



# CHAPTER 8

## Support Information for Juniper Devices

This chapter contains support information for Virtual Network Elements (VNEs) that manage Juniper devices in Cisco ANA 3.6 Service Pack 2, and contains the following topics:

- [Juniper M-Series Multiservice Edge Routers, page 8-1](#)
- [Juniper T-Series Core Platforms, page 8-5](#)
- [Supported Technologies on Juniper Devices, page 8-8](#)



**Note**

For more information about the objects and attributes described in this chapter, see *Cisco Active Network Abstraction Technology Support and Information Model Reference Manual, 3.6 Service Pack 2*.

## Juniper M-Series Multiservice Edge Routers

This section includes the following information about Juniper M-Series devices:

- [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](#)



**Note**

For information about which NE types are supported in Cisco ANA 3.6 Service Pack 2, 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 3.6 Service Pack 2

Version Name	Version	Certification Level
7.4R1.7	3.6.1	S
7.6	3.6.1	S

**Table 8-1** Supported Software Versions for Juniper M-Series—Cisco ANA 3.6 Service Pack 2

Version Name	Version	Certification Level
7.4R1.7	3.6.1	S
7.1 R2.2	3.6.1	S
7.4R3.3	3.6.1	S
8.1R2.4	3.6.1	S
7.4R3.3	3.6.1	S
8.1R2.4	3.6.1	S
7.6	3.6.1	S
7.4R3.3	3.6.1	S
8.1R2.4	3.6.1	S
8.4R1.13	3.6.1	S
8.1R4.3	3.6.1	S
7.4R4.3	3.6.1	S
8.2R3.6	3.6.2	V

**Note**

Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA 3.6 Service Pack 2. 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 3.6 Service Pack 2

Topology Type	Link Type	Version
Ethernet	Ethernet	3.6.1

## Juniper M-Series—Supported Modules

**Table 8-3** Supported Modules for Juniper M-Series—Cisco ANA 3.6 Service Pack 2

Module Name	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	V
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

**Table 8-3 Supported Modules for Juniper M-Series—Cisco ANA 3.6 Service Pack 2 (continued)**

Module Name	Version	Module Description	Certification Level
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 Pannel	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
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 <sup>1</sup>	S
M320MIDPLANE	3.6.1	M320 Midplane <sup>1</sup>	S
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	V
PB-2OC3-ATM2-SMIR	3.6.2	2-PORT OC-3/STM1 ATM SERVICES PIC, SINGLE MODE, IR (WITH DIFF. SERV)	V

**Table 8-3** Supported Modules for Juniper M-Series—Cisco ANA 3.6 Service Pack 2 (continued)

Module Name	Version	Module Description	Certification Level
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)	V
M320-FPC2	3.6.2	Juniper Networks Flexible PIC Concentrator FPC2 - expansion module	V
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)	V
RE-1600-2048-BB	3.6.2		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

1. 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.

**Note**

For detailed information about the specific technologies and attributes supported by this NE, see [Juniper M-Series—Supported Technologies, page 8-4](#).

## Juniper M-Series—Supported Technologies

The following technologies are supported by the Juniper M-Series in Cisco ANA 3.6 Service Pack 2:

- [IP, page 8-9](#)
- [Routing Protocols, page 8-11](#)
- [Ethernet \(IEEE 802.3\), page 8-12](#)
- [ATM, page 8-15](#)
- [Frame Relay, page 8-17](#)
- [Point to Point, page 8-18](#)

- [MPLS, page 8-19](#)
- [VPN, page 8-20](#)
- [Physical Equipment, page 8-21](#)
- [Base Logical Components, page 8-22](#)
- [Common, page 8-23](#)

## Juniper M-Series—Supported Service Events

**Table 8-4** Supported Service Events for Juniper M-Series—Cisco ANA 3.6 Service Pack 2

Event Name	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

## Juniper T-Series Core Platforms

This section includes the following information about Juniper T-Series devices:

- [Juniper T-Series—Supported Software Versions, page 8-6](#)
- [Juniper T-Series—Supported Topologies, page 8-6](#)
- [Juniper T-Series—Supported Modules, page 8-6](#)
- [Juniper T-Series—Supported Technologies, page 8-7](#)
- [Juniper T-Series—Supported Service Events, page 8-8](#)

**Note**

For information about which NE types are supported in Cisco ANA 3.6 Service Pack 2, see [Juniper T-Series Core Platforms](#).

