1-port OC12c SFP Optics ATM Shared Port Adapter	S
SPA-1XOC192POS-VSR	3.6.0	1-port OC192/STM64 POS VSR Optics Shared Port Adapter	S
SPA-1XOC192POS-XFP	3.6.0	1-port OC192/STM64 POS XFP Optics Shared Port Adapter	S
SPA-1XOC3-ATM-V2	3.6.7	Cisco 1-Port OC3c/STM1c ATM Shared Port Adapter	S
SPA-1XOC48POS/RPR	3.6.1	Port OC-48c/STM-16c POS/RPR Shared Port Adapter	S
SPA-1XTENGE-XFP	3.6.1	1-port 10 Gigabit Ethernet Shared Port Adapter XFP based	S
SPA-1XTENGE-XFP-V2	3.6.0	1-port 10GbE Shared Port Adapter XFP based V2 = SPA-1XTENGE-XFP-V2	S
SPA-2X1GE	3.6.1	2 ports Gigabit Ethernet Shared Port Adapters	S
SPA-2X1GE-V2	3.6.1	2 ports Gigabit Ethernet Shared Port Adapters	S
SPA-2XCT3/DS0	3.6.1	2-Port Channelized T3 SPA	S
SPA-2XOC12-POS	3.6.1	2-Port OC-3c/STM-1 and OC-12c/STM-4 POS SPA	S
SPA-2XOC48POS/RPR	3.6.1	3 Ports OC-48c/STM-16c POS/RPR Shared Port Adapter	S
SPA-2XT3/E3	3.6.1	2-Port T3/E3 Serial SPA	S
SPA-3XOC3-ATM-V2	3.6.4	3-port OC3c SFP Optics ATM Shared Port Adapter	S
SPA-4XOC12-POS	3.6.1	4-Port OC-3c/STM-1 and OC-12c/STM-4 POS SPA	S
SPA-4XOC3-POS	3.6.0	4-Port OC-3c/STM-1 POS SPA	V
SPA-4XOC3-POS-V2	3.6.0	4-Port OC-3c/STM-1 POS SPA	V
SPA-4XOC48POS/RPR	3.6.1	Port OC-48c/STM-16c POS/RPR Shared Port Adapter	S
SPA-4XT3/E3	3.6.1	4-Port T3/E3 Serial SPA	S
SPA-5X1GE	3.6.1	5-Port Gigabit Ethernet SPA	S
SPA-5X1GE-V2	3.6.1	5-Port Gigabit Ethernet SPA	S
SPA-8X1GE	3.6.0	8-port Gigabit Ethernet Shared Port Adapter	V
SPA-8X1GE-V2	3.6.1	8-port Gigabit Ethernet Shared Port Adapter	V
SPA-8XCHT1/E1	3.6.1	8-Port Channelized T1/E1 SPA	S

Table 6-68 Supported Modules for Cisco CRS-1—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
SPA-8XOC12-POS	3.6.1	8-Port OC-12c/STM-4 Multirate POS SPA	S
SPA-8XOC3-POS	3.6.0	8-Port OC-3c/STM-1 POS SPA	V
SPA-OC192POS-LR	3.6.1	1-PORT OC-192C/STM-64C POS/RPR SHARED PORT ADAPTER	S
SPA-OC192POS-VSR	3.6.1	1-PORT OC-192C/STM-64C POS/RPR SHARED PORT ADAPTER	S
SPA-OC192POS-XFP	3.6.0	1-port OC192/STM64 POS/RPR XFP Optics	V
XFP-10GER-192IR+	3.6.7	Multirate XFP module for 10GBASE-IR and OC192 IR	V
XFP-10GER-OC192IR	3.6.7	Multirate XFP module for 10GBASE-IR and OC192 IR	V
XFP-10GZR-OC192LR	3.6.7	Multirate XFP module for 10GBASE-LR and OC192 LR	V

Cisco CRS-1—Supported Technologies

The following technologies are supported by the Cisco CRS-1 in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- Point to Point, page 6-115
- Physical Technologies, page 6-116
- MPLS, page 6-117
- MPLS-TE, page 6-119
- VPN, page 6-120
- PWE3, page 6-121
- ACL, page 6-122
- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125
- Additional Technologies, page 6-127
- Local Switching, page 6-128
- BFD, page 6-129
- Carrier Ethernet, page 6-131

Cisco CRS-1—Supported Service Events

Table 6-69 Supported Service Events for Cisco CRS-1—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
All IP Interfaces Down / Active IP Interfaces Found	3.6.0	Y
Interface Status Down/Up	3.6.0	Y
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
VPN Leak	3.6.0	N
Cloud Problem	3.6.0	N
Broken LSP Discovered	3.6.0	N
MPLS Black Hole	3.6.0	N
Layer 2 Tunnel Down	3.6.0	N
BGP Neighbor Down	3.6.0	N
BGP Process Down/Up	3.6.3	N[1]
Card Up/Down	3.6.0	Y
BGP link down	3.6.1	Y
LDP neighbor loss	3.6.3	Y
MPLS interface removed	3.6.0	Y
Layer 2 cross connect down	3.6.0	N[2]

[1]Indicates removal of the BGP configuration, not that the BGP process has crashed

[2]Expedited indirectly, though port, link and card events.

Cisco CRS-1—Additional Information

This section contains additional information about the Cisco Carrier Routing System (CRS-1) and includes the following topics:

- Cisco Carrier Routing System (CRS-1) Prerequisite, page 6-87
- SDR Support for CRS-1, page 6-87
- Multichassis Support for CRS-1, page 6-88

Cisco Carrier Routing System (CRS-1) Prerequisite

As a prerequisite for the CRS-1 VNE, install the Cisco IOS XR Manageability Package on top of the IOS-XR version. In addition, the device configuration must contain the command, **xml agent tty**.

When creating the SNMP community, the SystemOwner should be specified.

SDR Support for CRS-1

Secure Domain Router (SDR) is supported as a separate, independent VNE, with its own IP and login sequence. When adding an SDR to Cisco ANA, it is treated like any other network element, i.e., it is added as a new VNE using Cisco ANA Manage. The SDR IP address is attached to the active DRP of the SDR (or to its virtual IP, if it exists).

As a prerequisite for the CRS-1 VNE:

1. Install the Cisco IOS XR Manageability Package on top of the IOS-XR version (XR 3.4 and 3.4.1).
2. Add the command `xml agent tty` to the device configuration
3. When creating the SNMP community string, specify the SystemOwner (for SDRs, specify the SDROwner; LROwner on XR 3.5.x and below).
4. Define the IP address, snmp read community and telnet login sequence.

Cisco ANA uses the management network (if available) to manage the devices. The CRS platform assigns specific management interfaces on the RP modules (DRP for an SDR). In order to retrieve the IP address of these management interfaces, login to the device and run the command `show ipv4 interface brief | include Mgmt` as shown in the following example:

```
RP/0/RP1/CPU0:P1_CRS8#show ipv4 interface brief | include Mgmt
MgmtEth0/RP1/CPU0/0            1.60.34.104     Up                  Up
MgmtEth0/4/CPU0/0              unassigned      Shutdown            Down
MgmtEth0/4/CPU1/0              unassigned      Shutdown            Down
```

In multiple (D)RP environments, there is an option to configure a virtual management interface and assign an IP address to it, so that the device is reachable via the same IP address no matter which (D)RP is active. In this environment, each (D)RP has its own IP address but it is not used in order to access the device. In order to get the virtual IP address, login to the device and run the command `show running-config ipv4 virtual address` as shown in the example:

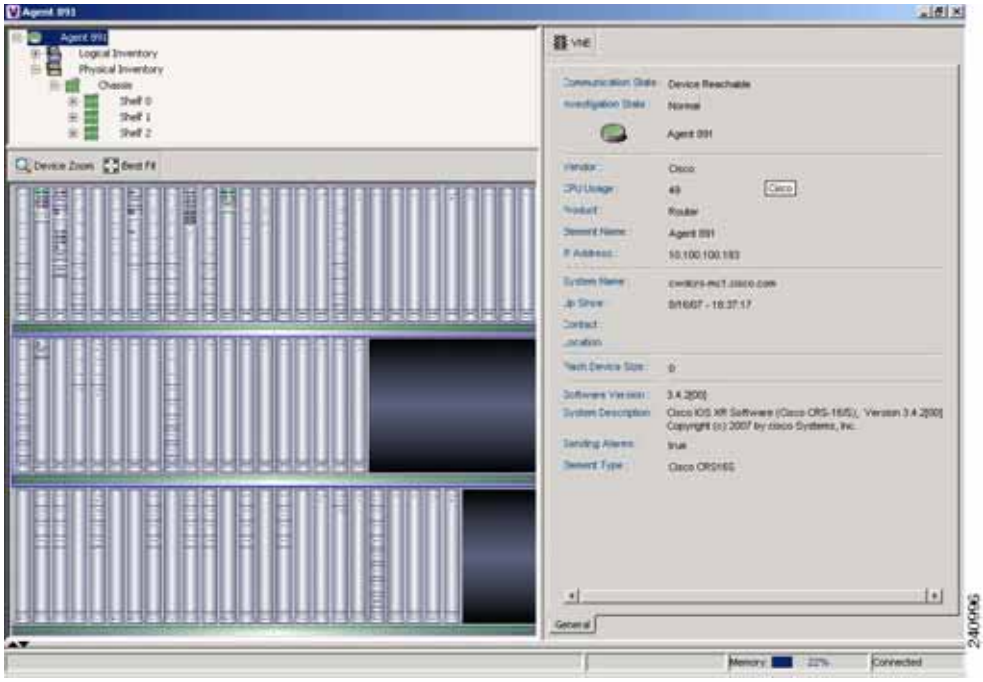
```
DRP/0/3/CPU0:CRS-PE1#show running-config ipv4 virtual address
ipv4 virtual address 10.52.123.11 255.255.255.0
```

If the SDR is managed in-band the management IP address should be supplied by the customer. The owner SDR (namely, the main router) presents all the modules that are installed on the chassis, excluding the ports that belong to other SDRs. The VNE of the SDR only displays the modules that are associated with the SDR in the Inventory window of Cisco ANA NetworkVision. It does not display the fabric, fan and power supply (namely, the shared modules).

Multichassis Support for CRS-1

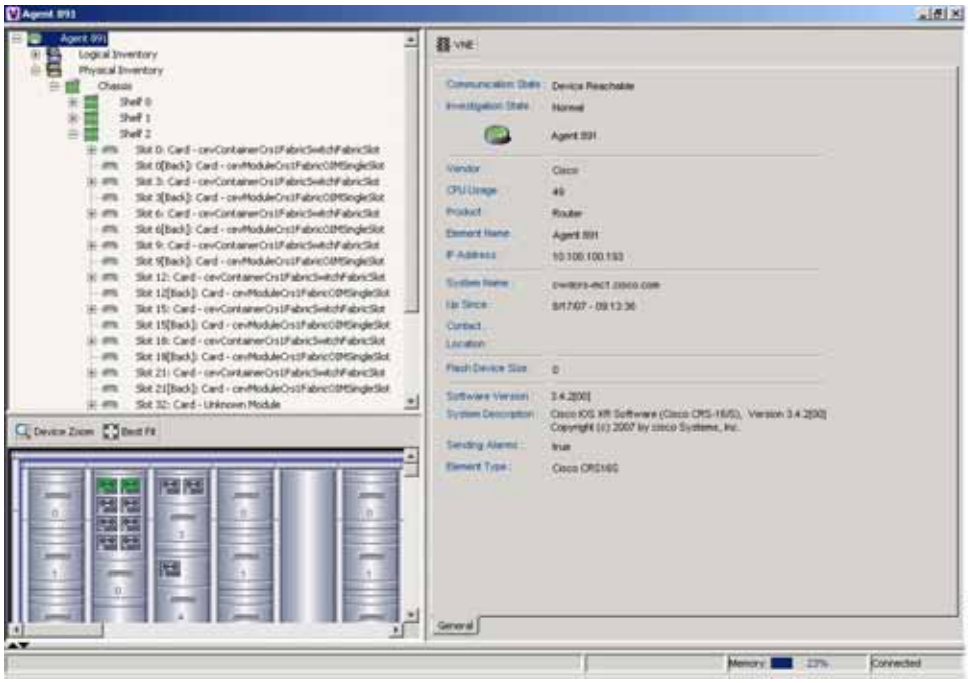
Multichassis support is available in Cisco ANA for 16-slot CRS-1 devices. As shown in Figure 1, the chassis functions purely as a container for the shelves, which are treated as individual chassis and are numbered incrementally starting with 0.

Figure 1 CRS-1 Multichassis Support



As shown in Figure 2, expanding a shelf displays the modules that are installed on that shelf.

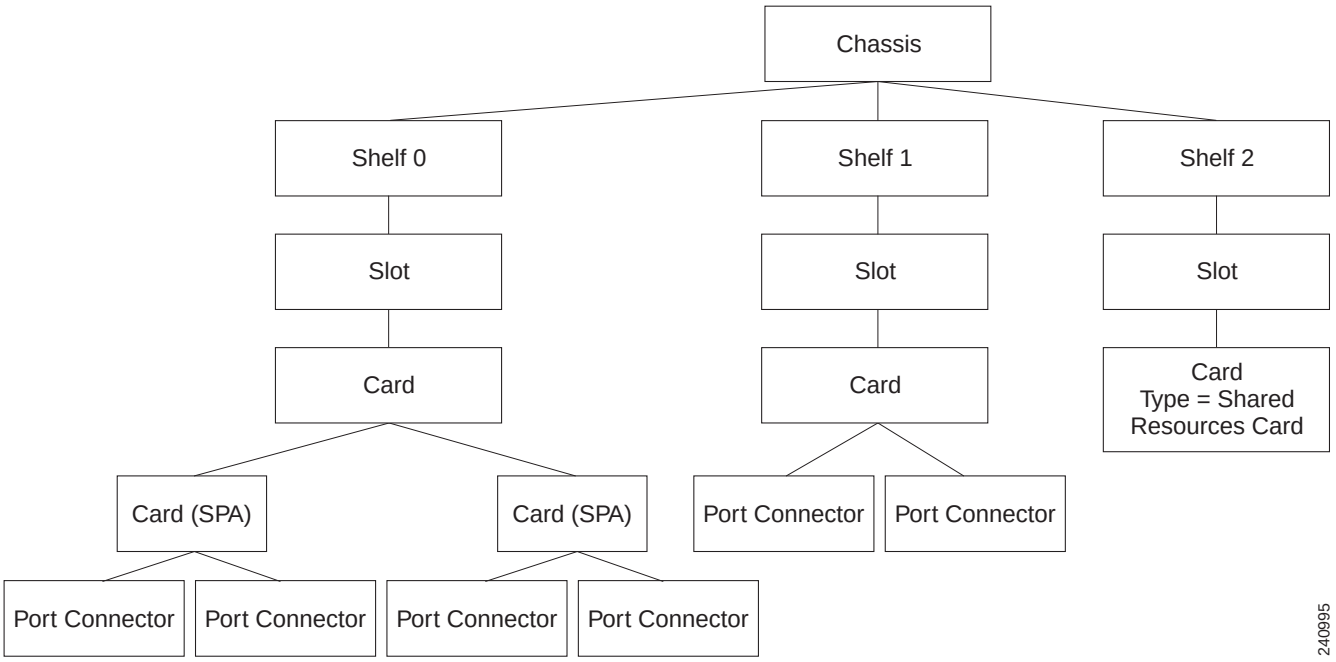
Figure 2 CRS-1 Multichassis Support—Expanded View



Because each shelf is treated as a chassis, chassis parameters such as description, serial number, status, and type are displayed for each shelf, not for the actual chassis in which the shelves are installed.

Figure 3 describes the physical model for the CRS-1 multichassis.

Figure 3 CRS-1 Multichassis Physical Model



When adding a multichassis device to Cisco ANA, it is treated like any other network element, namely, it is added as a new VNE using Cisco ANA Manage.

Cisco ASR 1000 Series Routers

This section includes the following information about Cisco ASR 1000 Series routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco ASR 1000 Series Routers):

- Cisco ASR 1000 Series—Supported Software Versions, page 6-91
- Cisco ASR 1000 Series—Supported Topologies, page 6-91
- Cisco ASR 1000 Series—Supported Modules, page 6-92
- Cisco ASR 1000 Series—Supported Technologies, page 6-94
- Cisco ASR 1000 Series—Supported Service Events, page 6-95

Cisco ASR 1000 Series—Supported Software Versions

Table 6-70 Supported Software Versions for Cisco ASR 1000 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOS-XE R 2.2.1	3.6.5	S[1]
IOS-XE R 2.2.2	3.6.5	V[2]
IOS XE 2.3.0	3.6.6	V
IOS XE 2.2.3	3.6.6	V
IOS XE 2.3.1	3.6.6	V[3]
IOS XE 2.3.2	3.6.7	V[4]
IOS XE 2.4.0	3.6.7	V[5]

[1]IOS-XE 12.2(33)XNB1
[2]IOS-XE 12.2(33)XNB2
[3]IOS-XE 12.2(33)XNC1
[4]IOS XE 12.2(33)XNC2
[5]IOS XE 12.2(33)XND

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco ASR 1000 Series—Supported Topologies

Table 6-71 Supported Topologies for Cisco ASR 1000 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
BGP	BGP	3.6.6
Ethernet	Ethernet	3.6.5
MPLS	MPLS	3.6.6
Physical Layer	Physical Layer	3.6.5

Cisco ASR 1000 Series—Supported Modules

Table 6-72 Supported Modules for Cisco ASR 1000 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
4XGE-BUILT-IN	3.6.6	Cisco ASR1002 4 Port, Gigabit Ethernet SPA Card	V
ASR1000-ESP10	3.6.6	Cisco ASR 1000 10Gbps Embedded Services Processor	V
ASR1000-ESP5	3.6.5	ASR1K Embedded Services Processor,5Gbps,Crypto,ASR1002 only	V[1]
ASR1000-RP1	3.6.5	Cisco ASR1000 Route Processor 1, 2GB DRAM	V[2]
ASR1000-RP2	3.6.6	Cisco ASR1000 Route Processor 2	V
ASR1000-SIP10	3.6.5	Cisco ASR1000 SPA Interface Processor 10	V[3]
ASR1002-PWR-AC	3.6.6	Cisco ASR 1002 AC Power Supply	V
ASR1002-RP1	3.6.6	Cisco ASR1002 Route Processor 1	V
ASR1002-SIP10	3.6.6	Cisco ASR1002 SIP 10	V
ASR1004-PWR-AC	3.6.6	Cisco ASR 1004 AC Power Supply	V
ASR1004-PWR-DC	3.6.6	Cisco ASR 1004 DC Power Supply	V
ASR1006-PWR-AC	3.6.5	Cisco ASR1006 AC Power Supply	V
ASR1006-PWR-DC	3.6.6	Cisco ASR 1006 DC Power Supply	V
CWDM-SFP-1470	3.6.7	Cisco CWDM SFP 1470 nm; Gigabit Ethernet and 1G/2G FC	V
CWDM-SFP-1490	3.6.7	Cisco CWDM SFP 1490 nm; Gigabit Ethernet and 1G/2G FC	V
CWDM-SFP-1510	3.6.7	Cisco CWDM SFP 1510 nm; Gigabit Ethernet and 1G/2G FC	V
CWDM-SFP-1530	3.6.7	Cisco CWDM SFP 1530 nm; Gigabit Ethernet and 1G/2G FC	V
CWDM-SFP-1550	3.6.7	Cisco CWDM SFP 1550 nm; Gigabit Ethernet and 1G/2G FC	V
CWDM-SFP-1570	3.6.7	Cisco CWDM SFP 1570 nm; Gigabit Ethernet and 1G/2G FC	V
CWDM-SFP-1590	3.6.7	Cisco CWDM SFP 1590 nm; Gigabit Ethernet and 1G/2G FC	V
CWDM-SFP-1610	3.6.7	Cisco CWDM SFP 1610 nm; Gigabit Ethernet and 1G/2G FC	V
GLC-GE-100FX	3.6.7	100BASE-FX SFP module for Gigabit Ethernet ports, 1310 nm wavelength, 2 km over MMF	V
SFP-GE-L	3.6.6	Cisco SFP Gigabit Ethernet 1000Base LX	V
SFP-GE-S	3.6.6	SFP Gigabit Ethernet 1000Base SX	V
SFP-GE-T	3.6.6	SFP Gigabit Ethernet 1000Base Tx	V
SFP-GE-Z	3.6.6	SFP Gigabit Ethernet 1000Base Zx	V
SFP-OC12-IR1	3.6.6	SFP OC12 Intermediate Reach	V
SFP-OC12-LR1	3.6.6	SFP OC12 Long reach 1	V
SFP-OC12-LR2	3.6.6	SFP OC12 Long Reach2	V
SFP-OC12-LR2	3.6.6	Cisco OC 12 SFP Long Reach 2	S
SFP-OC12-MM	3.6.6	Cisco OC12 STM1 SFP Multimode	V
SFP-OC12-SR	3.6.6	Cisco OC12 STM1 SFP Short Reach	V

Table 6-72 Supported Modules for Cisco ASR 1000 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
SFP-OC3-IR1	3.6.6	Cisco OC3 SFP Intermediate Reach	V
SFP-OC3-LR1	3.6.6	Cisco OC3 STM1 SFP Single Mode Fibre Long ReACH	V
SFP-OC3-LR1	3.6.6	Cisco OC 3 SFP Long Reach 1	V
SFP-OC3-LR2	3.6.6	Cisco OC3 STM1 SFP Single Mode Fibre Long Reach	V
SFP-OC3-MM	3.6.6	Cisco OC3 SFP Multimode	V
SFP-OC3-SR	3.6.6	Cisco OC 3 SFP Short Reach	V
SFP-OC48-IR1	3.6.6	Cisco OC 48 SFP Intermediate Reach 1	V
SFP-OC48-LR2	3.6.6	Cisco OC 48 SFP Long Reach 2	V
SFP-OC48-SR	3.6.6	SFP OC48 Short Reach	V
SPA-10XGE-V2	3.6.6	Cisco SPA 10 Port GE Version2	V
SPA-1X10GE-L-V2	3.6.5	Cisco 1-Port 10GE LAN-PHY Shared Port Adapter	V[4]
SPA-1XCHSTM1/OC3	3.6.6	Cisco SPA 1 Port Channelized OC 3 STM 1	V
SPA-1XOC12-POS	3.6.6	Cisco 1 Port OC 12 POS	V
SPA-1XOC3-ATM-V2	3.6.6	Cisco SPA 1 Port OC3 ATM Version3	V
SPA-1XOC48-POS	3.6.7	1-port OC48c/STM16c POS/RPR SFP Optics	V
SPA-1XOC48-POS/RPR	3.6.6	Cisco SPA 1 Port Oc 48 POS RPR	V
SPA-2X1GE-V2	3.6.5	Cisco 2-Port Gigabit Ethernet Shared Port Adapter, Version 2	V[5]
SPA-2XCT3/DS0	3.6.6	Cisco SPA 2 Port Channelized T3/DS0	V
SPA-2XOC12-POS	3.6.7	2-Port OC-3c/STM-1 and OC-12c/STM-4 POS SPA	V
SPA-2XOC3-POS	3.6.6	Cisco SPA 2 Port OC3 POS	V
SPA-2XOC48POS/RPR	3.6.6	Cisco SPA 2 Port OC48 POS	V
SPA-2XT3/E3	3.6.6	Cisco SPA 2 Port T3/E3 Serial	V
SPA-3XOC3-ATM-V2	3.6.6	Cisco SPA 3 Port OC3 ATM Version 2	V
SPA-4X1FE-TX-V2	3.6.6	Cisco 4x 1 Port Fast Ethernet Tx V2	V
SPA-4XCT3/DS0	3.6.6	Cisco SPA 4 Port Channelized T3/DS0	V
SPA-4XOC12-POS	3.6.7	4-port OC-12/STM-4 POS Shared Port Adapters	V
SPA-4XOC3-POS	3.6.6	Cisco SPA 4 Port OC3 POS	V
SPA-4XOC48POS/RPR	3.6.6	Cisco SPA 4 Port Oc 48 POS RPR	V
SPA-4XT3/E3	3.6.6	Cisco SPA 4Port T3/E3	V
SPA-4XT-SERIAL	3.6.6	Cisco 4 Port Serial SPA	V
SPA-5X1GE-V2	3.6.6	Cisco SPA 5 x 1 Port Gigabit Ethernet V2	V
SPA-8X1FE-TX-V2	3.6.5	Cisco 8-Port 10BASE-T/100BASE Fast Ethernet Shared Port Adapter, V-2	V[6]
SPA-8X1GE-V2	3.6.6	Cisco SPA 8 x 1 Port Gigabit Ethernet V2	V
SPA-8XCHT1/E1	3.6.6	Cisco SPA 8 Port Channelized T1/E1	V
SPA-8XOC12-POS	3.6.7	8-Port OC-12c/STM-4 Multirate POS SPA	V

Table 6-72 Supported Modules for Cisco ASR 1000 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
SPA-8XOC3-POS	3.6.7	8-Port OC-3c/STM-1 POS SPA	V
SPA-OC192POS-XFP	3.6.7	1-port OC192/STM64 POS/RPR XFP Optics	V
XFP-10GER-OC192IR	3.6.6	Multirate XFP module for 10GBASE-IR and OC192 IR	V
XFP-10GLR-OC192LR	3.6.7	Cisco multirate XFP transceiver module for 10GBASE-LR Ethernet and OC-192/STM-64 long-reach Packet-over-SONET/SDH (POS) applications, SMF, dual LC connector	V
XFP-10GLR-OC192SR	3.6.5	Multirate XFP module for 10GBASE-LR and OC192 SR-1	V[7]
XFP-10GZR-OC192LR	3.6.6	Multirate XFP module for 10GBASE-LR and OC192 LR	V

[1, 2, 3, 4, 5, 6, 7] Also tested on ASR1004

Cisco ASR 1000 Series—Supported Technologies

The following technologies are supported by the Cisco ASR 1000 Series in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111
- Frame Relay, page 6-114
- Physical Technologies, page 6-116
- MPLS, page 6-117
- MPLS-TE, page 6-119
- VPN, page 6-120
- PWE3, page 6-121
- ACL, page 6-122
- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125
- Additional Technologies, page 6-127
- BFD, page 6-129
- Carrier Ethernet, page 6-131
- L2Channel, page 6-133
- SBC, page 6-134

Cisco ASR 1000 Series—Supported Service Events

Table 6-73 Supported Service Events for Cisco ASR 1000 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
All IP Interfaces Down / Active IP Interfaces Found	3.6.5	Y
Interface Status Down/Up	3.6.5	Y
Card In/Out	3.6.5	Y
Link Down/Up	3.6.5	Y
Device Unreachable	3.6.5	N
CPU Over Utilized	3.6.5	N
Memory Over Utilized	3.6.5	N
Device Unsupported	3.6.5	N
Discard Packets	3.6.5	N
Dropped Packets	3.6.5	N
Module Unsupported	3.6.5	N
Port Flapping	3.6.5	N
Port Down	3.6.5	Y
Rx Over Utilized	3.6.5	N
Tx Over Utilized	3.6.5	N
Cloud Problem	3.6.5	N
BGP Neighbor Down	3.6.5	Y
Card Up/Down	3.6.5	Y
VSI Up/Down	3.6.7	N
VSI Admin Down	3.6.7	N
Vlan Tagged Interface Up/Down	3.6.7	N
Vlan Tagged Interface AdminDown	3.6.7	N

Cisco ASR 9000 Series Aggregation Services Routers

This section includes the following information about Cisco ASR 9000 routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco ASR 9000 Series Aggregation Services Routers):

- Cisco ASR 9000—Supported Software Versions, page 6-96
- Cisco ASR 9000—Supported Topologies, page 6-96
- Cisco ASR 9000—Supported Modules, page 6-96
- Cisco ASR 9000—Supported Technologies, page 6-97
- Cisco ASR 9000—Supported Service Events, page 6-98

Cisco ASR 9000—Supported Software Versions

Table 6-74 Supported Software Versions for Cisco ASR 9000—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOX 3.7.2	3.6.5	V
IOX 3.7.3	3.6.7	V

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco ASR 9000—Supported Topologies

Table 6-75 Supported Topologies for Cisco ASR 9000—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
BGP	BGP	3.6.5
Ethernet	Ethernet	3.6.5
Physical Layer	Physical Layer	3.6.5
LAG	LAG	3.6.5

Cisco ASR 9000—Supported Modules

Table 6-76 Supported Modules for Cisco ASR 9000—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
A9K-1.5KW-DC	3.6.6	ASR-9K 1.5kW DC Power Module	V
A9K-2KW-DC	3.6.6	ASR-9K 2kW DC Power Module	V
A9K-3KW-AC	3.6.5	ASR-9K 3kW AC Power Module	V
A9K-40GE-B	3.6.5	40-Port, GE Line Card, Requires SFPs	V
A9K-40GE-E	3.6.5	40-Port, GE Line Card, Extended Memory, Requires SFPs	V
A9K-4T-B	3.6.5	4-Port,10GE Line Card, Requires XFPs	V
A9K-4T-E	3.6.6	Cisco ASR 9000 Series 4-Port Ten Gigabit Ethernet, extended memory	V
A9K-8T/4-B	3.6.6	Cisco ASR 9000 Series 8-Port Ten Gigabit Ethernet DX	V
A9K-8T/4-E	3.6.6	Cisco ASR 9000 Series 8-Port Ten Gigabit Ethernet DX, extended memory	V

Table 6-76 Supported Modules for Cisco ASR 9000—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
A9K-RSP-4G	3.6.6	Route Switch Processor 4G Memory Hard Disc Drive	V
A9K-RSP-4G-HDD	3.6.5	Route Switch Processor 4G Memory Hard Disc Drive	V
ASR-9006-FAN	3.6.6	ASR-9006 Fan Tray	V
ASR-9010-FAN	3.6.5	ASR-9010 Fan Tray (Req 2)	V
SFP-GE-L	3.6.6	1000BASE-LX SFP (DOM), MMF, 550/220m	V
SFP-GE-S	3.6.5	1000BASE-SX SFP (DOM), MMF, 550/220m	V
SFP-GE-Z	3.6.6	1000BASE-ZX SFP (DOM), MMF, 550/220m	V
XFP-10GER-192IR+	3.6.6	Multirate XFP module for 10GBASE-IR and OC192 IR	V
XFP-10GLR-OC192SR	3.6.6	Multirate XFP module for 10GBASE-LR and OC192 SR-1	V
XFP-10GZR-OC192LR	3.6.6	Multirate XFP module for 10GBASE-LR and OC192 LR	V

Cisco ASR 9000—Supported Technologies

The following technologies are supported by the Cisco ASR 9000 in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- Physical Technologies, page 6-116
- MPLS, page 6-117
- MPLS-TE, page 6-119
- VPN, page 6-120
- PWE3, page 6-121
- ACL, page 6-122
- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125
- Additional Technologies, page 6-127
- BFD, page 6-129
- Carrier Ethernet, page 6-131

Cisco ASR 9000—Supported Service Events

Table 6-77 Supported Service Events for Cisco ASR 9000—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
All IP Interfaces Down / Active IP Interfaces Found	3.6.5	Y
Interface Status Down/Up	3.6.5	Y
Card In/Out	3.6.5	Y
Link Down/Up	3.6.5	Y
Device Unreachable	3.6.5	N
CPU Over Utilized	3.6.5	N
Memory Over Utilized	3.6.5	N
Device Unsupported	3.6.5	N
Discard Packets	3.6.5	N
Dropped Packets	3.6.5	N
Module Unsupported	3.6.5	N
Port Flapping	3.6.5	N
Port Down	3.6.5	Y
Rx Over Utilized	3.6.5	N
Tx Over Utilized	3.6.5	N
Cloud Problem	3.6.5	N
BGP Neighbor Down	3.6.5	N
BGP Process Down/Up	3.6.5	N
Card Up/Down	3.6.5	Y
BGP link down	3.6.5	Y
BGP process down	3.6.5	Y
VSI Up/Down	3.6.7	N
VSI Admin Down	3.6.7	N
EFP Up/Down	3.6.7	N
EFP Admin Down	3.6.7	N
EFP down due to error disabled	3.6.7	N
Vlan Tagged Interface Up/Down	3.6.7	N
Vlan Tagged Interface AdminDown	3.6.7	N

Cisco MWR 2900 Series Mobile Wireless Routers

This section includes the following information about Cisco MWR 2941 routers (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco MWR 2900 Series Mobile Wireless Routers):

- Cisco MWR 2941—Supported Software Versions, page 6-99
- Cisco MWR 2941—Supported Topologies, page 6-99
- Cisco MWR 2941—Supported Modules, page 6-100
- Cisco MWR 2941—Supported Technologies, page 6-100
- Cisco MWR 2941—Supported Service Events, page 6-101

Cisco MWR 2941—Supported Software Versions

Table 6-78 Supported Software Versions for Cisco MWR 2941—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
12.4(19)MR2	3.6.6	V
12.4(20)MR	3.6.7	V

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco MWR 2941—Supported Topologies

Table 6-79 Supported Topologies for Cisco MWR 2941—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
ATM	ATM	3.6.6
BGP	BGP	3.6.6
Ethernet	Ethernet	3.6.6
Framerelay	Framerelay	3.6.6
MPLS	MPLS	3.6.6
PPP/HDLC	PPP or HDLC	3.6.6
Physical Layer	Physical Layer	3.6.6

Cisco MWR 2941—Supported Modules

Table 6-80 Supported Modules for Cisco MWR 2941—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
ASM-M2900-TOP	3.6.6	Timing over Packet Accessory Service Module for the Cisco MWR 2900 Series Mobile Wireless Routers	V
GLC-LH-SM	3.6.7	1000 Base LX/LH long reach SFP transceiver	S
GLC-SX-MM	3.6.7	1000 Base Sx short wavelength transceiver	S
GLC-T	3.6.7	1000 Base T Copper Gigabit ethernet SFP	S
GLC-ZX-SM	3.6.7	1000 Base Zx extended reach Gigabit ethernet SFP	S
HWIC-1ADSL	3.6.6	ADSL over POTS	V
HWIC-1ADSLI	3.6.6	ADSL over ISDN	V
HWIC-1GE-SFP	3.6.7	HWIC with copper and optical Gigabit ethernet connectivity	V
HWIC-2SHDSL	3.6.6	HWIC G.SHDSL with annex F+G	V
HWIC-4SHDSL	3.6.6	HWIC G.SHDSL with annex F+G and IMA.	V
HWIC-4T1/E1	3.6.6	4 port T1/E1 clear channel HWIC	V
HWIC-D-9ESW	3.6.7	9 Port FE Switch	S
MOTHEBOARD FOR 2941	3.6.6	Cisco MWR-2941-DC Motherboard with MPC8347E CPU, Gigabit Ethernet, SFP, BITS and T1/E1 port	V

Cisco MWR 2941—Supported Technologies

The following technologies are supported by the Cisco MWR 2941 in Cisco ANA Version 3.6.7:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111
- Frame Relay, page 6-114
- Point to Point, page 6-115
- Physical Technologies, page 6-116
- MPLS, page 6-117
- MPLS-TE, page 6-119
- VPN, page 6-120
- PWE3, page 6-121
- ACL, page 6-122
- Common, page 6-125
- BFD, page 6-129
- Clocking, page 6-129

- VTP, page 6-133
- L2Channel, page 6-133

Cisco MWR 2941—Supported Service Events

Table 6-81 Supported Service Events for Cisco MWR 2941—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Primary HSRP Interface Active/Inactive	3.6.0	N
Secondary HSRP Interface Active/Inactive	3.6.0	N
All IP Interfaces Down / Active IP Interfaces Found	3.6.0	Y
Interface Status Down/Up	3.6.0	Y
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
VPN Leak	3.6.0	N
Cloud Problem	3.6.0	N
Broken LSP Discovered	3.6.0	N
MPLS Black Hole	3.6.0	N
Layer 2 Tunnel Down	3.6.6	N
MPLS TE Tunnel Down/Flapping	3.6.6	N
BGP Neighbor Down	3.6.6	N
Card Up/Down	3.6.6	Y
Adaptive Polling	3.6.6	N
BGP link down	3.6.6	Y
LDP neighbor loss	3.6.6	Y
MPLS interface removed	3.6.6	Y

Table 6-81 Supported Service Events for Cisco MWR 2941—Cisco ANA Version 3.6.7 (continued)

Event Name	ANA Version	Expedited
Vlan Tagged Interface Up/Down	3.6.7	N
Vlan Tagged Interface AdminDown	3.6.7	N

Supported Technologies on Cisco Routers

The following sections list the objects and attributes that are supported on Cisco routers in Cisco ANA Version 3.6.7 per technology:

- IP, page 6-103
- Routing Protocols, page 6-105
- Ethernet (IEEE 802.3), page 6-106
- ATM, page 6-111
- Frame Relay, page 6-114
- Point to Point, page 6-115
- Physical Technologies, page 6-116
- MPLS, page 6-117
- MPLS-TE, page 6-119
- VPN, page 6-120
- PWE3, page 6-121
- ACL, page 6-122
- Physical Equipment, page 6-123
- Base Logical Components, page 6-124
- Common, page 6-125
- Additional Technologies, page 6-127
- DWDM, page 6-127
- Local Switching, page 6-128
- BFD, page 6-129
- Clocking, page 6-129
- Carrier Ethernet, page 6-131
- CDP, page 6-132
- Discovery Protocol, page 6-132
- VTP, page 6-133
- L2Channel, page 6-133
- SBC, page 6-134

IP

Table 6-82 IP Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IIPInterface																					
IP Address	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Subnetwork Mask	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IP Interface Addresses Array	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Interface Name	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Interface Description	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IP Interface State	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
OSPF Interface Cost																					
Broadcast Address																					
MTU																					
Lookup Method																					
Address Resolution Type																					
ARP Timeout																					
Secured ARP																					
ICMP Mask Reply																					
IGMP Proxy																					
HSRP Groups		Y			Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y					Y
IP Multiplexing Table																					
IANA Type	Y		Y	Y		Y	Y	Y													
Containing CTPs																					
Contained CTPs																					
IMO Name—IIPMuxEntry																					
Termination Point	Y	Y		Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y					Y
Destination IP Subnet	Y	Y		Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y					Y
IMO Name—IRoutingEntity																					
Routing Table	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
ARP Entity	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Routing Table Changes																					
Name	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Logical Sons	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IMO Name—IRoutingEntry																					
Destination IP Subnet	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table 6-82 IP Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
Next Hop IP Address	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Type	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Routing Protocol Type	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Outgoing Interface Name	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IMO Name—IARPEntity																					
ARP Table	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IMO Name—IARPEntry																					
IP Address	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MAC Address	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Port	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Entry Type	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y
IMO Name—IIPPool																					
IP Address Pool Entries																					
Name																					
Index																					
IMO Name—IIPRangeBasedIPPoolEntry																					
Start IP Address																					
End IP Address																					
Unused Addresses																					
Used Addresses																					
Reserved Addresses																					
IMO Name—IIPSubnetBasedIPPoolEntry																					
IP Subnet																					
Unused Addresses																					
Used Addresses																					
Reserved Addresses																					
IMO Name—HSRPGroupEntry																					
Group Number			Y	Y	Y	Y	Y		Y	Y		Y	Y	Y	Y	Y			Y		Y
Port Description			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			Y		Y
Priority			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			Y		Y
Coupled Router			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			Y		Y
State			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			Y		Y
Tracking Interfaces																					Y
Virtual IP Address			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			Y		Y

Table 6-82 IP Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
Virtual MAC Address			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			Y		Y
IMO Name—ITunnelGRE																					
Name	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			Y		Y
Tunnel Destination and Source	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			Y		Y
IP Address	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			Y		Y
IP Interface State								Y			Y	Y			Y	Y					
IANA Type								Y													
Containing CTPs																					
Contained CTPs																					
Keep Alive Time												Y									
Keep Alive Retry												Y									

Routing Protocols

Table 6-83 Routing Protocols Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IBgpNeighborEntry																					
Remote Identifier	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y
Neighbor Type				Y		Y	Y	Y			Y					Y	Y	Y		Y	
Distributing Interfaces											Y										
Remote Address	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Remote Autonomous System	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Peer State	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Hold Time	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Keep Alive Time	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VrfName																			Y		
Address family												Y		Y		Y					Y
Vrf Name	Y	Y																			
Peer Status	Y																				
IMO Name—IOspfEntry																					
Area Identifier	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table 6-83 Routing Protocols Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IP Address	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Type	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Administrative Status	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ospf Entry State	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
Ospf Entry State	Y	Y	Y	Y	Y	Y															

Ethernet (IEEE 802.3)

Table 6-84 Ethernet (IEEE 802.3) Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—ILinkAggregationGroup802dot3ad																					
dot3adAggMACAddress									Y			Y	Y		Y[1]	Y	Y		Y		
dot3adAggActorSystemPriority					Y					Y			Y	Y		Y[2]	Y	Y		Y	
dot3adAggActorSystemID										Y			Y	Y		Y[3]	Y	Y		Y	
dot3adAggActorAdminKey										Y			Y	Y		Y[4]	Y	Y		Y	
dot3adAggActorOperKey										Y			Y	Y		Y[5]	Y	Y		Y	
dot3adAggPartnerSystemID										Y			Y	Y		Y[6]	Y	Y		Y	
dot3adAggPartnerSystemPriority										Y			Y	Y		Y[7]	Y	Y		Y	
dot3adAggPartnerOperKey										Y			Y	Y		Y[8]	Y	Y		Y	
dot3adAggCollectorMaxDelay								Y		Y			Y	Y		Y[9]	Y	Y		Y	
GroupNumber										Y			Y	Y		Y	Y	Y		Y	
AggregationProtocolType										Y			Y	Y		Y	Y	Y		Y	
MacAddress										Y			Y	Y		Y	Y	Y		Y	
ChannelAdminStatus										Y			Y	Y		Y	Y	Y		Y	
ChannelOperStatus										Y			Y	Y		Y	Y	Y		Y	
IMO Name—IEthernet																					
MAC Address	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Duplex Mode																					
Output Flow Control																					

Table 6-84 Ethernet (IEEE 802.3) Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
Input Flow Control																					
IANA Type	Y			Y	Y	Y	Y					Y	Y		Y		Y	Y		Y	
Containing CTPs																					
Contained CTPs																					
Port Type																					
IMO Name—IVlanInterface																					
Mode														Y							
Native VLAN Identification				Y	Y									Y							
Virtual LAN Table								Y													
IANA Type				Y	Y						Y										
Containing CTPs																					
Contained CTPs																					
vlanAdminType														Y							
vlanencapType														Y							
getAccess																					
Allowed Vlans													Y								
AllowedVlans																					
IMO Name—IVlanEncapMux																					
IANA Type				Y	Y				Y					Y							
Containing CTPs																					
Contained CTPs																					
IMO Name—IIEEE802																					
VLAN Identification	Y				Y		Y	Y		Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	
Binding Information																					
Binding Status																					
IANA Type							Y	Y	Y	Y		Y	Y	Y	Y	Y		Y	Y	Y	
Containing CTPs																					
Contained CTPs																					
IMO Name—IStpService																					
StpProtocol	Y											Y	Y						Y	Y	Y
StpMaxAge	Y									Y		Y	Y				[10]		Y[11]	Y	Y
StpHelloTime	Y									Y		Y	Y				[12]		Y[13]	Y	Y
StpBridgeForwardDelay	Y									Y		Y	Y				[14]		Y[15]	Y	Y
StpInstanceInfoTable	Y									Y		Y	Y				[16]		Y[17]	Y	Y

Table 6-84 Ethernet (IEEE 802.3) Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
Same as ISystemService																					
StpUplinkFastState	Y												Y	Y							Y
StpBackboneFastState	Y												Y	Y							Y
StpForwardDelay	Y												Y	Y							Y
StpBridgeMaxAge	Y												Y	Y							Y
StpBridgeHelloTime	Y												Y	Y							Y
Protocol Type																					
Current and Bridge Max Age																					
Current and Bridge Hello Time																					
Current and Bridge Forward Delay																					
Instance Information Table																					
IMO Name—IMstService																					
MstProperties																					Y
Same as IStpService																					Y
IMO Name—IPvstpService																					
UpLinkFast	Y												Y	Y							Y
BackboneFast	Y												Y	Y							Y
IMO Name—IMstProperties																					
MstForceVersion	Y										Y		Y						Y	Y	Y
MstCfgIdFmtSel	Y										Y		Y						Y	Y	Y
MstExternalRootCost	Y												Y						Y	Y	Y
MstMaxInstances	Y												Y						Y	Y	Y
MstCfgIdName	Y												Y	Y							Y
MstCfgIdRevLevel	Y												Y	Y							Y
Force Version	Y																				
Configuration Format, Region Name and Revision Level	Y																				
External Root Cost	Y																				
Maximum Instances	Y																				
IMO Name—IStpInstanceInfo																					
Object Identification																					
StpBridgeId	Y												Y							Y	Y
BridgePriority	Y												Y							Y	Y

Table 6-84 Ethernet (IEEE 802.3) Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
Designated Parent and Root Bridges	Y										Y		Y	Y						Y	Y
StpRootCost	Y										Y		Y						Y	Y	Y
IsRoot	Y										Y		Y						Y	Y	Y
StpRootPort	Y										Y		Y						Y	Y	Y
StpPortInfoTable	Y												Y						Y	Y	Y
STP Instance Id	Y										Y		Y	Y						Y	Y
Vlan Id											Y									Y	
StpDesignatedBridge	Y												Y	Y							Y
StpDesignatedRoot	Y												Y	Y							Y
Identification	Y																				
Priority	Y																				
Root Cost	Y																				
Is Root	Y																				
Root Port Identification	Y																				
Port Information Table	Y																				
IMO Name—IMstInstanceInfo																					
MstVlanIds	Y										Y		Y	Y						Y	Y
Same as IStpInstanceInfo	Y												Y	Y						Y	Y
IMO Name—IPvstpInstanceInfo																					
Protocol Type	Y										Y		Y	Y							Y
StpBridgeMaxAge	Y									Y		Y	Y							Y	Y
StpBridgeHelloTime	Y									Y		Y	Y							Y	Y
StpBridgeForwardDelay	Y									Y		Y	Y							Y	Y
StpProtocolSpecification	Y											Y	Y							Y	Y
StpVlanId	Y												Y	Y							Y
StpForwardDelay	Y												Y	Y							Y
StpMaxAge	Y												Y	Y							Y
Current and Bridge Maximum Age																					
Current and Bridge Hello Time																					
Current and Bridge Forward Delay																					
Same as IStpInstanceInfo																					

Table 6-84 Ethernet (IEEE 802.3) Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IRstpInstanceInfo																					
StpForceVersion	Y										Y		Y	Y							Y
Same as IStpInstanceInfo	Y												Y	Y							Y
IMO Name—IStpPortInfo																					
StpPort										Y		Y						Y	Y	Y	Y
StpPortPriority										Y		Y						Y	Y	Y	Y
StpPortState										Y		Y						Y	Y	Y	Y
StpPortPathCost										Y		Y						Y	Y	Y	Y
StpPortEdgePort										Y		Y						Y	Y	Y	Y
StpPortPointToPoint										Y		Y						Y	Y	Y	Y
StpPortRole										Y		Y						Y	Y	Y	Y
StpDesignatedPortIdentifier													Y	Y							Y
StpDesignatedBridge													Y	Y							Y
StpPortIdentifier													Y	Y							Y
StpPortBpduGuardState													Y	Y							Y
StpPortBpduFilterState													Y	Y							Y
Object Identification		Y																			
Priority		Y																			
State		Y																			
Path Cost		Y																			
Is Edge		Y																			
Is Point to Point		Y																			
Role		Y																			
IMO Name—IMstPortInfo																					
MstPortHelloTime											Y		Y	Y						Y	
Same as IStpPortInfo											Y		Y	Y						Y	
IMO Name—IPvstpPortInfo																					
PvstpPortFastState													Y	Y							
IMO Name—IEthernetChannel																					
Group Number	Y					Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y[18]	Y[19]	Y	Y	
Bandwidth	Y								Y	Y	Y	Y	Y	Y		Y	Y[20]	Y[21]	Y	Y	
Aggregation Protocol									Y	Y	Y	Y	Y	Y		Y	Y[22]	Y[23]	Y	Y	
IANA Type	Y		Y	Y		Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y[24]	Y[25]	Y	Y	
Containing CTPs																					

Table 6-84 Ethernet (IEEE 802.3) Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
Contained CTPs																					
Mac Address												Y									
Admin Status												Y									
Oper Status												Y									

[1, 2, 3, 4, 5, 6, 7, 8, 9]LAG is not supported for 12.0(33)S1

[10, 11, 12, 13]Added show lacp bundle from ANA 3.6.3.1

[14]The current value used and the value that all bridges should use when this bridge is acting as the root of the maximum age of learned spanning tree protocol port information (hundredths' of seconds)

[15]The current value used and the value that all bridges should use when this bridge is acting as the root for hello time messages' keep alive interval of a spanning tree protocol root (in hundredths of seconds)

[16]The current value used and the value that all bridges should use when this bridge is acting as the root for port delay in each of the listening and learning states, preceding the forwarding one (in hundredths of seconds)

[17, 25]Array of Spanning Tree Protocol Bridge information

[18, 19, 20, 21]SNMP supported with ANA 3.6.0. The ìshow lacp bundleî command is supported with ANA 3.6.3 and later.

[22]Only Bridge Max Age is supported, not the current value.

[23]Only the Bridge Hello Time is supported, not the current value.

[24]Only the Bridge Forward Delay is supported, not the current value.

ATM

Table 6-85 ATM Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IAtm																					
ATM Address			Y	Y	Y	Y	Y			Y		Y	Y	Y					Y		Y
Interface Type												Y				Y	Y				
VP and VC Ranges			Y	Y		Y	Y	Y				Y									
VC Table		Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y		Y		Y
Cross-Connect Table																					
IANA Type		Y	Y	Y	Y	Y			Y	Y			Y	Y	Y	Y	Y		Y		Y
Containing CTPs																					
Contained CTPs																					
Tx Allocated Bandwidth												Y		Y		Y	Y		Y		Y
Tx Maximum Bandwidth												Y		Y		Y	Y		Y		
Tx UBR Allocated Bandwidth												Y		Y		Y			Y	Y	

Table 6-85 ATM Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
Tx CBR Allocated Bandwidth												Y		Y		Y			Y		Y
Rx Allocated Bandwidth												Y		Y		Y	Y		Y		Y
Rx Maximum Bandwidth												Y		Y		Y	Y		Y		Y
Rx UBR Allocated Bandwidth												Y		Y		Y			Y		Y
Rx CBR Allocated Bandwidth												Y		Y		Y			Y		Y
IMO Name—IAtmVc																					
Virtual Channel Identifier	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y		Y
Virtual Path Identifier	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y		Y
Shaping Profile																					
Discarded and Received Input Data Counters	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y		Y
Dropped and Forward Output Data Counters	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y		Y
Ingress Traffic Descriptor	Y	Y	Y		Y	Y	Y		Y	Y		Y	Y	Y	Y	Y	Y		Y		Y
Egress Traffic Descriptor	Y	Y	Y		Y	Y	Y		Y	Y		Y	Y	Y	Y	Y	Y		Y		Y
Administrative Status	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y		Y
Operational Status	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y		Y
IANA Type	Y											Y				Y	Y				
Containing CTPs																					
Contained CTPs																					
IMO Name—IAtmTrafficDescriptor																					
Traffic Descriptor Type			Y	Y	Y				Y	Y		Y	Y	Y	Y	Y	Y		Y		Y
Service Category			Y	Y	Y				Y	Y		Y	Y	Y	Y	Y	Y		Y		Y
Cell Loss Priority			Y	Y	Y			Y	Y	Y		Y	Y	Y	Y	Y	Y		Y		Y
Cell Delay Variation								Y													
Cell Dealy Variation Tolerance			Y	Y	Y			Y	Y	Y		Y	Y	Y	Y	Y		Y			
Maximum High Priority and Aggregate Cell Rates	Y		Y	Y	Y				Y	Y	Y	Y	Y	Y	Y	Y	Y		Y		Y
Minimum High Priority and Aggregate Cell Rates	Y		Y	Y	Y				Y	Y	Y	Y	Y	Y	Y	Y	Y		Y		Y
Sustainable High Priority and Aggregate Cell Rates	Y		Y	Y	Y				Y	Y	Y	Y	Y	Y	Y	Y	Y		Y		Y
Peak High Priority and Aggregate Cell Rates	Y		Y	Y	Y				Y	Y	Y	Y	Y	Y	Y	Y	Y		Y		Y
Name																					

Table 6-85 ATM Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
Index				Y										Y	Y	Y	Y		Y		Y
Cell Delay Variation Tolerance	Y	Y																			
IMO Name—IAtmTrafficShapingDescriptor																					
Maximum Burst Size																					
Sustainable and Peak Cell Rates																					
Cell Delay Variation																					
State																					
Buffer Size																					
Cell Loss Priority Discarded Size																					
Name																					
Index																					
IMO Name—IAtmTrunk																					
Same as IAtm																					
IMO Name—IAtmLogicalPort/Trunk																					
Resource Management Cell Termination																					
Resource Management Cell Generation																					
Effective Check Input and Output Capacities																					
Admin Status																					
Oper Status																					
Same as IAtm																					
IMO Name—IAtmTrunkVc																					
Destination Description																					
Same as IAtmVc																					
IMO Name—IIMAGroup																					
AdminStatus														Y							Y
OperStatus														Y							Y
GroupNumber														Y							Y
ImaVersion														Y							Y
Speed														Y							Y
ConfiguredBandwidth														Y							Y

Table 6-85 ATM Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
NumberOfLinks														Y							Y
NumberOfActiveLinks														Y							Y
MinimumNumberOfTxLinks														Y							Y
MinimumNumberOfRxLinks														Y							Y
ClockMode														Y							Y
FrameLength														Y							Y
interfaceName														Y							Y
groupStatus														Y							Y

Frame Relay

Table 6-86 Frame Relay Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—Iframerelay/IFrTrunk																					
Protocol Type		Y								Y		Y	Y	Y	Y	Y			Y		
VC Table		Y	Y		Y				Y	Y		Y	Y	Y		Y			Y		
Cross-Connect Table																					
IANA Type															Y						
Containing CTPs																					
Contained CTPs																					
IMO Name—IFrVc																					
Data Link Connection Identifier		Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y			Y		
Traffic Descriptor		Y	Y		Y				Y	Y		Y	Y	Y	Y	Y			Y		
Discard and Received Input Data Counters																					
Dropped and Forward Output Data Counters																					
Ingress Traffic Descriptor		Y	Y						Y	Y		Y	Y	Y	Y	Y			Y		
Egress Traffic Descriptor		Y	Y						Y	Y		Y	Y	Y	Y	Y			Y		
Administrative Status		Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y			Y		
Operational Status		Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y			Y		

Table 6-86 Frame Relay Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IANA Type				Y	Y							Y	Y								
Containing CTPs																					
Contained CTPs																					
IMO Name—IFRTrafficDescriptor																					
Committed Rate		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			Y		
Excess Burst Rate		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			Y		
Name								Y													
Index								Y				Y									
IMO Name—IFramerelayLogicalPort/Trunk																					
Admin Status												Y									
Oper Status												Y									
Same as IFrameRelay													Y			Y					
IMO Name—IFrTrunkVc																					
Destination Description																					
Same as IFrVc																					
IMO Name—IEncapsulation																					
Virtual Connection Interface		Y	Y						Y	Y		Y	Y	Y	Y	Y			Y		Y
Binding Information								Y							Y						

Point to Point

Table 6-87 Point to Point Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IVcBasedEncapsulation																					
Virtual Connection								Y									Y				
Binding Information				Y	Y		Y	Y			Y						Y				
Binding Status		Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y				Y
IANA Type		Y	Y	Y	Y		Y		Y	Y		Y	Y	Y	Y	Y	Y				Y
Containing CTPs																	Y				
Contained CTPs																	Y				
IMO Name—Iencapsulation (HDLC/PPP)																					
Virtual Connection		Y	Y					Y			Y	Y	Y	Y	Y	Y					

Table 6-87 Point to Point Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
Binding Information								Y			Y	Y		Y							
Binding Status		Y	Y	Y	Y		Y	Y			Y	Y	Y	Y	Y	Y	Y	Y			
IANA Type		Y	Y	Y	Y		Y					Y	Y	Y	Y	Y					
Containing CTPs																					
Contained CTPs																					

Physical Technologies

Table 6-88 Physical Technologies Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—ISonetSdh																					
Specific Type																					
Loopback Type						Y	Y		Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	
Scrambling Mode		Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y			Y		
Same as IPhysicalLayer																					
IMO Name—IDS0Bundle																					
Bundled Time Slots	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y					
Bundle Location	Y	Y	Y	Y	Y	Y	Y	Y			Y	Y	Y		Y	Y					
IANA Type	Y	Y	Y	Y	Y			Y			Y										
Containing CTPs																					
Contained CTPs																					
IMO Name—IDS1Pdh / IDS3Pdh																					
Framing Type																					
Cell Mapping Type																					
Loopback Type									Y	Y											
Scrambling Mode	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			Y		Y
Same as IPhysicalLayer																					
portDescription								Y						Y					Y		
internationalBit								Y						Y					Y		
nationalBits								Y						Y							Y
framing								Y						Y							Y

Table 6-88 Physical Technologies Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
lineCode								Y						Y							Y
cableLength								Y						Y							Y
recoveredClockingId														Y							Y
clocking								Y						Y							Y
loopback								Y						Y							Y
alarmState														Y							Y
IMO Name—IDS1Pdh / IDS3Pdh																					
portDescription																					
internationalBit																					

MPLS

Table 6-89 MPLS Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IMpls																					
Distribution Protocol									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Outer and Inner Labels																	Y	Y	Y	Y	
Traffic Engineering Properties									Y	Y		Y	Y	Y	Y	Y			Y		Y
Resource reservation Properties																					
IANA Type									Y	Y		Y		Y	Y	Y	Y	Y	Y	Y	Y
Containing CTPs																					
Contained CTPs																					
IMO Name—ILse																					
MPLS Table										Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MPLS Aggregate Table												Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MPLS Tunnel Segments									Y			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
LDP Service												Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Logical Sons						Y				Y		Y	Y	Y	Y	Y	Y	Y	Y		Y
IMO Name—ILdpService																					
Local Identification Status												Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
LDP Peers									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table 6-89 MPLS Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—ILdpPeer																					
Peer Identification									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Transport Address									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Distribution Method									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Protocol Type									Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Path Vector Limit										Y			Y	Y		Y			Y		Y
Session Status									Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y
Protocol Version Hold Time									Y	Y	Y										
Hold Time									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Hello Time Interval									Y	Y	Y						Y				
Peer Discovery Sources									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Keep Alive Time	Y	Y																			
IMO Name—ILdpDiscoverySource																					
Interface Name									Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Source Address									Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Type									Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IMO Name—IMplsEntry																					
Incoming Label									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Outgoing Interface and Label									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Switching Action									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Next Hop IP Address										Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Destination Mask									Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Destination address								Y	Y		Y	Y	Y	Y	Y	Y	Y	Y			
Destination address	Y	Y																			
IMO Name—IMplsAggregateEntry																					
Virtual Routing Entity									Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Incoming Label									Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Outgoing Interface and Label									Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Switching Action									Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Next Hop IP Address									Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IMO Name—Impls																					
Outer and Inner Labels																					

MPLS-TE

Table 6-90 MPLS-TE Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IMplsTETunnel																					
Destination Address									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Outgoing Interface and Label									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
LSP Identification									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Requested Bandwidth									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Measured Average Burst and Peak Bandwidth									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Setup and Hold Priority									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Affinity Bits and Mask									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Automatic Route Announcement Status									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Optimization Lock Down Status									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Path Type									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Name									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Description									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Administrative Status									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Operational Status									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IANA Type									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
LSPIdentification	Y																				
Path type	Y																				
IMO Name—IMplsTEProperties																					
Administrative Weight									Y	Y		Y	Y	Y	Y	Y	Y[1]	Y[2]	Y	Y	Y
Attributes Identifier																	Y[3]	Y[4]		Y	
Signalling Protocol									Y	Y	Y	Y	Y	Y	Y	Y[5]	Y[6]	Y	Y		
Available Physical and Reservable Bandwidth									Y	Y	Y	Y	Y	Y	Y	Y	Y[7]	Y[8]	Y	Y	Y
Reserved Bandwidth									Y	Y	Y	Y	Y	Y	Y	Y	Y[9]	Y[10]	Y	Y	Y
Signaling Protocol	Y	Y																			
IMO Name—IMplsTEPropertiesAllocationEntry																					
Priority Level											Y	Y			Y						
Allocated and Cumulative Bandwidth											Y	Y			Y						

Table 6-90 MPLS-TE Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IMplsTESegment																					
Segment Type									Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Measured Average Burst and Peak Bandwidth									Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Path Identification									Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Name									Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

[1, 2, 3, 4, 5, 7, 8, 9, 10]ANA 3.6.2 and earlier: show mpls traffic-eng link-management bandwidth-allocation $telnetString$. ANA 3.6.3 and later: show mpls traffic-eng link-management bandwidth-allocation interface $telnetString.

[6]Till ANA 3.6.2 - show mpls traffic-eng link-management bandwidth-allocation $telnetString$ From ANA 3.6.3 - show mpls traffic-eng link-management bandwidth-allocation interface $telnetString$ For ANA 3.6.6(XR 3.8.0) -show mpls traffic-eng link-management interfaces $telnetString$(Administrative weight) First Registration Name for XR version less than 3.8.0 and second one is for XR version 3.8.0. Same for query too.

VPN

Table 6-91 VPN Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IVrf																					
Virtual Routing Table												Y	Y	Y	Y				Y		Y
Exported Route Targets											Y	Y	Y	Y	Y		Y	Y	Y	Y	Y
Imported Route Targets											Y	Y	Y	Y	Y		Y	Y	Y	Y	Y
Route Distinguisher									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
ARP Entity											Y	Y	Y	Y	Y		Y	Y	Y	Y	Y
Name									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Logical Sons							Y		Y	Y	Y	Y	Y	Y	Y	Y			Y		Y
IMO Name—IVrfEntry																					
Next Hop BGP Address									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Incoming and Outgoing Inner Label									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Outer Label									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Destination IP Subnet									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Next Hop IP Address									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Type									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table 6-91 VPN Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
Routing Protocol Type									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Outgoing Interface Name									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IMO Name—IMpBgp																					
BGP Identifier	Y						Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Local Autonomous System							Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cross Virtual Routing Table						Y	Y		Y	Y	Y	Y	Y	Y	Y	Y			Y		Y
BGP Neighbors						Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Logical Sons							Y		Y	Y		Y	Y	Y	Y	Y	Y		Y		Y
IMO Name—ICrossVrf																					
Virtual Routing Entries												Y	Y	Y	Y	Y	Y		Y		Y
Virtual Routing Entity Name												Y	Y	Y	Y	Y	Y		Y		Y
IMO Name—ICrossVrfRoutingEntry																					
Outgoing Virtual Routing Entity Identifier																					
Incoming and Outgoing Virtual Routing Tags																					
Destination IP Subnet									Y	Y		Y	Y	Y	Y	Y			Y		Y
Next Hop IP Address									Y	Y		Y	Y	Y	Y	Y			Y		Y
Type									Y	Y		Y	Y	Y	Y	Y			Y		Y
Routing Protocol Type									Y	Y		Y	Y	Y	Y	Y			Y		Y
Outgoing Interface Name																					

PWE3

Table 6-92 PWE3 Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IPTPLayer2MplsTunnel																					
Local and Remote Router Addresses									Y	Y	Y	Y	Y	Y	Y	Y	Y[1]	Y[2]	Y	Y	Y
Local and Remote Virtual Connection Labels									Y	Y		Y	Y	Y	Y	Y	Y[3]	Y[4]	Y	Y	Y
Tunnel Identification									Y	Y	Y	Y	Y	Y	Y	Y	Y[5]	Y[6]	Y	Y	Y
Tunnel Status									Y	Y	Y	Y	Y	Y	Y	Y	Y[7]	Y[8]	Y	Y	Y

Table 6-92 PWE3 Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
Local and Remote Tunnel Interface											Y						Y[9]				
IANA Type									Y	Y		Y	Y	Y	Y	Y	Y[10]	Y	Y	Y	Y
Containing CTPs																					
Contained CTPs																					
PsuedowireType												Y		Y		Y	Y	Y	Y	Y	Y
PreferredPathTunnel												Y		Y		Y	Y	Y	Y	Y	Y
LocalMTU												Y		Y		Y	Y	Y	Y	Y	Y
RemoteMTU												Y		Y		Y	Y	Y	Y	Y	Y
PeerStatus												Y		Y		Y	Y	Y	Y	Y	Y
SignalingProtocol												Y		Y		Y	Y	Y	Y	Y	Y
VFIName												Y		Y		Y	Y	Y	Y	Y	Y

[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]Till ANA 3.6.2 show l2vpn xconnect detail | include (Group | AC: | PW:) show l2vpn xconnect group $groupName$ xc-name $xcname$ detail show l2vpn xconnect group $groupName$ detail From ANA 3.6.3 - show l2vpn xconnect detail

ACL

Table 6-93 ACL Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IAccessList																					
Type	Y						Y	Y	Y	Y		Y	Y	Y	Y	Y	Y[1]	Y[2]	Y	Y	Y
Access List Entries	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y[3]	Y[4]	Y	Y	Y
Name or Id	Y					Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y				
Index	Y						Y	Y	Y	Y		Y	Y	Y	Y	Y	Y[5]	Y[6]	Y	Y	Y
Name			Y[7]	Y[8]																	
IMO Name—IAccessListEntry																					
Entry Identification	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y[9]	Y[10]	Y	Y	Y
Action Logic	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y[11]	Y[12]	Y	Y	Y
Source and Destination Address	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y[13]	Y[14]	Y	Y	Y
Source and Destination Wildcard	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y[15]	Y[16]	Y	Y		
Protocol Type	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y[17]	Y[18]	Y	Y	Y

Table 6-93 ACL Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
Source and Destination Port Ranges	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y[19]	Y[20]	Y	Y	Y
Source and Destination Port Action	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y[21]	Y[22]	Y	Y	Y
Protocol Specific Info	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y[23]	Y[24]	Y	Y	Y
Differential Services Code Points	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y[25]	Y[26]	Y	Y	Y
Type of Service	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y[27]	Y[28]	Y	Y	Y
Precedence	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y[29]	Y[30]	Y	Y	Y
Matches	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y[31]	Y[32]	Y	Y	Y
Source and Destination Wildcard	Y	Y																			

[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32] ANA 3.6.0 and earlier: show access-lists ipv4. ANA 3.6.1 and later: show running-config ipv4 access-list.

Physical Equipment

Table 6-94 Physical Equipment Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IChassis																					
Description	Y		Y		Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y			Y	Y
Equipment Holder Type		Y	Y	Y	Y				Y	Y	Y	Y	Y	Y	Y				Y		Y
Contained Equipment Holders																					
Contained Equipments																			Y		
Serial Number	Y		Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y			Y	Y
IMO Name—IShelf																					
Description																		Y			
Status																		Y			
Equipment Holder Type																					
Contained Equipment Holders																					
Contained Equipments																					
Serial Number																		Y	Y		
IMO Name—IModule																					
Module Name	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table 6-94 Physical Equipment Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
Module Description	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Software Version	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Operational Status	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Hardware Type + Version	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Managed IP Address																					
Redundant Equipment																Y	Y				
Configured Redundancy														Y		Y	Y	Y	Y	Y	
Redundancy Status	Y		Y	Y		Y	Y				Y	Y		Y		Y	Y	Y	Y	Y	Y
Operational Status Last Changed	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y		Y		Y
Supported Physical Termination Points		Y	Y						Y	Y		Y	Y	Y	Y	Y	Y		Y		Y
Serial Number (soft property)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Slots Number								Y				Y									
Slot Number																					

Base Logical Components

Table 6-95 Base Logical Components Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IManagedElement																					
IP Address	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Communication State	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Investigation State	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Element Category	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Element Type and Key	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Device Name	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
System Name	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
System Description	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Up Time	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Software Version	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Vendor Identity	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table 6-95 Base Logical Components Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
Memory and CPU Usage	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DRAM Free	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DRAM Used	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Flash Device Size	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
NVRAM Size	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y
Processor DRAM	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y
Sys Contact	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Sys Location	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Serial Number	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
File Systems																		Y		Y	Y
IMO Name—IContext																					
Name						Y	Y	Y	Y	Y		Y	Y	Y	Y	Y			Y		Y
Bounded Connections																					
IP Address Pools																					
Forwarding Components List																					
Traffic Descriptors List																					
Tunnel Containers List																					
Data Link Aggregation Containers List																					
IMO Name—ISystemService																					
Type												Y									
Status												Y									
Up Time	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Common

Table 6-96 Common Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IPhysicalLayer																					
Media Type		Y	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Clocking Source	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Maximum Speed	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table 6-96 Common Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
Is Internal Port	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Discarded Bandwidth																					
Dropped Bandwidth																					
Input Bandwidth			Y	Y		Y	Y	Y		Y											
Output Bandwidth			Y	Y		Y	Y	Y		Y											
Discarded and Received Input Data Counters	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Dropped and Forward Output Data Counters	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Administrative Status	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Operational Status	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Last Changed	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y		Y		Y
IANA Type	Y	Y			Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Containing CTPs																					
Contained CTPs																					
Port Alias	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y			Y	Y	Y
Location	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y
Sending Alarms	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y
Connector Description	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Part ID	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Connectort Serial Num	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Product	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Status	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Managed	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Received and Discarded Input Data Counters	Y																				
Forwarded and Dropped Output Data Counters	Y																				
IMO Name—IBridge																					
Bridge Table	Y								Y				Y	Y	Y		Y			Y	Y
Type	Y												Y	Y	Y		Y			Y	Y
MAC Address	Y												Y	Y	Y					Y	Y
IP Interface	Y												Y	Y	Y		Y			Y	Y
Name	Y						Y		Y				Y	Y	Y	Y	Y	Y		Y	Y
Logical Sons	Y						Y		Y				Y	Y	Y	Y	Y	Y		Y	Y

Table 6-96 Common Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
Vlan Type																	Y				
IMO Name—IBridgeEntry																					
Destination MAC	Y					Y	Y		Y				Y	Y	Y		Y			Y	Y
Outgoing Interface	Y					Y	Y		Y				Y	Y	Y		Y			Y	Y
IMO Name—IVcSwitchingEntity																					
Cross Connect Table													Y		Y			Y			Y
Cross Connect Table Size											Y			Y			Y				
Logical Sons																	Y				
Cross Connect Size																					
Cross Connect Table																					

Additional Technologies

Table 6-97 Additional Technologies Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—POS																					
POS	Y	Y		Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	

DWDM

Table 6-98 DWDM Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IDWDM																					
laserStatus																					
txPower																		Y			
rxPower																		Y			
loopback																		Y			
controllerStatus																		Y			
wavelengthBand																		Y			

Table 6-98 DWDM Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
msaItuChannel																		Y			
frequency																		Y			
wavelength																		Y			
g709Status																		Y			
detectedAlarms																		Y			
assertedAlarms																		Y			

Local Switching

Table 6-99 Local Switching Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—ILocalSwitchingEntity																					
LocalSwitchingTable	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y			
IMO Name—ILocalSwitchingEntry																					
Local Switching Entry Key	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y		
Local Switching Entry Status	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y		
Segment 1	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y						
Segment 1 Port Name	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y		
Segment 1 Status	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y		
Segment 2	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y						
Segment 2 Port Name	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y				
Segment 2 Status	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y		

BFD

Table 6-100 BFD Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IBfdService																					
Status				Y								Y		Y				Y	Y	Y	Y
IMO Name—IBfdSession																					
SourceIp				Y								Y		Y				Y	Y	Y	Y
DestinationIp				Y								Y		Y				Y	Y	Y	Y
Interval				Y								Y		Y				Y	Y	Y	Y
Multiplier				Y								Y		Y				Y	Y	Y	Y
Protocol				Y								Y		Y				Y	Y	Y	Y
State				Y								Y		Y				Y	Y	Y	Y
Interface				Y								Y		Y				Y	Y	Y	Y
Process				Y								Y		Y				Y	Y	Y	Y

Clocking

Table 6-101 Clocking Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IClockService																					
ActiveClockSource														Y							Y
NcsMode														Y							Y
HoldTimeout														Y							Y
UseStratum4														Y							Y
Mode														Y							Y
NcsPriorityList														Y							Y
PtpService														Y							Y
IMO Name—IClockSource																					
Priority														Y							Y
Source														Y							Y
Status														Y							Y
Type														Y							Y

Table 6-101 Clocking Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IPtpService																					
Mode																					Y
ClockId																					Y
Domain																					Y
Priority1																					Y
Priority2																					Y
PtpEnabled																					Y
PtpInterfaceList																					
IMO Name—IPtpInterface																					
Version																					Y
AnnounceInterval																					Y
AnnounceTimeout																					Y
DestinationAddress																					Y
SourceAddress																					Y
DelayReq																					Y
MasterMode																					Y
SlaveMode																					Y
SyncInterval																					Y
SyncLimit																					Y
InterfaceXid																					Y
IMO Name—IACRService																					
RecoveredClockSource														Y							Y
RecoveredClockMode														Y							Y
CemInterface														Y							Y
RecoveredClockList														Y							Y
IMO Name—IRecoveredClock																					
ClockId														Y							Y
RecoveredClockMode														Y							Y
Port														Y							Y
Cem														Y							Y
Status														Y							Y
FrequencyOffset														Y							Y

Carrier Ethernet

Table 6-102 Carrier Ethernet Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IVsi																					
vsiInstanceName														Y			Y		Y	Y	
vpnId														Y			Y		Y	Y	
discoveryMode														Y			Y		Y	Y	
vsiMode														Y			Y		Y	Y	
Operational state														Y			Y		Y	Y	
Administrative state														Y			Y		Y	Y	
IMO Name—IPseudowireProperties																					
isSplitHorizonEnabled														Y			Y		Y	Y	
isAutoDiscovered														Y			Y		Y	Y	
IMO Name—IVLANTaggedInterface																					
InterfaceName														Y	Y	Y	Y[1]	Y	Y	Y	Y
Inner Vlan Id														Y	Y	Y	Y[2]	Y	Y	Y	Y
Outer Vlan Id														Y	Y	Y	Y[3]	Y	Y	Y	Y
Encap Type														Y	Y	Y	Y[4]	Y	Y	Y	Y
Operational state														Y	Y	Y	Y[5]	Y	Y	Y	Y
Administrative state														Y	Y	Y	Y[6]	Y	Y	Y	Y
IMO Name—IEfp																					
EfpId														Y[7]	Y[8]	Y		Y			
RewriteParams														Y[9]	Y[10]			Y			
EncapsParams														Y[11]	Y[12]	Y		Y			
AdminStatus														Y[13]	Y[14]	Y		Y			
OperStatus														Y[15]	Y[16]	Y		Y			
SplitHorizonGroup														Y[17]	Y[18]	Y		Y			
matchCriteria														Y[19]	Y[20]	Y		Y			
GetServiceInstanceId														Y[21]	Y[22]	Y		Y			
SetServiceInstanceId														Y[23]	Y[24]	Y		Y			

[1, 2, 3, 4, 5, 6, 7, 8, 9] SNMP is used for versions greater than SRD.

[10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24] Supported for versions greater than IOX 3.8

CDP

Table 6-103 CDP Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—ICdpService																					
cdpHoldtime	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
cdpMessageInterval	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
cdpDeviceId	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
cdpState	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
cdpVersion	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IMO Name—ICdpNeighbor																					
remoteDeviceId	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
remotePortId	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
remoteIPAddress	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
localPortId	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Discovery Protocol

Table 6-104 Discovery Protocol Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IDiscoveryProtocol																					
DiscoveryProtocolType	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Info	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

VTP

Table 6-105 VTP Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—IVtpService																					
Version					Y			Y						Y					[1]	Y	
OperatingMode					Y			Y						Y						[2]	
DomainName					Y			Y						Y						[3]	
ConfigurationRevision					Y			Y						Y						[4]	
isPruningEnabled					Y			Y						Y						[5]	
isAuthenticationEnabled					Y			Y						Y						[6]	

[1, 2, 3, 4, 5, 6] The MIB provides data by default, but the device does not support VTP.

