



Cisco Prime Network 4.0 Supported Third-party VNEs

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Preface

This VNE Reference Guide lists the devices, software versions, topologies, modules, events, and technologies that are supported on VNEs for third-party devices provided with Cisco Prime Network (Prime Network) Version 4.0.



Note

This guide contains a subset of the total list of VNEs supported by this version of Prime Network. 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.

Conventions

This document uses the following conventions:

Table 1 Conventions

Convention	Description
<i>string</i>	A string is a nonquoted set of characters. For example, when setting an SNMP community string to public, do not use quotation marks around the string, or the string will include the quotation marks.
^ or Ctrl	^ or Ctrl represents the Control key. For example, the key combination ^D or Ctrl-D means hold down the Control key while you press the D key. Alphabetic character keys are indicated in capital letters but are not case sensitive.
< >	Angle brackets show nonprinting characters, such as passwords.
!	An exclamation point at the beginning of a line indicates a comment line.

Table 1 Conventions (Continued)

Convention	Description
[]	Square brackets show optional elements.
{ }	Braces group alternative, mutually exclusive elements that are part of a required choice.
	A vertical bar, also known as a pipe, separates alternative, mutually exclusive elements of a choice.
boldface font	Button names, commands, keywords, and menu items.
boldface screen font	Courier bold shows an example of text that you must enter.
<i>italic</i> font	Variables for which you supply values.
<i>italic</i> screen font	Variables you enter.
screen font	Courier plain shows an example of information displayed on the screen.
Blue text	Indicates a link or reference to a section, table or object elsewhere in this Guide or on the World Wide Web.
Option > Network Preferences	Choosing a menu item.

Related Documentation



Note

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

For all the related documentation for Cisco Prime Network 4.0, see the [Cisco Prime Network 4.0 Documentation Guide](#).

The Prime Network Technology Center is an online resource for additional downloadable Prime Network support content, including help for integration developers who use Prime Network application programming interfaces (APIs). It provides information, guidance, and examples to help you integrate your applications with Prime Network. It also provides a platform for you to interact with subject matter experts. To view the information on the Prime Network Technology Center website, you must have a Cisco.com account with partner level access, or you must be a Prime Network licensee. You can access the Prime Network Technology Center at:

http://developer.cisco.com/web/prime-network/docs/-/document_library/view/2356901.

Obtaining Documentation and Submitting a Service Request

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

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

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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](#)
- [Correlation Flows, page 1-3](#)
- [Understanding the Tables, page 1-1](#)
- [Obtaining Prime Network Third-Party VNE Drivers, page 1-4](#)

Introduction to VNEs

VNEs (Virtual Network Elements) are independent software processes that run on the Prime Network Unit Servers. Each VNE is assigned to manage a single network element (NE) using the NE's management interfaces (for example, SNMP and/or 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 describes key information that can be found in the VNE support information chapters in this guide.

This section contains the following topics:

- [Software Versions, page 1-2](#)
- [Product Versions, page 1-2](#)
- [Device Package \(DP\) Version, page 1-2](#)

- [Expedited Legend, page 1-3](#)

Software Versions

The Software Version column in the tables in this guide identifies the third-party NE software versions that are compatible with Prime Network and that can be running on the third-party NEs that Prime Network supports.

When an NE software release is not explicitly supported, Prime Network attempts to model the NE using the default version for that device series. The default version is a device-specific fallback set of commands and MIB instrumentation that allows Prime Network to discover and query for basic device properties, including:

- Managed element information.
- Basic physical inventory.
- Logical Inventory (including the Routing Table, ARP, BGP and OSPF information). Modelling of other technologies is done on a best-effort basis.

The default version does not correspond to any specific supported NE software version. Building of the physical model and its containment structure depends on the instrumentation (MIB and CLI commands) used by the default version. The default version may show you different containment structures (modules and cards) from what you will see for an explicitly supported NE software version. You can discover whether the default version is being used for a particular VNE by looking in the AVM log located in *install directory/main/logs* (search for **default version**).

Cisco frequently qualifies new NE software versions for compatibility with Prime Network Third-Party VNEs, and updates the online version of this guide accordingly. If you are not sure whether the current version of Prime Network Third-Party VNE supports a recently released NE software version, check the online version of this guide on Cisco.com for an update. The NE software version should appear in the updated version of this guide if it has been qualified as compatible with this Prime Network Third-Party VNE release. If the online version of this guide does not list the new software version, contact Cisco Professional Services or your Cisco Sales Representative.

Product Versions

The Product Version column found in the tables in this guide lists the version of Cisco ANA or Cisco Prime Network that supports the NE.

Device Package (DP) Version

The DP Version column found in the tables in this guide lists the version of DP during which a VNE supporting the specified NE module, software, topology, or other feature was first introduced. It is therefore the earliest DP version that supports that NE. All later versions of DP also support the NE. For example: If the guide indicates that Juniper M-Series devices are supported on DP 1.0, they are also supported on DP 2.0, 3.0, and so on.

The latest DP is cumulative of previous DP releases and the latest DP contains greatest of the VNE drivers update until that particular date.

Expedited Legend

Table 1-1 describes the meaning of the Expedited column found in the service event (service alarm) tables in this guide.

Table 1-1 Expedited 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 poll this device during the next regularly scheduled polling cycle.

Correlation Flows

VNEs utilize their internal device component model (DCM) in order to perform the actual correlation. This action is considered to be a correlation flow. There are two basic correlation mechanisms used by the VNE:

1. [Correlation by Key](#) (Device component level correlation).
2. [Correlation by Flow](#) (Neighboring Device Correlation).

Correlation by Key

When the root cause problem is at the box level, attempts to correlate to other events are restricted to the specific VNE. This means that the correlation flow does not cross the DCM models of more than one VNE. An example is a port-down syslog event correlating to a port-down event.

An exception for this behavior is the link-down alarm. Since a link entity connects two endpoints in the DCM model, it involves the DCM of two different VNEs, but on each VNE the events are correlated to their own copy of the link-down event.

Correlation by Flow

Network problems and their effects are not always restricted to one network element. This means that a certain event could have the capability of correlating to an alarm several hops away. To do this the correlation mechanism within the VNE uses an active correlation flow that runs on the internal VNE's DCM model and tries to correlate along a specified network path to an alarm. This is similar to the Cisco ANA PathTracer operation when it traces a path on the DCM model from point A to point Z, except that it is trying to correlate to a root-cause alarm along the way, rather than just tracing a path.

This method is usually applicable for problems in the network layer and above (OSI network model) that might be caused due to a problem upstream or downstream. An example is an OSPF Neighbor Down event caused by a link-down problem in an upstream router. Another important distinction between Cisco ANA PathTracer and the correlation flow is that the correlation flow may run on an historical snapshot of the network.

Obtaining Prime Network Third-Party VNE Drivers

To obtain Prime Network 4.0 Third-Party DP tar file for installation, contact a Cisco representative or download from [Cisco Prime Network Software Download site on Cisco.com](#).



Overview—Supported Network Elements in Prime Network Version 4.0

This chapter provides an overview of network elements (NEs) that are supported by Prime Network Version 4.0:

This chapter contains the following topics:

- [Supported Alcatel-Lucent Devices in Prime Network Version 4.0, page 2-1](#)
- [Supported Calix Devices in Prime Network Version 4.0, page 2-3](#)
- [Supported DragonWave Devices in Prime Network Version 4.0, page 2-4](#)
- [Supported Fortinet Devices in Prime Network Version 4.0, page 2-4](#)
- [Supported Huawei Devices in Prime Network Version 4.0, page 2-5](#)
- [Supported Juniper Devices in Prime Network Version 4.0, page 2-6](#)
- [Supported RAD Devices in Prime Network Version 4.0, page 2-7](#)
- [Supported Symmetricom Devices in Prime Network Version 4.0, page 2-8](#)
- [Supported Tellabs Devices in Prime Network Version 4.0, page 2-8](#)
- [Supported VNE Scheme for Third-Party Devices, page 2-8](#)
- [Supported Devices Not Included in VNE Reference Guide, page 2-10](#)



Note

All the third-party VNEs do not support the Cisco Prime Network Change and Configuration Management function.

Supported Alcatel-Lucent Devices in Prime Network Version 4.0

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

- [Alcatel-Lucent ATM Subscriber Access Multiplexer](#)
- [Alcatel-Lucent 7450 Ethernet Service Switch](#)
- [Alcatel-Lucent 7705 Service Aggregation Router](#)
- [Alcatel-Lucent 7750 Service Router](#)
- [Alcatel-Lucent Intelligent Services Access Manager](#)

Table 2-1 Supported Alcatel-Lucent Devices in Prime Network Version 4.0

NE Type	Product Name	SysOID	Product Version	DP Version
Alcatel-Lucent ATM Subscriber Access Multiplexer				
asam 7301 HD	Alcatel ASAM 7301 HD DSLAM	1.3.6.1.4.1.637.61.1	3.7.2/3.7.3	6.0
asam 7301 SD	Alcatel ASAM 7301 SD DSLAM	1.3.6.1.4.1.637.61.1	3.7.2/3.7.3	6.0
asam 7301 UD	Alcatel ASAM 7301 UD DSLAM	1.3.6.1.4.1.637.61.1	3.7.2/3.7.3	6.0
asam 7301 XD	Alcatel ASAM 7301 XD DSLAM	1.3.6.1.4.1.637.61.1	3.7.2/3.7.3	6.0
Alcatel-Lucent 7450 Ethernet Service Switch				
ess-7450-1	Alcatel ESS-7450-1	1.3.6.1.4.1.6527.1.6.1	3.7.2	1.0
ess-7450-7	Alcatel ESS-7450-7	1.3.6.1.4.1.6527.1.6.3	3.7.2	1.0
ess-7450-12	Alcatel ESS-7450-12	1.3.6.1.4.1.6527.1.6.4	3.7.2	3.0
ess-7450-6	Alcatel ESS-7450-6	1.3.6.1.4.1.6527.1.3.5	3.7.2/3.7.3	4.0
Alcatel-Lucent 7705 Service Aggregation Router				
Alcatel 7705 SAR-F	Alcatel 7705 Service Aggregation Router (Fixed)	1.3.6.1.4.1.6527.6.1.1.2.2	3.7.2	3.0
Alcatel 7705 SAR-8	Alcatel 7705 Service Aggregation Router (8 slots)	1.3.6.1.4.1.6527.6.1.1.2.1	3.7.2	3.0
Alcatel-Lucent 7750 Service Router				
Alcatel 7750 SR c-12	Alcatel 7750 superior multiservice edge router	1.3.6.1.4.1.6527.1.3.6	3.7.2	3.0
Alcatel 7750 SR 7	Alcatel 7750 superior multiservice edge router	1.3.6.1.4.1.6527.1.3.4	3.7.2	3.0
Alcatel 7750 SR 4	Alcatel 7750 superior multiservice edge router	1.3.6.1.4.1.6527.1.3.2	3.7.2/3.7.3	4.0
Alcatel 7710 SR c-12	Alcatel 7710 superior multiservice edge router	1.3.6.1.4.1.6527.1.9.1	3.7.2/3.7.3	4.0
Alcatel 7750 SR 12	Alcatel 7750 superior multiservice edge router	1.3.6.1.4.1.6527.1.3.3	3.7.2/3.7.3	5.0
Alcatel-Lucent Intelligent Services Access Manager				
ISAM 7302	Alcatel-Lucent 7302 ISAM	1.3.6.1.4.1.637.61.1	3.7.2/3.7.3	6.0
ISAM 7330	Alcatel-Lucent 7330 ISAM	1.3.6.1.4.1.637.61.1	3.7.2/3.7.3	6.0

Supported Calix Devices in Prime Network Version 4.0

This document includes support information for the following Calix devices:

- [Calix Blade 6214 Series DSLAM](#)
- [Calix Blade 6214 Series DSLAM—Supported Service Events](#)
- [Calix Blade 6216 Series DSLAM—Supported Service Events](#)
- [Calix Blade 6312 Series Switches—Supported Service Events](#)
- [Calix Blade 6450 Series Switches](#)

