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

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

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:

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

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:

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

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

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	