L2Channel

Table 6-106 L2Channel Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7200	7400	7600	10000	12000	XR 12000	CRS-1	ASR 1000	ASR 9000	MWR 2941
IMO Name—ICEMEncap																					
cemIfName														Y					Y		Y
IMO Name—ICEMGroup																					
IdlePattern														Y					Y		Y
IdleCAS														Y					Y		Y
DeJitter														Y					Y		Y
PayloadSize														Y					Y		Y
RTP														Y					Y		Y
RTPHeader														Y					Y		Y
TimeSlots														Y					Y		Y
AdminStatus														Y					Y		Y
OperStatus														Y					Y		Y

SBC

Table 6-107 SBC Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7400	7600	10000	12000	XR 12000	ASR 1000	ASR 9000	MWR 2941
IMO Name—ISbcService																			
sbcMode																	Y		
releaseVersion																	Y		
applicationVersion																	Y		
haStatus																	Y		
IMO Name—ISBE																			
callRedirectLimit																	Y		
onholdTimeout																	Y		
IMO Name—IDBE																			
dbeLocationID																	Y		
dbeType																	Y		
IMO Name—IDbeMediaInterface																			
addressRange																	Y		
vrfName																	Y		
managedBy																	Y		
portRange																	Y		
serviceClass																	Y		
status																	Y		
natMode																	Y		
termination																	Y		
IMO Name—ISbcAccount																			
name																	Y		
adjacencyList																	Y		
IMO Name—ISbeAaaInterface																			
networkId																	Y		
vrf																	Y		
IMO Name—ISbeBillingProperties																			
ldrCheckTime																	Y		
adminStatus																	Y		
operationStatus																	Y		
billingMethod																	Y		
localBillingAddress																	Y		

Table 6-107 SBC Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7400	7600	10000	12000	XR 12000	ASR 1000	ASR 9000	MWR 2941
cachePath																	Y		
cacheMaxSize																	Y		
cacheMinorAlarm																	Y		
cacheMajorAlarm																	Y		
cacheCriticalAlarm																	Y		
retryInterval																	Y		
IMO Name—ISbeBillingInstanceProperties																			
instanceNr																	Y		
batchSize																	Y		
batchTime																	Y		
deactMode																	Y		
transportStatus																	Y		
adminStatus																	Y		
IMO Name—ISbeRadiusClientProperty																			
sbeRetryInterval																	Y		
clientType																	Y		
sbeConcurrentRequestsLimit																	Y		
sbeRetryLimit																	Y		
radiusMode																	Y		
IMO Name—ISbeRadiusServerProperties																			
serverPriority																	Y		
serverKey																	Y		
portNumber																	Y		
IMO Name—ISbcAdjacencyEnd																			
peerSubnetRestrication																	Y		
isMediaPassthrough																	Y		
isHuntingTriggerDisabled																	Y		
huntingTriggers																	Y		
vrf																	Y		
localSignalingAddress																	Y		
remoteSignalingAddress																	Y		
localSignalingPort																	Y		
remoteSignalingPort																	Y		
operationStatus																	Y		

Table 6-107 SBC Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7400	7600	10000	12000	XR 12000	ASR 1000	ASR 9000	MWR 2941
instanceName																	Y		
transportProtocol																	Y		
IMO Name—ISbcAdjacencyGroup																			
name																	Y		
adjacencyList																	Y		
IMO Name—ISbcSipAdjacencyEnd																			
preferredTransport																	Y		
registrationTargetAddress																	Y		
registrationTargetPor																	Y		
IMO Name—ISbcSipAdjacencyEndAuthRealm																			
domain																	Y		
username																	Y		
password																	Y		
IMO Name—ISbeConfiguredBlackList																			
blacklistType																	Y		
instancename																	Y		
IMO Name—ISbeConfiguredBlackListEntry																			
eventType																	Y		
triggerSize																	Y		
triggerPeriod																	Y		
blackListingPeriod																	Y		
isDefaultTriggerSize																	Y		
isDefaultTriggerPeriod																	Y		
IMO Name—ISbeCurrentBlacklisting																			
sourceAddress																	Y		
isAllSourceAddresses																	Y		
sourcePortType																	Y		
sourcePortNumber																	Y		
timeRemaining																	Y		
IMO Name—ISbeCodecList																			
name																	Y		
IMO Name—ISbeCodecListEntry																			
minPacketizationPeriod																	Y		
codecName																	Y		

Table 6-107 SBC Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7400	7600	10000	12000	XR 12000	ASR 1000	ASR 9000	MWR 2941
IMO Name—IDbeH248Profile																			
profileVersion																	Y		
packages																	Y		
IMO Name—ISbeMediaGateway																			
codecList																	Y		
ipAddress																	Y		
IMO Name—IDbeMGC																			
remoteIP																	Y		
remotePort																	Y		
transport																	Y		
IMO Name—ISbcH248ControlInterface																			
ipAddress																	Y		
transport																	Y		
port																	Y		
IMO Name—ISbeGlobalHuntingTriggerList																			
huntingMode																	Y		
huntingTriggers																	Y		
IMO Name—ISbeCacPolicySet																			
firstScope																	Y		
IMO Name—ISbeCacPolicyTable																			
instanceName																	Y		
instanceDescription																	Y		
matchType																	Y		
IMO Name—ISbeCacRuleEntry																			
scope																	Y		
IMO Name—ISbeCallPolicySet																			
isActive																	Y		
policySetNumber																	Y		
name																	Y		
description																	Y		
IMO Name—ISbeCallPolicyTable																			
instanceName																	Y		
instanceDescription																	Y		
matchType																	Y		

Table 6-107 SBC Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7400	7600	10000	12000	XR 12000	ASR 1000	ASR 9000	MWR 2941
IMO Name—ISbeCallRuleEntry																			
entryNumber																	Y		
action																	Y		
matchValue																	Y		
entryCategory																	Y		
IMO Name—ISbePolicySet																			
isActive																	Y		
policySetNumber																	Y		
name																	Y		
description																	Y		
IMO Name—ISbePolicyTable																			
matchType																	Y		
name																	Y		
description																	Y		
IMO Name—ISbeRuleEntry																			
entryNumber																	Y		
action																	Y		
matchValue																	Y		
entryCategory																	Y		
IMO Name—ISbeSdpMatchTable																			
tableType																	Y		
matchStrings																	Y		
IMO Name—ISbeSdpPolicyTable																			
name																	Y		
IMO Name—ISbeQosProfile																			
classOfService																	Y		
markingType																	Y		
dscp																	Y		
ipPrecedence																	Y		
tos																	Y		
IMO Name—ISbeSipHeaderProfile																			
instanceName																	Y		
isInUse																	Y		
profileType																	Y		

Table 6-107 SBC Attribute Support on Cisco Routers—Cisco ANA Version 3.6.7 (continued)

Attribute	800	1000	1600	1700	1800	2500	2600	2800	3600	3700	3800	7400	7600	10000	12000	XR 12000	ASR 1000	ASR 9000	MWR 2941
description																	Y		
IMO Name—ISbeSipHeaderProfileEntry																			
entryNr																	Y		
action																	Y		
value																	Y		
conditions																	Y		
parameterProfile																	Y		
IMO Name—ISbeSipHeaderProfileHeader																			
name																	Y		
IMO Name—ISbeSipMethodProfile																			
isPassthrough																	Y		
IMO Name—ISbeSipMethodProfileMethod																			
instanceName																	Y		
action																	Y		
mapStatusCode																	Y		
headerProfile																	Y		
IMO Name—ISbeSipOptionProfile																			
options																	Y		
IMO Name—ISbeSipParameterProfile																			
parameters																	Y		
IMO Name—ISbeSipProfile																			
instanceName																	Y		
isInUse																	Y		
profileType																	Y		
description																	Y		
IMO Name—ISbeSipTimerProperties																			
tcpConnectTimeout																	Y		
tcpIdleTimeout																	Y		
tlsIdleTimeout																	Y		
inviteTimeout																	Y		
udpFirstRetransmitInterval																	Y		
udpMaxRetransmitInterval																	Y		

CHAPTER 7

Support Information for Cisco Switches

This chapter contains support information for Virtual Network Elements (VNEs) that manage Cisco switches in Cisco ANA Version 3.6.7. For more information about the objects and attributes described in this chapter, see *Cisco Active Network Abstraction 3.6.7 Technology Support and Information Model Reference Manual*.

This chapter contains the following topics:

- Cisco Catalyst 2900 Series Switches, page 7-1
- Cisco ME 3400 Series Ethernet Access Switches, page 7-3
- Cisco Catalyst 3500 XL Series Switches, page 7-7
- Cisco Catalyst 3550 Series Switches, page 7-9
- Cisco Catalyst 3560 Series Switches, page 7-11
- Cisco Catalyst 3750 Series Switches, page 7-13
- Cisco Catalyst 3750 Metro Series Switches, page 7-15
- Cisco Catalyst 4000 Series Switches, page 7-18
- Cisco Catalyst 4500 Series Switches, page 7-21
- Cisco Catalyst 4900 Series Switches, page 7-25
- Cisco ME 4900 Series Ethernet Switch, page 7-28
- Cisco Catalyst 6500 Series (CatOS) Switches, page 7-31
- Cisco Catalyst 6500 Series (IOS) Switches, page 7-36
- Cisco ME 6500 Series Ethernet Switches (6524), page 7-45
- Supported Technologies on Cisco Switches, page 7-48

Cisco Catalyst 2900 Series Switches

This section includes the following information about Cisco Catalyst 2900 Series switches (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco Catalyst 2900 Series Switches):

- Cisco Catalyst 2900 Series—Supported Software Versions, page 7-2
- Cisco Catalyst 2900 Series—Supported Topologies, page 7-2
- Cisco Catalyst 2900 Series—Supported Modules, page 7-2

- Cisco Catalyst 2900 Series—Supported Technologies, page 7-3
- Cisco Catalyst 2900 Series—Supported Service Events, page 7-3

Cisco Catalyst 2900 Series—Supported Software Versions

Table 7-1 Supported Software Versions for Cisco Catalyst 2900 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
12.2(25)FX	3.6.0	S
CatOS 9.00.04	3.6.0	S
12.1(22)EA8	3.6.2	S
12.1(22)EA8a	3.6.2	S
12.0(5)WC17	3.6.2	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco Catalyst 2900 Series—Supported Topologies

Table 7-2 Supported Topologies for Cisco Catalyst 2900 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.0
Physical Layer	Physical Layer	3.6.0
LAG	LAG	3.6.0

Cisco Catalyst 2900 Series—Supported Modules

Table 7-3 Supported Modules for Cisco Catalyst 2900 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
WS-C2912-XL	3.6.0	12 fixed autosensing 10/100 ports	S
WS-C2924M-XL	3.6.0	24 fixed autosensing 10/100 ports 2 expansion slots	S
WS-C2948G	3.6.0	48 10/100 ports and 2 fixed, gigabit interface converter (GBIC)-based 1000BASE-X uplink ports 1.5 RU switch Catalyst OS installed	S

Table 7-3 Supported Modules for Cisco Catalyst 2900 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
WS-X2948	3.6.0	Switching Supervisor	S

Cisco Catalyst 2900 Series—Supported Technologies

The following technologies are supported by the Cisco Catalyst 2900 Series in Cisco ANA Version 3.6.7:

- IP, page 7-48
- Ethernet (IEEE 802.3), page 7-52
- Physical Equipment, page 7-69
- Base Logical Components, page 7-70
- Common, page 7-71

Cisco Catalyst 2900 Series—Supported Service Events

Table 7-4 Supported Service Events for Cisco Catalyst 2900 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Card Up/Down	3.6.0	Y

Cisco ME 3400 Series Ethernet Access Switches

This section includes the following information about Cisco ME 3400 Series switches (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco ME 3400 Series Ethernet Access Switches):

- Cisco ME 3400 Series—Supported Software Versions, page 7-4
- Cisco ME 3400 Series—Supported Topologies, page 7-5
- Cisco ME 3400 Series—Supported Modules, page 7-5

- Cisco ME 3400 Series—Supported Technologies, page 7-6
- Cisco ME 3400 Series—Supported Service Events, page 7-6

Cisco ME 3400 Series—Supported Software Versions

Table 7-5 Supported Software Versions for Cisco ME 3400 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
12.2(0.0.48)EY	3.6.5	S
12.2(25) SEG	3.6.1	S
12.2(35) SE	3.6.1	S
12.2(35) SE1	3.6.1	S
12.2(35)SE3	3.6.1	S
12.2(35)SE4	3.6.4	S
12.2(37)SE	3.6.3	S
12.2(37)SE1	3.6.4	S
12.2(44)EY	3.6.5	S
12.2(44)EY4	3.6.5	S[1]
12.2(44)SE	3.6.3	S
12.2(44)SE1	3.6.4	S
12.2(46)SE	3.6.4	V
12.2(50)SE	3.6.6	V
12.2(52)SE	3.6.7	V
12.3(22)S	3.6.1	S
12.3(23)	3.6.1	S
12.3(23)S1	3.6.1	S
12.3(23)S2	3.6.1	S
12.3(23)S3	3.6.1	S

[1]Tested with modified version of 12.2(44)EY

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco ME 3400 Series—Supported Topologies

Table 7-6 Supported Topologies for Cisco ME 3400 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.1
Physical Layer	Physical Layer	3.6.1
LAG	LAG	3.6.1

Cisco ME 3400 Series—Supported Modules

Table 7-7 Supported Modules for Cisco ME 3400 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
GLC-EX-SMD	3.6.7	1000BASE-EX extended SFP transceiver module	V
GLC-FE-100FX	3.6.7	100BaseFX-SFP module for 100 MB ports,1310-nm wavelength, 2 Km over MMF	V
GLC-FE-100LX	3.6.7	100BaseLX10 SFP module for 100 MB ports,1310-nm wavelength, 10 Km over SMF	V
GLC-LH-SM	3.6.4	1000BASE-LX/LH SFP transceiver module for MMF and SMF, 1300-nm wavelength	S
ME-3400E-24TS-M	3.6.5	ME-3400E-24TS-M - Fixed Module 0	S
ME-3400EG-12CS-M	3.6.5	ME-3400EG-12CS-M - Fixed Module 0	S
ME-3400EG-2CS-A	3.6.5	ME-3400EG-2CS-A - Fixed Module 0	S[1]
ME-3400G-12CS-A	3.6.1	12 dual-purpose ports (10/100/1000 and Small Form-Factor Pluggable [SFP]) and 4 SFP uplinks	S
ME-3400G-12CS-D	3.6.1	12 dual-purpose ports (10/100/1000 and SFP) and 4 SFP uplinks	S
ME-3400G-2CS	3.6.1	2 dual-purpose ports (10/100/1000 and SFP) and 2 SFP uplinks	S
ME340X-PWR-AC	3.6.7	AC power supply and fan module for ME-3400E-24TS-M and ME-3400EG-12CS-M	V
SFP-GE-L	3.6.4	1000BASE-LX/LH SFP transceiver module for MMF and SMF, 1300-nm wavelength, extended operating temperature range and DOM support	S
SFP-GE-S	3.6.7	1000BASE-Sx Short wavelength gigabit ethernet SFP.	V
SFP-GE-Z	3.6.7	1000BASE-Zx Extended reach gigabit ethernet SFP.	V

[1]Tested on an ME-3400G-2CS-A device.

Cisco ME 3400 Series—Supported Technologies

The following technologies are supported by the Cisco ME 3400 Series in Cisco ANA Version 3.6.7:

- IP, page 7-48
- Routing Protocols, page 7-51
- Ethernet (IEEE 802.3), page 7-52
- ACL, page 7-68
- Physical Equipment, page 7-69
- Base Logical Components, page 7-70
- Common, page 7-71
- Additional Technologies, page 7-72
- LLDP, page 7-75
- CDP, page 7-75

Cisco ME 3400 Series—Supported Service Events

Table 7-8 Supported Service Events for Cisco ME 3400 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Card In/Out	3.6.1	Y
Link Down/Up	3.6.1	Y
Device Unreachable	3.6.1	N
CPU Over Utilized	3.6.1	N
Memory Over Utilized	3.6.1	N
Device Unsupported	3.6.1	N
Discard Packets	3.6.1	N
Dropped Packets	3.6.1	N
Module Unsupported	3.6.1	N
Port Flapping	3.6.1	N
Port Down	3.6.1	Y
Rx Over Utilized	3.6.1	N
Tx Over Utilized	3.6.1	N
Card Up/Down	3.6.1	Y

Cisco Catalyst 3500 XL Series Switches

This section includes the following information about Cisco Catalyst 3500 XL Series switches (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco Catalyst 3500 XL Series Switches):

- Cisco Catalyst 3500 XL Series—Supported Software Versions, page 7-7
- Cisco Catalyst 3500 XL Series—Supported Topologies, page 7-7
- Cisco Catalyst 3500 XL Series—Supported Modules, page 7-7
- Cisco Catalyst 3500 XL Series—Supported Technologies, page 7-8
- Cisco Catalyst 3500 XL Series—Supported Service Events, page 7-8

Cisco Catalyst 3500 XL Series—Supported Software Versions

Table 7-9 Supported Software Versions for Cisco Catalyst 3500 XL Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
Cat IOS 12.0(5)WC9a	3.6.0	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco Catalyst 3500 XL Series—Supported Topologies

Table 7-10 Supported Topologies for Cisco Catalyst 3500 XL Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.0
Physical Layer	Physical Layer	3.6.0
LAG	LAG	3.6.2

Cisco Catalyst 3500 XL Series—Supported Modules

Table 7-11 Supported Modules for Cisco Catalyst 3500 XL Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
C3K-BLWR-60CFM	3.6.4	Fan Module for the Catalyst 3750-E and 3560-E Series	S

Cisco Catalyst 3500 XL Series—Supported Technologies

The following technologies are supported by the Cisco Catalyst 3500 XL Series in Cisco ANA Version 3.6.7:

- IP, page 7-48
- Ethernet (IEEE 802.3), page 7-52
- Physical Equipment, page 7-69
- Base Logical Components, page 7-70
- Common, page 7-71

Cisco Catalyst 3500 XL Series—Supported Service Events

Table 7-12 Supported Service Events for Cisco Catalyst 3500 XL Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
VPN Leak	3.6.0	N
Card Up/Down	3.6.0	Y

Cisco Catalyst 3550 Series Switches

This section includes the following information about Cisco Catalyst 3550 Series switches (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco Catalyst 3550 Series Switches):

- Cisco Catalyst 3550 Series—Supported Software Versions, page 7-9
- Cisco Catalyst 3550 Series—Supported Topologies, page 7-10
- Cisco Catalyst 3550 Series—Supported Technologies, page 7-10
- Cisco Catalyst 3550 Series—Supported Service Events, page 7-10

Cisco Catalyst 3550 Series—Supported Software Versions

Table 7-13 Supported Software Versions for Cisco Catalyst 3550 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
12.1(11)EA*	3.6.1	S
12.1(12c)EA1	3.6.1	S
12.1(13)EA*	3.6.1	S
12.1(14)AX3	3.6.1	S
12.1(14)EA1	3.6.1	S
12.1(19)EA*	3.6.1	S
12.1(20)EA*	3.6.1	S
12.1(22)EA*	3.6.1	S
12.1(22)EA6	3.6.1	S
12.1(22)EA8a	3.6.1	V

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco Catalyst 3550 Series—Supported Topologies

Table 7-14 Supported Topologies for Cisco Catalyst 3550 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.0
Physical Layer	Physical Layer	3.6.0
LAG	LAG	3.6.0

Cisco Catalyst 3550 Series—Supported Technologies

The following technologies are supported by the Cisco Catalyst 3550 Series in Cisco ANA Version 3.6.7:

- IP, page 7-48
- Ethernet (IEEE 802.3), page 7-52
- Physical Equipment, page 7-69
- Base Logical Components, page 7-70
- Common, page 7-71
- Additional Technologies, page 7-72

Cisco Catalyst 3550 Series—Supported Service Events

Table 7-15 Supported Service Events for Cisco Catalyst 3550 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
All IP Interfaces Down / Active IP Interfaces Found	3.6.0	Y
Interface Status Down/Up	3.6.0	Y
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Cloud Problem	3.6.0	N
Card Up/Down	3.6.0	Y

Cisco Catalyst 3560 Series Switches

This section includes the following information about Cisco Catalyst 3560 Series switches (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco Catalyst 3560 Series Switches):

- Cisco Catalyst 3560 Series—Supported Software Versions, page 7-11
- Cisco Catalyst 3560 Series—Supported Topologies, page 7-12
- Cisco Catalyst 3560 Series—Supported Modules, page 7-12
- Cisco Catalyst 3560 Series—Supported Technologies, page 7-12
- Cisco Catalyst 3560 Series—Supported Service Events, page 7-13

Cisco Catalyst 3560 Series—Supported Software Versions

Table 7-16 Supported Software Versions for Cisco Catalyst 3560 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
12.1(13)EA1a	3.6.0	S
12.1(14)EA1a	3.6.0	S
12.1(25)EW	3.6.0	S
12.1(6)EA1a	3.6.0	S
12.2(25)SED	3.6.0	S
12.1(22)EA5	3.6.1	S
12.1(22)EA8a	3.6.1	S
12.2(25)SEE2	3.6.1	S
12.1(22)EA1	3.6.2	S
12.2(25)SEC2	3.6.2	S
12.2(25)SEC	3.6.2	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco Catalyst 3560 Series—Supported Topologies

Table 7-17 Supported Topologies for Cisco Catalyst 3560 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.0
Physical Layer	Physical Layer	3.6.0
LAG	LAG	3.6.0

Cisco Catalyst 3560 Series—Supported Modules

Table 7-18 Supported Modules for Cisco Catalyst 3560 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
WS-C3560-24PS	3.6.1	24 Ethernet 10/100 ports and 2 SFP-based Gigabit Ethernet ports	S
WS-C3560-48PS	3.6.0	48 Ethernet 10/100 ports and 4 SFP-based Gigabit Ethernet ports	S
WS-C3560G-24PS	3.6.1	24 Ethernet 10/100/1000 ports and 4 SFP-based Gigabit Ethernet ports	S
WS-C3560G-24TS	3.6.1	24 Ethernet 10/100/1000 ports and 4 SFP-based Gigabit Ethernet ports	S
WS-C3560G-48TS	3.6.0	48 Ethernet 10/100/1000 ports and 4 SFP-based Gigabit Ethernet ports	S
WS-C3560G-48PS	3.6.1	48 Ethernet 10/100/1000 ports and 4 SFP-based Gigabit Ethernet ports	S
WS-C3560-48TS	3.6.2	48 Ethernet 10/100 ports and 4 SFP-based Gigabit Ethernet ports	S
C3K-BLWR-60CFM	3.6.4	Fan Module for the Catalyst 3750-E and 3560-E Series	S

Cisco Catalyst 3560 Series—Supported Technologies

The following technologies are supported by the Cisco Catalyst 3560 Series in Cisco ANA Version 3.6.7:

- IP, page 7-48
- Routing Protocols, page 7-51
- Ethernet (IEEE 802.3), page 7-52
- VPN, page 7-65
- Physical Equipment, page 7-69
- Base Logical Components, page 7-70
- Common, page 7-71
- Additional Technologies, page 7-72

Cisco Catalyst 3560 Series—Supported Service Events

Table 7-19 Supported Service Events for Cisco Catalyst 3560 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
VPN Leak	3.6.0	N
Cloud Problem	3.6.0	N
Card Up/Down	3.6.0	Y

Cisco Catalyst 3750 Series Switches

This section includes the following information about Cisco 3750 Series switches (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco Catalyst 3750 Series Switches):

- Cisco 3750 Series—Supported Software Versions, page 7-14
- Cisco 3750 Series—Supported Topologies, page 7-14
- Cisco 3750 Series—Supported Technologies, page 7-14
- Cisco 3750 Series—Supported Service Events, page 7-15

Cisco 3750 Series—Supported Software Versions

Table 7-20 Supported Software Versions for Cisco 3750 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOS 12.2(25)EY3	3.6.0	S
12.2(25)SEC2	3.6.2	S
12.2(52)SE	3.6.7	V
12.2(50)SE	3.6.7	V

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco 3750 Series—Supported Topologies

Table 7-21 Supported Topologies for Cisco 3750 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.0
Physical Layer	Physical Layer	3.6.0
LAG	LAG	3.6.2

Cisco 3750 Series—Supported Technologies

The following technologies are supported by the Cisco 3750 Series in Cisco ANA Version 3.6.7:

- IP, page 7-48
- Ethernet (IEEE 802.3), page 7-52
- Physical Equipment, page 7-69
- Base Logical Components, page 7-70
- Common, page 7-71
- LLDP, page 7-75

Cisco 3750 Series—Supported Service Events

Table 7-22 Supported Service Events for Cisco 3750 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
Card Up/Down	3.6.0	Y

Cisco Catalyst 3750 Metro Series Switches

This section includes the following information about Cisco Catalyst 3750 Metro Series switches (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco Catalyst 3750 Metro Series Switches):

- Cisco Catalyst 3750 Metro Series—Supported Software Versions, page 7-16
- Cisco Catalyst 3750 Metro Series—Supported Topologies, page 7-16
- Cisco Catalyst 3750 Metro Series—Supported Modules, page 7-17
- Cisco Catalyst 3750 Metro Series—Supported Technologies, page 7-17
- Cisco Catalyst 3750 Metro Series—Supported Service Events, page 7-18

Cisco Catalyst 3750 Metro Series—Supported Software Versions

Table 7-23 Supported Software Versions for Cisco Catalyst 3750 Metro Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
12.2.(40)SE	3.6.3	S
12.2(44)SE1	3.6.3	S
12.2(25)SEG1	3.6.3	S
12.2(25)SEB4	3.6.3	S
12.2.(40)SE	3.6.3	S
12.2(25)EY3	3.6.3	S
12.2(25)EY*	3.6.3	S
12.2(37)SE1	3.6.3	S
12.2(37)SE*	3.6.3	S
12.2(35)SE	3.6.3	S
12.2(46)SE	3.6.4	S
12.2(50)SE	3.6.6	V
12.2(52)SE	3.6.7	V

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco Catalyst 3750 Metro Series—Supported Topologies

Table 7-24 Supported Topologies for Cisco Catalyst 3750 Metro Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
BGP	BGP	3.6.0
Ethernet	Ethernet	3.6.0
MPLS	MPLS	3.6.0
PPP/HDLC	PPP or HDLC	3.6.0
LAG	LAG	3.6.3

Cisco Catalyst 3750 Metro Series—Supported Modules

Table 7-25 Supported Modules for Cisco Catalyst 3750 Metro Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
CATALYST375024ME	3.6.0	Metro Ethernet Catalyst 3750 Module. 24-10/100 + 2 SFP (Small Form Factor Pluggable) ports for downlinks	S
SFP-GE-L	3.6.5	1000BASE-LX/LH SFP transceiver module for MMF and SMF, 1300-nm wavelength, extended operating temperature range and DOM support	S
GLC-LH-SM	3.6.5	1000BASE-LX/LH SFP transceiver module for MMF and SMF, 1300-nm wavelength	S
GLC-EX-SMD	3.6.7	1000BASE-EX extended SFP transceiver module	V

Cisco Catalyst 3750 Metro Series—Supported Technologies

The following technologies are supported by the Cisco Catalyst 3750 Metro Series in Cisco ANA Version 3.6.7:

- IP, page 7-48
- Routing Protocols, page 7-51
- Ethernet (IEEE 802.3), page 7-52
- MPLS, page 7-62
- MPLS-TE, page 7-64
- VPN, page 7-65
- PWE3, page 7-67
- ACL, page 7-68
- Physical Equipment, page 7-69
- Base Logical Components, page 7-70
- Common, page 7-71
- Additional Technologies, page 7-72
- Local Switching, page 7-73
- LLDP, page 7-75

Cisco Catalyst 3750 Metro Series—Supported Service Events

Table 7-26 Supported Service Events for Cisco Catalyst 3750 Metro Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
BGP Neighbor Down	3.6.0	Y
Card Up/Down	3.6.0	Y

Cisco Catalyst 4000 Series Switches

This section includes the following information about Cisco Catalyst 4000 Series switches (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco Catalyst 4000 Series Switches):

- Cisco Catalyst 4000 Series—Supported Software Versions, page 7-19
- Cisco Catalyst 4000 Series—Supported Topologies, page 7-19
- Cisco Catalyst 4000 Series—Supported Modules, page 7-19
- Cisco Catalyst 4000 Series—Supported Technologies, page 7-20
- Cisco Catalyst 4000 Series—Supported Service Events, page 7-21

Cisco Catalyst 4000 Series—Supported Software Versions

Table 7-27 Supported Software Versions for Cisco Catalyst 4000 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOS 12.1(12c)EW1	3.6.0	S
IOS 12.2(20)EWA1	3.6.0	S
IOS 12.2(25)SG	3.6.0	S
12.2(31)SGA2	3.6.2	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco Catalyst 4000 Series—Supported Topologies

Table 7-28 Supported Topologies for Cisco Catalyst 4000 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.0
Physical Layer	Physical Layer	3.6.0
LAG	LAG	3.6.2

Cisco Catalyst 4000 Series—Supported Modules

Table 7-29 Supported Modules for Cisco Catalyst 4000 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
CWDM-SFP-1470	3.6.0	CWDM SFP 1470 nm, Gigabit Ethernet and 1G/2G FC	V
CWDM-SFP-1490	3.6.0	CWDM SFP 1490 nm, Gigabit Ethernet and 1G/2G FC	V
CWDM-SFP-1510	3.6.0	CWDM SFP 1510 nm, Gigabit Ethernet and 1G/2G FC	V
CWDM-SFP-1530	3.6.0	CWDM SFP 1530 nm, Gigabit Ethernet and 1G/2G FC	V
CWDM-SFP-1550	3.6.0	CWDM SFP 1550 nm, Gigabit Ethernet and 1G/2G FC	V
CWDM-SFP-1570	3.6.0	CWDM SFP 1570 nm, Gigabit Ethernet and 1G/2G FC	V
CWDM-SFP-1590	3.6.0	CWDM SFP 1590 nm, Gigabit Ethernet and 1G/2G FC	V
CWDM-SFP-1610	3.6.0	CWDM SFP 1610 nm, Gigabit Ethernet and 1G/2G FC	V

Table 7-29 Supported Modules for Cisco Catalyst 4000 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
WS-U4504-FX-MT	3.6.0	FE Uplink Daughter Card, 4-port 100FX (MTRJ)	V
WS-X4014	3.6.0	Catalyst 4006 Supervisor 3, Spare	V
WS-X4124-FX-MT	3.6.0	FE Switching Module, 24-port 100FX (MTRJ)	V
WS-X4148-FX-MT	3.6.0	FE Switching Module, 48-100FX MMF (MTRJ)	V
WS-X4148-RJ	3.6.0	10/100 Fast Ethernet Module, 48 Ports (RJ-45)	V
WS-X4148-RJ21	3.6.0	Telco switch module, 48-port 10/100 (4xRJ21)	V
WS-X4148-RJ45V	3.6.0	Inline Power 10/100, 48-port (RJ45)	V
WS-X4232-GB-RJ	3.6.0	E/FE/GE Module, 2-GE (GBIC), 32-10/100 FE (RJ-45)	V
WS-X4232-RJ-XX	3.6.0	FE Base Module, 32-10/100(RJ45)+ Modular Uplink slot	V
WS-X4248-RJ21V	3.6.0	48-port PoE 10/100 BASE-TX switching module	V
WS-X4248-RJ45V	3.6.0	48-port PoE 10/100BASE-TX switching module	V
WS-X4302-GB	3.6.0	2-port 1000BASE-X (GBIC) Gigabit Ethernet	V
WS-X4306-GB	3.6.0	Gigabit Ethernet Module, 6 Ports (GBIC)	V
WS-X4412-2GB-T	3.6.0	GE Module, 12-1000T (RJ45)+2-1000X (GBIC Slot)	V
WS-X4418-GB	3.6.0	GE Module, Server Switching 18 Ports (GBIC)	V
WS-X4424-GB-RJ45	3.6.0	24-port 10/100/1000BASE-T Gigabit Ethernet switching module	V
WS-X4424-GB-RJ-45	3.6.0	24 port 10/100/1000 Auto-Sensing Module (RJ45)	V
WS-X4448-GB-LX	3.6.0	48-port 1000BASE-LX (SFP included) Gigabit Ethernet switching module	V
WS-X4448-GB-RJ45	3.6.0	48 port 10/100/1000 Auto-Sensing Module (RJ45)	V
WS-X4548-GB-RJ45	3.6.0	48-port Gigabit Ethernet 10/100/1000BASE-T switching module	V
WS-X4548-GB-RJ45V	3.6.0	48-port PoE 10/100/1000BASE-T switching module	V

Cisco Catalyst 4000 Series—Supported Technologies

The following technologies are supported by the Cisco Catalyst 4000 Series in Cisco ANA Version 3.6.7:

- IP, page 7-48
- Ethernet (IEEE 802.3), page 7-52
- Physical Equipment, page 7-69
- Base Logical Components, page 7-70
- Common, page 7-71

Cisco Catalyst 4000 Series—Supported Service Events

Table 7-30 Supported Service Events for Cisco Catalyst 4000 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Card Up/Down	3.6.0	Y

Cisco Catalyst 4500 Series Switches

This section includes the following information about Cisco Catalyst 4500 Series switches (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco Catalyst 4500 Series Switches):

- Cisco Catalyst 4500 Series—Supported Software Versions, page 7-21
- Cisco Catalyst 4500 Series—Supported Topologies, page 7-22
- Cisco Catalyst 4500 Series—Supported Modules, page 7-22
- Cisco Catalyst 4500 Series—Supported Technologies, page 7-24
- Cisco Catalyst 4500 Series—Supported Service Events, page 7-24

Cisco Catalyst 4500 Series—Supported Software Versions

Table 7-31 Supported Software Versions for Cisco Catalyst 4500 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOS 12.1(12c)EW1	3.6.0	V
IOS 12.2(20)EWA1	3.6.0	V
IOS 12.2(25)SG	3.6.0	V
12.1(13)EW	3.6.0	S
12.2(20)EWA	3.6.0	S

Table 7-31 Supported Software Versions for Cisco Catalyst 4500 Series—Cisco ANA Version 3.6.7 (continued)

Software Version	ANA Version	Certification Level
12.2(31)SGA2	3.6.2	S
12.2(25)EWA14	3.6.6	V[1]
12.2(52)SG	3.6.6	V
12.2(50)SG1	3.6.7	V
12.2(52)XO	3.6.7	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco Catalyst 4500 Series—Supported Topologies

Table 7-32 Supported Topologies for Cisco Catalyst 4500 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.0
Framerelay	Framerelay	3.6.0
Physical Layer	Physical Layer	3.6.0
LAG	LAG	3.6.2

Cisco Catalyst 4500 Series—Supported Modules

Table 7-33 Supported Modules for Cisco Catalyst 4500 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
GLC-LH-SM	3.6.7	1000BASE-LX/LH SFP transceiver module for MMF and SMF, 1300-nm wavelength	V
GLC-ZX-SM	3.6.7	1000BASE-ZX SFP transceiver module for SMF, 1550-nm wavelength	V
PWR-C45-1300ACV	3.6.4	Cisco 4506 Power supply module	S
PWR-C45-1400DC	3.6.7	Power Supply (DC 1400W)	V
PWR-C45-2800ACV	3.6.7	4500 2800W AC Power Supply (Data and PoE)	S
WS-U4504-FX-MT	3.6.0	Catalyst 4500 4-port 100FX(MTRJ) Uplink for WS-X4232-RJ-XX	S
WS-X4013+	3.6.0	Catalyst 4500 Supervisor II-Plus (IOS), 2GE,Console(RJ-45)	S
WS-X4013+TS	3.6.0	Catalyst 4503 SupII-Plus-TS, 12 10/100/1000 PoE+8 SFP slots	S

Table 7-33 Supported Modules for Cisco Catalyst 4500 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
WS-X4014	3.6.0	Supervisor Engine III	S
WS-X4124-FX-MT	3.6.0	24-Port 100BASE-FX Fast Ethernet Switching Module	S
WS-X4124-RJ45	3.6.0	24-Port 10/100BASE-TX Fast Ethernet Switching Module	S
WS-X4148-FE-BD-LC	3.6.0	48-Port 100BASE-BX10-D Fast Ethernet Switching Module	S
WS-X4148-FE-LX-MT	3.6.0	48-Port 100Base-LX-MT Fast Ethernet Switching Module	S
WS-X4148-FX-MT	3.6.0	Catalyst 4500 FE Switching Module, 48-100FX MMF(MTRJ)	S
WS-X4148-RJ	3.6.0	Catalyst 4500 10/100 Auto Module, 48-Ports (RJ-45)	S
WS-X4148-RJ21	3.6.0	Catalyst 4500 10/100 Module, 48-Ports Telco (4xRJ21)	S
WS-X4148-RJ45V	3.6.0	10/100BASE-TX Fast Ethernet switching module with Cisco pre-standard PoE	S
WS-X4224-RJ45V	3.6.0	Catalyst 4500 10/100 PoE 802.3af 24-ports (RJ45)	S
WS-X4232-GB-RJ	3.6.0	Catalyst 4500 32-10/100 (RJ-45),2-GE(GBIC)	S
WS-X4232-L3	3.6.0	Layer 3 Services Module	S
WS-X4232-RJ-XX	3.6.0	Catalyst 4500 10/100 Module,32-ports(RJ45)+Modular uplinks	S
WS-X4248-FE-SFP	3.6.0	Catalyst 4500 48-Port 100BASE-X (SFPs Optional)	S
WS-X4248-RJ21V	3.6.0	Catalyst 4500 PoE 802.3af 10/100, 48-Ports (RJ21)	S
WS-X4248-RJ45V	3.6.0	Catalyst 4500 PoE 802.3af 10/100, 48-Ports (RJ45)	S
WS-X4302-GB	3.6.0	Catalyst 4500 Gigabit Ethernet Module, 2-Ports (GBIC)	S
WS-X4306-GB	3.6.0	Catalyst 4500 Gigabit Ethernet Module, 6-Ports (GBIC)	S
WS-X4412-2GB-T	3.6.0	1000BASE-T plus 1000BASE-X Gigabit Ethernet switching module	S
WS-X4418-GB	3.6.0	Catalyst 4500 GE Module, Server Switching 18-Ports (GBIC)	S
WS-X4424-GB-RJ45	3.6.0	Catalyst 4500 24-port 10/100/1000 Module (RJ45)	S
WS-X4448-GB-LX	3.6.0	1000BASE-X Gigabit Ethernet switching module	S
WS-X4448-GB-RJ45	3.6.0	Catalyst 4500 48-Port 10/100/1000 Module (RJ45)	S
WS-X4448-GB-SFP	3.6.0	Catalyst 4500 48-Port 1000Base-X (SFPs Optional)	S
WS-X4506-GB-T	3.6.0	Catalyst 4500 6-Port 10/100/1000 PoE or SFP (Optional)	S
WS-X4515	3.6.0	Catalyst 4500 Supervisor IV (2 GE), Console (RJ-45)	S
WS-X4516	3.6.0	Catalyst 4500 Supervisor V (2 GE), Console (RJ-45)	S
WS-X4516-10GE	3.6.0	Catalyst 4500 Supervisor V-10GE, 2x10GE (X2) and 4x1GE (SFP)	S
WS-X4524-GB-RJ45V	3.6.0	Catalyst 4500 PoE 802.3af 10/ 100/1000 24-ports (RJ45)	S
WS-X4548-GB-RJ45	3.6.0	Catalyst 4500 Enhanced 48-Port 10/100/1000 Base-T (RJ-45)	S
WS-X4548-GB-RJ45V	3.6.0	Catalyst 4500 PoE 802.3af 10/100/1000, 48-Ports (RJ45)	S
WS-X45-SUP6-E	3.6.7	Catalyst 4500 E-Series Sup 6-E, 2x10GE(X2) w/Twin Gig	V
WS-X45-SUP6L-E	3.6.7	Catalyst 4500 E-Series Sup 6L-E, 2x10GE(X2) w/Twin Gig	V
WS-X4604-GWY	3.6.0	Catalyst 4000 Access Gateway Module	S
WS-X4606-X2-E	3.6.7	10GE (X2), 1000BaseX (SFP) with 6 10GE X2 ports	V

Table 7-33 Supported Modules for Cisco Catalyst 4500 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
WS-X4624-SFP-E	3.6.7	1000BaseX(SFP) with 24 ports Jumbo Frame Support	V
X2-10GB-ER	3.6.7	10GBASE-ER X2 transceiver module for SMF, 1550-nm wavelength, SC duplex connector	V
X2-10GB-LR	3.6.7	10GBASE-LR Serial 1310-nm long-reach, single-mode fiber (SMF), dispersion-shifted fiber (DSF)	V

Cisco Catalyst 4500 Series—Supported Technologies

The following technologies are supported by the Cisco Catalyst 4500 Series in Cisco ANA Version 3.6.7:

- IP, page 7-48
- Routing Protocols, page 7-51
- Ethernet (IEEE 802.3), page 7-52
- VPN, page 7-65
- ACL, page 7-68
- Physical Equipment, page 7-69
- Base Logical Components, page 7-70
- Common, page 7-71
- LLDP, page 7-75

Cisco Catalyst 4500 Series—Supported Service Events

Table 7-34 Supported Service Events for Cisco Catalyst 4500 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
All IP Interfaces Down / Active IP Interfaces Found	3.6.0	Y
Interface Status Down/Up	3.6.0	Y
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N

Table 7-34 Supported Service Events for Cisco Catalyst 4500 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Port Down	3.6.0	Y
Card Up/Down	3.6.0	Y

Cisco Catalyst 4900 Series Switches

This section includes the following information about Cisco Catalyst 4900 Series switches (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco Catalyst 4900 Series Switches):

- Cisco Catalyst 4900 Series—Supported Software Versions, page 7-25
- Cisco Catalyst 4900 Series—Supported Topologies, page 7-26
- Cisco Catalyst 4900 Series—Supported Modules, page 7-26
- Cisco Catalyst 4900 Series—Supported Technologies, page 7-27
- Cisco Catalyst 4900 Series—Supported Service Events, page 7-27

Cisco Catalyst 4900 Series—Supported Software Versions

Table 7-35 Supported Software Versions for Cisco Catalyst 4900 Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
IOS 12.2(31)SG	3.6.1	S
IOS 12.2(31)SGA1	3.6.1	S
IOS 12.2(25)EWA6	3.6.2	S
IOS 12.2(25)EWA4	3.6.2	S
IOS 12.2(25)EWA	3.6.3	S
IOS 12.2(25)EWA2	3.6.3	S
IOS 12.2(52)SG	3.6.6	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco Catalyst 4900 Series—Supported Topologies

Table 7-36 Supported Topologies for Cisco Catalyst 4900 Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.1
Physical Layer	Physical Layer	3.6.1
LAG	LAG	3.6.1

Cisco Catalyst 4900 Series—Supported Modules

Table 7-37 Supported Modules for Cisco Catalyst 4900 Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
GLC-LH-SM	3.6.1	Gigabit Ethernet SFP, LC connector LH transceiver	S
GLC-SX-MM	3.6.1	Gigabit Ethernet SFP, LC connector SX transceiver	S
GLC-ZX-SM	3.6.1	Gigabit Ethernet SFP, LC connector ZX transceiver	S
GLC-T	3.6.1	Gigabit Ethernet SFP, RJ-45 connector, 1000BASE-T transceiver	S
GLC-BX-D	3.6.1	1000BASE-BX10-D downstream bidirectional single fiber; with DOM	S
GLC-BX-U	3.6.1	1000BASE-BX10-U upstream bidirectional single fiber; with DOM	S
CWDM-SFP-1470	3.6.1	Longwave 1470 nm laser single-mode	S
CWDM-SFP-1490	3.6.1	Longwave 1490 nm laser single-mode	S
CWDM-SFP-1510	3.6.1	Longwave 1510 nm laser single-mode	S
CWDM-SFP-1530	3.6.1	Longwave 1530 nm laser single-mode	S
CWDM-SFP-1550	3.6.1	Longwave 1550 nm laser single-mode	S
CWDM-SFP-1570	3.6.1	Longwave 1570 nm laser single-mode	S
CWDM-SFP-1590	3.6.1	Longwave 1590 nm laser single-mode	S
CWDM-SFP-1610	3.6.1	Longwave 1610 nm laser single-mode	S
CWDM-SFP-XXXX	3.6.1	CWDM small form-factor pluggable module	S
X2-10GB-LR	3.6.1	10GBASE-LR single-mode X2 module	S
X2-10GB-SR	3.6.1	10GBASE-SR single-mode X2 module	S
X2-10GB-CX4	3.6.1	10GBASE-CX4 single-mode X2 module	S
X2-10GB-LX4	3.6.1	10GBASE-LX4 single-mode X2 module	S
X2-10GB-ER	3.6.1	10GBASE-ER single-mode X2 module	S
WS-C4948	3.6.1	Catalyst 4000 series fixed configuration switch with 48 10/100/1000BaseT wirespeed ports and 4 1000BaseX SFP ports	S
WS-C4948-10GE	3.6.1	Catalyst 4000 series fixed configuration switch with 48 10/100/1000BaseT wirespeed ports and 2 10Gbps X2 ports	S

Table 7-37 Supported Modules for Cisco Catalyst 4900 Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
X2-10GE-CX4	3.6.1	10GBASE-CX4 X2 Module	S
X2-10GE-ER	3.6.1	10GBASE-ER X2 Module	S
X2-10GE-SR	3.6.1	10GBASE-SR X2 Module	S
X2-10GE-LX4	3.6.1	10GBASE-LX4 X2 Module	S
X2-10GE-LR	3.6.1	10GBASE-LR X2 Module	S
CSS5-CABLX-LCSC	3.6.1	Cisco CSS 11500 10m fiber single-mode LX LC-to-SC connectors	S
CSS5-CABSX-LC	3.6.1	Cisco CSS 11500 10m fiber multimode SX LC connectors	S
CSS5-CABSX-LCSC	3.6.1	Cisco CSS 11500 10m fiber multimode SX LC-to-SC connectors	S
CAB-SM-LCSC-1M	3.6.1	1m fiber single-mode LC-to-SC connectors	S
CAB-SM-LCSC-5M	3.6.1	5m fiber single-mode LC-to-SC connectors	S

Cisco Catalyst 4900 Series—Supported Technologies

The following technologies are supported by the Cisco Catalyst 4900 Series in Cisco ANA Version 3.6.7:

- IP, page 7-48
- Routing Protocols, page 7-51
- Ethernet (IEEE 802.3), page 7-52
- VPN, page 7-65
- ACL, page 7-68
- Physical Equipment, page 7-69
- Base Logical Components, page 7-70
- Common, page 7-71
- Additional Technologies, page 7-72
- LLDP, page 7-75

Cisco Catalyst 4900 Series—Supported Service Events

Table 7-38 Supported Service Events for Cisco Catalyst 4900 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
All IP Interfaces Down / Active IP Interfaces Found	3.6.1	Y
Interface Status Down/Up	3.6.1	Y
Card In/Out	3.6.1	Y
Link Down/Up	3.6.1	Y

Table 7-38 Supported Service Events for Cisco Catalyst 4900 Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Device Unreachable	3.6.1	N
CPU Over Utilized	3.6.1	N
Memory Over Utilized	3.6.1	N
Device Unsupported	3.6.1	N
Discard Packets	3.6.1	N
Dropped Packets	3.6.1	N
Module Unsupported	3.6.1	N
Port Flapping	3.6.1	N
Port Down	3.6.1	Y
Rx Over Utilized	3.6.1	N
Tx Over Utilized	3.6.1	N
Cloud Problem	3.6.1	N
Layer 2 Tunnel Down	3.6.1	N
Card Up/Down	3.6.1	Y

Cisco ME 4900 Series Ethernet Switch

This section includes the following information about Cisco 4924 ME switches (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco ME 4900 Series Ethernet Switch):

- Cisco 4924 ME—Supported Software Versions, page 7-29
- Cisco 4924 ME—Supported Topologies, page 7-29
- Cisco 4924 ME—Supported Modules, page 7-29
- Cisco 4924 ME—Supported Technologies, page 7-30
- Cisco 4924 ME—Supported Service Events, page 7-31

Cisco 4924 ME—Supported Software Versions

Table 7-39 Supported Software Versions for Cisco 4924 ME—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
12.2(25)EWA	3.6.3	S
12.2(25)EWA4	3.6.3	S
12.2(25)EWA6	3.6.3	S
12.2(31)SG	3.6.3	S
12.2(31)SGA1	3.6.1	S
12.2(46)SG	3.6.6	S
12.2(50)SG	3.6.6	V

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco 4924 ME—Supported Topologies

Table 7-40 Supported Topologies for Cisco 4924 ME—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.1
Physical Layer	Physical Layer	3.6.1

Cisco 4924 ME—Supported Modules

Table 7-41 Supported Modules for Cisco 4924 ME—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
CAB-SM-LCSC-1M	3.6.1	1m fiber single-mode LC-to-SC connectors	S
CAB-SM-LCSC-5M	3.6.1	5m fiber single-mode LC-to-SC connectors	S
CSS5-CABLX-LCSC	3.6.1	Cisco CSS 11500 10m fiber single-mode LX LC-to-SC connectors	S
CSS5-CABSX-LC	3.6.1	Cisco CSS 11500 10m fiber multimode SX LC connectors	S
CSS5-CABSX-LCSC	3.6.1	Cisco CSS 11500 10m fiber multimode SX LC-to-SC connectors	S
CWDM-SFP-1470	3.6.1	Cisco CWDM SFP 1470 nm; Gigabit Ethernet and 1G/2G FC (gray)	S
CWDM-SFP-1490	3.6.1	Cisco CWDM SFP 1490 nm; Gigabit Ethernet and FC (violet)	S

Table 7-41 Supported Modules for Cisco 4924 ME—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
CWDM-SFP-1510	3.6.1	Cisco CWDM SFP 1510 nm; Gigabit Ethernet and 1G/2G FC (blue)	S
CWDM-SFP-1530	3.6.1	Cisco CWDM SFP 1530 nm; Gigabit Ethernet and 1G/2G FC (green)	S
CWDM-SFP-1550	3.6.1	Cisco CWDM SFP 1550 nm; Gigabit Ethernet and 1G/2G FC (yellow)	S
CWDM-SFP-1570	3.6.1	Cisco CWDM SFP 1570 nm; Gigabit Ethernet and 1G/2G FC (orange)	S
CWDM-SFP-1590	3.6.1	Cisco CWDM SFP 1590 nm; Gigabit Ethernet and 1G/2G FC (red)	S
CWDM-SFP-1610	3.6.1	Cisco CWDM SFP 1610 nm; Gigabit Ethernet and 1G/2G FC (brown)	S
GLC-BX-D	3.6.1	1000BASE-BX10-D downstream bidirectional single fiber; with DOM	S
GLC-BX-U	3.6.1	1000BASE-BX10-U upstream bidirectional single fiber; with DOM	S
GLC-LH-SM	3.6.1	Gigabit Ethernet SFP, LC connector LH transceiver	S
GLC-SX-MM	3.6.1	Gigabit Ethernet SFP, LC connector SX transceiver	S
GLC-T	3.6.1	Gigabit Ethernet SFP, RJ-45 connector, 1000BASE-T transceiver	S
GLC-ZX-SM	3.6.1	Gigabit Ethernet SFP, LC connector ZX transceiver	S
ME-4924-10GE	3.6.1	Cisco ME 4924-10GE, IP Base software image (RIP, static routes), no power supply, fan tray	S
PWR-C49-300DC	3.6.6	Power Supply (DC 300W)	V
WS-X4991	3.6.6	Fan Tray	V
X2-10GE-CX4	3.6.1	10GBASE-CX4 X2 Module	S
X2-10GE-ER	3.6.1	10GBASE-ER X2 Module	S
X2-10GE-LR	3.6.1	10GBASE-LR X2 Module	S
X2-10GE-LX4	3.6.1	10GBASE-LX4 X2 Module	S
X2-10GE-SR	3.6.1	10GBASE-SR X2 Module	S

Cisco 4924 ME—Supported Technologies

The following technologies are supported by the Cisco 4924 ME in Cisco ANA Version 3.6.7:

- IP, page 7-48
- Routing Protocols, page 7-51
- Ethernet (IEEE 802.3), page 7-52
- ACL, page 7-68
- Physical Equipment, page 7-69
- Base Logical Components, page 7-70
- Common, page 7-71
- Additional Technologies, page 7-72
- LLDP, page 7-75
- CDP, page 7-75

Cisco 4924 ME—Supported Service Events

Table 7-42 Supported Service Events for Cisco 4924 ME—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Card In/Out	3.6.1	N
Link Down/Up	3.6.1	N
Device Unreachable	3.6.1	N
CPU Over Utilized	3.6.1	N
Memory Over Utilized	3.6.1	N
Device Unsupported	3.6.1	N
Discard Packets	3.6.1	N
Dropped Packets	3.6.1	N
Module Unsupported	3.6.1	N
Port Flapping	3.6.1	N
Port Down	3.6.1	N
Rx Over Utilized	3.6.1	N
Tx Over Utilized	3.6.1	N
Card Up/Down	3.6.1	N

Cisco Catalyst 6500 Series (CatOS) Switches

This section includes the following information about Cisco Catalyst 6500 Series (CatOS) switches (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco Catalyst 6500 Series (CatOS) Switches):

- Cisco Catalyst 6500 Series (CatOS)—Supported Software Versions, page 7-32
- Cisco Catalyst 6500 Series (CatOS)—Supported Topologies, page 7-32
- Cisco Catalyst 6500 Series (CatOS)—Supported Modules, page 7-32
- Cisco Catalyst 6500 Series (CatOS)—Supported Technologies, page 7-35
- Cisco Catalyst 6500 Series (CatOS)—Supported Service Events, page 7-35

Cisco Catalyst 6500 Series (CatOS)—Supported Software Versions

Table 7-43 Supported Software Versions for Cisco Catalyst 6500 Series (CatOS)—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
6.4(10)	3.6.3	V
7.6(1)	3.6.3	V
7.6(8)	3.6.3	V
8.3(4)	3.6.3	V
8.4.1	3.6.3	V

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco Catalyst 6500 Series (CatOS)—Supported Topologies

Table 7-44 Supported Topologies for Cisco Catalyst 6500 Series (CatOS)—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.0
Physical Layer	Physical Layer	3.6.0
LAG	LAG	3.6.2

Cisco Catalyst 6500 Series (CatOS)—Supported Modules

Table 7-45 Supported Modules for Cisco Catalyst 6500 Series (CatOS)—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
AIP	3.6.0	ATM Interface Processor	S
CAT6509	3.6.0	Catalyst 6500 Plus with 9 slots	V
CAT6K-MSFC	3.6.0	Multilevel Switching Feature Card for the Catalyst 6000 series	S
CAT6K-MSFC2	3.6.0	Multilevel Switching Feature Card Version 2 for the Catalyst 6000 series	S
CAT6K-WSF-6700-CFC	3.6.0	Catalyst 6500 centralized Forwarding Card	S

Table 7-45 Supported Modules for Cisco Catalyst 6500 Series (CatOS)—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
CAT6K-WSF-6K-DFC3A	3.6.0	Catalyst 6500 Distributed L3 switching engine IIIa	S
CAT6K-WSF-6K-PFC3A	3.6.0	Catalyst 6500 Centralized L3 switching engine IIIa	S
CAT6K-WSF-6K-VPWR-GE	3.6.0	Cat6k voice daughter cards	S
CAT6K-WS-SUP32-GE-3B	3.6.0	cat6k-ws-sup32-ge-3b	S
CAT6K-WS-SUP720	3.6.0	Catalyst 6500 Supervisor Module 720 CPU board	S
CAT6K-WS-SUP720-BASE	3.6.0	Catalyst 6500 Supervisor Module 720 base board	S
CAT6K-WS-SVC-IDSM2	3.6.0	Catalyst 6500 Intrusion Detection Module	S
CAT6K-WSX-6066-SLB-APC	3.6.0	Content Switching Module	S
CAT6K-WSX-6148-GE-TX	3.6.0	Catalyst 6000 48 port10/100/1000BaseT(RJ-45) module	S
CAT6K-WSX-6148-RJ45	3.6.0	48 port10/100BaseTX(RJ-45) module	S
CAT6K-WSX-6248A-RJ45	3.6.0	Catalyst 6000 48-port 10/100BaseTX RJ-45	S
CAT6K-WSX-6248-RJ45	3.6.0	Catalyst 6000 Family 48-port 10/100 RJ-45 module	S
CAT6K-WSX-6348-RJ45	3.6.0	48-port 10/100 ethernet module	S
CAT6K-WSX-6416-GBIC	3.6.0	16-port GBIC Gigabit ethernet module	S
CAT6K-WSX-6515-GETX	3.6.0	Catalyst 6500 16 port 10/100/1000BaseT (RJ-45) module	S
CAT6K-WSX-6516A-GBIC	3.6.0	Catalyst 6500 16 port 1000BaseX (GBIC)	S
CAT6K-WSX-6516-GBIC	3.6.0	Catalyst 6500 16 port 1000BaseX GBIC	S
CAT6K-WSX-6524-MMMT	3.6.0	Catalyst 6500 24 port 100BaseX MM (MT-RJ) module	S
CAT6K-WSX-6548-GETX	3.6.0	Catalyst 6500 48 port 10/100/1000 (RJ-45)	S
CAT6K-WSX-6548-RJ21	3.6.0	Catalyst 6500 48 port 10/100BaseTX (RJ-21)	S
CAT6K-WSX-6548-RJ45	3.6.0	48 port 10/100 Hydra2+/Hydra2V+	S
CAT6K-WSX-6704-10GE	3.6.0	Catalyst 6500 4 port 10 GE	S
CAT6K-WSX-6724-SFP	3.6.0	Catalyst 6500 24 port 1000Base FX (SFP GBIC)	S
CAT6K-WSX-6748-GETX	3.6.0	Catalyst 6500 48 port 10/100/1000 (RJ-45)	S
CAT6K-WSX-SUP1A-2GE	3.6.0	Catalyst 6500 2 port 1000BaseX Supervisor module (GBIC)	S
CAT6K-WSX-SUP2-2GE	3.6.0	Supervisor 2 with 2 Gigabit Ethernet ports	S
CATALYST 6500 FIREWALL MODULE	3.6.0	Catalyst 6500 Firewall Module	S
CEF720 48 PORT 1000MB SFP	3.6.0	Catalyst 6500 48 port 1000Base FX (SFP GBIC)	S
CISCO ME 6524 ETHERNET SWITCH	3.6.0	Cisco ME 6524 Ethernet Switch	S
FSIP	3.6.0	Fast Serial Interface processor	S
GSR-ALARM16	3.6.0	gsr-alarm16	V
HDV	3.6.0	High Density Voice module	V

Table 7-45 Supported Modules for Cisco Catalyst 6500 Series (CatOS)—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
MIP	3.6.0	Multichannel Interface Processor	S
MSFC2A ROUTE ENGINE	3.6.0	MSFC2A Route Engine	S
OC192-POS-RPR1-SM-VSR-SPA	3.6.0	1 port OC-192c/STM-64 POS/RPR single mode very short reach Shared Port Adapter =SPA=	V
PA-1T3-PLUS	3.6.0	pa-1t3-plus	V
PA-2FEISL-TX	3.6.0	pa-2feisl-tx	V
PA-2T3-PLUS	3.6.0	pa-2t3-plus	V
PA-8CE1	3.6.0	pa-8ce1	V
PA-A4T	3.6.0	pa-a4t	S
PA-A8T-V35	3.6.0	pa-a8t-v35	S
PA-AH1T	3.6.0	pa-ah1t	S
PA-AH2T	3.6.0	pa-ah2t	S
PA-ATMDX-DS3	3.6.0	pa-atmdx-ds3	S
PA-ATMDX-E3	3.6.0	pa-atmdx-e3	S
PA-ATMDX-MM-OC3	3.6.0	pa-atmdx-mm-oc3	V
PA-ATMDX-SMI-OC3	3.6.0	pa-atmdx-smi-oc3	V
PA-ATMDX-SML-OC3	3.6.0	pa-atmdx-sml-oc3	S
PA-CE3	3.6.0	pa-ce3	V
PA-POSSW-LR	3.6.0	pa-possw-lr	V
PA-POSSW-MM	3.6.0	pa-possw-mm	V
PA-POSSW-SM	3.6.0	pa-possw-sm	V
PM-1FE-1T1	3.6.0	pm-1fe-1t1	V
POLICY FEATURE CARD 3	3.6.0	Policy Feature Card 3	V
POS-OC12-MM	3.6.0	pos-oc12-mm	V
RP	3.6.0	ROMmon Recovery Procedure	V
SPA-10X1GE	3.6.1	10-port Gigabit Ethernet SPA, SFP Optics	S
SPA-1XTENGE-XFP	3.6.1	1-port 10 Gigabit Ethernet SPA, LANPHY XFP Optics	S
SPA-2XOC3-ATM	3.6.1	2-port OC-3c/STM-1c ATM SPA	S
SPA-2XOC48POS/RPR	3.6.1	1-port 10 Gigabit Ethernet Shared Port Adapter XFP based	S
SPA-4XOC3-ATM	3.6.1	4-port OC-3c/STM-1c ATM SPA	S
TRIP	3.6.0	trip	S
VPN MODULE	3.6.0	VPN Module	V
VPN MODULE SUPPORTING 3DES	3.6.0	VPN Module supporting 3DES	S
WS-C6500-SFM	3.6.0	Switch Fabric Module	V

Table 7-45 Supported Modules for Cisco Catalyst 6500 Series (CatOS)—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
WS-C6509-NEB-A	3.6.1	Enhanced 9-slot vertically oriented chassis	S
WS-F6K-PWR(INLINE POWER CARD)	3.6.0	CATALYST 6000 INLINE POWER CARD, REF	S
WS-SUP720-3BXL	3.6.0	Catalyst 6500/Cisco 7600 Supervisor 720 Fabric MSFC3 PFC3BXL	V
WS-SVC-ADM-1-K9=	3.6.0	Catalyst 6500 Cisco Anomaly Detection Module	V
WS-SVC-AGM-1-K9=	3.6.0	Catalyst 6500 Cisco Anomaly Guard Module	V
WS-SVC-IDS2-BUN-K9	3.6.1	Cisco Catalyst 6500 Series Intrusion Detection System (IDSM-2) Service Module	S
WS-SVC-SSL-1-K9=	3.6.0	SSL Module for Catalyst 6500	V
WS-X6148-FE-SFP	3.6.0	Cisco Catalyst 6500 48-port 100BASE-X SFP Module	V
WSX-6408A-GBIC	3.6.0	Catalyst 6000 8-port Gigabit Ethernet Module	S
WSX-6408-GBIC	3.6.0	Card with 8 Gigabit Ethernet ports for the Catalyst 6000 series	S
WS-X6500-SFM2	3.6.0	Switch Fabric Module 2	V
WVIC-2DSU-T1(V2)	3.6.0	wvic-2dsu-t1(V2)	V

Cisco Catalyst 6500 Series (CatOS)—Supported Technologies

The following technologies are supported by the Cisco Catalyst 6500 Series (CatOS) in Cisco ANA Version 3.6.7:

- IP, page 7-48
- Ethernet (IEEE 802.3), page 7-52
- Frame Relay, page 7-59
- Point to Point, page 7-61
- Physical Equipment, page 7-69
- Base Logical Components, page 7-70
- Common, page 7-71

Cisco Catalyst 6500 Series (CatOS)—Supported Service Events

Table 7-46 Supported Service Events for Cisco Catalyst 6500 Series (CatOS)—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y

Table 7-46 Supported Service Events for Cisco Catalyst 6500 Series (CatOS)—Cisco ANA Version 3.6.7 (continued)

Event Name	ANA Version	Expedited
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Cloud Problem	3.6.0	N
Card Up/Down	3.6.0	Y

Cisco Catalyst 6500 Series (IOS) Switches

This section includes the following information about Cisco Catalyst 6500 Series (IOS) switches (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco Catalyst 6500 Series (IOS) Switches):

- Cisco Catalyst 6500 Series (IOS)—Supported Software Versions, page 7-36
- Cisco Catalyst 6500 Series (IOS)—Supported Topologies, page 7-37
- Cisco Catalyst 6500 Series (IOS)—Supported Modules, page 7-38
- Cisco Catalyst 6500 Series (IOS)—Supported Technologies, page 7-43
- Cisco Catalyst 6500 Series (IOS)—Supported Service Events, page 7-44

Cisco Catalyst 6500 Series (IOS)—Supported Software Versions

Table 7-47 Supported Software Versions for Cisco Catalyst 6500 Series (IOS)—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
12.2(33)SRD2	3.6.7	S
12.2(33)SXH2	3.6.6	V
12.2(33)SXH2a	3.6.5	S
IOS 12.1	3.6.1	S
IOS 12.1(13)E6	3.6.2	S
IOS 12.1(20)E3	3.6.2	S
IOS 12.2(17d)SXB	3.6.1	S
IOS 12.2(18)SXD2	3.6.2	S

Table 7-47 Supported Software Versions for Cisco Catalyst 6500 Series (IOS)—Cisco ANA Version 3.6.7 (continued)

Software Version	ANA Version	Certification Level
IOS 12.2(18)SXD5	3.6.2	S
IOS 12.2(18)SXE*	3.6.1	S
IOS 12.2(18)SXF*	3.6.1	S
IOS 12.2(18)SXF7	3.6.2	S
IOS 12.2(33)	3.6.1	S
IOS 12.2(33)SRA	3.6.1	S
IOS 12.2(33)SRA6	3.6.3	S
IOS 12.2(33)SXH	3.6.3	S
IOS 12.2(33)SXH1	3.6.3	S
IOS 12.2(33)SXI	3.6.4	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco Catalyst 6500 Series (IOS)—Supported Topologies

Table 7-48 Supported Topologies for Cisco Catalyst 6500 Series (IOS)—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
BGP	BGP	3.6.0
Ethernet	Ethernet	3.6.0
MPLS	MPLS	3.6.0
PWE3 (Martini)	Tunnel	3.6.0
GRE Tunnel	GRE Tunnel	3.6.0
VPN (VRF)	VPN	3.6.0
Physical Layer	Physical Layer	3.6.0
LAG	LAG	3.6.0

Cisco Catalyst 6500 Series (IOS)—Supported Modules

Table 7-49 Supported Modules for Cisco Catalyst 6500 Series (IOS)—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
4000W-DC	3.6.2	4000W DC PS for 7609/7613Chassis	S
6000W-DC	3.6.2	6000W DC PS	S
7600-ES+40G3C	3.6.7	7600 ES+ Line Card, 40xGE SFP with DFC 3C	S
7600-ES20	3.6.1	Cisco 7600 Series Ethernet Services Card	S
7600-ES20-10G3C	3.6.1	Cisco 7600 ES20 line card, 2x10GE XFP with DFC 3C	S
7600-ES20-10G3CXL	3.6.1	Cisco 7600 ES20 line card, 2x10GE XFP with DFC 3CXL	S
7600-ES20-GE3C	3.6.1	Cisco 7600 ES20 line card, 20xGE SFP with DFC 3C	S
7600-ES20-GE3CXL	3.6.1	Cisco 7600 ES20 line card, 20xGE SFP with DFC 3CXL	S
7600-ES20-PROC	3.6.1	7600 ES20 PROC FRU	S
7600-ES+40G3CXL	3.6.4	7600 ES+ Line Card, 40xGE SFP with DFC 3CXL	S
7600-MSFC4	3.6.1	c7600 MSFC4 Daughterboard	S
7600-SIP-200	3.6.0	SPA Interface Processor-200	S
7600-SIP-400	3.6.0	SPA Interface Processor-400	S
7600-SIP-600	3.6.0	SPA Interface Processor-600	S
7600-SSC-400	3.6.3	Cisco 7600 / Catalyst 6500 Services SPA Carrier Card-400 Rev. 2.0	S
ACE20-MOD-K9	3.6.3	Application Control Engine 20 Hardware	S
CAT6500FIREWALLSM	3.6.2	Cisco Catalyst 6500 Series Firewall Services Module	S
CAT6500SSLSM	3.6.2	Cisco Catalyst 6500 Series SSL Services Module	S
CEVFAN	3.6.1	Fan	S
DFC-3C	3.6.1	Distributed Forwarding Card 3C	S
FAN-MOD-09	3.6.4	Catalyst 6509-NEB-A Fan Tray	S
FAN-MOD-09	3.6.4	Fan Module for CISCO7609 and Catalyst WS-C6509-NEB-A	S
GLC_BX-U	3.6.7	1000BASE-BX10 SFP module for single-strand SMF, 1310-nm TX/1490-nm RX wavelength	S
GLC-BX-D	3.6.7	1000BASE-BX10 SFP module for single-strand SMF, 1490-nm TX/1310-nm RX wavelength	S
GLC-LH-SM	3.6.4	Short Wave fiber Gigabit Ethernet	S
MSFC4	3.6.2	Multilayer Switch Feature Card	S
OSM-12CT3T1	3.6.0	12-port channelized/unchannelized CT3-T1	S
OSM-1CHOC12T3-SI	3.6.0	1-port channelized OC-12, SM-IR	S
OSM-1OC48-POS-SI+	3.6.0	Enhanced 1-port OC-48/STM-16 SONET/SDH OSM, SM-IR	S
OSM-1OC48-POS-SL+	3.6.0	Enhanced 1-port OC-48/STM-16 SONET/SDH OSM, SM-LR	S
OSM-1OC48-POS-SS+	3.6.0	Enhanced 1-port OC-48/STM-16 SONET/SDH OSM, SM-SR	S

Table 7-49 Supported Modules for Cisco Catalyst 6500 Series (IOS)—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
OSM-2+4GE-WAN+	3.6.0	4-port Gigabit Ethernet WAN (GBIC) with two Layer 2 LAN ports; CEF256	S
OSM-2OC12-ATM-MM+	3.6.0	Enhanced 2-port OC-12/STM-4 ATM OSM, MM	S
OSM-2OC12-ATM-SI+	3.6.0	Enhanced 2-port OC-12/STM-4 ATM OSM, SM-IR	S
OSM-2OC12-POS-SI+	3.6.0	Enhanced 2-port OC-12c/STM-4c POS, SM-IR; CEF256	S
OSM-4OC12-POS-SI+	3.6.0	Enhanced 4-port OC-12c/STM-4c POS, SM-IR; CEF256	S
OSM-4OC3-POS-SI+	3.6.0	Enhanced 4-port OC-3c/STM-1c POS, SM-IR;	S
PA-1FE-TX, -FX	3.6.0	1-port Fast Ethernet port adapter	S
PA-2CE/PRI	3.6.1	Not Found	S
PA-2FE-TX, -FX	3.6.0	2-port Fast Ethernet port adapter	S
PA-4T+	3.6.0	T1/E1 port adapters	S
PA-A3-E3	3.6.0	ATM with traffic shaping port adapters	S
PA-A3-T3	3.6.0	ATM with traffic shaping port adapters	S
PA-MC-2E1/120	3.6.1	2 port multichannel E1 port adapter with G.703 120ohm interface	S
PA-MC-4T1	3.6.0	T1/E1 port adapters	S
PA-MC-8T1	3.6.0	T1/E1 port adapters	S
PA-MC-STM-1	3.6.0	Multichannel STM-1 port adapters	S
PA-MCX-8TE1	3.6.1	8 port multichannel T1/E1 8PRI port adapter	S
PA-POS-2OC3	3.6.0	2-port POS OC3c/STM1 port adapter	S
PFC-3C	3.6.2	Policy Feature Card 3C	S
PFC-3CXL	3.6.1	Policy Feature Card 3Cxl (PFC3CXL)	S
PWR-2700-AC/4	3.6.4	2700W AC power supply for Cisco Catalyst 6504-E	S
PWR-2700-DC/4	3.6.2	2700W DC Power Supply for Cisco 6504-E	S
PWR-4000-DC	3.6.4	Cisco 4000 Watt DC power supply for Catalyst 6000	S
RSP720-3C-GE	3.6.1	Route Switch Processor 720 with PFC3C	S
RSP720-3CXL	3.6.4	Catalyst 6500 Supervisor Module 720 base board	S
SFP-GE-L	3.6.4	1000BASE-LH/LX pluggable transceiver	S
SFP-GE-S	3.6.7	1000BASE-Sx Short wavelength gigabit ethernet SFP	S
SFP-GE-T	3.6.7	1000BASE-T Copper gigabit ethernet SFP	S
SFP-GE-Z	3.6.7	1000BASE-Zx Extended reach gigabit ethernet SFP	S
SFP-OC3-IR1	3.6.0	Intermediate range, single-mode fiber	S
SFP-OC3-LR1	3.6.0	Long range, single-mode fiber	S
SFP-OC3-MM	3.6.0	Short range, multimode fiber	S
SFP-OC3-SR	3.6.1	OC3/STM1 SFP, Single-mode fiber, Short Reach	S
SPA-10X1GE	3.6.0	10-port Gigabit Ethernet SPA, SFP Optics	S
SPA-10X1GE-V2	3.6.0	10-port Gigabit Ethernet SPA, SFP Optics	S

Table 7-49 Supported Modules for Cisco Catalyst 6500 Series (IOS)—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
SPA-1XCHSTM1/OC3	3.6.0	1-port Channelized STM1/OC3 to DS0 SPA	S
SPA-1XOC12-ATM	3.6.0	1-Port OC-12c/STM-4c ATM SPA	S
SPA-1XOC12-POS	3.6.0	1-port OC-12c/STM-4c POS SPA	S
SPA-1XOC48-ATM	3.6.0	1 port OC-48c/STM-16 ATM SPA	S
SPA-1XTENGE-XFP	3.6.0	1-port 10 Gigabit Ethernet SPA, LANPHY XFP Optics	S
SPA-24CHT1-CE-ATM	3.6.0	24-Port Channelized T1/E1/J1 ATM CEoP SPA	S
SPA-2X1GE	3.6.0	2-port Gigabit Ethernet SPA, SFP Optics	S
SPA-2X1GE-V2	3.6.0	2-port Gigabit Ethernet SPA, SFP Optics	S
SPA-2X1GE-V2	3.6.2	2-Port Gigabit Ethernet Shared Port Adapter.	S
SPA-2XCT3/DS0	3.6.0	2-port Channelized T3 to DS0 SPA	S
SPA-2XOC3-ATM	3.6.0	2-port OC-3c/STM-1c ATM SPA	S
SPA-2XOC3-POS	3.6.0	2-port OC-3c/STM-1c POS SPA	S
SPA-2XOC48POS/RPR	3.6.1	1-port 10 Gigabit Ethernet Shared Port Adapter XFP based	S
SPA-2XOC48POSRPR	3.6.0	2 port OC-48 POS/RPR SPA with SFP Optics	S
SPA-2XT3/E3	3.6.0	2-port Clear Channel T3/E3 SPA	S
SPA-4X1FE-TX-V2	3.6.0	4-port 10/100 Ethernet SPA TX	S
SPA-4XCT3/DS0	3.6.0	4-port Channelized T3 to DS0 SPA	S
SPA-4XOC3-ATM	3.6.0	4-port OC-3c/STM-1c ATM SPA	S
SPA-4XOC3-POS	3.6.0	4-port OC-3c/STM-1c POS SPA	S
SPA-4XOC48POSRPR	3.6.0	4-port OC-48c/STM-16 POS/DPT/RPR SPA	S
SPA-4XT3/E3	3.6.0	4-port Clear Channel T3/E3 SPA	S
SPA-5X1GE	3.6.0	5-port Gigabit Ethernet SPA, SFP Optics	S
SPA-5X1GE-V2	3.6.2	5-Port Gigabit Ethernet Shared Port Adapter	S
SPA-8X1FE-TX-V2	3.6.0	8-port 10/100 Ethernet SPA TX	S
SPA-8XCHT1E1	3.6.0	8-Port Channelized T1/E1 SPA	S
SPA-CHOC3-CE-ATM	3.6.2	1-port Channelized OC3/STM-1 ATM + Circuit Emulation Shared Port Adapter	S
SPA-OC192POS-LR	3.6.0	1-port OC-192c/STM-64 POS/RPR SPA, SM-LR	S
SPA-OC192POS-XFP	3.6.0	1-port OC-192c/STM-64 POS/RPR SPA, XFP Optics	S
VS-S720-10G-3C	3.6.1	Cisco Catalyst 6500 Series Virtual Switching Supervisor Engine 720 with two 10 Gigabit Ethernet ports and MSFC3 PFC3C	S
VS-S720-10G-3CXL	3.6.1	Cisco Catalyst 6500 Series Virtual Switching Supervisor Engine 720 with two 10 Gigabit Ethernet ports and MSFC3 PFC3C XL	S
WS-6700-DFC3B	3.6.1	Catalyst 6500 Distributed forwarding card 3B	S
WS-6700-DFC3BXL	3.6.1	Catalyst 6500 Distributed forwarding card 3B XL	S
WS-C6503-E-FAN	3.6.4	Catalyst 6503-E Chassis Fan Tray	S