Table 2-2 **Supported Calix Devices in Prime Network Version 4.0**

NE Type	Product Name	SysOID	Product Version	DP Version
Calix Blade 6214 Series DSLAM				
B6-214	Calix B6-214	1.3.6.1.4.1.6066.1.38	3.8.x-To-3.9.x	DP1206
Calix Blade 6214 Series DSLAM—Supported Service Events				
B6216	Calix B6-216	1.3.6.1.4.1.6066.1.51	3.10	DP1212
Calix Blade 6216 Series DSLAM—Supported Service Events				
B6-312	Calix B6-312	1.3.6.1.4.1.6066.1.37	3.8.x-To-3.9.x	DP1206
Calix Blade 6312 Series Switches—Supported Service Events				
B6-316	Calix B6-316	1.3.6.1.4.1.6066.1.50	3.8.x-To-3.9.x	DP1206
Calix Blade 6450 Series Switches				
B6-450	Calix B6-450	1.3.6.1.4.1.6066.1.44	3.8.x-To-3.9.x	DP1206

Supported DragonWave Devices in Prime Network Version 4.0

This document includes support information for the following DragonWave devices:

- [DragonWave Horizon Compact Device \(Packet Microwave System\)](#)
- [DragonWave Horizon Compact Plus Device \(Packet Microwave System\)](#)
- [DragonWave Horizon Quantum Device \(Packet Microwave System\)](#)

Table 2-3 *Supported DragonWave Devices in Prime Network Version 4.0*

NE Type	Product Name	SysOID	Product Version	DP Version
DragonWave Horizon Compact Device (Packet Microwave System)				
Horizon Compact	Horizon Compact	1.3.6.1.4.1.7262.2.2	3.7.2/3.7.3	5.0
DragonWave Horizon Compact Plus Device (Packet Microwave System)				
Horizon Compact Plus	Horizon Compact Plus	1.3.6.1.4.1.7262.2.5	3.8	2.0
DragonWave Horizon Quantum Device (Packet Microwave System)				
Horizon Quantum	Horizon Quantum	1.3.6.1.4.1.7262.2.4	3.7.2/3.7.3	5.0

Supported Fortinet Devices in Prime Network Version 4.0

This document includes support information for the following Fortigate device:

- [Fortinet FortiGate 5000 Series Firewall](#)

Table 2-4 *Supported Fortigate Devices in Prime Network Version 4.0*

NE Type	Product Name	SysOID	Product Version	DP Version
Fortinet FortiGate 5000 Series Firewall				
FortiGate 5140	Fortinet FortiGate 5140 firewall device	1.3.6.1.4.1.12356.50051	3.8.x-To-3.9.x	DP1206

Supported Huawei Devices in Prime Network Version 4.0

This document includes support information for the following Huawei devices:

- [Huawei - Quidway@ S9300 Series Terabit Routing Switch](#)
- [Huawei - Quidway@ CX600-CarrierSwitch and ATN-Cellsite-Gateway](#)

Table 2-5 **Supported Huawei Devices in Prime Network Version 4.0**

NE Type	Product Name	SysOID	Product Version	DP Version
Huawei - Quidway@ S9300 Series Terabit Routing Switch				
Huawei S9306	Huawei S9306 Terabit Routing Switch	1.3.6.1.4.1.2011.2.170.2	3.7.2	3.0
Huawei - Quidway@ CX600-CarrierSwitch and ATN-Cellsite-Gateway				
Huawei CX600 - X8	Huawei CX600-X8 Carrier Switch	1.3.6.1.4.1.2011.2.87.18	3.7.2/3.7.3	5.0
Huawei CX600 - X2	Huawei CX600-X2 Carrier Switch	1.3.6.1.4.1.2011.2.87.21	3.7.2/3.7.3	5.0
Huawei CX600 - X1	Huawei CX600-X1 Carrier Switch	1.3.6.1.4.1.2011.2.87.20	3.7.2/3.7.3	5.0
Huawei ATN 910	Huawei ATN 910	1.3.6.1.4.1.2011.2.220.3	3.7.2/3.7.3	5.0
Huawei ATN 950	Huawei ATN 950	1.3.6.1.4.1.2011.2.220.4	3.7.2/3.7.3	5.0

Supported Juniper Devices in Prime Network Version 4.0

This document includes support information for the following Juniper devices:

- [Juniper E-Series ERX Edge Routing Switches](#)
- [Juniper JCS Control System](#)
- [Juniper M-Series Multiservice Edge Routers](#)
- [Juniper MX-Series Ethernet Service Routers](#)
- [Juniper Netscreen Security Firewall/VPN Device](#)
- [Juniper T-Series Core Platforms](#)

Table 2-6 Supported Juniper Devices in Prime Network Version 4.0

NE Type	Product Name	SysOID	Product Version	DP Version
Juniper E-Series ERX Edge Routing Switches				
Juniper-1400	ERX-1400	1.3.6.1.4.1.4874.1.1.1.1.1	3.7.2	3.0
Juniper-1440	ERX-1440	1.3.6.1.4.1.4874.1.1.1.1.3	3.7.2	3.0
Juniper JCS Control System				
Juniper JCS 1200	Juniper Networks JCS 1200 Control System	1.3.6.1.4.1.2636.1.1.1.2.38	3.7.2/3.7.3	6.0
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	3.7.2/3.7.3	1.0
Juniper M7i	Juniper Networks M7i Multiservice Edge Router	1.3.6.1.4.1.2636.1.1.1.2.10	3.7.2/3.7.3	6.0
Juniper M320	Juniper Networks M320 Multiservice Edge Router	1.3.6.1.4.1.2636.1.1.1.2.9	3.7.2/3.7.3	1.0
Juniper M20	Juniper Networks M20 Multiservice Edge Router	1.3.6.1.4.1.2636.1.1.1.2.2	3.7.2/3.7.3	4.0
Juniper M120	Juniper Networks M120 Multiservice Edge Router	1.3.6.1.4.1.2636.1.1.1.2.18	3.7.2/3.7.3	4.0
Juniper M40e	Juniper Networks M40e Multiservice Edge Router	1.3.6.1.4.1.2636.1.1.1.2.8	3.7.2/3.7.3	4.0
Juniper MX-Series Ethernet Service Routers				
Juniper MX960	Juniper Networks MX960 Ethernet Service Router	1.3.6.1.4.1.2636.1.1.1.2.21	3.7.2	2.0
Juniper MX480	Juniper Networks MX480 Ethernet Service Router	1.3.6.1.4.1.2636.1.1.1.2.25	3.7.2	3.0
Juniper MX240	Juniper Networks MX240 Ethernet Service Router	1.3.6.1.4.1.2636.1.1.1.2.29	3.7.2/3.7.3	4.0

Table 2-6 Supported Juniper Devices in Prime Network Version 4.0 (Continued)

NE Type	Product Name	SysOID	Product Version	DP Version
Juniper Netscreen Security Firewall/VPN Device				
Juniper Netscreen 5400	Juniper Netscreen 5400 Security Firewall/VPN device	1.3.6.1.4.1.3224.1.13	3.7.2/3.7.3	6.0
Juniper T-Series Core Platforms				
Juniper T640	T640	1.3.6.1.4.1.2636.1.1.1.2.6	3.7.2	1.0
Juniper T320	T320	1.3.6.1.4.1.2636.1.1.1.2.7	3.7.2	3.0
Juniper T1600	T1600	1.3.6.1.4.1.2636.1.1.1.2.27	3.7.2/3.7.3	4.0

Supported RAD Devices in Prime Network Version 4.0

This document includes support information for the following RAD device:

- [RAD ACE-3000-Series Cell-Site Gateway](#)
- [RAD ETX-Series Carrier Ethernet Demarcation Device](#)
- [RAD IPmux-4L TDM Pseudowire Access Gateway](#)
- [RAD LA-210 EFM DSL Network Termination Unit](#)

Table 2-7 Supported RAD Devices in Prime Network Version 4.0

NE Type	Product Name	SysOID	Product Version	DP Version
RAD ACE-3000-Series Cell-Site Gateway				
ACE-3205	Rad Ace 3205	1.3.6.1.4.1.164.6.1.12.3.17	3.7.2	1.0
ACE-3105	Rad Ace 3105	1.3.6.1.4.1.164.6.1.12.3.18	3.7.2	2.0
ACE-3100	Rad Ace 3100	1.3.6.1.4.1.164.6.1.12.3.9	3.7.2/3.7.3	4.0
ACE-3200	Rad Ace 3200	1.3.6.1.4.1.164.6.1.12.3.8	3.7.2/3.7.3	4.0
RAD ETX-Series Carrier Ethernet Demarcation Device				
ETX-204AW (Wide Box)	Rad ETX 204AW (Wide Box)	1.3.6.1.4.1.164.6.1.6.25	3.7.2	2.0
ETX-204 A (Short Box)	Rad ETX 204 A (Short Box)	1.3.6.1.4.1.164.6.1.6.24	3.7.2/3.7.3	4.0
RAD IPmux-4L TDM Pseudowire Access Gateway				
IPmux-4L	Rad Ipmux 4L	1.3.6.1.4.1.164.6.1.3.156	3.7.2	2.0
RAD LA-210 EFM DSL Network Termination Unit				
LA-210	Rad LA 210	1.3.6.1.4.1.164.6.1.13.5	3.7.2	2.0

Supported Symmetricon Devices in Prime Network Version 4.0

Table 2-8 *Supported Symmetricon Devices in Prime Network Version 4.0*

NE Type	Product Name	SysOID	Product Version	DP Version
Symmetricon Timeprovider 2700				
Symmetricon TP 2700	Symmetricon Timeprovider 2700 series grandmaster clock device	1.3.6.1.4.1.9070.1.2.5.7.3	4.0	DP1310
Symmetricon Timeprovider 5000				
Symmetricon TP 5000	Symmetricon Timeprovider 5000 series grandmaster clock device	1.3.6.1.4.1.9070.1.2.5	4.0	DP1310

Supported Tellabs Devices in Prime Network Version 4.0

This document includes support information for the following Tellabs device:

- [Tellabs 8840 Multiservice Router](#)

Table 2-9 *Supported Tellabs Devices in Prime Network Version 4.0*

NE Type	Product Name	SysOID	Product Version	DP Version
Tellabs 8840 Multiservice Router				
TellabsMSR8840	TellabsMSR8840	1.3.6.1.4.1.4641.1.3	3.7.2/3.7.3	6.0

Supported VNE Scheme for Third-Party Devices

VNE schemes determine what data should be retrieved for each device, along with the commands and protocols Prime Network Third-Party VNE should use to collect that data. The scheme settings are arranged in an inheritance tree and incorporated into the configuration registry to support default values at any level—and the option to inherit or override default settings—on the basis of device vendor, type, model, version etc. The scheme settings can be changed at a very granular level, such as specific device instances or specific aspects of inventory within devices. For example, different polling frequencies can be set for different port types within a device.

If you chose the wrong scheme when you created the VNE, you will have to delete and recreate the VNE.



Note

You can also supplement what is modeled by creating new soft properties. These allows you to model additional attributes and create new threshold crossing alarms.

When creating a VNE, choose a scheme that is based on the device family and on the technologies you want Prime Network Third-Party to manage. This enables you to define different behavior for different devices. For example, some devices poll only with SNMP, while other devices poll with Telnet. Soft properties and activation scripts are also attached to a specific scheme.

**Note**

When you create a VNE, Prime Network Third-Party VNE provides a drop-down list of available schemes. The list includes a "default" choice. If you choose default, Prime Network Third-Party VNE sets the scheme to Product.

Prime Network Third-Party VNE uses the following schemes:

- **Product**—This scheme is used for all device types in this release, except for Alcatel-Lucent 7705 Service Aggregation Router, Alcatel-Lucent 7750/7710 Service Router, Huawei Devices, Juniper Devices, and Fortinet Device.
- **IpCore**—This scheme is used only for routers serving as Provider (P) or Provider Edge (PE) devices.

The difference between the two schemes is that IpCore assumes that the device is used as part of an MPLS VPN network containing P and PE devices. Prime Network therefore models these VNEs slightly differently. Use Product for all other instances, including customer edge (CE) devices. The Product scheme assumes that no MPLS or VRF configuration exists and thus does not retrieve it.

These schemes provide users with the flexibility to specify the registrations (device commands, or methods the VNE uses to query the device for information) that the VNEs modeling their routers are to use. You can designate a VNE as a core router by setting it to work with the IpCore scheme, or as an edge router by setting it to work with the Product scheme.

[Table 2-10](#) identifies the schemes that are supported in Prime Network Third-Party VNEs.