## Juniper T-Series—Supported Software Versions

**Table 8-5** Supported Software Versions for Juniper T-Series—Cisco ANA 3.6 Service Pack 2

Version Name	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 3.6 Service Pack 2. Specific software versions that have been tested and verified are listed individually and marked as V.

## Juniper T-Series—Supported Topologies

**Table 8-6** Supported Topologies for Juniper T-Series—Cisco ANA 3.6 Service Pack 2

Topology Type	Link Type	Version
Ethernet	Ethernet	3.6.1

## Juniper T-Series—Supported Modules

**Table 8-7** Supported Modules for Juniper T-Series—Cisco ANA 3.6 Service Pack 2

Module Name	Version	Module Description	Certification Level
CIP-L-T640-S	3.6.1	Connector Interface Panel	V
FT-T640	3.6.1	Fan Tray - T640	V
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 ClockGenerator	V
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

**Table 8-7** Supported Modules for Juniper T-Series—Cisco ANA 3.6 Service Pack 2 (continued)

Module Name	Version	Module Description	Certification Level
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	V
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	V
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

**Note**

For detailed information about the specific technologies and attributes supported by this NE, see [Juniper T-Series—Supported Technologies, page 8-7](#).

## Juniper T-Series—Supported Technologies

The following technologies are supported by the Juniper T-Series in Cisco ANA 3.6 Service Pack 2:

- [IP, page 8-9](#)
- [Routing Protocols, page 8-11](#)
- [Ethernet \(IEEE 802.3\), page 8-12](#)
- [ATM, page 8-15](#)
- [Frame Relay, page 8-17](#)
- [Point to Point, page 8-18](#)
- [MPLS, page 8-19](#)
- [VPN, page 8-20](#)
- [Physical Equipment, page 8-21](#)
- [Base Logical Components, page 8-22](#)
- [Common, page 8-23](#)

## Juniper T-Series—Supported Service Events

**Table 8-8** Supported Service Events for Juniper T-Series—Cisco ANA 3.6 Service Pack 2

Event Name	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 3.6 Service Pack 2 per technology:

- [IP](#), page 8-9
- [Routing Protocols](#), page 8-11
- [Ethernet \(IEEE 802.3\)](#), page 8-12
- [ATM](#), page 8-15
- [Frame Relay](#), page 8-17
- [Point to Point](#), page 8-18
- [MPLS](#), page 8-19
- [VPN](#), page 8-20
- [Physical Equipment](#), page 8-21
- [Base Logical Components](#), page 8-22

- [Common, page 8-23](#)

## IP

**Table 8-9** IP Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2

Attribute	M-Series	T-Series
<b>IMO Name—IPIInterface</b>		
IP Address	Y	Y
Subnetwork Mask	Y	Y
IP Interface Addresses Array	Y	Y
Interface Name	Y	Y
Interface Description		
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		
IANA Type		
Containing CTPs		
Contained CTPs		
<b>IMO Name—IIPMuxEntry</b>		
Termination Point		
Destination IP Subnet		
<b>IMO Name—IRoutingEntity</b>		
Routing Table	Y	Y
ARP Entity	Y	Y
Routing Table Changes		
Name	Y	Y
Logical Sons	Y	Y

Table 8-9 IP Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2 (continued)

Attribute	M-Series	T-Series
<b>IMO Name—IRoutingEntry</b>		
Destination IP Subnet	Y	Y
Next Hop IP Address	Y	Y
Type	Y	Y
Routing Protocol Type	Y	Y
Outgoing Interface Name	Y	Y
<b>IMO Name—IARPEntity</b>		
ARP Table	Y	Y
<b>IMO Name—IARPEntity</b>		
IP Address	Y	Y
MAC Address	Y	Y
Port	Y	Y
Entry Type	Y	Y
<b>IMO Name—IIPPool</b>		
IP Address Pool Entries		
Name		
Index		
<b>IMO Name—IIPRangeBasedIPPoolEntry</b>		
Start IP Address		
End IP Address		
Unused Addresses		
Used Addresses		
Reserved Addresses		
<b>IMO Name—IIPSubnetBasedIPPoolEntry</b>		
IP Subnet		
Unused Addresses		
Used Addresses		
Reserved Addresses		
<b>IMO Name—HSRPGroupEntry</b>		
Group Number		
Port Description		
Priority		
Coupled Router		
State		
Tracking Interfaces		