Table 7-49 Supported Modules for Cisco Catalyst 6500 Series (IOS)—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
WS-C6506-E-FAN	3.6.4	Catalyst 6506 - E chassis fan 1	S
WS-C6506-E-FAN	3.6.4	Catalyst 6506-E Chassis Fan Tray	S
WS-C6509-E-FAN	3.6.0	High-capacity fan tray	S
WS-C6509-NEB-A	3.6.1	Enhanced 9-slot vertically oriented chassis	S
WS-C6509-NEB-FAN	3.6.4	Catalyst 6509-NEB Fan Tray for 9-Vertical-Slot System	S
WS-C6509-V-E-FAN	3.6.4	Catalyst 6509-V-E Fan Tray	S
WS-C6K-13SLT-FAN2	3.6.0	High Speed Fan Tray for Catalyst 6513 / Cisco 7613	S
WS-C6K-13SLT-FAN2	3.6.4	High Speed Fan Tray for Catalyst 6513 / Cisco 7613	S
WS-CAC-2500W	3.6.4	Catalyst 6500 2500W AC power supply	S
WS-CAC-3000W	3.6.4	Catalyst 6500 3000W AC power supply	S
WS-CAC-4000W-INT	3.6.3	4000W AC Power Supply, International (cable included)	S
WS-CAC-6000W	3.6.0	6000W AC power supply	S
WS-CDC-2500W	3.6.4	Cisco 2500 Watt DC power supply for Catalyst 6000 or 8500 series	S
WS-F6700-DFC3A	3.6.1	Distributed Forwarding Card 3	S
WS-F6700-DFC3BXL	3.6.0	Distributed Forwarding Card 3BXL (DFC3BXL) for use on CEF720 modules	S
WS-F6700-DFC3C	3.6.0	Distributed Forwarding Card 3C (DFC3C) for use on CEF720 modules	S
WS-F6700-DFC-3C	3.6.2	Catalyst 6500 Distributed forwarding card 3C	S
WS-F6700-DFC3CXL	3.6.0	Distributed Forwarding Card 3CXL (DFC3CXL) for use on CEF720 modules	S
WS-F6700-DFC-3CXL	3.6.2	Catalyst 6500 Distributed forwarding card 3C XL	S
WS-F6K-FE48X2-AF	3.6.0	IEEE 802.3af PoE daughter card	S
WS-F6K-GE48-AF	3.6.0	IEEE 802.3af PoE daughter card	S
WS-F6K-MSFC2	3.6.1	Multilevel Switching Feature Card Version 2 for Catalyst 6000 that is treated as a standalone system by the NMS	S
WS-F6K-PFC2	3.6.1	Catalyst 6500 L3 switching engine II	S
WS-F6K-PFC3BXL	3.6.0	Policy Feature Card 3BXL (PFC3BXL)	V
WS-F6K-PFC3CXL	3.6.0	Policy Feature Card 3CXL (PFC3CXL)	S
WS-F6K-VPWR	3.6.0	PoE Daughter card	S
WS-F6K-VPWR-GE	3.6.0	PoE Daughter card	S
WS-G5486	3.6.4	Long Haul fiber Gigabit Ethernet	S
WS-G6483	3.6.0	10GBASE-ER serial 1550 nm extended-reach OIM	S
WS-G6488	3.6.0	10GBASE-LR serial 1310 nm long-reach OIM	S
WS-SUP32-10GE-3B	3.6.0	Supervisor Engine 32	S
WS-SUP32-GE-3B	3.6.0	Supervisor Engine 32	S

Table 7-49 Supported Modules for Cisco Catalyst 6500 Series (IOS)—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
WS-SUP720-3B	3.6.0	Supervisor Engine 720 with PFC3B	V
WS-SUP720-3BXL	3.6.0	Supervisor Engine 720 with PFC3BXL	V
WS-SVC-FWM-1	3.6.0	Catalyst 6500 Firewall Module	S
WS-SVC-IDS2-BUN-K9	3.6.1	Cisco Catalyst 6500 Series Intrusion Detection System (IDSM-2) Service Module	S
WS-SVC-IDSM-2	3.6.1	Catalyst 6500 Intrusion Detection Module	S
WS-SVC-MWAM-1	3.6.0	Multi-Processor WAN Application Module	S
WS-SVC-NAM-1	3.6.0	Network Analysis module 1	S
WS-SVC-NAM-2	3.6.0	Network Analysis module 2	S
WS-X6148A-GE-TX	3.6.0	48 port 10/100/1000 RJ-45 Ethernet Switching Module	S
WS-X6148A-RJ-45	3.6.0	48 port 10/100TX RJ-45 Ethernet/Fast Ethernet Switching Module	S
WS-X6148FE-SFP	3.6.1	Catalyst 6500 48 port 100Base-X SFP module	S
WS-X6148-FE-SFP	3.6.0	48 port 100BASE-FX Fast Ethernet Switching Module	S
WS-X6148-GE-TX	3.6.0	48 port 10/100/1000 RJ-45 Ethernet Switching Module	S
WS-X6148-RJ-21	3.6.0	48 port 10/100TX RJ-21 Ethernet/Fast Ethernet Switching Module	S
WS-X6148-RJ-45	3.6.0	48 port 10/100TX RJ-45 Ethernet/Fast Ethernet Switching Module	S
WS-X6148X2-RJ-45	3.6.0	96 port 10/100TX RJ-45 Ethernet/Fast Ethernet Switching Module	S
WS-X6196-RJ-21	3.6.0	96 port 10/100TX RJ-21 Ethernet/Fast Ethernet Switching Module	S
WS-X6248A-TEL	3.6.0	48 port 10/100TX RJ-21 Enhanced Ethernet/Fast Ethernet Switching Module	S
WS-X6248-RJ-45	3.6.0	48 port 10/100TX RJ-45 Ethernet/Fast Ethernet Switching Module	S
WS-X6248-TEL	3.6.0	48 port 10/100TX RJ-21 Ethernet/Fast Ethernet Switching Module	S
WS-X6316-GE-TX	3.6.0	16-port Gigabit Ethernet RJ-45	S
WS-X6324-100FX-SM	3.6.0	24 port 100FX Single Mode Fast Ethernet Switching Module	S
WS-X6348-RJ-21	3.6.0	6500 48 port 10/100BaseTX (RJ-21)	S
WS-X6348-RJ-45	3.6.0	48 port 10/100TX RJ-45 Ethernet/Fast Ethernet Switching Module	S
WS-X6408A-GBIC	3.6.0	8-port Gigabit Ethernet GBIC Enhanced QoS Module	S
WS-X6408-GBIC	3.6.0	8-port Gigabit Ethernet GBIC	S
WS-X6416-GBIC	3.6.0	16-port Gigabit Ethernet GBIC	S
WS-X6502-10GE	3.6.0	1-port 10-Gigabit Ethernet	S
WS-X6516A-GBIC	3.6.0	16-port Gigabit Ethernet GBIC	S
WS-X6516-GBIC	3.6.0	16-port Gigabit Ethernet GBIC	S
WS-X6516-GE-TX	3.6.0	16 port 10/100/1000 Base-T Ethernet Switching Module	S
WS-X6548-GE-TX	3.6.0	48 port 10/100/1000 RJ-45 Ethernet Switching Module	S
WS-X6548-RJ-21	3.6.0	48 port 10/100TX RJ-21 Ethernet/Fast Ethernet Switching Module	S
WS-X6548-RJ-45	3.6.0	48 port 10/100TX RJ-45 Ethernet/Fast Ethernet Switching Module	S

Table 7-49 Supported Modules for Cisco Catalyst 6500 Series (IOS)—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
WS-X6582-2PA	3.6.0	Enhanced FlexWAN Module;	S
WS-X6700-CFC	3.6.0	Centralized Forwarding Card	S
WS-X6704-10GE	3.6.0	4-port 10-Gigabit Ethernet	S
WS-X6708-10G-3C	3.6.1	C6K 8 port 10 Gigabit Ethernet module with DFC3C (req. X2)	S
WS-X6708-10GE	3.6.3	C6K 8 port 10 Gigabit Ethernet module with DFC	S
WS-X6724-SFP	3.6.0	24-port Gigabit Ethernet SFP	S
WS-X6748-GE-TX	3.6.0	48 port 10/100/1000 RJ-45 Ethernet Switching Module	S
WS-X6748-SFP	3.6.0	48-port Gigabit Ethernet SFP	S
WS-X6816-GBIC	3.6.0	16-port Gigabit Ethernet GBIC	S
WS-X6K-S1A-MSFC2	3.6.1	Catalyst 6000 Supervisor Engine 1A, 2 Gigabit Ethernet, plus MSFC2 and policy feature card (PFC)	S
WS-X6K-S2-MSFC2	3.6.1	Catalyst 6500 Supervisor Engine-2, 2GE, plus MSFC-2 / PFC-2	S
WS-X6K-SUP2-2GE	3.6.1	Supervisor 2 with 2 Gigabit Ethernet ports	S
X2-10GB-SR	3.6.5	10GBASE-SR Serial 850-nm short-reach multimode (MMF)	S
XENPAK-10GB-ER	3.6.0	10GBASE-ER Serial 1550-nm extended-reach, single-mode fiber (SMF), dispersion-shifted fiber (DSF)	S
XENPAK-10GB-LR	3.6.4	10 Gigabit Ethernet Serial 1310nm Laser Xenpak Module	S
XENPAK-10GB-SR	3.6.0	10GBASE-SR Serial 850-nm short-reach multimode fiber (MMF)	S
XFP-10GLR-OC192SR	3.6.4	OC192 XFP Single Mode Long Reach 2 (80km).	S

Cisco Catalyst 6500 Series (IOS)—Supported Technologies

The following technologies are supported by the Cisco Catalyst 6500 Series (IOS) in Cisco ANA Version 3.6.7:

- IP, page 7-48
- Routing Protocols, page 7-51
- Ethernet (IEEE 802.3), page 7-52
- ATM, page 7-57
- Frame Relay, page 7-59
- Point to Point, page 7-61
- Physical Technologies, page 7-61
- MPLS, page 7-62
- MPLS-TE, page 7-64
- VPN, page 7-65
- PWE3, page 7-67
- ACL, page 7-68

- Physical Equipment, page 7-69
- Base Logical Components, page 7-70
- Common, page 7-71
- Additional Technologies, page 7-72
- Local Switching, page 7-73
- BFD, page 7-73
- Carrier Ethernet, page 7-74
- L2Channel, page 7-77

Cisco Catalyst 6500 Series (IOS)—Supported Service Events

Table 7-50 Supported Service Events for Cisco Catalyst 6500 Series (IOS)—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Primary HSRP Interface Active/Inactive	3.6.0	N
Secondary HSRP Interface Active/Inactive	3.6.0	N
All IP Interfaces Down / Active IP Interfaces Found	3.6.0	Y
Interface Status Down/Up	3.6.0	Y
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
BGP Neighbor Down	3.6.0	N
Card Up/Down	3.6.0	Y
Adaptive Polling	3.6.0	N
BGP link down	3.6.1	Y
MPLS interface removed	3.6.0	Y
Shelf out	3.6.7	N
VSI Up/Down	3.6.7	N
VSI Admin Down	3.6.7	N
EFP Up/Down	3.6.7	N
EFP Admin Down	3.6.7	N

Table 7-50 Supported Service Events for Cisco Catalyst 6500 Series (IOS)—Cisco ANA Version 3.6.7 (continued)

Event Name	ANA Version	Expedited
EFP down due to error disabled	3.6.7	N
Vlan Tagged Interface Up/Down	3.6.7	N
Vlan Tagged Interface AdminDown	3.6.7	N

Cisco ME 6500 Series Ethernet Switches (6524)

This section includes the following information about Cisco ME 6500 Series (6524) switches (for information on the NE types supported in Cisco ANA Version 3.6.7, see Cisco ME 6500 Series Ethernet Switches (6524)):

- Cisco ME 6500 Series (6524)—Supported Software Versions, page 7-45
- Cisco ME 6500 Series (6524)—Supported Topologies, page 7-46
- Cisco ME 6500 Series (6524)—Supported Modules, page 7-46
- Cisco ME 6500 Series (6524)—Supported Technologies, page 7-46
- Cisco ME 6500 Series (6524)—Supported Service Events, page 7-47

Cisco ME 6500 Series (6524)—Supported Software Versions

Table 7-51 Supported Software Versions for Cisco ME 6500 Series (6524)—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
12.2(18)ZU	3.6.0	V
12.2(18)ZU1	3.6.0	V
12.2(18)ZU2	3.6.0	V
12.2	3.6.0	V

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco ME 6500 Series (6524)—Supported Topologies

Table 7-52 Supported Topologies for Cisco ME 6500 Series (6524)—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
ATM	ATM	3.6.0
BGP	BGP	3.6.0
Ethernet	Ethernet	3.6.0
MPLS	MPLS	3.6.0
VPN (VRF)	VPN	3.6.0
Physical Layer	Physical Layer	3.6.0
LAG	LAG	3.6.2

Cisco ME 6500 Series (6524)—Supported Modules

Table 7-53 Supported Modules for Cisco ME 6500 Series (6524)—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
WS-6148-GE-TX	3.6.0	Catalyst 6000 48 port10/100/1000BaseT(RJ-45) module	V
WS-6148A-GE-TX	3.6.0	Catalyst 6500 48 port 10/100/1000BaseTX (RJ-45) module	V
ME-C6524GT-8S	3.6.0	32 ports Cisco ME 6524 Ethernet Switch Rev. 1.1	V

Cisco ME 6500 Series (6524)—Supported Technologies

The following technologies are supported by the Cisco ME 6500 Series (6524) in Cisco ANA Version 3.6.7:

- IP, page 7-48
- Routing Protocols, page 7-51
- Ethernet (IEEE 802.3), page 7-52
- ATM, page 7-57
- Frame Relay, page 7-59
- Point to Point, page 7-61
- MPLS, page 7-62
- MPLS-TE, page 7-64
- VPN, page 7-65
- PWE3, page 7-67
- ACL, page 7-68
- Physical Equipment, page 7-69

- Base Logical Components, page 7-70
- Common, page 7-71
- Additional Technologies, page 7-72
- LLDP, page 7-75
- CDP, page 7-75

Cisco ME 6500 Series (6524)—Supported Service Events

Table 7-54 Supported Service Events for Cisco ME 6500 Series (6524)—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Primary HSRP Interface Active/Inactive	3.6.0	N
Secondary HSRP Interface Active/Inactive	3.6.0	N
All IP Interfaces Down / Active IP Interfaces Found	3.6.0	Y
Interface Status Down/Up	3.6.0	Y
Card In/Out	3.6.0	Y
Link Down/Up	3.6.0	Y
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	Y
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
VPN Leak	3.6.0	N
Cloud Problem	3.6.0	N
Broken LSP Discovered	3.6.0	N
MPLS Black Hole	3.6.0	N
Layer 2 Tunnel Down	3.6.0	N
MPLS TE Tunnel Down/Flapping	3.6.0	N
BGP Neighbor Down	3.6.0	N
Card Up/Down	3.6.0	Y
Vlan Tagged Interface Up/Down	3.6.7	N
Vlan Tagged Interface AdminDown	3.6.7	N

Supported Technologies on Cisco Switches

The following sections list the objects and attributes that are supported on Cisco switches in Cisco ANA Version 3.6.7 per technology:

- IP, page 7-48
- Routing Protocols, page 7-51
- Ethernet (IEEE 802.3), page 7-52
- ATM, page 7-57
- Frame Relay, page 7-59
- Point to Point, page 7-61
- Physical Technologies, page 7-61
- MPLS, page 7-62
- MPLS-TE, page 7-64
- VPN, page 7-65
- PWE3, page 7-67
- ACL, page 7-68
- Physical Equipment, page 7-69
- Base Logical Components, page 7-70
- Common, page 7-71
- Additional Technologies, page 7-72
- Local Switching, page 7-73
- BFD, page 7-73
- Carrier Ethernet, page 7-74
- LLDP, page 7-75
- CDP, page 7-75
- Discovery Protocol, page 7-76
- VTP, page 7-76
- L2Channel, page 7-77

IP

Table 7-55 IP Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IIPInterface														
IP Address	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y

Table 7-55 IP Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7 (continued)

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
Subnetwork Mask	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IP Interface Addresses Array	Y				Y		Y					Y	Y	Y
Interface Name	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Interface Description					Y		Y	Y					Y	Y
IP Interface State	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
OSPF Interface Cost													Y	
Broadcast Address								Y					Y	
MTU														
Lookup Method														
Address Resolution Type														
ARP Timeout														
Secured ARP														
ICMP Mask Reply														
IGMP Proxy														
HSRP Groups							Y		Y[1]				Y	Y
IP Multiplexing Table														
IANA Type								Y						
Containing CTPs														
Contained CTPs														
IMO Name—IIPMuxEntry														
Termination Point				Y	Y		Y						Y	Y
Destination IP Subnet				Y	Y		Y						Y	Y
IMO Name—IRoutingEntity														
Routing Table	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y
ARP Entity	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y
Routing Table Changes														
Name	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y
Logical Sons	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y
IMO Name—IRoutingEntry														
Destination IP Subnet	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Next Hop IP Address	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Type	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Routing Protocol Type	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Outgoing Interface Name	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y

Table 7-55 IP Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7 (continued)

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IARPEntity														
ARP Table	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y
IMO Name—IARPEntry														
IP Address	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y
MAC Address	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Port	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y
Entry Type							Y	Y		Y			Y	Y
IMO Name—IIPPool														
IP Address Pool Entries														
Name														
Index														
IMO Name—IIPRangeBasedIPPoolEntry														
Start IP Address														
End IP Address														
Unused Addresses														
Used Addresses														
Reserved Addresses														
IMO Name—IIPSubnetBasedIPPoolEntry														
IP Subnet														
Unused Addresses														
Used Addresses														
Reserved Addresses														
IMO Name—HSRPGroupEntry														
Group Number							Y		Y[2]	Y[3]			Y	Y
Port Description							Y		Y[4]	Y[5]			Y	Y
Priority							Y		Y[6]	Y[7]			Y	Y
Coupled Router							Y		Y[8]	Y[9]			Y	Y
State							Y		Y[10]	Y[11]			Y	Y
Tracking Interfaces														
Virtual IP Address							Y		Y[12]	Y[13]			Y	Y
Virtual MAC Address							Y		Y[14]	Y[15]			Y	Y
IMO Name—ITunnelGRE														
Name							Y		Y[16]	Y[17]			Y	Y
Tunnel Destination and Source							Y		Y[18]	Y[19]			Y	Y

Table 7-55 IP Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7 (continued)

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IP Address							Y		Y[20]	Y[21]			Y	Y
IP Interface State													Y	
IANA Type														
Containing CTPs														
Contained CTPs														
Keep Alive Time							Y							
Keep Alive Retry							Y							

[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11]Supported for 4503E, 4507RE, 4507, and 4506E only.

[12, 13, 14, 15, 16, 17, 18, 19, 20, 21]Validated with 12.2(52)SG only.

Routing Protocols

Table 7-56 Routing Protocols Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IBgpNeighborEntryEntry														
Remote Identifier														
Neighbor Type														
Distributing Interfaces														
Remote Address														
Remote Autonomous System														
Peer State														
Hold Time														
Keep Alive Time														
VrfName														
Address family														
IMO Name—IOspfEntry														
Area Identifier														
IP Address														
Type														
Administrative Status														

Table 7-56 Routing Protocols Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
Ospf Entry State														
Ospf Entry State														
IMO Name—IBgpNeighborEntry														
Remote Identifier	Y													
Neighbor Type														
Distributing Interfaces														
Remote Address	Y													
Remote Autonomous System	Y													
Peer State	Y													
Hold Time	Y													
Keep Alive Time	Y													
VrfName														
Address family														

[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11]Supported for 4503E, 4507RE, 4507, and 4506E only.

[12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22]Validated with 12.2(52)SG only.

Ethernet (IEEE 802.3)

Table 7-57 Ethernet (IEEE 802.3) Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—ILinkAggregationGroup802dot3ad														
dot3adAggMACAddress	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
dot3adAggActorSystemPriority	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
dot3adAggActorSystemID	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
dot3adAggActorAdminKey	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
dot3adAggActorOperKey	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
dot3adAggPartnerSystemID	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
dot3adAggPartnerSystemPriority	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
dot3adAggPartnerOperKey	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
dot3adAggCollectorMaxDelay	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table 7-57 Ethernet (IEEE 802.3) Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
GroupNumber	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
AggregationProtocolType	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
MacAddress	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
ChannelAdminStatus	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
ChannelOperStatus	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
IMO Name—IEthernet														
MAC Address	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Duplex Mode														
Output Flow Control														
Input Flow Control														
IANA Type														Y
Containing CTPs														
Contained CTPs														
Port Type		Y												
IMO Name—IVlanInterface														
Mode		Y		Y	Y	Y	Y		Y[1]	Y	Y	Y	Y	Y
Native VLAN Identification		Y		Y	Y	Y	Y		Y[2]	Y	Y	Y	Y	Y
Virtual LAN Table														
IANA Type														Y
Containing CTPs														
Contained CTPs														
vlanAdminType										Y		Y		
vlanencapType										Y		Y		
getAccess														
Allowed Vlans										Y		Y		
IMO Name—IVlanEncapMux														
IANA Type						Y	Y							
Containing CTPs														
Contained CTPs														
IMO Name—IIEEE802														
VLAN Identification		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y
Binding Information														
Binding Status														
IANA Type			Y	Y	Y	Y	Y	Y	Y				Y	Y

Table 7-57 Ethernet (IEEE 802.3) Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
Containing CTPs														
Contained CTPs														
IMO Name—IStpService														
Protocol Type	Y													
Current and Bridge Max Age	Y													
Current and Bridge Hello Time	Y													
Current and Bridge Forward Delay	Y													
Instance Information Table	Y													
Same as ISystemService														
StpUplinkFastState	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
StpBackboneFastState	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
StpForwardDelay	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
StpBridgeMaxAge	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
StpBridgeHelloTime	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
StpProtocol	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	
StpMaxAge	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
StpHelloTime	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
StpBridgeForwardDelay	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
StpInstanceInfoTable	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
IMO Name—IMstService														
MstProperties														
Same as IStpService														
Protocol Properties														
IMO Name—IPvstpService														
UpLinkFast	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
BackboneFast	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IMO Name—IMstProperties														
MstForceVersion	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MstCfgIdFmtSel	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MstExternalRootCost	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MstMaxInstances	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MstCfgIdName	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MstCfgIdRevLevel	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table 7-57 Ethernet (IEEE 802.3) Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IStpInstanceInfo														
Object Identification														
StpBridgeId	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
BridgePriority	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Designated Parent and Root Bridges	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
StpRootCost	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IsRoot	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
StpRootPort	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
StpPortInfoTable	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
STP Instance Id	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Vlan Id														
StpDesignatedBridge	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
StpDesignatedRoot	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IMO Name—IMstInstanceInfo														
MstVlanIds	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Same as IStpInstanceInfo	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IMO Name—IPvstpInstanceInfo														
Protocol Type	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
StpBridgeMaxAge	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
StpBridgeHelloTime	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
StpBridgeForwardDelay	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
StpProtocolSpecification	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
StpVlanId	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
StpForwardDelay	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
StpMaxAge	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IMO Name—IRstpInstanceInfo														
StpForceVersion	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Same as IStpInstanceInfo	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IMO Name—IStpPortInfo														
StpPort	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
StpPortPriority	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
StpPortState	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
StpPortPathCost	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
StpPortEdgePort	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			

Table 7-57 Ethernet (IEEE 802.3) Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
StpPortPointToPoint	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
StpPortRole	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
StpDesignatedPortIdentifier	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	
StpDesignatedBridge	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	
StpPortIdentifier	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	
StpPortBpduGuardState	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
StpPortBpduFilterState	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Object Identification	Y	Y												
Priority	Y	Y												
State	Y	Y												
Path Cost	Y	Y												
Is Edge	Y	Y												
Is Point to Point	Y	Y												
Role	Y	Y												
IMO Name—IMstPortInfo														
MstPortHelloTime	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	
Same as IStpPortInfo	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
IMO Name—IPvstpPortInfo														
PvstpPortFastState	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
IMO Name—IEthernetChannel														
Group Number	Y[3]	Y	Y	Y[4]	Y[5]	Y	Y	Y	Y	Y	Y	Y	Y	Y
Bandwidth	Y[6]	Y	Y	Y	Y[7]	Y	Y	Y	Y	Y	Y	Y	Y	Y
Aggregation Protocol	Y[8]	Y	Y	Y[9]	Y[10]	Y	Y	Y	Y	Y		Y	Y	Y
IANA Type	Y[11]	Y	Y	Y[12]	Y[13]	Y	Y	Y	Y	Y		Y	Y	Y
Containing CTPs														
Contained CTPs														
Mac Address							Y							
Admin Status							Y					Y		
Oper Status							Y					Y		

[1, 2, 3, 4]SNMP is supported on ANA 3.6.0 and later.

[5, 6, 7, 8, 9, 10, 11]SNMP is supported on ANA 3.6.0 and later.

[12, 13]Supported for 12.2(25)EWA14 only.

ATM

Table 7-58 ATM Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IAtm														
ATM Address														
Interface Type														Y
VP and VC Ranges														Y
VC Table													Y	Y
Cross-Connect Table														
IANA Type													Y	Y
Containing CTPs														
Contained CTPs														
Tx Allocated Bandwidth													Y	
Tx Maximum Bandwidth													Y	
Tx UBR Allocated Bandwidth													Y	
Tx CBR Allocated Bandwidth													Y	
Rx Allocated Bandwidth													Y	
Rx Maximum Bandwidth													Y	
Rx UBR Allocated Bandwidth													Y	
Rx CBR Allocated Bandwidth													Y	
IMO Name—IAtmVc														
Virtual Channel Identifier													Y	Y
Virtual Path Identifier													Y	Y
Shaping Profile														
Discarded and Received Input Data Counters													Y	Y
Dropped and Forward Output Data Counters													Y	Y
Ingress Traffic Descriptor													Y	Y
Egress Traffic Descriptor													Y	Y
Administrative Status													Y	Y
Operational Status													Y	Y
IANA Type														
Containing CTPs														
Contained CTPs														

Table 7-58 ATM Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7 (continued)

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IAtmTrafficDescriptor														
Traffic Descriptor Type													Y	Y
Service Category													Y	Y
Cell Loss Priority													Y	Y
Cell Delay Variation														
Cell Dealy Variation Tolerance												Y		
Maximum High Priority and Aggregate Cell Rates													Y	Y
Minimum High Priority and Aggregate Cell Rates													Y	Y
Sustainable High Priority and Aggregate Cell Rates													Y	Y
Peak High Priority and Aggregate Cell Rates													Y	Y
Name														
Index														Y
Cell Delay Variation Tolerance		Y												
IMO Name—IAtmTrafficShapingDescriptor														
Maximum Burst Size														
Sustainable and Peak Cell Rates														
Cell Delay Variation														
State														
Buffer Size														
Cell Loss Priority Discarded Size														
Name														
Index														
IMO Name—IAtmTrunk														
Same as IAtm														
IMO Name—IAtmLogicalPort/Trunk														
Resource Management Cell Termination														
Resource Management Cell Generation														
Effective Check Input and Output Capacities														

Table 7-58 ATM Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7 (continued)

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
Admin Status														
Oper Status														
Same as IAtm														
IMO Name—IAtmTrunkVc														
Destination Description														
Same as IAtmVc														
IMO Name—IIMAGroup														
AdminStatus													Y	
OperStatus													Y	
GroupNumber													Y	
ImaVersion													Y	
Speed													Y	
ConfiguredBandwidth													Y	
NumberOfLinks													Y	
NumberOfActiveLinks													Y	
MinimumNumberOfTxLinks													Y	
MinimumNumberOfRxLinks													Y	
ClockMode													Y	
FrameLength													Y	
interfaceName													Y	
groupStatus													Y	
operStatus														

Frame Relay

Table 7-59 Frame Relay Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—Iframerelay/IFrTrunk														
Protocol Type														Y
VC Table														Y
Cross-Connect Table														

Table 7-59 Frame Relay Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IANA Type														
Containing CTPs														
Contained CTPs														
IMO Name—IFrVc														
Data Link Connection Identifier														Y
Traffic Descriptor														Y
Discard and Received Input Data Counters														
Dropped and Forward Output Data Counters														
Ingress Traffic Descriptor														
Egress Traffic Descriptor														
Administrative Status														Y
Operational Status														Y
IANA Type														Y
Containing CTPs														
Contained CTPs														
IMO Name—IFRTrafficDescriptor														
Committed Rate														Y
Excess Burst Rate														Y
Name														
Index														
IMO Name—IFramerelayLogicalPort/Trunk														
Admin Status													Y	
Oper Status													Y	
Same as IFrameRelay														
IMO Name—IFrTrunkVc														
Destination Description														
Same as IFrVc														
IMO Name—IEncapsulation														
Virtual Connection Interface												Y		Y
Binding Information														

Point to Point

Table 7-60 Point to Point Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IVcBasedEncapsulation														
Virtual Connection														
Binding Information														
Binding Status												Y		Y
IANA Type												Y		Y
Containing CTPs														
Contained CTPs														
IMO Name—Iencapsulation (HDLC/PPP)														
Virtual Connection														Y
Binding Information													Y	
Binding Status													Y	Y
IANA Type													Y	Y
Containing CTPs														
Contained CTPs														

Physical Technologies

Table 7-61 Physical Technologies Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—ISonetSdh														
Specific Type														
Loopback Type													Y	
Scrambling Mode													Y	
Same as IPhysicalLayer														
IMO Name—IDS0Bundle														
Bundled Time Slots													Y	
Bundle Location														
IANA Type													Y	

Table 7-61 Physical Technologies Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7 (continued)

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
Containing CTPs														
Contained CTPs														
IMO Name—IDS1Pdh / IDS3Pdh														
Framing Type														
Cell Mapping Type														
Loopback Type													Y	
Scrambling Mode													Y	
Same as IPhysicalLayer														
portDescription														
internationalBit														
nationalBits														
framing														
lineCode														
cableLength														
recoveredClockingId														
clocking														
loopback														
alarmState														

MPLS

Table 7-62 MPLS Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IMpls														
Distribution Protocol							Y						Y	Y
Outer and Inner Labels														
Traffic Engineering Properties							Y						Y	Y
Resource reservation Properties														
IANA Type							Y						Y	
Containing CTPs														

Table 7-62 MPLS Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7 (continued)

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
Contained CTPs														
IMO Name—ILse														
MPLS Table							Y						Y	Y
MPLS Aggregate Table							Y						Y	Y
MPLS Tunnel Segments							Y							
LDP Service							Y							
Logical Sons							Y						Y	Y
IMO Name—ILdpService														
Local Identification Status							Y							
LDP Peers							Y						Y	Y
IMO Name—ILdpPeer														
Peer Identification							Y						Y	Y
Transport Address							Y						Y	Y
Distribution Method							Y						Y	Y
Protocol Type							Y							
Path Vector Limit							Y						Y	Y
Session Status							Y						Y	Y
Protocol Version Hold Time													Y	Y
Hold Time							Y						Y	Y
Hello Time Interval												Y	Y	
Peer Discovery Sources							Y						Y	Y
Keep Alive Time														
IMO Name—ILdpDiscoverySource														
Interface Name							Y						Y	Y
Source Address							Y						Y	Y
Type							Y						Y	Y
IMO Name—IMplsEntry														
Incoming Label							Y						Y	Y
Outgoing Interface and Label							Y						Y	Y
Switching Action							Y						Y	Y
Next Hop IP Address							Y						Y	Y
Destination Mask							Y						Y	Y
Destination address							Y						Y	Y

Table 7-62 MPLS Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7 (continued)

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IMplsAggregateEntry														
Virtual Routing Entity							Y						Y	Y
Incoming Label							Y						Y	Y
Outgoing Interface and Label							Y						Y	Y
Switching Action							Y						Y	Y
Next Hop IP Address							Y						Y	Y

MPLS-TE

Table 7-63 MPLS-TE Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IMplsTETunnel														
Destination Address							Y						Y	Y
Outgoing Interface and Label							Y						Y	Y
LSP Identification							Y						Y	Y
Requested Bandwidth							Y						Y	Y
Measured Average Burst and Peak Bandwidth							Y						Y	Y
Setup and Hold Priority							Y						Y	Y
Affinity Bits and Mask							Y						Y	Y
Automatic Route Announcement Status							Y						Y	Y
Optimization Lock Down Status							Y						Y	Y
Path Type							Y						Y	Y
Name							Y						Y	Y
Description							Y						Y	Y
Administrative Status							Y						Y	Y
Operational Status							Y						Y	Y
IANA Type							Y						Y	Y
IMO Name—IMplsTEProperties														
Administrative Weight							Y						Y	Y
Attributes Identifier														Y

Table 7-63 MPLS-TE Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7 (continued)

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
Signalling Protocol														
Available Physical and Reservable Bandwidth							Y						Y	Y
Reserved Bandwidth							Y						Y	Y
Signaling Protocol	Y	Y												
IMO Name—IMplsTEPropertiesAllocationEntry														
Priority Level														
Allocated and Cumulative Bandwidth														
IMO Name—IMplsTESegment														
Segment Type							Y						Y	Y
Measured Average Burst and Peak Bandwidth							Y						Y	Y
Path Identification							Y						Y	Y
Name							Y						Y	Y

VPN

Table 7-64 VPN Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IVrf														
Virtual Routing Table					Y		Y						Y	Y
Exported Route Targets					Y		Y						Y	Y
Imported Route Targets					Y		Y						Y	Y
Route Distinguisher					Y		Y						Y	Y
ARP Entity					Y		Y						Y	Y
Name					Y		Y						Y	Y
Logical Sons					Y		Y						Y	Y
IMO Name—IVrfEntry														
Next Hop BGP Address					Y		Y						Y	Y
Incoming and Outgoing Inner Label					Y		Y						Y	Y

Table 7-64 VPN Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7 (continued)

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
Outer Label					Y		Y						Y	Y
Destination IP Subnet					Y		Y						Y	Y
Next Hop IP Address					Y		Y						Y	Y
Type					Y		Y						Y	Y
Routing Protocol Type					Y		Y						Y	Y
Outgoing Interface Name					Y		Y						Y	Y
IMO Name—IMpBgp														
BGP Identifier					Y		Y		Y	Y			Y	Y
Local Autonomous System					Y		Y		Y	Y			Y	Y
Cross Virtual Routing Table							Y							
BGP Neighbors					Y		Y		Y	Y				Y
Logical Sons					Y		Y						Y	Y
IMO Name—ICrossVrf														
Virtual Routing Entries							Y							
Virtual Routing Entity Name							Y							
IMO Name—ICrossVrfRoutingEntry														
Outgoing Virtual Routing Entity Identifier														
Incoming and Outgoing Virtual Routing Tags														
Destination IP Subnet							Y						Y	Y
Next Hop IP Address							Y						Y	Y
Type							Y						Y	Y
Routing Protocol Type							Y						Y	Y
Outgoing Interface Name														

PWE3

Table 7-65 PWE3 Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IPTPLayer2MplsTunnel														
Local and Remote Router Addresses							Y						Y	Y
Local and Remote Virtual Connection Labels							Y						Y	Y
Tunnel Identification							Y						Y	Y
Tunnel Status							Y						Y	Y
Local and Remote Tunnel Interface														Y
IANA Type							Y						Y	Y
Containing CTPs														
Contained CTPs														
PsuedowireType							Y						Y	Y
PreferredPathTunnel							Y						Y	Y
LocalMTU							Y						Y	Y
RemoteMTU							Y						Y	Y
PeerStatus							Y						Y	Y
SignalingProtocol							Y						Y	Y
VFIName							Y						Y	Y

ACL

Table 7-66 ACL Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IAccessList														
Type		Y					Y		Y[1]	Y[2]	Y		Y	Y
Access List Entries		Y					Y		Y[3]	Y[4]	Y		Y	Y
Name or Id		Y					Y		Y[5]	Y[6]	Y		Y	Y
Index		Y					Y		Y[7]	Y[8]	Y		Y	Y
IMO Name—IAccessListEntry														
Entry Identification		Y					Y		Y[9]	Y[10]	Y		Y	Y
Action Logic		Y					Y		Y[11]	Y[12]	Y		Y	Y
Source and Destination Address		Y					Y		Y[13]	Y[14]	Y		Y	Y
Source and Destination Wildcard		Y						Y[15]	Y[16]	Y		Y		
Protocol Type		Y					Y		Y[17]	Y[18]	Y		Y	Y
Source and Destination Port Ranges		Y					Y		Y[19]	Y[20]	Y		Y	Y
Source and Destination Port Action		Y					Y		Y[21]	Y[22]	Y		Y	Y
Protocol Specific Info		Y					Y		Y[23]	Y[24]	Y		Y	Y
Differential Services Code Points		Y					Y		Y[25]	Y[26]	Y		Y	Y
Type of Service		Y					Y		Y[27]	Y[28]	Y		Y	Y
Precedence		Y					Y		Y[29]	Y[30]	Y		Y	Y
Matches		Y					Y		Y[31]	Y[32]	Y		Y	Y
Source and Destination Wildcard	Y	Y												

[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16]Supported for 4503E, 4507RE, 4507, and 4506E only.

[17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32]Validated with 12.2(52)SG only.

Physical Equipment

Table 7-67 Physical Equipment Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IChassis														
Description		Y[1]			Y		Y	Y	Y	Y	Y	Y	Y	Y
Equipment Holder Type			Y				Y	Y	Y					Y
Contained Equipment Holders														
Contained Equipments														
Serial Number	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IMO Name—IShelf														
Description														
Status														
Equipment Holder Type														
Contained Equipment Holders														
Contained Equipments														
Serial Number														
IMO Name—IModule														
Module Name	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y
Module Description		Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y
Software Version	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Operational Status	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Hardware Type + Version	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Managed IP Address														
Redundant Equipment														
Configured Redundancy									Y					
Redundancy Status			Y	Y	Y	Y			Y				Y	Y
Operational Status Last Changed		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y
Supported Physical Termination Points		Y							Y	Y	Y		Y	Y
Serial Number (soft property)	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Slots Number														
IMO Name—Imodule														
Serial Number (soft property)	Y													

[1]Supported for 12.2(50)SE only.

Base Logical Components

Table 7-68 Base Logical Components Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IManagedElement														
IP Address	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Communication State	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Investigation State	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y
Element Category	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Element Type and Key	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Device Name	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
System Name	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
System Description	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Up Time	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Software Version	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Vendor Identity	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y
Memory and CPU Usage	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DRAM Free	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DRAM Used	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Flash Device Size	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
NVRAM Size	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Processor DRAM	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Sys Contact	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Sys Location	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Serial Number	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
File Systems														
IMO Name—IContext														
Name				Y	Y		Y							Y
Bounded Connections														
IP Address Pools														
Forwarding Components List														
Traffic Descriptors List														
Tunnel Containers List														
Data Link Aggregation Containers List														

Table 7-68 Base Logical Components Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7 (continued)

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—ISystemService														
Type														
Status														
Up Time	Y	Y	Y	Y	Y	Y	Y	Y	Y			Y	Y	Y

Common

Table 7-69 Common Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IPhysicalLayer														
Media Type	Y	Y	Y	Y	Y	Y	Y		Y		Y	Y	Y	Y
Clocking Source													Y	Y
Maximum Speed	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Is Internal Port	Y	Y	Y	Y	Y	Y	Y		Y			Y	Y	Y
Discarded Bandwidth														
Dropped Bandwidth														
Input Bandwidth														
Output Bandwidth														
Discarded and Received Input Data Counters	Y		Y	Y	Y	Y	Y	Y	Y			Y	Y	Y
Dropped and Forward Output Data Counters	Y		Y	Y	Y	Y	Y	Y	Y			Y	Y	Y
Administrative Status	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Operational Status	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Last Changed	Y		Y	Y	Y	Y	Y	Y	Y			Y	Y	Y
IANA Type	Y		Y	Y	Y	Y	Y		Y			Y	Y	Y
Containing CTPs														
Contained CTPs														
Port Alias	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Location	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Sending Alarms	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table 7-69 Common Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7 (continued)

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
Connector Description	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Part ID	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Connectort Serial Num	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	
Product	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Status	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Managed	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Connector Serial Num	Y													
IMO Name—IBridge														
Bridge Table	Y	Y		Y	Y			Y	Y	Y	Y	Y	Y	Y
Type	Y	Y		Y	Y				Y	Y	Y	Y	Y	Y
MAC Address	Y	Y		Y	Y			Y	Y	Y	Y	Y	Y	Y
IP Interface	Y			Y	Y			Y	Y				Y	Y
Name	Y	Y		Y	Y			Y	Y	Y	Y	Y	Y	Y
Logical Sons	Y	Y		Y	Y			Y	Y	Y	Y	Y	Y	Y
Vlan Type		Y												
IMO Name—IBridgeEntry														
Destination MAC	Y	Y		Y	Y			Y	Y	Y	Y	Y	Y	Y
Outgoing Interface		Y								Y	Y	Y	Y	Y
IMO Name—IVcSwitchingEntity														
Cross Connect Table														
Cross Connect Table Size														
Logical Sons														

Additional Technologies

Table 7-70 Additional Technologies Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—POS														
POS		Y		Y	Y		Y			Y	Y		Y	Y

Local Switching

Table 7-71 Local Switching Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—ILocalSwitchingEntity														
LocalSwitchingTable							Y						Y	
IMO Name—ILocalSwitchingEntry														
Local Switching Entry Key							Y						Y	
Local Switching Entry Status							Y						Y	
Segment 1				Y										
Segment 1 Port Name							Y						Y	
Segment 1 Status							Y						Y	
Segment 2			Y		Y									
Segment 2 Port Name			Y		Y									
Segment 2 Status							Y						Y	

BFD

Table 7-72 BFD Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IBfdService														
Status													Y	
IMO Name—IBfdSession														
SourceIp													Y	
DestinationIp													Y	
Interval													Y	
Multiplier													Y	
Protocol													Y	
State													Y	
Interface													Y	
Process													Y	

Carrier Ethernet

Table 7-73 Carrier Ethernet Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IVsi														
vsiInstanceName													Y	
vpnId													Y	
discoveryMode													Y	
vsiMode													Y	
Operational state													Y	
Administrative state													Y	
IMO Name—IPseudowireProperties														
isSplitHorizonEnabled													Y	
isAutoDiscovered													Y	
IMO Name—IVLANTaggedInterface														
InterfaceName													Y	Y
Inner Vlan Id													Y	Y
Outer Vlan Id													Y	Y
Encap Type													Y	Y
Operational state													Y	Y
Administrative state													Y	Y
IMO Name—IEfp														
EfpId												Y[1]		
RewriteParams												Y[2]		
EncapsParams												Y[3]		
AdminStatus												Y[4]		
OperStatus												Y[5]		
SplitHorizonGroup												Y[6]		
matchCriteria												Y[7]		
GetServiceInstanceId												Y[8]		
SetServiceInstanceId												Y[9]		

[1, 2, 3, 4, 5, 6, 7, 8, 9] For version greater than SRD SNMP is used

LLDP

Table 7-74 LLDP Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—ILLDPService														
status	Y	Y				Y	Y		Y	Y	Y			Y
lldpAdvertisementsInterval	Y	Y				Y	Y		Y	Y	Y			Y
lldpHoldTime	Y	Y				Y	Y		Y	Y	Y			Y
lldpReinitialisationDelay	Y	Y				Y	Y		Y	Y	Y			Y
localChassisID	Y	Y				Y	Y		Y	Y	Y			Y
localSystemName	Y	Y				Y	Y		Y	Y	Y			Y
IMO Name—ILLDPNeighbor														
localPortName	Y	Y				Y	Y		Y	Y	Y			Y
remotePortDesc	Y	Y				Y	Y		Y	Y	Y			Y
remoteChassisId	Y	Y				Y	Y		Y	Y	Y			Y
remoteManagementIP	Y	Y				Y	Y		Y	Y	Y			Y
localPortId	Y	Y				Y	Y		Y	Y	Y			Y
remotePortId	Y	Y				Y	Y		Y	Y	Y			Y
remoteSystemName	Y	Y			Y	Y		Y	Y	Y		Y		
remoteDeviceId														

CDP

Table 7-75 CDP Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—ICdpService														
cdpHoldtime	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
cdpMessageInterval	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
cdpDeviceId	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
cdpState	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
cdpVersion	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IMO Name—ICdpNeighbor														
remoteDeviceId	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table 7-75 CDP Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7 (continued)

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
remotePortId	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
remoteIPAddress	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
localPortId	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Discovery Protocol

Table 7-76 Discovery Protocol Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IDiscoveryProtocol														
DiscoveryProtocolType	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y
Info	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y

VTP

Table 7-77 VTP Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—IVtpService														
Version	Y	[1]	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
OperatingMode	Y	[2]	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DomainName	Y	[3]	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
ConfigurationRevision	Y	[4]	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
isPruningEnabled	Y	[5]	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
isAuthenticationEnabled	Y	[6]	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

[1, 2, 3, 4, 5, 6] The MIB provides data by default, but the device does not support VTP.

L2Channel

Table 7-78 L2Channel Attribute Support on Cisco Switches—Cisco ANA Version 3.6.7

Attribute	2900	3400ME	3500	3550	3560	3750	ME 3750	4000	4500	4900	4924ME	6500 CatOS	6500 IOS	ME 6524
IMO Name—ICEMEncap														
cemIfName													Y	
IMO Name—ICEMGroup														
IdlePattern													Y	
IdleCAS													Y	
DeJitter													Y	
PayloadSize													Y	
RTP													Y	
RTPHeader													Y	
TimeSlots													Y	
AdminStatus													Y	
OperStatus													Y	

CHAPTER 8

Support Information for Juniper Devices

This chapter contains support information for Virtual Network Elements (VNEs) that manage Juniper devices in Cisco ANA Version 3.6.7. For more information about the objects and attributes described in this chapter, see *Cisco Active Network Abstraction 3.6.7 Technology Support and Information Model Reference Manual*.

This chapter contains the following topics:

- Juniper M-Series Multiservice Edge Routers, page 8-1
- Juniper ERX-1400 Series Edge Routers, page 8-6
- Juniper T-Series Core Platforms, page 8-9
- Supported Technologies on Juniper Devices, page 8-11

Juniper M-Series Multiservice Edge Routers

This section includes the following information about Juniper M-Series devices (for information on the NE types supported in Cisco ANA Version 3.6.7, see Juniper M-Series Multiservice Edge Routers):

- Juniper M-Series—Supported Software Versions, page 8-1
- Juniper M-Series—Supported Topologies, page 8-2
- Juniper M-Series—Supported Modules, page 8-2
- Juniper M-Series—Supported Technologies, page 8-4
- Juniper M-Series—Supported Service Events, page 8-5

Juniper M-Series—Supported Software Versions

Table 8-1 Supported Software Versions for Juniper M-Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
7.1R2.2	3.6.1	S
7.6 R3.6	3.6.1	S
7.6 R4.2	3.6.1	S
7.6 R4.3	3.6.1	S

Table 8-1 Supported Software Versions for Juniper M-Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
8.1R2.4	3.6.1	S
8.2 R3.5	3.6.1	S
8.2R3.6	3.6.1	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Juniper M-Series—Supported Topologies

Table 8-2 Supported Topologies for Juniper M-Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.1

Juniper M-Series—Supported Modules

Table 8-3 Supported Modules for Juniper M-Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
PEM	3.6.1	AC/DC Power Supply	S
TOP FAN	3.6.1	Fan Module	S
FPC: M320 FPC TYPE 1	3.6.1	Flexible PIC Concentrators	S
PIC: ADAPTIVE SERVICES-II	3.6.1	Physical Interface Card	S
PIC: 1X STM-16 SDH, SMSR	3.6.1	1 Port STM16 PIC with SFP	S
PIC: 1X 10GE(LAN/WAN) IQ2	3.6.1	1Port 10-Gigabit Ethernet IQ2 PIC with XFP	S
ROUTING ENGINE 0	3.6.1	Routing Engine	S
FPM GBUS	3.6.1	Fuse Module	S
CB	3.6.1	Control Board	S
CIP	3.6.1	Connector Interface Panel	S
SIB	3.6.1	Switch Interface Board	S
PIC: 1X CHSTM1 IQ SDH, SMIR	3.6.1	1 Port Channelized STM1 IQ PIC	S
PIC: 10X CHE1 IQ	3.6.1	10 Port Channelized E1 IQ PIC	S
PIC: 1X OC-48 SONET SFP	3.6.0	1 Port SONET/SDH OC48c/STM16 PIC with SFP	S

Table 8-3 Supported Modules for Juniper M-Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
PIC: 1X TUNNEL	3.6.0	Tunnel Services PIC	S
PIC: 1X OC-12 SONET, SMIR	3.6.0	1 Port SONET/SDH OC12c/STM4 PIC	S
PIC: 1X G/E, 1000 BASE	3.6.0	1 Port Gigabit Ethernet PIC with SFP	S
PIC: 4X E3 IQ	3.6.0	4 Port E3 IQ PIC	S
PIC: 1X G/E IQ, 1000 BASE	3.6.0	1 Port Gigabit Ethernet IQ PIC with SFP	S
PIC: 4X STM-1 SDH, SMIR	3.6.0	4 Port SONET/SDH OC3c/STM1 PIC	S
PIC: 4X CHDS3 IQ	3.6.0	4 Port Channelized DS3 IQ PIC	S
PIC: 4X F/E, 100 BASE-TX	3.6.0	4 100Base-TX ports Fast Ethernet PICs	S
PIC: 1X G/E, 1000 BASE-SX	3.6.0	1 Port Gigabit Ethernet IQ PIC with SFP	S
PIC: 2X T3	3.6.0	2 Port T3 PIC	S
CFEB INTERNET PROCESSOR II	3.6.0	Fuse Module	S
M10I MIDPLANE	3.6.1	M10i Midplane	S[1]
M320MIDPLANE	3.6.1	M320 Midplane	S[2]
PIC: 1X STM-4 SDH, MM	3.6.1	1 Port SONET/SDH OC12c/STM4 PIC	S
PIC: 4X STM-4 SDH, SMIR	3.6.1	4 Port SONET/SDH OC12c/STM4 PIC	S
PIC: 2X OC-3 ATM-II IQ, SMIR	3.6.1	2 Port ATM2 OC3/STM1 IQ PIC	S
M10I HCM	3.6.1	M10i High-Availability Chassis Manager	S
PC-1XGE-XENPAC	3.6.2	1 PORT 10 GIGABIT ENET PIC M320,T320,T640	S
XENPAK-1XGE-LR	3.6.2	Juniper Networks transceiver module	S
PB-2GE-SFP-QPP	3.6.2	2-Port Gigabit Ethernet Services PIC with QPP	S
MEM-FPC-512-S	3.6.2	Optional FPC Memory Upgrade	S
PB-4CHDS3-QPP	3.6.2	4-Port Channelized DS3 to DS0 Services PIC with QPP, BNC	S
PB-2OC3-ATM2-SMIR	3.6.2	2-PORT OC-3/STM1 ATM SERVICES PIC, SINGLE MODE, IR (WITH DIFF. SERV)	S
PB-1GE-SFP-QPP	3.6.2	1 PORT GIGABIT ETHERNET IQ PIC (USES SFP OPTICS MODULES - SEE INTERFACE ACCESSORIES SECTION)	S
PB-2GE-SFP-QPP	3.6.2	2-Port Gigabit Ethernet IQ PIC (Uses SFP Optics Modules	S
PB-4GE-SFP	3.6.2	Juniper Networks expansion module	S
PB-4OC3-SON-SMIR	3.6.2	4-Port SONET/SDH OC3/STM-1 PIC, SingleMode IR, for M160-FPC1	S
PC-8GE-TYPE3-SFP-IQ2	3.6.2	8-Port Type3 Gigabit Ethernet IQ2 PIC (Uses SFP Optics Modules - See Interface Accessories section)	S
M320-FPC2	3.6.2	Juniper Networks Flexible PIC Concentrator FPC2 - expansion module	S

Table 8-3 Supported Modules for Juniper M-Series—Cisco ANA Version 3.6.7 (continued)

Module Name	ANA Version	Module Description	Certification Level
PB-4GE-SFP	3.6.2	4-Port Gigabit Ethernet PIC (Requires pluggable SFP Optics Modules: SFP-1GE-SX, SFP-1GE-LX, SFP-1GE-LH, or SFP-1GE-T - See Interface Accessories section)	S
PC-4OC3-SON-SMIR	3.6.2	4-port SONET,SDH OC3,STM1 PIC, SMIR (For use with T640 and T320 FPC2)	S
RE-1600-2048-BB	3.6.2	Juniper M-Series routing engine with 1600MHz panel and 2GB memory - Base Bundle	S
SFP-1GE-LX	3.6.2	Small Form Factor Pluggable 1000Base-LX Gigabit Ethernet Optic Module	S
PIC: 4X E1, RJ48	3.6.2	4-Port E1 with RJ48 connectors	S
JNXFPC	3.6.4	FPC	S[3]
JNXCBD	3.6.4	CBD	S[4]
JNXHM	3.6.4	HM	S[5]
JNXPOWER	3.6.4	Power Supply	S[6]
JNXFAN	3.6.4	Fan	S[7]
JNXFPB	3.6.4	FPB	S[8]
JNXM120FEB	3.6.4	M120 FEB	S[9]
JNXPICTYPE3TENPORTGIGETHER	3.6.4	PIC: 10x 1GE(LAN), 1000 BASE	S[10]

[1, 2]The midplane is a panel located in the center of the chassis, running from side to side and forming the rear of the PIC card cage. All router components plug directly into the midplane. This means the midplane is just a holder for the PICs inside the chassis. If the midplane for Juniper VNEs in ANA is not supported, a “device unsupported” alarm is generated. The midplane for Juniper VNEs will not be displayed in the Network Vision GUI

[3, 4, 5, 6, 7, 8, 9, 10]3.6.3(PP)

Juniper M-Series—Supported Technologies

The following technologies are supported by the Juniper M-Series in Cisco ANA Version 3.6.7:

- IP, page 8-12
- Routing Protocols, page 8-14
- Ethernet (IEEE 802.3), page 8-15
- ATM, page 8-19
- Frame Relay, page 8-22
- Point to Point, page 8-23
- MPLS, page 8-24
- VPN, page 8-25
- Physical Equipment, page 8-27

- Base Logical Components, page 8-28
- Common, page 8-29

Juniper M-Series—Supported Service Events

Table 8-4 Supported Service Events for Juniper M-Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
All IP Interfaces Down / Active IP Interfaces Found	3.6.1	Y
Interface Status Down/Up	3.6.1	Y
Card In/Out	3.6.1	Y
Link Down/Up	3.6.1	Y
Device Unreachable	3.6.1	N
CPU Over Utilized	3.6.1	N
Memory Over Utilized	3.6.1	N
Device Unsupported	3.6.1	N
Discard Packets	3.6.1	N
Dropped Packets	3.6.1	N
Module Unsupported	3.6.1	Y
Port Flapping	3.6.1	N
Port Down	3.6.1	Y
Rx Over Utilized	3.6.1	N
Tx Over Utilized	3.6.1	N
VPN Leak	3.6.1	N
BGP Neighbor Down	3.6.1	N
Card Up/Down	3.6.1	Y
Adaptive Polling	3.6.1	N
BGP link down	3.6.1	Y
MPLS interface removed	3.6.1	N

Juniper ERX-1400 Series Edge Routers

This section includes the following information about Juniper ERX-1400 series devices (for information on the NE types supported in Cisco ANA Version 3.6.7, see Juniper ERX-1400 Series Edge Routers):

- Juniper E-Series—Supported Software Versions, page 8-6
- Juniper E-Series—Supported Topologies, page 8-6
- Juniper E-Series—Supported Modules, page 8-7
- Juniper E-Series—Supported Technologies, page 8-8
- Juniper E-Series—Supported Service Events, page 8-8

Juniper E-Series—Supported Software Versions

Table 8-5 Supported Software Versions for Juniper E-Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
5.2.4 patch-0.2	3.6.0	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Juniper E-Series—Supported Topologies

Table 8-6 Supported Topologies for Juniper E-Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.0
Physical Layer	Physical Layer	3.6.0

Juniper E-Series—Supported Modules

Table 8-7 Supported Modules for Juniper E-Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
OC3 QUAD PORT, ATM	3.6.0	OC-3/STM-1 ATM Line Modules	S
SYSTEM/ROUTE PROCESSOR 10G ECC	3.6.0	System/Route Processor 10G ECC	S
FULLY CHANNELIZED E1	3.6.0	Fully Channelized E1	S
FAST ETHERNET 8-PORT	3.6.0	Fast Ethernet 8-port	S
DUAL PORT FAST ETHERNET	3.6.0	Dual Port Fast Ethernet	S
OC12/STM-4 PACKET OVER SONET LINE MODULES	3.6.0	OC12/STM-4 Packet over SONET Line Modules	S
OC-12/STM-4 ATM LINE MODULES	3.6.0	OC-12/STM-4 ATM Line Modules	S
OC3/STM-1 PACKET OVER SONET LINE MODULES	3.6.0	OC3/STM-1 Packet over SONET Line Modules	S
GIGABIT ETHERNET LINE MODULES	3.6.0	Gigabit Ethernet Line Modules	S
GENERIC OC3/OC12 POS (MULTI-PERSONALITY)	3.6.0	Generic OC3/OC12 POS (multi-personality)	S
GENERIC OC3/OC12 ATM (MULTI-PERSONALITY	3.6.0	Generic OC3/OC12 ATM (multi-personality	S
CHANNELIZED T3 LINE MODULE	3.6.0	Channelized T3 Line Module	S
UNCHANNELIZED T3	3.6.0	UnChannelized T3	S
CHANNELIZED OC3/STM-1	3.6.0	Channelized OC3/STM-1	S
OC48/STM-16 PACKET OVER SONET LINE MODULES	3.6.0	OC48/STM-16 Packet over SONET Line Modules	S
T3 ATM (4 PORTS)	3.6.0	T3 ATM (4 ports)	S
T3 FRAME (12 PORTS)	3.6.0	T3 Frame (12 ports)	S
E3 ATM	3.6.0	E3 ATM	S
E3 FRAME (12 PORTS)	3.6.0	E3 Frame (12 ports)	S

Juniper E-Series—Supported Technologies

The following technologies are supported by the Juniper E-Series in Cisco ANA Version 3.6.7:

- IP, page 8-12
- Ethernet (IEEE 802.3), page 8-15
- VPN, page 8-25
- Physical Equipment, page 8-27
- Base Logical Components, page 8-28
- Common, page 8-29
- Additional Technologies, page 8-30

Juniper E-Series—Supported Service Events

Table 8-8 Supported Service Events for Juniper E-Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Primary HSRP Interface Active/Inactive	3.6.0	N
Secondary HSRP Interface Active/Inactive	3.6.0	N
All IP Interfaces Down / Active IP Interfaces Found	3.6.0	N
Interface Status Down/Up	3.6.0	N
Card In/Out	3.6.0	N
Link Down/Up	3.6.0	N
Device Unreachable	3.6.0	N
CPU Over Utilized	3.6.0	N
Memory Over Utilized	3.6.0	N
Device Unsupported	3.6.0	N
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N
Module Unsupported	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	N
Rx Over Utilized	3.6.0	N
Tx Over Utilized	3.6.0	N
VPN Leak	3.6.0	N
MPLS Black Hole	3.6.0	N
Layer 2 Tunnel Down	3.6.0	N
MPLS TE Tunnel Down/Flapping	3.6.0	N

Table 8-8 Supported Service Events for Juniper E-Series—Cisco ANA Version 3.6.7 (continued)

Event Name	ANA Version	Expedited
BGP Neighbor Down	3.6.0	N
Card Up/Down	3.6.0	N

Juniper T-Series Core Platforms

This section includes the following information about Juniper T-Series devices (for information on the NE types supported in Cisco ANA Version 3.6.7, see Juniper T-Series Core Platforms):

- Juniper T-Series—Supported Software Versions, page 8-9
- Juniper T-Series—Supported Topologies, page 8-9
- Juniper T-Series—Supported Modules, page 8-10
- Juniper T-Series—Supported Technologies, page 8-10
- Juniper T-Series—Supported Service Events, page 8-11

Juniper T-Series—Supported Software Versions

Table 8-9 Supported Software Versions for Juniper T-Series—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
8.2R3.6	3.6.2	S
7.6R3.6	3.6.2	S
8.2R3.5	3.6.2	S

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Juniper T-Series—Supported Topologies

Table 8-10 Supported Topologies for Juniper T-Series—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.6.1

Juniper T-Series—Supported Modules

Table 8-11 Supported Modules for Juniper T-Series—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
CIP-L-T640-S	3.6.1	Connector Interface Panel	S
FT-T640	3.6.1	Fan Tray - T640	S
PC-10GE-SFP	3.6.1	PIC: 10x 1GE(LAN), 1000 BASE	S
PC-1XGE-XENPAK	3.6.1	PIC, 1-Port 10GE, XENPAK Optics	S
RE-1600-2048-BB	3.6.1	Routing Engine, 1600Mhz, 2048 MB DRAM	S
SCG-T	3.6.1	T Series Sonet Clock Generator	S
SCG-T-BB	3.6.1	T640 SONET Clock Generator Board	S
SFP-1GE-LH	3.6.1	SFP Pluggable 1000Base-LH GE Optic Module	S
SFP-1GE-LX	3.6.1	SFP Pluggable 1000Base-LX GE Optic Module	S
T640-FPC3-E2	3.6.1	FPC: E2-FPC Type 1, FPC: E-FPC Type 3	S
XENPAK-1XGE-LR	3.6.1	XENPAK Pluggable 10GBase-LR Optic Module	S
MEM-FPC-512-S	3.6.1	512MB DRAM for FPC	S
PC-8GE-TYPE3-SFP-IQ2	3.6.0	Gigabit Ethernet IQ2, 8-port SFP	S
T640-FPC3-E2	3.6.0	Enhanced II FPC3	S
RE-1600-2048-R	3.6.0	Routing Engine, 1600 Mhz, 2048 MB DRAM - redundant	S
PIC: 1X OC-192 SM SR1	3.6.1	PIC: 1x OC-192 SM SR1	S
PIC: 1X TUNNEL	3.6.1	Tunnel Services PIC	S

Juniper T-Series—Supported Technologies

The following technologies are supported by the Juniper T-Series in Cisco ANA Version 3.6.7:

- IP, page 8-12
- Routing Protocols, page 8-14
- Ethernet (IEEE 802.3), page 8-15
- ATM, page 8-19
- Frame Relay, page 8-22
- Point to Point, page 8-23
- MPLS, page 8-24
- VPN, page 8-25
- Physical Equipment, page 8-27
- Base Logical Components, page 8-28
- Common, page 8-29

Juniper T-Series—Supported Service Events

Table 8-12 Supported Service Events for Juniper T-Series—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
All IP Interfaces Down / Active IP Interfaces Found	3.6.1	Y
Interface Status Down/Up	3.6.1	Y
Card In/Out	3.6.1	Y
Link Down/Up	3.6.1	Y
Device Unreachable	3.6.1	N
CPU Over Utilized	3.6.1	N
Memory Over Utilized	3.6.1	N
Device Unsupported	3.6.1	N
Discard Packets	3.6.1	N
Dropped Packets	3.6.1	N
Module Unsupported	3.6.1	Y
Port Flapping	3.6.1	N
Port Down	3.6.1	Y
Rx Over Utilized	3.6.1	N
Tx Over Utilized	3.6.1	N
VPN Leak	3.6.1	N
BGP Neighbor Down	3.6.1	N
Card Up/Down	3.6.1	Y

Supported Technologies on Juniper Devices

The following sections list the objects and attributes that are supported on Juniper devices in Cisco ANA Version 3.6.7 per technology:

- IP, page 8-12
- Routing Protocols, page 8-14
- Ethernet (IEEE 802.3), page 8-15
- ATM, page 8-19
- Frame Relay, page 8-22
- Point to Point, page 8-23
- MPLS, page 8-24
- VPN, page 8-25
- Physical Equipment, page 8-27
- Base Logical Components, page 8-28

- Common, page 8-29
- Additional Technologies, page 8-30

IP

Table 8-13 IP Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7

Attribute	M-Series	E-Series	T-Series
IMO Name—IIPInterface			
IP Address	Y	Y	Y
Subnetwork Mask	Y	Y	Y
IP Interface Addresses Array	Y		Y
Interface Name	Y	Y	Y
Interface Description			
IP Interface State	Y	Y	Y
OSPF Interface Cost			
Broadcast Address			
MTU			
Lookup Method			
Address Resolution Type			
ARP Timeout			
Secured ARP			
ICMP Mask Reply			
IGMP Proxy			
HSRP Groups			
IP Multiplexing Table			
IANA Type			
Containing CTPs			
Contained CTPs			
IMO Name—IIPMuxEntry			
Termination Point			
Destination IP Subnet			
IMO Name—IRoutingEntity			
Routing Table	Y	Y	Y
ARP Entity	Y		Y
Routing Table Changes			
Name	Y	Y	Y

Table 8-13 IP Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	M-Series	E-Series	T-Series
Logical Sons	Y	Y	Y
IMO Name—IRoutingEntry			
Destination IP Subnet	Y	Y	Y
Next Hop IP Address	Y	Y	Y
Type	Y	Y	Y
Routing Protocol Type	Y	Y	Y
Outgoing Interface Name	Y	Y	Y
IMO Name—IARPEntity			
ARP Table	Y		Y
IMO Name—IARPEntry			
IP Address	Y		Y
MAC Address	Y		Y
Port	Y		Y
Entry Type	Y		Y
IMO Name—IIPPool			
IP Address Pool Entries			
Name			
Index			
IMO Name—IIPRangeBasedIPPoolEntry			
Start IP Address			
End IP Address			
Unused Addresses			
Used Addresses			
Reserved Addresses			
IMO Name—IIPSubnetBasedIPPoolEntry			
IP Subnet			
Unused Addresses			
Used Addresses			
Reserved Addresses			
IMO Name—HSRPGroupEntry			
Group Number			
Port Description			
Priority			
Coupled Router			
State			

Table 8-13 IP Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	M-Series	E-Series	T-Series
Tracking Interfaces			
Virtual IP Address			
Virtual MAC Address			
IMO Name—ITunnelGRE			
Name			
Tunnel Destination and Source			
IP Address			
IP Interface State			
IANA Type			
Containing CTPs			
Contained CTPs			
Keep Alive Time			
Keep Alive Retry			

Routing Protocols

Table 8-14 Routing Protocols Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7

Attribute	M-Series	E-Series	T-Series
IMO Name—IBgpNeighborEntry			
Remote Identifier	Y		Y
Neighbor Type	Y		Y
Distributing Interfaces			
Remote Address	Y		Y
Remote Autonomous System	Y		Y
Peer State	Y		Y
Hold Time	Y		Y
Keep Alive Time	Y		Y
VrfName			
Address family			
IMO Name—IOspfEntry			
Area Identifier	Y		Y
IP Address	Y		Y

Table 8-14 Routing Protocols Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7

Attribute	M-Series	E-Series	T-Series
Type	Y		Y
Administrative Status	Y		Y
Ospf Entry State	Y		Y

Ethernet (IEEE 802.3)

Table 8-15 Ethernet (IEEE 802.3) Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7

Attribute	M-Series	E-Series	T-Series
IMO Name—ILinkAggregationGroup802dot3ad			
dot3adAggMACAddress			
dot3adAggActorSystemPriority			
dot3adAggActorSystemID			
dot3adAggActorAdminKey			
dot3adAggActorOperKey			
dot3adAggPartnerSystemID			
dot3adAggPartnerSystemPriority			
dot3adAggPartnerOperKey			
dot3adAggCollectorMaxDelay			
GroupNumber			
AggregationProtocolType			
MacAddress			
ChannelAdminStatus			
ChannelOperStatus			
IMO Name—IEthernet			
MAC Address	Y	Y	Y
Duplex Mode			
Output Flow Control			
Input Flow Control			
IANA Type			
Containing CTPs			
Contained CTPs			
Port Type			

Table 8-15 Ethernet (IEEE 802.3) Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7

Attribute	M-Series	E-Series	T-Series
IMO Name—IVlanInterface			
Mode			
Native VLAN Identification			
Virtual LAN Table			
IANA Type			
Containing CTPs			
Contained CTPs			
vlanAdminType			
vlanencapType			
getAccess			
Allowed Vlans			
IMO Name—IVlanEncapMux			
IANA Type			
Containing CTPs			
Contained CTPs			
IMO Name—IIEEE802			
VLAN Identification			
Binding Information			
Binding Status			
IANA Type			
Containing CTPs			
Contained CTPs			
IMO Name—IStpService			
StpProtocol			
StpMaxAge			
StpHelloTime			
StpBridgeForwardDelay			
StpInstanceInfoTable			
Same as ISystemService			
StpUplinkFastState			
StpBackboneFastState			
StpForwardDelay			
StpBridgeMaxAge			
StpBridgeHelloTime			

Table 8-15 Ethernet (IEEE 802.3) Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7

Attribute	M-Series	E-Series	T-Series
IMO Name—IMstService			
MstProperties			
Same as IStpService			
IMO Name—IPvstpService			
UpLinkFast			
BackboneFast			
IMO Name—IMstProperties			
MstForceVersion			
MstCfgIdFmtSel			
MstExternalRootCost			
MstMaxInstances			
MstCfgIdName			
MstCfgIdRevLevel			
IMO Name—IStpInstanceInfo			
Object Identification			
StpBridgeId			
BridgePriority			
Designated Parent and Root Bridges			
StpRootCost			
IsRoot			
StpRootPort			
StpPortInfoTable			
STP Instance Id			
Vlan Id			
StpDesignatedBridge			
StpDesignatedRoot			
IMO Name—IMstInstanceInfo			
MstVlanIds			
Same as IStpInstanceInfo			
IMO Name—IPvstpInstanceInfo			
Protocol Type			
StpBridgeMaxAge			
StpBridgeHelloTime			
StpBridgeForwardDelay			
StpProtocolSpecification			

Table 8-15 Ethernet (IEEE 802.3) Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7

Attribute	M-Series	E-Series	T-Series
StpVlanId			
StpForwardDelay			
StpMaxAge			
IMO Name—IRstpInstanceInfo			
StpForceVersion			
Same as IStpInstanceInfo			
IMO Name—IStpPortInfo			
StpPort			
StpPortPriority			
StpPortState			
StpPortPathCost			
StpPortEdgePort			
StpPortPointToPoint			
StpPortRole			
StpDesignatedPortIdentifier			
StpDesignatedBridge			
StpPortIdentifier			
StpPortBpduGuardState			
StpPortBpduFilterState			
IMO Name—IMstPortInfo			
MstPortHelloTime			
Same as IStpPortInfo			
IMO Name—IPvstpPortInfo			
PvstpPortFastState			
IMO Name—IEthernetChannel			
Group Number			
Bandwidth			
Aggregation Protocol			
IANA Type			
Containing CTPs			
Contained CTPs			
Mac Address			
Admin Status			
Oper Status			

ATM

Table 8-16 ATM Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7

Attribute	M-Series	E-Series	T-Series
IMO Name—IAtm			
ATM Address			
Interface Type			
VP and VC Ranges			
VC Table	Y		Y
Cross-Connect Table			
IANA Type	Y		Y
Containing CTPs			
Contained CTPs			
Tx Allocated Bandwidth	Y		
Tx Maximum Bandwidth	Y		
Tx UBR Allocated Bandwidth	Y		
Tx CBR Allocated Bandwidth	Y		
Rx Allocated Bandwidth	Y		
Rx Maximum Bandwidth	Y		
Rx UBR Allocated Bandwidth	Y		
Rx CBR Allocated Bandwidth	Y		
IMO Name—IAtmVc			
Virtual Channel Identifier	Y		Y
Virtual Path Identifier	Y		Y
Shaping Profile			
Discarded and Received Input Data Counters			
Dropped and Forward Output Data Counters			
Ingress Traffic Descriptor			
Egress Traffic Descriptor			
Administrative Status	Y		Y
Operational Status	Y		Y
IANA Type			
Containing CTPs			
Contained CTPs			

Table 8-16 ATM Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	M-Series	E-Series	T-Series
IMO Name—IAtmTrafficDescriptor			
Traffic Descriptor Type			
Service Category			
Cell Loss Priority			
Cell Delay Variation			
Cell Dealy Variation Tolerance			
Maximum High Priority and Aggregate Cell Rates			
Minimum High Priority and Aggregate Cell Rates			
Sustainable High Priority and Aggregate Cell Rates			
Peak High Priority and Aggregate Cell Rates			
Name			
Index			
IMO Name—IAtmTrafficShapingDescriptor			
Maximum Burst Size			
Sustainable and Peak Cell Rates			
Cell Delay Variation			
State			
Buffer Size			
Cell Loss Priority Discarded Size			
Name			
Index			
IMO Name—IAtmTrunk			
Same as IAtm			
IMO Name—IAtmLogicalPort/Trunk			
Resource Management Cell Termination			
Resource Management Cell Generation			
Effective Check Input and Output Capacities			
Admin Status			
Oper Status			

Table 8-16 ATM Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	M-Series	E-Series	T-Series
Same as IAtm			
IMO Name—IAtmTrunkVc			
Destination Description			
Same as IAtmVc			
IMO Name—IIMAGroup			
AdminStatus			
OperStatus			
GroupNumber			
ImaVersion			
Speed			
ConfiguredBandwidth			
NumberOfLinks			
NumberOfActiveLinks			
MinimumNumberOfTxLinks			
MinimumNumberOfRxLinks			
ClockMode			
FrameLength			
interfaceName			
groupStatus			

Frame Relay

Table 8-17 Frame Relay Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7

Attribute	M-Series	E-Series	T-Series
IMO Name—Iframerelay/IFrTrunk			
Protocol Type	Y		Y
VC Table	Y		Y
Cross-Connect Table			
IANA Type			
Containing CTPs			
Contained CTPs			
IMO Name—IFrVc			
Data Link Connection Identifier	Y		Y
Traffic Descriptor			
Discard and Received Input Data Counters			
Dropped and Forward Output Data Counters			
Ingress Traffic Descriptor			
Egress Traffic Descriptor			
Administrative Status	Y		Y
Operational Status	Y		Y
IANA Type			
Containing CTPs			
Contained CTPs			
IMO Name—IFRTrafficDescriptor			
Committed Rate			
Excess Burst Rate			
Name			
Index			
IMO Name—IFramerelayLogicalPort/Trunk			
Admin Status			
Oper Status			
Same as IFrameRelay			
IMO Name—IFrTrunkVc			
Destination Description			
Same as IFrVc			

Table 8-17 Frame Relay Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7

Attribute	M-Series	E-Series	T-Series
IMO Name—IEncapsulation			
Virtual Connection Interface	Y		Y
Binding Information			

Point to Point

Table 8-18 Point to Point Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7

Attribute	M-Series	E-Series	T-Series
IMO Name—IVcBasedEncapsulation			
Virtual Connection	Y		Y
Binding Information			
Binding Status			
IANA Type			
Containing CTPs			
Contained CTPs			
IMO Name—Iencapsulation (HDLC/PPP)			
Virtual Connection	Y		Y
Binding Information			
Binding Status			
IANA Type			
Containing CTPs			
Contained CTPs			

MPLS

Table 8-19 MPLS Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7

Attribute	M-Series	E-Series	T-Series
IMO Name—IMpls			
Distribution Protocol	Y		Y
Outer and Inner Labels	Y		Y
Traffic Engineering Properties			
Resource reservation Properties			
IANA Type			
Containing CTPs			
Contained CTPs			
IMO Name—ILse			
MPLS Table	Y		Y
MPLS Aggregate Table	Y		Y
MPLS Tunnel Segments	Y		Y
LDP Service	Y		Y
Logical Sons			
IMO Name—ILdpService			
Local Identification Status	Y	Y	
LDP Peers	Y		Y
IMO Name—ILdpPeer			
Peer Identification	Y		Y
Transport Address	Y		Y
Distribution Method	Y		Y
Protocol Type	Y		Y
Path Vector Limit			
Session Status	Y		Y
Protocol Version Hold Time			
Hold Time	Y		Y
Hello Time Interval	Y		Y
Peer Discovery Sources	Y		Y
IMO Name—ILdpDiscoverySource			
Interface Name	Y		Y
Source Address	Y		Y
Type	Y		Y

Table 8-19 MPLS Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	M-Series	E-Series	T-Series
IMO Name—IMplsEntry			
Incoming Label	Y		Y
Outgoing Interface and Label	Y		Y
Switching Action	Y		Y
Next Hop IP Address	Y		Y
Destination Mask	Y		Y
Destination address	Y		Y
IMO Name—IMplsAggregateEntry			
Virtual Routing Entity	Y		Y
Incoming Label	Y		Y
Outgoing Interface and Label	Y		Y
Switching Action	Y		Y
Next Hop IP Address			
IMO Name—ILdpService			
Local Identification Status			

VPN

Table 8-20 VPN Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7

Attribute	M-Series	E-Series	T-Series
IMO Name—IVrf			
Virtual Routing Table	Y	Y	Y
Exported Route Targets	Y	Y	Y
Imported Route Targets	Y	Y	Y
Route Distinguisher	Y	Y	Y
ARP Entity	Y		Y
Name	Y	Y	Y
Logical Sons			
IMO Name—IVrfEntry			
Next Hop BGP Address	Y	Y	Y
Incoming and Outgoing Inner Label	Y		Y

Table 8-20 VPN Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	M-Series	E-Series	T-Series
Outer Label	Y		Y
Destination IP Subnet	Y	Y	Y
Next Hop IP Address	Y	Y	Y
Type	Y	Y	Y
Routing Protocol Type	Y	Y	Y
Outgoing Interface Name	Y	Y	Y
IMO Name—IMpBgp			
BGP Identifier			
Local Autonomous System			
Cross Virtual Routing Table			
BGP Neighbors	Y		Y
Logical Sons			
IMO Name—ICrossVrf			
Virtual Routing Entries			
Virtual Routing Entity Name			
IMO Name—ICrossVrfRoutingEntry			
Outgoing Virtual Routing Entity Identifier			
Incoming and Outgoing Virtual Routing Tags			
Destination IP Subnet			
Next Hop IP Address			
Type			
Routing Protocol Type			
Outgoing Interface Name			

Physical Equipment

Table 8-21 Physical Equipment Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7

Attribute	M-Series	E-Series	T-Series
IMO Name—IChassis			
Description	Y		Y
Equipment Holder Type	Y	Y	Y
Contained Equipment Holders			
Contained Equipments			
Serial Number			
IMO Name—IShelf			
Description			
Status			
Equipment Holder Type		Y	
Contained Equipment Holders			
Contained Equipments			
Serial Number			
IMO Name—IModule			
Module Name	Y	Y	Y
Module Description	Y	Y	Y
Software Version			
Operational Status	Y	Y	Y
Hardware Type + Version	Y	Y	Y
Managed IP Address			
Redundant Equipment			
Configured Redundancy			
Redundancy Status			
Operational Status Last Changed			
Supported Physical Termination Points			
Serial Number (soft property)	Y	Y	Y
Slots Number			

Base Logical Components

Table 8-22 Base Logical Components Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7

Attribute	M-Series	E-Series	T-Series
IMO Name—IManagedElement			
IP Address	Y	Y	Y
Communication State	Y	Y	Y
Investigation State	Y	Y	Y
Element Category	Y	Y	Y
Element Type and Key	Y	Y	Y
Device Name	Y	Y	Y
System Name	Y	Y	Y
System Description	Y	Y	Y
Up Time	Y	Y	Y
Software Version	Y	Y	Y
Vendor Identity	Y	Y	Y
Memory and CPU Usage	Y		Y
DRAM Free			
DRAM Used			
Flash Device Size			
NVRAM Size			
Processor DRAM			
Sys Contact			
Sys Location			
Serial Number			
File Systems			
IMO Name—IContext			
Name		Y	
Bounded Connections			
IP Address Pools			
Forwarding Components List			
Traffic Descriptors List			
Tunnel Containers List			
Data Link Aggregation Containers List			

Table 8-22 Base Logical Components Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	M-Series	E-Series	T-Series
IMO Name—ISystemService			
Type			
Status			
Up Time			

Common

Table 8-23 Common Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7

Attribute	M-Series	E-Series	T-Series
IMO Name—IPhysicalLayer			
Media Type	Y		Y
Clocking Source	Y		Y
Maximum Speed	Y	Y	Y
Is Internal Port	Y	Y	Y
Discarded Bandwidth			
Dropped Bandwidth			
Input Bandwidth			
Output Bandwidth			
Discarded and Received Input Data Counters	Y	Y	Y
Dropped and Forward Output Data Counters	Y	Y	Y
Administrative Status	Y	Y	Y
Operational Status	Y	Y	Y
Last Changed	Y	Y	Y
IANA Type	Y	Y	Y
Containing CTPs			
Contained CTPs			
Port Alias			
Location			
Sending Alarms			
Connector Description			

Table 8-23 Common Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	M-Series	E-Series	T-Series
Part ID			
Connectort Serial Num			
Product			
Status			
Managed			
IMO Name—IBridge			
Bridge Table			
Type			
MAC Address			
IP Interface			
Name			
Logical Sons			
Vlan Type			
IMO Name—IBridgeEntry			
Destination MAC			
Outgoing Interface			
IMO Name—IVcSwitchingEntity			
Cross Connect Table			
Cross Connect Table Size			
Logical Sons			

Additional Technologies

Table 8-24 Additional Technologies Attribute Support on Juniper Devices—Cisco ANA Version 3.6.7

Attribute	M-Series	E-Series	T-Series
IMO Name—POS			
POS		Y	

CHAPTER 9

Support Information for Redback Devices

This chapter contains support information for Virtual Network Elements (VNEs) that manage Redback devices in Cisco ANA Version 3.6.7. For more information about the objects and attributes described in this chapter, see *Cisco Active Network Abstraction 3.6.7 Technology Support and Information Model Reference Manual*.