Table 2-10 Supported VNE Scheme for Third-Party Devices

Device Type	Scheme	
	Product	IpCore
Alcatel Devices		
Alcatel-Lucent ATM Subscriber Access Multiplexer	Yes	
Alcatel-Lucent 7450 Ethernet Service Switch	Yes	
Alcatel-Lucent 7705 Service Aggregation Router		Yes
Alcatel-Lucent 7750/7710 Service Router		Yes
Alcatel-Lucent Intelligent Services Access Manager	Yes	
Calix Devices		
Calix Blade 6214 Series DSLAM	Yes	
Calix Blade 6216 Series DSLAM	Yes	
Calix Blade 6312 Series Switches	Yes	
Calix Blade 6316 Series Switches	Yes	
Calix Blade 6450 Series Switches	Yes	
DragonWave Devices		
DragonWave Horizon Compact Device (Packet Microwave System)	Yes	

Table 2-10 *Supported VNE Scheme for Third-Party Devices*

Device Type	Scheme	
	Product	IpCore
DragonWave Horizon Compact Plus Device (Packet Microwave System)	Yes	
DragonWave Horizon Quantum Device (Packet Microwave System)	Yes	
Fortinet Device		
Fortinet FortiGate 5140 Firewall		Yes
Huawei Devices		
Huawei - Quidway@ S9300 Series Terabit Routing Switch		Yes
Huawei - Quidway@ CX600-CarrierSwitch and ATN-Cellsite-Gateway		Yes
Juniper Devices		
Juniper E-Series ERX Edge Routing Switches		Yes
Juniper JCS Control System		Yes
Juniper M-Series Multiservice Edge Routers		Yes
Juniper MX-Series Ethernet Service Routers		Yes
Juniper Netscreen Security Firewall/VPN Device		Yes
Juniper T-Series Core Platforms		Yes
RAD Devices		
RAD ACE-3000-Series Cell-Site Gateway	Yes	
RAD ETX-Series Carrier Ethernet Demarcation Device	Yes	
RAD IPmux-4L TDM Pseudowire Access Gateway	Yes	
RAD LA-210 EFM DSL Network Termination Unit	Yes	
Tellabs Device		
Tellabs 8840 Multiservice Router	Yes	

Supported Devices Not Included in VNE Reference Guide

The following devices are supported but not included in this reference guide:

Table 2-11 *Supported Devices in Prime Network*

VNE Name	SysOID
ECI Hifocus-SAM 480	1.3.6.1.4.1.1286.1.3
Lucent Wan-switch CBX 500	1.3.6.1.4.1.277.1
Lucent Wan-switch GX 550	1.3.6.1.4.1.277.1
Lucent Wan-switch B-STDx	1.3.6.1.4.1.277.1
Lucent Anymedia LAG1900	1.3.6.1.4.1.1751.2.12.1

Table 2-11 **Supported Devices in Prime Network (Continued)**

VNE Name	SysOID
Lucent Anymedia LAG4300	1.3.6.1.4.1.1751.2.12.1
Lucent Anymedia	1.3.6.1.4.1.1751.2.12.1
Lucent PSAX-2300	1.3.6.1.4.1.1751.1.18.7
Lucent PSAX-4500	1.3.6.1.4.1.1751.1.18.8
Lucent Max-TNT	1.3.6.1.4.1.529.1.4
Lucent Stinger-MS-PLUS	1.3.6.1.4.1.529.1.7.10
Lucent Stinger-MRT	1.3.6.1.4.1.529.1.7.4
Redback Smart Edge 800	1.3.6.1.4.1.2352.1.10
Redback SMS 1000	1.3.6.1.4.1.2352.1.1
Redback SMS 1800	1.3.6.1.4.1.2352.1.3
Redback SMS 10000	1.3.6.1.4.1.2352.1.4
Riverstone 1000	1.3.6.1.4.1.5567.1.1.8
Riverstone 1100	1.3.6.1.4.1.5567.1.1.13
Riverstone 3000	1.3.6.1.4.1.5567.1.1.5
Riverstone 3100	1.3.6.1.4.1.5567.1.1.11
Utstarcomm AN-2000-IB	1.3.6.1.4.1.1949.1.3.3
Adc Broadaccess40	1.3.6.1.4.1.3321.2.2



Support Information for Alcatel-Lucent Devices

This chapter contains support information for Virtual Network Elements (VNEs) that manage Alcatel-Lucent devices in Prime Network Version 4.0.



Note

For more information about the objects and attributes described in this chapter, see *Cisco Prime Network 4.0 Supported Cisco VNEs*, *Cisco Prime Network 4.0 Supported Service Alarms*, *Cisco Prime Network 4.0 Supported System and Security Events*, and *Cisco Prime Network 4.0 Supported Technologies and Topologies* in the [Cisco Prime Network 4.0 Documentation Guide](#).

This chapter contains the following topics:

- [Alcatel-Lucent ATM Subscriber Access Multiplexer](#), page 3-1
- [Alcatel-Lucent 7450 Ethernet Service Switch](#), page 3-7
- [Alcatel-Lucent 7705 Service Aggregation Router](#), page 3-10
- [Alcatel-Lucent 7750 Service Router](#), page 3-12
- [Alcatel-Lucent Intelligent Services Access Manager](#), page 3-14
- [Supported Technologies on Alcatel-Lucent Devices](#), page 3-18

Alcatel-Lucent ATM Subscriber Access Multiplexer

This section includes the following information about Alcatel-Lucent ASAM devices (for information on the NE types supported in Prime Network Version 4.0, see [Alcatel-Lucent ATM Subscriber Access Multiplexer](#)):

This section contains the following topics:

- [Alcatel-Lucent ASAM—Supported Software Versions](#), page 3-2
- [Alcatel-Lucent ASAM—Supported Topologies](#), page 3-2
- [Alcatel-Lucent ASAM—Supported Modules](#), page 3-2
- [Alcatel-Lucent ASAM—Supported Technologies](#), page 3-5
- [Alcatel-Lucent ASAM—Supported Service Events](#), page 3-6



Note

Alcatel ATM Subscriber Access Multiplexer device was already supported in the Prime Network (formerly known as Cisco ANA) version prior to 3.7.2.

Alcatel-Lucent ASAM—Supported Software Versions

Table 3-1 Supported Software Versions for Alcatel-Lucent ASAM—Prime Network Version 4.0

Software Version	Product Version	DP Version
2.0.0.16	3.7.2/3.7.3	6.0
2.3.1.15	3.7.2/3.7.3	6.0
2.4.2.4	3.7.2/3.7.3	6.0
3.1.0	3.7.2/3.7.3	6.0
4.1.3.0	3.7.2/3.7.3	6.0
4.1.5.6	3.7.2/3.7.3	6.0
4.2.0.6	3.7.2/3.7.3	6.0
4.2.1.0	3.7.2/3.7.3	6.0
4.6.0.6	3.7.2/3.7.3	6.0
5.0.1.2	3.7.2/3.7.3	6.0
5.0.1.3	3.7.2/3.7.3	6.0
5.1.0.10	3.7.2/3.7.3	6.0
5.1.0.21	3.7.2/3.7.3	6.0

Alcatel-Lucent ASAM—Supported Topologies

Table 3-2 Supported Topologies for Alcatel-Lucent ASAM—Prime Network Version 4.0

Topology Type	Link Type	Product Version	DP Version
ATM	ATM	3.7.2/3.7.3	6.0
Ethernet	Ethernet	3.7.2/3.7.3	6.0
PPP/HDLC	PPP or HDLC	3.7.2/3.7.3	6.0

Alcatel-Lucent ASAM—Supported Modules

Table 3-3 Supported Modules for Alcatel-Lucent ASAM—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
AACU-A	3.7.2/3.7.3	ADSL Alarm Control Unit version A (R3 equipment)	6.0

Table 3-3 Supported Modules for Alcatel-Lucent ASAM—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
AACU-B	3.7.2/3.7.3	ADSL Alarm Control Unit version B	6.0
AACU-C	3.7.2/3.7.3	ADSL Alarm Control Unit version C (R4 equipment)	6.0
ABLT-D	3.7.2/3.7.3	MultiDSL POTS UD BVB LT standard version D	6.0
ABLT-E	3.7.2/3.7.3	Multi-DSL POTS Line Termination version E	6.0
ADLT-C	3.7.2/3.7.3	ADSL Line termination version C (4 lines)	6.0
ADLT-E	3.7.2/3.7.3	ADSL Line termination version E (4 lines)	6.0
ADLT-F	3.7.2/3.7.3	ADSL (Euro) Line termination version F (ISDN support, 4 lines)	6.0
ADLT-J	3.7.2/3.7.3	ADSL Line termination version J (12 lines)	6.0
ADLT-K	3.7.2/3.7.3	ADSL Line termination version K (12 lines)	6.0
ADLT-L	3.7.2/3.7.3	ADSL Line termination version L (24 lines)	6.0
ADLT-M	3.7.2/3.7.3	ADSL Line termination version M (12 lines)	6.0
ADLT-S	3.7.2/3.7.3	ADSL Line Termination version S - BVB enabled	6.0
ADLT-W	3.7.2/3.7.3	ADSL Line Termination version W - POTS/BVB ready	6.0
ADSE-A	3.7.2/3.7.3	ADSL Serial Extender version A	6.0
ADSE-B	3.7.2/3.7.3	ADSL Serial Extender version B	6.0
ADSE-C	3.7.2/3.7.3	ADSL Serial Extender version C	6.0
AICC-A	3.7.2/3.7.3	IMA ATM E1-NT 2 Mits Controller Card	6.0
ASCC-P	3.7.2/3.7.3	PDH Interface Controller Card	6.0
ASCC-PE	3.7.2/3.7.3	PDH E3 Interface Controller Card	6.0
ASCC-S1	3.7.2/3.7.3	STM-1 Interface Controller Card	6.0

Table 3-3 Supported Modules for Alcatel-Lucent ASAM—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
ASPS-A	3.7.2/3.7.3	ADSL Splitter Subrack version A	6.0
BSEC-A	3.7.2/3.7.3	Broad Band Shelf Extender Card	6.0
D1LT-A	3.7.2/3.7.3	DS1 Line termination version A	6.0
D1LT-B	3.7.2/3.7.3	4 T1 ports Using IMA Group	6.0
D3LT-A	3.7.2/3.7.3	DS3 Line termination version A	6.0
D3NT-A	3.7.2/3.7.3	DS3 Network Termination version A	6.0
D3NT-C	3.7.2/3.7.3	DS3 Network Termination version C	6.0
E1LT-A	3.7.2/3.7.3	E1 (IMA) Line Termination version A (4 lines)	6.0
E1NT-A	3.7.2/3.7.3	(Quad) E1 (IMA) Network Termination version A	6.0
E1NT-C	3.7.2/3.7.3	GANT-B motherboard and E1PL-B daughterboard (PLIM)	6.0
EBLT-A	3.7.2/3.7.3	ADSL2+ POTS Line Termination version A	6.0
EBLT-C	3.7.2/3.7.3	ADSL2+ POTS Line Termination version C	6.0
ECNT-A	3.7.2/3.7.3	7302 ISAM Combined network termination version A	6.0
LTAC-C	3.7.2/3.7.3	Line Terminal ADSL Combiner Card	6.0
LTAC-D	3.7.2/3.7.3	Line Terminal ADSL Combiner Card	6.0
LTSC-A	3.7.2/3.7.3	Line Termination SHDSL Card	6.0
MACU-A	3.7.2/3.7.3	MiniRAM ACU version A	6.0
NBLC-A	3.7.2/3.7.3	Narrowband Line Card	6.0
SALT-A	3.7.2/3.7.3	1 Port OC3 Card	6.0
SALT-C	3.7.2/3.7.3	STM-1/OC3c (HCL based) Line Termination Unit version C	6.0

Table 3-3 Supported Modules for Alcatel-Lucent ASAM—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
SANT-D	3.7.2/3.7.3	Synchronous (STM1) ATM Network Termination version D	6.0
SANT-E	3.7.2/3.7.3	GANT-A motherboard and SONI-A daughterboard (PLIM)	6.0
SANT-F	3.7.2/3.7.3	GANT-B motherboard and SONI-A daughterboard (PLIM)	6.0
SANT-G	3.7.2/3.7.3	Synchronous (STM1) ATM Network Termination version G	6.0
SHLT-B	3.7.2/3.7.3	SHDSL Line termination version B (12 lines)	6.0
SMLT-A	3.7.2/3.7.3	SHDSL Line termination version A (24 lines with IMA)	6.0
SMLT-B	3.7.2/3.7.3	SHDSL Line Termination Unit Version B(12 lines, with IMA)	6.0
IPGW-A	3.7.2/3.7.3	IP Service Gateway	6.0
RPSP-A	3.7.2/3.7.3	Packet Subscriber profile version A	6.0