**Table 8-9** IP Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2 (continued)

Attribute	M-Series	T-Series
Virtual IP Address		
Virtual MAC Address		
<b>IMO Name—I TunnelGRE</b>		
Name		
Tunnel Destination and Source		
IP Address		
IP Interface State		
IANA Type		
Containing CTPs		
Contained CTPs		

## Routing Protocols

**Table 8-10** Routing Protocols Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2

Attribute	M-Series	T-Series
<b>IMO Name—IBgpNeighbourEntry</b>		
Remote Identifier	Y	Y
Neighbor Type	Y	Y
Distributing Interfaces		
Remote Address	Y	Y
Remote Autonomous System	Y	Y
Status	Y	Y
Hold Time	Y	Y
Keep Alive Time	Y	Y
<b>IMO Name—IOspfEntry</b>		
Area Identifier	Y	Y
IP Address	Y	Y
Type	Y	Y
Administrative Status	Y	Y
Operational Status	Y	Y

## Ethernet (IEEE 802.3)

**Table 8-11 Ethernet (IEEE 802.3) Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2**

Attribute	M-Series	T-Series
<b>IMO Name—I<code>LagPortEntry</code></b>		
Actor and Partner Admin Keys		
Actor and Partner Oper Keys		
Selected and Attached Aggregation Identification		
Actor Port		
Actor Port Priority		
Partner Admin and Oper Port		
Partner Admin and Oper Port Priority		
Actor and Partner Admin States		
Actor and Partner Oper States		
<b>IMO Name—I<code>Ethernet</code></b>		
MAC Address	Y	Y
Duplex Mode		
Output Flow Control		
Input Flow Control		
IANA Type		
Containing CTPs		
Contained CTPs		
<b>IMO Name—I<code>VlanInterface</code></b>		
Mode		
Native VLAN Identification		
Virtual LAN Table		
IANA Type		
Containing CTPs		
Contained CTPs		
<b>IMO Name—I<code>VlanEncapMux</code></b>		
IANA Type		
Containing CTPs		
Contained CTPs		

**Table 8-11 Ethernet (IEEE 802.3) Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2 (continued)**

Attribute	M-Series	T-Series
<b>IMO Name—IIEEE802</b>		
VLAN Identification		
Binding Information		
Binding Status		
IANA Type		
Containing CTPs		
Contained CTPs		
<b>IMO Name—IStpService</b>		
Protocol Type		
Current and Bridge Max Age		
Current and Bridge Hello Time		
Current and Bridge Forward Delay		
Instance Information Table		
Same as ISystemService		
<b>IMO Name—IMstService</b>		
Protocol Properties		
Same as IStpService		
<b>IMO Name—IMstProperties</b>		
Force Version		
Configuration Format, Region Name and Revision Level		
External Root Cost		
Maximum Instances		
<b>IMO Name—IStpInstanceInfo</b>		
Object Identification		
Identification		
Priority		
Designated Parent and Root Bridges		
Root Cost		
Is Root		
Root Port Identification		
Port Information Table		

**Table 8-11 Ethernet (IEEE 802.3) Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2 (continued)**

Attribute	M-Series	T-Series
<b>IMO Name—IMstInstanceInfo</b>		
Instance Identification		
Same as IStpInstanceInfo		
<b>IMO Name—IPvstpInstanceInfo</b>		
Protocol Type		
Current and Bridg Maximum Age		
Current and Bridge Hello Time		
Current and Bridge Forward Delay		
Same as IStpInstanceInfo		
<b>IMO Name—IRstpInstanceInfo</b>		
Force Version		
Same as IStpInstanceInfo		
<b>IMO Name—IStpPortInfo</b>		
Object Identification		
Priority		
State		
Path Cost		
Is Edge		
Is Point to Point		
Role		
<b>IMO Name—IMstPortInfo</b>		
Hello Time		
Same as IStpPortInfo		
<b>IMO Name—IEthernetChannel</b>		
Group Number		
Bandwidth		
Aggregation Protocol		
IANA Type		
Containing CTPs		
Contained CTPs		