This chapter contains the following topics:

- SmartEdge 800 Multiservice Edge Router, page 9-1
- Redback SMS Family, page 9-4
- Supported Technologies on Redback Devices, page 9-7

SmartEdge 800 Multiservice Edge Router

This section includes the following information about SmartEdge 800 devices (for information on the NE types supported in Cisco ANA Version 3.6.7, see SmartEdge 800 Multiservice Edge Router):

- SmartEdge 800—Supported Software Versions, page 9-2
- SmartEdge 800—Supported Topologies, page 9-2
- SmartEdge 800—Supported Modules, page 9-2
- SmartEdge 800—Supported Technologies, page 9-3
- SmartEdge 800—Supported Service Events, page 9-3

SmartEdge 800—Supported Software Versions

Table 9-1 Supported Software Versions for SmartEdge 800—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
SEOS 4.0.5.5	3.5.2	V
SEOS 2.5.7.6	3.5.2	V

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

SmartEdge 800—Supported Topologies

Table 9-2 Supported Topologies for SmartEdge 800—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
ATM	ATM	3.5.2
Ethernet	Ethernet	3.5.2
Physical Layer	Physical Layer	3.5.2

SmartEdge 800—Supported Modules

Table 9-3 Supported Modules for SmartEdge 800—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
ETHER-12-PORT	3.5.2	12 port 10/100TX Ethernet	V
ATM-OC3-2-PORT	3.5.2	2 port OC-3c/STM-1 ATM	V
ATM-OC3-4-PORT	3.5.2	4 port OC-3c/STM-1 ATM	V
ATM-DS3-12-PORT	3.5.2	12 port DS3 ATM	V
ATM-OC12-1-PORT	3.5.2	1 port OC-12 ATM	V
ATM-OC12E-1-PORT	3.5.2	1 port OC-12e ATM	V
OC3-8-PORT	3.5.2	8 port OC-3c/STM-1	V
GIGAETHER-4-PORT	3.5.2	4 port Gigabit Ethernet	V
GIGAETHER-10-PORT	3.5.2	10 port Gigabit Ethernet	V
XCRP	3.5.2	Cross Connect Route Processor	V
XCRP3	3.5.2	Cross Connect Route Processor	V

SmartEdge 800—Supported Technologies

The following technologies are supported by the SmartEdge 800 in Cisco ANA Version 3.6.7:

- IP, page 9-7
- Ethernet (IEEE 802.3), page 9-10
- ATM, page 9-14
- Point to Point, page 9-18
- L2TP, page 9-18
- Physical Technologies, page 9-20
- Physical Equipment, page 9-21
- Base Logical Components, page 9-22
- Common, page 9-23

SmartEdge 800—Supported Service Events

Table 9-4 Supported Service Events for SmartEdge 800—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
All IP Interfaces Down / Active IP Interfaces Found	3.5.2	N
Interface Status Down/Up	3.5.2	N
Card In/Out	3.5.2	N
Link Down/Up	3.5.2	N
Device Unreachable	3.5.2	N
Device Unsupported	3.5.2	N
Discard Packets	3.5.2	N
Dropped Packets	3.5.2	N
Module Unsupported	3.5.2	N
Port Flapping	3.5.2	N
Port Down	3.5.2	N
Card Up/Down	3.5.2	N

Redback SMS Family

This section includes the following information about Redback SMS devices (for information on the NE types supported in Cisco ANA Version 3.6.7, see Redback SMS Family):

- Redback SMS—Supported Software Versions, page 9-4
- Redback SMS—Supported Topologies, page 9-4
- Redback SMS—Supported Modules, page 9-5
- Redback SMS—Supported Technologies, page 9-5
- Redback SMS—Supported Service Events, page 9-6

Redback SMS—Supported Software Versions

Table 9-5 Supported Software Versions for Redback SMS—Cisco ANA Version 3.6.7

Software Version	ANA Version	Certification Level
6.0.9.18 MAINTENANCE RELEASE	3.5.2	V

Note Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.7. Specific software versions that have been tested and verified are listed individually and marked as V.

Redback SMS—Supported Topologies

Table 9-6 Supported Topologies for Redback SMS—Cisco ANA Version 3.6.7

Topology Type	Link Type	ANA Version
Ethernet	Ethernet	3.5.2

Redback SMS—Supported Modules

Table 9-7 Supported Modules for Redback SMS—Cisco ANA Version 3.6.7

Module Name	ANA Version	Module Description	Certification Level
AT2DS3	3.5.2	Two-Port ATM2 DS-3 I/O Module	V
AT2OC3	3.5.2	Two-Port ATM2 OC-3c SMF and MMF I/O Modules	V
AXOC12	3.5.2	Two-Port ATM2 OC-3c SMF and MMF I/O Modules	V
ATDS3	3.5.2	Two-Port ATM2 DS-3 I/O Module	V
ATOC3	3.5.2	Two-Port ATM2 OC-3c SMF and MMF I/O Modules	V
CE1	3.5.2	Control Engine 1 Module	V
CE2	3.5.2	Control Engine 2 Module	V
CE3	3.5.2	Control Engine 3 Module	V
ENET	3.5.2	Two-Port 10/100-Mbps Ethernet I/O Module	V
GIGEX	3.5.2	Two-Port 1Gbps Ethernet I/O Module	V
FE	3.5.2	Forwarding Engine 1 Module	V
FE2	3.5.2	Forwarding Engine 2 Module	V
FE3	3.5.2	Forwarding Engine 3 Module	V
GBENET	3.5.2	Two-Port 1Gbps Ethernet I/O Module	V
XGE	3.5.2	Two-Port 1Gbps Ethernet I/O Module	V
XFE	3.5.2	Forwarding Engine 2 Module	V
FABRIC	3.5.2	Switch Fabric 42G	V
TIMING	3.5.2	Timing module	V

Redback SMS—Supported Technologies

The following technologies are supported by the Redback SMS in Cisco ANA Version 3.6.7:

- IP, page 9-7
- Ethernet (IEEE 802.3), page 9-10
- ATM, page 9-14
- Frame Relay, page 9-16
- Point to Point, page 9-18
- L2TP, page 9-18
- Physical Technologies, page 9-20
- Physical Equipment, page 9-21
- Base Logical Components, page 9-22
- Common, page 9-23

Redback SMS—Supported Service Events

Table 9-8 Supported Service Events for Redback SMS—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Primary HSRP Interface Active/Inactive	3.5.2	N
Secondary HSRP Interface Active/Inactive	3.5.2	N
All IP Interfaces Down / Active IP Interfaces Found	3.5.2	Y
Interface Status Down/Up	3.5.2	Y
Card In/Out	3.5.2	Y
Link Down/Up	3.5.2	Y
Device Unreachable	3.5.2	N
CPU Over Utilized	3.5.2	N
Memory Over Utilized	3.5.2	N
Device Unsupported	3.5.2	N
Discard Packets	3.5.2	N
Dropped Packets	3.5.2	N
Module Unsupported	3.5.2	N
Port Flapping	3.5.2	N
Port Down	3.5.2	Y
Rx Over Utilized	3.5.2	N
Tx Over Utilized	3.5.2	N
VPN Leak	3.5.2	N
Cloud Problem	3.5.2	N
Broken LSP Discovered	3.5.2	N
MPLS Black Hole	3.5.2	N
Layer 2 Tunnel Down	3.5.2	N
MPLS TE Tunnel Down/Flapping	3.5.2	N
BGP Neighbor Down	3.5.2	N
Card Up/Down	3.5.2	Y

Supported Technologies on Redback Devices

The following sections list the objects and attributes that are supported on Redback devices in Cisco ANA Version 3.6.7 per technology:

- IP, page 9-7
- Ethernet (IEEE 802.3), page 9-10
- ATM, page 9-14
- Frame Relay, page 9-16
- Point to Point, page 9-18
- L2TP, page 9-18
- Physical Technologies, page 9-20
- Physical Equipment, page 9-21
- Base Logical Components, page 9-22
- Common, page 9-23

IP

Table 9-9 IP Attribute Support on Redback Devices—Cisco ANA Version 3.6.7

Attribute	SE 800	SMS
IMO Name—IIPInterface		
IP Address	Y	Y
Subnetwork Mask	Y	Y
IP Interface Addresses Array		Y
Interface Name	Y	Y
Interface Description	Y	Y
IP Interface State	Y	Y
OSPF Interface Cost		
Broadcast Address		
MTU		
Lookup Method		
Address Resolution Type		
ARP Timeout		
Secured ARP		
ICMP Mask Reply		
IGMP Proxy		
HSRP Groups		
IP Multiplexing Table		

Table 9-9 IP Attribute Support on Redback Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	SE 800	SMS
IANA Type		
Containing CTPs		
Contained CTPs		
IMO Name—IIPMuxEntry		
Termination Point		Y
Destination IP Subnet		Y
IMO Name—IRoutingEntity		
Routing Table	Y	Y
ARP Entity	Y	
Routing Table Changes		
Name	Y	
Logical Sons	Y	
IMO Name—IRoutingEntry		
Destination IP Subnet	Y	Y
Next Hop IP Address	Y	Y
Type	Y	Y
Routing Protocol Type	Y	Y
Outgoing Interface Name	Y	Y
IMO Name—IARPEntity		
ARP Table	Y	
IMO Name—IARPEntry		
IP Address	Y	
MAC Address	Y	
Port	Y	
Entry Type	Y	
IMO Name—IIPPool		
IP Address Pool Entries	Y	Y
Name	Y	Y
Index		
IMO Name—IIPRangeBasedIPPoolEntry		
Start IP Address		
End IP Address		
Unused Addresses		
Used Addresses		
Reserved Addresses		

Table 9-9 IP Attribute Support on Redback Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	SE 800	SMS
IMO Name—IIPSubnetBasedIPPoolEntry		
IP Subnet	Y	Y
Unused Addresses	Y	Y
Used Addresses	Y	Y
Reserved Addresses	Y	Y
IMO Name—HSRPGroupEntry		
Group Number		
Port Description		
Priority		
Coupled Router		
State		
Tracking Interfaces		
Virtual IP Address		
Virtual MAC Address		
IMO Name—ITunnelGRE		
Name		
Tunnel Destination and Source		
IP Address		
IP Interface State		
IANA Type		
Containing CTPs		
Contained CTPs		
Keep Alive Time		
Keep Alive Retry		

Ethernet (IEEE 802.3)

Table 9-10 Ethernet (IEEE 802.3) Attribute Support on Redback Devices—Cisco ANA Version 3.6.7

Attribute	SE 800	SMS
IMO Name—ILinkAggregationGroup802dot3ad		
dot3adAggMACAddress		
dot3adAggActorSystemPriority		
dot3adAggActorSystemID		
dot3adAggActorAdminKey		
dot3adAggActorOperKey		
dot3adAggPartnerSystemID		
dot3adAggPartnerSystemPriority		
dot3adAggPartnerOperKey		
dot3adAggCollectorMaxDelay		
GroupNumber		
AggregationProtocolType		
MacAddress		
ChannelAdminStatus		
ChannelOperStatus		
IMO Name—IEthernet		
MAC Address	Y	Y
Duplex Mode		
Output Flow Control		
Input Flow Control		
IANA Type		
Containing CTPs		
Contained CTPs		
Port Type		
IMO Name—IVlanInterface		
Mode		
Native VLAN Identification		
Virtual LAN Table		
IANA Type		
Containing CTPs		
Contained CTPs		
vlanAdminType		

Table 9-10 Ethernet (IEEE 802.3) Attribute Support on Redback Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	SE 800	SMS
vlanencapType		
getAccess		
Allowed Vlans		
IMO Name—IVlanEncapMux		
IANA Type		
Containing CTPs		
Contained CTPs		
IMO Name—IIEEE802		
VLAN Identification	Y	Y
Binding Information	Y[1]	Y
Binding Status	Y[2]	Y
IANA Type	Y	
Containing CTPs		
Contained CTPs		
IMO Name—IStpService		
StpProtocol		
StpMaxAge		
StpHelloTime		
StpBridgeForwardDelay		
StpInstanceInfoTable		
Same as ISystemService		
StpUplinkFastState		
StpBackboneFastState		
StpForwardDelay		
StpBridgeMaxAge		
StpBridgeHelloTime		
IMO Name—IMstService		
MstProperties		
Same as IStpService		
IMO Name—IPvstpService		
UpLinkFast		
BackboneFast		
IMO Name—IMstProperties		
MstForceVersion		
MstCfgIdFmtSel		

Table 9-10 Ethernet (IEEE 802.3) Attribute Support on Redback Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	SE 800	SMS
MstExternalRootCost		
MstMaxInstances		
MstCfgIdName		
MstCfgIdRevLevel		
IMO Name—IStpInstanceInfo		
Object Identification		
StpBridgeId		
BridgePriority		
Designated Parent and Root Bridges		
StpRootCost		
IsRoot		
StpRootPort		
StpPortInfoTable		
STP Instance Id		
Vlan Id		
StpDesignatedBridge		
StpDesignatedRoot		
IMO Name—IMstInstanceInfo		
MstVlanIds		
Same as IStpInstanceInfo		
IMO Name—IPvstpInstanceInfo		
Protocol Type		
StpBridgeMaxAge		
StpBridgeHelloTime		
StpBridgeForwardDelay		
StpProtocolSpecification		
StpVlanId		
StpForwardDelay		
StpMaxAge		
IMO Name—IRstpInstanceInfo		
StpForceVersion		
Same as IStpInstanceInfo		
IMO Name—IStpPortInfo		
StpPort		
StpPortPriority		

Table 9-10 Ethernet (IEEE 802.3) Attribute Support on Redback Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	SE 800	SMS
StpPortState		
StpPortPathCost		
StpPortEdgePort		
StpPortPointToPoint		
StpPortRole		
StpDesignatedPortIdentifier		
StpDesignatedBridge		
StpPortIdentifier		
StpPortBpduGuardState		
StpPortBpduFilterState		
IMO Name—IMstPortInfo		
MstPortHelloTime		
Same as IStpPortInfo		
IMO Name—IPvstpPortInfo		
PvstpPortFastState		
IMO Name—IEthernetChannel		
Group Number		
Bandwidth		
Aggregation Protocol		
IANA Type		
Containing CTPs		
Contained CTPs		
Mac Address		
Admin Status		
Oper Status		

[1, 2]No Subscriber binding info

ATM

Table 9-11 ATM Attribute Support on Redback Devices—Cisco ANA Version 3.6.7

Attribute	SE 800	SMS
IMO Name—IAtm		
ATM Address		
Interface Type		
VP and VC Ranges	Y	Y
VC Table	Y	
Cross-Connect Table		
IANA Type	Y	
Containing CTPs		
Contained CTPs		
Tx Allocated Bandwidth	Y	
Tx Maximum Bandwidth	Y	
Tx UBR Allocated Bandwidth	Y	
Tx CBR Allocated Bandwidth	Y	
Rx Allocated Bandwidth	Y	
Rx Maximum Bandwidth	Y	
Rx UBR Allocated Bandwidth	Y	
Rx CBR Allocated Bandwidth	Y	
IMO Name—IAtmVc		
Virtual Channel Identifier	Y	
Virtual Path Identifier	Y	
Shaping Profile		
Discarded and Received Input Data Counters	Y	
Dropped and Forward Output Data Counters	Y	
Ingress Traffic Descriptor	Y	
Egress Traffic Descriptor	Y	
Administrative Status	Y	Y
Operational Status	Y	Y
IANA Type	Y	
Containing CTPs		
Contained CTPs		
IMO Name—IAtmTrafficDescriptor		
Traffic Descriptor Type	Y	Y

Table 9-11 ATM Attribute Support on Redback Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	SE 800	SMS
Service Category	Y	Y
Cell Loss Priority	Y	Y
Cell Delay Variation	Y	Y
Cell Dealy Variation Tolerance	Y	Y
Maximum High Priority and Aggregate Cell Rates	Y	Y
Minimum High Priority and Aggregate Cell Rates	Y	Y
Sustainable High Priority and Aggregate Cell Rates	Y	Y
Peak High Priority and Aggregate Cell Rates	Y	Y
Name	Y	Y
Index		Y
IMO Name—IAtmTrafficShapingDescriptor		
Maximum Burst Size		
Sustainable and Peak Cell Rates		
Cell Delay Variation		
State		
Buffer Size		
Cell Loss Priority Discarded Size		
Name		
Index		
IMO Name—IAtmTrunk		
Same as IAtm		
IMO Name—IAtmLogicalPort/Trunk		
Resource Management Cell Termination		
Resource Management Cell Generation		
Effective Check Input and Output Capacities		
Admin Status		
Oper Status		
Same as IAtm		

Table 9-11 ATM Attribute Support on Redback Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	SE 800	SMS
IMO Name—IAtmTrunkVc		
Destination Description		
Same as IAtmVc		
IMO Name—IIMAGroup		
AdminStatus		
OperStatus		
GroupNumber		
ImaVersion		
Speed		
ConfiguredBandwidth		
NumberOfLinks		
NumberOfActiveLinks		
MinimumNumberOfTxLinks		
MinimumNumberOfRxLinks		
ClockMode		
FrameLength		
interfaceName		
groupStatus		

Frame Relay

Table 9-12 Frame Relay Attribute Support on Redback Devices—Cisco ANA Version 3.6.7

Attribute	SE 800	SMS
IMO Name—Iframerelay/IFrTrunk		
Protocol Type		
VC Table		
Cross-Connect Table		
IANA Type		
Containing CTPs		
Contained CTPs		
IMO Name—IFrVc		
Data Link Connection Identifier		
Traffic Descriptor		

Table 9-12 Frame Relay Attribute Support on Redback Devices—Cisco ANA Version 3.6.7

Attribute	SE 800	SMS
Discard and Received Input Data Counters		
Dropped and Forward Output Data Counters		
Ingress Traffic Descriptor		
Egress Traffic Descriptor		
Administrative Status		
Operational Status		
IANA Type		
Containing CTPs		
Contained CTPs		
IMO Name—IFRTrafficDescriptor		
Committed Rate		
Excess Burst Rate		
Name		
Index		
IMO Name—IFramerelayLogicalPort/Trunk		
Admin Status		
Oper Status		
Same as IFrameRelay		
IMO Name—IFrTrunkVc		
Destination Description		
Same as IFrVc		
IMO Name—IEncapsulation		
Virtual Connection Interface		Y
Binding Information		Y

Point to Point

Table 9-13 Point to Point Attribute Support on Redback Devices—Cisco ANA Version 3.6.7

Attribute	SE 800	SMS
IMO Name—IVcBasedEncapsulation		
Virtual Connection	Y	Y
Binding Information	Y	Y
Binding Status	Y	Y
IANA Type	Y	Y
Containing CTPs		
Contained CTPs		
IMO Name—Iencapsulation (HDLC/PPP)		
Virtual Connection		
Binding Information		
Binding Status		
IANA Type		
Containing CTPs		
Contained CTPs		

L2TP

Table 9-14 L2TP Attribute Support on Redback Devices—Cisco ANA Version 3.6.7

Attribute	SE 800	SMS
IMO Name—IL2TPTunnel		
Local and Remote Tunnel Identifications	Y	Y
Local and Remote Tunnel Names		Y
Remote Address	Y	Y
Control Errors	Y	Y
Last Error Code		Y
Tunnel State	Y	Y
Sessions Count	Y	Y
Sessions Table	Y	Y
IMO Name—IL2TPSessionEntry		
Local and Remote Session Identification	Y	

Table 9-14 L2TP Attribute Support on Redback Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	SE 800	SMS
Subscriber Name	Y	Y
Session Type		
Session State	Y	Y
Input and Output Data Counters		Y
IMO Name—IL2TPPeer		
Local and Peer Address	Y	Y
Local and Peer Names	Y	Y
Tunnel Type	Y	Y
Tunnel Mode		Y
Maximum and Current Tunnels Counts	Y	Y
Maximum and Current Sessions Count	Y	Y
Session Authentication Type		
Tunnel Password		
RADIUS Identification		
Hello Time Interval	Y	Y
Control Errors	Y	Y
Media Type		
Group Identification	Y	
Domain Table	Y	
Logical Sons	Y	
IMO Name—IL2TPGroup		
Group Name	Y	Y
Tunnel Algorithm	Y	Y
Dead Time	Y	Y
RADIUS Identification		
Peers List	Y	Y
Domains Table	Y	Y
Name	Y	
Index		
IMO Name—IL2TPDomainEntry		
Domain Name	Y	Y
Attached To Object	Y	
Name	Y	
Index		

Physical Technologies

Table 9-15 Physical Technologies Attribute Support on Redback Devices—Cisco ANA Version 3.6.7

Attribute	SE 800	SMS
IMO Name—ISonetSdh		
Specific Type		
Loopback Type	Y	
Scrambling Mode	Y	
Same as IPhysicalLayer		
IMO Name—IDS0Bundle		
Bundled Time Slots		
Bundle Location		
IANA Type		
Containing CTPs		
Contained CTPs		
IMO Name—IDS1Pdh / IDS3Pdh		
Framing Type	Y	Y
Cell Mapping Type		Y
Loopback Type		Y
Scrambling Mode		Y
Same as IPhysicalLayer		
portDescription		
internationalBit		
nationalBits		
framing		
lineCode		
cableLength		
recoveredClockingId		
clocking		
loopback		
alarmState		

Physical Equipment

Table 9-16 Physical Equipment Attribute Support on Redback Devices—Cisco ANA Version 3.6.7

Attribute	SE 800	SMS
IMO Name—IChassis		
Description	Y	
Equipment Holder Type		Y
Contained Equipment Holders		
Contained Equipments		
Serial Number		
IMO Name—IShelf		
Description		
Status		
Equipment Holder Type		
Contained Equipment Holders		
Contained Equipments		
Serial Number		
IMO Name—IModule		
Module Name	Y	Y
Module Description	Y	Y
Software Version	Y	Y
Operational Status	Y	Y
Hardware Type + Version	Y	Y
Managed IP Address		
Redundant Equipment		
Configured Redundancy		
Redundancy Status		
Operational Status Last Changed		
Supported Physical Termination Points		
Serial Number (soft property)	Y	Y
Slots Number		

Base Logical Components

Table 9-17 Base Logical Components Attribute Support on Redback Devices—Cisco ANA Version 3.6.7

Attribute	SE 800	SMS
IMO Name—IManagedElement		
IP Address	Y	Y
Communication State	Y	Y
Investigation State	Y	Y
Element Category	Y	Y
Element Type and Key	Y	Y
Device Name	Y	Y
System Name	Y	Y
System Description	Y	Y
Up Time	Y	Y
Software Version	Y	Y
Vendor Identity	Y	Y
Memory and CPU Usage		
DRAM Free		
DRAM Used		
Flash Device Size		
NVRAM Size		
Processor DRAM		
Sys Contact		
Sys Location		
Serial Number		
File Systems		
IMO Name—IContext		
Name	Y	Y
Bounded Connections		
IP Address Pools		
Forwarding Components List		
Traffic Descriptors List		
Tunnel Containers List		
Data Link Aggregation Containers List		
IMO Name—ISystemService		
Type		

Table 9-17 Base Logical Components Attribute Support on Redback Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	SE 800	SMS
Status		
Up Time		Y

Common

Table 9-18 Common Attribute Support on Redback Devices—Cisco ANA Version 3.6.7

Attribute	SE 800	SMS
IMO Name—IPhysicalLayer		
Media Type	Y	Y
Clocking Source	Y[1]	Y
Maximum Speed	Y	Y
Is Internal Port	Y	Y
Discarded Bandwidth		
Dropped Bandwidth		
Input Bandwidth		
Output Bandwidth		
Discarded and Received Input Data Counters	Y	
Dropped and Forward Output Data Counters	Y	
Administrative Status	Y	Y
Operational Status	Y	Y
Last Changed	Y	Y
IANA Type	Y	Y
Containing CTPs		
Contained CTPs		
Port Alias		
Location		
Sending Alarms		
Connector Description		
Part ID		
Connectort Serial Num		
Product		

Table 9-18 Common Attribute Support on Redback Devices—Cisco ANA Version 3.6.7

Attribute	SE 800	SMS
Status		
Managed		
IMO Name—IBridge		
Bridge Table	Y	Y
Type	Y	Y
MAC Address		Y
IP Interface		Y
Name	Y	Y
Logical Sons		Y
Vlan Type		
IMO Name—IBridgeEntry		
Destination MAC	Y	Y
Outgoing Interface	Y	Y
IMO Name—IVcSwitchingEntity		
Cross Connect Table		
Cross Connect Table Size		
Logical Sons		

[1]Supported for Sonet Interfaces only

CHAPTER 10

Support Information for Generic Devices

This chapter contains support information for Virtual Network Elements (VNEs) that manage Generic devices in Cisco ANA Version 3.6.7. For more information about the objects and attributes described in this chapter, see *Cisco Active Network Abstraction 3.6.7 Technology Support and Information Model Reference Manual*.

This chapter contains the following topics:

- Understanding the Generic VNE, page 10-1
- Supported Technologies on Generic Devices, page 10-5

Understanding the Generic VNE

The generic VNE can be used to model any NE that is not currently supported by Cisco ANA. The generic VNE provides a basic level of network management that provides information such as the physical interfaces available on the device and their status, rudimentary logical modeling, and parsing of basic traps.

The generic VNE models NEs using SNMP MIB2, which is the most generic and widely used management interface. The generic VNE does not consider the device vendor, device type, or software version of the NE that it models.

- Physical Inventory Model, page 10-2
- Logical Inventory Model, page 10-2
- Generic VNE—Supported Traps, page 10-3
- Generic VNE—Supported Events, page 10-4
- Limitations, page 10-4
- Generic VNE—Supported Technologies, page 10-4
- Generic VNE—Supported Service Events, page 10-4

Physical Inventory Model

The generic VNE uses a static model for the device chassis. The rest of the physical inventory is modeled using the ifTable. Since modules are not modeled, the generic VNE creates a single generic module on which all of the physical interfaces reside.

Table 10-1 on page 10-2 describes which MIB tables are used to model the physical inventory components that are supported by the generic VNE.

Table 10-1 MIBs Used for Physical Inventory Model of Generic VNE—Cisco ANA 3.6.5

Logical Component	MIB Table	Columns/Tables Used For Modeling
Interfaces	ifTable	• ifDescr • ifType • ifOperStatus
Ports Port status Port speed MAC address	 ifTable ifTable ifTable	• ifOperStatus and ifAdminStatus • ifSpeed • ifPhysAddress (Ethernet ports)

Note Certain general properties on the managed element, such as system description, are modeled using the system MIB.

Logical Inventory Model

Table 10-2 on page 10-2 describes which MIB tables are used to model the logical inventory components that are supported by the generic VNE.

Table 10-2 MIBs Used for Logical Inventory Model of Generic VNE—Cisco ANA 3.6.5

Logical Component	MIB Table	Columns/Tables Used For Modeling
IP Interfaces	ipAddrTable	• ipAdEntIfIndex • ipAdEntNetMask
ARP table	ipNetToMediaTable	• ipNetToMediaPhysAddress • ipNetToMediaType
Routing table	ipRouteTable	• ipRouteDest • ipRouteIfIndex • ipRouteNextHop • ipRouteType • ipRouteMask

Table 10-2 MIBs Used for Logical Inventory Model of Generic VNE—Cisco ANA 3.6.5 (continued)

Logical Component	MIB Table	Columns/Tables Used For Modeling
Bridging table	dot1dTpFdbTable	—
Default bridge	dot1dBridge	• dot1dBaseBridgeAddress • dot1dBaseType

Generic VNE—Supported Traps

The generic VNE can parse the standard MIB2 traps listed in Table 10-3 on page 10-3.

Table 10-3 Supported Traps for Generic VNE—Cisco ANA 3.6.5

bgpBackwardTransition	mplsLdpInitSessionThresholdExceeded
bgpEstablished	mplsLdpSessionDown
ospfIfAuthFailure	mplsLdpSessionUp
ospfIfConfigError	mplsTunnelDown
ospfIfRxBadPacket	mplsTunnelUp
ospfIfStateChange	mplsTunnelReoptimized
ospfMaxAgeLsa	mplsTunnelRerouted
ospfNbrStateChange	authenticationFailure
ospfOriginateLsa	coldStart
ospfTxRetransmit	warmStart
mplsL3VpnVrfDown	entConfigChange
mplsL3VpnVrfUp	linkDown
mplsL3VpnVrfNumVrfRouteMaxThreshExceeded	linkUp
mplsL3VpnVrfRouteMidThreshExceeded	

The generic VNE can identify traps, but it cannot correlate them. This is because the generic VNE does not include the model entities required by higher trap parsing levels.

For example, if Cisco ANA receives an mplsTunnelDown trap from a device modeled with the generic VNE, Cisco ANA can identify the Tunnel Down trap, but it cannot perform correlation on the trap. The reason is that the generic VNE does not investigate tunnels, which means that there is no Device Component in the model to which Cisco ANA can attach a correlation flow.

Generic VNE—Supported Events

The generic VNE supports the service events listed in Table 10-4 on page 10-4.

Table 10-4 Supported Service Events for Generic VNE—Cisco ANA 3.6.5

Event Name	ANA Version	Expedited
Device Unreachable	3.6.0	N
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N
Port Flapping	3.6.0	N
Port Down	3.6.0	N

Note For more information on supported service events, see the section on "Supported Service Alarms" in the *Cisco Active Network Abstraction 3.6.7 User Guide*.

Limitations

The generic VNE uses MIB2 to cover the widest possible range of NEs. Although MIB2 is a widely accepted industry standard, most network equipment vendors augment MIB2 with other Management Interfaces such as private MIBs, Telnet, XML, and so on. In addition, different vendors sometimes have different implementations of standard MIBs. As a result, even the limited model created by the generic VNE is dependent on the vendor's adherence to general network management standards.

Generic VNE—Supported Technologies

The following technologies are supported by the Generic VNE in Cisco ANA Version 3.6.7:

- IP, page 10-5
- Ethernet (IEEE 802.3), page 10-8
- Base Logical Components, page 10-12
- Common, page 10-13

Generic VNE—Supported Service Events

Table 10-5 Supported Service Events for Generic VNE—Cisco ANA Version 3.6.7

Event Name	ANA Version	Expedited
Device Unreachable	3.6.0	N
Discard Packets	3.6.0	N
Dropped Packets	3.6.0	N

Table 10-5 Supported Service Events for Generic VNE—Cisco ANA Version 3.6.7 (continued)

Event Name	ANA Version	Expedited
Port Flapping	3.6.0	N
Port Down	3.6.0	N

Supported Technologies on Generic Devices

The following sections list the objects and attributes that are supported on Generic devices in Cisco ANA Version 3.6.7 per technology:

- IP, page 10-5
- Ethernet (IEEE 802.3), page 10-8
- Base Logical Components, page 10-12
- Common, page 10-13

IP

Table 10-6 IP Attribute Support on Generic Devices—Cisco ANA Version 3.6.7

Attribute	Generic
IMO Name—IIPInterface	
IP Address	Y
Subnetwork Mask	Y
IP Interface Addresses Array	
Interface Name	
Interface Description	Y
IP Interface State	Y
OSPF Interface Cost	
Broadcast Address	
MTU	
Lookup Method	
Address Resolution Type	
ARP Timeout	
Secured ARP	
ICMP Mask Reply	
IGMP Proxy	
HSRP Groups	

Table 10-6 IP Attribute Support on Generic Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	Generic
IP Multiplexing Table	
IANA Type	
Containing CTPs	
Contained CTPs	
IMO Name—IIPMuxEntry	
Termination Point	
Destination IP Subnet	
IMO Name—IRoutingEntity	
Routing Table	Y
ARP Entity	Y
Routing Table Changes	
Name	Y
Logical Sons	Y
IMO Name—IRoutingEntry	
Destination IP Subnet	Y
Next Hop IP Address	Y
Type	Y
Routing Protocol Type	Y
Outgoing Interface Name	Y
IMO Name—IARPEntity	
ARP Table	Y
IMO Name—IARPEntry	
IP Address	Y
MAC Address	Y
Port	Y
Entry Type	Y
IMO Name—IIPPool	
IP Address Pool Entries	
Name	
Index	
IMO Name—IIPRangeBasedIPPoolEntry	
Start IP Address	
End IP Address	
Unused Addresses	
Used Addresses	

Table 10-6 IP Attribute Support on Generic Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	Generic
Reserved Addresses	
IMO Name—IIPSubnetBasedIPPoolEntry	
IP Subnet	
Unused Addresses	
Used Addresses	
Reserved Addresses	
IMO Name—HSRPGroupEntry	
Group Number	
Port Description	
Priority	
Coupled Router	
State	
Tracking Interfaces	
Virtual IP Address	
Virtual MAC Address	
IMO Name—ITunnelGRE	
Name	
Tunnel Destination and Source	
IP Address	
IP Interface State	
IANA Type	
Containing CTPs	
Contained CTPs	
Keep Alive Time	
Keep Alive Retry	

Ethernet (IEEE 802.3)

Table 10-7 Ethernet (IEEE 802.3) Attribute Support on Generic Devices—Cisco ANA Version 3.6.7

Attribute	Generic
IMO Name—ILinkAggregationGroup802dot3ad	
dot3adAggMACAddress	
dot3adAggActorSystemPriority	
dot3adAggActorSystemID	
dot3adAggActorAdminKey	
dot3adAggActorOperKey	
dot3adAggPartnerSystemID	
dot3adAggPartnerSystemPriority	
dot3adAggPartnerOperKey	
dot3adAggCollectorMaxDelay	
GroupNumber	
AggregationProtocolType	
MacAddress	
ChannelAdminStatus	
ChannelOperStatus	
IMO Name—IEthernet	
MAC Address	Y
Duplex Mode	
Output Flow Control	
Input Flow Control	
IANA Type	
Containing CTPs	
Contained CTPs	
Port Type	
IMO Name—IVlanInterface	
Mode	
Native VLAN Identification	
Virtual LAN Table	
IANA Type	
Containing CTPs	
Contained CTPs	
vlanAdminType	
vlanencapType	

Table 10-7 Ethernet (IEEE 802.3) Attribute Support on Generic Devices—Cisco ANA Version 3.6.7

Attribute	Generic
getAccess	
Allowed Vlans	
IMO Name—IVlanEncapMux	
IANA Type	
Containing CTPs	
Contained CTPs	
IMO Name—IIEEE802	
VLAN Identification	
Binding Information	
Binding Status	
IANA Type	
Containing CTPs	
Contained CTPs	
IMO Name—IStpService	
StpProtocol	
StpMaxAge	
StpHelloTime	
StpBridgeForwardDelay	
StpInstanceInfoTable	
Same as ISystemService	
StpUplinkFastState	
StpBackboneFastState	
StpForwardDelay	
StpBridgeMaxAge	
StpBridgeHelloTime	
IMO Name—IMstService	
MstProperties	
Same as IStpService	
IMO Name—IPvstpService	
UpLinkFast	
BackboneFast	
IMO Name—IMstProperties	
MstForceVersion	
MstCfgIdFmtSel	
MstExternalRootCost	

Table 10-7 Ethernet (IEEE 802.3) Attribute Support on Generic Devices—Cisco ANA Version 3.6.7

Attribute	Generic
MstMaxInstances	
MstCfgIdName	
MstCfgIdRevLevel	
IMO Name—IStpInstanceInfo	
Object Identification	
StpBridgeId	
BridgePriority	
Designated Parent and Root Bridges	
StpRootCost	
IsRoot	
StpRootPort	
StpPortInfoTable	
STP Instance Id	
Vlan Id	
StpDesignatedBridge	
StpDesignatedRoot	
IMO Name—IMstInstanceInfo	
MstVlanIds	
same as IStpInstanceInfo	
IMO Name—IPvstpInstanceInfo	
Protocol Type	
StpBridgeMaxAge	
StpBridgeHelloTime	
StpBridgeForwardDelay	
StpProtocolSpecification	
StpVlanId	
StpForwardDelay	
StpMaxAge	
IMO Name—IRstpInstanceInfo	
StpForceVersion	
same as IStpInstanceInfo	
IMO Name—IStpPortInfo	
StpPort	
StpPortPriority	
StpPortState	

Table 10-7 Ethernet (IEEE 802.3) Attribute Support on Generic Devices—Cisco ANA Version 3.6.7

Attribute	Generic
StpPortPathCost	
StpPortEdgePort	
StpPortPointToPoint	
StpPortRole	
StpDesignatedPortIdentifier	
StpDesignatedBridge	
StpPortIdentifier	
StpPortBpduGuardState	
StpPortBpduFilterState	
IMO Name—IMstPortInfo	
MstPortHelloTime	
same as IStpPortInfo	
IMO Name—IPvstpPortInfo	
PvstpPortFastState	
IMO Name—IEthernetChannel	
Group Number	
Bandwidth	
Aggregation Protocol	
IANA Type	
Containing CTPs	
Contained CTPs	
Mac Address	
Admin Status	
Oper Status	

Base Logical Components

Table 10-8 Base Logical Components Attribute Support on Generic Devices—Cisco ANA Version 3.6.7

Attribute	Generic
IMO Name—IManagedElement	
IP Address	Y
Communication State	Y
Investigation State	Y
Element Category	Y
Element Type and Key	Y
Device Name	Y
System Name	Y
System Description	Y
Up Time	Y
Software Version	Y
Memory and CPU Usage	
DRAM Free	
DRAM Used	
Flash Device Size	
NVRAM Size	
Processor DRAM	
Sys Contact	
Sys Location	
Serial Number	
File Systems	
Vendor Identity	Y
IMO Name—IContext	
Name	
Bounded Connections	
IP Address Pools	
Forwarding Components List	
Traffic Descriptors List	
Tunnel Containers List	
Data Link Aggregation Containers List	

Table 10-8 Base Logical Components Attribute Support on Generic Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	Generic
IMO Name—ISystemService	
Type	
Status	
Up Time	

Common

Table 10-9 Common Attribute Support on Generic Devices—Cisco ANA Version 3.6.7

Attribute	Generic
IMO Name—IPhysicalLayer	
Media Type	
Clocking Source	
Maximum Speed	Y
Is Internal Port	
Discarded Bandwidth	
Dropped Bandwidth	
Input Bandwidth	
Output Bandwidth	
Discarded and Received Input Data Counters	Y
Dropped and Forward Output Data Counters	Y
Administrative Status	Y
Operational Status	Y
Last Changed	Y
IANA Type	
Containing CTPs	
Contained CTPs	
Port Alias	
Location	
Sending Alarms	
Connector Description	

Table 10-9 Common Attribute Support on Generic Devices—Cisco ANA Version 3.6.7 (continued)

Attribute	Generic
Part ID	
Connectort Serial Num	
Product	
Status	
Managed	
IMO Name—IBridge	
Bridge Table	
Type	
MAC Address	
IP Interface	
Name	
Logical Sons	
Vlan Type	
IMO Name—IBridgeEntry	
Destination MAC	Y
Outgoing Interface	Y
IMO Name—IVcSwitchingEntity	
Cross Connect Table	
Cross Connect Table Size	
Logical Sons	

CHAPTER 11

Support Information for Cisco Traps

This chapter provides detailed information about the traps supported in Cisco ANA. It presents this information in two forms:

- **Trap Tables:** A section devoted to the supported traps for each MIB (e.g., Cisco IOS V1 Traps). Each of these sections contains a table listing the name of each ANA-supported trap in that MIB, along with its OID, varbinds, and a short description. The trap's Short Description is what you see in a ticket's Trap tabs in Cisco ANA EventVision. In the trap tables in this Reference Guide, each trap's Short Description is also a link to the trap's corresponding parameters.
- **Parameter Tables:** A section devoted to the event types, event subtypes and Cisco ANA registry parameters for the traps supported in each MIB. There is one parameter table for every trap table (e.g., Cisco IOS V1 Trap Registry Parameters). Each trap event can have multiple event subtypes, or states. The parameter tables indicate when each trap state is generated, and how Cisco ANA processes them (such as their severity, and whether they are ticketable, can be correlated, are autocleared, and so on).

This chapter includes the following sections:

- Cisco ASR 9000 V1 Traps, page 11-2
- Cisco IOS V1 Traps, page 11-4
- Cisco IOS V2 Traps, page 11-17
- Cisco IOX V1 Traps, page 11-51
- Cisco IOX V2 Traps, page 11-59
- Cisco MIB2 V1 Traps, page 11-75
- Cisco MIB2 V2 Traps, page 11-79
- Cisco ASR 9000 V2 Registry Parameters, page 11-88
- Cisco IOS V1 Trap Registry Parameters, page 11-90
- Cisco IOS V2 Trap Registry Parameters, page 11-104
- Cisco IOX V1 Trap Registry Parameters, page 11-129
- Cisco IOX V2 Trap Registry Parameters, page 11-135
- Cisco MIB2 V1 Trap Registry Parameters, page 11-145
- Cisco MIB2 V2 Trap Registry Parameters, page 11-148

Note Cisco IOS devices, Cisco XR 12000 Series and the Cisco CRS-1 Carrier Routing System must be configured to send traps in SNMP V2.

Cisco ASR 9000 V1 Traps

Table 11-1 lists the Cisco ASR 9000 SNMP V1 traps supported in Cisco ANA. For associated event types, event subtypes, and Cisco ANA registry parameters, use the link under Short Description or see Table 11-8.

Table 11-1 Cisco ASR 9000 V1 Traps

Trap Name	Trap OID	Sub Type Varbind OID	Sub Type Varbind Value	Description	Short Description
ciscoNtpSrvStatusChange	.1.3.6.1.4.1.9.9.168.0.1	1.3.6.1.4.1.9.9.168.1.1.11	=1	Sent whenever the value of cntpSysSrvStatus changes.	NTP Server Status Changes to Unknown
ciscoNtpSrvStatusChange	.1.3.6.1.4.1.9.9.168.0.1	1.3.6.1.4.1.9.9.168.1.1.11	=2	Sent whenever the value of cntpSysSrvStatus changes.	NTP Server Status Changes to notRunning
ciscoNtpSrvStatusChange	.1.3.6.1.4.1.9.9.168.0.1	1.3.6.1.4.1.9.9.168.1.1.11	=3	Sent whenever the value of cntpSysSrvStatus changes.	NTP Server Status Changes to notSynchronized
ciscoNtpSrvStatusChange	1.3.6.1.4.1.9.9.168.0.1	1.3.6.1.4.1.9.9.168.1.1.11	=4	Sent whenever the value of cntpSysSrvStatus changes.	NTP Server Status Changes to syncToLocal
ciscoNtpSrvStatusChange	1.3.6.1.4.1.9.9.168.0.1	1.3.6.1.4.1.9.9.168.1.1.11	=5	Sent whenever the value of cntpSysSrvStatus changes.	NTP Server Status Changes to syncToRefclock
ciscoNtpSrvStatusChange	1.3.6.1.4.1.9.9.168.0.1	1.3.6.1.4.1.9.9.168.1.1.11	=6	Sent whenever the value of cntpSysSrvStatus changes.	NTP Server Status Changes to syncToRemoteServer
topologyChange	1.3.6.1.2.1.17.0.2	N/A	N/A	Sent by a bridge when any of its configured ports transitions from the Learning state to the Forwarding state, or from the Forwarding state to the Blocking state. The trap is not sent if a newRoot trap is sent for the same transition. Implementation of this trap is optional.	Spanning Tree Topology Changed

Table 11-1 Cisco ASR 9000 V1 Traps (continued)

Trap Name	Trap OID	Sub Type Varbind OID	Sub Type Varbind Value	Description	Short Description
warmStart	1.3.6.1.6.3.1.1.5.2	N/A	N/A	Indicates that the SNMP entity supporting a notification originator application is reinitializing itself such that its configuration is unaltered.	Warm start trap
dot1agCfmFaultAlarm	1.0.8802.1.1.3.0.1	N/A	N/A	Indicates that a MEP has lost contact with one or more MEPs. A fault alarm is sent to the management entity with the OID of the MEP that detected the fault. Whenever a MEP loses contact with one or more other MEPs, it may or may not generate a fault alarm to warn the system administrator of the problem, as controlled by the MEP Fault Notification Generator State Machine and associated Managed Objects. Only the highest-priority defect is reported in the Fault Alarm. (802.1ag clause 12.14.7.7)	dot1ag CFM Fault Alarm

Cisco IOS V1 Traps

Table 11-2 lists the Cisco IOS SNMP V1 traps supported in Cisco ANA. For associated event types, event subtypes, and Cisco ANA registry parameters, use the link under Short Description or see Table 11-9.

Table 11-2 Cisco IOS V1 Traps

Trap Name	Generic Type	Specific Type	Enterprise OID	Description	SubType Varbind OID	SubType Varbind Value	Short Description
ciscoEnvMonTemperatureNotification	6	3	1.3.6.1.4.1.9.9.13.3.0	cisco Environment Monitoring Temperature Notification	1.3.6.1.4.1.9.9.13.1.3.1.6	3	Critical Temprature
ciscoEnvMonTemperatureNotification	6	3	1.3.6.1.4.1.9.9.13.3.0	cisco Environment Monitoring Temperature Notification	1.3.6.1.4.1.9.9.13.1.3.1.6	1	Normal Temprature
ciscoEnvMonTemperatureNotification	6	3	1.3.6.1.4.1.9.9.13.3.0	cisco Environment Monitoring Temperature Notification	1.3.6.1.4.1.9.9.13.1.3.1.6	6	Not Functioning
ciscoEnvMonTemperatureNotification	6	3	1.3.6.1.4.1.9.9.13.3.0	cisco Environment Monitoring Temperature Notification	1.3.6.1.4.1.9.9.13.1.3.1.6	5	Not Present
ciscoEnvMonTemperatureNotification	6	3	1.3.6.1.4.1.9.9.13.3.0	cisco Environment Monitoring Temperature Notification	1.3.6.1.4.1.9.9.13.1.3.1.6	4	Critical Temprature - Device Shutdown
ciscoEnvMonTemperatureNotification	6	3	1.3.6.1.4.1.9.9.13.3.0	cisco Environment Monitoring Temperature Notification	1.3.6.1.4.1.9.9.13.1.3.1.6	2	Temprature Rising
ciscoEnvMonSupplyStatusChangeNotif	6	9	1.3.6.1.4.1.9.9.13.3.0	cisco EnvMon Supply State Notification Trap	1.3.6.1.4.1.9.9.13.1.5.1.3	3	Power Supply - Critical
ciscoEnvMonSupplyStatusChangeNotif	6	9	1.3.6.1.4.1.9.9.13.3.0	cisco EnvMon Supply State Notification Trap	1.3.6.1.4.1.9.9.13.1.5.1.3	1	Power Supply - Normal
ciscoEnvMonSupplyStatusChangeNotif	6	9	1.3.6.1.4.1.9.9.13.3.0	cisco EnvMon Supply State Notification Trap	1.3.6.1.4.1.9.9.13.1.5.1.3	6	Power Supply - Not Functioning
ciscoEnvMonSupplyStatusChangeNotif	6	9	1.3.6.1.4.1.9.9.13.3.0	cisco EnvMon Supply State Notification Trap	1.3.6.1.4.1.9.9.13.1.5.1.3	5	Power Supply - Not Present

Table 11-2 Cisco IOS V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	Description	SubType Varbind OID	SubType Varbind Value	Short Description
ciscoEnvMonSuppStatusChangeNotif	6	9	1.3.6.1.4.1.9.9.13.3.0	cisco EnvMon Supply State Notification Trap	1.3.6.1.4.1.9.9.13.1.5.1.3	4	Power Supply - Shutdown
ciscoEnvMonSuppStatusChangeNotif	6	9	1.3.6.1.4.1.9.9.13.3.0	cisco EnvMon Supply State Notification Trap	1.3.6.1.4.1.9.9.13.1.5.1.3	2	Power Supply - Warning
ciscoEnvMonFanNotification	6	4	1.3.6.1.4.1.9.9.13.3.0	cisco private fan down trap	1.3.6.1.4.1.9.9.13.1.4.1.3	!= 1	Fan down trap
ciscoEnvMonFanNotification	6	4	1.3.6.1.4.1.9.9.13.3.0	cisco private fan down trap	1.3.6.1.4.1.9.9.13.1.4.1.3	1	Fan up trap
rttMonTimeoutNotification	6	2	1.3.6.1.4.1.9.9.42.2.0	Indicates the occurrence of a timeout for an RTT operation	N/A	N/A	RTT Operation Timeout
rttMonThresholdNotification	6	3	1.3.6.1.4.1.9.9.42.2.0	Indicates the occurrence of a threshold violation for an RTT operation	N/A	N/A	RTT Operation Threshold Violation
topologyChange	6	2	1.3.6.1.2.1.17	Sent by a bridge when any of its configured ports transitions from the Learning state to the Forwarding state, or from the Forwarding state to the Blocking state.	N/A	N/A	dot1qBridge trap

Table 11-2 Cisco IOS V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	Description	SubType Varbind OID	SubType Varbind Value	Short Description
cEtherCfmCcMepUp	6	1	1.3.6.1.4.1.9.9.461	Sent when: • A remote MEP first comes up (i.e., when we receive a CC message from that MEP for the first time). • The device receives a CC message from a MEP for which it has an expired CCDB entry. • A CC message is received for a remote MEP for which the device already has a CCDB entry and the port state in the received CC message is different from the cached previous state.	N/A	N/A	Mep up trap
cEtherCfmCcMepDown	6	2	1.3.6.1.4.1.9.9.461	Sent when a remote MEP goes down, namely, the entry in CCDB corresponding to this MEP times out or the device receives a CC message with zero hold-time	N/A	N/A	Mep down trap
coldStart	6	0	1.3.6.1.2.1.11.0	Indicates that the sending protocol entity is reinitializing itself such that the agent's configuration or the protocol entity implementation may be altered.	N/A	N/A	Cold start trap

Table 11-2 Cisco IOS V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	Description	SubType Varbind OID	SubType Varbind Value	Short Description
MIB2 V1 link down	2	0	1.3.6.1.6.3.1.1.5	Indicates that the sending protocol entity recognizes a failure in one of the communication links represented in the agent's configuration. The Trap-PDU of type linkDown contains as the first element of its variable bindings, the name and value of the ifIndex instance for the affected interface.	N/A	N/A	SNMP Link down
MIB2 V1 link up	3	0	1.3.6.1.6.3.1.1.5	Indicates that the sending protocol entity recognizes that one of the communication links represented in the agent's configuration has come up. The Trap-PDU of type linkUp contains as the first element of its variable-bindings the name and value of the ifIndex instance for the affected interface.	N/A	N/A	SNMP Link up
imaFailureAlarm	6	1	1.3.6.1.4.1.353.5.7.1.2	ima-Group-FailureAlarm v1	1.3.6.1.4.1.353.5.7.1.1.6	10,12,15	IMA Group Remote Failure
imaFailureAlarm	6	1	1.3.6.1.4.1.353.5.7.1.2	ima-Group-FailureAlarm v1	1.3.6.1.4.1.353.5.7.1.1.6	14	IMA Group Remote insufficient links trap
imaFailureAlarm	6	1	1.3.6.1.4.1.353.5.7.1.2	ima-Group-Clearing Alarm v1	1.3.6.1.4.1.353.5.7.1.1.5	1	IMA Group Up Trap
imaFailureAlarm	6	1	1.3.6.1.4.1.353.5.7.1.2	ima-Group-FailureAlarm v1	1.3.6.1.4.1.353.5.7.1.1.6	11,16	IMA Group local Failure

Table 11-2 Cisco IOS V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	Description	SubType Varbind OID	SubType Varbind Value	Short Description
imaFailureAlarm	6	1	1.3.6.1.4.1.353.5.7.1.2	ima-Group-FailureAlarm v1	1.3.6.1.4.1.353.5.7.1.1.6	13	IMA Group local insufficient links trap
imaFailureAlarm	6	1	1.3.6.1.4.1.353.5.7.1.2	ima Link ima-Link-FailureAlarm v1	1.3.6.1.4.1.353.5.7.1.1.6	2	Ima Link Loss of delay Frame Trap
imaFailureAlarm	6	1	1.3.6.1.4.1.353.5.7.1.2	ima Link ima-Link-FailureAlarm v1	1.3.6.1.4.1.353.5.7.1.1.6	1	Ima Link Loss of ima Frame Trap
imaFailureAlarm	6	1	1.3.6.1.4.1.353.5.7.1.2	ima Link ima-Link-FailureAlarm v1	1.3.6.1.4.1.353.5.7.1.1.6	5,7,9	Ima Link Rcv Failure Trap
imaFailureAlarm	6	1	1.3.6.1.4.1.353.5.7.1.2	ima Link ima-Link-FailureAlarm v1	1.3.6.1.4.1.353.5.7.1.1.6	3	Ima Link Remote Failure Trap
imaFailureAlarm	6	1	1.3.6.1.4.1.353.5.7.1.2	ima-Link-ClearingAlarm v1	1.3.6.1.4.1.353.5.7.1.1.5	1	Ima Link Up Trap
imaFailureAlarm	6	1	1.3.6.1.4.1.353.5.7.1.2	ima Link ima-Link-FailureAlarm v1	1.3.6.1.4.1.353.5.7.1.1.6	4,6,8	Ima Link Xmt Failure Trap
Cisco-UMT-state-change-v1	6	2	.1.3.6.1.4.1.9.9.483	The state of the connection between the UMTS interfaces.	N/A	N/A	Cisco UMT state Change trap
Cisco-GSM-state-change-trap-v1	6	1	.1.3.6.1.4.1.9.9.483	The state of the connection between the GSM interfaces	N/A	N/A	Cisco GSM state Change trap
Cisco-IPRAN-Backhaul-received-util-v1	6	3	.1.3.6.1.4.1.9.9.483	When Rcvd. util changes to any of the status : acceptable, warning, overloaded.	1.3.6.1.4.1.9.9.483.1.2.2.1.1.1.3	1	IPRAN Backhaul Received Util Acceptable Trap
Cisco-IPRAN-Backhaul-received-util-v1	6	3	.1.3.6.1.4.1.9.9.483	When Rcvd. util changes froto any of the status : acceptable, warning, overloaded.	1.3.6.1.4.1.9.9.483.1.2.2.1.1.1.3	2	IPRAN Backhaul Received Util Warning Trap
Cisco-IPRAN-Backhaul-received-util-v1	6	3	.1.3.6.1.4.1.9.9.483	When Rcvd. util changes froto any of the status : acceptable, warning, overloaded.	1.3.6.1.4.1.9.9.483.1.2.2.1.1.1.3	3	IPRAN Backhaul Received Util Overloaded Trap

Table 11-2 Cisco IOS V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	Description	SubType Varbind OID	SubType Varbind Value	Short Description
Cisco-IPRAN-Backhaul-sent-util-v1	6	4	.1.3.6.1.4.1.9.9.483	When sent util changes froto any of the status : acceptable, warning, overloaded.	1.3.6.1.4.1.9.9.483.1.2.2.1.1.1.4	1	IPRAN Backhaul Sent Util Acceptable Trap
Cisco-IPRAN-Backhaul-sent-util-v1	6	4	.1.3.6.1.4.1.9.9.483	When sent util changes froto any of the status : acceptable, warning, overloaded.	1.3.6.1.4.1.9.9.483.1.2.2.1.1.1.4	2	IPRAN Backhaul Sent Util Overloaded Trap
Cisco-IPRAN-Backhaul-sent-util-v1	6	4	.1.3.6.1.4.1.9.9.483	When sent util changes froto any of the status : acceptable, warning, overloaded.	1.3.6.1.4.1.9.9.483.1.2.2.1.1.1.4	3	IPRAN Backhaul Sent Util Warning Trap
rttMonConnectionChangeNotification	6	1	1.3.6.1.4.1.9.9.42.2	IPSLA echo ConnLoss Trap v2	1.3.6.1.4.1.9.9.42.1.2.9.1.5	1	Connection Loss detected by ipsla icmp echo trap
rttMonConnectionChangeNotification	6	1	1.3.6.1.4.1.9.9.42.2	IPSLA echo ConnLoss Trap v2	1.3.6.1.4.1.9.9.42.1.2.9.1.5	2	Connection re-establish detected by ipsla icmp echo trap
rttMonTimeoutNotification	6	2	1.3.6.1.4.1.9.9.42.2	IPSLA IP or LSP echo Timeout trap v2	1.3.6.1.4.1.9.9.42.1.2.9.1.6	1	Timeout detected by ipsla icmp echo trap
rttMonTimeoutNotification	6	2	1.3.6.1.4.1.9.9.42.2	IPSLA IP or LSP echo Timeout trap v2	1.3.6.1.4.1.9.9.42.1.2.9.1.6	2	Connection re-establish detected by ipsla icmp echo trap
rttMonThresholdNotification	6	3	1.3.6.1.4.1.9.9.42.2	IPSLA Threshold Notification trap v2	1.3.6.1.4.1.9.9.42.1.2.9.1.7	1	Threshold crossing under trap
rttMonThresholdNotification	6	3	1.3.6.1.4.1.9.9.42.2	IPSLA Threshold Notification trap v2	1.3.6.1.4.1.9.9.42.1.2.9.1.7	2	Threshold crossing over trap
rttMonVerifyErrorNotification	6	4	1.3.6.1.4.1.9.9.42.2	IPSLA Threshold Notification deprecated trap v2	1.3.6.1.4.1.9.9.42.1.2.9.1.11	1	Data corruption in rtt operation trap

Table 11-2 Cisco IOS V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	Description	SubType Varbind OID	SubType Varbind Value	Short Description
rttMonVerifyError Notification	6	4	1.3.6.1.4.1.9.9.42.2	IPSLA Threshold Notification deprecated trap v2	1.3.6.1.4.1.9.9.42.1.2.9.1.11	2	Data corruption cleared in rtt operation trap
rttMonNotification	6	5	1.3.6.1.4.1.9.9.42.2	RTT MON notification	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	8, null, 1	Connection Loss detected by ipsla icmp echo trap
rttMonNotification	6	5	1.3.6.1.4.1.9.9.42.2	RTT MON notification	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	8, not null, 1	Connection Loss detected by ipsla LSP icmp echo trap
rttMonNotification	6	5	1.3.6.1.4.1.9.9.42.2	RTT MON notification	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	8, null, 2	Connection re-establish detected by ipsla icmp echo trap
rttMonNotification	6	5	1.3.6.1.4.1.9.9.42.2	RTT MON notification	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	8, not null, 2	Connection re-establish detected by ipsla LSP icmp echo trap
rttMonNotification	6	5	1.3.6.1.4.1.9.9.42.2	RTT MON notification	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, null, 1	Timeout detected by ipsla icmp echo trap
rttMonNotification	6	5	1.3.6.1.4.1.9.9.42.2	RTT MON notification	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, not null, 1	Timeout detected by ipsla LSP icmp echo trap

Table 11-2 Cisco IOS V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	Description	SubType Varbind OID	SubType Varbind Value	Short Description
rttMonNotification	6	5	1.3.6.1.4.1.9.9.42.2	RTT MON notification	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, null, 2	Connection re-establish detected by ipsla icmp echo trap
rttMonNotification	6	5	1.3.6.1.4.1.9.9.42.2	RTT MON notification	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, not null, 2	Connection re-establish detected by ipsla LSP icmp echo trap
rttMonNotification	6	5	1.3.6.1.4.1.9.9.42.2	RTT MON notification	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	1, 1	RTT threshold crossing over trap
rttMonNotification	6	5	1.3.6.1.4.1.9.9.42.2	RTT MON notification	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	1, 2	RTT threshold crossing under trap
rttMonLpdDiscoveryNotification	6	6	1.3.6.1.4.1.9.9.42.2	IPSLA LPD Discovery trap v2	1.3.6.1.4.1.9.9.42.1.3.7.1.13	1	IPSLA LSP path discovery failure trap
rttMonLpdDiscoveryNotification	6	6	1.3.6.1.4.1.9.9.42.2	IPSLA LPD Discovery trap v2	1.3.6.1.4.1.9.9.42.1.3.7.1.13	2	IPSLA LSP path rediscovery trap
rttMonLpdGrpStatusNotification	6	7	1.3.6.1.4.1.9.9.42.2	IPSLA LDP Group Status trap v2	1.3.6.1.4.1.9.9.42.1.3.7.1.16	3,4	IPSLA LDP group status failure trap
rttMonLpdGrpStatusNotification	6	7	1.3.6.1.4.1.9.9.42.2	IPSLA LDP Group Status trap v2	1.3.6.1.4.1.9.9.42.1.3.7.1.16	2	IPSLA LDP group status restoration trap
cmplsFrrProtected	6	1	1.3.6.1.4.1.9.10.98	TE FRR trigger notification v1	N/A	N/A	FRR Protected Trap
cmplsFrrUnProtected	6	2	1.3.6.1.4.1.9.10.98	TE FRR trigger notification v1	N/A	N/A	FRR Unprotected Trap

Table 11-2 Cisco IOS V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	Description	SubType Varbind OID	SubType Varbind Value	Short Description
cpwVcUp	6	2	1.3.6.1.4.1.9.10.106.2	This notification is generated when the cpwVcOperStatus object for one or more contiguous entries in cpwVcTable are about to enter the up(1) state from some other state.	N/A	N/A	Pseudo wire tunnel up
cpwVcDown	6	1	1.3.6.1.4.1.9.10.106.2	This notification is generated when the cpwVcOperStatus object for one or more contiguous entries in cpwVcTable are about to enter the up(1) state from some other state.	N/A	N/A	Pseudo wire tunnel down

Table 11-2 Cisco IOS V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	Description	SubType Varbind OID	SubType Varbind Value	Short Description
vtpConfigRevNumberError	6	1	1.3.6.1.4.1.9.9.46.2	A configuration revision number error notification signifies that a device has incremented its vtpConfigRevNumberErrors counter. Generation of this notification is suppressed if the vtpNotificationsEnabled has the value 'false'. The device must throttle the generation of consecutive vtpConfigRevNumberError notifications so that there is at least a five-second gap between notification of this type. When notification are throttled, they are dropped, not queued for sending at a future time. (Note that 'generating' a notification means sending to all configured recipients	N/A	N/A	vtp configuration revision number error trap

Table 11-2 Cisco IOS V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	Description	SubType Varbind OID	SubType Varbind Value	Short Description
vtpConfigDigestError	6	2	1.3.6.1.4.1.9.9.46.2	A configuration digest error notification signifies that a device has incremented its vtpConfigDigestErrors counter. Generation of this notification is suppressed if the vtpNotificationsEnabled has the value 'false'. The device must throttle the generation of consecutive vtpConfigDigestError notifications so that there is at least a five-second gap between notification of this type. When notification are throttled, they are dropped, not queued for sending at a future time. (Note that 'generating' a notification means sending to all configured recipients).	N/A	N/A	vtp configuration digest error trap

Table 11-2 Cisco IOS V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	Description	SubType Varbind OID	SubType Varbind Value	Short Description
vtpVersionOneDeviceDetected	6	6	1.3.6.1.4.1.9.9.46.2	A VTP version one device detected notification is generated by a device when: A. A management domain has been put into version 2 mode (as accessed by managementDomain VersionInUse). B. 15 minutes has passed since (A) occurred. C. A version 1 PDU is detected on a trunk on the device that is in that management domain which has a lower revision number than the current configuration.	N/A	N/A	vtp VersionOne Device Detected trap
vtpLocalModeChanged	6	8	1.3.6.1.4.1.9.9.46.2	A vtpLocalModeChanged notification is generated by a device when the value of the object managementDomain LocalMode is changed.	N/A	N/A	vtp Local Mode Changed trap
vtpVersionInUseChanged	6	9	1.3.6.1.4.1.9.9.46.2	A vtpVersionInUseChanged notification is generated by a device when the value of the object managementDomain VersionInUse is changed.	N/A	N/A	vtp VersionInUse Changed trap

Table 11-2 Cisco IOS V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	Description	SubType Varbind OID	SubType Varbind Value	Short Description
vlanTrunkPortDynamicStatusChange	6	7	1.3.6.1.4.1.9.9.46.2	A vlanTrunkPortDynamicStatusChange notification is generated by a device when the value of vlanTrunkPortDynamicStatus object has been changed.	1.3.6.1.4.1.9.9.46.1.6.1.1.14	1	Vlan trunk port dynamic status changed to trunking
vlanTrunkPortDynamicStatusChange	6	7	1.3.6.1.4.1.9.9.46.2	A vlanTrunkPortDynamicStatusChange notification is generated by a device when the value of vlanTrunkPortDynamicStatus object has been changed.	1.3.6.1.4.1.9.9.46.1.6.1.1.14	2	Vlan trunk port dynamic status changed to not trunking

Cisco IOS V2 Traps

Table 11-3 lists the Cisco IOS SNMP V2 traps supported in Cisco ANA. For associated event types, event subtypes, and Cisco ANA registry parameters, use the link under Short Description or see Table 11-10.