Alcatel-Lucent ASAM—Supported Technologies

The following technologies are supported by the Alcatel-Lucent ASAM in Prime Network Version 4.0:

- [IP, page 3-19](#)
- [ATM, page 3-20](#)
- [SONET/SDH, page 3-21](#)
- [xDSL, page 3-21](#)
- [TDM/DSx, page 3-22](#)
- [Ethernet, page 3-24](#)
- [Hardware, page 3-24](#)
- [Serial, page 3-26](#)

Alcatel-Lucent ASAM—Supported Service Events

Table 3-4 *Supported Service Events for Alcatel-Lucent ASAM—Prime Network Version 4.0*

Event Name	Product Version	Expedited	DP Version
Active IP Interfaces Found	3.7.2/3.7.3	Y	6.0
All IP Interfaces Down	3.7.2/3.7.3	Y	6.0
BGP Neighbor Down	3.7.2/3.7.3	N	6.0
Card Down	3.7.2/3.7.3	Y	6.0
Card In	3.7.2/3.7.3	Y	6.0
Card Out	3.7.2/3.7.3	Y	6.0
Card Up	3.7.2/3.7.3	Y	6.0
Device Unreachable	3.7.2/3.7.3	N	6.0
Device Unsupported	3.7.2/3.7.3	N	6.0
Interface status down flapping	3.7.2/3.7.3	Y	6.0
Interface status down flapping update	3.7.2/3.7.3	Y	6.0
Link Down	3.7.2/3.7.3	N	6.0
Link up	3.7.2/3.7.3	N	6.0
Port Down	3.7.2/3.7.3	N	6.0
Port Flapping	3.7.2/3.7.3	N	6.0

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 Prime Network Version 4.0, see the [Alcatel-Lucent 7450 Ethernet Service Switch](#)):

This section contains the following topics:

- [Alcatel-Lucent 7450 ESS—Supported Software Versions](#), page 3-7
- [Alcatel-Lucent 7450 ESS—Supported Topologies](#), page 3-7
- [Alcatel-Lucent 7450 ESS—Supported Modules](#), page 3-8
- [Alcatel-Lucent 7450 ESS—Supported Technologies](#), page 3-9
- [Alcatel-Lucent 7450 ESS—Supported Service Events](#), page 3-9

Alcatel-Lucent 7450 ESS—Supported Software Versions

Table 3-5 *Supported Software Versions for Alcatel-Lucent 7450 ESS—Prime Network Version 4.0*

Software Version	Product Version	DP Version
3.0.R1	3.7.2	1.0
TiMOS-B-3.0.R7	3.7.2	1.0
4.0.R5	3.7.2	1.0
TiMOS-C-5.0.R	3.7.2	3.0
TiMOS c7.0R4	3.8.x-To-3.9.x	DP1206
TiMOS-C-9.0.R8	3.8.x-To-3.9.x	DP1206

Alcatel-Lucent 7450 ESS—Supported Topologies

Table 3-6 *Supported Topologies for Alcatel-Lucent 7450 ESS—Prime Network Version 4.0*

Topology Type	Link Type	Product Version	DP Version
Ethernet	Ethernet	3.7.2	1.0

Alcatel-Lucent 7450 ESS—Supported Modules

Table 3-7 Supported Modules for Alcatel-Lucent 7450 ESS—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
M10-1GB-SFP	3.7.2	MDA 10 Ports 1-Gigabit Ethernet SFP	1.0
M16-OC12/3-SFP	3.7.2	MDA 16 Ports OC12/OC3 SFP	1.0
M8-OC12/3-SFP	3.7.2	MDA 8 Ports OC12/OC3 SFP	1.0
M16-OC3-SFP	3.7.2	MDA 16 Ports OC3 SFP	1.0
M4-OC48-SFP	3.7.2	MDA 4 Ports OC48 SFP	1.0
M1-10GB	3.7.2	MDA 1 Port 10 GigabitP	1.0
M2-OC48-SFP	3.7.2	MDA 2 Ports OC48 SFP	1.0
20-100ETH-SFP	3.7.2	MDA 20 Port 100FX	1.0
M20-1GB-TX	3.7.2	MDA 20 Ports 10/100/1000 Ethernet TX	1.0
M2-10GB-XFP	3.7.2	MDA 2 Ports 10Gig Ethernet XFP	1.0
M20-1GB-SFP	3.7.2	MDA 20 Ports 10/100/1000 Ethernet SFP	1.0
VSM-CCA	3.7.2	VSM Cross Connect	1.0
M5-1GB-SFP-B	3.7.2	MDA 5 Ports 10/100/1000 Ethernet SFP	1.0
M10-1GB-SFP-B	3.7.2	MDA 10 Ports 10/100/1000 Ethernet SFP	1.0
SFM-200G	3.7.2	200g CPM/SF module	1.0
SFM-100G	3.7.2	100g CPM/SF module	1.0
SFM2-200G	3.7.2	200g CPM/SF module	1.0
IOM-20G	3.7.2	2 x 10-Gig MDA IOM Card	1.0
M60-10/100ETH-TX	3.7.2	MDA 60 Ports 10/100 Ethernet TX	1.0
M60-10/100ET-TX	3.7.2	MDA 60 Ports 10/100 Ethernet TX	1.0
IOM-20G-B	3.7.2	2 x 10-Gig MDA IOM Card, B	1.0
SFM2-400G	3.7.2	400g CPM/SF module	3.0
IOM-20G-B	3.8.x-To-3.9.x	2 x 10-Gig MDA IOM Card, B	DP1206
M20-1GB-SFP	3.8.x-To-3.9.x	MDA 20 Ports 10/100/1000 Ethernet SFP	DP1206
M2-10GB-XFP	3.8.x-To-3.9.x	MDA 2 Ports 10Gig Ethernet XFP	DP1206
M1-10GB-XFP	3.8.x-To-3.9.x	MDA 1 Ports 10Gig Ethernet XFP	DP1206
IOM3-XP-50G	3.8.x-To-3.9.x	IOM3-XP-50G	DP1206
2-PT 10G MDA-XP XFP	3.8.x-To-3.9.x	2-PT 10G MDA-XP XFP	DP1206

Table 3-7 Supported Modules for Alcatel-Lucent 7450 ESS—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
20 PT GE MDA-XP SFP	3.8.x-To-3.9.x	20 PT GE MDA-XP SFP	DP1206

Alcatel-Lucent 7450 ESS—Supported Technologies

The following technologies are supported by the Alcatel-Lucent 7450 ESS in Prime Network Version 4.0:

- [IP, page 3-19](#)
- [Ethernet, page 3-24](#)
- [Hardware, page 3-24](#)
- [Serial, page 3-26](#)

Alcatel-Lucent 7450 ESS—Supported Service Events

Supported Service Events for Alcatel-Lucent 7450 ESS—Prime Network Version 4.0

Event Name	Product Version	Expedited	DP Version
Active IP Interfaces Found	3.6.0	Y	
All IP Interfaces Down	3.6.0	Y	
BGP Neighbor Down	3.6.0	N	
Card Down	3.6.0	Y	
Card In	3.6.0	Y	
Card Out	3.6.0	Y	
Card Up	3.6.0	Y	
Device Unreachable	3.6.0	N	
Device Unsupported	3.6.0	N	
Interface status down flapping	3.6.0	Y	
Interface status down flapping update	3.6.0	Y	
Link Down	3.6.0	N	
Link up	3.6.0	N	
Port Down	3.6.0	N	
Port Flapping	3.6.0	N	

Alcatel-Lucent 7705 Service Aggregation Router

This section includes the following information about Alcatel-Lucent 7705 SAR devices (for information on the NE types supported in Prime Network Version 4.0, see the [Alcatel-Lucent 7705 Service Aggregation Router](#)):

This section contains the following topics:

- [Alcatel-Lucent 7705 SAR—Supported Software Versions, page 3-10](#)
- [Alcatel-Lucent 7705 SAR—Supported Topologies, page 3-10](#)
- [Alcatel-Lucent 7705 SAR—Supported Modules, page 3-10](#)
- [Alcatel-Lucent 7705 SAR—Supported Technologies, page 3-11](#)
- [Alcatel-Lucent 7705 SAR—Supported Service Events, page 3-11](#)

Alcatel-Lucent 7705 SAR—Supported Software Versions

Table 3-8 *Supported Software Versions for Alcatel-Lucent 7705 SAR—Prime Network Version 4.0*

Software Version	Product Version	DP Version
TiMOS-B-3.0.R1	3.7.2	3.0
5.0R2	4.0	1308

Alcatel-Lucent 7705 SAR—Supported Topologies

Table 3-9 *Supported Topologies for Alcatel-Lucent 7705 SAR—Prime Network Version 4.0*

Topology Type	Link Type	Product Version	DP Version
Ethernet	Ethernet	3.7.2	3.0

Alcatel-Lucent 7705 SAR—Supported Modules

Table 3-10 *Supported Modules for Alcatel-Lucent 7705 SAR—Prime Network Version 4.0*

Module Name	Product Version	Module Description	DP Version
A16-CHDS1V2	3.7.2	MDA 16 Port Any Service Channelized DS1/E1, Multi-Sync Supported	3.0
A8-ETHV3	3.7.2	MDA 6 10/100 Ethernet, 2 Port 1-Gigabit SFP, SyncE, Multiple Node Sync Sources	3.0
A8-ETHV2	3.7.2	MDA 6 10/100 Ethernet, 2 Port 1-Gigabit SFP, SyncE Supported	3.0

Table 3-10 Supported Modules for Alcatel-Lucent 7705 SAR—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
IOM-1G	3.7.2	1g 7705 IOM	3.0
CSM-1G	3.7.2	1g 7705 CSM	3.0
a8-1gb-sfp	4.0	a8-1gb-sfp	1308
a32-chds1v2	4.0	a32-chds1v2	1308

Alcatel-Lucent 7705 SAR—Supported Technologies

The following technologies are supported by the Alcatel-Lucent 7705 SAR in Prime Network Version 4.0:

- [IP, page 3-19](#)
- [Routing Protocols, page 3-23](#)
- [Ethernet, page 3-24](#)
- [Hardware, page 3-24](#)
- [Serial, page 3-26](#)
- [MPLS, page 3-27](#)

Alcatel-Lucent 7705 SAR—Supported Service Events

Table 3-11 Supported Service Events for Alcatel-Lucent 7705 SAR—Prime Network Version 4.0

Event Name	Product Version	Expedited	DP Version
Active IP Interfaces Found	3.7.2	Y	3.0
All IP Interfaces Down	3.7.2	Y	3.0
Card In	3.7.2	Y	3.0
Card Out	3.7.2	Y	3.0
Device Unreachable	3.7.2	N	3.0
Device Unsupported	3.7.2	N	3.0
Interface Status Down/Up	3.7.2	N	3.0
Link Down	3.7.2	N	3.0
Link up	3.7.2	N	3.0

Alcatel-Lucent 7750 Service Router

This section includes the following information about Alcatel-Lucent 7750 SR devices (for information on the NE types supported in Prime Network Version 4.0, see the [Alcatel-Lucent 7750 Service Router](#)):

This section contains the following topics:

- [Alcatel-Lucent 7750 SR—Supported Software Versions, page 3-12](#)
- [Alcatel-Lucent 7750 SR—Supported Topologies, page 3-12](#)
- [Alcatel-Lucent 7750 SR—Supported Modules, page 3-12](#)
- [Alcatel-Lucent 7750 SR—Supported Technologies, page 3-13](#)
- [Alcatel-Lucent 7750 SR—Supported Service Events, page 3-13](#)

Alcatel-Lucent 7750 SR—Supported Software Versions

Table 3-12 Supported Software Versions for Alcatel-Lucent 7750 SR—Prime Network Version 4.0

Software Version	Product Version	DP Version
TiMOS-B-7.0.R4	3.7.2	3.0
TiMOS-C-7.0.R4	3.7.2	3.0
TiMOS-C-8.0.R7	3.7.2/3.7.3	5.0

Alcatel-Lucent 7750 SR—Supported Topologies

Table 3-13 Supported Topologies for Alcatel-Lucent 7750 SR—Prime Network Version 4.0