# ATM

**Table 8-12 ATM Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2**

Attribute	M-Series	T-Series
<b>IMO Name—IAtm</b>		
ATM Address		
Interface Type		
VP and VC Ranges		
VC Table	Y	Y
Cross-Connect Table		
IANA Type	Y	Y
Containing CTPs		
Contained CTPs		
<b>IMO Name—IAtmVc</b>		
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		
<b>IMO Name—IIMAGroup</b>		
Description		
Speed		
Admin Status		
Oper Status		
Oper Status Last Change		
IANA Type		
Containing CTPs		

Table 8-12 ATM Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2 (continued)

Attribute	M-Series	T-Series
<b>IMO Name—IAtmTrafficDescriptor</b>		
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		
<b>IMO Name—IAtmTrafficShapingDescriptor</b>		
Maximum Burst Size		
Sustainable and Peak Cell Rates		
Cell Delay Variation		
State		
Buffer Size		
Cell Loss Priority Discarded Size		
Name		
Index		
<b>IMO Name—IAtmTrunk</b>		
Same as IAtm		
<b>IMO Name—IAtmLogicalPort/Trunk</b>		
Resource Management Cell Termination		
Resource Management Cell Generation		
Effective Check Input and Output Capacities		
Admin Status		
Oper Status		

**Table 8-12** ATM Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2 (continued)

Attribute	M-Series	T-Series
Same as IAtm		
<b>IMO Name—IAtmTrunkVc</b>		
Destination Description		
Same as IAtmVc		

## Frame Relay

**Table 8-13** Frame Relay Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2

Attribute	M-Series	T-Series
<b>IMO Name—Iframerelay/IFrTrunk</b>		
Protocol Type	Y	Y
VC Table	Y	Y
Cross-Connect Table		
IANA Type		
Containing CTPs		
Contained CTPs		
<b>IMO Name—IFrVc</b>		
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		
<b>IMO Name—IFRTrafficDescriptor</b>		
Committed Rate		
Excess Burst Rate		

**Table 8-13** Frame Relay Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2

Attribute	M-Series	T-Series
Name		
Index		
<b>IMO Name—IFrameRelayLogicalPort/Trunk</b>		
Admin Status		
Oper Status		
Same as IFrameRelay		
<b>IMO Name—IfrTrunkVc</b>		
Destination Description		
Same as IFrVc		
<b>IMO Name—IEncapsulation</b>		
Virtual Connection Interface	Y	Y
Binding Information		

## Point to Point

**Table 8-14** Point to Point Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2

Attribute	M-Series	T-Series
<b>IMO Name—IvcBasedEncapsulation</b>		
Virtual Connection	Y	Y
Binding Information		
Binding Status		
IANA Type		
Containing CTPs		
Contained CTPs		
<b>IMO Name—Iencapsulation (HDLC/PPP)</b>		
Virtual Connection	Y	Y
Binding Information		
Binding Status		
IANA Type		
Containing CTPs		
Contained CTPs		

# MPLS

**Table 8-15 MPLS Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2**

Attribute	M-Series	T-Series
<b>IMO Name—IMpls</b>		
Distribution Protocol	Y	Y
Outer and Inner Labels	Y	Y
Traffic Engineering Properties		
Resource reservation Properties		
IANA Type		
Containing CTPs		
Contained CTPs		
<b>IMO Name—ILse</b>		
MPLS Table	Y	Y
MPLS Aggregate Table	Y	Y
MPLS Tunnel Segments	Y	Y
LDP Service	Y	Y
Logical Sons		
<b>IMO Name—ILdpService</b>		
Local Identification Status	Y	Y
LDP Peers	Y	Y
<b>IMO Name—ILdpPeer</b>		
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
<b>IMO Name—ILdpDiscoverySource</b>		
Interface Name	Y	Y
Source Address	Y	Y
Type	Y	Y