Table 11-3 Cisco IOS V2 Traps

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
cbfDefineFileCompletion	1.3.6.1.4.1.9.9.81.2.0.1	N/A	N/A	A cbfDefineFileCompletion notification is sent on the following conditions : completion of a file consumption operation in case of ephemeral files: completion of file creation operation in case of volatile or permanent files: any error during file creation.	CBF File operation state indicator
cbgpBackwardTransition	1.3.6.1.4.1.9.9.187.0.2	1.3.6.1.4.1.9.9.187.0.2	!= (1or 6)	The cbgpBackwardTransition Event is generated when the BGP FSM moves from a higher numbered state to a lower numbered state. The bgpPeerRemoteAddr value is attached to the notification object ID.	Cisco BGP backward transition trap
cbgpFsmStateChange	1.3.6.1.4.1.9.9.187.0.1	1.3.6.1.4.1.9.9.187.0.2	= 1	The BGP cbgpFsmStateChange notification is generated for every BGP FSM state change.	Cisco BGP down trap
cbgpFsmStateChange	1.3.6.1.4.1.9.9.187.0.1	1.3.6.1.4.1.9.9.187.0.2	= 6	The BGP cbgpFsmStateChange notification is generated for every BGP FSM state change.	Cisco BGP established trap
cbgpPrefixThresholdExceeded	1.3.6.1.4.1.9.9.187.0.3	N/A	N/A	The cbgpPrfefixMaxThresholdExceeded notification is generated when prefix count exceeds the configured warning threshold on a session for an address family	Cisco BGP prefix threshold exceeded

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
cbgpPrefixThresholdClear	1.3.6.1.4.1.9.9.187.0.4	N/A	N/A	The cbgpPrefixThresholdClear notification is generated when prefix count drops below the configured clear threshold on a session for an address family once cbgpPrefixThresholdExceeded is generated. This won't be generated if the peer session goes down after the generation of bgpPrefixThresholdExceeded. The bgpPeerRemoteAddr, bgpPeerAddrFamilyAfi and cbgpPeerAddrFamilySafi values are attached to the notification object ID.	Cisco BGP prefix threshold clear
ccCopyCompletion	1.3.6.1.4.1.9.9.96.2.1.1	N/A	N/A	A ccCopyCompletion trap is sent at the completion of a config-copy request. The ccCopyFailCause is not instantiated, and hence not included in a trap, when the ccCopyState is success	Config-copy request completion
ciscoConfigManEvent	1.3.6.1.4.1.9.9.43.2.0.1	N/A	N/A	Notification of a configuration management event as recorded in ccmHistoryEventTable.	Cisco Configuration management event notification
cefcFanTrayStatusChange	1.3.6.1.4.1.9.9.117.2.0.6	1.3.6.1.4.1.9.9.117.1.4.1.1.1	!=2	This notification is generated when the value of cefcFanTrayOperStatus changes.	cefc fan-tray oper status down
cefcFanTrayStatusChange	1.3.6.1.4.1.9.9.117.2.0.6	1.3.6.1.4.1.9.9.117.1.4.1.1.1	=2	This notification is generated when the value of cefcFanTrayOperStatus changes.	cefc fan-tray oper status up
cefcFRUInserted	1.3.6.1.4.1.9.9.117.2.0.3	N/A	N/A	The cecfFRUInserted notification indicates that a FRU was inserted. The varbind for this notification indicates the entPhysicalIndex of the inserted FRU, and the entPhysicalIndex of the FRU's container.	cefc FRU inserted

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
cefcFRURemoved	1.3.6.1.4.1.9.9.117.2.0.4	N/A	N/A	The cefcFRURemoved notification indicates that a FRU was removed. The varbind for this notification indicates the entPhysicalIndex of the removed FRU, and the entPhysicalIndex of the FRU's container.	cefc FRU removed
cefcModuleStatusChange	1.3.6.1.4.1.9.9.117.2.0.1	1.3.6.1.4.1.9.9.117.1.2.1.1.2	!=2	This notification is generated when the value of cefcModuleOperStatus changes. It can be utilized by an NMS to update the status of the module it is managing.	cefc module oper status down
cefcModuleStatusChange	1.3.6.1.4.1.9.9.117.2.0.1	1.3.6.1.4.1.9.9.117.1.2.1.1.2	=2	This notification is generated when the value of cefcModuleOperStatus changes. It can be utilized by an NMS to update the status of the module it is managing.	cefc module oper status up
cefcPowerStatusChange	1.3.6.1.4.1.9.9.117.2.0.2	1.3.6.1.4.1.9.9.117.1.1.2.1.2	!=2	The cefcFRUPowerStatusChange notification indicates that the power status of a FRU has changed. The varbind for this notification indicates the entPhysicalIndex of the FRU, and the new operational-status of the FRU.	cefc power status down
cefcPowerStatusChange	1.3.6.1.4.1.9.9.117.2.0.2	1.3.6.1.4.1.9.9.117.1.1.2.1.2	=2	The cefcFRUPowerStatusChange notification indicates that the power status of a FRU has changed. The varbind for this notification indicates the entPhysicalIndex of the FRU, and the new operational-status of the FRU.	cefc power status up
entSensorThresholdNotification	1.3.6.1.4.1.9.9.91.2.0.1	N/A	N/A	The sensor value crossed the threshold listed in entSensorThresholdTable. This notification is generated once each time the sensor value crossesthe threshold.	sensor value crossed threshold in entSensorThresholdTable

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
ciscoFlashCopyCompletionTrap	1.3.6.1.4.1.9.9.10.1.3.0.1	1.3.6.1.4.1.9.9.10.1.2.1.1.8	!= (0 or 1 or 2)	A ciscoFlashCopyCompletionTrap is sent at the completion of a flash copy operation if such a trap was requested when the operation was initiated.	Cisco flash copy failed
ciscoFlashCopyCompletionTrap	1.3.6.1.4.1.9.9.10.1.3.0.1	1.3.6.1.4.1.9.9.10.1.2.1.1.8	=2	A ciscoFlashCopyCompletionTrap is sent at the completion of a flash copy operation if such a trap was requested when the operation was initiated.	Cisco flash copy completion
ciscoFlashCopyCompletionTrap	1.3.6.1.4.1.9.9.10.1.3.0.1	1.3.6.1.4.1.9.9.10.1.2.1.1.8	=(0 or 1)	A ciscoFlashCopyCompletionTrap is sent at the completion of a flash copy operation if such a trap was requested when the operation was initiated.	Cisco flash copy in progress
ciscoFlashDeviceChangeTrap	1.3.6.1.4.1.9.9.10.1.3.0.4	N/A	N/A	A ciscoFlashDeviceChangeTrap is sent whenever a removable Flash device is inserted or removed.	Cisco Flash device changed
ciscoFlashDeviceInsertedNotif	1.3.6.1.4.1.9.9.10.1.3.0.5	N/A	N/A	A ciscoFlashDeviceInsertedNotif notification is sent whenever a removable Flash device is inserted.	Cisco Flash device inserted
ciscoFlashDeviceRemovedNotif	1.3.6.1.4.1.9.9.10.1.3.0.6	N/A	N/A	A ciscoFlashDeviceRemovedNotif notification is sent whenever a removable Flash device is removed.	Cisco Flash device removed
ciscoFlashDeviceInsertedNotifRev1	1.3.6.1.4.1.9.9.10.1.3.0.7	N/A	N/A	A ciscoFlashDeviceInsertedNotifRev1 notification is sent whenever a removable Flash device is inserted.The ciscoFlashDeviceInsertedNotifRev1 depcrecates ciscoFlashDeviceInsertedNotif since it uses ciscoFlashDeviceName as a varbind which is deprecated.	Cisco Flash device inserted

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
ciscoFlashDeviceRemovedNotifRev1	1.3.6.1.4.1.9.9.10.1.3.0.8	N/A	N/A	A ciscoFlashDeviceRemovedNotifRev1 notification is sent whenever a removable Flash device is removed. The ciscoFlashDeviceRemovedNotifRev1 depcrecates ciscoFlashDeviceRemovedNotif since it uses ciscoFlashDeviceName as a varbind which is deprecated.	Cisco Flash device removed
ciscoFlashMiscOpCompletionTrap	1.3.6.1.4.1.9.9.10.1.3.0.3	1.3.6.1.4.1.9.9.10.1.2.3.1.4	!= (1 or 2)	A ciscoFlashMiscOpCompletionTrap is sent at the completion of a miscellaneous flash operation (enumerated in ciscoFlashMiscOpCommand) if such a trap was requested when the operation was initiated.	Cisco Flash miscellaneous operation failed
ciscoFlashMiscOpCompletionTrap	1.3.6.1.4.1.9.9.10.1.3.0.3	1.3.6.1.4.1.9.9.10.1.2.3.1.4	=2	A ciscoFlashMiscOpCompletionTrap is sent at the completion of a miscellaneous flash operation (enumerated in ciscoFlashMiscOpCommand) if such a trap was requested when the operation was initiated.	Cisco Flash miscellaneous operation completed
ciscoFlashMiscOpCompletionTrap	1.3.6.1.4.1.9.9.10.1.3.0.3	1.3.6.1.4.1.9.9.10.1.2.3.1.4	=1	A ciscoFlashMiscOpCompletionTrap is sent at the completion of a miscellaneous flash operation (enumerated in ciscoFlashMiscOpCommand) if such a trap was requested when the operation was initiated.	Cisco Flash miscellaneous operation in progress
chassisAlarmOff	1.3.6.1.4.1.9.5.0.6	N/A	N/A	chassis alarm trap	chassis alarm off
chassisAlarmOn	1.3.6.1.4.1.9.5.0.5	N/A	N/A	chassis alarm trap	chassis alarm on

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
cPimNbrLoss	1.3.6.1.4.1.9.10.119.0.2	N/A	N/A	A cPimNbrLoss trap signifies the loss of an adjacency with a neighbor. This trap should be generated when the neighbor timer expires, and the router has no other neighbors on the same interface with a lower IP address than itself.	Cisco PIM neighbor lost
ciscoPingCompletion	1.3.6.1.4.1.9.9.16.2.0.1	N/A	N/A	A ciscoPingCompleted trap is sent at the completion of a sequence of pings if such a trap was requested when the sequence was initiated.	Cisco ping completion
ciscoSonetSectionStatusChange	1.3.6.1.4.1.9.9.126.0.1	1.3.6.1.2.1.10.39.1.2.1.1.1	!=1	This notification is generated whenever the value of sonetSectionCurrentStatus changes to value more than 1.	Cisco Sonet section status changed to error
ciscoSonetSectionStatusChange	1.3.6.1.4.1.9.9.126.0.1	1.3.6.1.2.1.10.39.1.2.1.1.1	=1	This notification is generated whenever the value of sonetSectionCurrentStatus changes to value 1.	Cisco Sonet section status changed to clear
ciscoSonetLineStatusChange	1.3.6.1.4.1.9.9.126.0.2	1.3.6.1.2.1.10.39.1.3.1.1.1	!=1	This notification is generated whenever the value of sonetLineCurrentStatus changes to value more than 1.	Cisco Sonet line status changed to error
ciscoSonetLineStatusChange	1.3.6.1.4.1.9.9.126.0.2	1.3.6.1.2.1.10.39.1.3.1.1.1	=1	This notification is generated whenever the value of sonetLineCurrentStatus changes to value 1.	Cisco Sonet line status changed to clear
ciscoSonetPathStatusChange	1.3.6.1.4.1.9.9.126.0.3	1.3.6.1.2.1.10.39.2.1.1.1.2	!=1	This notification is generated whenever the value of sonetPathCurrentStatus changes to value more than 1.	Cisco Sonet path status changed to error
ciscoSonetPathStatusChange	1.3.6.1.4.1.9.9.126.0.3	1.3.6.1.2.1.10.39.2.1.1.1.2	=1	This notification is generated whenever the value of sonetPathCurrentStatus changes to value 1.	Cisco Sonet path status changed to clear

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
mplsLdpFailedInitSessionThresholdExceeded	1.3.6.1.4.1.9.10.65.2.0.1	N/A	N/A	This notification is generated when the value of the 'mplsLdpEntityPVLimitMismatchTrapEnable' object is 'enabled(1)' and the value of the object, 'mplsLdpEntityFailedInitSessionThreshold' has been exceeded.	MPLS LDP init session threshold exceeded Trap
mplsLdpSessionDown	1.3.6.1.4.1.9.10.65.2.0.4	N/A	N/A	Generation of this trap occurs when the 'mplsLdpSessionUpDownTrapEnable' object is 'enabled(1)' and the value of mplsLdpSessionState changes from 'operational(5)' to any other state.	MPLS LDP session down Trap
mplsLdpSessionUp	1.3.6.1.4.1.9.10.65.2.0.3	N/A	N/A	Generation of this trap occurs when the 'mplsLdpSessionUpDownTrapEnable' object is 'enabled(1)' and the value of mplsLdpSessionState changes from any state accept 'nonexistent(1)' to 'operational.	MPLS LDP session up Trap
mplsTunnelUp	1.3.6.1.3.95.3.0.1	N/A	N/A	This notification is generated when a mplsTunnelOperStatus object for one of the configured tunnels is about to leave the down state and transition into some other state (but not into the notPresent state). This other state is indicated by the included value of mplsTunnelOperStatus.	MPLS-TE tunnel up trap
mplsTunnelDown	1.3.6.1.3.95.3.0.2	N/A	N/A	This notification is generated when a mplsTunnelOperStatus object for one of the configured tunnels is about to enter the down state from some other state (but not from the notPresent state). This other state is indicated by the included value of mplsTunnelOperStatus.	MPLS-TE tunnel down trap

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
mplsTunnelRerouted	1.3.6.1.3.95.3.0.3	N/A	N/A	This notification is generated when a tunnel is rerouted or re-optimized. If the Actual Path is used, then this object MAY contain the new path for this tunnel some time after this trap is issued by the agent	MPLS-TE tunnel rerouted trap
ciscoIpMRouteMissingHeartBeats	1.3.6.1.4.1.9.10.2.3.1.0.1	N/A	N/A	A notification is sent if a multicast router with this feature enabled failed to receive configured number of heartbeat packets from heartbeat sources within a configured time interval	Failed receive multicast router heartbeat
ciscoRFProgressionNotif	1.3.6.1.4.1.9.9.176.2.0.2	N/A	N/A	VSL link goes down or one of the chassis reloads	Cisco VSS Shelf 1 is Disabled
ciscoRFProgressionNotif	1.3.6.1.4.1.9.9.176.2.0.2	N/A	N/A	VSL link goes down or one of the chassis reloads	Cisco VSS Shelf 1 is Standby Cold
ciscoRFProgressionNotif	1.3.6.1.4.1.9.9.176.2.0.2	N/A	N/A	VSL link goes down or one of the chassis reloads	Cisco VSS Shelf 1 is Standby Hot
ciscoRFProgressionNotif	1.3.6.1.4.1.9.9.176.2.0.2	N/A	N/A	VSL link goes down or one of the chassis reloads	Cisco VSS Shelf 2 is Disabled
ciscoRFProgressionNotif	1.3.6.1.4.1.9.9.176.2.0.2	N/A	N/A	VSL link goes down or one of the chassis reloads	Cisco VSS Shelf 2 is Standby Cold
ciscoRFProgressionNotif	1.3.6.1.4.1.9.9.176.2.0.2	N/A	N/A	VSL link goes down or one of the chassis reloads	Cisco VSS Shelf 2 is Standby Hot
cvsVSLConnectionChangeNotif	1.3.6.1.4.1.9.9.388.0.1	N/A	N/A	when VSL connection is down	VSL Connection Changed: Down
cvsVSLConnectionChangeNotif	1.3.6.1.4.1.9.9.388.0.1	N/A	N/A	when VSL connection is up	VSL Connection Change: Up
topologyChange	1.3.6.1.2.1.17.0.2	N/A	N/A	This Notification is sent by a bridge when any of its configured ports transitions from the Learning state to the Forwarding state, or from the Forwarding state to the Blocking state.	dot1qBridge trap

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
cEtherCfmCcMepUp	1.3.6.1.4.1.9.9.461.0.0.1	N/A	N/A	This notification is generated in the following cases: when a remote MEP first comes up, that is when we receive CC message from that MEP for the first time; when the device receives a CC message from a MEP for which it has an expired CCDB entry; when a CC message is received for a remote MEP for which the device already has a CCDB entry and the port-state in the received CC message is different from the cached previous state	Mep up trap
cEtherCfmCcMepDown	1.3.6.1.4.1.9.9.461.0.0.2	N/A	N/A	This notification is generated when a remote MEP goes down; i.e. the entry in CCDB corresponding to this MEP times out or the device receives a CC message with zero hold-time	Mep down trap
coldStart	1.3.6.1.2.1.11.0.0	N/A	N/A	This trap signifies that the sending protocol entity is reinitializing itself such that the agent s configuration or the protocol entity implementation may be altered.	Cold start trap
cHsrpStateChange	1.3.6.1.4.1.9.9.106.2.0.1	1.3.6.1.4.1.9.9.106.1.2.1.1.15	= 5	A cHsrpStateChange notification is sent when a cHsrpGrpStandbyState transitions to either active or standby state, or leaves active or standby state. There will be only one notification issued when the state change is from standby to active and vice versa.	Cisco hsrp state standby

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
cHsrpStateChange	1.3.6.1.4.1.9.9.106.2.0.1	1.3.6.1.4.1.9.9.106.1.2.1.1.15	= ^	A cHsrpStateChange notification is sent when a cHsrpGrpStandbyState transitions to either active or standby state, or leaves active or standby state. There will be only one notification issued when the state change is from standby to active and vice versa.	Cisco hsrp state non active
cHsrpStateChange	1.3.6.1.4.1.9.9.106.2.0.1	1.3.6.1.4.1.9.9.106.1.2.1.1.15	= 6	A cHsrpStateChange notification is sent when a cHsrpGrpStandbyState transitions to either active or standby state, or leaves active or standby state. There will be only one notification issued when the state change is from standby to active and vice versa.	Cisco hsrp state active
ciscoEnvMonFanNotification	1.3.6.1.4.1.9.9.13.3.0.4	1.3.6.1.4.1.9.9.13.1.4.1.3	= 3	A ciscoEnvMonFanNotification is sent if any one of the fans in the fan array (where existent) fails. Since such a notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.	Cisco Environment Monitoring Fan Notification - Critical
ciscoEnvMonFanNotification	1.3.6.1.4.1.9.9.13.3.0.4	1.3.6.1.4.1.9.9.13.1.4.1.3	= 1	A ciscoEnvMonFanNotification is sent if any one of the fans in the fan array (where existent) fails. Since such a notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.	Cisco Environment Monitoring Fan Notification - Normal

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
ciscoEnvMonFanNotification	1.3.6.1.4.1.9.9.13.3.0.4	1.3.6.1.4.1.9.9.13.1.4.1.3	= 6	A ciscoEnvMonFanNotification is sent if any one of the fans in the fan array (where existent) fails. Since such a notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.	Cisco Environment Monitoring Fan Notification - Not Functioning
ciscoEnvMonFanNotification	1.3.6.1.4.1.9.9.13.3.0.4	1.3.6.1.4.1.9.9.13.1.4.1.3	= 5	A ciscoEnvMonFanNotification is sent if any one of the fans in the fan array (where existent) fails. Since such a notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.	Cisco Environment Monitoring Fan Notification - Not Present
ciscoEnvMonFanNotification	1.3.6.1.4.1.9.9.13.3.0.4	1.3.6.1.4.1.9.9.13.1.4.1.3	= 4	A ciscoEnvMonFanNotification is sent if any one of the fans in the fan array (where existent) fails. Since such a notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.	Cisco Environment Monitoring Fan Notification - Shutdown

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
ciscoEnvMonFanNotification	1.3.6.1.4.1.9.9.13.3.0.4	1.3.6.1.4.1.9.9.13.1.4.1.3	= 2	A ciscoEnvMonFanNotification is sent if any one of the fans in the fan array (where existent) fails. Since such a notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.	Cisco Environment Monitoring Fan Notification - Warning
ciscoEnvMonRedundantSupplyNotification	1.3.6.1.4.1.9.9.13.3.0.5	1.3.6.1.4.1.9.9.13.1.5.1.3	= 3	A ciscoEnvMonRedundantSupplyNotification is sent if the redundant power supply (where exists) fails. Since such a notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.	Redundant Supply State - Critical
ciscoEnvMonRedundantSupplyNotification	1.3.6.1.4.1.9.9.13.3.0.5	1.3.6.1.4.1.9.9.13.1.5.1.3	= 1	A ciscoEnvMonRedundantSupplyNotification is sent if the redundant power supply (where exists) fails. Since such a notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.	Redundant Supply State - Normal

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
ciscoEnvMonRedundantSupplyNotification	1.3.6.1.4.1.9.9.13.3.0.5	1.3.6.1.4.1.9.9.13.1.5.1.3	= 6	A ciscoEnvMonRedundantSupplyNotification is sent if the redundant power supply (where exists) fails. Since such a notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.	Redundant Supply State - Not Functioning
ciscoEnvMonRedundantSupplyNotification	1.3.6.1.4.1.9.9.13.3.0.5	1.3.6.1.4.1.9.9.13.1.5.1.3	= 5	A ciscoEnvMonRedundantSupplyNotification is sent if the redundant power supply (where exists) fails. Since such a notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sentthan does the ciscoEnvMonShutdownNotification.	Redundant Supply State - Not Present
ciscoEnvMonRedundantSupplyNotification	1.3.6.1.4.1.9.9.13.3.0.5	1.3.6.1.4.1.9.9.13.1.5.1.3	= 4	A ciscoEnvMonRedundantSupplyNotification is sent if the redundant power supply (where exists) fails. Since such a notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.	Redundant Supply State - Shutdown

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
ciscoEnvMonRedundantSupplyNotification	1.3.6.1.4.1.9.9.13.3.0.5	1.3.6.1.4.1.9.9.13.1.5.1.3	= 2	A ciscoEnvMonRedundantSupplyNotification is sent if the redundant power supply (where exists) fails. Since such a notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.	Redundant Supply State - Warning
ciscoEnvMonTemperatureNotification	1.3.6.1.4.1.9.9.13.3.0.3	1.3.6.1.4.1.9.9.13.1.3.1.6	= 3	A ciscoEnvMonTemperatureNotification is sent if the temperature measured at a given test point is outside the normal range for the test point (i.e. is at the warning, critical, or shutdown stage). Since such a Notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.	Critical Temperature
ciscoEnvMonTemperatureNotification	1.3.6.1.4.1.9.9.13.3.0.3	1.3.6.1.4.1.9.9.13.1.3.1.6	= 1	A ciscoEnvMonTemperatureNotification is sent if the temperature measured at a given test point is outside the normal range for the test point (i.e. is at the warning, critical, or shutdown stage). Since such a Notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.	Normal Temperature

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
ciscoEnvMonTemperatureNotification	1.3.6.1.4.1.9.9.13.3.0.3	1.3.6.1.4.1.9.9.13.1.3.1.6	= 6	A ciscoEnvMonTemperatureNotification is sent if the temperature measured at a given test point is outside the normal range for the test point (i.e. is at the warning, critical, or shutdown stage). Since such a Notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.	Not Functioning
ciscoEnvMonTemperatureNotification	1.3.6.1.4.1.9.9.13.3.0.3	1.3.6.1.4.1.9.9.13.1.3.1.6	= 5	A ciscoEnvMonTemperatureNotification is sent if the temperature measured at a given test point is outside the normal range for the test point (i.e. is at the warning, critical, or shutdown stage). Since such a Notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.	Not Present
ciscoEnvMonTemperatureNotification	1.3.6.1.4.1.9.9.13.3.0.3	1.3.6.1.4.1.9.9.13.1.3.1.6	= 4	A ciscoEnvMonTemperatureNotification is sent if the temperature measured at a given test point is outside the normal range for the test point (i.e. is at the warning, critical, or shutdown stage). Since such a Notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.	Critical Temperature - Device Shutdown

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
ciscoEnvMonTemperatureNotification	1.3.6.1.4.1.9.9.13.3.0.3	1.3.6.1.4.1.9.9.13.1.3.1.6	= 2	A ciscoEnvMonTemperatureNotification is sent if the temperature measured at a given test point is outside the normal range for the test point (i.e. is at the warning, critical, or shutdown stage). Since such a Notification is usually generated before the shutdown state is reached, it can convey more data and has a better chance of being sent than does the ciscoEnvMonShutdownNotification.	Temperature Rising
newRoot	1.3.6.1.2.1.17.0.1	N/A	N/A	The newRoot trap indicates that the sending agent has become the new root of the Spanning Tree; the trap is sent by a bridge soon after its election as the new root, e.g., upon expiration of the Topology Change Timer, immediately subsequent to its election. Implementation of this trap is optional.	new root trap
stpxInconsistencyUpdate	1.3.6.1.4.1.9.9.82.2.0.1	1.3.6.1.4.1.9.9.82.1.3.1.1.3	=1	A stpxPortInconsistencyUpdate notification is sent by a bridge when an instance of stpxInconsistentState is created or destroyed. That is, when an inconsistency is discovered in the VLAN's Spanning Tree for a particular port, or when such an inconsistency disappears. Note that the trap is not sent if the port transitions between different types of inconsistency. The stpxInconsistentState value indicates the type of inconsistency which now exists/no longer exists for the relevant VLAN on the relevant port.	stpx port inconsistency discovered

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
stpxInconsistencyUpdate	1.3.6.1.4.1.9.9.82.2.0.1	1.3.6.1.4.1.9.9.82.1.3.1.1.4	=2	A stpxPortInconsistencyUpdate notification is sent by a bridge when an instance of stpxInconsistentState is created or destroyed. That is, when an inconsistency is discovered in the VLAN's Spanning Tree for a particular port, or when such an inconsistency disappears. Note that the trap is not sent if the port transitions betweendifferent types of inconsistency. The stpxInconsistentState value indicates the type of inconsistency which now exists/no longer exists for the relevant VLAN on the relevant port.	stpx port inconsistency resolved
stpxLoopInconsistencyUpdate	1.3.6.1.4.1.9.9.82.2.0.3	1.3.6.1.4.1.9.9.82.1.8.2.1.3	= 1	A stpxLoopInconsistencyUpdate notification is sent by a bridge when an instance of stpxLoopInconsistencyState is created or destroyed. That is, when an loop-inconsistency is discovered in the VLAN's or instance's Spanning Tree for a particular port, or when such a loop-inconsistency disappears. For creation, the value of stpxLoopInconsistencyState in the notification is true(1); for deletion, the value is false(2). The object value of stpxSpanningTreeType indicates which Spanning Tree protocol is running when an instance of stpxLoopInconsistencyState is created or destroyed.	stpx loop inconsistency discovered

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
stpxLoopInconsistencyUpdate	1.3.6.1.4.1.9.9.82.2.0.3	1.3.6.1.4.1.9.9.82.1.8.2.1.3	= 2	A stpxLoopInconsistencyUpdate notification is sent by abridge when an instance of stpxLoopInconsistencyState is created or destroyed. That is, when an loop-inconsistency is discovered in the VLAN's or instance's Spanning Tree for a particular port, or when such a loop-inconsistency disappears. For creation, the value of stpxLoopInconsistencyState in the notification is true(1); for deletion, the value is false(2). The object value of stpxSpanningTreeType indicates which Spanning Tree protocol is running when an instance of stpxLoopInconsistencyState is created or destroyed.	stpx loop inconsistency resolved
stpxRootInconsistencyUpdate	1.3.6.1.4.1.9.9.82.2.0.2	1.3.6.1.4.1.9.9.82.1.5.2.1.3	= 1	A stpxRootInconsistencyUpdate notification is sent by a bridge when an instance of stpxRootInconsistencyState is created or destroyed. That is, when an root-inconsistency is discovered in the VLAN's or instance's Spanning Tree for a particular port, or when such an root-inconsistency disappears. For creation, the value of stpxRootInconsistencyState in the notification is true(1); for deletion, the value is false(2). The object value of stpxSpanningTreeType indicates which Spanning Tree protocol is running when an instance of stpxRootInconsistencyState is created or destroyed.	stpx root inconsistency discovered

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
stpxRootInconsistencyUpdate	1.3.6.1.4.1.9.9.82.2.0.2	1.3.6.1.4.1.9.9.82.1.5.2.1.3	= 2	A stpxRootInconsistencyUpdate notification is sent by a bridge when an instance of stpxRootInconsistencyState is created or destroyed. That is, when an root-inconsistency is discovered in the VLAN's or instance's Spanning Tree for a particular port, or when such an root-inconsistency disappears. For creation, the value of stpxRootInconsistencyState in the notification is true(1); for deletion, the value is false(2). The object value of stpxSpanningTreeType indicates which Spanning Tree protocol is running when an instance of stpxRootInconsistencyState is created or destroyed.	stpx root inconsistency resolved
vtpConfigRevNumberError	1.3.6.1.4.1.9.9.46.2.0.1	N/A	N/A	A configuration revision number error notification signifies that a device has incremented its vtpConfigRevNumberErrors counter. Generation of this notification is suppressed if the vtpNotificationsEnabled has the value 'false'. The device must throttle the generation of consecutive vtpConfigRevNumberError notifications so that there is at least a five-second gap between notification of this type. When notification are throttled, they are dropped, not queued for sending at a future time. (Note that 'generating' a notification means sending to all configured recipients.)	vtp configuration revision number error trap

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
vtpConfigDigestError	1.3.6.1.4.1.9.9.46.2.0.2	N/A	N/A	A configuration digest error notification signifies that a device has incremented its vtpConfigDigestErrors counter. Generation of this notification is suppressed if the vtpNotificationsEnabled has the value 'false'. The device must throttle the generation of consecutive vtpConfigDigestError notifications so that there is at least a five-second gap between notification of this type. When notification are throttled, they are dropped, not queued for sending at a future time. (Note that 'generating' a notification means sending to all configured recipients).	vtp configuration digest error trap
ciscoEnvMonShutdownNotification	1.3.6.1.4.1.9.9.13.3.0.1	N/A	N/A	A ciscoEnvMonShutdownNotification is sent if the environmental monitor detects a test point reaching a critical state and is about to initiate a shutdown. This notification contains no objects so that it may be encoded and sent in the shortest amount of time possible. Even so, management applications should not rely on receiving such a notification as it may not be sent before the shutdown completes.	cisco EnvMon Shutdown Notification Trap

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
caemTemperatureNotification	1.3.6.1.4.1.9.9.61.2.0.1	N/A	N/A	A caemTemperatureNotification is sent if the over temperature condition is detected in the managed system. This is a replacement for the ciscoEnvMonTemperatureNotification trap because the information 'ciscoEnvMonTemperatureStatusValue' required by the trap is not available in the managed system.	caem Temperature Notification Trap
caemVoltageNotification	1.3.6.1.4.1.9.9.61.2.0.2	N/A	N/A	A caemVoltageNotification is sent if the over voltage condition is detected and ciscoEnvMonVoltageState is not set to 'notPresent' in the managed system. This is a replacement for the ciscoEnvMonVoltageNotification trap because the information 'ciscoEnvMonVoltageStatusValue' required by the trap is not available in the managed system.	caem Voltage Notification Trap
cmnMacChangedNotification	1.3.6.1.4.1.9.9.215.2.0.1	N/A	N/A	This notification is generated when there is enough MAC address information to fully occupy a maximum size SNMP trap message. This notification is also generated when there is at least one MAC address changed or removed and the amount of time elapsed from the previous notification is greater than the maximum wait time denoted by cmnNotificationInterval object. If there are more MAC addresses information than can fit into one cmmHistTrapContent object, then multiple notifications will be generated.	cmn Mac Changed Notification Trap

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
cmnMacMoveNotification	1.3.6.1.4.1.9.9.215.2.0.2	N/A	N/A	cmnMacMoveNotification is generated when a MAC address is moved between two interfaces.	cmn Mac Move Notification Trap
vtpVersionOneDeviceDetected	1.3.6.1.4.1.9.9.46.2.0.6	N/A	N/A	A VTP version one device detected notification is generated by a device when: a) a management domain has been put into version 2 mode (as accessed by managementDomainVersionInUse). b) 15 minutes has passed since a). c) a version 1 PDU is detected on a trunk on the device that is in that management domain which has a lower revision number than the current configuration.	vtp VersionOne Device Detected trap
vtpLocalModeChanged	1.3.6.1.4.1.9.9.46.2.0.8	N/A	N/A	A vtpLocalModeChanged notification is generated by a device when the value of the object managementDomainLocalMode is changed.	vtp Local Mode Changed trap
vtpVersionInUseChanged	1.3.6.1.4.1.9.9.46.2.0.9	N/A	N/A	A vtpVersionInUseChanged notification is generated by a device when the value of the object managementDomainVersionInUse is changed.	vtp VersionInUse Changed trap
vlanTrunkPortDynamicStatusChange	1.3.6.1.4.1.9.9.46.2.0.7	1.3.6.1.4.1.9.9.46.1.6.1.1.14	= 1	A vlanTrunkPortDynamicStatusChange notification is generated by a device when the value of vlanTrunkPortDynamicStatus object has been changed.	Vlan trunk port dynamic status changed to trunking
vlanTrunkPortDynamicStatusChange	1.3.6.1.4.1.9.9.46.2.0.7	1.3.6.1.4.1.9.9.46.1.6.1.1.14	2	A vlanTrunkPortDynamicStatusChange notification is generated by a device when the value of vlanTrunkPortDynamicStatus object has been changed.	Vlan trunk port dynamic status changed to not trunking

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
cpsSecureMacAddrViolation	1.3.6.1.4.1.9.9.315.0.0.1	N/A	N/A	The address violation notification is generated when port security address violation is detected on a secure non-trunk, access interface (that carries a single vlan) and the cpsIfViolationAction is set to 'dropNotify'.	cps Secure MacAddr Violation Trap
cpsIfVlanSecureMacAddrViolation	1.3.6.1.4.1.9.9.315.0.0.3	N/A	N/A	The address violation notification is generated when port security address violation is detected on a multi-vlan interface and the cpsIfViolationAction is set to 'dropNotify'.	cps IfVlan Secure MacAddr Violation Trap
clcVlanMacLimitNotif	1.3.6.1.4.1.9.9.313.0.1	N/A	N/A	Notification is sent when the number of MAC addresses (the value of clcFdbVlanMacUsage) has crossed the configured limit of MAC addresses (clcVlanMaxMacLimit) either rising above or falling below it.	cisco L2 Control VlanMacLimit Notif Trap
clcVlanMacLimitHighNotif	1.3.6.1.4.1.9.9.313.0.2	N/A	N/A	Notification is sent when the number of MAC addresses (the value of clcFdbVlanMacUsage) has crossed the configured higher threshold limit of MAC addresses (clcVlanMacLimitHigh) either rising above or falling below it.	cisco L2 Control VlanMacLimit High Notif Trap
clcIfMacLimitLowNotif	1.3.6.1.4.1.9.9.313.0.3	N/A	N/A	Notification is sent when the number of MAC addresses (the value of clcFdbIfMacUsage) has crossed the configured lower threshold limit of MAC addresses (clcIfMacLimitLow) either rising above or falling below it.	cisco L2 Control IfMacLimit Low Notif Trap

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
clcIfMacLimitHighNotif	1.3.6.1.4.1.9.9.313.0.4	N/A	N/A	Notification is sent when the number of MAC addresses (the value of clcFdbIfMacUsage) has crossed the configured higher threshold limit of MAC addresses (clcIfMacLimitHigh) either rising above or falling below it.	cisco L2 Control IfMacLimit High Notif Trap
clcIfVlanMacLimitLowNotif	1.3.6.1.4.1.9.9.313.0.5	N/A	N/A	Notification is sent when the number of MAC addresses (the value of clcFdbIfVlanMacUsage) has crossed the configured lower threshold limit of MAC addresses (clcIfVlanMacLimitLow) either rising above or falling below it.	cisco L2 Control IfVlanMacLimit Low Notif Trap
clcIfVlanMacLimitHighNotif	1.3.6.1.4.1.9.9.313.0.6	N/A	N/A	Notification is sent when the number of MAC addresses (the value of clcFdbIfVlanMacUsage) has crossed the configured higher threshold limit of MAC addresses (clcIfVlanMacLimitHigh) either rising above or falling below it.	cisco L2 Control IfVlanMacLimit High Notif Trap
csbSourceAlertEvent	1.3.6.1.4.1.9.9.658.0.1	1.3.6.1.4.1.9.9.658.1.2	= 1	This notification is generated when after SIP/H.248 call establishment with one party, the media packets are received from some unexpected source/party (or some wrong/unexpected IP address). This is to alert that some unwanted data packets are received by the system from an undesirable IP/port.	Cisco SBC source alert off trap

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
csbSourceAlertEvent	1.3.6.1.4.1.9.9.658.0.1	1.3.6.1.4.1.9.9.658.1.2	!= (1 or 7)	This notification is generated when after SIP/H.248 call establishment with one party, the media packets are received from some unexpected source/party (or some wrong/unexpected IP address). This is to alert that some unwanted data packets are received by the system from an undesirable IP/port.	Cisco SBC source alert on trap
csbSourceAlertEvent	1.3.6.1.4.1.9.9.658.0.1	1.3.6.1.4.1.9.9.658.1.2	= 7	This notification is generated when after SIP/H.248 call establishment with one party, the media packets are received from some unexpected source/party (or some wrong/unexpected IP address). This is to alert that some unwanted data packets are received by the system from an undesirable IP/port.	Cisco SBC source alert informational trap
csbDynamicBlackListEvent	1.3.6.1.4.1.9.9.658.0.2	1.3.6.1.4.1.9.9.658.1.2	= 1	This notification is generated when a source is added to or removed from the blacklist table. Dynamic blacklists put in place automatically (subject to a set of configurable constraints) by the SBC when it detects an attempt to disrupt traffic flowing through it. Dynamic blacklisting does not require management interference. Blacklist table is restricted only to SBC service. This table is not made available to NM. For more Information on Dynamic Blacklisting refer to the following link: http://lbj.cisco.com/push_targets1/ucdit/cc/td/doc/product/iox soft/iox34/cgcr34/sbc_c34/sbc 34dos.htm or Search cisco.com using keywords 'DoS Prevention and Dynamic Blacklisting'.	Cisco SBC dynamic blacklist trap

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
csbAdjacencyStatus	1.3.6.1.4.1.9.9.658.0.3	1.3.6.1.4.1.9.9.658.1.2	= 1	This notification is generated when an Adjacency is attached to (or detached from) the SBC.	Cisco SBC adjacency state up trap
csbAdjacencyStatus	1.3.6.1.4.1.9.9.658.0.3	1.3.6.1.4.1.9.9.658.1.2	!= (1 or 7)	This notification is generated when an Adjacency is attached to (or detached from) the SBC.	Cisco SBC adjacency state down trap
csbAdjacencyStatus	1.3.6.1.4.1.9.9.658.0.3	1.3.6.1.4.1.9.9.658.1.2	= 7	This notification is generated when an Adjacency is attached to (or detached from) the SBC.	Cisco SBC adjacency state informational trap
csbServiceStateEvent	1.3.6.1.4.1.9.9.658.0.4	1.3.6.1.4.1.9.9.658.1.28	= 1	This notification is generated when there is a change in the state of a service card. The changes in the service state are Active and Standby.	Cisco SBC service state up trap
csbServiceStateEvent	1.3.6.1.4.1.9.9.658.0.4	1.3.6.1.4.1.9.9.658.1.28	= 3	This notification is generated when there is a change in the state of a service card. The changes in the service state are Active and Standby.	Cisco SBC service state down trap
csbServiceStateEvent	1.3.6.1.4.1.9.9.658.0.4	1.3.6.1.4.1.9.9.658.1.28	= 2	This notification is generated when there is a change in the state of a service card.The changes in the service state are Active and Standby.	Cisco SBC service state informational trap
csbSystemCongestionAlarmEvent	1.3.6.1.4.1.9.9.658.0.5	1.3.6.1.4.1.9.9.658.1.2	= 1	This notification is generated when CPU/Memory congestion in SBC is raised or cleared.	Cisco SBC system congestion cleared trap
csbSystemCongestionAlarmEvent	1.3.6.1.4.1.9.9.658.0.5	1.3.6.1.4.1.9.9.658.1.2	!= (1 or 7)	This notification is generated when CPU/Memory congestion in SBC is raised or cleared.	Cisco SBC system congestion raised trap
csbSystemCongestionAlarmEvent	1.3.6.1.4.1.9.9.658.0.5	1.3.6.1.4.1.9.9.658.1.2	= 7	This notification is generated when CPU/Memory congestion in SBC is raised or cleared.	Cisco SBC system congestion informational trap

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
csbSLAViolationRev1	1.3.6.1.4.1.9.9.658.0.10	1.3.6.1.4.1.9.9.658.1.2	= 1	This notification is generated when there is a violation of Service Level Agreement as described in the policy tables. The typical service level agreements include maximum number of calls allowed, max call rate, max bandwidth etc. This notification replaces the csbSLAViolation notification.	Cisco SBC SLA violation off trap
csbSLAViolationRev1	1.3.6.1.4.1.9.9.658.0.10	1.3.6.1.4.1.9.9.658.1.2	!= (1 or 7)	This notification is generated when there is a violation of Service Level Agreement as described in the policy tables. The typical service level agreements include maximum number of calls allowed, max call rate, max bandwidth etc. This notification replaces the csbSLAViolation notification.	Cisco SBC SLA violation on trap
csbSLAViolationRev1	1.3.6.1.4.1.9.9.658.0.10	1.3.6.1.4.1.9.9.658.1.2	= 7	This notification is generated when there is a violation of Service Level Agreement as described in the policy tables. The typical service level agreements include maximum number of calls allowed, max call rate, max bandwidth etc. This notification replaces the csbSLAViolation notification.	Cisco SBC SLA violation informational trap
csbRadiusConnectionStatus	1.3.6.1.4.1.9.9.658.0.7	1.3.6.1.4.1.9.9.658.1.2	= 1	This notification is generated when the connection to the radius server changes (connected or disconnected).	Cisco SBC radius connection state up trap
csbRadiusConnectionStatus	1.3.6.1.4.1.9.9.658.0.7	1.3.6.1.4.1.9.9.658.1.2	!= (1 or 7)	This notification is generated when the connection to the radius server changes (connected or disconnected).	Cisco SBC radius connection state down trap
csbRadiusConnectionStatus	1.3.6.1.4.1.9.9.658.0.7	1.3.6.1.4.1.9.9.658.1.2	= 7	This notification is generated when the connection to the radius server changes (connected or disconnected).	Cisco SBC radius connection state informational trap

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
csbH248ControllerStatus	1.3.6.1.4.1.9.9.658.0.9	1.3.6.1.4.1.9.9.658.1.2	= 1	This notification is generated when in distributed deployment model, a DBE is attached or detached from the SBC.	Cisco SBC H248 controller state up trap
csbH248ControllerStatus	1.3.6.1.4.1.9.9.658.0.9	1.3.6.1.4.1.9.9.658.1.2	!= (1 or 7)	This notification is generated when in distributed deployment model, a DBE is attached or detached from the SBC.	Cisco SBC H248 controller state down trap
csbH248ControllerStatus	1.3.6.1.4.1.9.9.658.0.9	1.3.6.1.4.1.9.9.658.1.2	= 7	This notification is generated when in distributed deployment model, a DBE is attached or detached from the SBC.	Cisco SBC H248 controller state informational trap
rttMonConnectionChangeNotification	1.3.6.1.4.1.9.9.42.2.0.1	N/A	N/A	This notification is only valid when the RttMonRttType is 'echo' or 'pathEcho'.A rttMonConnectionChangeNotification indicates that a connection to a target (not to a hop along the path to a target) has failed on establishment or been lost and when reestablished. Precisely, this has resulted in rttMonCtrlOperConnectionLostOccurred changing value.	RTT Connection Change
rttMonTimeoutNotification	1.3.6.1.4.1.9.9.42.2.0.2	N/A	N/A	A rttMonTimeoutNotification indicates the occurrence of a timeout for a RTT operation, and it indicates the clearing of such a condition by a subsequent RTT operation. Precisely, this has resulted in rttMonCtrlOperTimeoutOccurred changing value. When the RttMonRttType is 'pathEcho', this notification will only be sent when the timeout occurs during an operation to the target and not to a hop along the path to the target. This also applies to the clearing of the timeout.	RTT Operation Timeout

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
rttMonThresholdNotification	1.3.6.1.4.1.9.9.42.2.0.3	N/A	N/A	A rttMonThresholdNotification indicates the occurrence of a threshold violation for a RTT operation, and it indicates the previous violation has subsided for a subsequent RTT operation. Precisely, this has resulted in rttMonCtrlOperOverThresholdOccurred changing value. When the RttMonRttType is 'pathEcho', this notification will only be sent when the threshold violation occurs during an operation to the target and not to a hop along the path to the target. This also applies to the subsiding of a threshold condition.	RTT Operation Threshold Violation
rttMonVerifyErrorNotification	1.3.6.1.4.1.9.9.42.2.0.4	N/A	N/A	A rttMonVerifyErrorNotification indicates the occurrence of a data corruption in an RTT operation.	RTT Verify Error
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	N/A	N/A	A rttMonNotification indicates the occurrence of a threshold violation, and it indicates the previous violation has subsided for a subsequent operation.	RTT threshold violation or clearance
rttMonLpdDiscoveryNotification	1.3.6.1.4.1.9.9.42.2.0.6	N/A	N/A	A rttMonLpdDiscoveryNotification indicates that the LSP Path Discovery to the target PE has failed, and it also indicates the clearing of such condition. Precisely this has resulted in rttMonLpdGrpStatsLPDFailOccurred changing value. When the rttMonLpdGrpStatsLPDFailOccurred is 'false', the instance value for rttMonLpdGrpStatsLPDFailCause is not valid.	RTT Lpd Discovery

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
rttMonLpdGrpStatus Notification	1.3.6.1.4.1.9.9.42.2.0.7	N/A	N/A	A rttMonLpdGrpStatusNotification indicates that the LPD Group status rttMonLpdGrpStatsGroupStatus has changed indicating some connectivity change to the target PE. This has resulted in rttMonLpdGrpStatsGroupStatus changing value.	RTT Lpd Grp Status
imaFailureAlarm	1.3.6.1.4.1.353.5.7.1.2.0.1	1.3.6.1.4.1.353.5.7.1.1.6	10,12,15	ima-Group-FailureAlarm v2	IMA Group Remote Failure
imaFailureAlarm	1.3.6.1.4.1.353.5.7.1.2.0.1	1.3.6.1.4.1.353.5.7.1.1.6	14	ima-Group-FailureAlarm v2	IMA Group Remote insufficient links trap
imaFailureAlarm	1.3.6.1.4.1.353.5.7.1.2.0.1	1.3.6.1.4.1.353.5.7.1.1.5	1	ima-Group-ClearingAlarm v2	IMA Group Up Trap
imaFailureAlarm	1.3.6.1.4.1.353.5.7.1.2.0.1	1.3.6.1.4.1.353.5.7.1.1.6	11,16	ima-Group-FailureAlarm v2	IMA Group local Failure
imaFailureAlarm	1.3.6.1.4.1.353.5.7.1.2.0.1	1.3.6.1.4.1.353.5.7.1.1.6	13	ima-Group-FailureAlarm v2	IMA Group local insufficient links trap
imaFailureAlarm	1.3.6.1.4.1.353.5.7.1.2.0.1	1.3.6.1.4.1.353.5.7.1.1.6	2	ima Link FailureAlarm v2	Ima Link Loss of delay Frame Trap
imaFailureAlarm	1.3.6.1.4.1.353.5.7.1.2.0.1	1.3.6.1.4.1.353.5.7.1.1.6	1	ima Link FailureAlarm v2	Ima Link Loss of ima Frame Trap
imaFailureAlarm	1.3.6.1.4.1.353.5.7.1.2.0.1	1.3.6.1.4.1.353.5.7.1.1.6	5,7,9	ima Link FailureAlarm v2	Ima Link Rcv Failure Trap
imaFailureAlarm	1.3.6.1.4.1.353.5.7.1.2.0.1	1.3.6.1.4.1.353.5.7.1.1.6	3	ima Link FailureAlarm v2	Ima Link Remote Failure Trap
imaFailureAlarm	1.3.6.1.4.1.353.5.7.1.2.0.1	1.3.6.1.4.1.353.5.7.1.1.5	1	ima-Link-ClearingAlarm v2	Ima Link Up Trap
imaFailureAlarm	1.3.6.1.4.1.353.5.7.1.2.0.1	1.3.6.1.4.1.353.5.7.1.1.6	4,6,8	ima Link FailureAlarm v2	Ima Link Xmt Failure Trap

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
Cisco-UMT-state-change-v2	1.3.6.1.4.1.9.9.483.0.2	N/A	N/A	The state of the connection between the UMTS interfaces.	Cisco UMT state Change trap
Cisco-GSM-state-change-trap-v2	1.3.6.1.4.1.9.9.483.0.1	N/A	N/A	The state of the connection between the GSM interfaces.	Cisco GSM state Change trap
Cisco-IPRAN-Backhaul-received-util-v2	1.3.6.1.4.1.9.9.483.0.3	1.3.6.1.4.1.9.9.483.1.2.2.1.1.1.3	1	When Rcvd. util changes froto any of the status : acceptable, warning, overloaded.	IPRAN Backhaul Received Util Acceptable Trap
Cisco-IPRAN-Backhaul-received-util-v2	1.3.6.1.4.1.9.9.483.0.3	1.3.6.1.4.1.9.9.483.1.2.2.1.1.1.3	2	When Rcvd. util changes froto any of the status : acceptable, warning, overloaded.	IPRAN Backhaul Received Util Warning Trap
Cisco-IPRAN-Backhaul-received-util-v2	1.3.6.1.4.1.9.9.483.0.3	1.3.6.1.4.1.9.9.483.1.2.2.1.1.1.3	3	When Rcvd. util changes froto any of the status : acceptable, warning, overloaded.	IPRAN Backhaul Received Util Overloaded Trap
Cisco-IPRAN-Backhaul-sent-util-v2	1.3.6.1.4.1.9.9.483.0.4	1.3.6.1.4.1.9.9.483.1.2.2.1.1.1.4	1	When sent util changes froto any of the status : acceptable, warning, overloaded.	IPRAN Backhaul Sent Util Acceptable Trap
Cisco-IPRAN-Backhaul-sent-util-v2	1.3.6.1.4.1.9.9.483.0.4	1.3.6.1.4.1.9.9.483.1.2.2.1.1.1.4	2	When sent util changes froto any of the status : acceptable, warning, overloaded.	IPRAN Backhaul Sent Util Overloaded Trap
Cisco-IPRAN-Backhaul-sent-util-v2	1.3.6.1.4.1.9.9.483.0.4	1.3.6.1.4.1.9.9.483.1.2.2.1.1.1.4	3	When sent util changes froto any of the status : acceptable, warning, overloaded.	IPRAN Backhaul Sent Util Warning Trap
rttMonConnectionChangeNotification	1.3.6.1.4.1.9.9.42.2.0.1	1.3.6.1.4.1.9.9.42.1.2.9.1.5	1	IPSLA echo ConnLoss Trap v2	Connection Loss detected by ipsla icmp echo trap
rttMonConnectionChangeNotification	1.3.6.1.4.1.9.9.42.2.0.1	1.3.6.1.4.1.9.9.42.1.2.9.1.5	2	IPSLA echo ConnLoss Trap v2	Connection re-establish detected by ipsla icmp echo trap
rttMonTimeoutNotification	1.3.6.1.4.1.9.9.42.2.0.2	1.3.6.1.4.1.9.9.42.1.2.9.1.6	1	IPSLA IP or LSP echo Timeout trap v2	Timeout detected by ipsla icmp echo trap
rttMonTimeoutNotification	1.3.6.1.4.1.9.9.42.2.0.2	1.3.6.1.4.1.9.9.42.1.2.9.1.6	2	IPSLA IP or LSP echo Timeout trap v2	Connection re-establish detected by ipsla icmp echo trap
rttMonThresholdNotification	1.3.6.1.4.1.9.9.42.2.0.3	1.3.6.1.4.1.9.9.42.1.2.9.1.7	1	IPSLA Threshold Notification trap v2	Threshold crossing under trap
rttMonThresholdNotification	1.3.6.1.4.1.9.9.42.2.0.3	1.3.6.1.4.1.9.9.42.1.2.9.1.7	2	IPSLA Threshold Notification trap v2	Threshold crossing over trap

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
rttMonVerifyErrorNotification	1.3.6.1.4.1.9.9.42.2.0.4	1.3.6.1.4.1.9.9.42.1.2.9.1.11	1	IPSLA Threshold Notification deprecated trap v2	Data corruption in rtt operation trap
rttMonVerifyErrorNotification	1.3.6.1.4.1.9.9.42.2.0.4	1.3.6.1.4.1.9.9.42.1.2.9.1.11	2	IPSLA Threshold Notification deprecated trap v2	Data corruption cleared in rtt operation trap
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	8, null, 1	RTT MON notification	Connection Loss detected by ipsla icmp echo trap
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	8, not null, 1	RTT MON notification	Connection Loss detected by ipsla LSP icmp echo trap
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	8, null, 2	RTT MON notification	Connection re-establish detected by ipsla icmp echo trap
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	8, not null, 2	RTT MON notification	Connection re-establish detected by ipsla LSP icmp echo trap

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, null, 1	RTT MON notification	Timeout detected by ipsla icmp echo trap
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, not null, 1	RTT MON notification	Timeout detected by ipsla LSP icmp echo trap
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, null, 2	RTT MON notification	Connection re-establish detected by ipsla icmp echo trap
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, not null, 2	RTT MON notification	Connection re-establish detected by ipsla LSP icmp echo trap
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	1, 1	RTT MON notification	RTT threshold crossing over trap

Table 11-3 Cisco IOS V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	1, 2	RTT MON notification	RTT threshold crossing under trap
rttMonLpdDiscoveryNotification	1.3.6.1.4.1.9.9.42.2.0.6	1.3.6.1.4.1.9.9.42.1.3.7.1.13	1	IPSLA LPD Discovery trap v2	IPSLA LSP path discovery failure trap
rttMonLpdDiscoveryNotification	1.3.6.1.4.1.9.9.42.2.0.6	1.3.6.1.4.1.9.9.42.1.3.7.1.13	2	IPSLA LPD Discovery trap v2	IPSLA LSP path rediscovery trap
rttMonLpdGrpStatusNotification	1.3.6.1.4.1.9.9.42.2.0.7	1.3.6.1.4.1.9.9.42.1.3.7.1.16	3,4	IPSLA LDP Group Status trap v2	IPSLA LDP group status failure trap
rttMonLpdGrpStatusNotification	1.3.6.1.4.1.9.9.42.2.0.7	1.3.6.1.4.1.9.9.42.1.3.7.1.16	2	IPSLA LDP Group Status trap v2	IPSLA LDP group status restoration trap
cmplsFrrProtected	1.3.6.1.4.1.9.10.98.0.1	N/A	N/A	TE FRR trigger notification - protected trap v2	FRR Protected Trap
cmplsFrrUnProtected	1.3.6.1.4.1.9.10.98.0.2	N/A	N/A	TE FRR trigger notification - unprotected trap v2	FRR Unprotected Trap
cpwVcUp	1.3.6.1.4.1.9.10.106.2.2	N/A	N/A	This notification is generated when the cpwVcOperStatus object for one or more contiguous entries in cpwVcTable are about to enter the up(1) state from some other state.	Pseudo wire tunnel up
cpwVcDown	1.3.6.1.4.1.9.10.106.2.1	N/A	N/A	This notification is generated when the cpwVcOperStatus object for one or more contiguous entries in cpwVcTable are about to enter the down(2) state from some other state.	Pseudo wire tunnel down

Cisco IOX V1 Traps

Table 11-4 lists the Cisco IOX SNMP V1 traps supported in Cisco ANA. For associated event types, event subtypes, and Cisco ANA registry parameters, use the link under Short Description or see Table 11-11.

Table 11-4 Cisco IOX V1 Traps

Trap Name	Generic Type	Specific Type	Enterprise OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
cpwVcUp	6	2	1.3.6.1.4.1.9.10.106.2	N/A	N/A	This notification is generated when the cpwVcOperStatus object for one or more contiguous entries in cpwVcTable are about to enter the up(1) state from some other state.	Pseudo wire tunnel up
cpwVcDown	6	1	1.3.6.1.4.1.9.10.106.2	N/A	N/A	This notification is generated when the cpwVcOperStatus object for one or more contiguous entries in cpwVcTable are about to enter the up(1) state from some other state.	Pseudo wire tunnel down
MIB2 V1 link down	2	0	1.3.6.1.6.3.1.1.5	N/A	N/A	A linkDown trap signifies that the sending protocol entity recognizes a failure in one of the communication links represented in the agent's configuration. The Trap-PDU of type linkDown contains as the first element of its variable-bindings, the name and value of the ifIndex instance for the affected interface.	SNMP Link down

Table 11-4 Cisco IOX V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
MIB2 V1 link up	3	0	1.3.6.1.6.3.1.1.5	N/A	N/A	A linkUp trap signifies that the sending protocol entity recognizes that one of the communication links represented in the agent's configuration has come up. The Trap-PDU of type linkUp contains as the first element of its variable-bindings, the name and value of the ifIndex instance for the affected interface.	SNMP Link up
rttMonConnectionChangeNotification	6	1	1.3.6.1.4.1.9.9.42.2	1.3.6.1.4.1.9.9.42.1.2.9.1.5	1	IPSLA echo ConnLoss Trap v2	Connection Loss detected by ipsla icmp echo trap
rttMonConnectionChangeNotification	6	1	1.3.6.1.4.1.9.9.42.2	1.3.6.1.4.1.9.9.42.1.2.9.1.5	2	IPSLA echo ConnLoss Trap v2	Connection re-establish detected by ipsla icmp echo trap
rttMonTimeoutNotification	6	2	1.3.6.1.4.1.9.9.42.2	1.3.6.1.4.1.9.9.42.1.2.9.1.6	1	IPSLA IP or LSP echo Timeout trap v2	Timeout detected by ipsla icmp echo trap
rttMonTimeoutNotification	6	2	1.3.6.1.4.1.9.9.42.2	1.3.6.1.4.1.9.9.42.1.2.9.1.6	2	IPSLA IP or LSP echo Timeout trap v2	Connection re-establish detected by ipsla icmp echo trap
rttMonThresholdNotification	6	3	1.3.6.1.4.1.9.9.42.2	1.3.6.1.4.1.9.9.42.1.2.9.1.7	1	IPSLA Threshold Notification trap v2	Threshold crossing under trap
rttMonThresholdNotification	6	3	1.3.6.1.4.1.9.9.42.2	1.3.6.1.4.1.9.9.42.1.2.9.1.7	2	IPSLA Threshold Notification trap v2	Threshold crossing over trap
rttMonVerifyErrorNotification	6	4	1.3.6.1.4.1.9.9.42.2	1.3.6.1.4.1.9.9.42.1.2.9.1.11	1	IPSLA Threshold Notification deprecated trap v2	Data corruption in rtt operation trap

Table 11-4 Cisco IOX V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
rttMonVerifyError Notification	6	4	1.3.6.1.4. 1.9.9.42.2	1.3.6.1.4.1 .9.9.42.1.2 .9.1.11	2	IPSLA Threshold Notification deprecated trap v2	Data corruption cleared in rtt operation trap
rttMonNotification	6	5	1.3.6.1.4. 1.9.9.42.2	1.3.6.1.4.1 .9.9.42.1.2 .19.1.2, 1.3.6.1.4.1 .9.9.42.1.2 .2.1.33, 1.3.6.1.4.1 .9.9.42.1.2 .19.1.10	8, null, 1	RTT MON notification	Connection Loss detected by ipsla icmp echo trap
rttMonNotification	6	5	1.3.6.1.4. 1.9.9.42.2	1.3.6.1.4.1 .9.9.42.1.2 .19.1.2, 1.3.6.1.4.1 .9.9.42.1.2 .2.1.33, 1.3.6.1.4.1 .9.9.42.1.2 .19.1.10	8, not null, 1	RTT MON notification	Connection Loss detected by ipsla LSP icmp echo trap
rttMonNotification	6	5	1.3.6.1.4. 1.9.9.42.2	1.3.6.1.4.1 .9.9.42.1.2 .19.1.2, 1.3.6.1.4.1 .9.9.42.1.2 .2.1.33, 1.3.6.1.4.1 .9.9.42.1.2 .19.1.10	8, null, 2	RTT MON notification	Connection re-establish detected by ipsla icmp echo trap
rttMonNotification	6	5	1.3.6.1.4. 1.9.9.42.2	1.3.6.1.4.1 .9.9.42.1.2 .19.1.2, 1.3.6.1.4.1 .9.9.42.1.2 .2.1.33, 1.3.6.1.4.1 .9.9.42.1.2 .19.1.10	8, not null, 2	RTT MON notification	Connection re-establish detected by ipsla LSP icmp echo trap

Table 11-4 Cisco IOX V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
rttMonNotification	6	5	1.3.6.1.4.1.9.9.42.2	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, null, 1	RTT MON notification	Timeout detected by ipsla icmp echo trap
rttMonNotification	6	5	1.3.6.1.4.1.9.9.42.2	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, not null, 1	RTT MON notification	Timeout detected by ipsla LSP icmp echo trap
rttMonNotification	6	5	1.3.6.1.4.1.9.9.42.2	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, null, 2	RTT MON notification	Connection re-establish detected by ipsla icmp echo trap
rttMonNotification	6	5	1.3.6.1.4.1.9.9.42.2	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, not null, 2	RTT MON notification	Connection re-establish detected by ipsla LSP icmp echo trap
rttMonNotification	6	5	1.3.6.1.4.1.9.9.42.2	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	1, 1	RTT MON notification	RTT threshold crossing over trap

Table 11-4 Cisco IOX V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
rttMonNotification	6	5	1.3.6.1.4.1.9.9.42.2	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	1, 2	RTT MON notification	RTT threshold crossing under trap
rttMonLpdDiscoveryNotification	6	6	1.3.6.1.4.1.9.9.42.2	1.3.6.1.4.1.9.9.42.1.3.7.1.13	1	IPSLA LPD Discovery trap v2	IPSLA LSP path discovery failure trap
rttMonLpdDiscoveryNotification	6	6	1.3.6.1.4.1.9.9.42.2	1.3.6.1.4.1.9.9.42.1.3.7.1.13	2	IPSLA LPD Discovery trap v2	IPSLA LSP path rediscovery trap
rttMonLpdGrpStatusNotification	6	7	1.3.6.1.4.1.9.9.42.2	1.3.6.1.4.1.9.9.42.1.3.7.1.16	3,4	IPSLA LDP Group Status trap v2	IPSLA LDP group status failure trap
rttMonLpdGrpStatusNotification	6	7	1.3.6.1.4.1.9.9.42.2	1.3.6.1.4.1.9.9.42.1.3.7.1.16	2	IPSLA LDP Group Status trap v2	IPSLA LDP group status restoration trap
cmplsFrrProtected	6	1	1.3.6.1.4.1.9.10.98	N/A	N/A	TE FRR trigger notification v1	FRR Protected Trap
cmplsFrrUnProtected	6	2	1.3.6.1.4.1.9.10.98	N/A	N/A	TE FRR trigger notification v1	FRR Unprotected Trap
cpwVcUp	6	2	1.3.6.1.4.1.9.10.106.2	N/A	N/A	This notification is generated when the cpwVcOperStatus object for one or more contiguous entries in cpwVcTable are about to enter the up(1) state from some other state.	Pseudo wire tunnel up
cpwVcDown	6	1	1.3.6.1.4.1.9.10.106.2	N/A	N/A	This notification is generated when the cpwVcOperStatus object for one or more contiguous entries in cpwVcTable are about to enter the up(1) state from some other state.	Pseudo wire tunnel down
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Far end LOF

Table 11-4 Cisco IOX V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near end sending LOF Indication
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Far end sending AIS
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near end sending AIS
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near end LOF
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near end Loss of Signal
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near end is looped
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 E1 TS16 AIS
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Far End Sending TS16 LOMF
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near End Sending TS16 LOMF
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near End detects a test code
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 any line status not defined here
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near End in Unavailable Signal State
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Carrier Equipment Out of Service

Table 11-4 Cisco IOX V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 DS2 Payload AIS
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 DS2 Performance Threshold Exceeded
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 combination of bitmaps due to multiple failures
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 No alarm present
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX3 Receiving Yellow/Remote Alarm Indication
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX3 Transmitting Yellow/Remote Alarm Indication
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX3 Receiving AIS failure state
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX3 Transmitting AIS
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX3 Receiving LOF failure state
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX3 Receiving LOS failure state
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX3 Looping the received signal

Table 11-4 Cisco IOX V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX3 Receiving a Test Pattern
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX3 any line status not defined here
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX3 Near End in Unavailable Signal State
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX3 Carrier Equipment Out of Service
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX3 combination of bitmaps due to multiple failures
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	N/A	N/A	Indicates the line status of dsx1 interface	DSX3 No alarm present
entConfigChange	6	1	1.3.6.1.2.1.47.2	N/A	N/A	An entConfigChange notification is generated when the value of entLastChangeTime changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.	Entity table configuration changed
Frame-Relay dlci status change trap v1	6	1	1.3.6.1.2.1.10.32	N/A	N/A	This trap indicates that the indicated Virtual Circuit has changed state. It has either been created or invalidated, or has toggled between the active and inactive states.	FR DLCI status invalid trap

Table 11-4 Cisco IOX V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
Frame-Relay dlci status change trap v1	6	1	1.3.6.1.2.1.10.32	N/A	N/A	This trap indicates that the indicated Virtual Circuit has changed state. It has either been created or invalidated, or has toggled between the active and inactive states.	FR DLCI status inactive trap
Frame-Relay dlci status change trap v1	6	1	1.3.6.1.2.1.10.32	N/A	N/A	This trap indicates that the indicated Virtual Circuit has changed state. It has either been created or invalidated, or has toggled between the active and inactive states.	FR DLCI status active trap

Cisco IOX V2 Traps

Table 11-5 lists the Cisco IOX SNMP V2 traps supported in Cisco ANA. For associated event types, event subtypes, and Cisco ANA registry parameters, use the link under Short Description or see Table 11-12.

Table 11-5 Cisco IOX V2 Traps

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
cbfDefineFileCompletion	1.3.6.1.4.1.9.9.81.2.0.1	N/A	N/A	A cbfDefineFileCompletion notification is sent on the following conditions :	CBF File operation state indicator
cbgpBackwardTransition	1.3.6.1.4.1.9.9.187.0.2	1.3.6.1.4.1.9.9.187.0.2	!= (1or 6)	The cbgpBackwardTransition Event is generated when the BGP FSM moves from a higher numbered state to a lower numbered state. The bgpPeerRemoteAddr value is attached to the notification object ID.	Cisco BGP backward transition trap
cbgpFsmStateChange	1.3.6.1.4.1.9.9.187.0.1	1.3.6.1.4.1.9.9.187.0.2	= 1	The BGP cbgpFsmStateChange notification is generated for every BGP FSM state change.	Cisco BGP down trap
cbgpFsmStateChange	1.3.6.1.4.1.9.9.187.0.1	1.3.6.1.4.1.9.9.187.0.2	= 6	The BGP cbgpFsmStateChange notification is generated for every BGP FSM state change.	Cisco BGP established trap

Table 11-5 Cisco IOX V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
cbgpPrefixThresholdExceeded	1.3.6.1.4.1.9.9.187.0.3	N/A	N/A	The cbgpPrfefixMaxThresholdExceeded notification is generated when prefix count exceeds the configured warning threshold on a session for an address family	Cisco BGP prefix threshold exceeded
cbgpPrefixThresholdClear	1.3.6.1.4.1.9.9.187.0.4	N/A	N/A	The cbgpPrefixThresholdClear notification is generated when prefix count drops below the configured clear threshold on a session for an address family once cbgpPrefixThresholdExceeded is generated. This won't be generated if the peer session goes down after the generation of bgpPrefixThresholdExceeded. The bgpPeerRemoteAddr, bgpPeerAddrFamilyAfi and cbgpPeerAddrFamilySafi values are attached to the notification object ID.	Cisco BGP prefix threshold clear
ccCopyCompletion	1.3.6.1.4.1.9.9.96.2.1.1	N/A	N/A	A ccCopyCompletion trap is sent at the completion of a config-copy request. The ccCopyFailCause is not instantiated, and hence not included in a trap, when the ccCopyState is success	Config-copy request completion
cefcFanTrayStatusChange	1.3.6.1.4.1.9.9.117.2.0.6	1.3.6.1.4.1.9.9.117.1.4.1.1.1	!=2	This notification is generated when the value of cefcFanTrayOperStatus changes.	cefc fan-tray oper status down
cefcFanTrayStatusChange	1.3.6.1.4.1.9.9.117.2.0.6	1.3.6.1.4.1.9.9.117.1.4.1.1.1	=2	This notification is generated when the value of cefcFanTrayOperStatus changes.	cefc fan-tray oper status up
cefcFRUInserted	1.3.6.1.4.1.9.9.117.2.0.3	N/A	N/A	The cecfFRUInserted notification indicates that a FRU was inserted. The varbind for this notification indicates the entPhysicalIndex of the inserted FRU, and the entPhysicalIndex of the FRU's container.	cefc FRU inserted
cefcFRURemoved	1.3.6.1.4.1.9.9.117.2.0.4	N/A	N/A	The cefcFRURemoved notification indicates that a FRU was removed. The varbind for this notification indicates the entPhysicalIndex of the removed FRU, and the entPhysicalIndex of the FRU's container.	cefc FRU removed

Table 11-5 Cisco IOX V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
cefcModuleStatusChange	1.3.6.1.4.1.9.9.117.2.0.1	1.3.6.1.4.1.9.9.117.1.2.1.1.2	!=2	This notification is generated when the value of cefcModuleOperStatus changes. It can be utilized by an NMS to update the status of the module it is managing.	cefc module oper status down
cefcModuleStatusChange	1.3.6.1.4.1.9.9.117.2.0.1	1.3.6.1.4.1.9.9.117.1.2.1.1.2	=2	This notification is generated when the value of cefcModuleOperStatus changes. It can be utilized by an NMS to update the status of the module it is managing.	cefc module oper status up
cefcPowerStatusChange	1.3.6.1.4.1.9.9.117.2.0.2	1.3.6.1.4.1.9.9.117.1.1.2.1.2	!=2	The cefcFRUPowerStatusChange notification indicates that the power status of a FRU has changed. The varbind for this notification indicates the entPhysicalIndex of the FRU, and the new operational-status of the FRU.	cefc power status down
cefcPowerStatusChange	1.3.6.1.4.1.9.9.117.2.0.2	1.3.6.1.4.1.9.9.117.1.1.2.1.2	=2	The cefcFRUPowerStatusChange notification indicates that the power status of a FRU has changed. The varbind for this notification indicates the entPhysicalIndex of the FRU, and the new operational-status of the FRU.	cefc power status up
cfhBundleDownedLinkNotification	1.3.6.1.4.1.9.9.257.0.3	1.3.6.1.4.1.9.9.257.1.2.1.1.3	!=1	Fabric bundle link notification. This notification is sent if the value of cfhBundleOperStatus is 'up' and the value of cfhBundleDownedLinks is changed from 0 to nonzero or from non-zero to zero.	cfh bundle link status down
cfhBundleDownedLinkNotification	1.3.6.1.4.1.9.9.257.0.3	1.3.6.1.4.1.9.9.257.1.2.1.1.3	=1	Fabric bundle link notification. This notification is sent if the value of cfhBundleOperStatus is 'up' and the value of cfhBundleDownedLinks is changed from 0 to nonzero or from non-zero to zero.	cfh bundle link status up
cfhBundleStateNotification	1.3.6.1.4.1.9.9.257.0.2	N/A	N/A	Fabric bundle operational state change notification. This notification is sent when the cfhBundleOperStatus state transition occurs.	cfh Fabric bundle operational state changed to Down
cfhBundleStateNotification	1.3.6.1.4.1.9.9.257.0.2	N/A	N/A	Fabric bundle operational state change notification. This notification is sent when the cfhBundleOperStatus state transition occurs.	cfh Fabric bundle operational state changed to Up

Table 11-5 Cisco IOX V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
cfhPlaneStateNotification	1.3.6.1.4.1.9.9.257.0.1	1.3.6.1.4.1.9.9.257.1.2.1.1.3	!=1	Fabric plane operational state change notification. This notification is sent when the fabric plane operational state transition occurs.	cfh Fabric plane status down
cfhPlaneStateNotification	1.3.6.1.4.1.9.9.257.0.1	1.3.6.1.4.1.9.9.257.1.2.1.1.3	=1	Fabric plane operational state change notification. This notification is sent when the fabric plane operational state transition occurs.	cfh Fabric plane status up
ciscoConfigManEvent	1.3.6.1.4.1.9.9.43.2.0.1	N/A	N/A	Notification of a configuration management event as recorded in ccmHistoryEventTable.	Cisco Configuration management event notification
ciscoFlashCopyCompletionTrap	1.3.6.1.4.1.9.9.10.1.3.0.1	1.3.6.1.4.1.9.9.10.1.2.1.1.8	!= (0 or 1 or 2)	A ciscoFlashCopyCompletionTrap is sent at the completion of a flash copy operation if such a trap was requested when the operation was initiated.	Cisco flash copy failed
ciscoFlashCopyCompletionTrap	1.3.6.1.4.1.9.9.10.1.3.0.1	1.3.6.1.4.1.9.9.10.1.2.1.1.8	=2	A ciscoFlashCopyCompletionTrap is sent at the completion of a flash copy operation if such a trap was requested when the operation was initiated.	Cisco flash copy completion
ciscoFlashCopyCompletionTrap	1.3.6.1.4.1.9.9.10.1.3.0.1	1.3.6.1.4.1.9.9.10.1.2.1.1.8	= (0 or 1)	A ciscoFlashCopyCompletionTrap is sent at the completion of a flash copy operation if such a trap was requested when the operation was initiated.	Cisco flash copy in progress
ciscoFlashDeviceChangeTrap	1.3.6.1.4.1.9.9.10.1.3.0.4	N/A	N/A	A ciscoFlashDeviceChangeTrap is sent whenever a removable Flash device is inserted or removed.	Cisco Flash device changed
ciscoFlashDeviceInsertedNotif	1.3.6.1.4.1.9.9.10.1.3.0.5	N/A	N/A	A ciscoFlashDeviceInsertedNotif notification is sent whenever a removable Flash device is inserted.	Cisco Flash device inserted
ciscoFlashDeviceRemovedNotif	1.3.6.1.4.1.9.9.10.1.3.0.6	N/A	N/A	A ciscoFlashDeviceRemovedNotif notification is sent whenever a removable Flash device is removed.	Cisco Flash device removed
ciscoFlashMiscOpCompletionTrap	1.3.6.1.4.1.9.9.10.1.3.0.3	1.3.6.1.4.1.9.9.10.1.2.3.1.4	!= (1 or 2)	A ciscoFlashMiscOpCompletionTrap is sent at the completion of a miscellaneous flash operation (enumerated in ciscoFlashMiscOpCommand) if such a trap was requested when the operation was initiated.	Cisco Flash miscellaneous operation failed

Table 11-5 Cisco IOX V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
ciscoFlashMiscOpCompletionTrap	1.3.6.1.4.1.9.9.10.1.3.0.3	1.3.6.1.4.1.9.9.10.1.2.3.1.4	=2	A ciscoFlashMiscOpCompletionTrap is sent at the completion of a miscellaneous flash operation (enumerated in ciscoFlashMiscOpCommand) if such a trap was requested when the operation was initiated.	Cisco Flash miscellaneous operation completed
ciscoFlashMiscOpCompletionTrap	1.3.6.1.4.1.9.9.10.1.3.0.3	1.3.6.1.4.1.9.9.10.1.2.3.1.4	=1	A ciscoFlashMiscOpCompletionTrap is sent at the completion of a miscellaneous flash operation (enumerated in ciscoFlashMiscOpCommand) if such a trap was requested when the operation was initiated.	Cisco Flash miscellaneous operation in progress
ciscoPingCompletion	1.3.6.1.4.1.9.9.16.2.0.1	N/A	N/A	A ciscoPingCompleted trap is sent at the completion of a sequence of pings if such a trap was requested when the sequence was initiated.	Cisco ping completion
ciscoSonetSectionStatusChange	1.3.6.1.4.1.9.9.126.0.1	1.3.6.1.2.1.10.39.1.2.1.1.1	!=1	This notification is generated whenever the value of sonetSectionCurrentStatus changes to value more than 1.	Cisco Sonet section status changed to error
ciscoSonetSectionStatusChange	1.3.6.1.4.1.9.9.126.0.1	1.3.6.1.2.1.10.39.1.2.1.1.1	=1	This notification is generated whenever the value of sonetSectionCurrentStatus changes to value 1.	Cisco Sonet section status changed to clear
ciscoSonetLineStatusChange	1.3.6.1.4.1.9.9.126.0.2	1.3.6.1.2.1.10.39.1.3.1.1.1	!=1	This notification is generated whenever the value of sonetLineCurrentStatus changes to value more than 1.	Cisco Sonet line status changed to error
ciscoSonetLineStatusChange	1.3.6.1.4.1.9.9.126.0.2	1.3.6.1.2.1.10.39.1.3.1.1.1	=1	This notification is generated whenever the value of sonetLineCurrentStatus changes to value 1.	Cisco Sonet line status changed to clear
ciscoSonetPathStatusChange	1.3.6.1.4.1.9.9.126.0.3	1.3.6.1.2.1.10.39.2.1.1.1.2	!=1	This notification is generated whenever the value of sonetPathCurrentStatus changes to value more than 1.	Cisco Sonet path status changed to error
ciscoSonetPathStatusChange	1.3.6.1.4.1.9.9.126.0.3	1.3.6.1.2.1.10.39.2.1.1.1.2	=1	This notification is generated whenever the value of sonetPathCurrentStatus changes to value 1.	Cisco Sonet path status changed to clear

Table 11-5 Cisco IOX V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
clogMessageGenerated	1.3.6.1.4.1.9.9.41.2.0.1	N/A	N/A	When a syslog message is generated by the device a clogMessageGenerated notification is sent. The sending of these notifications can be enabled/disabled via the clogNotificationsEnabled object.	Cisco syslog message generated
cPimNbrLoss	1.3.6.1.4.1.9.10.119.0.2	N/A	N/A	A cPimNbrLoss trap signifies the loss of an adjacency with a neighbor. This trap should be generated when the neighbor timer expires, and the router has no other neighbors on the same interface with a lower IP address than itself.	Cisco PIM neighbor lost
entSensorThresholdNotification	1.3.6.1.4.1.9.9.91.2.0.1	N/A	N/A	The sensor value crossed the threshold listed in entSensorThresholdTable. This notification is generated once each time the sensor value crosses the threshold	sensor value crossed threshold in entSensorThreshold Table
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	N/A	N/A	A rttMonNotification indicates the occurrence of a threshold violation, and it indicates the previous violation has subsided for a subsequent operation.	RTT threshold violation or clearance
cpwVcUp	1.3.6.1.4.1.9.10.106.2.2	N/A	N/A	This notification is generated when the cpwVcOperStatus object for one or more contiguous entries in cpwVcTable are about to enter the up(1) state from some other state.	Pseudo wire tunnel up
cpwVcDown	1.3.6.1.4.1.9.10.106.2.1	N/A	N/A	This notification is generated when the cpwVcOperStatus object for one or more contiguous entries in cpwVcTable are about to enter the down(2) state from some other state.	Pseudo wire tunnel down
ciscoRFSwactNotif	1.3.6.1.4.1.9.9.176.2.0.1	N/A	N/A	A SWACT notification is sent by the newly active redundant unit whenever a switch of activity occurs. In the case where a SWACT event may be indistinguishable from a reset event, a network management station should use this notification to differentiate the activity. sysUpTime is the same sysUpTime defined in the RFC-1213 MIB.	Cisco RF Swap Status - Unsupported

Table 11-5 Cisco IOX V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
ciscoRFSwact Notif	1.3.6.1.4.1.9.9.176.2.0.1	N/A	N/A	A SWACT notification is sent by the newly active redundant unit whenever a switch of activity occurs. In the case where a SWACT event may be indistinguishable from a reset event, a network management station should use this notification to differentiate the activity. sysUpTime is the same sysUpTime defined in the RFC-1213 MIB.	Cisco RF Swap Status - None
ciscoRFSwact Notif	1.3.6.1.4.1.9.9.176.2.0.1	N/A	N/A	A SWACT notification is sent by the newly active redundant unit whenever a switch of activity occurs. In the case where a SWACT event may be indistinguishable from a reset event, a network management station should use this notification to differentiate the activity. sysUpTime is the same sysUpTime defined in the RFC-1213 MIB.	Cisco RF Swap Status - Not Known
ciscoRFSwact Notif	1.3.6.1.4.1.9.9.176.2.0.1	N/A	N/A	A SWACT notification is sent by the newly active redundant unit whenever a switch of activity occurs. In the case where a SWACT event may be indistinguishable from a reset event, a network management station should use this notification to differentiate the activity. sysUpTime is the same sysUpTime defined in the RFC-1213 MIB.	Cisco RF Swap Status - UserInitiated
ciscoRFSwact Notif	1.3.6.1.4.1.9.9.176.2.0.1	N/A	N/A	A SWACT notification is sent by the newly active redundant unit whenever a switch of activity occurs. In the case where a SWACT event may be indistinguishable from a reset event, a network management station should use this notification to differentiate the activity. sysUpTime is the same sysUpTime defined in the RFC-1213 MIB.	Cisco RF Swap Status - UserForced

Table 11-5 Cisco IOX V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
ciscoRFSwact Notif	1.3.6.1.4.1. 9.9.176.2.0. 1	N/A	N/A	A SWACT notification is sent by the newly active redundant unit whenever a switch of activity occurs. In the case where a SWACT event may be indistinguishable from a reset event, a network management station should use this notification to differentiate the activity. sysUpTime is the same sysUpTime defined in the RFC-1213 MIB.	Cisco RF Swap Status - ActiveUnitFailed
ciscoRFSwact Notif	1.3.6.1.4.1. 9.9.176.2.0. 1	N/A	N/A	A SWACT notification is sent by the newly active redundant unit whenever a switch of activity occurs. In the case where a SWACT event may be indistinguishable from a reset event, a network management station should use this notification to differentiate the activity. sysUpTime is the same sysUpTime defined in the RFC-1213 MIB.	Cisco RF Swap Status - ActiveUnitRemoved
cefcUnrecogniz edFRU	1.3.6.1.4.1. 9.9.117.2.0. 5	N/A	N/A	The cefcUnrecognizedFRU notification indicates that a FRU was inserted whose product ID is not supported. The varbind for this notification indicates the entPhysicalIndex of the inserted FRU, the entPhysicalClass this FRU belongs to, the entPhysicalVendorType of this FRU, the entPhysicalName of the FRU, the entPhysicalModelName of the inserted FRU, and the cefcPhysicalStatus telling the reason code for sending this notification.	cefc FRU inserted with unsupported product ID
cefcPowerSupp lyOutputChang e	1.3.6.1.4.1. 9.9.117.2.0. 7	N/A	N/A	The notification indicates that the power supply's output capacity has changed.This notification is triggered whenever one instance of the power supply's cefcPSOutputModeInOperation has transitioned from 'false' to 'true'.	cefc Power supply output capacity changed