Topology Type	Link Type	Product Version	DP Version
Ethernet	Ethernet	3.7.2	3.0

Alcatel-Lucent 7750 SR—Supported Modules

Table 3-14 Supported Modules for Alcatel-Lucent 7750 SR—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
M60-10/100ETH-TX	3.7.2	MDA 60 Ports 10/100 Ethernet TX	3.0
C5-1GB-XP-SFP	3.7.2	Compact MDA 5-Port 10/100/1000 Ethernet Extended Performance SFP	3.0
M10-1GB-XP-SFP	3.7.2	MDA 10-Port 10/100/1000 Ethernet Extended Performance SFP	3.0
VSM-CCA	3.7.2	VSM Cross Connect	3.0

Table 3-14 Supported Modules for Alcatel-Lucent 7750 SR—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
IOM-XP	3.7.2	7750 Extended Performance IOM	3.0
CFM-XP	3.7.2	7750 Extended Performance CFM	3.0
IOM2-20G	3.7.2	2x10-Gig MDA IOM Card	3.0
SFM2-200G	3.7.2	200G CPM/SF module	3.0
SFM2-400G	3.7.2/3.7.3	400G CPM/SF Module	5.0
M2-10GB-XFP	3.7.2/3.7.3	MDA 2-Port 10-Gig Ethernet XFP	5.0
M1-10GB-XFP	3.7.2/3.7.3	MDA 2 Ports 10Gig Ethernet XFP	5.0
M10-1GB-SFP-B	3.7.2/3.7.3	MDA 10 Ports 10/100/1000 Ethernet SFP	5.0

Alcatel-Lucent 7750 SR—Supported Technologies

The following technologies are supported by the Alcatel-Lucent 7750 SR in Prime Network Version 4.0:

- [IP, page 3-19](#)
- [Routing Protocols, page 3-23](#)
- [Ethernet, page 3-24](#)
- [Hardware, page 3-24](#)
- [Serial, page 3-26](#)
- [MPLS, page 3-27](#)

Alcatel-Lucent 7750 SR—Supported Service Events

Table 3-15 Supported Service Events for Alcatel-Lucent 7750 SR—Prime Network Version 4.0

Event Name	Product Version	Expedited	DP Version
Active IP Interfaces Found	3.7.2	Y	3.0
All IP Interfaces Down	3.7.2	Y	3.0
Card In	3.7.2	Y	3.0
Card Out	3.7.2	Y	3.0
Device Unreachable	3.7.2	N	3.0
Device Unsupported	3.7.2	N	3.0
Interface Status Down/Up	3.7.2	N	3.0

Table 3-15 *Supported Service Events for Alcatel-Lucent 7750 SR—Prime Network Version 4.0 (Continued)*

Event Name	Product Version	Expedited	DP Version
Link Down	3.7.2	N	3.0
Link up	3.7.2	N	3.0

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 Prime Network Version 4.0, see [Alcatel-Lucent Intelligent Services Access Manager](#)):

This section contains the following topics:

- [Alcatel-Lucent ISAM—Supported Software Versions, page 3-14](#)
- [Alcatel-Lucent ISAM—Supported Topologies, page 3-14](#)
- [Alcatel-Lucent ISAM—Supported Modules, page 3-15](#)
- [Alcatel-Lucent ISAM—Supported Technologies, page 3-17](#)
- [Alcatel-Lucent ISAM—Supported Service Events, page 3-17](#)



Note

Alcatel ATM Subscriber Access Multiplexer device was already supported in the Prime Network (formerly known as Cisco ANA) prior to 3.7.2.

Alcatel-Lucent ISAM—Supported Software Versions

Table 3-16 *Supported Software Versions for Alcatel-Lucent ISAM—Prime Network Version 4.0*

Software Version	Product Version	DP Version
2.0.0.16	3.7.2/3.7.3	6.0
2.3.1.15	3.7.2/3.7.3	6.0
2.4.2.4	3.7.2/3.7.3	6.0

Alcatel-Lucent ISAM—Supported Topologies

Table 3-17 *Supported Topologies for Alcatel-Lucent ISAM—Prime Network Version 4.0*

Topology Type	Link Type	Product Version	DP Version
ATM	ATM	3.7.2/3.7.3	6.0

Table 3-17 Supported Topologies for Alcatel-Lucent ISAM—Prime Network Version 4.0

Topology Type	Link Type	Product Version	DP Version
Ethernet	Ethernet	3.7.2/3.7.3	6.0
Physical Layer	Physical Layer	3.7.2/3.7.3	6.0

Alcatel-Lucent ISAM—Supported Modules

Table 3-18 Supported Modules for Alcatel-Lucent ISAM—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
AACU-A	3.7.2/3.7.3	ADSL Alarm Control Unit version A (R3 equipment)	6.0
AACU-C	3.7.2/3.7.3	ADSL Alarm Control Unit version C (R4 equipment)	6.0
ABLT-D	3.7.2/3.7.3	MultiDSL POTS UD BVB LT standard version D	6.0
ABLT-E	3.7.2/3.7.3	Multi-DSL POTS Line Termination version E	6.0
ADLT-C	3.7.2/3.7.3	ADSL Line termination version C (4 lines)	6.0
ADLT-E	3.7.2/3.7.3	ADSL Line termination version E (4 lines)	6.0
ADLT-F	3.7.2/3.7.3	ADSL (Euro) Line termination version F (ISDN support, 4 lines)	6.0
ADLT-J	3.7.2/3.7.3	ADSL Line termination version J (12 lines)	6.0
ADLT-K	3.7.2/3.7.3	ADSL Line termination version K (12 lines)	6.0
ADLT-L	3.7.2/3.7.3	ADSL Line termination version L (24 lines)	6.0
ADLT-M	3.7.2/3.7.3	ADSL Line termination version M (12 lines)	6.0
ADLT-S	3.7.2/3.7.3	ADSL Line Termination version S - BVB enabled	6.0
ADLT-W	3.7.2/3.7.3	ADSL Line Termination version W - POTS/BVB ready	6.0
ADSE-A	3.7.2/3.7.3	ADSL Serial Extender version A	6.0
ADSE-B	3.7.2/3.7.3	ADSL Serial Extender version B	6.0

Table 3-18 Supported Modules for Alcatel-Lucent ISAM—Prime Network Version 4.0 (Continued)

Module Name	Product Version	Module Description	DP Version
ADSE-C	3.7.2/3.7.3	ADSL Serial Extender version C	6.0
AICC-A	3.7.2/3.7.3	IMA ATM E1-NT 2 Mits Controller Card	6.0
ASCC-P	3.7.2/3.7.3	PDH Interface Controller Card	6.0
ASCC-PE	3.7.2/3.7.3	PDH E3 Interface Controller Card	6.0
ASCC-S1	3.7.2/3.7.3	STM-1 Interface Controller Card	6.0
BSEC-A	3.7.2/3.7.3	Broad Band Shelf Extender Card	6.0
D1LT-A	3.7.2/3.7.3	DS1 Line termination version A	6.0
D1LT-B	3.7.2/3.7.3	4 T1 ports Using IMA Group	6.0
D3LT-A	3.7.2/3.7.3	DS3 Line termination version A	6.0
D3NT-A	3.7.2/3.7.3	DS3 Network Termination version A	6.0
D3NT-C	3.7.2/3.7.3	DS3 Network Termination version C	6.0
E1LT-A	3.7.2/3.7.3	E1 (IMA) Line Termination version A (4 lines)	6.0
E1NT-A	3.7.2/3.7.3	(Quad) E1 (IMA) Network Termination version A	6.0
E1NT-C	3.7.2/3.7.3	GANT-B motherboard and E1PL-B daughterboard (PLIM)	6.0
EBLT-A	3.7.2/3.7.3	ADSL2+ POTS Line Termination version A	6.0
EBLT-C	3.7.2/3.7.3	ADSL2+ POTS Line Termination version C	6.0
ECNT-A	3.7.2/3.7.3	7302 ISAM Combined network termination version A	6.0
LTAC-C	3.7.2/3.7.3	Line Terminal ADSL Combiner Card	6.0
LTAC-D	3.7.2/3.7.3	Line Terminal ADSL Combiner Card	6.0
LTSC-A	3.7.2/3.7.3	Line Termination SHDSL Card	6.0

Table 3-18 **Supported Modules for Alcatel-Lucent ISAM—Prime Network Version 4.0 (Continued)**

Module Name	Product Version	Module Description	DP Version
MACU-A	3.7.2/3.7.3	MiniRAM ACU version A	6.0
NBLC-A	3.7.2/3.7.3	Narrowband Line Card	6.0
SALT-A	3.7.2/3.7.3	1 Port OC3 Card	6.0
SALT-C	3.7.2/3.7.3	STM-1/OC3c (HCL based) Line Termination Unit version C	6.0
SANT-D	3.7.2/3.7.3	Synchronous (STM1) ATM Network Termination version D	6.0
SANT-E	3.7.2/3.7.3	GANT-A motherboard and SONI-A daughterboard (PLIM)	6.0
SANT-F	3.7.2/3.7.3	GANT-B motherboard and SONI-A daughterboard (PLIM)	6.0
SANT-G	3.7.2/3.7.3	Synchronous (STM1) ATM Network Termination version G	6.0
SHLT-B	3.7.2/3.7.3	SHDSL Line termination versioin B (12 lines)	6.0
SMLT-A	3.7.2/3.7.3	SHDSL Line termination version A (24 lines with IMA)	6.0
SMLT-B	3.7.2/3.7.3	SHDSL Line Termination Unit Version B(12 lines, with IMA)	6.0

Alcatel-Lucent ISAM—Supported Technologies

The following technologies are supported by the Alcatel-Lucent ISAM in Prime Network Version 4.0:

- [IP, page 3-19](#)
- [ATM, page 3-20](#)
- [Ethernet, page 3-24](#)
- [xDSL, page 3-21](#)
- [SONET/SDH, page 3-21](#)
- [Hardware, page 3-24](#)
- [Serial, page 3-26](#)
- [Additional Technologies, page 3-28](#)

Alcatel-Lucent ISAM—Supported Service Events

Table 3-19 *Supported Service Events for Alcatel-Lucent ISAM—Prime Network Version 4.0*

Event Name	Product Version	Expedited	DP Version
Active IP Interfaces Found	3.6.0	Y	
All IP Interfaces Down	3.6.1	Y	
BGP process up	3.6.0	N	
Card Down	3.6.0	Y	
Card In	3.6.0	Y	
Card Out	3.6.0	Y	
Card Up	3.6.0	Y	
Cloud Problem	3.6.0	N	
CPU utilization exceeded upper threshold	3.6.0	N	
Device Unreachable	3.6.0	N	
Device Unsupported	3.6.0	N	
Interface status down flapping	3.6.0	Y	
Interface status down flapping update	3.6.0	Y	
Keepalive configured	3.6.0		
Keepalive not configured	3.6.0		
Layer 2 Tunnel Down	3.6.0	N	
Link Down	3.6.0	N	
Link up	3.6.0	N	
Memory utilization exceeded upper threshold	3.6.0		
Module Unsupported	3.6.0	N	
Port Down	3.6.0	N	
Port Flapping	3.6.0	N	
Rx utilization exceeded upper threshold	3.6.0	N	
Tx utilization exceeded upper threshold	3.6.0	N	
VPN Leak	3.6.0	N	

Supported Technologies on Alcatel-Lucent Devices

The following sections list the objects and attributes that are supported on Alcatel-Lucent devices in Prime Network Version 4.0 per technology:

This section contains the following topics:

- [IP, page 3-19](#)

- [ATM, page 3-20](#)
- [SONET/SDH, page 3-21](#)
- [xDSL, page 3-21](#)
- [xDSL, page 3-21](#)
- [Routing Protocols, page 3-23](#)
- [Ethernet, page 3-24](#)
- [Hardware, page 3-24](#)
- [Serial, page 3-26](#)
- [MPLS, page 3-27](#)
- [Additional Technologies, page 3-28](#)

IP

Table 3-20 *IP Attribute Support on Alcatel-Lucent Devices—Prime Network Version 4.0*

Attribute	ASAM	7450 ESS	7705 SAR	7750 SR	ISAM
IMO Name—IIPInterface					
IP Address	Y	Y	Y	Y	Y
Subnetwork Mask	Y	Y	Y	Y	Y
IP Interface Addresses Array	Y	Y			Y
Interface Name		Y	Y	Y	Y
Interface Description			Y	Y	
IP Interface State		Y	Y	Y	Y
IMO Name—IRoutingEntity					
Routing Table	Y	Y	Y	Y	Y
ARP Entity	Y				Y
Routing Table Changes	Y				
Name	Y				Y
Logical Sons	Y				Y
IMO Name—IRoutingEntry					
Destination IP Subnet	Y	Y	Y	Y	Y
Next Hop IP Address	Y	Y	Y	Y	Y
Type	Y	Y	Y	Y	Y
Routing Protocol Type	Y	Y	Y	Y	Y
Outgoing Interface Name	Y	Y	Y	Y	Y
IMO Name—IARP Entity					
ARP Table	Y	Y	Y	Y	Y