**Table 8-15 MPLS Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2**

Attribute	M-Series	T-Series
<b>IMO Name—IMplsEntry</b>		
Incoming Label	Y	Y
Outgoing Interface and Label	Y	Y
Switching Action	Y	Y
Next Hop IP Address	Y	Y
<b>IMO Name—IMplsAggregateEntry</b>		
Virtual Routing Entity	Y	Y
Incoming Label	Y	Y
Outgoing Interface and Label	Y	Y
Switching Action	Y	Y
Next Hop IP Address		

## VPN

**Table 8-16 VPN Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2**

Attribute	M-Series	T-Series
<b>IMO Name—IVrf</b>		
Virtual Routing Table	Y	Y
Exported Route Targets	Y	Y
Imported Route Targets	Y	Y
Route Distinguisher	Y	Y
ARP Entity	Y	Y
Name	Y	Y
Logical Sons		
<b>IMO Name—IVrfEntry</b>		
Next Hop BGP Address	Y	Y
Incoming and Outgoing Inner Label	Y	Y
Outer Label	Y	Y
Destination IP Subnet	Y	Y
Next Hop IP Address	Y	Y
Type	Y	Y

**Table 8-16** VPN Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2 (continued)

Attribute	M-Series	T-Series
Routing Protocol Type	Y	Y
Outgoing Interface Name	Y	Y
<b>IMO Name—IMpBgp</b>		
BGP Identifier		
Local Autonomous System		
Cross Virtual Routing Table		
BGP Neighbors	Y	Y
Logical Sons		
<b>IMO Name—ICrossVrf</b>		
Virtual Routing Entries		
Virtual Routing Entity Name		
<b>IMO Name—ICrossVrfRoutingEntry</b>		
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 8-17** Physical Equipment Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2

Attribute	M-Series	T-Series
<b>IMO Name—IChassis</b>		
Description	Y	Y
Equipment Holder Type	Y	Y
Contained Equipment Holders		
Contained Equipments		

**Table 8-17** Physical Equipment Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2 (continued)

Attribute	M-Series	T-Series
<b>IMO Name—IShelf</b>		
Description		
Status		
Equipment Holder Type		
Contained Equipment Holders		
Contained Equipments		
<b>IMO Name—IModule</b>		
Module Name	Y	Y
Module Description	Y	Y
Software Version		
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

## Base Logical Components

**Table 8-18** Base Logical Components Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2

Attribute	M-Series	T-Series
<b>IMO Name—IManagedElement</b>		
IP Address	Y	Y
Communication State	Y	Y
Investigation State	Y	Y
Element Category	Y	Y
Element Type and Key	Y	Y

**Table 8-18** Base Logical Components Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2 (continued)

Attribute	M-Series	T-Series
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	Y	Y
<b>IMO Name—IContext</b>		
Name		
Bounded Connections		
IP Address Pools		
Forwarding Components List		
Traffic Descriptors List		
Tunnel Containers List		
Data Link Aggregation Containers List		
<b>IMO Name—ISystemService</b>		
Type		
Status		
Up Time		

## Common

**Table 8-19** Common Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2

Attribute	M-Series	T-Series
<b>IMO Name—IPhysicalLayer</b>		
Media Type	Y	Y
Clocking Source	Y	Y
Maximum Speed	Y	Y
Is Internal Port	Y	Y
Discarded Bandwidth		
Dropped Bandwidth		

**Table 8-19 Common Attribute Support on Juniper Devices—Cisco ANA 3.6 Service Pack 2**

<b>Attribute</b>	<b>M-Series</b>	<b>T-Series</b>
Input Bandwidth		
Output Bandwidth		
Discarded and Received Input Data Counters	Y	Y
Dropped and Forward Output Data Counters	Y	Y
Administrative Status	Y	Y
Operational Status	Y	Y
Last Changed	Y	Y
IANA Type	Y	Y
Containing CTPs		
Contained CTPs		
<b>IMO Name—IBridge</b>		
Bridge Table		
Type		
MAC Address		
IP Interface		
Name		
Logical Sons		
<b>IMO Name—IBridgeEntry</b>		
Destination MAC		
Outgoing Interface		
<b>IMO Name—IVcSwitchingEntity</b>		
Cross Connect Table		
Logical Sons		