Table 11-5 Cisco IOX V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
rttMonConnectionChangeNotification	1.3.6.1.4.1.9.9.42.2.0.1	N/A	N/A	This notification is only valid when the RttMonRttType is 'echo' or 'pathEcho'.A rttMonConnectionChangeNotification indicates that a connection to a target (not to a hop along the path to a target) has failed on establishment or been lost and when reestablished. Precisely, this has resulted in rttMonCtrlOperConnectionLostOccurred changing value.	RTT Connection Change
rttMonTimeoutNotification	1.3.6.1.4.1.9.9.42.2.0.2	N/A	N/A	A rttMonTimeoutNotification indicates the occurrence of a timeout for a RTT operation, and it indicates the clearing of such a condition by a subsequent RTT operation. Precisely, this has resulted in rttMonCtrlOperTimeoutOccurred changing value. When the RttMonRttType is 'path Echo', this notification will only be sent when the timeout occurs during an operation to the target and not to a hop along the path to the target. This also applies to the clearing of the timeout.	RTT Operation Timeout
rttMonThresholdNotification	1.3.6.1.4.1.9.9.42.2.0.3	N/A	N/A	A rttMonThresholdNotification indicates the occurrence of a threshold violation for a RTT operation, and it indicates the previous violation has subsided for a subsequent RTT operation. Precisely, this has resulted in rttMonCtrlOperOverThresholdOccurred changing value. When the RttMonRttType is 'path Echo', this notification will only be sent when the threshold violation occurs during an operation to the target and not to a hop along the path to the target. This also applies to the subsiding of a threshold condition.	RTT Operation Threshold Violation
rttMonVerifyErrorNotification	1.3.6.1.4.1.9.9.42.2.0.4	N/A	N/A	A rttMonVerifyErrorNotification indicates the occurrence of a data corruption in an RTT operation.	RTT Verify Error

Table 11-5 Cisco IOX V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	N/A	N/A	A rttMonNotification indicates the occurrence of a threshold violation, and it indicates the previous violation has subsided for a subsequent operation.	RTT threshold violation or clearance
rttMonLpdDiscoveryNotification	1.3.6.1.4.1.9.9.42.2.0.6	N/A	N/A	A rttMonLpdDiscoveryNotification indicates that the LSP Path Discovery to the target PE has failed, and it also indicates the clearing of such condition. Precisely this has resulted in rttMonLpdGrpStatsLPDFailOccurred changing value. When the rttMonLpdGrpStatsLPDFailOccurred is 'false', the instance value for rttMonLpdGrpStatsLPDFailCause is not valid.	RTT Lpd Discovery
rttMonLpdGrpStatusNotification	1.3.6.1.4.1.9.9.42.2.0.7	N/A	N/A	A rttMonLpdGrpStatusNotification indicates that the LPD Group status rttMonLpdGrpStatsGroupStatus has changed indicating some connectivity change to the target PE. This has resulted in rttMonLpdGrpStatsGroupStatus changing value.	RTT Lpd Grp Status
cbgpBackwardTransition	1.3.6.1.4.1.9.9.187.0.2	1.3.6.1.4.1.9.9.187.0.2	= 1	The cbgpBackwardTransition Event is generated when the IPv6 BGP FSM moves from a higher numbered state to a lower numbered state.	IPv6 BGP down trap
cbgpFsmStateChange	1.3.6.1.4.1.9.9.187.0.1	1.3.6.1.4.1.9.9.187.0.1	!= (1or 6)	The IPv6 BGP cbgpFsmStateChange notification is generated for every BGP FSM state change.	ipv6 BGP FSM state changed trap
cbgpFsmStateChange	1.3.6.1.4.1.9.9.187.0.1	1.3.6.1.4.1.9.9.187.0.1	= 6	The IPv6 BGP cbgpFsmStateChange notification is generated for every BGP FSM state change.	IPv6 BGP established trap
rttMonConnectionChangeNotification	1.3.6.1.4.1.9.9.42.2.0.1	1.3.6.1.4.1.9.9.42.1.2.9.1.5	1	IPSLA echo ConnLoss Trap v2	Connection Loss detected by ipsla icmp echo trap
rttMonConnectionChangeNotification	1.3.6.1.4.1.9.9.42.2.0.1	1.3.6.1.4.1.9.9.42.1.2.9.1.5	2	IPSLA echo ConnLoss Trap v2	Connection re-establish detected by ipsla icmp echo trap
rttMonTimeoutNotification	1.3.6.1.4.1.9.9.42.2.0.2	1.3.6.1.4.1.9.9.42.1.2.9.1.6	1	IPSLA IP or LSP echo Timeout trap v2	Timeout detected by ipsla icmp echo trap

Table 11-5 Cisco IOX V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
rttMonTimeoutNotification	1.3.6.1.4.1.9.9.42.2.0.2	1.3.6.1.4.1.9.9.42.1.2.9.1.6	2	IPSLA IP or LSP echo Timeout trap v2	Connection re-establish detected by ipsla icmp echo trap
rttMonThresholdNotification	1.3.6.1.4.1.9.9.42.2.0.3	1.3.6.1.4.1.9.9.42.1.2.9.1.7	1	IPSLA Threshold Notification trap v2	Threshold crossing under trap
rttMonThresholdNotification	1.3.6.1.4.1.9.9.42.2.0.3	1.3.6.1.4.1.9.9.42.1.2.9.1.7	2	IPSLA Threshold Notification trap v2	Threshold crossing over trap
rttMonVerifyErrorNotification	1.3.6.1.4.1.9.9.42.2.0.4	1.3.6.1.4.1.9.9.42.1.2.9.1.11	1	IPSLA Threshold Notification deprecated trap v2	Data corruption in rtt operation trap
rttMonVerifyErrorNotification	1.3.6.1.4.1.9.9.42.2.0.4	1.3.6.1.4.1.9.9.42.1.2.9.1.11	2	IPSLA Threshold Notification deprecated trap v2	Data corruption cleared in rtt operation trap
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	8, null, 1	RTT MON notification	Connection Loss detected by ipsla icmp echo trap
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	8, not null, 1	RTT MON notification	Connection Loss detected by ipsla LSP icmp echo trap
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	8, null, 2	RTT MON notification	Connection re-establish detected by ipsla icmp echo trap

Table 11-5 Cisco IOX V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	8, not null, 2	RTT MON notification	Connection re-establish detected by ipsla LSP icmp echo trap
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, null, 1	RTT MON notification	Timeout detected by ipsla icmp echo trap
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, not null, 1	RTT MON notification	Timeout detected by ipsla LSP icmp echo trap
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, null, 2	RTT MON notification	Connection re-establish detected by ipsla icmp echo trap
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, not null, 2	RTT MON notification	Connection re-establish detected by ipsla LSP icmp echo trap

Table 11-5 Cisco IOX V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	1, 1	RTT MON notification	RTT threshold crossing over trap
rttMonNotification	1.3.6.1.4.1.9.9.42.2.0.5	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	1, 2	RTT MON notification	RTT threshold crossing under trap
rttMonLpdDiscoveryNotification	1.3.6.1.4.1.9.9.42.2.0.6	1.3.6.1.4.1.9.9.42.1.3.7.1.13	1	IPSLA LPD Discovery trap v2	IPSLA LSP path discovery failure trap
rttMonLpdDiscoveryNotification	1.3.6.1.4.1.9.9.42.2.0.6	1.3.6.1.4.1.9.9.42.1.3.7.1.13	2	IPSLA LPD Discovery trap v2	IPSLA LSP path rediscovery trap
rttMonLpdGrpStatusNotification	1.3.6.1.4.1.9.9.42.2.0.7	1.3.6.1.4.1.9.9.42.1.3.7.1.16	3,4	IPSLA LDP Group Status trap v2	IPSLA LDP group status failure trap
rttMonLpdGrpStatusNotification	1.3.6.1.4.1.9.9.42.2.0.7	1.3.6.1.4.1.9.9.42.1.3.7.1.16	2	IPSLA LDP Group Status trap v2	IPSLA LDP group status restoration trap
cmplsFrrProtected	1.3.6.1.4.1.9.10.98.0.1	N/A	N/A	TE FRR trigger notification - protected trap v2	FRR Protected Trap
cmplsFrrUnProtected	1.3.6.1.4.1.9.10.98.0.2	N/A	N/A	TE FRR trigger notification - unprotected trap v2	FRR Unprotected Trap
cpwVcUp	1.3.6.1.4.1.9.10.106.2.2	N/A	N/A	This notification is generated when the cpwVcOperStatus object for one or more contiguous entries in cpwVcTable are about to enter the up(1) state from some other state.	Pseudo wire tunnel up
cpwVcDown	1.3.6.1.4.1.9.10.106.2.1	N/A	N/A	This notification is generated when the cpwVcOperStatus object for one or more contiguous entries in cpwVcTable are about to enter the down(2) state from some other state.	Pseudo wire tunnel down
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Far end LOF
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near end sending LOF Indication

Table 11-5 Cisco IOX V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Far end sending AIS
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near end sending AIS
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near end LOF
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near end Loss of Signal
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near end is looped
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 E1 TS16 AIS
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Far End Sending TS16 LOMF
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near End Sending TS16 LOMF
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near End detects a test code
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 any line status not defined here
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near End in Unavailable Signal State
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Carrier Equipment Out of Service
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 DS2 Payload AIS
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 DS2 Performance Threshold Exceeded

Table 11-5 Cisco IOX V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 combination of bitmaps due to multiple failures
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 No alarm present
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Receiving Yellow/Remote Alarm Indication
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Transmitting Yellow/Remote Alarm Indication
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Receiving AIS failure state
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Transmitting AIS
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Receiving LOF failure state
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Receiving LOS failure state
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Looping the received signal
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Receiving a Test Pattern
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 any line status not defined here
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Near End in Unavailable Signal State
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Carrier Equipment Out of Service
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 combination of bitmaps due to multiple failures

Table 11-5 Cisco IOX V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 No alarm present
entConfigChange	1.3.6.1.2.1.47.2.0.1	N/A	N/A	An entConfigChange notification is generated when the value of entLastChangeTime changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.	Entity table configuration changed
Frame-Relay dlci status change trap v1	1.3.6.1.2.1.10.32.0.1	N/A	N/A	This trap indicates that the indicated Virtual Circuit has changed state. It has either been created or invalidated, or has toggled between the active and inactive states.	FR DLCI status invalid trap
Frame-Relay dlci status change trap v1	1.3.6.1.2.1.10.32.0.1	N/A	N/A	This trap indicates that the indicated Virtual Circuit has changed state. It has either been created or invalidated, or has toggled between the active and inactive states.	FR DLCI status inactive trap
Frame-Relay dlci status change trap v1	1.3.6.1.2.1.10.32.0.1	N/A	N/A	This trap indicates that the indicated Virtual Circuit has changed state. It has either been created or invalidated, or has toggled between the active and inactive states.	FR DLCI status active trap

Cisco MIB2 V1 Traps

Table 11-6 lists the Cisco MIB2 SNMP V1 traps supported in Cisco ANA. For associated event types, event subtypes, and Cisco ANA registry parameters, use the link under Short Description or see Table 11-13.

Table 11-6 Cisco MIB2 V1 Traps

Trap Name	Generic Type	Specific Type	Enterprise OID	Description	SubType Varbind OID	SubType Varbind Value	Short Description
dummy ticket on sun servers	N/A	N/A	1.3.6.1.4.1.42	This type will handle all traps sent from SUN server (the OID is the SUN SNMP mib)	N/A	N/A	dummy ticket trap
MIB2 V1 link down	2	0	1.3.6.1.6.3.1.1.5	A linkDown trap signifies that the sending protocol entity recognizes a failure in one of the communication links represented in the agent's configuration. The Trap-PDU of type linkDown contains as the first element of its variable-bindings, the name and value of the ifIndex instance for the affected interface.	N/A	N/A	SNMP Link down
MIB2 V1 link up	3	0	1.3.6.1.6.3.1.1.5	A linkUp trap signifies that the sending protocol entity recognizes that one of the communication links represented in the agent's configuration has come up. The Trap-PDU of type linkUp contains as the first element of its variable-bindings, the name and value of the ifIndex instance for the affected interface.	N/A	N/A	SNMP Link up
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX1 Far end LOF
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX1 Near end sending LOF Indication
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX1 Far end sending AIS
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX1 Near end sending AIS
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX1 Near end LOF

Table 11-6 Cisco MIB2 V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	Description	SubType Varbind OID	SubType Varbind Value	Short Description
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX1 Near end Loss of Signal
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX1 Near end is looped
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX1 E1 TS16 AIS
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX1 Far End Sending TS16 LOMF
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX1 Near End Sending TS16 LOMF
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX1 Near End detects a test code
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX1 any line status not defined here
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX1 Near End in Unavailable Signal State
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX1 Carrier Equipment Out of Service
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX1 DS2 Payload AIS
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX1 DS2 Performance Threshold Exceeded

Table 11-6 Cisco MIB2 V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	Description	SubType Varbind OID	SubType Varbind Value	Short Description
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX1 combination of bitmaps due to multiple failures
DSX1 V1 Line Status Change	6	1	1.3.6.1.2.1.10.18.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX1 No alarm present
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX3 Receiving Yellow/Remote Alarm Indication
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX3 Transmitting Yellow/Remote Alarm Indication
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX3 Receiving AIS failure state
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX3 Transmitting AIS
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX3 Receiving LOF failure state
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX3 Receiving LOS failure state
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX3 Looping the received signal
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX3 Receiving a Test Pattern

Table 11-6 Cisco MIB2 V1 Traps (continued)

Trap Name	Generic Type	Specific Type	Enterprise OID	Description	SubType Varbind OID	SubType Varbind Value	Short Description
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX3 any line status not defined here
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX3 Near End in Unavailable Signal State
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX3 Carrier Equipment Out of Service
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX3 combination of bitmaps due to multiple failures
DSX3 V1 Line Status Change	6	1	.1.3.6.1.2.1.10.30.15	Indicates the line status of dsx1 interface	N/A	N/A	DSX3 No alarm present
entConfigChange	6	1	1.3.6.1.2.1.47.2	An entConfigChange notification is generated when the value of entLastChangeTime changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.	N/A	N/A	Entity table configuration changed
Frame-Relay dlci status change trap v1	6	1	1.3.6.1.2.1.10.32	This trap indicates that the indicated Virtual Circuit has changed state. It has either been created or invalidated, or has toggled between the active and inactive states.	N/A	N/A	FR DLCI status invalid trap
Frame-Relay dlci status change trap v1	6	1	1.3.6.1.2.1.10.32	This trap indicates that the indicated Virtual Circuit has changed state. It has either been created or invalidated, or has toggled between the active and inactive states.	N/A	N/A	FR DLCI status inactive trap
Frame-Relay dlci status change trap v1	6	1	1.3.6.1.2.1.10.32	This trap indicates that the indicated Virtual Circuit has changed state. It has either been created or invalidated, or has toggled between the active and inactive states.	N/A	N/A	FR DLCI status active trap

Cisco MIB2 V2 Traps

Table 11-7 lists the Cisco MIB2 SNMP V2 traps supported in Cisco ANA. For associated event types, event subtypes, and Cisco ANA registry parameters, use the link under Short Description or see Table 11-14.

Table 11-7 Cisco MIB2 V2 Traps

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
bgpBackwardTransition	1.3.6.1.2.1.15.7.2	N/A	N/A	The BGPBackwardTransition Event is generated when the BGP FSM moves from a higher numbered state to a lower numbered state.	BGP down trap
bgpEstablished	1.3.6.1.2.1.15.7.1	1.3.6.1.2.1.15.3.1.2	= 6	The BGP Established event is generated when the BGP FSM enters the ESTABLISHED state.	BGP established trap
mteEventSetFailure	1.3.6.1.2.1.88.2.0.5	N/A	N/A	Notification that an attempt to do a set in response to an event has failed.	mte event set failure
mteTriggerFalling	1.3.6.1.2.1.88.2.0.3	N/A	N/A	Notification that the falling threshold was met for triggers with mteTriggerType 'threshold	Cisco mte trigger falling
mteTriggerFired	1.3.6.1.2.1.88.2.0.1	N/A	N/A	Notification that the trigger indicated by the object instances has fired, for triggers with mteTriggerType 'boolean' or 'existence'.	mte trigger fired
mteTriggerRising	1.3.6.1.2.1.88.2.0.2	N/A	N/A	Notification that the rising threshold was met for triggers with mteTriggerType 'threshold	Cisco mte trigger rising
entConfigChange	1.3.6.1.2.1.47.2.0.1	N/A	N/A	An entConfigChange notification is generated when the value of entLastChangeTime changes. It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.	Entity table configuration changed
coldStart	1.3.6.1.6.3.1.1.5.1	N/A	N/A	A coldStart trap signifies that the SNMP entity, supporting a notification originator application, is reinitializing itself and that its configuration may have been altered.	Cold start trap
warmStart	1.3.6.1.6.3.1.1.5.2	N/A	N/A	A warmStart trap signifies that the SNMP entity, supporting a notification originator application, is reinitializing itself such that its configurationis unaltered	Warm start trap

Table 11-7 Cisco MIB2 V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
authenticationFailure	1.3.6.1.6.3.1.1.5.5	N/A	N/A	An authenticationFailure trap signifies that the SNMP entity has received a protocol message that is not properly authenticated. While all implementations of SNMP entities MAY be capable of generating this trap, the snmpEnableAuthenTraps object indicates whether this trap will be generated.	SNMP authentication failure
linkDown	1.3.6.1.6.3.1.1.5.3	N/A	N/A	A linkDown trap signifies that the SNMP entity, acting in an agent role, has detected that the ifOperStatus object for one of its communication links is about to enter the down state from some other state (but not from the notPresent state). This other state is indicated by the included value of ifOperStatus.	SNMP Link down
linkUp	1.3.6.1.6.3.1.1.5.4	N/A	N/A	A linkUp trap signifies that the SNMP entity, acting in an agent role, has detected that the ifOperStatus object for one of its communication links left the down state and transitioned into some other state (but not into the notPresent state). This other state is indicated by the included value of ifOperStatus.	SNMP Link up
ipv6IfStateChange	1.3.6.1.2.1.55.2.0.1	1.3.6.1.2.1.55.2.0.1	*N/A*	An ipv6IfStateChange notification signifies that there has been a change in the state of an ipv6 interface. This notification should be generated when the interface's operational status transitions to or from the up(1) state	ipv6 interface state changed
ospfIfStateChange	1.3.6.1.2.1.14.16.2.16	1.3.6.1.2.1.14.7.1.12	= 1	An ospfIfStateChange trap signifies that there has been a change in the state of a non-virtualOSPF interface. This trap should be generated when the interface state regresses (e.g., goes from Dr to Down) or progresses to a terminal state (i.e., Point-to-Point, DR Other, Dr, or Backup)	OSPF interface state changed to Down

Table 11-7 Cisco MIB2 V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
ospfIfStateChange	1.3.6.1.2.1.14.16.2.16	1.3.6.1.2.1.14.7.1.12	!= 1	An ospfIfStateChange trap signifies that there has been a change in the state of a non-virtualOSPF interface. This trap should be generated when the interface state regresses (e.g., goes from Dr to Down) or progresses to a terminal state (i.e., Point-to-Point, DR Other, Dr, or Backup)	OSPF interface state changed to Up
ospfVirtIfStateChange	1.3.6.1.2.1.14.16.2.1	N/A	N/A	An ospfIfStateChange trap signifies that there has been a change in the state of an OSPF virtual interface. This trap should be generated when the inter-face state regresses (e.g., goes from Point-to-Point to Down) or progresses to a terminal state (i.e., Point-to-Point).	OSPF virtual interface state changed to Down
ospfNbrStateChange	1.3.6.1.2.1.14.16.2.2	1.3.6.1.2.1.14.10.1.6	!= 8	An ospfNbrStateChange trap signifies that there has been a change in the state of a non-virtual OSPF neighbor. This trap should be generated when the neighbor state regresses (e.g., goes from Attempt or Full to 1-Way or Down) or progresses to a terminal state (e.g., 2-Way or Full).	OSPF neighbor state down
ospfNbrStateChange	1.3.6.1.2.1.14.16.2.2	1.3.6.1.2.1.14.10.1.6	= 8	An ospfNbrStateChange trap signifies that there has been a change in the state of a non-virtual OSPF neighbor. This trap should be generated when the neighbor state regresses (e.g., goes from Attempt or Full to 1-Way or Down) or progresses to a terminal state (e.g., 2-Way or Full).	OSPF neighbor state up
ospfVirtNbrStateChange	1.3.6.1.2.1.14.16.2.3	1.3.6.1.2.1.14.11.1.5	!= 8	An ospfIfStateChange trap signifies that there has been a change in the state of an OSPF virtual neighbor. This trap should be generated when the neighbor state regresses (e.g., goes from Attempt or Full to 1-Way or Down) or progresses to a terminal state (e.g., Full).	OSPF virtual neighbor state down

Table 11-7 Cisco MIB2 V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
ospfVirtNbrStateChange	1.3.6.1.2.1.14.16.2.3	1.3.6.1.2.1.14.11.1.5	= 8	An ospfIfStateChange trap signifies that there has been a change in the state of an OSPF virtual neighbor. This trap should be generated when the neighbor state regresses (e.g., goes from Attempt or Full to 1-Way or Down) or progresses to a terminal state (e.g., Full).	OSPF virtual neighbor state up
ospfIfConfigError	1.3.6.1.2.1.14.16.2.4	N/A	N/A	An ospfIfConfigError trap signifies that a packet has been received on a non-virtual interface from a router whose configuration parameters conflict with this router's configuration parameters.	OSPF interface configuration error
ospfVirtIfConfigError	1.3.6.1.2.1.14.16.2.5	N/A	N/A	An ospfConfigError trap signifies that a packet has been received on a virtual interface from a router whose configuration parameters conflict with this router's configuration parameters.	OSPF virtual interface configuration error
ospfIfAuthFailure	1.3.6.1.2.1.14.16.2.6	N/A	N/A	An ospfIfAuthFailure trap signifies that a packet has been received on a non-virtual interface from a router whose authentication key or authentication type conflicts with this router's authentication key or authentication type.	OSPF interface authentication failure
ospfVirtIfAuthFailure	1.3.6.1.2.1.14.16.2.7	N/A	N/A	An ospfVirtIfAuthFailure trap signifies that a packet has been received on a virtual interface from a router whose authentication key or authentication type conflicts with this router's authentication key or authentication type.	OSPF virtual interface authentication failure
ospfIfRxBadPacket	1.3.6.1.2.1.14.16.2.8	N/A	N/A	An ospfIfRxBadPacket trap signifies that an OSPF packet has been received on a non-virtual interface that cannot be parsed.	OSPF bad packet received
ospfVirtIfRxBadPacket	1.3.6.1.2.1.14.16.2.9	N/A	N/A	An ospfRxBadPacket trap signifies that an OSPF packet has been received on a virtual interface that cannot be parsed.	OSPF bad packet received on virtual interface
ospfTxRetransmit	1.3.6.1.2.1.14.16.2.10	N/A	N/A	An ospfTxRetransmit trap signifies than an OSPF packet has been retransmitted on a non-virtual interface.	OSPF packet retransmitted

Table 11-7 Cisco MIB2 V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
ospfVirtIfTxRetransmit	1.3.6.1.2.1.14.16.2.11	N/A	N/A	An ospfTxRetransmit trap signifies than an OSPF packet has been retransmitted on a virtual interface.	OSPF packet retransmitted on virtual interface
ospfOriginateLsa	1.3.6.1.2.1.14.16.2.12	N/A	N/A	An ospfOriginateLsa trap signifies that a new LSA has been originated by this router. This trap should not be invoked for simple refreshes of LSAs (which happens every 30 minutes), but instead will only be invoked when an LSA is (re)originated due to a topology change.	OSPF new LSA originated
ospfMaxAgeLsa	1.3.6.1.2.1.14.16.2.13	N/A	N/A	An ospfMaxAgeLsa trap signifies that one of the LSA in the router's link-state database has aged to MaxAge.	OSPF LSA aged to MaxAge
mplsL3VpnNumVrfRouteMaxThreshCleared	1.3.6.1.2.1.10.166.11.0.6	N/A	N/A	This notification is generated only after the number of routes contained by the specified VRF exceeds or attempts to exceed the maximum allowed value as indicated by mplsVrfMaxRouteThreshold, and then falls below this value.	mpls l3 vpn numvrf routemax thresh cleared Trap
mplsL3VpnVrfDown	1.3.6.1.2.1.10.166.11.0.2	N/A	N/A	This notification is generated when: a. One interface is associated with this VRF, and the ifOperStatus of this interface changes from up(1) to down(2). b. Multiple interfaces are associated with this VRF, and the ifOperStatus of all except one of these interfaces is equal to up(1), and the ifOperStatus of that interface changes from up(1) to down(2).c. The last interface with ifOperStatus equal to up(1) is disassociated from a VRF	mpls l3 vpn vrf Down Trap
mplsL3VpnVrfNumVrfRouteMaxThreshExceeded	1.3.6.1.2.1.10.166.11.0.4	N/A	N/A	This notification is generated when the number of routes contained by the specified VRF exceeds or attempts to exceed the maximum allowed value as indicated by mplsL3VpnVrfMaxRouteThreshold.	mpls l3 vpn vrf numvrf routemax thresh exceeded Trap

Table 11-7 Cisco MIB2 V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
mplsL3VpnVrfRouteMidThreshExceeded	1.3.6.1.2.1.10.166.11.0.3	N/A	N/A	This notification is generated when the number of routes contained by the specified VRF exceeds the value indicated by mplsL3VpnVrfMidRouteThreshold.	mpls l3 vpn vrf routemid thresh exceeded Trap
mplsL3VpnVrfUp	1.3.6.1.2.1.10.166.11.0.1	N/A	N/A	This notification is generated when: a. No interface is associated with this VRF, and the first (and only first) interface associated with it has its ifOperStatus change to up(1). b. One interface is associated with this VRF, and the ifOperStatus of this interface changes to up(1). c. Multiple interfaces are associated with this VRF, and the ifOperStatus of all interfaces is down(2), and the first of those interfaces has its ifOperStatus change to up(1).	mpls l3 vpn vrf Up Trap
mplsLdpInitSessionThresholdExceeded	1.3.6.1.2.1.10.166.4.0.1	N/A	N/A	generated when the value of the 'mplsLdpEntityInitSessionThreshold' object is not zero, and the number of Session Initialization messages exceeds the value of the 'mplsLdpEntityInitSessionThreshold' object	MPLS LDP init session threshold exceeded Trap
mplsLdpSessionDown	1.3.6.1.2.1.10.166.4.0.4	N/A	N/A	sent when the value of 'mplsLdpSessionState' leaves the 'operational(5)' state	MPLS LDP session down Trap
mplsLdpSessionUp	1.3.6.1.2.1.10.166.4.0.3	N/A	N/A	sent when the value of 'mplsLdpSessionState' enters the 'operational(5)' state	MPLS LDP session up Trap
mplsTunnelRerouted	1.3.6.1.2.1.10.166.3.0.3	N/A	N/A	generated when a tunnel is rerouted. If the mplsTunnelARHopTable is used, then this tunnel instance's entry in the mplsTunnelARHopTable MAY contain the new path for this tunnel some time after this trap is issued by the agent	MPLS-TE tunnel rerouted trap

Table 11-7 Cisco MIB2 V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
mplsTunnelReoptimized	1.3.6.1.2.1.10.166.3.0.4	N/A	N/A	generated when a tunnel is reoptimized. If the mplsTunnelARHopTable is used, then this tunnel instance's entry in the mplsTunnelARHopTable MAY contain the new path for this tunnel some time after this trap is issued by the agent	MPLS-TE tunnel reoptimized trap
mplsTunnelDown	1.3.6.1.2.1.10.166.3.0.2	N/A	N/A	generated when a mplsTunnelOperStatus object for one of the configured tunnels is about to enter the down state from some other state (but not from the notPresen state). This other state is indicated by the included value of mplsTunnelOperStatus	MPLS-TE tunnel down
mplsTunnelUp	1.3.6.1.2.1.10.166.3.0.1	N/A	N/A	generated when a mplsTunnelOperStatus object for one of the configured tunnels is about to leave the down state and transition into some other state (but not into the notPresent state). This other state is indicated by the included value of mplsTunnelOperStatus	MPLS-TE tunnel up
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Far end LOF
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near end sending LOF Indication
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Far end sending AIS
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near end sending AIS
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near end LOF
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near end Loss of Signal
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near end is looped

Table 11-7 Cisco MIB2 V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 E1 TS16 AIS
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Far End Sending TS16 LOMF
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near End Sending TS16 LOMF
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near End detects a test code
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 any line status not defined here
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Near End in Unavailable Signal State
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 Carrier Equipment Out of Service
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 DS2 Payload AIS
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 DS2 Performance Threshold Exceeded
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 combination of bitmaps due to multiple failures
DSX1 V1 Line Status Change	1.3.6.1.2.1.10.18.15.0.1	N/A	N/A	Indicates the line status of dsx1 interface	DSX1 No alarm present
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Receiving Yellow/Remote Alarm Indication
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Transmitting Yellow/Remote Alarm Indication
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Receiving AIS failure state

Table 11-7 Cisco MIB2 V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Transmitting AIS
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Receiving LOF failure state
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Receiving LOS failure state
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Looping the received signal
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Receiving a Test Pattern
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 any line status not defined here
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Near End in Unavailable Signal State
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 Carrier Equipment Out of Service
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 combination of bitmaps due to multiple failures
DSX3 V1 Line Status Change	1.3.6.1.2.1.10.30.15.0.1	N/A	N/A	Indicates the line status of dsx3 interface	DSX3 No alarm present
Frame-Relay dlci status change trap v1	1.3.6.1.2.1.10.32.0.1	N/A	N/A	This trap indicates that the indicated Virtual Circuit has changed state. It has either been created or invalidated, or has toggled between the active and inactive states.	FR DLCI status invalid trap

Table 11-7 Cisco MIB2 V2 Traps (continued)

Trap Name	Trap OID	SubType Varbind OID	SubType Varbind Value	Description	Short Description
Frame-Relay dlci status change trap v1	1.3.6.1.2.1.10.32.0.1	N/A	N/A	This trap indicates that the indicated Virtual Circuit has changed state. It has either been created or invalidated, or has toggled between the active and inactive states.	FR DLCI status inactive trap
Frame-Relay dlci status change trap v1	1.3.6.1.2.1.10.32.0.1	N/A	N/A	This trap indicates that the indicated Virtual Circuit has changed state. It has either been created or invalidated, or has toggled between the active and inactive states.	FR DLCI status active trap

Cisco ASR 9000 V2 Registry Parameters

Table 11-8 lists the associated event types, event subtypes, and Cisco ANA registry parameters for the Cisco ASR 9000 SNMP V2 traps shown in Table 11-1.

Table 11-8 Cisco ASR 9000 V2 Trap Registry Parameters

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
NTP Server Status Changes to Unknown	cisco ntp server notification	unknown	1.3.6.1.4.1.9.9.168.1.1.11	=1	N	IManagedElement	F	F	F	0	F	info	F	T	F
NTP Server Status Changes to notRunning	cisco ntp server notification	notRunning	1.3.6.1.4.1.9.9.168.1.1.11	=2	N	IManagedElement	F	F	F	0	F	info	F	T	F
NTP Server Status Changes to notSynchronized	cisco ntp server notification	notSynchronized	1.3.6.1.4.1.9.9.168.1.1.11	=3	N	IManagedElement	F	F	F	0	F	info	F	T	F
NTP Server Status Changes to syncToLocal	cisco ntp server notification	syncToLocal	1.3.6.1.4.1.9.9.168.1.1.11	=4	N	IManagedElement	F	F	F	0	F	info	F	T	F
NTP Server Status Changes to syncToRefclock	cisco ntp server notification	syncToRefclock	1.3.6.1.4.1.9.9.168.1.1.11	=5	N	IManagedElement	F	F	F	0	F	info	F	T	F

Table 11-8 Cisco ASR 9000 V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
NTP Server Status Changes to syncToRemoteServer	cisco ntp server notification	syncToRemoteServer	1.3.6.1.4.1.9.9.168.1.1.11	=6	N	IManagedElement	F	F	F	0	F	info	F	T	F
Spanning Tree Topology Changed	Spanning-Tree-Topology-Change-Trap	Spanning-Tree-Topology-Change	N/A	N/A	N	IManagedElement	F	F	F	0	F	info	F	T	F
Warm start trap	warm start trap	warm start trap	N/A	N/A	N	IManagedElement	F	F	F	0	F	min	T	T	F
dot1ag CFM Fault Alarm	dot1ag cfm fault alarm trap	dot1ag cfm fault alarm trap	N/A	N/A	N	IManagedElement	F	F	F	0	F	info	T	T	F

Cisco IOS V1 Trap Registry Parameters

Table 11-9 lists the associated event types, event subtypes, and Cisco ANA registry parameters for the Cisco IOX SNMP V1 traps shown in Table 11-2.

Table 11-9 Cisco IOS V1 Trap Registry Parameters

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Critical Temprature	cisco-Environment-Monitoring-Temperature-Notification	critical	1.3.6.1.4.1.9.9.13.1.3.1.6	3	N	IManaged Element	F	F	F	0	T	cri	F	T	F
Normal Temprature	cisco-Environment-Monitoring-Temperature-Notification	normal	1.3.6.1.4.1.9.9.13.1.3.1.6	1	N	IManaged Element	F	F	F	0	F	clr	F	T	F
Not Functioning	cisco-Environment-Monitoring-Temperature-Notification	notFunctioning	1.3.6.1.4.1.9.9.13.1.3.1.6	6	N	IManaged Element	F	F	F	0	T	maj	F	T	F
Not Present	cisco-Environment-Monitoring-Temperature-Notification	notPresent	1.3.6.1.4.1.9.9.13.1.3.1.6	5	N	IManaged Element	F	F	F	0	T	maj	F	T	F
Critical Temprature - Device Shutdown	cisco-Environment-Monitoring-Temperature-Notification	shutdown	1.3.6.1.4.1.9.9.13.1.3.1.6	4	N	IManaged Element	F	F	F	0	T	cri	F	T	F
Temprature Rising	cisco-Environment-Monitoring-Temperature-Notification	warning	1.3.6.1.4.1.9.9.13.1.3.1.6	2	N	IManaged Element	F	F	F	0	T	wrn	F	T	F
Power Supply - Critical	cisco-EnvMon-Supply-State-Notification-Trap	critical	1.3.6.1.4.1.9.9.13.1.5.1.3	3	N	IManaged Element	F	F	F	0	F	cri	T	T	F

Table 11-9 Cisco IOS V1 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Power Supply - Normal	cisco-EnvMon-Supply-State-Notification-Trap	normal	1.3.6.1.4.1.9.9.13.1.5.1.3	1	N	IManaged Element	F	F	F	0	F	clr	T	T	F
Power Supply - Not Functioning	cisco-EnvMon-Supply-State-Notification-Trap	notFunctioning	1.3.6.1.4.1.9.9.13.1.5.1.3	6	N	IManaged Element	F	F	F	0	F	maj	T	T	F
Power Supply - Not Present	cisco-EnvMon-Supply-State-Notification-Trap	notPresent	1.3.6.1.4.1.9.9.13.1.5.1.3	5	N	IManaged Element	T	F	F	0	F	maj	T	T	F
Power Supply - Shutdown	cisco-EnvMon-Supply-State-Notification-Trap	shutdown	1.3.6.1.4.1.9.9.13.1.5.1.3	4	N	IManaged Element	F	F	F	0	F	cri	T	T	F
Power Supply - Warning	cisco-EnvMon-Supply-State-Notification-Trap	warning	1.3.6.1.4.1.9.9.13.1.5.1.3	2	N	IManaged Element	F	F	F	0	F	wrn	T	T	F
Fan down trap	fan down trap	fan down trap	1.3.6.1.4.1.9.9.13.1.4.1.3	!= 1	N	IManaged Element	F	T	F	0	T	maj	F	T	F
Fan up trap	fan down trap	fan up trap	1.3.6.1.4.1.9.9.13.1.4.1.3	1	N	IManaged Element	F	F	F	0	F	clr	F	T	F
RTT Operation Timeout	RTT Operation Timeout	RTT Operation Timeout	N/A	N/A	N	IManaged Element	F	F	F	0	F	info	T	T	F
RTT Operation Threshold Violation	RTT Operation Threshold Violation	RTT Operation Threshold Violation	N/A	N/A	N	IManaged Element	F	F	F	0	F	info	T	T	F

Table 11-9 Cisco IOS V1 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
dot1qBridge trap	dot1qBridge trap	dot1 qBri dge trap	N/A	N/A	N	IManaged Element	F	T	F	0	F	info	F	T	F
Mep up trap	mep trap	mep up	N/A	N/A	N	IManaged Element	F	F	F	0	F	clr	F	T	F
Mep down trap	mep trap	mep down	N/A	N/A	N	IManaged Element	F	F	F	0	T	maj	F	T	F
Cold start trap	cold start trap	cold start trap	N/A	N/A	N	IManaged Element	F	F	T	1900 00	F	info	T	T	F
SNMP Link down	snmp link down	snmp link down	N/A	N/A	Y	IPhysical Layer	F	T	F	0	T	maj	F	T	T
SNMP Link up	snmp link down	snmp link up	N/A	N/A	Y	IPhysical Layer	F	T	F	0	F	clr	F	T	T
IMA Group Remote Failure	IMA Group Failure trap	IMA Grou p Rem ote Failu re	1.3.6.1. 4.1.353 .5.7.1.1 .6	10,1 2,15	mtop-ima-g roup-state,p ort-status	ImaGroup Oid	F	F	F	0	F	MINOR	T	T	T
IMA Group Remote insufficient links trap	IMA Group Failure trap	IMA Grou p Rem ote insuf ficie nt links trap	1.3.6.1. 4.1.353 .5.7.1.1 .6	14	mtop-ima-g roup-state,p ort-status	ImaGroup Oid	F	F	F	0	F	MAJOR	T	T	T
IMA Group Up Trap	IMA Group Failure trap	IMA Grou p Up Trap	1.3.6.1. 4.1.353 .5.7.1.1 .5	1	mtop-ima-g roup-state,p ort-status	ImaGroup Oid	F	F	F	0	F	CLEARE D	F	T	T

Table 11-9 Cisco IOS V1 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
IMA Group local Failure	IMA Group Failure trap	IMA Group local Failure	1.3.6.1.4.1.353.5.7.1.1.6	11,16	mtop-ima-group-state,port-status	ImaGroupOid	F	F	F	0	F	MINOR	T	T	T
IMA Group local insufficient links trap	IMA Group Failure trap	IMA Group local insufficient links trap	1.3.6.1.4.1.353.5.7.1.1.6	13	mtop-ima-group-state,port-status	ImaGroupOid	F	F	F	0	F	MAJOR	T	T	T
Ima Link Loss of delay Frame Trap	IMA Link Failure trap	Ima Link Loss of delay Frame Trap	1.3.6.1.4.1.353.5.7.1.1.6	2	mtop-ima-group-state,port-status	ImaGroupOid	F	F	F	0	T	MINOR	F	T	T
Ima Link Loss of ima Frame Trap	IMA Link Failure trap	Ima Link Loss of ima Frame Trap	1.3.6.1.4.1.353.5.7.1.1.6	1	mtop-ima-group-state,port-status	ImaGroupOid	F	T	F	0	F	MINOR	T	T	T
Ima Link Rcv Failure Trap	IMA Link Failure trap	Ima Link Rcv Failure Trap	1.3.6.1.4.1.353.5.7.1.1.6	5,7,9	mtop-ima-group-state,port-status	ImaGroupOid	F	T	F	0	F	MINOR	T	T	T

Table 11-9 Cisco IOS V1 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Ima Link Remote Failure Trap	IMA Link Failure trap	Ima Link Remote Failure Trap	1.3.6.1.4.1.353.5.7.1.1.6	3	mtop-ima-group-state,port-status	ImaGroupOid	F	T	F	0	F	MINOR	T	T	T
Ima Link Up Trap	IMA Link Failure trap	Ima Link Up Trap	1.3.6.1.4.1.353.5.7.1.1.5	1	mtop-ima-group-state,port-status	ImaGroupOid	F	F	F	0	F	CLEARED	F	T	T
Ima Link Xmt Failure Trap	IMA Link Failure trap	Ima Link Xmt Failure Trap	1.3.6.1.4.1.353.5.7.1.1.6	4,6,8	mtop-ima-group-state,port-status	ImaGroupOid	F	T	F	0	F	MINOR	T	T	T
Cisco UMT state Change trap	Cisco UMT state Change trap	Cisco UMT state Change trap	N/A	N/A	N/A	PortLayer1Oid	F	F	F	0	F	info	F	T	F
Cisco GSM state Change trap	Cisco GSM state Change trap	Cisco GSM state Change trap	N/A	N/A	N/A	PortLayer1Oid	F	F	F	0	F	info	F	T	F
IPRAN Backhaul Received Util Acceptable Trap	IPRAN Backhaul Received Util Trap	IPRAN Backhaul Received Util Acceptable Trap	1.3.6.1.4.1.9.9.483.1.2.2.1.1.1.3	1	N/A	PortLayer1Oid	F	F	F	0	F	clr	F	T	F

Table 11-9 Cisco IOS V1 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
IPRAN Backhaul Received Util Warning Trap	IPRAN Backhaul Received Util Trap	IPRAN Backhaul Received Util Warning Trap	1.3.6.1.4.1.9.9.483.1.2.2.1.1.1.3	2	N/A	PortLayer1Oid	F	F	F	0	T	wrn	F	T	F
IPRAN Backhaul Received Util Overloaded Trap	IPRAN Backhaul Received Util Trap	IPRAN Backhaul Received Util Overloaded Trap	1.3.6.1.4.1.9.9.483.1.2.2.1.1.1.3	3	N/A	PortLayer1Oid	F	F	F	0	T	maj	F	T	F
IPRAN Backhaul Sent Util Acceptable Trap	IPRAN Backhaul Sent Util Trap	IPRAN Backhaul Sent Util Acceptable Trap	1.3.6.1.4.1.9.9.483.1.2.2.1.1.1.4	1	N/A	PortLayer1Oid	F	F	F	0	F	clr	F	T	F
IPRAN Backhaul Sent Util Overloaded Trap	IPRAN Backhaul Sent Util Trap	IPRAN Backhaul Sent Util Warning Trap	1.3.6.1.4.1.9.9.483.1.2.2.1.1.1.4	2	N/A	PortLayer1Oid	F	F	F	0	T	wrn	F	T	F

Table 11-9 Cisco IOS V1 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
IPRAN Backhaul Sent Util Warning Trap	IPRAN Backhaul Sent Util Trap	IPRAN Backhaul Sent Util Overloaded Trap	1.3.6.1.4.1.9.9.483.1.2.2.1.1.1.4	3	N/A	PortLayer1Oid	F	F	F	0	T	maj	F	T	F
Connection Loss detected by ipsla icmp echo trap	ipsla echo connloss trap	connection loss detected by ipsla icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.9.1.5	1	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
Connection re-establish detected by ipsla icmp echo trap	ipsla echo connloss trap	connection re-establish detected by ipsla icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.9.1.5	2	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
Timeout detected by ipsla icmp echo trap	ipsla ip or lsp echo timeout trap	timeout detected by ipsla icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.9.1.6	1	N/A	ManagedElement	F	F	F	0	F	info	F	T	F

Table 11-9 Cisco IOS V1 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Connection re-establish detected by ipsla icmp echo trap	ipsla ip or lsp echo timeout trap	connection re-establish detected by ipsla icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.9.1.6	2	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Threshold crossing under trap	ipsla threshold notification trap	threshold crossing under trap	1.3.6.1.4.1.9.9.42.1.2.9.1.7	1	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Threshold crossing over trap	ipsla threshold notification trap	threshold crossing over trap	1.3.6.1.4.1.9.9.42.1.2.9.1.7	2	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Data corruption in rtt operation trap	ipsla threshold notification trap	data corruption in rtt operation trap	1.3.6.1.4.1.9.9.42.1.2.9.1.11	1	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Data corruption cleared in rtt operation trap	ipsla threshold notification trap	data corruption cleared in rtt operation trap	1.3.6.1.4.1.9.9.42.1.2.9.1.11	2	N/A	ManagedElement	F	F	F	0	F	info	F	T	F

Table 11-9 Cisco IOS V1 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Connection Loss detected by ipsla icmp echo trap	ipsla echo connloss trap	connection loss detected by ipsla icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	8, null, 1	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
Connection Loss detected by ipsla LSP icmp echo trap	ipsla echo connloss trap	connection loss detected by ipsla lsp icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	8, not null, 1	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
Connection re-establish detected by ipsla icmp echo trap	ipsla echo connloss trap	connection re-establish detected by ipsla icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	8, null, 2	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F

Table 11-9 Cisco IOS V1 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Connection re-establish detected by ipsla LSP icmp echo trap	ipsla echo connloss trap	connection re-establish detected by ipsla lsp icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	8, not null, 2	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
Timeout detected by ipsla icmp echo trap	ipsla echo timeout trap	timeout detected by ipsla icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, null, 1	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
Timeout detected by ipsla LSP icmp echo trap	ipsla echo timeout trap	timeout detected by ipsla lsp icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, not null, 1	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F

Table 11-9 Cisco IOS V1 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Connection re-establish detected by ipsla icmp echo trap	ipsla echo timeout trap	connection re-establish detected by ipsla icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, null, 2	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
Connection re-establish detected by ipsla LSP icmp echo trap	ipsla echo timeout trap	connection re-establish detected by ipsla lsp icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, not null, 2	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
RTT threshold crossing over trap	ipsla echo rtt trap	rtt threshold crossing over trap	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	1, 1	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
RTT threshold crossing under trap	ipsla echo rtt trap	rtt threshold crossing under trap	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	1, 2	N/A	ManagedElement	F	F	F	0	F	info	F	T	F

Table 11-9 Cisco IOS V1 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
IPSLA LSP path discovery failure trap	ipsla lpd discovery trap	ipsla lsp path discovery failure trap	1.3.6.1.4.1.9.9.42.1.3.7.1.13	1	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
IPSLA LSP path rediscovery trap	ipsla lpd discovery trap	ipsla lsp path rediscovery trap	1.3.6.1.4.1.9.9.42.1.3.7.1.13	2	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
IPSLA LDP group status failure trap	ipsla lpd group status trap	ipsla ldp group status failure trap	1.3.6.1.4.1.9.9.42.1.3.7.1.16	3,4	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
IPSLA LDP group status restoration trap	ipsla lpd group status trap	ipsla ldp group status restoration trap	1.3.6.1.4.1.9.9.42.1.3.7.1.16	2	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
FRR Protected Trap	frr trigger trap	frr protected trap	N/A	N/A	N/A	PortLayer1	F	T	F	0	F	info	F	T	F
FRR Unprotected Trap	frr trigger trap	frr unprotected trap	N/A	N/A	N/A	PortLayer1	F	T	F	0	F	info	F	T	F

Table 11-9 Cisco IOS V1 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Pseudo wire tunnel up	pseudo wire tunnel traps	Pseudo wire tunnel up	N/A	N/A	ce-pw-tunnels-status-trap	IPTPLayer2MplsTunnel	F	F	F	0	F	clr	F	T	T
Pseudo wire tunnel down	pseudo wire tunnel traps	Pseudo wire tunnel down	N/A	N/A	ce-pw-tunnels-status-trap	IPTPLayer2MplsTunnel	F	T	F	0	F	min	T	T	T
vtp configuration revision number error trap	vtp notification prefix trap	vtp Config Rev Number Error	N/A	N/A	N	VtpKey	F	F	F	0	F	wrn	F	T	F
vtp configuration digest error trap	vtp notification prefix trap	vtp Config Digest Error	N/A	N/A	N	VtpKey	F	F	F	0	F	maj	F	T	F
vtp VersionOne Device Detected trap	vtp notification prefix trap	vtp VersionOne Device Detected	N/A	N/A	N	VtpKey	F	F	F	0	F	min	F	T	F
vtp Local Mode Changed trap	vtp notification prefix trap	vtp Local Mode Changed	N/A	N/A	N	VtpKey	F	F	F	0	F	min	F	T	F

Table 11-9 Cisco IOS V1 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
vtp VersionInUse Changed trap	vtp notification prefix trap	vtp VersionIn Use Changed	N/A	N/A	N	VtpKey	F	F	F	0	F	info	F	T	F
Vlan trunk port dynamic status changed to trunking	vlan-trunk-port-dynamic-status	trunking	1.3.6.1.4.1.9.9.46.1.6.1.1.14	1	N	IPortLayer1	F	F	F	0	F	wrn	F	T	F
Vlan trunk port dynamic status changed to not trunking	vlan-trunk-port-dynamic-status	not trunking	1.3.6.1.4.1.9.9.46.1.6.1.1.14	2	N	IPortLayer1	F	T	F	0	F	wrn	F	T	F

Cisco IOS V2 Trap Registry Parameters

Table 11-10 lists the associated event types, event subtypes, and Cisco ANA registry parameters for the Cisco IOX SNMP V1 traps shown in Table 11-3.

Table 11-10 Cisco IOS V2 Trap Registry Parameters

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
CBF File operation state indicator	cbf define file completion	cbf define file completion	N/A	N/A	N	IManagedElement	F	F	F	0	F	info	F	T	F
Cisco BGP backward transition trap	cisco bgp trap	cisco bgp backward transition trap	1.3.6.1.4.1.9.9.187.0.2	!= (1or6)	N	IBgpNeighborEntry	F	T	F	0	F	info	F	T	T
Cisco BGP down trap	cisco bgp trap	cisco bgp down trap	1.3.6.1.4.1.9.9.187.0.2	= 1	N	IBgpNeighborEntry	F	T	T	0	F	maj	F	T	T
Cisco BGP established trap	cisco bgp trap	cisco bgp established trap	1.3.6.1.4.1.9.9.187.0.2	= 6	N	IBgpNeighborEntry	F	F	F	0	F	clr	F	T	T
Cisco BGP prefix threshold exceeded	cisco bgp prefix threshold exceeded	cisco bgp prefix threshold exceeded	N/A	N/A	N	IProfileContainer (BGP)	F	T	F	0	F	wrn	T	T	T
Cisco BGP prefix threshold clear	cisco bgp prefix threshold exceeded	cisco bgp prefix threshold clear	N/A	N/A	N	IProfileContainer (BGP)	F	F	F	0	F	clr	F	T	T
Config-copy request completion	cc copy completion	cc copy completion	N/A	N/A	N	IManagedElement	F	F	F	0	F	info	F	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Cisco Configuration management event notification	cisco config man event	cisco config man event	N/A	N/A	N	IManagedElement	F	F	F	0	F	info	F	T	F
cefc fan-tray oper status down	cefc fan tray status changed	cefc fan status down	1.3.6.1.4.1.9.9.117.1.4.1.1.1	!=2	physical-command	IModule	F	T	T	0	F	cri	T	T	T
cefc fan-tray oper status up	cefc fan tray status changed	cefc fan status up	1.3.6.1.4.1.9.9.117.1.4.1.1.1	=2	physical-command	IModule	F	F	F	0	F	clr	F	T	T
cefc FRU inserted	cefc fru removed	cefc fru inserted	N/A	N/A	physical-command	IModule	F	F	F	0	F	clr	F	T	T
cefc FRU removed	cefc fru removed	cefc fru removed	N/A	N/A	physical-command	IModule	F	T	T	0	F	maj	T	T	T
cefc module oper status down	cefc module oper status changed	cefc module oper down	1.3.6.1.4.1.9.9.117.1.2.1.1.2	!=2	physical-command	IModule	F	T	T	0	F	maj	T	T	T
cefc module oper status up	cefc module oper status changed	cefc module oper up	1.3.6.1.4.1.9.9.117.1.2.1.1.2	=2	physical-command	IModule	F	F	F	0	F	clr	F	T	T
cefc power status down	cefc power status changed	cefc power status down	1.3.6.1.4.1.9.9.117.1.1.2.1.2	!=2	physical-command	IModule	F	T	T	0	F	maj	T	T	T
cefc power status up	cefc power status changed	cefc power status up	1.3.6.1.4.1.9.9.117.1.1.2.1.2	=2	physical-command	IModule	F	F	F	0	F	clr	F	T	T

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
sensor value crossed threshold in entSensorThresholdTable	entity sensor threshold notification	entity sensor threshold notification	N/A	N/A	N	IManagedElement	F	F	F	0	F	maj	T	T	T
Cisco flash copy failed	cisco flash copy completed	cisco flash copy failed	1.3.6.1.4.1.9.9.10.1.2.1.1.8	!= (0 or 1 or 2)	N	IManagedElement	F	F	F	0	F	info	F	T	F
Cisco flash copy completion	cisco flash copy completed	cisco flash copy completed	1.3.6.1.4.1.9.9.10.1.2.1.1.8	=2	N	IManagedElement	F	F	F	0	F	info	F	T	F
Cisco flash copy in progress	cisco flash copy completed	cisco flash copy in progress	1.3.6.1.4.1.9.9.10.1.2.1.1.8	=(0 or 1)	N	IManagedElement	F	F	F	0	F	info	F	T	F
Cisco Flash device changed	cisco flash device changed	cisco flash device changed	N/A	N/A	N	IManagedElement	F	F	F	0	F	wrn	F	T	F
Cisco Flash device inserted	cisco flash device removed	cisco flash device inserted	N/A	N/A	N	IManagedElement	F	F	F	0	F	clr	F	T	T
Cisco Flash device removed	cisco flash device removed	cisco flash device removed	N/A	N/A	N	IManagedElement	F	F	F	0	F	wrn	F	T	T
Cisco Flash device inserted	cisco flash device removed	cisco flash device inserted	N/A	N/A	N	IManagedElement	F	F	F	0	F	clr	F	T	T
Cisco Flash device removed	cisco flash device removed	cisco flash device removed	N/A	N/A	N	IManagedElement	F	F	F	0	F	wrn	F	T	T

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Cisco Flash miscellaneous operation failed	cisco flash operation completed	cisco flash operation failed	1.3.6.1.4.1.9.9.10.1.2.3.1.4	!= (1 or 2)	N	IManagedElement	F	F	F	0	F	info	F	T	F
Cisco Flash miscellaneous operation completed	cisco flash operation completed	cisco flash operation completed	1.3.6.1.4.1.9.9.10.1.2.3.1.4	=2	N	IManagedElement	F	F	F	0	F	info	F	T	F
Cisco Flash miscellaneous operation in progress	cisco flash operation completed	cisco flash operation in progress	1.3.6.1.4.1.9.9.10.1.2.3.1.4	=1	N	IManagedElement	F	F	F	0	F	info	F	T	F
chassis alarm off	chassis alarm trap	chassis alarm off	N/A	N/A	N	IManagedElement	F	F	F	0	F	clr	F	T	F
chassis alarm on	chassis alarm trap	chassis alarm on	N/A	N/A	N	IManagedElement	F	T	F	0	T	min	F	T	F
Cisco PIM neighbor lost	cisco pim neighbor lost	cisco pim neighbor lost	N/A	N/A	N	IRoutingEntry	F	T	T	0	F	info	T	T	T
Cisco ping completion	cisco ping completion	cisco ping completion	N/A	N/A	N	IManagedElement	F	F	F	0	F	info	F	T	F
Cisco Sonet section status changed to error	sonet section status changed	sonet section status changed to error	1.3.6.1.2.1.10.39.1.2.1.1	!=1	N	IPortLayer1	F	T	T	0	F	maj	F	T	T
Cisco Sonet section status changed to clear	sonet section status changed	sonet section status changed to clear	1.3.6.1.2.1.10.39.1.2.1.1	=1	N	IPortLayer1	F	F	F	0	F	clr	F	T	T

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Cisco Sonet line status changed to error	sonet line status changed	sonet line status changed to error	1.3.6.1.2.1.10.39.1.3.1.1.1	!=1	N	IPortLayer1	F	T	T	0	F	maj	F	T	T
Cisco Sonet line status changed to clear	sonet line status changed	sonet line status changed to clear	1.3.6.1.2.1.10.39.1.3.1.1.1	=1	N	IPortLayer1	F	F	F	0	F	clr	F	T	T
Cisco Sonet path status changed to error	sonet path status changed	sonet path status changed to error	1.3.6.1.2.1.10.39.2.1.1.1.2	!=1	N	IPortLayer1	F	T	T	0	F	maj	F	T	T
Cisco Sonet path status changed to clear	sonet path status changed	sonet path status changed to clear	1.3.6.1.2.1.10.39.2.1.1.1.2	=1	N	IPortLayer1	F	F	F	0	F	clr	F	T	T
MPLS LDP init session threshold exceeded Trap	mpls ldp session down	mpls ldp init session thresh exceeded	N/A	N/A	N	IPortLayer1	F	T	F	0	F	wrn	F	T	T
MPLS LDP session down Trap	mpls ldp session down	mpls ldp session down	N/A	N/A	mpls interfaces' and 'label switching table	'IPortLayer1	T	T	T	0	F	min	T	T	T
MPLS LDP session up Trap	mpls ldp session down	mpls ldp session up	N/A	N/A	mpls interfaces' and 'label switching table	'IPortLayer1	F	T	F	0	F	clr	F	T	T
MPLS-TE tunnel up trap	mpls te tunnel down trap	mpls te tunnel up trap	N/A	N/A	mpls traffic engineering tunnel information	IMplsTETunnel	F	F	F	0	F	clr	F	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
MPLS-TE tunnel down trap	mpls te tunnel down trap	mpls te tunnel down trap	N/A	N/A	mpls traffic engineering tunnel information	IMplsTETunnel	F	T	F	0	T	maj	F	T	T
MPLS-TE tunnel rerouted trap	mpls te tunnel rerouted trap	mpls te tunnel rerouted trap	N/A	N/A	N	IMplsTETunnel	F	T	F	0	F	info	T	T	T
Failed receive multicast router heartbeat	cisco multicast router heartbeat failed	cisco multicast router heartbeat failed	N/A	N/A	N	IManagedElement	F	T	F	0	F	info	F	T	F
Cisco VSS Shelf 1 is Disabled	VSS RF State Change	Shelf 1 is Disabled	N/A	N/A	vss-shelfs-status-command	IShelf	F	F	F	1100000	F	info	T	T	F
Cisco VSS Shelf 1 is Standby Cold	VSS RF State Change	Shelf 1 is Standby Cold	N/A	N/A	vss-shelfs-status-command	IShelf	F	F	F	1100000	F	info	T	T	F
Cisco VSS Shelf 1 is Standby Hot	VSS RF State Change	Shelf 1 is Standby Hot	N/A	N/A	vss-shelfs-status-command	IShelf	F	F	F	1100000	F	info	T	T	F
Cisco VSS Shelf 2 is Disabled	VSS RF State Change	Shelf 2 is Disabled	N/A	N/A	vss-shelfs-status-command	IShelf	F	F	F	1100000	F	info	T	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Cisco VSS Shelf 2 is Standby Cold	VSS RF State Change	Shelf 2 is Standby Cold	N/A	N/A	vss-shelfs-status-command	IShelf	F	F	F	1100000	F	info	T	T	F
Cisco VSS Shelf 2 is Standby Hot	VSS RF State Change	Shelf 2 is Standby Hot	N/A	N/A	vss-shelfs-status-command	IShelf	F	F	F	1100000	F	info	T	T	F
VSL Connection Changed: Down	VSL Connection State Change	VSL Connection State Down	N/A	N/A	physical-entity-mib-snmp-cisco6500 vss + vss-shelfs-status-command	IShelf	F	F	F	1100000	F	info	T	T	F
VSL Connection Change: Up	VSL Connection State Change	VSL Connection State Up	N/A	N/A	physical-entity-mib-snmp-cisco6500 vss + vss-shelfs-status-command	IShelf	F	F	F	1100000	F	info	T	T	F
dot1qBridge trap	dot1qBridge trap	dot1qBridge trap	N/A	N/A	N	IManagedElement	F	T	F	0	F	info	F	T	F
Mep up trap	mep trap	mep up	N/A	N/A	N	IManagedElement	F	F	F	0	F	clr	F	T	F
Mep down trap	mep trap	mep down	N/A	N/A	N	IManagedElement	F	F	F	0	T	maj	F	T	F
Cold start trap	cold start trap	cold start trap	N/A	N/A	N	IManagedElement	F	F	T	2E+05	F	info	T	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Cisco hsrp state standby	cisco hsrp state change	cisco hsrp state standby	1.3.6.1.4.1.9.9.106.1.2.1.1.15	= 5	hsrp information (command under forwarding investigator)	IIPInterface	F	T	F	0	F	info	T	T	T
Cisco hsrp state non active	cisco hsrp state change	cisco hsrp state non active	1.3.6.1.4.1.9.9.106.1.2.1.1.15	= ^	hsrp information (command under forwarding investigator)	IIPInterface	F	T	F	0	F	info	T	T	T
Cisco hsrp state active	cisco hsrp state change	cisco hsrp state active	1.3.6.1.4.1.9.9.106.1.2.1.1.15	= 6	hsrp information (command under forwarding investigator)	IIPInterface	F	T	F	0	F	info	T	T	T
Cisco Environment Monitoring Fan Notification - Critical	cisco-Environment-Monitoring-Fan-Notification	critical	1.3.6.1.4.1.9.9.13.1.4.1.3	= 3	N	IManagedElement + identifier index	F	F	F	0	F	cri	T	T	F
Cisco Environment Monitoring Fan Notification - Normal	cisco-Environment-Monitoring-Fan-Notification	normal	1.3.6.1.4.1.9.9.13.1.4.1.3	= 1	N	IManagedElement + identifier index	F	F	F	0	F	clr	T	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Cisco Environment Monitoring Fan Notification - Not Functioning	cisco-Environment-Monitoring-Fan-Notification	notFunctioning	1.3.6.1.4.1.9.9.13.1.4.1.3	= 6	N	IManagedElement + identifier index	F	F	F	0	F	maj	T	T	F
Cisco Environment Monitoring Fan Notification - Not Present	cisco-Environment-Monitoring-Fan-Notification	notPresent	1.3.6.1.4.1.9.9.13.1.4.1.3	= 5	N	IManagedElement + identifier index	T	F	F	0	F	maj	T	T	F
Cisco Environment Monitoring Fan Notification - Shutdown	cisco-Environment-Monitoring-Fan-Notification	shutdown	1.3.6.1.4.1.9.9.13.1.4.1.3	= 4	N	IManagedElement + identifier index	F	F	F	0	F	cri	T	T	F
Cisco Environment Monitoring Fan Notification - Warning	cisco-Environment-Monitoring-Fan-Notification	warning	1.3.6.1.4.1.9.9.13.1.4.1.3	= 2	N	IManagedElement + identifier index	F	F	F	0	F	wrn	T	T	F
Redundant Supply State - Critical	cisco-EnvMon-Redundant-Supply-Notification-Trap	critical	1.3.6.1.4.1.9.9.13.1.5.1.3	= 3	N	IManagedElement + identifier index	F	F	F	0	F	cri	F	T	F
Redundant Supply State - Normal	cisco-EnvMon-Redundant-Supply-Notification-Trap	normal	1.3.6.1.4.1.9.9.13.1.5.1.3	= 1	N	IManagedElement + identifier index	F	F	F	0	F	clr	T	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Redundant Supply State - Not Functioning	cisco-EnvMon-Redundant-Supply-Notification-Trap	notFunctioning	1.3.6.1.4.1.9.9.13.1.5.1.3	= 6	N	IManagedElement + identifier index	F	F	F	0	F	maj	T	T	F
Redundant Supply State - Not Present	cisco-EnvMon-Redundant-Supply-Notification-Trap	notPresent	1.3.6.1.4.1.9.9.13.1.5.1.3	= 5	N	IManagedElement + identifier index	T	F	F	0	F	maj	T	T	F
Redundant Supply State - Shutdown	cisco-EnvMon-Redundant-Supply-Notification-Trap	shutdown	1.3.6.1.4.1.9.9.13.1.5.1.3	= 4	N	IManagedElement + identifier index	F	F	F	0	F	cri	T	T	F
Redundant Supply State - Warning	cisco-EnvMon-Redundant-Supply-Notification-Trap	warning	1.3.6.1.4.1.9.9.13.1.5.1.3	= 2	N	IManagedElement + identifier index	F	F	F	0	F	wrn	T	T	F
Critical Temperature	cisco-Environment-Monitoring-Temperature-Notification	critical	1.3.6.1.4.1.9.9.13.1.3.1.6	= 3	N	IManagedElement + identifier index	F	F	F	0	F	cri	T	T	F
Normal Temperature	cisco-Environment-Monitoring-Temperature-Notification	normal	1.3.6.1.4.1.9.9.13.1.3.1.6	= 1	N	IManagedElement + identifier index	F	F	F	0	F	clr	T	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Not Functioning	cisco-Environment-Monitoring-Temperature-Notification	notFunctioning	1.3.6.1.4.1.9.9.13.1.3.1.6	= 6	N	IManagedElement + identifier index	F	F	F	0	F	maj	T	T	F
Not Present	cisco-Environment-Monitoring-Temperature-Notification	notPresent	1.3.6.1.4.1.9.9.13.1.3.1.6	= 5	N	IManagedElement + identifier index	F	F	F	0	F	maj	T	T	F
Critical Temperature - Device Shutdown	cisco-Environment-Monitoring-Temperature-Notification	shutdown	1.3.6.1.4.1.9.9.13.1.3.1.6	= 4	N	IManagedElement + identifier index	F	F	F	0	F	cri	T	T	F
Temperature Rising	cisco-Environment-Monitoring-Temperature-Notification	warning	1.3.6.1.4.1.9.9.13.1.3.1.6	= 2	N	IManagedElement + identifier index	F	F	F	0	F	wrn	T	T	F
new root trap	new root trap	new root trap	N/A	N/A	N	IStpService	F	F	F	0	F	info	F	T	F
stpx port inconsistency discovered	stpx port inconsistency update	stpx port inconsistency discovered	1.3.6.1.4.1.9.9.82.1.3.1.1.3	=1	N	IStpService	F	T	F	0	F	maj	T	T	F
stpx port inconsistency resolved	stpx port inconsistency update	stpx port inconsistency resolved	1.3.6.1.4.1.9.9.82.1.3.1.1.4	=2	N	IStpService	F	F	F	0	F	clr	T	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
stpx loop inconsistency discovered	stpx loop inconsistency update	stpx loop inconsistency discovered	1.3.6.1.4.1.9.9.82.1.8.2.1.3	= 1	N	IStpService	F	T	F	0	F	maj	T	T	F
stpx loop inconsistency resolved	stpx loop inconsistency update	stpx loop inconsistency resolved	1.3.6.1.4.1.9.9.82.1.8.2.1.3	= 2	N	IStpService	F	F	F	0	F	clr	T	T	F
stpx root inconsistency discovered	stpx root inconsistency update	stpx root inconsistency discovered	1.3.6.1.4.1.9.9.82.1.5.2.1.3	= 1	N	IStpService	F	T	F	0	F	maj	T	T	F
stpx root inconsistency resolved	stpx root inconsistency update	stpx root inconsistency resolved	1.3.6.1.4.1.9.9.82.1.5.2.1.3	= 2	N	IStpService	F	F	F	0	F	clr	T	T	F
vtp configuration revision number error trap	vtp notification prefix trap	vtp Config Rev Number Error	N/A	N/A	N	VtpKey	F	F	F	0	F	wrn	F	T	F
vtp configuration digest error trap	vtp notification prefix trap	vtp Config Digest Error	N/A	N/A	N	VtpKey	F	F	F	0	F	maj	F	T	F
cisco EnvMon Shutdown Notification Trap	cisco-EnvMon-Shutdown-Notification-Trap	cisco-EnvMon-Shutdown-Notification-Trap	N/A	N/A	N	IManagedElement	F	F	F	0	F	info	F	T	F
caem Temperature Notification Trap	caem-MIB-Notifications-Trap	caem Temperature Notification	N/A	N/A	N	IManagedElement	F	F	F	0	F	min	F	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
caem Voltage Notification Trap	caem-MIB-Notifications-Trap	caem Voltage Notification	N/A	N/A	N	IManagedElement	F	F	F	0	F	min	F	T	F
cmn Mac Changed Notification Trap	cmn-Mac-Changed-Notification-Trap	cmn-Mac-Changed-Notification-Trap	N/A	N/A	N	IManagedElement	F	F	F	0	F	min	F	T	F
cmn Mac Move Notification Trap	cmn-Mac-Move-Notification-Trap	cmn-Mac-Move-Notification-Trap	N/A	N/A	N	IManagedElement + identifier index	F	F	F	0	F	min	F	T	F
vtp VersionOne Device Detected trap	vtp notification prefix trap	vtp VersionOne Device Detected	N/A	N/A	N	VtpKey	F	F	F	0	F	min	F	T	F
vtp Local Mode Changed trap	vtp notification prefix trap	vtp Local Mode Changed	N/A	N/A	N	VtpKey	F	F	F	0	F	min	F	T	F
vtp VersionInUse Changed trap	vtp notification prefix trap	vtp VersionInUse Changed	N/A	N/A	N	VtpKey	F	F	F	0	F	info	F	T	F
Vlan trunk port dynamic status changed to trunking	vlan-trunk-port-dynamic-status	trunking	1.3.6.1.4.1.9.9.46.1.6.1.1.14	= 1	N	IPortLayer1	F	F	F	0	F	wrn	F	T	F
Vlan trunk port dynamic status changed to not trunking	vlan-trunk-port-dynamic-status	not trunking	1.3.6.1.4.1.9.9.46.1.6.1.1.14	2	N	IPortLayer1	F	T	F	0	F	wrn	F	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
cps Secure MacAddr Violation Trap	cps-Secure-MacAddr-Violation-Trap	cps-Secure-MacAddr-Violation-Trap	N/A	N/A	N	IPortLayer1	F	F	T	0	F	maj	T	T	F
cps IfVlan Secure MacAddr Violation Trap	cps-IfVlan-Secure-MacAddr-Violation-Trap	cps-IfVlan-Secure-MacAddr-Violation-Trap	N/A	N/A	N	IPortLayer1	F	F	T	0	F	maj	T	T	F
cisco L2 Control VlanMacLimit Notif Trap	cisco-L2-Control-VlanMacLimit-Notifs-Trap	clc VlanMac Limit Notif	N/A	N/A	N	IPortLayer1	F	F	F	0	F	info	F	T	F
cisco L2 Control VlanMacLimit High Notif Trap	cisco-L2-Control-VlanMacLimit-Notifs-Trap	clc VlanMac Limit High Notif	N/A	N/A	N	IPortLayer1	F	F	F	0	F	info	F	T	F
cisco L2 Control IfMacLimit Low Notif Trap	cisco-L2-Control-IfMacLimit-Notifs-Trap	clc IfMacLimit Low Notif	N/A	N/A	N	IPortLayer1	F	F	F	0	F	info	F	T	F
cisco L2 Control IfMacLimit High Notif Trap	cisco-L2-Control-IfMacLimit-Notifs-Trap	clc IfMacLimit High Notif	N/A	N/A	N	IPortLayer1	F	F	F	0	F	info	F	T	F
cisco L2 Control IfVlanMacLimit Low Notif Trap	cisco-L2-Control-IfVlanMacLimit-Notifs-Trap	clc IfVlanMacLimit Low Notif	N/A	N/A	N	IPortLayer1	F	F	F	0	F	info	F	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
cisco L2 Control IfVlanMacLimit High Notif Trap	cisco-L2-Control-IfVlanMacLimit-Notifs-Trap	clc IfVlanMacLimit High Notif	N/A	N/A	N	IPortLayer1	F	F	F	0	F	info	F	T	F
Cisco SBC source alert off trap	ciscosbc source alert trap	off	1.3.6.1.4.1.9.9.658.1.2	= 1	N	ISbcService	F	F	F	0	F	clr	F	T	F
Cisco SBC source alert on trap	ciscosbc source alert trap	on	1.3.6.1.4.1.9.9.658.1.2	!= (1 or 7)	N	ISbcService	F	F	F	0	F	wrn	T	T	F
Cisco SBC source alert informational trap	ciscosbc source alert trap	informational	1.3.6.1.4.1.9.9.658.1.2	= 7	N	ISbcService	F	F	F	0	F	info	F	T	F
Cisco SBC dynamic blacklist trap	ciscosbc dynamic blacklist trap	cisco sbc dynamic blacklist trap	1.3.6.1.4.1.9.9.658.1.2	= 1	N	ISbcService	F	F	F	0	F	info	F	T	F
Cisco SBC adjacency state up trap	ciscosbc adjacency state change trap	up	1.3.6.1.4.1.9.9.658.1.2	= 1	N	ISbcService	F	F	F	0	F	clr	F	T	F
Cisco SBC adjacency state down trap	ciscosbc adjacency state change trap	down	1.3.6.1.4.1.9.9.658.1.2	!= (1 or 7)	N	ISbcService	F	F	F	0	F	maj	T	T	F
Cisco SBC adjacency state informational trap	ciscosbc adjacency state change trap	informational	1.3.6.1.4.1.9.9.658.1.2	= 7	N	ISbcService	F	F	F	0	F	info	F	T	F
Cisco SBC service state up trap	ciscosbc service state change trap	up	1.3.6.1.4.1.9.9.658.1.28	= 1	sbc	ISbcService	F	F	F	0	F	clr	F	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Cisco SBC service state down trap	cisco sbc service state change trap	down	1.3.6.1.4.1.9.9.658.1.28	= 3	sbc	ISbcService	F	F	F	0	F	cri	T	T	F
Cisco SBC service state informational trap	cisco sbc service state change trap	informational	1.3.6.1.4.1.9.9.658.1.28	= 2	sbc	ISbcService	F	F	F	0	F	info	F	T	F
Cisco SBC system congestion cleared trap	cisco sbc system congestion trap	cleared	1.3.6.1.4.1.9.9.658.1.2	= 1	N	ISbcService	F	F	F	0	F	clr	F	T	F
Cisco SBC system congestion raised trap	cisco sbc system congestion trap	raised	1.3.6.1.4.1.9.9.658.1.2	!= (1 or 7)	N	ISbcService	F	F	F	0	F	wrn	T	T	F
Cisco SBC system congestion informational trap	cisco sbc system congestion trap	informational	1.3.6.1.4.1.9.9.658.1.2	= 7	N	ISbcService	F	F	F	0	F	info	F	T	F
Cisco SBC SLA violation off trap	cisco sbc sla violation trap	off	1.3.6.1.4.1.9.9.658.1.2	= 1	N	ISbcService	F	F	F	0	F	clr	F	T	F
Cisco SBC SLA violation on trap	cisco sbc sla violation trap	on	1.3.6.1.4.1.9.9.658.1.2	!= (1 or 7)	N	ISbcService	F	F	F	0	F	min	T	T	F
Cisco SBC SLA violation informational trap	cisco sbc sla violation trap	informational	1.3.6.1.4.1.9.9.658.1.2	= 7	N	ISbcService	F	F	F	0	F	info	F	T	F
Cisco SBC radius connection state up trap	cisco sbc radius connection state change trap	up	1.3.6.1.4.1.9.9.658.1.2	= 1	N	ISbcService	F	F	F	0	F	clr	F	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Cisco SBC radius connection state down trap	ciscosbc radius connection state change trap	down	1.3.6.1.4.1.9.9.658.1.2	!= (1 or 7)	N	ISbcService	F	F	F	0	F	maj	T	T	F
Cisco SBC radius connection state informational trap	ciscosbc radius connection state change trap	informational	1.3.6.1.4.1.9.9.658.1.2	= 7	N	ISbcService	F	F	F	0	F	info	F	T	F
Cisco SBC H248 controller state up trap	ciscosbc h248 controller state change trap	up	1.3.6.1.4.1.9.9.658.1.2	= 1	N	ISbcService	F	F	F	0	F	clr	F	T	F
Cisco SBC H248 controller state down trap	ciscosbc h248 controller state change trap	down	1.3.6.1.4.1.9.9.658.1.2	!= (1 or 7)	N	ISbcService	F	F	F	0	F	wrn	T	T	F
Cisco SBC H248 controller state informational trap	ciscosbc h248 controller state change trap	informational	1.3.6.1.4.1.9.9.658.1.2	= 7	N	ISbcService	F	F	F	0	F	info	F	T	F
RTT Connection Change	RTT Connection Change	RTT Connection Change	N/A	N/A	N	IManagedElement	F	F	F	0	F	info	T	T	F
RTT Operation Timeout	RTT Operation Timeout	RTT Operation Timeout	N/A	N/A	N	IManagedElement	F	F	F	0	F	info	T	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
RTT Operation Threshold Violation	RTT Operation Threshold Violation	RTT Operation Threshold Violation	N/A	N/A	N	IManagedElement	F	F	F	0	F	info	T	T	F
RTT Verify Error	RTT Verify Error	RTT Verify Error	N/A	N/A	N	IManagedElement	F	F	F	0	F	info	T	T	F
RTT threshold violation or clearance	rtt threshold violation or clearance	rtt threshold violation or clearance	N/A	N/A	N	IManagedElement	F	F	F	0	F	info	T	T	F
RTT Lpd Discovery	RTT Lpd Discovery	RTT Lpd Discovery	N/A	N/A	N	IManagedElement	F	F	F	0	F	info	T	T	F
RTT Lpd Grp Status	RTT Lpd Grp Status	RTT Lpd Grp Status	N/A	N/A	N	IManagedElement	F	F	F	0	F	info	T	T	F
IMA Group Remote Failure	IMA Group Failure trap	IMA Group Remote Failure	1.3.6.1.4.1.353.5.7.1.1.6	10,12,15	mtop-ima-group-state,port-status	ImaGroupOid	F	F	F	0	F	min	T	T	T
IMA Group Remote insufficient links trap	IMA Group Failure trap	IMA Group Remote insufficient links trap	1.3.6.1.4.1.353.5.7.1.1.6	14	mtop-ima-group-state,port-status	ImaGroupOid	F	F	F	0	F	maj	T	T	T
IMA Group Up Trap	IMA Group Failure trap	IMA Group Up Trap	1.3.6.1.4.1.353.5.7.1.1.5	1	mtop-ima-group-state,port-status	ImaGroupOid	F	F	F	0	F	clr	F	T	T