Table 3-20 IP Attribute Support on Alcatel-Lucent Devices—Prime Network Version 4.0

Attribute	ASAM	7450 ESS	7705 SAR	7750 SR	ISAM
IMO Name—IARP Entry					
IP Address	Y	Y	Y	Y	Y
MAC Address	Y	Y	Y	Y	Y
Port	Y	Y	Y	Y	Y
Entry Type	Y				Y

ATM

Table 3-21 ATM Attribute Support on Alcatel-Lucent Devices—Prime Network Version 4.0

Attribute	ASAM	7450 ESS	7705 SAR	7750 SR	ISAM
IMO Name—IATm					
Interface Type	Y				Y
VP and VC Ranges	Y				Y
VC Table	Y				Y
CAC profiles	Y				
IMO Name—IATmVc					
Virtual Channel Identifier	Y				Y
Virtual Path Identifier	Y				Y
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
IMO Name—IATmTrafficDescriptor					
Traffic Descriptor Type	Y				Y
Service Category	Y				Y
Cell Loss Priority	Y				Y
Cell Delay Variation	Y				Y
Cell Delay Variation Tolerance	Y				Y

Table 3-21 ATM Attribute Support on Alcatel-Lucent Devices—Prime Network Version 4.0

Attribute	ASAM	7450 ESS	7705 SAR	7750 SR	ISAM
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				Y

SONET/SDH

Table 3-22 SONET/SDH Attribute Support on Alcatel-Lucent Devices—Prime Network Version 4.0

Attribute	ASAM	7450 ESS	7705 SAR	7750 SR	ISAM
IMO Name—ISonetSdh					
Loopback Type	Y				Y

xDSL

Table 3-23 xDSL Attribute Support on Alcatel-Lucent Devices—Prime Network Version 4.0

Attribute	ASAM	7450 ESS	7705 SAR	7750 SR	ISAM
IMO Name—IDsl / Ildsl / ISdsl / Ishdsl					
Customer Identification	Y				Y
Traffic Descriptor	Y				Y

Table 3-23 xDSL Attribute Support on Alcatel-Lucent Devices—Prime Network Version 4.0

Attribute	ASAM	7450 ESS	7705 SAR	7750 SR	ISAM
IMO Name—IADsl					
Maximum Reception and Transmission Bandwidth	Y				Y
Same as IDsl	Y				
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					Y
Max Transmission Power Spectral Density					Y
Channel type					Y
Name					Y
Index					Y
IMO Name—IADsl2SpectrumTrafficDescriptor					
Max, Min and Target Transmission and Reception Noise Margins					Y
Max, Min and Planned Target Transmission and Reception Bit Rates					Y
Name					Y
Index					Y

TDM/DSx

Table 3-24 TDM/DSx Attribute Support on Alcatel-Lucent Devices—Prime Network Version 4.0

Attribute	ASAM	7450 ESS	7705 SAR	7750 SR	ISAM
IMO Name—IDS1Pdh / IDS3Pdh					
Framing Type	Y				

Table 3-24 TDM/DSx Attribute Support on Alcatel-Lucent Devices—Prime Network Version 4.0

Attribute	ASAM	7450 ESS	7705 SAR	7750 SR	ISAM
Cell Mapping Type	Y				
Scrambling Mode	Y				
clocking	Y				
loopback	Y				

Routing Protocols

Table 3-25 Routing Protocols Attribute Support on Alcatel-Lucent Devices—Prime Network Version 4.0

Attribute	ASAM	7450 ESS	7705 SAR	7750 SR	ISAM
IMO Name—IBgpNeighborEntry					
Remote Identifier		Y	Y	Y	
Remote Address		Y	Y	Y	
Remote Autonomous System		Y	Y	Y	
Peer State		Y	Y	Y	
Peer AdminState		Y	Y	Y	
Hold Time		Y	Y	Y	
Keep Alive Time		Y	Y	Y	
IMO Name—IOspfEntry					
Area Identifier		Y	Y	Y	
IP Address		Y	Y	Y	
Type		Y	Y	Y	
Administrative Status		Y	Y	Y	
Ospf Entry State		Y	Y	Y	

Ethernet

Table 3-26 Ethernet Attribute Support on Alcatel-Lucent Devices—Prime Network Version 4.0

Attribute	ASAM	7450 ESS	7705 SAR	7750 SR	ISAM
IMO Name—IEthernet					
MAC Address		Y	Y	Y	Y
Port Type			Y	Y	
IANA Type					Y
IMO Name—IVlanInterface					
Native VLAN Identification		Y			
vlanencapType		Y			
IMO Name—IIEEE802					
VLAN Identification		Y			Y
IANA Type					Y
IMO Name—IEthernetChannel					
Group Number		Y			
IANA Type		Y			

Hardware

Table 3-27 Hardware Attribute Support on Alcatel-Lucent Devices—Prime Network Version 4.0

Attribute	ASAM	7450 ESS	7705 SAR	7750 SR	ISAM
IMO Name—IChassis					
Description	Y		Y	Y	Y
Equipment Holder Type	Y				Y
Serial Number	Y		Y	Y	
IMO Name—IShelf					
Description		Y			Y
Status	Y	Y			Y
Equipment Holder Type					Y
IMO Name—IModule					
Module Name		Y	Y	Y	Y
Module Description	Y	Y	Y	Y	Y

Table 3-27 Hardware Attribute Support on Alcatel-Lucent Devices—Prime Network Version 4.0 (Continued)

Attribute	ASAM	7450 ESS	7705 SAR	7750 SR	ISAM
Software Version		Y	Y	Y	Y
Operational Status	Y	Y	Y	Y	Y
Hardware Type & Version		Y	Y	Y	Y
Managed IP Address					Y
Redundant Equipment		Y			
Configured Redundancy		Y			
Redundancy Status		Y			Y
Operational Status Last Changed	Y	Y			Y
Supported Physical Termination Points		Y			Y
Serial Number (soft property)	Y	Y	Y	Y	Y
Fan Speed			Y	Y	
Fan Status			Y	Y	
Power type			Y	Y	
Power AC status			Y	Y	
Power DC Status			Y	Y	
IMO Name—IManagedElement					
IP Address	Y	Y	Y	Y	Y
Communication State	Y	Y	Y	Y	Y
Investigation State	Y	Y	Y	Y	Y
Element Category	Y	Y	Y	Y	Y
Element Type and Key	Y	Y	Y	Y	Y
Device Name	Y	Y	Y	Y	Y
Device Series	Y		Y	Y	Y
System Name	Y	Y	Y	Y	Y
System Description	Y	Y	Y	Y	Y
Up Time	Y	Y	Y	Y	Y
Software Version	Y	Y	Y	Y	Y
Vendor Identity	Y	Y	Y	Y	Y
Memory and CPU Usage		Y	Y	Y	
Sys Contact	Y		Y	Y	
Sys Location	Y		Y	Y	
Serial Number			Y	Y	

Table 3-27 Hardware Attribute Support on Alcatel-Lucent Devices—Prime Network Version 4.0 (Continued)

Attribute	ASAM	7450 ESS	7705 SAR	7750 SR	ISAM
IMO Name—ISystemService					
Up Time		Y			Y
IMO Name—IBridge					
MAC Address		Y			
IP Interface		Y			
Name		Y			
Logical Sons		Y			
IMO Name—IBridgeEntry					
Destination MAC		Y			Y
Outgoing Interface					Y

Serial

Table 3-28 Serial Attribute Support on Alcatel-Lucent Devices—Prime Network Version 4.0

Attribute	ASAM	7450 ESS	7705 SAR	7750 SR	ISAM
IMO Name—IPhysicalLayer					
Media Type		Y	Y	Y	Y
Clocking Source					Y
Maximum Speed		Y	Y	Y	Y
Is Internal Port		Y			
Discarded and Received Input Data Counters		Y			Y
Dropped and Forward Output Data Counters		Y			Y
Administrative Status	Y	Y	Y	Y	Y
Operational Status	Y	Y	Y	Y	Y
Last Changed	Y	Y	Y	Y	Y
IANA Type		Y			Y
Port Alias			Y	Y	
Location			Y	Y	
Status			Y	Y	

MPLS

Table 3-29 MPLS Attribute Support on Alcatel-Lucent Devices—Prime Network Version 4.0

Attribute	ASAM	7450 ESS	7705 SAR	7750 SR	ISAM
IMO Name—ILse					
LDP Service			Y	Y	
IMO Name—ILdpService					
Local Identification Status			Y	Y	
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			Y	Y	
Session Status			Y	Y	
Protocol Version Hold Time			Y	Y	
Hold Time			Y	Y	
Keep Alive Time			Y	Y	
Peer Discovery Sources			Y	Y	
IMO Name—ILdpDiscoverySource					
Source Address			Y	Y	
Type			Y	Y	

Additional Technologies

Table 3-30 Additional Technologies Attribute Support on Alcatel-Lucent Devices—Prime Network Version 4.0

Attribute	ASAM	7450 ESS	7705 SAR	7750/7710 SR	ISAM
IMO Name—POS					
POS					Y



Support Information for Calix Devices

This chapter contains support information for Virtual Network Elements (VNEs) that manage Calix devices in Prime Network Version 4.0.



Note

For more information about the objects and attributes described in this chapter, see *Cisco Prime Network 4.0 Supported Cisco VNEs*, *Cisco Prime Network 4.0 Supported Service Alarms*, *Cisco Prime Network 4.0 Supported System and Security Events*, and *Cisco Prime Network 4.0 Supported Technologies and Topologies* in the [Cisco Prime Network 4.0 Documentation Guide](#).

This chapter contains the following topics:

- [Calix Blade 6214 Series DSLAM, page 4-1](#)
- [Calix Blade 6216 Series DSLAM, page 4-4](#)
- [Calix Blade 6312 Series Switches, page 4-6](#)
- [Calix Blade 6316 Series Switches, page 4-7](#)
- [Calix Blade 6450 Series Switches, page 4-10](#)
- [Supported Technologies on Calix Devices, page 4-12](#)

Calix Blade 6214 Series DSLAM

This section includes the following information about Calix Blade 6214 Series DSLAM devices (for information on the NE types supported in Prime Network Version 4.0, see [Calix Blade 6214 Series DSLAM](#)):

- [Calix Blade 6214 Series DSLAM—Supported Software Versions, page 4-2](#)
- [Calix Blade 6214 Series DSLAM—Supported Modules, page 4-2](#)
- [Calix Blade 6214 Series DSLAM—Supported Technologies, page 4-3](#)
- [Calix Blade 6214 Series DSLAM—Supported Service Events, page 4-3](#)

Calix Blade 6214 Series DSLAM—Supported Software Versions

Table 4-1 *Supported Software Versions for Calix Blade 6214 Series DSLAM—Prime Network Version 4.0*

Software Version	Product Version	DP Version
V5.5R4	3.8.x-To-3.9.x	DP1206
V5.5R5	3.8.x-To-3.9.x	DP1206
V5.5R9	3.8.x-To-3.9.x	DP1206
V5.5R10	3.8.x-To-3.9.x	DP1206
V7.2R	3.8.x-To-3.9.x	DP1208

Calix Blade 6214 Series DSLAM—Supported Modules

Table 4-2 *Supported Modules for Calix Blade 6214 Series DSLAM—Prime Network Version 4.0*

Module Name	Product Version	Module Description	DP Version
B6-214	3.8.x-To-3.9.x	6214 Blade and BLC 6214 Assembly ADSL2Plus with Gigabit Ethernet, Integrated Splitter (ADSL2Plus & POTS: 48 ports, Gigabit Ethernet: 10 ports)	DP1206
Power Supply	3.8.x-To-3.9.x	LM87 +3.3V ¹ 440GP +1.8V +1.2V +1.5V +1.8V +2.5V +18V FPGA +1.8V SSTL2VTT +1.25V SSTL2REF +1.25V #B Vin -48V #A Vin -48V	DP1206
Fan Tray	3.8.x-To-3.9.x	It supports Fan 1 to Fan 10 ² .	DP1206

1. Supports the 5.5R4, R5, R9, and R10 OS versions
2. Fan 1 to Fan 4 support 5.5R4, R5, R9, and R10 OS versions; and Fan 5 to Fan 10 support 5.5R10 OS version.

Calix Blade 6214 Series DSLAM—Supported Technologies

The following technologies are supported by the Calix Blade 6214 Series DSLAM devices in Prime Network Version 4.0:

- [IP, page 4-13](#)
- [Ethernet \(IEEE 802.3\), page 4-14](#)
- [ATM, page 4-14](#)
- [Point to Point, page 4-15](#)
- [DSL, page 4-15](#)
- [Hardware, page 4-17](#)
- [Base Logical Components, page 4-18](#)
- [Serial, page 4-19](#)
- [Common, page 4-19](#)
- [Additional Technologies, page 4-20](#)
- [Additional Technologies\(EPS Info\), page 4-21](#)
- [Additional Technologies\(EPS State\), page 4-21](#)
- [Additional Technologies\(Access Prof Info\), page 4-21](#)
- [Additional Technologies\(Access Profile\), page 4-22](#)

Calix Blade 6214 Series DSLAM—Supported Service Events

Table 4-3 *Supported Service Events for Calix Blade 6214 Series DSLAM—Prime Network Version 4.0*

Event Name	Product Version	Expedited	DP Version
Active IP Interfaces Found	3.8.x-To-3.9.x	Y	DP1206
All IP Interfaces Down	3.8.x-To-3.9.x	Y	DP1206
Device Unreachable	3.8.x-To-3.9.x	N	DP1206
Device Unsupported	3.8.x-To-3.9.x	N	DP1206

Table 4-3 *Supported Service Events for Calix Blade 6214 Series DSLAM—Prime Network Version 4.0*

Event Name	Product Version	Expedited	DP Version
Link Down	3.8.x-To-3.9.x	N	DP1206
Link up	3.8.x-To-3.9.x	N	DP1206
Port Down	3.8.x-To-3.9.x	N	DP1206
Interface Status Down/Up	3.8.x-To-3.9.x	N	DP1206
CPU Over Utilized	3.8.x-To-3.9.x	N	DP1206
Memory Over Utilized	3.8.x-To-3.9.x	N	DP1206

Calix Blade 6216 Series DSLAM

This section includes the following information about Calix Blade 6216 Series DSLAM devices (for information on the NE types supported in Prime Network Version 4.0, see [Calix Blade 6214 Series DSLAM—Supported Service Events](#)):

- [Calix Blade 6216 Series DSLAM—Supported Software Versions, page 4-4](#)
- [Calix Blade 6216 Series DSLAM—Supported Modules, page 4-4](#)
- [Calix Blade 6216 Series DSLAM—Supported Technologies, page 4-5](#)
- [Calix Blade 6216 Series DSLAM—Supported Service Events, page 4-5](#)

Calix Blade 6216 Series DSLAM—Supported Software Versions

Table 4-4 *Supported Software Versions for Calix Blade 6216 Series DSLAM—Prime Network Version 4.0*

Software Version	Product Version	DP Version
7.2R5	3.10	DP1212
7.2R6	4.0	DP1308

Calix Blade 6216 Series DSLAM—Supported Modules

Table 4-5 *Supported Modules for Calix Blade 6216Series DSLAM—Prime Network Version 4.0*

Module Name	Product Version	Module Description	DP Version
B6-216	3.10		DP1212

Calix Blade 6216 Series DSLAM—Supported Technologies

The following technologies are supported by the Calix Blade 6216 Series DSLAM devices in Prime Network Version 4.0:

- [IP, page 4-13](#)
- [Ethernet \(IEEE 802.3\), page 4-14](#)
- [ATM, page 4-14](#)
- [Point to Point, page 4-15](#)
- [DSL, page 4-15](#)
- [Hardware, page 4-17](#)
- [Base Logical Components, page 4-18](#)
- [Serial, page 4-19](#)
- [Common, page 4-19](#)
- [Additional Technologies, page 4-20](#)
- [Additional Technologies\(EPS Info\), page 4-21](#)
- [Additional Technologies\(EPS State\), page 4-21](#)
- [Additional Technologies\(Access Prof Info\), page 4-21](#)
- [Additional Technologies\(Access Profile\), page 4-22](#)
- [Carrier Ethernet, page 4-23](#)
- [Encapsulation, page 4-23](#)

Calix Blade 6216 Series DSLAM—Supported Service Events

Table 4-6 *Supported Service Events for Calix Blade 6216 Series DSLAM—Prime Network Version 4.0*

Event Name	Product Version	Expedited	DP Version
Active IP Interfaces Found	3.10	Y	DP1212
All IP Interfaces Down	3.10	Y	DP1212
Device Unreachable	3.10	N	DP1212
Device Unsupported	3.10	N	DP1212
Link Down	3.10	N	DP1212
Link up	3.10	N	DP1212
Port Down	3.10	N	DP1212
Interface Status Down/Up	3.10	N	DP1212
CPU Over Utilized	3.10	N	DP1212
Memory Over Utilized	3.10	N	DP1212

Calix Blade 6312 Series Switches

This section includes the following information about Calix Blade 6312 Series Switch devices (for information on the NE types supported in Prime Network Version 4.0, see [Calix Blade 6216 Series DSLAM—Supported Service Events](#)):

- [Calix Blade 6312 Series Switches—Supported Software Versions](#), page 4-6
- [Calix Blade 6312 Series Switches—Supported Modules](#), page 4-6
- [Calix Blade 6312 Series Switches—Supported Technologies](#), page 4-6
- [Calix Blade 6312 Series Switches—Supported Service Events](#), page 4-7

Calix Blade 6312 Series Switches—Supported Software Versions

Table 4-7 *Supported Software Versions for Calix Blade 6312 Series Switch—Prime Network Version 4.0*

Software Version	Product Version	DP Version
V5.5R4	3.8.x-To-3.9.x	DP1206
V5.5R5	3.8.x-To-3.9.x	DP1206

Calix Blade 6312 Series Switches—Supported Modules

Table 4-8 *Supported Modules for Calix Blade 6312 Series Switch—Prime Network Version 4.0*

Module Name	Product Version	Module Description	DP Version
6312 Blade	3.8.x-To-3.9.x	Optical Line Termination Blade	DP1206

Calix Blade 6312 Series Switches—Supported Technologies

The following technologies are supported by the Calix Blade 6312 Series Switch devices in Prime Network Version 4.0:

- [IP](#), page 4-13
- [Ethernet \(IEEE 802.3\)](#), page 4-14
- [Hardware](#), page 4-17
- [Base Logical Components](#), page 4-18
- [Serial](#), page 4-19

- [Common](#), page 4-19
- [Additional Technologies](#), page 4-20
- [Additional Technologies\(EPS Info\)](#), page 4-21
- [Additional Technologies\(EPS State\)](#), page 4-21
- [Additional Technologies\(Access Prof Info\)](#), page 4-21
- [Additional Technologies\(Access Profile\)](#), page 4-22

Calix Blade 6312 Series Switches—Supported Service Events

Table 4-9 *Supported Service Events for Calix Blade 6312 Series Switch—Prime Network Version 4.0*

Event Name	Product Version	Expedited	DP Version
Active IP Interfaces Found	3.8.x-To-3.9.x	Y	DP1206
All IP Interfaces Down	3.8.x-To-3.9.x	Y	DP1206
Device Unreachable	3.8.x-To-3.9.x	N	DP1206
Device Unsupported	3.8.x-To-3.9.x	N	DP1206
Link Down	3.8.x-To-3.9.x	N	DP1206
Link up	3.8.x-To-3.9.x	N	DP1206
Port Down	3.8.x-To-3.9.x	N	DP1206
Interface Status Down/Up	3.8.x-To-3.9.x	N	DP1206
CPU Over Utilized	3.8.x-To-3.9.x	N	DP1206
Memory Over Utilized	3.8.x-To-3.9.x	N	DP1206

Calix Blade 6316 Series Switches

This section includes the following information about Calix Blade 6316 Series Switch devices (for information on the NE types supported in Prime Network Version 4.0, see [Calix Blade 6312 Series Switches—Supported Service Events](#)):

- [Calix Blade 6316 Series Switches—Supported Software Versions](#), page 4-8
- [Calix Blade 6316 Series Switches—Supported Modules](#), page 4-8

- [Calix Blade 6316 Series Switches—Supported Technologies, page 4-9](#)
- [Calix Blade 6316 Series Switches—Supported Service Events, page 4-9](#)

Calix Blade 6316 Series Switches—Supported Software Versions

Table 4-10 *Supported Software Versions for Calix Blade 6316 Series Switch—Prime Network Version 4.0*

Software Version	Product Version	DP Version
7.0R1	3.8.x-To-3.9.x	DP1206
7.0R1_S101	3.8.x-To-3.9.x	DP1206
7.2R3	3.8.x-To-3.9.x	DP1208

Calix Blade 6316 Series Switches—Supported Modules

Table 4-11 *Supported Modules for Calix Blade 6316 Series Switch—Prime Network Version 4.0*

Module Name	Product Version	Module Description	DP Version
B6-316	3.8.x-To-3.9.x	6316 Blade, BLC 6316 Assembly 10 GE Aggregation Rings, Access Rings, Point-to-point and Business Ethernet Services (10 Gigabit Ethernet XFP Ports (2), 10 Gigabit Ethernet Copper Ports (2), 1 Gigabit Ethernet SFP Ports (8), 1 Gigabit Ethernet Fiber Ports (Swappable) (40))	DP1206
Power Supply	3.8.x-To-3.9.x	+1.0V +5V -48V_2 -48V_1 +1.5V +1.2V +1.25V +1.8V +2.5V +3.3V	DP1206
Fan Tray	3.8.x-To-3.9.x	It supports Fan 1 to Fan 4.	DP1206

Calix Blade 6316 Series Switches—Supported Technologies

The following technologies are supported by the Calix Blade 6316 Series Switch devices in Prime Network Version 4.0:

- [IP](#), page 4-13
- [Ethernet \(IEEE 802.3\)](#), page 4-14
- [Hardware](#), page 4-17
- [Base Logical Components](#), page 4-18
- [Serial](#), page 4-19
- [Common](#), page 4-19
- [Additional Technologies](#), page 4-20
- [Additional Technologies\(EPS Info\)](#), page 4-21
- [Additional Technologies\(EPS State\)](#), page 4-21
- [Additional Technologies\(Access Prof Info\)](#), page 4-21
- [Additional Technologies\(Access Profile\)](#), page 4-22

Calix Blade 6316 Series Switches—Supported Service Events

Table 4-12 *Supported Service Events for Calix Blade 6316 Series Switch—Prime Network Version 4.0*

Event Name	Product Version	Expedited	DP Version
Active IP Interfaces Found	3.8.x-To-3.9.x	Y	DP1206
All IP Interfaces Down	3.8.x-To-3.9.x	Y	DP1206
Device Unreachable	3.8.x-To-3.9.x	N	DP1206
Device Unsupported	3.8.x-To-3.9.x	N	DP1206
Link Down	3.8.x-To-3.9.x	N	DP1206
Link up	3.8.x-To-3.9.x	N	DP1206
Port Down	3.8.x-To-3.9.x	N	DP1206
Interface Status Down/Up	3.8.x-To-3.9.x	N	DP1206
CPU Over Utilized	3.8.x-To-3.9.x	N	DP1206

Table 4-12 *Supported Service Events for Calix Blade 6316 Series Switch—Prime Network Version 4.0*

Event Name	Product Version	Expedited	DP Version
Memory Over Utilized	3.8.x-To-3.9.x	N	DP1206

Calix Blade 6450 Series Switches

This section includes the following information about Calix Blade 6450 Series Switch devices (for information on the NE types supported in Prime Network Version 4.0, see [Calix Blade 6450 Series Switches](#)):

- [Calix Blade 6450 Series Switches—Supported Software Versions](#), page 4-10
- [Calix Blade 6450 Series Switches—Supported Modules](#), page 4-11
- [Calix Blade 6450 Series Switches—Supported Technologies](#), page 4-11
- [Calix Blade 6450 Series Switches—Supported Service Events](#), page 4-12

Calix Blade 6450 Series Switches—Supported Software Versions

Table 4-13 *Supported Software Versions for Calix Blade 6450 Series Switch—Prime Network Version 4.0*