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
IMA Group local Failure	IMA Group Failure trap	IMA Group local Failure	1.3.6.1.4.1.353.5.7.1.1.6	11,16	mtop-ima-group-state,port-status	ImaGroup Oid	F	F	F	0	F	min	T	T	T
IMA Group local insufficient links trap	IMA Group Failure trap	IMA Group local insufficient links trap	1.3.6.1.4.1.353.5.7.1.1.6	13	mtop-ima-group-state,port-status	ImaGroup Oid	F	F	F	0	F	maj	T	T	T
Ima Link Loss of delay Frame Trap	IMA Link Failure trap	Ima Link Loss of delay Frame Trap	1.3.6.1.4.1.353.5.7.1.1.6	2	mtop-ima-group-state,port-status	ImaGroup Oid	F	F	F	0	T	min	F	T	T
Ima Link Loss of ima Frame Trap	IMA Link Failure trap	Ima Link Loss of ima Frame Trap	1.3.6.1.4.1.353.5.7.1.1.6	1	mtop-ima-group-state,port-status	ImaGroup Oid	F	T	F	0	F	min	T	T	T
Ima Link Rcv Failure Trap	IMA Link Failure trap	Ima Link Rcv Failure Trap	1.3.6.1.4.1.353.5.7.1.1.6	5,7,9	mtop-ima-group-state,port-status	ImaGroup Oid	F	T	F	0	F	min	T	T	T
Ima Link Remote Failure Trap	IMA Link Failure trap	Ima Link Remote Failure Trap	1.3.6.1.4.1.353.5.7.1.1.6	3	mtop-ima-group-state,port-status	ImaGroup Oid	F	T	F	0	F	min	T	T	T
Ima Link Up Trap	IMA Link Failure trap	Ima Link Up Trap	1.3.6.1.4.1.353.5.7.1.1.5	1	mtop-ima-group-state,port-status	ImaGroup Oid	F	F	F	0	F	clr	F	T	T
Ima Link Xmt Failure Trap	IMA Link Failure trap	Ima Link Xmt Failure Trap	1.3.6.1.4.1.353.5.7.1.1.6	4,6,8	mtop-ima-group-state,port-status	ImaGroup Oid	F	T	F	0	F	min	T	T	T

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Cisco UMT state Change trap	Cisco UMT state Change trap	Cisco UMT state Change trap	N/A	N/A	N/A	PortLayer1 Oid	F	F	F	0	F	info	F	T	F
Cisco GSM state Change trap	Cisco GSM state Change trap	Cisco GSM state Change trap	N/A	N/A	N/A	PortLayer1 Oid	F	F	F	0	F	info	F	T	F
IPRAN Backhaul Received Util Acceptable Trap	IPRAN Backhaul Received Util Trap	IPRAN Backhaul Received Util Acceptable Trap	1.3.6.1.4.1.9.9.483.1.2.2.1.1.3	1	N/A	PortLayer1 Oid	F	F	F	0	F	clr	F	T	F
IPRAN Backhaul Received Util Warning Trap	IPRAN Backhaul Received Util Trap	IPRAN Backhaul Received Util Warning Trap	1.3.6.1.4.1.9.9.483.1.2.2.1.1.3	2	N/A	PortLayer1 Oid	F	F	F	0	T	wrn	F	T	F
IPRAN Backhaul Received Util Overloaded Trap	IPRAN Backhaul Received Util Trap	IPRAN Backhaul Received Util Overloaded Trap	1.3.6.1.4.1.9.9.483.1.2.2.1.1.3	3	N/A	PortLayer1 Oid	F	F	F	0	T	maj	F	T	F
IPRAN Backhaul Sent Util Acceptable Trap	IPRAN Backhaul Sent Util Trap	IPRAN Backhaul Sent Util Acceptable Trap	1.3.6.1.4.1.9.9.483.1.2.2.1.1.4	1	N/A	PortLayer1 Oid	F	F	F	0	F	clr	F	T	F
IPRAN Backhaul Sent Util Overloaded Trap	IPRAN Backhaul Sent Util Trap	IPRAN Backhaul Sent Util Warning Trap	1.3.6.1.4.1.9.9.483.1.2.2.1.1.4	2	N/A	PortLayer1 Oid	F	F	F	0	T	wrn	F	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
IPRAN Backhaul Sent Util Warning Trap	IPRAN Backhaul Sent Util Trap	IPRAN Backhaul Sent Util Overloaded Trap	1.3.6.1.4.1.9.9.483.1.2.2.1.1.4	3	N/A	PortLayer1Oid	F	F	F	0	T	maj	F	T	F
Connection Loss detected by ipsla icmp echo trap	ipsla echo connloss trap	connection loss detected by ipsla icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.9.1.5	1	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
Connection re-establish detected by ipsla icmp echo trap	ipsla echo connloss trap	connection re-establish detected by ipsla icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.9.1.5	2	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
Timeout detected by ipsla icmp echo trap	ipsla ip or lsp echo timeout trap	timeout detected by ipsla icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.9.1.6	1	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Connection re-establish detected by ipsla icmp echo trap	ipsla ip or lsp echo timeout trap	connection re-establish detected by ipsla icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.9.1.6	2	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Threshold crossing under trap	ipsla threshold notification trap	threshold crossing under trap	1.3.6.1.4.1.9.9.42.1.2.9.1.7	1	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Threshold crossing over trap	ipsla threshold notification trap	threshold crossing over trap	1.3.6.1.4.1.9.9.42.1.2.9.1.7	2	N/A	ManagedElement	F	F	F	0	F	info	F	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Data corruption in rtt operation trap	ipsla threshold notification trap	data corruption in rtt operation trap	1.3.6.1.4.1.9.9.42.1.2.9.1.11	1	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Data corruption cleared in rtt operation trap	ipsla threshold notification trap	data corruption cleared in rtt operation trap	1.3.6.1.4.1.9.9.42.1.2.9.1.11	2	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Connection Loss detected by ipsla icmp echo trap	ipsla echo connloss trap	connection loss detected by ipsla icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.1 9.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.1 9.1.10	8, null, 1	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
Connection Loss detected by ipsla LSP icmp echo trap	ipsla echo connloss trap	connection loss detected by ipsla lsp icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.1 9.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.1 9.1.10	8, not null, 1	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Connection re-establish detected by ipsla icmp echo trap	ipsla echo connloss trap	connection re-establish detected by ipsla icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	8, null, 2	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
Connection re-establish detected by ipsla LSP icmp echo trap	ipsla echo connloss trap	connection re-establish detected by ipsla lsp icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	8, not null, 2	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
Timeout detected by ipsla icmp echo trap	ipsla echo timeout trap	timeout detected by ipsla icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, null, 1	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Timeout detected by ipsla LSP icmp echo trap	ipsla echo timeout trap	timeout detected by ipsla lsp icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, not null, 1	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
Connection re-establish detected by ipsla icmp echo trap	ipsla echo timeout trap	connection re-establish detected by ipsla icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, null, 2	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
Connection re-establish detected by ipsla LSP icmp echo trap	ipsla echo timeout trap	connection re-establish detected by ipsla lsp icmp echo trap	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.2.1.33, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	7, not null, 2	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
RTT threshold crossing over trap	ipsla echo rtt trap	rtt threshold crossing over trap	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	1, 1	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
RTT threshold crossing under trap	ipsla echo rtt trap	rtt threshold crossing under trap	1.3.6.1.4.1.9.9.42.1.2.19.1.2, 1.3.6.1.4.1.9.9.42.1.2.19.1.10	1, 2	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
IPSLA LSP path discovery failure trap	ipsla lpd discovery trap	ipsla lsp path discovery failure trap	1.3.6.1.4.1.9.9.42.1.3.7.1.13	1	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
IPSLA LSP path rediscovery trap	ipsla lpd discovery trap	ipsla lsp path rediscovery trap	1.3.6.1.4.1.9.9.42.1.3.7.1.13	2	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
IPSLA LDP group status failure trap	ipsla lpd group status trap	ipsla ldp group status failure trap	1.3.6.1.4.1.9.9.42.1.3.7.1.16	3,4	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
IPSLA LDP group status restoration trap	ipsla lpd group status trap	ipsla ldp group status restoration trap	1.3.6.1.4.1.9.9.42.1.3.7.1.16	2	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
FRR Protected Trap	frr trigger trap	frr protected trap			N/A	PortLayer1	F	T	F	0	F	info	F	T	F

Table 11-10 Cisco IOS V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	SubType Varbind OID	SubType Varbind Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
FRR Unprotected Trap	frr trigger trap	frr unprotected trap			N/A	PortLayer1	F	T	F	0	F	info	F	T	F
Pseudo wire tunnel up	pseudo wire tunnel traps	Pseudo wire tunnel up	N/A	N/A	ce-pw-tunnel-status-snmp, ce-vfi-status-telnet	IPTPLayer2MplsTunnel	F	F	F	0	F	clr	F	T	T
Pseudo wire tunnel down	pseudo wire tunnel traps	Pseudo wire tunnel down	N/A	N/A	ce-pw-tunnel-status-snmp, ce-vfi-status-telnet	IPTPLayer2MplsTunnel	F	T	F	0	F	min	T	T	T

Cisco IOX V1 Trap Registry Parameters

Table 11-11 lists the associated event types, event subtypes, and Cisco ANA registry parameters for the Cisco IOX SNMP V1 traps shown in Table 11-4.

Table 11-11 Cisco IOX V1 Trap Registry Parameters

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Pseudo wire tunnel up	pseudo wire tunnel traps	Pseudo wire tunnel up	ce-pw-tunnels-status-trap	IPTPLayer2MplsTunnel	F	F	F	0	F	clr	F	T	T
Pseudo wire tunnel down	pseudo wire tunnel traps	Pseudo wire tunnel down	ce-pw-tunnels-status-trap	IPTPLayer2MplsTunnel	F	T	F	0	F	min	T	T	T
SNMP Link down	snmp link down	snmp link down	Y	IPhysicalLayer	F	T	F	0	T	maj	F	T	T
SNMP Link up	snmp link down	snmp link up	Y	IPhysicalLayer	F	T	F	0	F	clr	F	T	T

Table 11-11 Cisco IOX V1 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Connection Loss detected by ipsla icmp echo trap	ipsla echo connloss trap	connection loss detected by ipsla icmp echo trap	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
Connection re-establish detected by ipsla icmp echo trap	ipsla echo connloss trap	connection re-establish detected by ipsla icmp echo trap	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
Timeout detected by ipsla icmp echo trap	ipsla ip or lsp echo timeout trap	timeout detected by ipsla icmp echo trap	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Connection re-establish detected by ipsla icmp echo trap	ipsla ip or lsp echo timeout trap	connection re-establish detected by ipsla icmp echo trap	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Threshold crossing under trap	ipsla threshold notification trap	threshold crossing under trap	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Threshold crossing over trap	ipsla threshold notification trap	threshold crossing over trap	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Data corruption in rtt operation trap	ipsla threshold notification trap	data corruption in rtt operation trap	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Data corruption cleared in rtt operation trap	ipsla threshold notification trap	data corruption cleared in rtt operation trap	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Connection Loss detected by ipsla icmp echo trap	ipsla echo connloss trap	connection loss detected by ipsla icmp echo trap	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F

Table 11-11 Cisco IOX V1 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Connection Loss detected by ipsla LSP icmp echo trap	ipsla echo connloss trap	connection loss detected by ipsla lsp icmp echo trap	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
Connection re-establish detected by ipsla icmp echo trap	ipsla echo connloss trap	connection re-establish detected by ipsla icmp echo trap	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
Connection re-establish detected by ipsla LSP icmp echo trap	ipsla echo connloss trap	connection re-establish detected by ipsla lsp icmp echo trap	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
Timeout detected by ipsla icmp echo trap	ipsla echo timeout trap	timeout detected by ipsla icmp echo trap	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
Timeout detected by ipsla LSP icmp echo trap	ipsla echo timeout trap	timeout detected by ipsla lsp icmp echo trap	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
Connection re-establish detected by ipsla icmp echo trap	ipsla echo timeout trap	connection re-establish detected by ipsla icmp echo trap	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
Connection re-establish detected by ipsla LSP icmp echo trap	ipsla echo timeout trap	connection re-establish detected by ipsla lsp icmp echo trap	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
RTT threshold crossing over trap	ipsla echo rtt trap	rtt threshold crossing over trap	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
RTT threshold crossing under trap	ipsla echo rtt trap	rtt threshold crossing under trap	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
IPSLA LSP path discovery failure trap	ipsla lpd discovery trap	ipsla lsp path discovery failure trap	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F

Table 11-11 Cisco IOX V1 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
IPSLA LSP path rediscovery trap	ipsla lpd discovery trap	ipsla lsp path rediscovery trap	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
IPSLA LDP group status failure trap	ipsla lpd group status trap	ipsla ldp group status failure trap	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
IPSLA LDP group status restoration trap	ipsla lpd group status trap	ipsla ldp group status restoration trap	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
FRR Protected Trap	frr trigger trap	frr protected trap	N/A	PortLayer1	F	T	F	0	F	info	F	T	F
FRR Unprotected Trap	frr trigger trap	frr unprotected trap	N/A	PortLayer1	F	T	F	0	F	info	F	T	F
Pseudo wire tunnel up	pseudo wire tunnel traps	Pseudo wire tunnel up	ce-pw-tunnels-status-trap	IPTPLayer2 MplsTunnel	F	F	F	0	F	clr	F	T	T
Pseudo wire tunnel down	pseudo wire tunnel traps	Pseudo wire tunnel down	ce-pw-tunnels-status-trap	IPTPLayer2 MplsTunnel	F	T	F	0	F	min	T	T	T
DSX1 Far end LOF	dsx1 line status change	RcvFarEndLOF	Y	IPhysicalLayer	F	T	F	0	T	maj	T	T	F
DSX1 Near end sending LOF Indication	dsx1 line status change	XmtFarEndLOF	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Far end sending AIS	dsx1 line status change	RcvAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX1 Near end sending AIS	dsx1 line status change	XmtAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX1 Near end LOF	dsx1 line status change	LossOfFrame	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F

Table 11-11 Cisco IOX V1 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
DSX1 Near end Loss of Signal	dsx1 line status change	LossOfSignal	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Near end is looped	dsx1 line status change	LoopbackState	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 E1 TS16 AIS	dsx1 line status change	T16AIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX1 Far End Sending TS16 LOMF	dsx1 line status change	RcvFarEndLOMF	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Near End Sending TS16 LOMF	dsx1 line status change	XmtFarEndLOMF	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Near End detects a test code	dsx1 line status change	RcvTestCode	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 any line status not defined here	dsx1 line status change	OtherFailure	Y	IPhysicalLayer	F	T	F	0	F	min	T	T	F
DSX1 Near End in Unavailable Signal State	dsx1 line status change	UnavailSigState	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Carrier Equipment Out of Service	dsx1 line status change	NetEquipOOS	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 DS2 Payload AIS	dsx1 line status change	RcvPayloadAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX1 DS2 Performance Threshold Exceeded	dsx1 line status change	Ds2PerfThreshold	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 combination of bitmaps due to multiple failures	dsx1 line status change	MultipleFailures	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 No alarm present	dsx1 line status change	NoAlarm	Y	IPhysicalLayer	F	T	F	0	F	clr	F	T	F

Table 11-11 Cisco IOX V1 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
DSX3 Receiving Yellow/Remote Alarm Indication	dsx3 line status change	RcvRAIFailure	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Transmitting Yellow/Remote Alarm Indication	dsx3 line status change	XmitRAIAlarm	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Receiving AIS failure state	dsx3 line status change	RcvAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX3 Transmitting AIS	dsx3 line status change	XmtAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX3 Receiving LOF failure state	dsx3 line status change	LossOfFrame	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Receiving LOS failure state	dsx3 line status change	LossOfSignal	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Looping the received signal	dsx3 line status change	LoopbackState	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Receiving a Test Pattern	dsx3 line status change	RcvTestCode	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 any line status not defined here	dsx3 line status change	OtherFailure	Y	IPhysicalLayer	F	T	F	0	F	min	T	T	F
DSX3 Near End in Unavailable Signal State	dsx3 line status change	UnavailSigState	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Carrier Equipment Out of Service	dsx3 line status change	NetEquipOOS	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 combination of bitmaps due to multiple failures	dsx3 line status change	MultipleFailures	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 No alarm present	dsx3 line status change	NoAlarm	Y	IPhysicalLayer	F	T	F	0	F	clr	F	T	F

Table 11-11 Cisco IOX V1 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Entity table configuration changed	Entity table configuration changed	Entity table configuration changed	N	IManagedElement	F	F	T	0	F	info	F	T	F
FR DLCI status invalid trap	fr dlci status change trap	fr dlci status invalid trap	N	IPortLayer1	T	F	F	0	F	maj	F	T	F
FR DLCI status inactive trap	fr dlci status change trap	fr dlci status inactive trap	N	IPortLayer1	T	F	F	0	F	maj	F	T	F
FR DLCI status active trap	fr dlci status change trap	fr dlci status active trap	N	IPortLayer1	T	F	F	0	F	clr	F	T	F

Cisco IOX V2 Trap Registry Parameters

Table 11-12 lists the associated event types, event subtypes, and Cisco ANA registry parameters for the Cisco IOX SNMP V2 traps shown in Table 11-5.

Table 11-12 Cisco IOX V2 Trap Registry Parameters

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto	Flapping
CBF File operation state indicator	cbf define file completion	cbf define file completion	N	IManaged Element	F	F	F	0	F	info	F	T	F
Cisco BGP backward transition trap	cisco bgp trap	cisco bgp backward transition trap	N	IBgpNeighborEntry	F	T	F	0	F	info	F	T	T
Cisco BGP down trap	cisco bgp trap	cisco bgp down trap	N	IBgpNeighborEntry	F	T	T	0	F	maj	F	T	T
Cisco BGP established trap	cisco bgp trap	cisco bgp established trap	N	IBgpNeighborEntry	F	F	F	0	F	clr	F	T	T

Table 11-12 Cisco IOX V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto	Flapping
Cisco BGP prefix threshold exceeded	cisco bgp prefix threshold exceeded	cisco bgp prefix threshold exceeded	N	IProfileContainer (BGP)	F	T	F	0	F	wrn	T	T	T
Cisco BGP prefix threshold clear	cisco bgp prefix threshold exceeded	cisco bgp prefix threshold clear	N	IProfileContainer (BGP)	F	F	F	0	F	clr	F	T	T
Config-copy request completion	cc copy completion	cc copy completion	N	IManaged Element	F	F	F	0	F	info	F	T	F
cefc fan-tray oper status down	cefc fan tray status changed	cefc fan status down	physical-command	IModule	F	T	T	0	F	cri	T	T	T
cefc fan-tray oper status up	cefc fan tray status changed	cefc fan status up	physical-command	IModule	F	F	F	0	F	clr	F	T	T
cefc FRU inserted	cefc fru removed	cefc fru inserted	physical-command	IModule	F	F	F	0	F	clr	F	T	T
cefc FRU removed	cefc fru removed	cefc fru removed	physical-command	IModule	F	T	T	0	F	maj	T	T	T
cefc module oper status down	cefc module oper status changed	cefc module oper down	physical-command	IModule	F	T	T	0	F	maj	T	T	T
cefc module oper status up	cefc module oper status changed	cefc module oper up	physical-command	IModule	F	F	F	0	F	clr	F	T	T
cefc power status down	cefc power status changed	cefc power status down	physical-command	IModule	F	T	T	0	F	maj	T	T	T
cefc power status up	cefc power status changed	cefc power status up	physical-command	IModule	F	F	F	0	F	clr	F	T	T
cfh bundle link status down	cfh bundle link status notification	cfh bundle link status down	N	IManaged Element	F	F	F	0	F	maj	F	T	T
cfh bundle link status up	cfh bundle link status notification	cfh bundle link status up	N	IManaged Element	F	F	F	0	F	clr	F	T	T
cfh Fabric bundle operational state changed to Down	cfh bundle state notification	cfh bundle state down	N	IManaged Element	F	F	F	0	F	maj	F	T	T
cfh Fabric bundle operational state changed to Up	cfh bundle state notification	cfh bundle state up	N	IManaged Element	F	F	F	0	F	clr	F	T	T
cfh Fabric plane status down	cfh plane state notification	cfh plane status down	N	IManaged Element	F	F	F	0	F	maj	F	T	T

Table 11-12 Cisco IOX V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto	Flapping
cfh Fabric plane status up	cfh plane state notification	cfh plane status up	N	IManaged Element	F	F	F	0	F	clr	F	T	T
Cisco Configuration management event notification	cisco config man event	cisco config man event	N	IManaged Element	F	F	F	0	F	info	F	T	F
Cisco flash copy failed	cisco flash copy completed	cisco flash copy failed	N	IManaged Element	F	F	F	0	F	info	F	T	F
Cisco flash copy completion	cisco flash copy completed	cisco flash copy completed	N	IManaged Element	F	F	F	0	F	info	F	T	F
Cisco flash copy in progress	cisco flash copy completed	cisco flash copy in progress	N	IManaged Element	F	F	F	0	F	info	F	T	F
Cisco Flash device changed	cisco flash device changed	cisco flash device changed	N	IManaged Element	F	F	F	0	F	wrn	F	T	F
Cisco Flash device inserted	cisco flash device removed	cisco flash device inserted	N	IManaged Element	F	F	F	0	F	clr	F	T	T
Cisco Flash device removed	cisco flash device removed	cisco flash device removed	N	IManaged Element	F	F	F	0	F	wrn	F	T	T
Cisco Flash miscellaneous operation failed	cisco flash operation completed	cisco flash operation failed	N	IManaged Element	F	F	F	0	F	info	F	T	F
Cisco Flash miscellaneous operation completed	cisco flash operation completed	cisco flash operation completed	N	IManaged Element	F	F	F	0	F	info	F	T	F
Cisco Flash miscellaneous operation in progress	cisco flash operation completed	cisco flash operation in progress	N	IManaged Element	F	F	F	0	F	info	F	T	F
Cisco ping completion	cisco ping completion	cisco ping completion	N	IManaged Element	F	F	F	0	F	info	F	T	F
Cisco Sonet section status changed to error	sonet section status changed	sonet section status changed to error	N	IPortLayer 1	F	T	T	0	F	maj	F	T	T
Cisco Sonet section status changed to clear	sonet section status changed	sonet section status changed to clear	N	IPortLayer 1	F	F	F	0	F	clr	F	T	T
Cisco Sonet line status changed to error	sonet line status changed	sonet line status changed to error	N	IPortLayer 1	F	T	T	0	F	maj	F	T	T

Table 11-12 Cisco IOX V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto	Flapping
Cisco Sonet line status changed to clear	sonet line status changed	sonet line status changed to clear	N	IPortLayer 1	F	F	F	0	F	clr	F	T	T
Cisco Sonet path status changed to error	sonet path status changed	sonet path status changed to error	N	IPortLayer 1	F	T	T	0	F	maj	F	T	T
Cisco Sonet path status changed to clear	sonet path status changed	sonet path status changed to clear	N	IPortLayer 1	F	F	F	0	F	clr	F	T	T
Cisco syslog message generated	cisco syslog message generated	cisco syslog message generated	N	IManaged Element	F	T	F	0	F	info	F	T	F
Cisco PIM neighbor lost	cisco pim neighbor lost	cisco pim neighbor lost	N	IRoutingEntry	F	T	T	0	F	info	T	T	T
sensor value crossed threshold in entSensorThresholdTable	entity sensor threshold notification	entity sensor threshold notification	N	IManaged Element	F	F	F	0	F	maj	T	T	T
RTT threshold violation or clearance	rtt threshold violation or clearance	rtt threshold violation or clearance	N	IManaged Element	F	F	F	0	F	info	T	T	F
Pseudo wire tunnel up	pseudo wire tunnel traps	Pseudo wire tunnel up	ce-pw-tunnel-status-snmp, ce-vfi-status-telnet	IPTPLayer2MplsTunnel	F	F	F	0	F	clr	F	T	T
Pseudo wire tunnel down	pseudo wire tunnel traps	Pseudo wire tunnel down	ce-pw-tunnel-status-snmp, ce-vfi-status-telnet	IPTPLayer2MplsTunnel	F	T	F	0	F	min	T	T	T
Cisco RF Swap Status - Unsupported	cisco RF swap notification trap	cisco RF status is unsupported	N	IManaged Element	F	F	F	0	F	info	F	T	F
Cisco RF Swap Status - None	cisco RF swap notification trap	cisco RF status is none	N	IManaged Element	F	F	F	0	F	info	F	T	F
Cisco RF Swap Status - Not Known	cisco RF swap notification trap	cisco RF status is notknown	N	IManaged Element	F	F	F	0	F	info	F	T	F
Cisco RF Swap Status - UserInitiated	cisco RF swap notification trap	cisco RF status is userInitiated	N	IManaged Element	F	F	F	0	F	info	F	T	F

Table 11-12 Cisco IOX V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto	Flapping
Cisco RF Swap Status - UserForced	cisco RF swap notification trap	cisco RF status is userForced	N	IManaged Element	F	F	F	0	F	info	F	T	F
Cisco RF Swap Status - ActiveUnitFailed	cisco RF swap notification trap	cisco RF status is activeUnitFailed	N	IManaged Element	F	F	F	0	F	info	F	T	F
Cisco RF Swap Status - ActiveUnitRemoved	cisco RF swap notification trap	cisco RF status is activeUnitRemoved	N	IManaged Element	F	F	F	0	F	info	F	T	F
cefc FRU inserted with unsupported product ID	cefc unrecognized fru inserted	cefc unrecognized fru inserted	N	IModule	F	T	F	0	F	info	T	T	F
cefc Power supply output capacity changed	cefc power supply output changed	cefc power supply output changed	N	IModule	F	T	F	0	F	info	T	T	F
RTT Connection Change	RTT Connection Change	RTT Connection Change	N	IManaged Element	F	F	F	0	F	info	T	T	F
RTT Operation Timeout	RTT Operation Timeout	RTT Operation Timeout	N	IManaged Element	F	F	F	0	F	info	T	T	F
RTT Operation Threshold Violation	RTT Operation Threshold Violation	RTT Operation Threshold Violation	N	IManaged Element	F	F	F	0	F	info	T	T	F
RTT Verify Error	RTT Verify Error	RTT Verify Error	N	IManaged Element	F	F	F	0	F	info	T	T	F
RTT threshold violation or clearance	rtt threshold violation or clearance	rtt threshold violation or clearance	N	IManaged Element	F	F	F	0	F	info	T	T	F
RTT Lpd Discovery	RTT Lpd Discovery	RTT Lpd Discovery	N	IManaged Element	F	F	F	0	F	info	T	T	F
RTT Lpd Grp Status	RTT Lpd Grp Status	RTT Lpd Grp Status	N	IManaged Element	F	F	F	0	F	info	T	T	F
IPv6 BGP down trap	ipv6 bgp trap	ipv6 bgp down trap	N	IManaged Element	F	T	F	0	F	maj	F	T	T
ipv6 BGP FSM state changed trap	ipv6 bgp trap	ipv6 bgp state changed trap	N	IManaged Element	F	T	F	0	F	info	F	T	T
IPv6 BGP established trap	ipv6 bgp trap	ipv6 bgp established trap	N	IManaged Element	F	F	F	0	F	clr	F	T	T

Table 11-12 Cisco IOX V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto	Flapping
Connection Loss detected by ipsla icmp echo trap	ipsla echo connloss trap	connection loss detected by ipsla icmp echo trap	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
Connection re-establish detected by ipsla icmp echo trap	ipsla echo connloss trap	connection re-establish detected by ipsla icmp echo trap	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
Timeout detected by ipsla icmp echo trap	ipsla ip or lsp echo timeout trap	timeout detected by ipsla icmp echo trap	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Connection re-establish detected by ipsla icmp echo trap	ipsla ip or lsp echo timeout trap	connection re-establish detected by ipsla icmp echo trap	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Threshold crossing under trap	ipsla threshold notification trap	threshold crossing under trap	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Threshold crossing over trap	ipsla threshold notification trap	threshold crossing over trap	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Data corruption in rtt operation trap	ipsla threshold notification trap	data corruption in rtt operation trap	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Data corruption cleared in rtt operation trap	ipsla threshold notification trap	data corruption cleared in rtt operation trap	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
Connection Loss detected by ipsla icmp echo trap	ipsla echo connloss trap	connection loss detected by ipsla icmp echo trap	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
Connection Loss detected by ipsla LSP icmp echo trap	ipsla echo connloss trap	connection loss detected by ipsla lsp icmp echo trap	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
Connection re-establish detected by ipsla icmp echo trap	ipsla echo connloss trap	connection re-establish detected by ipsla icmp echo trap	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F

Table 11-12 Cisco IOX V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto	Flapping
Connection re-establish detected by ipsla LSP icmp echo trap	ipsla echo connloss trap	connection re-establish detected by ipsla lsp icmp echo trap	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
Timeout detected by ipsla icmp echo trap	ipsla echo timeout trap	timeout detected by ipsla icmp echo trap	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
Timeout detected by ipsla LSP icmp echo trap	ipsla echo timeout trap	timeout detected by ipsla lsp icmp echo trap	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
Connection re-establish detected by ipsla icmp echo trap	ipsla echo timeout trap	connection re-establish detected by ipsla icmp echo trap	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
Connection re-establish detected by ipsla LSP icmp echo trap	ipsla echo timeout trap	connection re-establish detected by ipsla lsp icmp echo trap	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
RTT threshold crossing over trap	ipsla echo rtt trap	rtt threshold crossing over trap	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
RTT threshold crossing under trap	ipsla echo rtt trap	rtt threshold crossing under trap	N/A	ManagedElement	F	F	F	0	F	info	F	T	F
IPSLA LSP path discovery failure trap	ipsla lpd discovery trap	ipsla lsp path discovery failure trap	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
IPSLA LSP path rediscovery trap	ipsla lpd discovery trap	ipsla lsp path rediscovery trap	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
IPSLA LDP group status failure trap	ipsla lpd group status trap	ipsla ldp group status failure trap	N/A	ManagedElement	F	F	F	0	F	maj	T	T	F
IPSLA LDP group status restoration trap	ipsla lpd group status trap	ipsla ldp group status restoration trap	N/A	ManagedElement	F	F	F	0	F	clr	F	T	F
FRR Protected Trap	frr trigger trap	frr protected trap	N/A	PortLayer1	F	T	F	0	F	info	F	T	F
FRR Unprotected Trap	frr trigger trap	frr unprotected trap	N/A	PortLayer1	F	T	F	0	F	info	F	T	F

Table 11-12 Cisco IOX V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto	Flapping
Pseudo wire tunnel up	pseudo wire tunnel traps	Pseudo wire tunnel up	ce-pw-tunnel-status-snmp, ce-vfi-status-telnet	IPTPLayer2MplsTunnel	F	F	F	0	F	clr	F	T	T
Pseudo wire tunnel down	pseudo wire tunnel traps	Pseudo wire tunnel down	ce-pw-tunnel-status-snmp, ce-vfi-status-telnet	IPTPLayer2MplsTunnel	F	T	F	0	F	min	T	T	T
DSX1 Far end LOF	dsx1 line status change	RcvFarEndLOF	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Near end sending LOF Indication	dsx1 line status change	XmtFarEndLOF	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Far end sending AIS	dsx1 line status change	RcvAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX1 Near end sending AIS	dsx1 line status change	XmtAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX1 Near end LOF	dsx1 line status change	LossOfFrame	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Near end Loss of Signal	dsx1 line status change	LossOfSignal	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Near end is looped	dsx1 line status change	LoopbackState	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 E1 TS16 AIS	dsx1 line status change	T16AIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX1 Far End Sending TS16 LOMF	dsx1 line status change	RcvFarEndLOMF	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Near End Sending TS16 LOMF	dsx1 line status change	XmtFarEndLOMF	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Near End detects a test code	dsx1 line status change	RcvTestCode	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 any line status not defined here	dsx1 line status change	OtherFailure	Y	IPhysicalLayer	F	T	F	0	F	min	T	T	F
DSX1 Near End in Unavailable Signal State	dsx1 line status change	UnavailSigState	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F

Table 11-12 Cisco IOX V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto	Flapping
DSX1 Carrier Equipment Out of Service	dsx1 line status change	NetEquipOOS	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 DS2 Payload AIS	dsx1 line status change	RcvPayloadAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX1 DS2 Performance Threshold Exceeded	dsx1 line status change	Ds2PerfThreshold	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 combination of bitmaps due to multiple failures	dsx1 line status change	MultipleFailures	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 No alarm present	dsx1 line status change	NoAlarm	Y	IPhysicalLayer	F	T	F	0	F	clr	F	T	F
DSX3 Receiving Yellow/Remote Alarm Indication	dsx3 line status change	RcvRAIFailure	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Transmitting Yellow/Remote Alarm Indication	dsx3 line status change	XmitRAIAlarm	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Receiving AIS failure state	dsx3 line status change	RcvAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX3 Transmitting AIS	dsx3 line status change	XmtAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX3 Receiving LOF failure state	dsx3 line status change	LossOfFrame	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Receiving LOS failure state	dsx3 line status change	LossOfSignal	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Looping the received signal	dsx3 line status change	LoopbackState	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Receiving a Test Pattern	dsx3 line status change	RcvTestCode	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 any line status not defined here	dsx3 line status change	OtherFailure	Y	IPhysicalLayer	F	T	F	0	F	min	T	T	F
DSX3 Near End in Unavailable Signal State	dsx3 line status change	UnavailSigState	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F

Table 11-12 Cisco IOX V2 Trap Registry Parameters (continued)

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto	Flapping
DSX3 Carrier Equipment Out of Service	dsx3 line status change	NetEquipOOS	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 combination of bitmaps due to multiple failures	dsx3 line status change	MultipleFailures	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 No alarm present	dsx3 line status change	NoAlarm	Y	IPhysicalLayer	F	T	F	0	F	clr	F	T	F
Entity table configuration changed	Entity table configuration changed	Entity table configuration changed	N	IManaged Element	F	F	T	0	F	info	F	T	F
FR DLCI status invalid trap	fr dlci status change trap	fr dlci status invalid trap	N	IPortLayer1	T	F	F	0	F	maj	F	T	F
FR DLCI status inactive trap	fr dlci status change trap	fr dlci status inactive trap	N	IPortLayer1	T	F	F	0	F	maj	F	T	F
FR DLCI status active trap	fr dlci status change trap	fr dlci status active trap	N	IPortLayer1	T	F	F	0	F	clr	F	T	F

Cisco MIB2 V1 Trap Registry Parameters

Table 11-13 lists the associated event types, event subtypes, and Cisco ANA registry parameters for the Cisco MIB2 SNMP V1 traps shown in Table 11-5.

Table 11-13 Cisco MIB2 V1 Trap Registry Parameter

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
dummy ticket trap	dummy ticket trap	dummy ticket trap	N	IManagedElement	F	F	F	0	F	clr	F		
SNMP Link down	snmp link down	snmp link down	ip interface oper status,ce-efp-status-telnet,port-status,basetech-lldp-neighbors-snmp,basetech-cdp-neighbors-snmp	IPhysicalLayer / Efp Oid	F	T	F	0	T	maj	F	T	T
SNMP Link up	snmp link down	snmp link up	ip interface oper status,ce-efp-status-telnet,port-status,basetech-lldp-neighbors-snmp,basetech-cdp-neighbors-snmp	IPhysicalLayer / Efp Oid	F	T	F	0	F	clr	F	T	T
DSX1 Far end LOF	dsx1 line status change	RcvFarEndLOF	Y	IPhysicalLayer	F	T	F	0	T	maj	T	T	F
DSX1 Near end sending LOF Indication	dsx1 line status change	XmtFarEndLOF	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Far end sending AIS	dsx1 line status change	RcvAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX1 Near end sending AIS	dsx1 line status change	XmtAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX1 Near end LOF	dsx1 line status change	LossOfFrame	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F

Table 11-13 Cisco MIB2 V1 Trap Registry Parameter (continued)

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
DSX1 Near end Loss of Signal	dsx1 line status change	LossOfSignal	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Near end is looped	dsx1 line status change	LoopbackState	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 E1 TS16 AIS	dsx1 line status change	T16AIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX1 Far End Sending TS16 LOMF	dsx1 line status change	RcvFarEndLOMF	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Near End Sending TS16 LOMF	dsx1 line status change	XmtFarEndLOMF	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Near End detects a test code	dsx1 line status change	RcvTestCode	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 any line status not defined here	dsx1 line status change	OtherFailure	Y	IPhysicalLayer	F	T	F	0	F	min	T	T	F
DSX1 Near End in Unavailable Signal State	dsx1 line status change	UnavailSigState	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Carrier Equipment Out of Service	dsx1 line status change	NetEquipOOS	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 DS2 Payload AIS	dsx1 line status change	RcvPayloadAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX1 DS2 Performance Threshold Exceeded	dsx1 line status change	Ds2PerfThreshold	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 combination of bitmaps due to multiple failures	dsx1 line status change	MultipleFailures	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 No alarm present	dsx1 line status change	NoAlarm	Y	IPhysicalLayer	F	T	F	0	F	clr	F	T	F

Table 11-13 Cisco MIB2 V1 Trap Registry Parameter (continued)

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
DSX3 Receiving Yellow/Remote Alarm Indication	dsx3 line status change	RcvRAIFailure	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Transmitting Yellow/Remote Alarm Indication	dsx3 line status change	XmitRAIAlarm	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Receiving AIS failure state	dsx3 line status change	RcvAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX3 Transmitting AIS	dsx3 line status change	XmtAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX3 Receiving LOF failure state	dsx3 line status change	LossOfFrame	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Receiving LOS failure state	dsx3 line status change	LossOfSignal	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Looping the received signal	dsx3 line status change	LoopbackState	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Receiving a Test Pattern	dsx3 line status change	RcvTestCode	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 any line status not defined here	dsx3 line status change	OtherFailure	Y	IPhysicalLayer	F	T	F	0	F	min	T	T	F
DSX3 Near End in Unavailable Signal State	dsx3 line status change	UnavailSigState	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Carrier Equipment Out of Service	dsx3 line status change	NetEquipOOS	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 combination of bitmaps due to multiple failures	dsx3 line status change	MultipleFailures	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F

Table 11-13 Cisco MIB2 V1 Trap Registry Parameter (continued)

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
DSX3 No alarm present	dsx3 line status change	NoAlarm	Y	IPhysicalLayer	F	T	F	0	F	clr	F	T	F
Entity table configuration changed	Entity table configuration changed	Entity table configuration changed	N	IManagedElement	F	F	T	0	F	info	F	T	F
FR DLCI status invalid trap	fr dlci status change trap	fr dlci status invalid trap	N	FREncapKey	T	F	F	0	F	maj	F	T	F
FR DLCI status inactive trap	fr dlci status change trap	fr dlci status inactive trap	N	FREncapKey	T	F	F	0	F	maj	F	T	F
FR DLCI status active trap	fr dlci status change trap	fr dlci status active trap	N	FREncapKey	T	F	F	0	F	clr	F	T	F

Cisco MIB2 V2 Trap Registry Parameters

Table 11-14 lists the associated event types, event subtypes, and Cisco ANA registry parameters for the Cisco MIB2 SNMP V2 traps shown in Table 11-7.

Table 11-14 Cisco MIB2 V2 Trap Registry Parameters

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
BGP down trap	bgp trap	bgp down trap	N	IBgpNeighborEntry	F	T	T	0	F	maj	F	T	T
BGP established trap	bgp trap	bgp established trap	N	IBgpNeighborEntry	F	F	F	0	F	clr	F	T	T
mte event set failure	cisco mte event set failure	cisco mte event set failure	N	IManagedElement	F	T	F	0	F	wrn	T	T	T

Table 11-14 Cisco MIB2 V2 Trap Registry Parameters

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Cisco mte trigger falling	cisco mte trigger rising	cisco mte trigger falling	N	IManagedElement	F	F	F	0	F	clr	T	T	T
mte trigger fired	cisco mte trigger fired	cisco mte trigger fired	N	IManagedElement	F	T	F	0	F	info	T	T	T
Cisco mte trigger rising	cisco mte trigger rising	cisco mte trigger rising	N	IManagedElement	F	T	F	0	F	wrn	T	T	T
Entity table configuration changed	Entity table configuration changed	Entity table configuration changed	N	IManagedElement	F	F	T	0	F	info	F	T	F
Cold start trap	cold start trap	cold start trap	N	IManagedElement	F	F	T	190000	F	info	T	T	F
Warm start trap	warm start trap	warm start trap	N	IManagedElement	F	F	F	0	F	min	T	T	F
SNMP authentication failure	snmp authentication failure	snmp authentication failure	N	IManagedElement	F	T	F	0	F	info	F	T	F
SNMP Link down	snmp link down	snmp link down	ip interface oper status,ce-efp-status-telnet,port-status,basetech-lldp-neighbors-snmp,basetech-cdp-neighbors-snmp	IPhysicalLayer	F	T	T	0	T	maj	F	T	T
SNMP Link up	snmp link down	snmp link up	ip interface oper status,ce-efp-status-telnet,port-status,basetech-lldp-neighbors-snmp,basetech-cdp-neighbors-snmp	IPhysicalLayer	F	F	F	0	F	clr	F	T	T

Table 11-14 Cisco MIB2 V2 Trap Registry Parameters

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
ipv6 interface state changed	ipv6-if-state-changed	ipv6-if-state-changed	N	IManagedElement	F	F	F	0	T	min	F	T	F
OSPF interface state changed to Down	ospf if state down	ospf if state down	N	IIPInterface	F	T	T	0	F	info	F	T	T
OSPF interface state changed to Up	ospf if state down	ospf if state up	N	IIPInterface	F	F	F	0	F	clr	F	T	T
OSPF virtual interface state changed to Down	ospf virtual if state down	ospf virtual if state down	N	IProfileContainer (OSPF)	F	T	T	0	F	min	F	T	T
OSPF neighbor state down	ospf neighbor state down	ospf neighbor state down	N	IIPInterface	T	T	T	0	F	maj	T	T	T
OSPF neighbor state up	ospf neighbor state down	ospf neighbor state up	N	IIPInterface	F	F	F	0	F	clr	F	T	T
OSPF virtual neighbor state down	ospf-virtual-neighbor-state-changed	ospf-virtual-neighbor-state-down	N	IOspfEntry	T	T	T	0	F	min	T	T	T
OSPF virtual neighbor state up	ospf-virtual-neighbor-state-changed	ospf-virtual-neighbor-state-up	N	IOspfEntry	F	F	F	0	F	clr	F	T	T
OSPF interface configuration error	ospf-if-config-err	ospf-if-config-err	N	IIPInterface	F	T	F	0	F	wrn	T	T	F
OSPF virtual interface configuration error	ospf-virtual-if-config-err	ospf-virtual-if-config-err	N	IProfileContainer (OSPF)	F	T	F	0	F	min	F	T	F
OSPF interface authentication failure	ospf-if-authentic-fail	ospf-if-authentic-fail	N	IIPInterface	F	T	F	0	F	wrn	T	T	F
OSPF virtual interface authentication failure	ospf-virtual-if-authentic-fail	ospf-virtual-if-authentic-fail	N	IProfileContainer (OSPF)	F	T	F	0	F	wrn	T	T	F
OSPF bad packet received	ospf-if-bad-packet	ospf-if-bad-packet	N	IIPInterface	F	T	F	0	T	min	F	T	F
OSPF bad packet received on virtual interface	ospf-virtual-if-bad-packet	ospf-virtual-if-bad-packet	N	IProfileContainer (OSPF)	F	T	F	0	T	min	F	T	F

Table 11-14 Cisco MIB2 V2 Trap Registry Parameters

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
OSPF packet retransmitted	ospf-if-packet-retransmit	ospf-if-packet-retransmit	N	IProfileContainer (OSPF)	F	T	F	0	T	min	F	T	F
OSPF packet retransmitted on virtual interface	ospf-virtual-if-packet-retransmit	ospf-virtual-if-packet-retransmit	N	IProfileContainer (OSPF)	F	T	F	0	T	min	F	T	F
OSPF new LSA originated	ospf-new-lsa-originated	ospf-new-lsa-originated	N	IProfileContainer (OSPF)	F	T	F	0	T	min	F	T	F
OSPF LSA aged to MaxAge	ospf-lsa-reached-maxage	ospf-lsa-reached-maxage	N	IManagedElement	F	F	F	0	F	info	F	T	F
mpls l3 vpn numvrf routemax thresh cleared Trap	mpls l3 vpn vrf routemid thresh exceeded	mpls l3 vpn numvrf routemax thresh cleared	N	IVrf	F	T	F	0	F	clr	F	T	F
mpls l3 vpn vrf Down Trap	mpls l3 vpn vrf Down	mpls l3 vpn vrf Down	N	IVrf	T	T	F	0	F	maj	T	T	F
mpls l3 vpn vrf numvrf routemax thresh exceeded Trap	mpls l3 vpn vrf routemid thresh exceeded	mpls l3 vpn vrf numvrf routemax thresh exceeded	N	IVrf	F	T	F	0	F	wrn	F	T	F
mpls l3 vpn vrf routemid thresh exceeded Trap	mpls l3 vpn vrf routemid thresh exceeded	mpls l3 vpn vrf routemid thresh exceeded	N	IVrf	F	T	F	0	F	wrn	F	T	F
mpls l3 vpn vrf Up Trap	mpls l3 vpn vrf Down	mpls l3 vpn vrf Up	N	IVrf	F	T	F	0	F	clr	F	T	F
MPLS LDP init session threshold exceeded Trap	mpls ldp session down	mpls ldp init session thresh exceeded	mpls interfaces + label switching table	IPortLayer1	F	T	F	0	F	wrn	F	T	T
MPLS LDP session down Trap	mpls ldp session down	mpls ldp session down	mpls interfaces + label switching table	IPortLayer1	T	T	T	0	F	min	T	T	T

Table 11-14 Cisco MIB2 V2 Trap Registry Parameters

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
MPLS LDP session up Trap	mpls ldp session down	mpls ldp session up	mpls interfaces + label switching table	IPortLayer 1	F	T	F	0	F	clr	F	T	T
MPLS-TE tunnel rerouted trap	mpls te tunnel rerouted trap	mpls te tunnel rerouted trap	N	IMplsTETunnel	F	T	F	0	F	info	T	T	T
MPLS-TE tunnel reoptimized trap	mpls te tunnel reoptimized trap	mpls te tunnel reoptimized trap	N	IMplsTETunnel	F	T	F	0	F	info	F	T	T
MPLS-TE tunnel down	mpls te tunnel down	mpls te tunnel down	Y	IMplsTETunnel	T	T	T	800	F	maj	T	T	T
MPLS-TE tunnel up	mpls te tunnel down	mpls te tunnel up	Y	IMplsTETunnel	F	F	F	0	F	clr	F	T	T
DSX1 Far end LOF	dsx1 line status change	RcvFarEndLOF	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Near end sending LOF Indication	dsx1 line status change	XmtFarEndLOF	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Far end sending AIS	dsx1 line status change	RcvAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX1 Near end sending AIS	dsx1 line status change	XmtAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX1 Near end LOF	dsx1 line status change	LossOfFrame	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Near end Loss of Signal	dsx1 line status change	LossOfSignal	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Near end is looped	dsx1 line status change	LoopbackState	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 E1 TS16 AIS	dsx1 line status change	T16AIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX1 Far End Sending TS16 LOMF	dsx1 line status change	RcvFarEndLOMF	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Near End Sending TS16 LOMF	dsx1 line status change	XmtFarEndLOMF	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F

Table 11-14 Cisco MIB2 V2 Trap Registry Parameters

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
DSX1 Near End detects a test code	dsx1 line status change	RcvTestCode	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 any line status not defined here	dsx1 line status change	OtherFailure	Y	IPhysicalLayer	F	T	F	0	F	min	T	T	F
DSX1 Near End in Unavailable Signal State	dsx1 line status change	UnavailSigState	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 Carrier Equipment Out of Service	dsx1 line status change	NetEquipOOS	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 DS2 Payload AIS	dsx1 line status change	RcvPayloadAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX1 DS2 Performance Threshold Exceeded	dsx1 line status change	Ds2PerfThreshold	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 combination of bitmaps due to multiple failures	dsx1 line status change	MultipleFailures	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX1 No alarm present	dsx1 line status change	NoAlarm	Y	IPhysicalLayer	F	T	F	0	F	clr	F	T	F
DSX3 Receiving Yellow/Remote Alarm Indication	dsx3 line status change	RcvRAIFailure	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Transmitting Yellow/Remote Alarm Indication	dsx3 line status change	XmitRAIAlarm	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Receiving AIS failure state	dsx3 line status change	RcvAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX3 Transmitting AIS	dsx3 line status change	XmtAIS	Y	IPhysicalLayer	F	T	F	0	F	wrn	T	T	F
DSX3 Receiving LOF failure state	dsx3 line status change	LossOfFrame	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Receiving LOS failure state	dsx3 line status change	LossOfSignal	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Looping the received signal	dsx3 line status change	LoopbackState	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F

Table 11-14 Cisco MIB2 V2 Trap Registry Parameters

Short Description	Event Type	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
DSX3 Receiving a Test Pattern	dsx3 line status change	RcvTestCode	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 any line status not defined here	dsx3 line status change	OtherFailure	Y	IPhysicalLayer	F	T	F	0	F	min	T	T	F
DSX3 Near End in Unavailable Signal State	dsx3 line status change	UnavailSigState	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 Carrier Equipment Out of Service	dsx3 line status change	NetEquipOOS	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 combination of bitmaps due to multiple failures	dsx3 line status change	MultipleFailures	Y	IPhysicalLayer	F	T	F	0	F	maj	T	T	F
DSX3 No alarm present	dsx3 line status change	NoAlarm	Y	IPhysicalLayer	F	T	F	0	F	clr	F	T	F
FR DLCI status invalid trap	fr dlci status change trap	fr dlci status invalid trap	N	FREncapKey	T	F	F	0	F	maj	F	T	F
FR DLCI status inactive trap	fr dlci status change trap	fr dlci status inactive trap	N	FREncapKey	T	F	F	0	F	maj	F	T	F
FR DLCI status active trap	fr dlci status change trap	fr dlci status active trap	N	FREncapKey	T	F	F	0	F	clr	F	T	F

CHAPTER 12

Support Information for Cisco Syslogs

This chapter provides detailed information about the Syslogs supported in Cisco ANA. It presents this information in:

- A section devoted to the supported Syslogs for a MIB (e.g., Cisco IOS Syslogs). Each of these sections contains a table listing the name of each ANA-supported syslog in that MIB, along with a description, the association key, raw format of the syslog string, and a short description.
- The Registry Parameters for Syslog Events section. This section provides tables of all the event subtypes, grouped according to the event type they share. The event subtype tables describe when these Syslogs are generated, and give information about how Cisco ANA processes them (such as their severity, and whether they are ticketable, can be correlated, are autocleared, and so on).

This chapter includes the following sections:

- Cisco ASR Syslogs, page 12-2
- Cisco IOS Syslogs, page 12-2
- Cisco IOX Syslogs, page 12-12
- Registry Parameters for Syslog Events, page 12-23

Cisco ASR Syslogs

Table 12-1 lists the Cisco ASR Syslogs supported in Cisco ANA.

Table 12-1 Cisco ASR Syslogs

Syslog Name	Description	Raw Format	Short Description
PLATFORM-PWRMON-4-OIR	handle power supply syslog	%PLATFORM-PWRMON-4-OIR : Power-module 0/PM0/SP inserted	Power supply inserted syslog
PLATFORM-PWRMON-4-OIR	handle power supply syslog	%PLATFORM-PWRMON-4-OIR : Power-module 0/PM0/SP removed	Power supply removed syslog
IP-VRRP-6-INFO_STATECHANGE	handle VRRP state change syslog	%IP-VRRP-6-INFO_STATECHANGE: GigabitEthernet0_5_0_1 vrid 10: state Backup\t -> Master	Backup to Master change syslog
IP-VRRP-6-INFO_STATECHANGE	handle VRRP state change syslog	%IP-VRRP-6-INFO_STATECHANGE: GigabitEthernet0_5_0_1 vrid 10: state Master\t -> Backup	Master to Backup change syslog
L2-BFD-4-RATE_LIMIT_WARNING_HIGH_WATERMARK	BFD rate limit high warning syslog	%L2-BFD-4-RATE_LIMIT_WARNING_HIGH_WATERMARK BFD PPS allocation exceeds 90 percent of maximum.	BFD rate limit high warning syslog
ROUTING-RIP-3-ERR_PAK_AUTH	RIP Authentication Failure syslog	%ROUTING-RIP-3-ERR_PAK_AUTH Authentication failure for RIP [chars] packet in context [chars]: instance [chars]: error equals [chars]	RIP authentication failed syslog
ROUTING-RIP-3-ERR_CFG	RIP configuration error syslog	%ROUTING-RIP-3-ERR_CFG Error during configuration in context [chars]: error equals [chars]	RIP configuration error syslog
ROUTING-RIP-6-INFO_OOM	RIP out of memory event syslog	%ROUTING-RIP-6-INFO_OOM RIP out-of-memory event [chars]: new/current state equals [chars]: old state equals [chars]	RIP out of memory event syslog

Cisco IOS Syslogs

Table 12-2 lists the Cisco IOS syslogs supported in Cisco ANA.

Table 12-2 Cisco IOS Syslogs

Syslog Name	Description	Raw Format	Short Description
LINK-5-CHANGED	handle link down syslog	%LINK-5-CHANGED: Interface Ethernet5/1, changed state to administratively up	Link down syslog
LINK-5-CHANGED	handle link down syslog	%LINK-5-CHANGED: Interface Ethernet5/1, changed state to administratively down	Link up syslog

Table 12-2 Cisco IOS Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
FR-5-DLCICHANGE	handle dlci change syslog	%FR-5-DLCICHANGE: Interface Serial3/0/0:1 - DLCI 105 state changed to INACTIVE	FR DLCI down syslog
FR-5-DLCICHANGE	handle dlci change syslog	%FR-5-DLCICHANGE: Interface Serial3/0/0:1 - DLCI 105 state changed to ACTIVE	FR DLCI up syslog
STANDBY-6-STATECHANGE	handle hsrp syslog	%STANDBY-6-STATECHANGE: Standby: 1: Ethernet1 state Active -> Standby	HSRP group change syslog
STANDBY-6-STATECHANGE	handle hsrp syslog	%STANDBY-6-STATECHANGE: Standby: 1: Ethernet1 state Active -> Speak	HSRP group restored syslog
SNMP-5-SNMPAUTHFAIL	This message indicates that the switch has received an SNMP message that was not properly authenticated	%SNMP-5-SNMPAUTHFAIL: Authentication failed for message from 192.168.1.2	SNMP message has not properly authenticated
SYS-2-MALLOCFAIL	The requested memory allocation is not available from the specified memory pool	%SYS-2-MALLOCFAIL: Memory allocation of 1028 bytes failed from 0x6015EC84, Pool Processor, alignment 0	Memory allocation is not available
SYS-3-CPUHOG	The indicated process ran too long without relinquishing the processor	%SYS-3-CPUHOG: Task ran for 2148 msec (20/13), Process = IP Input, PC = 3199482 -Traceback= 314B5E6 319948A	process ran too long
SCHED-3-STUCKMTMR	A process can register to be notified when various events occur in the router. This message indicates that a registered timer is expired and its value is unchanged after the process has executed two successive times	%SCHED-3-STUCKMTMR: Sleep with expired managed timer 1C7410, time 0x1063F9C52 (00:00:00 ago).	registered timer is expired
DUAL-3-SIA	The EIGRP router hasn't received a reply to a query from one or more neighbors within the time allotted, so it clears the neighbors that didn't send a reply	%DUAL-3-SIA: Route 10.1.2.0/24 stuck-in-active state in IP-EIGRP 1. Cleaning up	EIGRP router query to neighbors timeouted syslog
LANCE-3-BADCABLE	The Ethernet cable is not connected	%LANCE-3-BADCABLE: msgtxt_badcable	Ethernet cable is not connected

Table 12-2 Cisco IOS Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
LAPB-4-CTRLBAD	A received FRMR has reported a frame with an invalid control code	%LAPB-4-CTRLBAD: Interface Ethernet0, Invalid control field	frame with an invalid control code
DTP-5-NONTRUNKPORTON	The interface changed to non trunk	%DTP-5- ONTRUNKPORTON:Port 8/1 has become trunk	Interface changed to non trunk
DTP-5-NONTRUNKPORTON	The interface changed to non trunk	%DTP-5- ONTRUNKPORTON:Port 8/1 has become non-trunk	Interface changed to trunk
LINEPROTO-5-UPDOWN	handle line syslog	%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet1/0/1, changed state to down	Line down syslog
LINEPROTO-5-UPDOWN	handle line syslog	%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet1/0/1, changed state to up	Line up syslog
IPX-3-BADIGRPSAP	A hardware or software error occurred	%IPX-3-BADIGRPSAP: Cannot send incremental SAP update to peer on interface Ethernet0. Increasing output-sap-delay may help	Cannot send incremental SAP update to peer
LANCE-5-COLL	An Ethernet cable is broken or unterminated, or the transceiver is unplugged	%LANCE-5-COLL : Unit 1, excessive collisions. TDR=10	An Ethernet cable is broken or unterminated
LANCE-5-LATECOLL	An Ethernet transceiver is unplugged or defective	%LANCE-5-LATECOLL: Unit 1, late collision error	An Ethernet transceiver is unplugged or defective
SYS-5-CONFIG_I	The router's configuration was changed	%SYS-5-CONFIG_I: Configured from console by console	Device configuration changed
AT-6-NODEWRONG	An AppleTalk node sent a GetNet Info request to this router specifying an invalid network number for the source of the GetNet Info request	%AT-6-NODEWRONG: XX: AppleTalk node 192.168.2.0 misconfigured; reply has been broadcast	AppleTalk invalid network number
SECURITY-1-PORTSHUTDOWN	This message indicates that a port has been shut down due to an insecure host sourcing a packet into that port	%Security-1-PORTSHUTDOWN: Port 0/1 shutdown due to security violation	security port shut down

Table 12-2 Cisco IOS Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
SPANTREE-2-RX_PORTFAST	A BPDU that has spanning-tree portfast enabled was received on the specified interface	%SPANTREE-2-RX_PORTFAST:Received BPDU on PortFast enabled port. Disabling 2/1	BPDU spanning-tree portfast enabled
UDLD-3-DISABLE	This message indicates that a fault has been detected in a fiber Ethernet port connection and that the port has been disabled to prevent other protocols from malfunctioning	%UDLD-3-DISABLEFAIL: Unidirectional link detected on port 1/2, failed to disable port	Fault has been detected in a fiber Ethernet port connection
UDLD-3-DISABLEFAIL	This message indicates that a fault was detected in the wiring on a fiber Ethernet port, but UDLD could not disable the port	%UDLD-3-DISABLEFAIL: Unidirectional link detected on port 1/2, failed to disable port	Unidirectional link detected
UDLD-4-ONEWAYPATH	This message indicates that a fault has been detected in a fiber Ethernet connection in a shared media environment and that the connection may cause a possible malfunction	%UDLD-4-ONEWAYPATH: A unidirectional link from port 1/2 to port 1/2 of device abc was detected	Fault has been detected in a fiber Ethernet connection
OSPF-5-ADJCHG	handle ospf syslog	None	OSPF neighbor down syslog
OSPF-5-ADJCHG	handle ospf syslog	None	OSPF neighbor up syslog
SPANTREE-2-LOOPGUARDBLOCK	When the loop guard blocks an inconsistent port, the following message is logged	%SPANTREE-2-LOOPGUARDBLOCK: No BPDUs were received on port 3/2 in vlan 3. Moved to loop-inconsistent state	No BPDUs were received on port
SPANTREE-2-LOOPGUARDUNBLOCK	After the recovery, the following message is logged	%SPANTREE-2-LOOPGUARDUNBLOCK: port 3/2 restored in vlan 3	BPDUs were received on port
AMDP2_FE-5-COLL	Ethernet or Fast Ethernet is seeing multiple collisions. This problem may occur under heavy loads	%AMDP2_FE-5-COLL: AMDP2/FE Ethernet1/1, Excessive collisions, TDR=1, TRC=1	Ethernet is seeing multiple collisions

Table 12-2 Cisco IOS Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
DEC21140-5-COLL	A Fast Ethernet packet has been dropped because too many attempts to transmit it were stopped by collisions	%DEC21140-5-COLL: unit 0, excessive collisions	Fast Ethernet packet has been dropped
ILACC-5-COLL	An Ethernet cable is broken or is not terminated, or the transceiver is unplugged	%ILACC-5-COLL: Unit 0, excessive collisions. TDR=0.12	An Ethernet cable is broken
PQUICC-5-COLL	PQUICC-5-COLL : An Ethernet cable is broken or is not terminated	%PQUICC-5-COLL: Unit 1, excessive collisions. Retry limit 12 exceeded	pquicc 5 coll syslog: An Ethernet cable is broken
PQUICC_ETHER-5-COLL	PQUICC_ETHER-5-COLL : An Ethernet cable is broken or is not terminated	%PQUICC_ETHER-5-COLL: Unit 1, excessive collisions. Retry limit 2 exceeded	pquicc ether 5 coll syslog: An Ethernet cable is broken
PQUICC_FE-5-COLL	Ethernet or Fast Ethernet is detecting multiple collisions	%PQUICC_FE-5-COLL: PQUICC/FE(0/1), Excessive collisions, TDR=10, TRC=10.	Ethernet is detecting multiple collisions
QUICC_ETHER-5-COLL	An Ethernet cable is broken or unterminated	%PQUICC_ETHER-5-COLL: Unit 1, excessive collisions. Retry limit 2 exceeded	quicc ether 5 coll syslog: An Ethernet cable is broken
AMDP2_FE-5-LATECOLL	Late collisions have occurred on the Ethernet or Fast Ethernet	%AMDP2_FE-5-LATECOLL: Ethernet1/1 transmit error	Late collisions have occurred on the Ethernet or Fast Ethernet interface
CLNS-5-ADJCHANGE	handle isis syslog	%CLNS-5-ADJCHANGE: ISIS: Adjacency to edge-02(POS0/0) Down, hold time expired	IS-IS neighbor down syslog
CLNS-5-ADJCHANGE	handle isis syslog	%CLNS-5-ADJCHANGE: ISIS: Adjacency to edge-02(POS0/0) Up, hold time expired	IS-IS neighbor up syslog
DEC21140-5-LATECOLL	Late collisions are collisions that occur after transmitting the preamble	%DEC21140-5-LATECOLL: FastEthernet0/0 transmit error	Late collisions have occurred
ILACC-5-LATECOLL	An Ethernet transceiver is malfunctioning, the Ethernet is overloaded, or the Ethernet cable is too long	%ILACC-5-LATECOLL: Unit 0, late collision error	ilacc 5 late coll syslog: Late collisions have occurred

Table 12-2 Cisco IOS Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
PQUICC-5-LATECOLL	pquicc 5 late coll syslog	%PQUICC-5-LATECOLL: Unit 1, late collision error	pquicc 5 late coll syslog: Late collisions have occurred
PQUICC_ETHER-5-LATECOLL	PQUICC_ETHER-5-LATECOLL : A new network may not have been engineered properly or adding a regenerator to an existing network may have changed the network specifications	%PQUICC_ETHER-5-LATECOLL: Unit 0, late collision error	A new network may not have been engineered properly
PQUICC_FE-5-LATECOLL	Late collisions have occurred on the Ethernet or Fast Ethernet interface	%PQUICC_FE-5-LATECOLL: PQUICC/FE(0/1), Late collision	pquicc fe 5 late coll syslog: Late collisions have occurred
QUICC_ETHER-5-LATECOLL	QUICC_ETHER-5-LATECOLL : A software or hardware error occurred	%QUICC_ETHER-5-LATECOLL: Unit 0, late collision error	quicc ether 5 late coll syslog: Late collisions have occurred
SNMP-5-LINKTRAP	This message indicates the type of Link Trap	%SNMP-5-LINKTRAP: Link down Trap -- ifName=sc0	Link trap down has occurred
SNMP-5-LINKTRAP	This message indicates the type of Link Trap	%SNMP-5-LINKTRAP: Link up Trap -- ifName=sc0	Link trap up has occurred
SNMP-5-TOPOTRAP	his message indicates that a configured port changed from the learning state to the forwarding state, or from the forwarding state to the blocking state	%SNMP-5-TOPOTRAP: Topology Change Trap for VLAN 1	configured port changed state from learning to forwarding
DUAL-5-NBRCHANGE	handle eigrp syslog	%DUAL-5-NBRCHANGE: IP-EIGRP 1: Neighbor 10.1.4.3 (Serial0) is down: stuck in active	DUAL 5 neighbor down syslog
DUAL-5-NBRCHANGE	handle eigrp syslog	%DUAL-5-NBRCHANGE: IP-EIGRP 1: Neighbor 10.1.4.3 (Serial0) is up: stuck in active	DUAL 5 neighbor up syslog
LINK-3-UPDOWN	handle link down syslog	%LINK-3-UPDOWN: Interface ATM2/0, changed state to down	Link down syslog
LINK-3-UPDOWN	handle link down syslog	%LINK-3-UPDOWN: Interface ATM2/0, changed state to up	Link up syslog

Table 12-2 Cisco IOS Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
BGP-5-ADJCHANGE-vrf	handle BGP 5 syslog from vrf. make sure it is before the "BGP-5-ADJCHANGE" pattern	%BGP-5-ADJCHANGE: neighbor 10.1.2.3 vpn vrf inet Down	BGP neighbor down syslog
BGP-5-ADJCHANGE-vrf	handle BGP 5 syslog from vrf. make sure it is before the "BGP-5-ADJCHANGE" pattern	%BGP-5-ADJCHANGE: neighbor 10.1.2.3 vpn vrf inet Up	BGP neighbor up syslog
BGP-5-ADJCHANGE	handle BGP 5 syslog	%BGP-5-ADJCHANGE: neighbor 161.10.11.1 Down	BGP neighbor down syslog
BGP-5-ADJCHANGE	handle BGP 5 syslog	%BGP-5-ADJCHANGE: neighbor 161.10.11.1 Up	BGP neighbor up syslog
OIR-6-(REM|INS)CARD	handle module out syslog	%OIR-6-REMCARD: Card inserted from slot 4, interfaces disabled	card in syslog
OIR-6-(REM|INS)CARD	handle module out syslog	%OIR-6-REMCARD: Card removed from slot 4, interfaces disabled	card out syslog
OIR-SP-3-PWRCYCLE	card being power cycled	%OIR-SP-3-PWRCYCLE: Card in module x, is being power-cycled off (Module not responding to Keep Alive polling)	oir sp 3 power cycle syslog
SYS-5-RELOAD	syslog for reloading the device	%SYS-5-RELOAD: Reload requested	Reloading device syslog
SYS-5-RESTART	syslog for restarting the device	%SYS-5-RESTART: System restarted --	System restart
DTP-5-TRUNKPORTON	The interface returned to be a trunk	%DTP-5-TRUNKPORTON:Port 7/2 has become interface trunk	Interface changed to non trunk
DTP-5-TRUNKPORTON	The interface returned to be a trunk	%DTP-5-TRUNKPORTON:Port 7/2 has become dot1q trunk	Interface changed to trunk
ISDN-6-CONNECT	handle ISDN connect syslog	%ISDN-6-CONNECT: Interface BRI0/0:1 is now connected to 5772223	ISDN connect syslog
ISDN-6-CONNECT	handle ISDN connect syslog	%ISDN-6-CONNECT: Interface BRI0/0:1 is now connected to 5772223	ISDN disconnect syslog
ISDN-6-DISCONNECT	handle ISDN connect syslog	%ISDN-6-DISCONNECT: Interface BRI0:1? disconnected from 8130 traxbol, call lasted 60 seconds	ISDN connect syslog
ISDN-6-DISCONNECT	handle ISDN connect syslog	%ISDN-6-DISCONNECT: Interface BRI0:1? disconnected from 8130 traxbol, call lasted 60 seconds	ISDN disconnect syslog
CDP-4-DUPLEX_MISMATCH	This messages indicates a duplex mismatch problem (IOS)	%CDP-4-DUPLEX_MISMATCH: duplex mismatch discovered on FastEthernet6/2 (not half duplex), with TBA04251336 3/2 (half duplex)	Duplex mismatch discovered

Table 12-2 Cisco IOS Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
ISDN-6-CONNECT-2	handle ISDN connect syslog2	None	ISDN connect syslog
ISDN-6-CONNECT-2	handle ISDN connect syslog2	None	ISDN disconnect syslog
ISDN-6-DISCONNECT-2	handle ISDN disconnect syslog2	None	ISDN connect syslog
ISDN-6-DISCONNECT-2	handle ISDN disconnect syslog2	None	ISDN disconnect syslog
LDP-5-NBRCHG-TDP	handle LDP Neighbor change syslog	%LDP-5-NBRCHG: TDP Neighbor 10.10.10:0 is DOWN (TCP connection closed by peer)	TDP neighbor down syslog
LDP-5-NBRCHG-TDP	handle LDP Neighbor change syslog	%LDP-5-NBRCHG: TDP Neighbor 10.10.10:0 is UP (TCP connection closed by peer)	TDP neighbor up syslog
LDP-5-NBRCHG-LDP	handle LDP Neighbor change syslog	%LDP-5-NBRCHG: LDP Neighbor 10.12.12.12:0 is DOWN	LDP neighbor down syslog
LDP-5-NBRCHG-LDP	handle LDP Neighbor change syslog	%LDP-5-NBRCHG: LDP Neighbor 10.12.12.12:0 is UP	LDP neighbor up syslog
MPLS_TE-5-TUN_reoptimize	handle tunnel reoptimization syslog	None	MPSL-TE tunnel reoptimized/rerouted syslog
MPLS_TE-5-TUN_up	handle tunnel up syslog	%MPLS_TE-5-TUN: Tun0: installed LSP 0_26 (popt 5) for nil, got 1st feasible path opt	MPLS-TE tunnel down syslog
MPLS_TE-5-TUN_up	handle tunnel up syslog	%MPLS_TE-5-TUN: Tun0: installed LSP 0_26 (popt 5) for nil, got 1st feasible path opt	MPLS-TE tunnel up syslog
MPLS_TE-5-TUN_down	handle tunnel down syslog	%MPLS_TE-5-TUN: Tun1001: installed LSP nil for 1001_92 (popt 1), path verification failed	MPLS-TE tunnel down syslog
MPLS_TE-5-TUN_down	handle tunnel down syslog	%MPLS_TE-5-TUN: Tun1001: installed LSP nil for 1001_92 (popt 1), path verification failed	MPLS-TE tunnel up syslog
ENV_MON-2-SUPPLY	Power supply is not working or has not been turned on	%ENV_MON-2-SUPPLY : [chars] Power Supply is Operation or Non-Operational	A power supply is not working or has not been turned on
SYS-SP-STDBY-5-RESTART	restarting the device	%SYS-SP-STDBY-5-RESTART: System restarted -- Cisco IOS Software (c7600s72033-ADVENTERPRISEK9_WAN_MZ), Version 12.2 Copyright (c) 1986-2006 by Cisco Systems, Inc.Compiled Thu 26-Oct-06 03:49 by	System restart
UDLD-SP-4-UDLD_PORT_DISABLED	aggressive mode failure detected	None	Aggressive Mode Failure Detected

Table 12-2 Cisco IOS Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
FABRIC-SP-5-FABRIC_MODULE_BACKUP	clear block option	%FABRIC-SP-5-FABRIC_MODULE_BACKUP: The Switch Fabric Module in slot 6 became standby	fabric sp 5 clear block down syslog
FABRIC-SP-5-FABRIC_MODULE_BACKUP	clear block option	%FABRIC-SP-5-FABRIC_MODULE_BACKUP: The Switch Fabric Module in slot 6 became standby	fabric sp 5 clear block up syslog
C6KENV-SP-4-FANTRAYFAILED	fan tray failed	%C6KENV-SP-4-FANTRAYFAILED: fan tray 2 failed	c6kenv sp 4 fan tray fail syslog
PFREDUN-SP-4-BOOTSTRING_INVALID	bootstring invalid	%PFREDUN-SP-4-BOOTSTRING_INVALID: The bootfile slavesup-bootflash: is not present in standby	pfredun sp 4 bootstring invalid syslog
SYS-5-POWER-SUPPLY	Power supply failure notification	None	Power supply failed syslog
SYS-5-POWER-SUPPLY	Power supply failure notification	None	Power supply okay syslog
SYS-5-POWER-SUPPLY	Power supply failure notification	None	Redundant Power System Failed
PM-SP-STDBY-4-ERR_DISABLE	err disable state	%PM-SP-STDBY-4-ERR_DISABLE: bpduguard error detected on Gi2/5, putting Gi2/5 in err-disable state	pm sp stdby 4 err disable syslog
HSRP-6-STATECHANGE	handle hsrp syslog	%HSRP-6-STATECHANGE:FastEthernet 0/0 Grp 1 state Init	HSRP group change syslog
HSRP-6-STATECHANGE	handle hsrp syslog	%HSRP-6-STATECHANGE:FastEthernet 0/0 Grp 1 state Standby	HSRP group restored syslog
BGP-3-NOTIFICATION	handle BGP 3 syslog	%BGP-3-NOTIFICATION: sent to neighbor 10.10.10.254 4/0 (hold time expired) 0 bytes	BGP notification syslog
NEW-INTERFACE-FOR-VSL-CONNECTION	new interface for the VSL connection syslog (one of the ether channel interfaces)	%VSL-5-VSL_CNTRL_LINK	new ethernet channel interface for VSL connection
VSL-LINK-UP	VSL link up syslog	%VSLP-5-VSL_UP	VSL link up syslog
VSL-LINK-DOWN	VSL link down syslog	%VSLP-SW1_SP-2-VSL_DOWN	VSL link down syslog
VSL-LINK-UP	VSL link up syslog and active switch is #1	%VSLP-SW1_SP-5-VSL_UP	VSL link up syslog: active switch is #1
VSL-LINK-UP	VSL link up syslog and active switch is #2	%VSLP-SW2_SP-5-VSL_UP	VSL link up syslog: active switch is #2
VSL-ROLE-MISMATCH-RESOLVED	role mismatch resolved syslog, sent from active switch #1	%VSLP-SW1_SP-5-RRP_ROLE_RESOLVED	role mismatch resolved syslog, sent from active switch #1
VSL-ROLE-MISMATCH-RESOLVED	role mismatch resolved syslog, sent from active switch #2	%VSLP-SW2_SP-5-RRP_ROLE_RESOLVED	role mismatch resolved syslog, sent from active switch #2

Table 12-2 Cisco IOS Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
ENV-SP-4-FANTRAYFAILED	fan tray failed	%C7600_ENV-SP-4-FANTRAYFAILED: fan tray 2 failed	env sp 4 fan tray fail syslog
PWR-SP-2-PSFAIL	power supply failed	%C7600_PWR-SP-2-PSFAIL: power supply 1 output failed.	pwr sp 2 power supply fail syslog
BGP-5-ADJCHANGE-bfd	handle BGP 5 syslogs for BFD	%BGP-5-ADJCHANGE: neighbor 192.168.20.1 Down BFD adjacency down	BGP neighbor down syslog
BGP-5-ADJCHANGE-bfd	handle BGP 5 syslogs for BFD	%BGP-5-ADJCHANGE: neighbor 192.168.20.1 UP BFD adjacency up	BGP neighbor up syslog
VRRP-6-STATECHANGE	Virtual Router Redundancy Protocol (VRRP) message: The VRRP router has changed state.	%VRRP-6-STATECHANGE: Fa0/1 Grp 1 state Backup -> Master	VRRP State Changed syslog
ATM_AIM-5-ACTIVE_LINK_(DOWN|UP)	The specified link in the specified IMA group has become inactive/active	%ATM_AIM-5-ACTIVE_LINK_DOWN: Interface ATM1/0 of IMA Group ATM0/IMA2 is now inactive	Ima Link Status Change Down Syslog
ATM_AIM-5-ACTIVE_LINK_(DOWN|UP)	The specified link in the specified IMA group has become inactive/active	%ATM_AIM-5-ACTIVE_LINK_UP: Interface ATM1/0 of IMA Group ATM0/IMA2 is now active	Ima Link Status Change Up Syslog
ATM_AIM-5-ACTIVE_LINK_CHANGE	Active links were added to or removed from the group, changing the bandwidth of the group	%ATM_AIM-5-ACTIVE_LINK_CHANGE : IMA Group ATM3/1/ima0 now has 2 active links	IMA Active Link Change Syslog
CDP-4-NATIVE_VLAN_MISMATCH	Native VLAN mismatch discovered	%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on GigabitEthernet1/1 (12), with 3750E-24TD-AGG3 FastEthernet0/2 (1)	Native VLAN mismatch discovered
TOP_MODULE-6-CLK_STATUS_CHANGE	Clock status change	Mar 19 15:26:54.371: %TOP_MODULE-6-CLK_STATUS_CHANGE: PLL clock changed to LOCKED	Clock status change syslog
TOP_MODULE-6-CLK_SOURCE_CHANGE	Clock source change	Mar 19 15:15:40.523: %TOP_MODULE-6-CLK_SOURCE_CHANGE: Changing clock reference source to Seconary TDM 8KHZ	Clock source change syslog
L2-L2VPN_PW-3-UPDOWN	The L2VPN Pseudowire went down	%L2-L2VPN_PW-3-UPDOWN : Pseudowire with address 2.2.2.2, id 140, state is Down	pseudo wire tunnel down syslog
L2-L2VPN_PW-3-UPDOWN	The L2VPN Pseudowire went up	%L2-L2VPN_PW-3-UPDOWN : Pseudowire with address 2.2.2.2, id 140, state is Up	pseudo wire tunnel up syslog

Table 12-2 Cisco IOS Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
ETHER_SERVICE-6-ERR_DISABLED	Service instance shutdown due to errdisable.	%ETHER_SERVICE-6-ERR_DISABLED : Mac security violation - shutdown service instance 900 on interface GigabitEthernet10/0/12	EFP service error disabled syslog
ETHER_SERVICE-6-UPDOWN	Service instance shutdown Syslog	%ETHER_SERVICE-6-UPDOWN: Service instance 111 on interface GigabitEthernet10/0/3 changed to down	EFP down syslog
ETHER_SERVICE-6-UPDOWN	Service instance up Syslog	%ETHER_SERVICE-6-UPDOWN: Service instance 111 on interface GigabitEthernet10/0/3 changed to up	EFP up syslog

Cisco IOX Syslogs

Table 12-3 lists the Cisco IOX Syslogs supported in Cisco ANA.

Table 12-3 Cisco IOX Syslogs

Syslog Name	Description	Raw Format	Short Description
LINK-3-UPDOWN	The interface hardware has gone either down or up.	%LINK-3-UPDOWN: Interface ATM2/0, changed state to down	Link down syslog
LINK-3-UPDOWN	The interface hardware has gone either down or up.	%LINK-3-UPDOWN: Interface ATM2/0, changed state to up	Link up syslog
LINK-5-CHANGED	The interface has changed state.	%LINK-5-CHANGED: Interface Ethernet5/1, changed state to administratively up	Link down syslog
LINK-5-CHANGED	The interface has changed state.	%LINK-5-CHANGED: Interface Ethernet5/1, changed state to administratively down	Link up syslog
LINEPROTO-5-UPDOWN	The data link level line protocol changed state.	%LINEPROTO-5-UPDOWN: Line protocol on Interface [chars], changed state to [chars] Example %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet1/0/1, changed state to up	Line down syslog

Table 12-3 Cisco IOX Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
LINEPROTO-5-UPDOWN	The data link level line protocol changed state.	%LINEPROTO-5-UPDOWN: Line protocol on Interface [chars], changed state to [chars] Example %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet1/0/1, changed state to up	Line up syslog
OSPF-5-ADJCHG	An OSPF neighbor has changed state. The message describes the change and the reason for it. This message appears only if the log-adjacency-changes command is configured for the OSPF process.	%OSPF-5-ADJCHG : Process [dec], Nbr [int] on [chars] from [chars] to [chars], [chars] Example %OSPF-5-ADJCHG: Process 1, Nbr 192.168.100.100 on POS1/0 from FULL to DOWN, Neighbor Down: Interface down or detached	OSPF neighbor down syslog
OSPF-5-ADJCHG	An OSPF neighbor has changed state. The message describes the change and the reason for it. This message appears only if the log-adjacency-changes command is configured for the OSPF process.	%OSPF-5-ADJCHG : Process [dec], Nbr [int] on [chars] from [chars] to [chars], [chars] Example %OSPF-5-ADJCHG: Process 1, Nbr 192.168.100.100 on POS1/0 from FULL to DOWN, Neighbor Down: Interface down or detached	OSPF neighbor up syslog
ENVMON-ADDITIVE-POWER-OVERBUDGET	The power calculated in use by the chassis exceeds that available by the powershelf. This condition could result in an outage of the chassis if action is not immediately taken	ENVMON-.-ADDITIVE_POWER_OVERBUDGET.*:.*	envmon powersupply syslog
ENVMON-ENV-CONDITION	One or more environmental conditions exist on the specified slot. If left untended, they could result in loss of service or even hardware damage	ENVMON-.-(ENV_CONDITION_CLEAR|ENV_CONDITION).*slot\s+(\d+).*	envmon condition syslog
ENVMON-ENV-CONDITION	One or more environmental conditions exist on the specified slot. If left untended, they could result in loss of service or even hardware damage	ENVMON-.-(ENV_CONDITION_CLEAR|ENV_CONDITION).*slot\s+(\d+).*	envmon condition clear syslog

Table 12-3 Cisco IOX Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
ENVMON-FAN	The fan array specified has reached a warning or critical level and is approaching or approached a condition that is outside the acceptable range	ENVMON-.-(FAN_CLEAR|FAN).*array\s+(\S+).*	envmon fan syslog
ENVMON-FAN	The fan array specified has reached a warning or critical level and is approaching or approached a condition that is outside the acceptable range	ENVMON-.-(FAN_CLEAR|FAN).*array\s+(\S+).*	envmon fan clear syslog
ENVMON-LOW-FAN-SPEED-WARNING	Indicates that the fan is spinning very slow	LOW_FAN_SPEED_WARNING :\s(\w+).*	envmon fan syslog
ENVMON-OVERTEMP	The temperature sensor specified has reached a warning or critical level and is approaching or approached a condition that is outside the acceptable range	ENVMON-.-(OVERTEMP_CLEAR|OVERTEMP).*(\S+)\s+temperature.*	envmon tempretaure syslog
ENVMON-OVERTEMP	The temperature sensor specified has reached a warning or critical level and is approaching or approached a condition that is outside the acceptable range	ENVMON-.-(OVERTEMP_CLEAR|OVERTEMP).*(\S+)\s+temperature.*	envmon tempretaure clear syslog
ENVMON-PEM-REMOVE	The power entry module specified was detected as removed	ENVMON-.-PEM_(REMOVE|INSERT).*slot\s+(\d+).*	card out syslog
ENVMON-PEM-REMOVE	The power entry module specified was detected as removed	ENVMON-.-PEM_(REMOVE|INSERT).*slot\s+(\d+).*	card in syslog
ENVMON-POWERSUPPLY-CURRENT	handle envmon powersupply current syslog	ENVMON-.-(POWERSUPPLY_CURRENT_CLEAR|POWERSUPPLY_CURRENT).*(\S+)\s+current.*	envmon powersupply syslog
ENVMON-POWERSUPPLY-CURRENT	The current supply specified has reached a critical level and is now out of specification	ENVMON-.-(POWERSUPPLY_CURRENT_CLEAR|POWERSUPPLY_CURRENT).*(\S+)\s+current.*	envmon powersupply clear syslog
ENVMON-POWERSUPPLY-NONOP	The power supply specified has become non-operational	ENVMON-.-(POWERSUPPLY_NONOP_CLEAR|POWERSUPPLY_NONOP).*:\s+(\S+).*	envmon powersupply syslog
ENVMON-POWERSUPPLY-NONOP	The power supply specified has become non-operational	ENVMON-.-(POWERSUPPLY_NONOP_CLEAR|POWERSUPPLY_NONOP).*:\s+(\S+).*	envmon powersupply clear syslog

Table 12-3 Cisco IOX Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
ENVMON-POWERSUPPLY-VOLTAGE	The voltage supply specified has reached a critical level and is now out of specification	ENVMON-.-(POWERSUPPLY_VOLTAGE_CLEAR|POWERSUPPLY_VOLTAGE).*(\S+)\s+voltage.*	envmon powersupply syslog
ENVMON-POWERSUPPLY-VOLTAGE	The voltage supply specified has reached a critical level and is now out of specification	ENVMON-.-(POWERSUPPLY_VOLTAGE_CLEAR|POWERSUPPLY_VOLTAGE).*(\S+)\s+voltage.*	envmon powersupply clear syslog
ENVMON-TEMP	The temperature sensor specified has reached a warning or critical level and is approaching or approached a condition that is outside the acceptable range	ENVMON-.-(TEMP_CLEAR|TEMP).*(\S+)\s+temperature.*	envmon tempretaure syslog
ENVMON-TEMP	The temperature sensor specified has reached a warning or critical level and is approaching or approached a condition that is outside the acceptable range	ENVMON-.-(TEMP_CLEAR|TEMP).*(\S+)\s+temperature.*	envmon tempretaure clear syslog
ENVMON-VOLTAGE	The voltage supply specified has reached a critical level and is now out of specification	ENVMON-.-(VOLTAGE_CLEAR|VOLTAGE).*(\S+)\s+voltage.*	envmon powersupply syslog
ENVMON-VOLTAGE	The voltage supply specified has reached a critical level and is now out of specification	ENVMON-.-(VOLTAGE_CLEAR|VOLTAGE).*(\S+)\s+voltage.*	envmon powersupply clear syslog
FIA-FIAHW-LOS	This error indicates a problem (Loss of Sync) in the interface between the card reporting error and the switch fabric card in the indicated slot. This error is traffic affecting. Error recovery is triggered by this error	ENVMON-.-(FIAHW_LOS_CLEAR|FIAHW_LOS).*slot\s+(\d+).*	fabric hardware syslog
FIA-FIAHW-LOS	This error indicates a problem (Loss of Sync) in the interface between the card reporting error and the switch fabric card in the indicated slot. This error is traffic affecting. Error recovery is triggered by this error	ENVMON-.-(FIAHW_LOS_CLEAR|FIAHW_LOS).*slot\s+(\d+).*	fabric hardware clear syslog
FLASH-CARD-REMOVAL	handle flash card insertion or removal syslog	libpcmcia_ide-.-CARD_(UNAVAILABLE|SWAPPED).*:\s+(\S+):.*	flash card removed syslog
FLASH-CARD-REMOVAL	handle flash card insertion or removal syslog	libpcmcia_ide-.-CARD_(UNAVAILABLE|SWAPPED).*:\s+(\S+):.*	flash card inserted syslog
LIBPARSER-ERR-MEMALLOC	handle memory allocation in syslog	LIBPARSER-.-ERR_MEM_ALLOC.*:.*	Memory allocation is not available

Table 12-3 Cisco IOX Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
NODE-RELOAD	handle node reload syslog by sysldr	PLATFORM-SHELFMGR-3-SHUTDOWN_RESET.*	Module reset syslog
NODE-STATE-CHANGE	Indicates a change in the card oper status	NODE_STATE_CHANGE.*Node:\s+(\S+),\s+state:\s+(IOS XR RUN|DOWN|BRINGDOWN|UNPOWERED|OK|NOT)	Card oper status changed
NODE-STATE-CHANGE	Indicates a change in the card oper status	NODE_STATE_CHANGE.*Node:\s+(\S+),\s+state:\s+(IOS XR RUN|DOWN|BRINGDOWN|UNPOWERED|OK|NOT)	Card oper status changed
OIROUT	handle module out syslog	.*(OIROUT|OIRIN).*:.*Node\s+(\d+)/(\D*)(\d+)/(\d*).*	card out syslog
OIROUT	handle module out syslog	.*(OIROUT|OIRIN).*:.*Node\s+(\d+)/(\D*)(\d+)/(\d*).*	card in syslog
OIROUT-on-CPU0	handle module out syslog	.*(OIROUT|OIRIN).*:.*Node\s+(\d+)/(\D*)(\d+)/(*).*	card out syslog
OIROUT-on-CPU0	handle module out syslog	.*(OIROUT|OIRIN).*:.*Node\s+(\d+)/(\D*)(\d+)/(*).*	card in syslog
PIM-5-NBRCHG	handle pim neighbor syslog	PIM-5-NBRCHG.*neighbor (\d*\.\d*\.\d*\.\d*)\s+(DOWN|UP) on (\S+).*	pim neighbor loss syslog
PIM-5-NBRCHG	handle pim neighbor syslog	PIM-5-NBRCHG.*neighbor (\d*\.\d*\.\d*\.\d*)\s+(DOWN|UP) on (\S+).*	pim neighbor up syslog
PIM-5-UPDOWN	handle pim interface syslog	PIM-5-INTCHG.*interface (\S+).*(UP|DOWN).*	pim interface down syslog
PIM-5-UPDOWN	handle pim interface syslog	PIM-5-INTCHG.*interface (\S+).*(UP|DOWN).*	pim interface up syslog
PIM-INVALID-JOIN	handle pim invlid join in syslog	ROUTING_IPV4_PIM-.-INVALID_JP.*	pim invalid join syslog
POWERDOWN-RESET	Indicates that the node will be reset because the user has administratively 'power disable' or 'no power disable' the node	SHELFMGR-3-POWERDOWN_RESET.*Node\s+(\S+).*powered\s+(off|on).*	Card oper status changed

Table 12-3 Cisco IOX Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
POWERDOWN-RESET	Indicates that the node will be reset because the user has administratively 'power disable' or 'no power disable' the node	SHELFMGR-3-POWER DOWN_RESET.*Node\s +(\S+).*powered\s+(off|o n).*	Card oper status changed
SONET-LOCAL-4-ALARM	The specified SONET Alarm has been declared or released	SONET_LOCAL-4-ALA RM.*S[a-zA-Z]*([^,]*):\ s*[A-Z]*\s*(cleared)	Line down syslog
SONET-LOCAL-4-ALARM	The specified SONET Alarm has been declared or released	SONET_LOCAL-4-ALA RM.*S[a-zA-Z]*([^,]*):\ s*[A-Z]*\s*$	Line up syslog
SPA-OIROUT	handle invmgr node state change syslog	.*LC/\d+/(\d).*SPA-.-OI R_(REMOVED|INSERT ED).*bay\s+(\d).*	card out syslog
SPA-OIROUT	handle invmgr node state change syslog	.*LC/\d+/(\d).*SPA-.-OI R_(REMOVED|INSERT ED).*bay\s+(\d).*	card in syslog
ROUTING-LDP-5-NBR_C HANGE	A LDP neighbor has changed state (up/down). If neighbor has went down, then a reason for session going down is also displayed. This message appears only if the log neighbor command is configured for the LDP process.	.*ROUTING-LDP-5-NB R_CHANGE : Neighbor (\d*\.\d*\.\d*\.\d*:\d*).*(UP|DOWN).*	LDP neighbor down syslog
ROUTING-LDP-5-NBR_C HANGE	A LDP neighbor has changed state (up/down). If neighbor has went down, then a reason for session going down is also displayed. This message appears only if the log neighbor command is configured for the LDP process.	.*ROUTING-LDP-5-NB R_CHANGE : Neighbor (\d*\.\d*\.\d*\.\d*:\d*).*(UP|DOWN).*	LDP neighbor up syslog
BGP-5-ADJCHANGE	The adjacent BGP neighbor was lost	.*BGP-5-ADJCHANGE. *:.*bor (\d*\.\d*\.\d*\.\d*) .*(Down|Up|up|down).*	BGP neighbor down syslog
BGP-5-ADJCHANGE	The adjacent BGP neighbor was lost	.*BGP-5-ADJCHANGE. *:.*bor (\d*\.\d*\.\d*\.\d*) .*(Down|Up|up|down).*	BGP neighbor up syslog
SECURITY-4-AUTHEN_FA ILED	The user login authentication failed	.*SECURITY-login-4-A UTHEN_FAILED : Failed authentication attempt .*	Login authentication failed syslog

Table 12-3 Cisco IOX Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
MGBL-INVENTORY-6-PORTS	Sent by the XR device after a card-in event has occured and the If and Entity tables are in sync. Once ANA receives the syslog, it will expedite the physical command instead of the card-in syslogs doing the expedite, so that the polling is done only after the tables are synchronized.	%MGBL-INVENTORY-6-PORTS : ifTable INSYNC for card:0/PL7/* entPhysicalIndex:239	If-Table in sync syslog
L2-BFD-6-SESSION_STATE_DOWN	The bfd session is down	.*L2-BFD-6-SESSION_(?:STATE_UP|STATE_DOWN|REMOVED) : BFD session to neighbor (\d*\.\d*\.\d*\.\d*) on interface (\S*).*(up|down|removed).*	BFD neighbor down syslog
L2-BFD-6-SESSION_REMOVED	The bfd session has been removed	.*L2-BFD-6-SESSION_(?:STATE_UP|STATE_DOWN|REMOVED) : BFD session to neighbor (\d*\.\d*\.\d*\.\d*) on interface (\S*).*(up|down|removed).*	BFD neighbor removed syslog
L2-BFD-6-SESSION_STATE_UP	The bfd session is up	.*L2-BFD-6-SESSION_(?:STATE_UP|STATE_DOWN|REMOVED) : BFD session to neighbor (\d*\.\d*\.\d*\.\d*) on interface (\S*).*(up|down|removed).*	BFD neighbor up syslog
L2-BFD-6-SESSION_STATE_UP	The bfd session is up	%L2-BFD-6-SESSION_STATE_UP BFD session to neighbor [chars] on interface [chars] is up	BFD neighbor up syslog
L2-G709-4-ALARM	The specified G709 Alarm has been declared or released	%L2-G709-4-ALARM [chars]: [chars] [chars]	Layer2 G709 alarm syslog
L2-G709-4-ALARM-CLEARED	The specified G709 Alarm has been declared or released	%L2-G709-4-ALARM [chars]: [chars] [chars]	Layer2 G709 clear syslog
L2-DWDM-3-INFO	The DWDM encountered an error that would lead to degraded service	%L2-DWDM-3-INFO dwdm: service degrading error, reason = [chars]	Layer2 dwdm info syslog

Table 12-3 Cisco IOX Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
L1-PMENGINE-4-TCA	The specified PM TCA has been declared	%L1-PMENGINE-4-TCA Port [chars] reports [chars] [chars]([chars]) PM TCA with current value [unsigned long long int], threshold [unsigned long long int] in current [chars] interval window	Layer1 PM TCA syslog
L2-SPA-3-POWER_FAILURE	SPA_OK and PWR_OK signals are asserted after the SPA is powered on by LC. These signals are deasserted when there is a power failure on the SPA and this failure indicates that it is an SPA hardware issue. The SPA is put into FAILED state.	%L2-SPA-3-POWER_FAILURE SPA_OK and PWR_OK signal is deasserted on subslot [unsigned int]	Layer2 SPA failure syslog
ROUTING-OSPF-5-ADJCHG	An OSPF routing neighbor has changed state. The message describes the change and the reason for it.	%ROUTING-OSPF-5-ADJCHG : Process 1, Nbr 2.2.2.2 on MgmtEth0/7/CPU0/2 in area 0 from FULL to DOWN, Loading Done,vrf default vrfid 0x60000000	OSPF routing neighbor down syslog
ROUTING-OSPF-5-ADJCHG	An OSPF routing neighbor has changed state. The message describes the change and the reason for it.	%ROUTING-OSPF-5-ADJCHG : Process 1, Nbr 2.2.2.2 on MgmtEth0/7/CPU0/2 in area 0 from LOADING to FULL, Loading Done,vrf default vrfid 0x60000000	OSPF routing neighbor up syslog
OSPFv3-5-ADJCHG-IPv6	An IPv6 OSPFv3 neighbor has changed state. The message describes the change and the reason for it. This message appears only if the log-adjacency-changes command is configured for the OSPF process.	%OSPFv3-5-ADJCHG : Process 1, Nbr 192.168.1.1 on Mg0/5/CPU0/1 from FULL to DOWN, Neighbor Down: Interface down or detached	OSPFv3 neighbor down syslog
OSPFv3-5-ADJCHG-IPv6	An IPv6 OSPFv3 neighbor has changed state. The message describes the change and the reason for it. This message appears only if the log-adjacency-changes command is configured for the OSPF process.	%OSPFv3-5-ADJCHG : Process 1, Nbr 192.168.1.1 on Mg0/5/CPU0/1 from LOADING to FULL, Neighbor Down: Interface down or detached	OSPFv3 neighbor up syslog

Table 12-3 Cisco IOX Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
ROUTING-OSPFv3-5-ADJCHG	An IPv6 OSPFv3 neighbor has changed state. The message describes the change and the reason for it. This message appears only if the log-adjacency-changes command is configured for the OSPF process.	%ROUTING-OSPFv3-5-ADJCHG : Process 1, Nbr 192.168.1.1 on Mg0/5/CPU0/1 from FULL to DOWN, Neighbor Down: Interface down or detached	IPv6 OSPFv3 routing neighbor down syslog
ROUTING-OSPFv3-5-ADJCHG	An IPv6 OSPFv3 neighbor has changed state. The message describes the change and the reason for it. This message appears only if the log-adjacency-changes command is configured for the OSPF process.	%ROUTING-OSPFv3-5-ADJCHG : Process 1, Nbr 192.168.1.1 on Mg0/5/CPU0/1 from LOADING to FULL, Neighbor Down: Interface down or detached	IPv6 OSPFv3 routing neighbor up syslog
BGP-5-ADJCHANGE-IPv6	The IPv6 adjacent BGP neighbor was lost	%BGP-5-ADJCHANGE: neighbor 2001:210:10:1::2 Down User reset	IPv6 BGP neighbor down syslog
BGP-5-ADJCHANGE-IPv6	The IPv6 adjacent BGP neighbor was lost	%BGP-5-ADJCHANGE: neighbor 2001:210:10:1::2 Up User reset	IPv6 BGP neighbor up syslog
ROUTING-BGP-5-ADJCHANGE	The IPv6 adjacent BGP neighbor was lost	%ROUTING-BGP-5-ADJCHANGE : neighbor 3.3.3.3 down (VRF: default) %ROUTING-BGP-5-ADJCHANGE : neighbor 2001:210:10:1::1 Down - User clear requested	IPv6 Routing BGP neighbor down syslog
ROUTING-BGP-5-ADJCHANGE	The IPv6 adjacent BGP neighbor was lost	%ROUTING-BGP-5-ADJCHANGE : neighbor 3.3.3.3 Up (VRF: default) %ROUTING-BGP-5-ADJCHANGE : neighbor 2001:210:10:1::1 Up	IPv6 Routing BGP neighbor up syslog
TOP_MODULE-6-CLK_STATUS_CHANGE	Clock status change	Mar 19 15:26:54.371: %TOP_MODULE-6-CLK_STATUS_CHANGE: PLL clock changed to LOCKED	Clock status change syslog

Table 12-3 Cisco IOX Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
TOP_MODULE-6-CLK_SOURCE_CHANGE	Clock source change	Mar 19 15:15:40.523: %TOP_MODULE-6-CLK_SOURCE_CHANGE: Changing clock reference source to Seconary TDM 8KHZ	Clock source change syslog
L2-L2VPN_PW-3-UPDOWN	The L2VPN Pseudowire went down	%L2-L2VPN_PW-3-UPDOWN : Pseudowire with address 2.2.2.2, id 140, state is Down	pseudo wire tunnel down syslog
L2-L2VPN_PW-3-UPDOWN	The L2VPN Pseudowire went up	%L2-L2VPN_PW-3-UPDOWN : Pseudowire with address 2.2.2.2, id 140, state is Up	pseudo wire tunnel up syslog
ETHER_SERVICE-6-ERR_DISABLED	Service instance shutdown due to errdisable.	%ETHER_SERVICE-6-ERR_DISABLED: Mac security violation - shutdown service instance 900 on interface GigabitEthernet10/0/12	EFP service error disabled syslog
L2-DWDM-3-NOT_YET_IMPLEMENTED	handle L2-DWDM-3-NOT_YET_IMPLEMENTED syslog	%L2-DWDM-3-NOT_YET_IMPLEMENTED dwdm: this function [chars] is not yet implemented	DWDM feature not implemented yet
L2-DWDM-3-FATAL_2	handle L2-DWDM-3-FATAL_2 syslog	%L2-DWDM-3-FATAL_2 dwdm: fatal error encountered, reason equals [chars], errno equals [dec]	DWDM fatal error with reason and error number
L2-DWDM-3-FATAL	handle L2-DWDM-3-FATAL syslog	%L2-DWDM-3-FATAL dwdm: fatal error encountered, reason equals [chars]	DWDM fatal error with reason
L2-PLIM-2-EIO_TRAIN	handle L2-PLIM-2-EIO_TRAIN syslog	%L2-PLIM-2-EIO_TRAIN PLA: [chars], [chars]	PLIM EIO training errors syslog
L2-DWDM-3-FATAL_2	handle L2-DWDM-3-FATAL_2 syslog	%L2-DWDM-3-FATAL_2 dwdm: fatal error encountered, reason equals [chars], errno equals [dec]	DWDM fatal error with reason and error number
L2-PLIM-3-CHK_ERR	handle L2-PLIM-3-CHK_ERR syslog	%L2-PLIM-3-CHK_ERR PLA: [chars], [chars]	PLIM Checkpoint Initialization Failure syslog
L2-PLIM-3-HW_ERR	handle L2-PLIM-3-HW_ERR syslog	%L2-PLIM-3-HW_ERR asic error: [chars]	PLIM ASIC error syslog

Table 12-3 Cisco IOX Syslogs (continued)

Syslog Name	Description	Raw Format	Short Description
L2-PLIM-3-MEM_ERR	handle L2-PLIM-3-MEM_ERR syslog	%L2-PLIM-3-MEM_ERR [chars]	PLIM memory error syslog
L2-PLIM-3-SQUID_ERR	handle L2-PLIM-3-SQUID_ERR syslog	%L2-PLIM-3-SQUID_ERR [chars]	PLIM squid error syslog
L2-PLIM-7-ERR	handle L2-PLIM-7-ERR syslog	%L2-PLIM-7-ERR [chars]	PLIM 7 error syslog
L2-PLIM_OC768-3-CRITICAL_ERROR	handle L2-PLIM_OC768-3-CRITICAL_ERROR syslog	%L2-PLIM_OC768-3-CRITICAL_ERROR [chars]: [chars]: [hex]	PLIM OC768 critical error syslog
L2-PLIM_OC768-6-INFO	handle L2-PLIM_OC768-6-INFO syslog	%L2-PLIM_OC768-6-INFO [chars]: [chars]	PLIM OC768 INFO syslog
L2-PLIM_OC768-7-DEBUG_MSG	handle L2-PLIM_OC768-7-DEBUG_MSG syslog	%L2-PLIM_OC768-7-DEBUG_MSG Debug: [chars]: [chars] errno [dec]	PLIM OC768 debug syslog

Registry Parameters for Syslog Events

This section lists the event subtypes and registry parameters for the following syslog event types:

- power supply removed syslog
- Backup to Master syslog
- link down syslog
- dlci change syslog
- hsrp syslog
- snmp 5 snmp auth fail syslog
- memory allocation syslog
- process ran too long syslog
- registered timer expired syslog
- EIGRP router query to neighbors timeouted syslog
- ethernet cable is not connected syslog
- frmr report syslog
- dtp 5 non port trunk syslog
- line down syslog
- ipx 3 bad igrp sap syslog
- lance 5 coll syslog
- lance 5 late coll syslog
- sys 5 config i syslog
- at 6 node wrong syslog
- security 1 port shut down syslog
- span tree 2 rx port fast syslog
- Udld 3 disable syslog
- udld 3 disable fail syslog
- udld 4 one way path syslog
- ospf neighbor syslog
- span tree 2 loop guard block syslog
- amdp2 fe 5 coll syslog
- dec 21140-5 coll syslog
- ilacc 5 coll syslog
- pquicc 5 coll syslog
- pquicc ether 5 coll syslog
- pquicc fe 5 coll syslog
- quicc ether 5 coll syslog
- amdp2 fe 5 latecoll syslog
- is is neighbor down syslog

- dec 21140-5 late coll syslog
- ilacc 5 late coll syslog
- pquicc 5 late coll syslog
- pquicc ether 5 late coll syslog
- pquicc fe 5 late coll syslog
- quicc ether 5 late coll syslog
- snmp 5 link trap syslog
- snmp 5 top trap syslog
- dual5 neighbor change
- link down syslog
- bgp neighbor down syslog
- card out syslog
- oir sp 3 power cycle
- reloading device syslog
- system restart syslog
- dtp 5 non port trunk syslog
- isdn 6 connect syslog
- duplex mismatch
- isdn 6 connect syslog
- tdp neighbor down syslog
- ldp neighbor down syslog
- mpls te tunnel reoptimized syslog
- mpls te tunnel down syslog
- environment monitoring 2 supply syslog
- system sp restart syslog
- udld sp 4 disable syslog
- fabric sp 5 clear block off syslog
- c6kenv sp 4 fan tray fail
- pfredun sp 4 bootstring invalid
- power supply failure syslog
- pm sp stdby 4 err disable
- Hsrp syslog
- bgp notification syslog
- bgp notification syslog
- VSL link state change syslog
- VSL role mismatch resolved syslog
- env sp 4 fan tray failed syslog
- pwr sp 2 power supply fail

- bgp neighbor down syslog
- vrrp state changed syslog
- link down syslog
- line down syslog
- ospf neighbor syslog
- envmon powersupply syslog
- envmon condition syslog
- envmon fan syslog
- envmon temperature syslog
- card out syslog
- envmon powersupply syslog
- envmon temperature syslog
- envmon powersupply syslog
- fabric hardware syslog
- flash card removed syslog
- memory allocation syslog
- reset module syslog
- card down syslog
- card out syslog
- pim neighbor loss syslog
- pim interface down syslog
- pim invalid join syslog
- card down syslog
- line down syslog
- card out syslog
- ldp neighbor down syslog
- bgp neighbor down syslog
- Login authentication failed syslog
- if table in sync syslog
- bfd session down syslog
- layer 2 G709 alarm syslog
- layer2 dwdm info syslog
- layer1 PM TCA syslog
- layer2 SPA failure syslog
- ospf routing neighbor syslog
- ipv6 ospfv3 routing neighbor down syslog
- bfd rate limit high warning syslog
- rip authentication failed syslog

- rip configuration error syslog
- rip out of memory event syslog
- Ima Link Status Change Down Syslog
- IMA Active Link Change Syslog
- native VLAN mismatch
- clock status change syslog
- clock source change syslog
- pseudo wire tunnel syslog
- efp service error disabled syslog
- efp down syslog
- clock status change syslog
- pseudo wire tunnel syslog
- efp service error disabled syslog
- Dwdm not implemented syslog
- DWDM fatal error 2 syslog
- DWDM fatal error syslog
- PLIM EIO training errors syslog
- DWDM fatal error 2 syslog
- PLIM check point failure syslog
- PLIM asic error syslog
- PLIM memory error syslog
- PLIM squid error syslog
- PLIm 7b error syslog
- PLIM OC768 critical error syslog
- PLIM OC768 INFO syslog
- PLIM OC768 debug syslog

power supply removed syslog

Table 12-4 Event Subtypes: power supply removed syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Power supply inserted syslog	power supply inserted syslog	inserted	N	IModule	F	F	F	0	F	clr	F	T	F
Power supply removed syslog	power supply removed syslog	removed	N	IModule	F	F	F	0	F	maj	T	T	F

Backup to Master syslog

Table 12-5 Event Subtypes: Backup to Master syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Backup to Master change syslog	Backup to Master syslog	Backup	N	IModule	F	F	F	0	F	info	T	T	F
Master to Backup change syslog	Master to Backup syslog	Master	N	IModule	F	F	F	0	F	info	T	T	F

link down syslog

Table 12-6 Event Subtypes: link down syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Link down syslog	link down syslog	ip interface oper status	IIPInterface	F	T	F	0	T	maj	F	T	T
Link up syslog	link up syslog	ip interface oper status	IIPInterface	F	F	F	0	F	clr	F	T	T

dlci change syslog

Table 12-7 Event Subtypes: dlci change syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
FR DLCI down syslog	dlci down	N	IPhysicalLayer	T	T	F	0	T	maj	F	T	F
FR DLCI up syslog	dlci up	N	IPhysicalLayer	F	F	F	0	F	clr	F	T	F

hsrp syslog

Table 12-8 Event Subtypes: hsrp syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
HSRP group change syslog	hsrp group change syslog	hsrp	IIPInterface	F	T	F	0	T	info	F	T	F
HSRP group restored syslog	hsrp group restored syslog	hsrp	IIPInterface	F	F	F	0	F	clr	F	T	F

snmp 5 snmp auth fail syslog

Table 12-9 Event Subtypes: snmp 5 snmp auth fail syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
SNMP message has not properly authenticated	snmp 5 snmp auth fail syslog	N	IManagedElement	F	T	F	0	T	min	F	T	F

memory allocation syslog

Table 12-10 Event Subtypes: memory allocation syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Memory allocation is not available	memory allocation syslog	N	IManagedElement	F	T	F	0	T	min	F	T	F

process ran too long syslog

Table 12-11 Event Subtypes: process ran too long syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
process ran too long	process ran too long syslog	N	IManagedElement	F	T	F	0	T	min	F	T	F

registered timer expired syslog

Table 12-12 Event Subtypes: registered timer expired syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
registered timer is expired	registered timer expired syslog	N	IManagedElement	F	T	F	0	F	min	F	T	F

EIGRP router query to neighbors timeouted syslog

Table 12-13 Event Subtypes: EIGRP router query to neighbors timeouted syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
EIGRP router query to neighbors timeouted syslog	EIGRP router query to neighbors timeouted syslog	N	IManagedElement	T	T	F	0	T	info	F	T	F

ethernet cable is not connected syslog

Table 12-14 Event Subtypes: ethernet cable is not connected syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Ethernet cable is not connected	ethernet cable is not connected syslog	N	IManagedElement	F	T	F	0	T	min	F	T	F

frmr report syslog

Table 12-15 Event Subtypes: frmr report syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
frame with an invalid control code	frmr report syslog	N	IPhysicalLayer	F	T	F	0	T	min	F	T	F

dtp 5 non port trunk syslog

Table 12-16 Event Subtypes: dtp 5 non port trunk syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Interface changed to non trunk	dtp 5 non port trunk syslog	N	IPhysicalLayer	F	T	F	0	T	min	F	T	F
Interface changed to trunk	dtp 5 port trunk syslog	N	IPhysicalLayer	F	F	F	0	F	clr	F	T	F

line down syslog

Table 12-17 Event Subtypes: line down syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Line down syslog	line down syslog	port-status	IIPInterface	F	T	F	0	T	maj	F	T	T
Line up syslog	line up syslog	port-status	IIPInterface	F	F	F	0	F	clr	F	T	T

ipx 3 bad igrp sap syslog

Table 12-18 Event Subtypes: ipx 3 bad igrp sap syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Cannot send incremental SAP update to peer	ipx 3 bad igrp sap syslog	N	IPhysicalLayer	F	T	F	0	T	min	F	F	F

lance 5 coll syslog

Table 12-19 Event Subtypes: lance 5 coll syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
An Ethernet cable is broken or unterminated	lance 5 coll syslog	N	IManagedElement	F	T	F	0	T	info	F	T	F

lance 5 late coll syslog

Table 12-20 Event Subtypes: lance 5 late coll syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
An Ethernet transceiver is unplugged or defective	lance 5 late coll syslog	N	IManagedElement	F	T	F	0	T	min	F	T	F

sys 5 config i syslog

Table 12-21 Event Subtypes: sys 5 config i syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Device configuration changed	sys 5 config i syslog	N	IManagedElement	F	F	F	0	T	info	F	T	F

at 6 node wrong syslog

Table 12-22 Event Subtypes: at 6 node wrong syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
AppleTalk invalid network number	at 6 node wrong syslog	N	IManagedElement	F	T	F	0	T	min	F	T	F

security 1 port shut down syslog

Table 12-23 Event Subtypes: security 1 port shut down syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
security port shut down	security 1 port shut down syslog	N	IPhysicalLayer	F	T	F	0	T	min	F	T	F

span tree 2 rx port fast syslog

Table 12-24 Event Subtypes: span tree 2 rx port fast syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
BPDU spanning-tree portfast enabled	span tree 2 rx port fast syslog	N	IPhysicalLayer	F	T	F	0	T	min	F	T	F

Udld 3 disable syslog

Table 12-25 Event Subtypes: Udld 3 disable syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Fault has been detected in a fiber Ethernet port connection	udld 3 disable syslog	N	IPhysicalLayer	F	T	F	0	T	min	F	T	F

udld 3 disable fail syslog

Table 12-26 Event Subtypes: udld 3 disable fail syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Unidirectional link detected	udld 3 disable fail syslog	N	IPhysicalLayer	F	T	F	0	T	min	F	T	F

udld 4 one way path syslog

Table 12-27 Event Subtypes: udld 4 one way path syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Fault has been detected in a fiber Ethernet connection	udld 4 one way path syslog	N	IPhysicalLayer	F	T	F	0	T	min	F	T	F

ospf neighbor syslog

Table 12-28 Event Subtypes: ospf neighbor syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
OSPF neighbor down syslog	ospf neighbor down syslog	N	IIPInterface	T	T	F	0	F	maj	F	T	F
OSPF neighbor up syslog	ospf neighbor up syslog	N	IIPInterface	F	F	F	0	F	clr	F	T	F

span tree 2 loop guard block syslog

Table 12-29 Event Subtypes: span tree 2 loop guard block syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
No BPDUs were received on port	span tree 2 loop guard block syslog	N	IPhysicalLayer	F	T	F	0	T	min	F	T	F
BPDUs were received on port	span tree 2 loop guard un block syslog	N	IPhysicalLayer	F	T	F	0	T	min	F	T	F

amdp2 fe 5 coll syslog

Table 12-30 Event Subtypes: amdp2 fe 5 coll syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Ethernet is seeing multiple collisions	amdp2 fe 5 coll syslog	N	IPhysicalLayer	F	T	F	0	T	info	F	T	F

dec 21140-5 coll syslog

Table 12-31 Event Subtypes: dec 21140-5 coll syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Fast Ethernet packet has been dropped	dec 21140-5 coll syslog	N	IManagedElement	F	T	F	0	T	min	F	T	F

ilacc 5 coll syslog

Table 12-32 Event Subtypes: ilacc 5 coll syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
An Ethernet cable is broken	ilacc 5 coll syslog	N	IManagedElement	F	T	F	0	T	min	F	T	F

pquicc 5 coll syslog

Table 12-33 Event Subtypes: pquicc 5 coll syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
pquicc 5 coll syslog: An Ethernet cable is broken	pquicc 5 coll syslog	N	IManagedElement	F	T	F	0	T	min	F	T	F

pquicc ether 5 coll syslog

Table 12-34 Event Subtypes: pquicc ether 5 coll syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
pquicc ether 5 coll syslog: An Ethernet cable is broken	pquicc ether 5 coll syslog	N	IManagedElement	F	T	F	0	T	min	F	T	F

pquicc fe 5 coll syslog

Table 12-35 Event Subtypes: pquicc fe 5 coll syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Ethernet is detecting multiple collisions	pquicc fe 5 coll syslog	N	IPhysicalLayer	F	T	F	0	T	min	F	T	F

quicc ether 5 coll syslog

Table 12-36 Event Subtypes: quicc ether 5 coll syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
quicc ether 5 coll syslog: An Ethernet cable is broken	quicc ether 5 coll syslog	N	IManagedElement	F	T	F	0	T	min	F	T	F

amdp2 fe 5 latecoll syslog

Table 12-37 Event Subtypes: amdp2 fe 5 latecoll syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Late collisions have occurred on the Ethernet or Fast Ethernet interface	amdp2 fe 5 latecoll syslog	N	IPhysicalLayer	F	T	F	0	T	min	F	T	F

is is neighbor down syslog

Table 12-38 Event Subtypes: is is neighbor down syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
IS-IS neighbor down syslog	is is neighbor down syslog	N	IPhysicalLayer	F	T	F	0	F	maj	F	T	F
IS-IS neighbor up syslog	is is neighbor up syslog	N	IPhysicalLayer	F	F	F	0	F	clr	F	T	F

dec 21140-5 late coll syslog

Table 12-39 Event Subtypes: dec 21140-5 late coll syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Late collisions have occurred	dec 21140-5 late coll syslog	N	IPhysicalLayer	F	T	F	0	T	min	F	T	F

ilacc 5 late coll syslog

Table 12-40 Event Subtypes: ilacc 5 late coll syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
ilacc 5 late coll syslog: Late collisions have occurred	ilacc 5 late coll syslog	N	IManagedElement	F	T	F	0	T	min	F	T	F

pquicc 5 late coll syslog

Table 12-41 Event Subtypes: pquicc 5 late coll syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
pquicc 5 late coll syslog: Late collisions have occurred	pquicc 5 late coll syslog	N	IManagedElement	F	T	F	0	T	min	F	T	F

pquicc ether 5 late coll syslog

Table 12-42 Event Subtypes: pquicc ether 5 late coll syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
A new network may not have been engineered properly	pquicc ether 5 late coll syslog	N	IManagedElement	F	T	F	0	T	min	F	T	F

pquicc fe 5 late coll syslog

Table 12-43 Event Subtypes: pquicc fe 5 late coll syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
pquicc fe 5 late coll syslog: Late collisions have occurred	pquicc fe 5 late coll syslog	N	IPhysicalLayer	F	T	F	0	T	min	F	T	F

quicc ether 5 late coll syslog

Table 12-44 Event Subtypes: quicc ether 5 late coll syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
quicc ether 5 late coll syslog: Late collisions have occurred	quicc ether 5 late coll syslog	N	IManagedElement	F	T	F	0	T	min	F	T	F

snmp 5 link trap syslog

Table 12-45 Event Subtypes: snmp 5 link trap syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Link trap down has occurred	snmp 5 link trap down syslog	N	IPhysicalLayer	F	T	F	0	T	min	F	T	F
Link trap up has occurred	snmp 5 link trap up syslog	N	IPhysicalLayer	F	F	F	0	F	clr	F	T	F

snmp 5 top trap syslog

Table 12-46 Event Subtypes: snmp 5 top trap syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
configured port changed state from learning to forwarding	snmp 5 top trap syslog	N	IManagedElement	F	T	F	0	T	min	F	T	F

dual5 neighbor change

Table 12-47 Event Subtypes: dual5 neighbor change

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
DUAL 5 neighbor down syslog	dual5 neighbor down	N	IPhysicalLayer	T	T	F	0	F	maj	F	T	F
DUAL 5 neighbor up syslog	dual5 neighbor up	N	IPhysicalLayer	F	F	F	0	F	clr	F	T	F

link down syslog

Table 12-48 Event Subtypes: link down syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Link down syslog	link down syslog	ip interface oper status	IIPInterface	F	T	F	0	T	maj	F	T	T
Link up syslog	link up syslog	ip interface oper status	IIPInterface	F	F	F	0	F	clr	F	T	T

bgp neighbor down syslog

Table 12-49 Event Subtypes: bgp neighbor down syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
BGP neighbor down syslog	bgp neighbor down syslog	bgp neighbours	IMpBgpOid	T	T	F	0	T	maj	F	T	F
BGP neighbor up syslog	bgp neighbor up syslog	bgp neighbours	IMpBgpOid	F	F	F	0	F	clr	F	T	F
BGP neighbor down syslog	bgp neighbor down syslog	bgp neighbours	IMpBgpOid	T	T	F	0	T	maj	F	T	F
BGP neighbor up syslog	bgp neighbor up syslog	bgp neighbours	IMpBgpOid	F	F	F	0	F	clr	F	T	F

card out syslog

Table 12-50 Event Subtypes: card out syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
card in syslog	card in syslog	physical-command	IModule	F	F	F	0	F	clr	F	T	T
card out syslog	card out syslog	physical-command	IModule	F	T	F	0	T	maj	F	T	T

oir sp 3 power cycle

Table 12-51 Event Subtypes: oir sp 3 power cycle

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
oir sp 3 power cycle syslog	oir sp 3 power cycle	N	IModule	F	F	F	0	T	info	F	T	F

reloading device syslog

Table 12-52 Event Subtypes: reloading device syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Reloading device syslog	reloading device syslog	N	IManagedElement	F	F	T	0	F	info	T	T	T

system restart syslog

Table 12-53 Event Subtypes: system restart syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
System restart	system restart syslog	physical-command	IManagedElement	F	T	F	0	T	info	F	T	T

dtp 5 non port trunk syslog

Table 12-54 Event Subtypes: dtp 5 non port trunk syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Interface changed to non trunk	dtp 5 non port trunk syslog	N	IPhysicalLayer	F	T	F	0	T	min	F	T	F
Interface changed to trunk	dtp 5 port trunk syslog	N	IPhysicalLayer	F	F	F	0	F	clr	F	T	F

isdn 6 connect syslog

Table 12-55 Event Subtypes: isdn 6 connect syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
ISDN connect syslog	isdn 6 connect syslog	N	IPhysicalLayer	F	T	F	0	T	maj	F	T	F
ISDN disconnect syslog	isdn 6 disconnect syslog	N	IPhysicalLayer	F	F	F	0	F	clr	F	T	F
ISDN connect syslog	isdn 6 connect syslog	N	IPhysicalLayer	F	T	F	0	T	maj	F	T	F
ISDN disconnect syslog	isdn 6 disconnect syslog	N	IPhysicalLayer	F	F	F	0	F	clr	F	T	F

duplex mismatch

Table 12-56 Event Subtypes: duplex mismatch

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Duplex mismatch discovered	duplex mismatch	N	IPhysicalLayer	F	T	F	0	T	info	F	T	F

isdn 6 connect syslog

Table 12-57 Event Subtypes: isdn 6 connect syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
ISDN connect syslog	isdn 6 connect syslog	N	IPhysicalLayer	F	T	F	0	T	maj	F	T	F
ISDN disconnect syslog	isdn 6 disconnect syslog	N	IPhysicalLayer	F	F	F	0	F	clr	F	T	F
ISDN connect syslog	isdn 6 connect syslog	N	IPhysicalLayer	F	T	F	0	T	maj	F	T	F
ISDN disconnect syslog	isdn 6 disconnect syslog	N	IPhysicalLayer	F	F	F	0	F	clr	F	T	F

tdp neighbor down syslog

Table 12-58 Event Subtypes: tdp neighbor down syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
TDP neighbor down syslog	tdp neighbor down syslog	label switching table	ILseOid	F	T	F	0	T	maj	F	T	F
TDP neighbor up syslog	tdp neighbor up syslog	label switching table	ILseOid	F	F	F	0	F	clr	F	T	F

ldp neighbor down syslog

Table 12-59 Event Subtypes: ldp neighbor down syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
LDP neighbor down syslog	ldp neighbor down syslog	mpls interfaces	ILseOid	F	T	F	0	T	maj	F	T	F
LDP neighbor up syslog	ldp neighbor up syslog	mpls interfaces	ILseOid	F	F	F	0	F	clr	F	T	F

mpls te tunnel reoptimized syslog

Table 12-60 Event Subtypes: mpls te tunnel reoptimized syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
MPSL-TE tunnel reoptimized/rerouted syslog	mpls te tunnel reoptimized syslog	N	IMplsTETunnel	T	T	F	0	T	info	F	T	F

mpls te tunnel down syslog

Table 12-61 Event Subtypes: mpls te tunnel down syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
MPLS-TE tunnel down syslog	mpls te tunnel down syslog	mpls traffic engineering tunnel information	IMplsTETunnel	F	T	F	0	T	maj	F	T	F
MPLS-TE tunnel up syslog	mpls te tunnel up syslog	mpls traffic engineering tunnel information	IMplsTETunnel	F	F	F	0	F	clr	F	T	F
MPLS-TE tunnel down syslog	mpls te tunnel down syslog	mpls traffic engineering tunnel information	IMplsTETunnel	F	T	F	0	T	maj	F	T	F
MPLS-TE tunnel up syslog	mpls te tunnel up syslog	mpls traffic engineering tunnel information	IMplsTETunnel	F	F	F	0	F	clr	F	T	F

environment monitoring 2 supply syslog

Table 12-62 Event Subtypes: environment monitoring 2 supply syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
A power supply is not working or has not been turned on	environment monitoring 2 supply	N	IManagedElement	F	T	F	0	T	info	F	T	F

system sp restart syslog

Table 12-63 Event Subtypes: system sp restart syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
System restart	system sp restart syslog	N	IManagedElement	F	T	F	0	T	info	F	T	F

udld sp 4 disable syslog

Table 12-64 Event Subtypes: udld sp 4 disable syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Aggressive Mode Failure Detected	udld sp 4 disable syslog	N	IPhysicalLayer	F	T	F	0	T	info	F	T	F

fabric sp 5 clear block off syslog

Table 12-65 Event Subtypes: fabric sp 5 clear block off syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
fabric sp 5 clear block down syslog	fabric sp 5 clear block off syslog	N	IPhysicalLayer	F	T	F	0	T	info	F	T	F
fabric sp 5 clear block up syslog	fabric sp 5 clear block on syslog	N	IPhysicalLayer	F	F	F	0	T	info	F	T	F

c6kenv sp 4 fan tray fail

Table 12-66 Event Subtypes: c6kenv sp 4 fan tray fail

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
c6kenv sp 4 fan tray fail syslog	c6kenv sp 4 fan tray fail	N	IManagedElement	F	F	F	0	T	info	F	T	F

pfredun sp 4 bootstring invalid

Table 12-67 Event Subtypes: pfredun sp 4 bootstring invalid

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
pfredun sp 4 bootstring invalid syslog	pfredun sp 4 bootstring invalid	N	IManagedElement	F	F	F	0	T	info	F	T	F

power supply failure syslog

Table 12-68 Event Subtypes: power supply failure syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Power supply failed syslog	power supply failed syslog	N	IPhysicalLayer	F	F	F	0	T	maj	F	T	F
Power supply okay syslog	power supply okay syslog	N	IPhysicalLayer	F	F	F	0	F	clr	F	T	F
Redundant Power System Failed	redundant power system failed syslog	N	IPhysicalLayer	F	F	F	0	T	min	F	T	F

pm sp stdby 4 err disable

Table 12-69 Event Subtypes: pm sp stdby 4 err disable

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
pm sp stdby 4 err disable syslog	pm sp stdby 4 err disable	N	IPhysicalLayer	F	F	F	0	T	info	F	T	F

Hsrp syslog

Table 12-70 Event Subtypes: Hsrp syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
HSRP group change syslog	hsrp group change syslog	hsrp	IPhysicalLayer	F	T	F	0	T	info	F	T	F
HSRP group restored syslog	hsrp group restored syslog	hsrp	IPhysicalLayer	F	F	F	0	F	clr	F	T	F

bgp notification syslog

Table 12-71 Event Subtypes: bgp notification syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
BGP notification syslog	bgp notification syslog	N	IPhysicalLayer	T	T	F	0	T	info	F	T	T

bgp notification syslog

Table 12-72 Event Subtypes: bgp notification syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
new ethernet channel interface for VSL connection	VSL connection new interface	N	IManagedElement	F	T	F	0	T	info	T	T	F

VSL link state change syslog

Table 12-73 Event Subtypes: VSL link state change syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
VSL link up syslog	VSL link up syslog	N	IManagedElement	F	T	F	0	T	info	T	T	F
VSL link down syslog	VSL link down syslog	N	IManagedElement	F	T	F	0	T	info	T	T	F
VSL link up syslog: active switch is #1	VSL link up and switch #1 is active	N	IShelf	F	T	F	0	T	info	T	T	F
VSL link up syslog: active switch is #2	VSL link up and switch #2 is active	N	IShelf	F	T	F	0	T	info	T	T	F

VSL role mismatch resolved syslog

Table 12-74 Event Subtypes: VSL role mismatch resolved syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
role mismatch resolved syslog, sent from active switch #1	VSL role mismatch resolved sent from active switch #1	N	IShelf	F	T	F	0	T	info	T	T	F
role mismatch resolved syslog, sent from active switch #2	VSL role mismatch resolved sent from active switch #2	N	IShelf	F	T	F	0	T	info	T	T	F

env sp 4 fan tray failed syslog

Table 12-75 Event Subtypes: env sp 4 fan tray failed syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
env sp 4 fan tray fail syslog	env sp 4 fan tray fail	N	IManagedElement	F	F	F	0	T	info	F	T	F

pwr sp 2 power supply fail

Table 12-76 Event Subtypes: pwr sp 2 power supply fail

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
pwr sp 2 power supply fail syslog	pwr sp 2 power supply fail	N	IManagedElement	F	F	F	0	T	info	F	T	F

bgp neighbor down syslog

Table 12-77 Event Subtypes: bgp neighbor down syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
BGP neighbor down syslog	bgp neighbor down syslog	bgp neighbours, BFD	IMpBgpOid	T	T	F	0	T	maj	F	T	F
BGP neighbor up syslog	bgp neighbor up syslog	bgp neighbours, BFD	IMpBgpOid	F	F	F	0	F	clr	F	T	F

vrrp state changed syslog

Table 12-78 Event Subtypes: vrrp state changed syslog

Short Description	Event Subtype	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
VRRP State Changed syslog	vrrp state changed syslog	N	IManagedElement	F	F	F	0	T	info	T	T	F

link down syslog

Table 12-79 Event Subtypes: link down syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Link down syslog	link down syslog	down / Down	ip interface oper status	IIPInterface	F	T	F	0	T	maj	F	T	T
Link up syslog	link up syslog	up / Up	ip interface oper status	IIPInterface	F	F	F	0	F	clr	F	T	T
Link down syslog	link down syslog	down / Down	ip interface oper status	IIPInterface	F	T	F	0	T	maj	F	T	T
Link up syslog	link up syslog	up / Up	ip interface oper status	IIPInterface	F	F	F	0	F	clr	F	T	T

line down syslog

Table 12-80 Event Subtypes: line down syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Line down syslog	line down syslog	down / Down	port-status	IPortLayer1	F	T	F	0	T	maj	F	T	T
Line up syslog	line up syslog	up / Up	port-status	IPortLayer1	F	F	F	0	F	clr	F	T	T

ospf neighbor syslog

Table 12-81 Event Subtypes: ospf neighbor syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
OSPF neighbor down syslog	ospf neighbor down syslog	Down	N	IIPInterface	T	T	F	0	F	maj	F	T	F
OSPF neighbor up syslog	ospf neighbor up syslog	Up / LOADING to FULL	N	IIPInterface	F	F	F	0	F	clr	F	T	F

envmon powersupply syslog

Table 12-82 Event Subtypes: envmon powersupply syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
envmon powersupply syslog	envmon powersupply syslog	N/A	N	IManagedElement	F	T	T	0	T	maj	F	T	F

envmon condition syslog

Table 12-83 Event Subtypes: envmon condition syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
envmon condition syslog	envmon condition syslog	ENV_CONDITION	N	IManagedElement	F	T	T	0	T	maj	F	T	F
envmon condition clear syslog	envmon condition clear syslog	ENV_CONDITION_CLEAR	N	IManagedElement	F	F	F	0	F	clr	F	T	F

envmon fan syslog

Table 12-84 Event Subtypes: envmon fan syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
envmon fan syslog	envmon fan syslog	FAN	N	IManagedElement	F	T	T	0	T	maj	F	T	F
envmon fan clear syslog	envmon fan clear syslog	FAN_CLEAR	N	IManagedElement	F	F	F	0	F	clr	F	T	F
envmon fan syslog	envmon fan syslog	N/A	N	IManagedElement	F	T	T	0	T	maj	F	T	F

envmon temperature syslog

Table 12-85 Event Subtypes: envmon temperature syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
envmon tempretaure syslog	envmon temperature syslog	OVERTEMP	N	IManaged Element	F	T	T	0	T	maj	F	T	F
envmon tempretaure clear syslog	envmon temperature clear syslog	OVERTEMP_CLEAR	N	IManaged Element	F	F	F	0	F	clr	F	T	F

card out syslog

Table 12-86 Event Subtypes: card out syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
card out syslog	card out syslog	REMOVE	physical-command	IManagedElement	F	T	F	0	T	maj	F	T	T
card in syslog	card in syslog	INSERT	physical-command	IManagedElement	F	F	F	0	F	clr	F	T	T

envmon powersupply syslog

Table 12-87 Event Subtypes: envmon powersupply syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
envmon powersupply syslog	envmon powersupply syslog	POWERSUPPLY_CURRENT	N	IManaged Element	F	T	T	0	T	maj	F	T	F
envmon powersupply clear syslog	envmon powersupply clear syslog	POWERSUPPLY_CURRENT_CLEAR	N	IManaged Element	F	F	F	0	F	clr	F	T	F
envmon powersupply syslog	envmon powersupply syslog	POWERSUPPLY_NONOP	N	IManaged Element	F	T	T	0	T	maj	F	T	F
envmon powersupply clear syslog	envmon powersupply clear syslog	POWERSUPPLY_NONOP_CLEAR	N	IManaged Element	F	F	F	0	F	clr	F	T	F
envmon powersupply syslog	envmon powersupply syslog	POWERSUPPLY_VOLTAGE	N	IManaged Element	F	T	T	0	T	maj	F	T	F
envmon powersupply clear syslog	envmon powersupply clear syslog	POWERSUPPLY_VOLTAGE_CLEAR	N	IManaged Element	F	F	F	0	F	clr	F	T	F

envmon temperature syslog

Table 12-88 Event Subtypes: envmon temperature syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
envmon tempretaure syslog	envmon temperature syslog	TEMP	N	IManaged Element	F	T	T	0	T	maj	F	T	F
envmon tempretaure clear syslog	envmon temperature clear syslog	TEMP_CLEAR	N	IManaged Element	F	F	F	0	F	clr	F	T	F

envmon powersupply syslog

Table 12-89 Event Subtypes: envmon powersupply syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
envmon powersupply syslog	envmon powersupply syslog	VOLTAGE	N	IManagedElement	F	T	T	0	T	maj	F	T	F
envmon powersupply clear syslog	envmon powersupply clear syslog	VOLTAGE_CLEAR-	N	IManagedElement	F	F	F	0	F	clr	F	T	F

fabric hardware syslog

Table 12-90 Event Subtypes: fabric hardware syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
fabric hardware syslog	fabric hardware syslog	FIAHW_LOS	N	IManaged Element	F	T	T	0	T	maj	F	T	F
fabric hardware clear syslog	fabric hardware clear syslog	FIAHW_LOS_CLEAR	N	IManaged Element	F	F	F	0	F	clr	F	T	F

flash card removed syslog

Table 12-91 Event Subtypes: flash card removed syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
flash card removed syslog	flash card removed syslog	UNAVAILABLE	N	IManaged Element	F	T	T	0	F	maj	F	T	F
flash card inserted syslog	flash card inserted syslog	SWAPPED	N	Missing in Prospectus	F	F	F	0	F	clr	F	T	F

memory allocation syslog

Table 12-92 Event Subtypes: memory allocation syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Memory allocation is not available	memory allocation syslog	N/A	N	IManagedElement	F	T	F	0	T	min	F	T	F

reset module syslog

Table 12-93 Event Subtypes: reset module syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Module reset syslog	reset module syslog	N/A	N	IManagedElement	F	T	T	0	F	info	T	T	T

card down syslog

Table 12-94 Event Subtypes: card down syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Card oper status changed	card down syslog	UNPOWERED / DOWN / BRINGDOWN / NOT / DISABLED	card status	IModule	F	T	F	0	T	min	F	T	T
Card oper status changed	card up syslog	IOS XR RUN / OK	card status	IModule	F	F	F	0	F	clr	F	T	T

card out syslog

Table 12-95 Event Subtypes: card out syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
card out syslog	card out syslog	OIROUT	physical-command	IModule	F	T	F	0	T	maj	T	T	T
card in syslog	card in syslog	OIRIN	N	IModule	F	F	F	0	F	clr	F	T	T
card out syslog	card out syslog	OIROUT	physical-command	IModule	F	T	F	0	T	maj	T	T	T
card in syslog	card in syslog	OIRIN	N	IModule	F	F	F	0	F	clr	F	T	T

pim neighbor loss syslog

Table 12-96 Event Subtypes: pim neighbor loss syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
pim neighbor loss syslog	pim neighbor loss syslog	DOWN	N	IIPInterface	F	T	F	0	F	maj	F	T	F
pim neighbor up syslog	pim neighbor up syslog	UP	N	IIPInterface	F	F	F	0	F	clr	F	T	F

pim interface down syslog

Table 12-97 Event Subtypes: pim interface down syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
pim interface down syslog	pim interface down syslog	DOWN	N	IManagedElement	F	T	F	0	T	maj	F	T	F
pim interface up syslog	pim interface up syslog	UP	N	IManagedElement	F	F	F	0	F	clr	F	T	F

pim invalid join syslog

Table 12-98 Event Subtypes: pim invalid join syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
pim invalid join syslog	pim invalid join syslog	N/A	N	IManagedElement	F	T	F	0	T	min	F	T	F

card down syslog

Table 12-99 Event Subtypes: card down syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Card oper status changed	card down syslog	off	N	IManagedElement	F	T	F	0	T	min	F	T	T
Card oper status changed	card up syslog	on	N	IManagedElement	F	F	F	0	F	clr	F	T	T

line down syslog

Table 12-100 Event Subtypes: line down syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Line down syslog	line down syslog	N/A	N	IPortLayer1	F	T	F	0	T	maj	F	T	T
Line up syslog	line up syslog	cleared	N	IPortLayer1	F	F	F	0	F	clr	F	T	T

card out syslog

Table 12-101 Event Subtypes: card out syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
card out syslog	card out syslog	REMOVED	physical-command	IModule	F	T	F	0	T	maj	T	T	T
card in syslog	card in syslog	INSERTED	N	IModule	F	F	F	0	F	clr	F	T	T

ldp neighbor down syslog

Table 12-102 Event Subtypes: ldp neighbor down syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
LDP neighbor down syslog	ldp neighbor down syslog	DOWN	mpls interfaceslabel switching table mpls-ldp-peers	IProfileContainer (LSE)	F	T	F	0	T	maj	F	T	F
LDP neighbor up syslog	ldp neighbor up syslog	UP	mpls interfaceslabel switching tablempls-ldp-peers	IProfileContainer (LSE)	F	F	F	0	F	clr	F	T	F

bgp neighbor down syslog

Table 12-103 Event Subtypes: bgp neighbor down syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
BGP neighbor down syslog	bgp neighbor down syslog	down / Down	bgp neighbours	IBgpNeighbour Entry	F	T	F	0	T	maj	F	T	F
BGP neighbor up syslog	bgp neighbor up syslog	up / Up	bgp neighbours	IBgpNeighbour Entry	F	F	F	0	F	clr	F	T	F

Login authentication failed syslog

Table 12-104 Event Subtypes: Login authentication failed syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Login authentication failed syslog	login authentication failed syslog	N/A	N	IManagedElement	F	F	F	0	F	min	T	T	F

if table in sync syslog

Table 12-105 Event Subtypes: if table in sync syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
If-Table in sync syslog	if table in sync syslog	N/A	physical-command	IModule	F	T	F	0	T	info	F	T	F

bfd session down syslog

Table 12-106 Event Subtypes: bfd session down syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
BFD neighbor down syslog	bfd session down syslog	down	bfd session	IBfdService	F	T	F	0	T	maj	F	T	F
BFD neighbor removed syslog	bfd session removed syslog	removed	bfd session	IBfdService	F	T	F	0	T	maj	F	T	F
BFD neighbor up syslog	bfd session up syslog	up	bfd session	IBfdService	F	T	F	0	T	clr	F	T	F

layer 2 G709 alarm syslog

Table 12-107 Event Subtypes: layer2 G709 alarm syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Layer2 G709 alarm syslog	layer2 G709 alarm syslog	N/A	N	IManagedElement	F	T	F	0	T	wrn	F	T	F
Layer2 G709 clear syslog	layer2 G709 clear syslog	cleared	N	IManagedElement	F	F	F	0	F	clr	F	T	F

layer2 dwdm info syslog

Table 12-108 Event Subtypes: layer2 dwdm info syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Layer2 dwdm info syslog	layer2 dwdm info syslog	N/A	N	IManagedElement	F	T	F	0	T	min	F	T	F

layer1 PM TCA syslog

Table 12-109 Event Subtypes: layer1 PM TCA syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Layer1 PM TCA syslog	layer1 PM TCA syslog	N/A	N	IManagedElement	F	T	F	0	T	wrn	F	T	F

layer2 SPA failure syslog

Table 12-110 Event Subtypes: layer2 SPA failure syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Layer2 SPA failure syslog	layer2 SPA failure syslog	N/A	N	IManagedElement	F	T	F	0	T	min	F	T	F

ospf routing neighbor syslog

Table 12-111 Event Subtypes: ospf routing neighbor syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
OSPF routing neighbor down syslog	ospf routing neighbor down syslog	Down/DOWN	N	IManaged Element	F	T	F	0	F	maj	T	T	F
OSPF routing neighbor up syslog	ospf routing neighbor up syslog	Up / LOADING to FULL	N	IManaged Element	F	F	F	0	F	clr	F	T	F
OSPFv3 neighbor down syslog	ospfv3 neighbor down syslog	Down/DOWN	N	IManaged Element	T	T	F	0	F	maj	T	T	F
OSPFv3 neighbor up syslog	ospfv3 neighbor up syslog	Up / LOADING to FULL	N	IManaged Element	F	F	F	0	F	clr	F	T	F

ipv6 ospfv3 routing neighbor down syslog

Table 12-112 Event Subtypes: ipv6 ospfv3 routing neighbor down syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
IPv6 OSPFv3 routing neighbor down syslog	ipv6 ospfv3 routing neighbor down syslog	Down/DOWN	N	IManaged Element	F	T	F	0	F	maj	T	T	F
IPv6 OSPFv3 routing neighbor up syslog	ipv6 ospfv3 routing neighbor up syslog	Up / LOADING to FULL	N	IManaged Element	F	F	F	0	F	clr	F	T	F
IPv6 BGP neighbor down syslog	ipv6 bgp neighbor down syslog	down / Down	N	IManaged Element	F	T	F	0	T	maj	F	T	F
IPv6 BGP neighbor up syslog	ipv6 bgp neighbor up syslog	up / Up	N	IManaged Element	F	F	F	0	F	clr	F	T	F
IPv6 Routing BGP neighbor down syslog	ipv6 routing bgp neighbor down syslog	down / Down	N	IManaged Element	F	T	F	0	T	maj	F	T	F
IPv6 Routing BGP neighbor up syslog	ipv6 routing bgp neighbor up syslog	up / Up	N	IManaged Element	F	F	F	0	F	clr	F	T	F

bfd rate limit high warning syslog

Table 12-113 Event Subtypes: bfd rate limit high warning syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
BFD rate limit high warning syslog	bfd rate limit high warning syslog	N/A	N	IBfdService	F	F	F	0	T	wrn	F	T	F

rip authentication failed syslog

Table 12-114 Event Subtypes: rip authentication failed syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
RIP authentication failed syslog	rip authentication failed syslog	N/A	N	IIPInterface	F	F	F	0	T	min	F	T	F

rip configuration error syslog

Table 12-115 Event Subtypes: rip configuration error syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
RIP configuration error syslog	rip configuration error syslog	N/A	N	IManagedElement	F	F	F	0	T	min	F	T	F

rip out of memory event syslog

Table 12-116 Event Subtypes: rip out of memory event syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
RIP out of memory event syslog	rip out of memory event syslog	N/A	N	IManagedElement	F	F	F	0	T	info	F	T	F

Ima Link Status Change Down Syslog

Table 12-117 Event Subtypes: Ima Link Status Change Down Syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Ima Link Status Change Down Syslog	Ima Link Status Change Down Syslog			IPhysicalLayer	F	T	F	0	F	maj	T	T	T
Ima Link Status Change Up Syslog	Ima Link Status Change Up Syslog			IPhysicalLayer	F	F	F	0	F	clr	F	T	T

IMA Active Link Change Syslog

Table 12-118 Event Subtypes: IMA Active Link Change Syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
IMA Active Link Change Syslog	IMA Active Link Change Syslog		mtop-ima-group-state ,port-status	IMAGroup Oid	F	F	F	0	F	info	F	T	F

native VLAN mismatch

Table 12-119 Event Subtypes: native VLAN mismatch

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Native VLAN mismatch discovered	native VLAN mismatch		N	IPhysicalLayer	F	T	F	0	F	info	F	T	F

clock status change syslog

Table 12-120 Event Subtypes: clock status change syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Clock status change syslog	clock status change syslog		N	defaultClockDC	F	T	F	0	F	info	F	T	F

clock source change syslog

Table 12-121 Event Subtypes: clock source change syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Clock source change syslog	clock source change syslog		N	defaultClockDC	F	T	F	0	F	info	F	T	F

pseudo wire tunnel syslog

Table 12-122 Event Subtypes: pseudo wire tunnel syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
pseudo wire tunnel down syslog	pseudo wire tunnel down syslog		ce-pw-tunnel-status-telnet	PTPLayer2Mpls Tunnel	F	T	F	0	F	min	T	T	T
pseudo wire tunnel up syslog	pseudo wire tunnel up syslog		ce-pw-tunnel-status-telnet	PTPLayer2Mpls Tunnel	F	F	F	0	F	clr	T	T	T

efp service error disabled syslog

Table 12-123 Event Subtypes: efp service error disabled syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
EFP service error disabled syslog	efp service error disabled syslog		EFP status	IEFP	F	T	F	0	F	info	F	T	F

efp down syslog

Table 12-124 Event Subtypes: efp down syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
EFP down syslog	efp down syslog		EFP status	IEFP	F	T	F	0	T	maj	F	T	F
EFP up syslog	efp up syslog		EFP status	IEFP	F	T	F	0	F	clr	F	T	F

clock status change syslog

Table 12-125 Event Subtypes: clock status change syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
Clock status change syslog	clock status change syslog		N	defaultClockDC	F	T	F	0	T	info	F	T	F
Clock source change syslog	clock source change syslog		N	defaultClockDC	F	T	F	0	T	info	F	T	F

pseudo wire tunnel syslog

Table 12-126 Event Subtypes: pseudo wire tunnel syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
pseudo wire tunnel down syslog	pseudo wire tunnel down syslog		ce-pw-tunnel-status-telnet	PTPLayer2MplsTunnel	F	T	F	0	F	min	T	T	T
pseudo wire tunnel up syslog	pseudo wire tunnel up syslog		ce-pw-tunnel-status-telnet	PTPLayer2MplsTunnel	F	F	F	0	F	clr	T	T	T

efp service error disabled syslog

Table 12-127 Event Subtypes: efp service error disabled syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
EFP service error disabled syslog	efp service error disabled syslog		EFP status	IEFP	F	T	F	0	F	info	F	T	F

Dwdm not implemented syslog

Table 12-128 Event Subtypes: Dwdm not implemented syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
DWDM feature not implemented yet	Dwdm not implemented syslog		N	IManagedElement	F	F	F	0	T	wrn	F	T	F

DWDM fatal error 2 syslog

Table 12-129 Event Subtypes: DWDM fatal error 2 syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
DWDM fatal error with reason and error number	DWDM fatal error 2 syslog		N	IManagedElement	F	F	F	0	T	maj	F	T	F

DWDM fatal error syslog

Table 12-130 Event Subtypes: DWDM fatal error syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
DWDM fatal error with reason	DWDM fatal error syslog		N	IManagedElement	F	F	F	0	T	maj	F	T	F

PLIM EIO training errors syslog

Table 12-131 Event Subtypes: PLIM EIO training errors syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
PLIM EIO training errors syslog	PLIM EIO training errors syslog		N	IManagedElement	F	F	F	0	T	maj	F	T	F

DWDM fatal error 2 syslog

Table 12-132 Event Subtypes: DWDM fatal error 2 syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
DWDM fatal error with reason and error number	DWDM fatal error 2 syslog		N	IManagedElement	F	F	F	0	T	maj	F	T	F

PLIM check point failure syslog

Table 12-133 Event Subtypes: PLIM check point failure syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
PLIM Checkpoint Initialization Failure syslog	PLIM check point failure syslog		N	IManagedElement	F	F	F	0	T	min	F	T	F

PLIM asic error syslog

Table 12-134 Event Subtypes: PLIM asic error syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
PLIM ASIC error syslog	PLIM asic error syslog		N	IManagedElement	F	F	F	0	T	min	F	T	F

PLIM memory error syslog

Table 12-135 Event Subtypes: PLIM memory error syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
PLIM memory error syslog	PLIM memory error syslog		N	IManagedElement	F	F	F	0	T	maj	F	T	F

PLIM squid error syslog

Table 12-136 Event Subtypes: PLIM squid error syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
PLIM squid error syslog	PLIM squid error syslog		N	IManagedElement	F	F	F	0	T	min	F	T	F

PLIm 7b error syslog

Table 12-137 Event Subtypes: PLIm 7b error syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
PLIM 7 error syslog	PLIm 7b error syslog		N	IManagedElement	F	F	F	0	T	min	F	T	F

PLIM OC768 critical error syslog

Table 12-138 Event Subtypes: PLIM OC768 critical error syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
PLIM OC768 critical error syslog	PLIM OC768 critical error syslog		N	IManagedElement	F	F	F	0	T	maj	F	T	F

PLIM OC768 INFO syslog

Table 12-139 Event Subtypes: PLIM OC768 INFO syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
PLIM OC768 INFO syslog	PLIM OC768 INFO syslog		N	IManagedElement	F	F	F	0	T	info	F	T	F

PLIM OC768 debug syslog

Table 12-140 Event Subtypes: PLIM OC768 debug syslog

Short Description	Event Subtype	Subtype Value	Expedites Polling	Event Source (IMO Name)	Activate Flow	Correlate	Is Correlation Allowed	Weight	Auto Clear	Severity	Is Ticketable	Auto Remove	Flapping
PLIM OC768 debug syslog	PLIM OC768 debug syslog		N	IManagedElement	F	F	F	0	T	info	F	T	F