Software Version	Product Version	DP Version
V5.5R4	3.8.x-To-3.9.x	DP1206
V5.5R5	3.8.x-To-3.9.x	DP1206
V5.5R7P8	3.8.x-To-3.9.x	DP1206
7.1R2	3.8.x-To-3.9.x	DP1206

Calix Blade 6450 Series Switches—Supported Modules

Table 4-14 Supported Modules for Calix Blade 6450 Series Switch—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
B6-450	3.8.x-To-3.9.x	BLC 6450 Assembly 10 GbE Aggregation Rings, Access Rings, Point-to-point and Business Ethernet Services (10 Gigabit Ethernet XFP Ports (2), 10 Gigabit Ethernet Ports (2), 10 Gigabit Ethernet Copper Ports (2), 1 Gigabit Ethernet SFP Ports (16), 1 Gigabit Ethernet Copper Ports (6))	DP1206
Power Supply	3.8.x-To-3.9.x	+5V XFP2 +5V XFP1 +5V LM87 +3.3V 440GP +1.8V +1.2V +1.25V Enet +1.8V +2.5V SSTL2VTT +1.25V SSTL2REF +1.25V FPGA +1.8V #B Vin -48V #A Vin -48V Exhaust ¹ PCB Bottom Middle ²	DP1206
Fan Tray	3.8.x-To-3.9.x	It supports Fan 1 to Fan 10 ³	DP1206

1. Supports the 7.1R2 OS version

2. Supports the 7.1R2 OS version

3. Fan 1 to Fan 4 Support the 5.5R4, R5, R7P8, and 7.1R2 OS versions; and Fan 5 to Fan 10 support 7.1R OS version

Calix Blade 6450 Series Switches—Supported Technologies

The following technologies are supported by the Calix Blade 6450 Series Switch devices in Prime Network Version 4.0:

- [IP](#), page 4-13
- [Ethernet \(IEEE 802.3\)](#), page 4-14
- [Hardware](#), page 4-17
- [Base Logical Components](#), page 4-18
- [Serial](#), page 4-19
- [Common](#), page 4-19

- [Additional Technologies](#), page 4-20
- [Additional Technologies\(EPS Info\)](#), page 4-21
- [Additional Technologies\(EPS State\)](#), page 4-21
- [Additional Technologies\(Access Prof Info\)](#), page 4-21
- [Additional Technologies\(Access Profile\)](#), page 4-22

Calix Blade 6450 Series Switches—Supported Service Events

Table 4-15 *Supported Service Events for Calix Blade 6450 Series Switch—Prime Network Version 4.0*

Event Name	Product Version	Expedited	DP Version
Active IP Interfaces Found	3.8.x-To-3.9.x	Y	DP1206
All IP Interfaces Down	3.8.x-To-3.9.x	Y	DP1206
Device Unreachable	3.8.x-To-3.9.x	N	DP1206
Device Unsupported	3.8.x-To-3.9.x	N	DP1206
Link Down	3.8.x-To-3.9.x	N	DP1206
Link up	3.8.x-To-3.9.x	N	DP1206
Port Down	3.8.x-To-3.9.x	N	DP1206
Interface Status Down/Up	3.8.x-To-3.9.x	N	DP1206
CPU Over Utilized	3.8.x-To-3.9.x	N	DP1206
Memory Over Utilized	3.8.x-To-3.9.x	N	DP1206

Supported Technologies on Calix Devices

The following sections list the objects and attributes that are supported on Calix devices in Prime Network Version 4.0 per technology:

- [IP](#), page 4-13
- [Ethernet \(IEEE 802.3\)](#), page 4-14
- [ATM](#), page 4-14
- [Point to Point](#), page 4-15

- DSL, page 4-15
- Hardware, page 4-17
- Base Logical Components, page 4-18
- Serial, page 4-19
- Common, page 4-19
- Additional Technologies, page 4-20
- Additional Technologies(EPS Info), page 4-21
- Additional Technologies(EPS State), page 4-21
- Additional Technologies(Access Prof Info), page 4-21
- Additional Technologies(Access Profile), page 4-22
- Carrier Ethernet, page 4-23
- Encapsulation, page 4-23

IP

The following table (Table 4-16) lists the ip protocols attributes that are supported on Calix devices in Prime Network Version 4.0 per technology:

Table 4-16 IP Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
IMO Name—IIPInterface					
IP Address	Y	Y	Y	Y	Y
Subnetwork Mask	Y	Y	Y	Y	Y
Interface Name	Y	Y	Y	Y	Y
IP Interface State	Y	Y	Y	Y	Y
IMO Name—IRoutingEntity					
Routing Table	Y	Y	Y	Y	Y
ARP Entity	Y	Y	Y	Y	Y
Name	Y	Y	Y	Y	Y
Logical Sons	Y	Y	Y	Y	Y
IMO Name—IRoutingEntry					
Destination IP Subnet	Y	Y	Y	Y	Y
Next Hop IP Address	Y	Y	Y	Y	Y
Type	Y	Y	Y	Y	Y
Outgoing Interface Name	Y	Y	Y	Y	Y
IMO Name—IARPEntity					
ARP Table	Y	Y	Y	Y	Y

Table 4-16 IP Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
IMO Name—IARPEntry					
IP Address	Y	Y	Y	Y	Y
MAC Address	Y	Y	Y	Y	Y
Port	Y	Y	Y	Y	Y
Entry Type	Y	Y	Y	Y	Y

Ethernet (IEEE 802.3)

The following table (Table 4-17) lists the ethernet (ieee 802.3) protocols attributes that are supported on Calix devices in Prime Network Version 4.0 per technology:

Table 4-17 Ethernet (IEEE 802.3) Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
IMO Name—IEthernet					
IANA Type	Y	Y	Y	Y	Y
IMO Name—IVlanInterface					
Mode	Y	Y	Y	Y	Y
Virtual LAN Table	Y	Y	Y	Y	Y
IANA Type			Y	Y	Y
IMO Name—IIEEE802					
VLAN Identification	Y	Y	Y	Y	Y
IANA Type	Y	Y	Y	Y	Y

ATM

The following table (Table 4-18) lists the atm protocols attributes that are supported on Calix devices in Prime Network Version 4.0 per technology:

Table 4-18 ATM Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
IMO Name—IAtm					
VC Table		Y			

Table 4-18 ATM Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
IMO Name—IAtmVc					
Virtual Channel Identifier	Y	Y			
Virtual Path Identifier	Y	Y			
Administrative Status	Y	Y			
Operational Status	Y	Y			

Point to Point

The following table (Table 4-19) lists the point to point protocols attributes that are supported on Calix devices in Prime Network Version 4.0 per technology:

Table 4-19 Point to Point Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
IMO Name—lencapsulation (HDLC/PPP)					
Virtual Connection	Y	Y			
Binding Status	Y	Y			

DSL

The following table (Table 4-20) lists the dsl protocols attributes that are supported on Calix devices in Prime Network Version 4.0 per technology:

Table 4-20 DSL Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
IMO Name—IAdsltraTrafficDescriptor					
Max, Min and Target Transmission and Reception Noise Margins	Y	Y			
Max, Min and Planned Target Transmission and Reception Bit Rates	Y	Y			
Channel type	Y	Y			
Name	Y	Y			
IMO Name—IXDslTrafficDescriptor					

Table 4-20 DSL Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
Profile Name	Y	Y			
Transmission System	Y	Y			
Channel Type	Y	Y			
Tx Minimum Bit Rate [Kbit/sec]	Y	Y			
Rx Minimum Bit Rate [Kbit/sec]	Y	Y			
Tx Maximum Bit Rate [Kbit/sec]	Y	Y			
Rx Maximum Bit Rate [Kbit/sec]	Y	Y			
Tx Target Noise Margin [dB]	Y	Y			
Rx Target Noise Margin [dB]	Y	Y			
Tx Minimum Noise Margin [dB]	Y	Y			
Rx Minimum Noise Margin [dB]	Y	Y			
Tx Maximum Noise Margin [dB]	Y	Y			
Rx Maximum Noise Margin [dB]	Y	Y			
XDSL2 Line Profile	Y	Y			
Upstream Band 0 Mask	Y	Y			
IMO Name—IDSLBondingGroup					
Group Number	Y	Y			
Description	Y	Y			
Admin Status	Y	Y			
Oper Status	Y	Y			
Admin Scheme	Y	Y			
Oper Scheme	Y	Y			
Target Downstream Rate	Y	Y			
Target Upstream Rate	Y	Y			
Upstream Rate	Y	Y			
Downstream Rate	Y	Y			
Minimum Upstream Rate	Y	Y			
Minimum Downstream Rate	Y	Y			
Number of Aggregated Ports	Y	Y			
Maximum Aggregated Ports	Y	Y			
Peer Admin Scheme	Y	Y			
Peer Oper Scheme	Y	Y			
Discovery Code	Y	Y			
Designated End Point	Y	Y			

Table 4-20 DSL Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
Maximum Peer Aggregated Ports	Y	Y			
IMO Name—Igdot998dot2Properties					
Control Protocol Type		Y			
PTM Encapsulation Type		Y			
Is BACP Supported		Y			
IMO Name—IXDSL					
Operating Mode	Y	Y			
TPS-TC Admin Mode		Y			
TPS-TC Oper Mode		Y			
Aggregation Group	Y	Y			
Same as IADsl	Y				

Hardware

The following table (Table 4-21) lists the hardware protocols attributes that are supported on Calix devices in Prime Network Version 4.0 per technology:

Table 4-21 Hardware Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
IMO Name—IChassis					
Description	Y	Y	Y	Y	Y
Equipment Holder Type	Y	Y	Y	Y	Y
Type	Y	Y	Y	Y	Y
Serial Number	Y	Y	Y	Y	Y
IMO Name—IShelf					
Equipment Holder Type	Y	Y	Y	Y	Y
IMO Name—IModule					
Module Name	Y	Y	Y	Y	Y
Module Description	Y	Y	Y	Y	Y
Software Version	Y	Y	Y	Y	Y
Operational Status			Y	Y	Y
Hardware Type & Version	Y	Y	Y	Y	Y
Operational Status Last Changed	Y	Y	Y	Y	Y

Table 4-21 Hardware Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0 (Continued)

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
Serial Number (soft property)	Y	Y	Y	Y	Y
IMO Name—IBridge					
Bridge Table	Y	Y	Y	Y	
Type	Y	Y	Y	Y	
MAC Address	Y	Y	Y	Y	
IP Interface	Y	Y	Y	Y	
Name	Y	Y	Y	Y	
Logical Sons	Y	Y	Y	Y	

Base Logical Components

The following table ([Table 4-22](#)) lists the base logical components protocols attributes that are supported on Calix devices in Prime Network Version 4.0 per technology:

Table 4-22 Base Logical Components Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
IMO Name—IManagedElement					
IP Address	Y	Y	Y	Y	Y
Communication State	Y	Y	Y	Y	Y
Investigation State	Y	Y	Y	Y	Y
Element Category	Y	Y	Y	Y	Y
Element Type and Key	Y	Y	Y	Y	Y
Device Name	Y	Y	Y	Y	Y
System Name	Y	Y	Y	Y	Y
System Description	Y	Y	Y	Y	Y
Up Time	Y	Y	Y	Y	Y
Software Version	Y	Y	Y	Y	Y
Vendor Identity	Y	Y	Y	Y	Y
Memory and CPU Usage	Y	Y	Y	Y	Y
IMO Name—ISystemService					
Up Time	Y	Y	Y	Y	Y

Serial

The following table (Table 4-23) lists the serial protocols attributes that are supported on Calix devices in Prime Network Version 4.0 per technology:

Table 4-23 Serial Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
IMO Name—IPhysicalLayer					
Media Type	Y	Y	Y	Y	Y
Maximum Speed	Y	Y	Y	Y	Y
Is Internal Port	Y	Y	Y	Y	Y
Discarded and Received Input Data Counters	Y	Y	Y	Y	Y
Dropped and Forward Output Data Counters	Y	Y	Y	Y	Y
Administrative Status	Y	Y	Y	Y	Y
Operational Status	Y	Y	Y	Y	Y
Last Changed	Y	Y	Y	Y	Y
IANA Type	Y	Y	Y	Y	Y
IMO Name—IBridge					
Bridge Table					Y
Type					Y
MAC Address					Y
IP Interface					Y
Name					Y
Logical Sons					Y

Common

The following table (Table 4-24) lists the common protocols attributes that are supported on Calix devices in Prime Network Version 4.0 per technology:

Table 4-24 Common Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
IMO Name—IPhysicalLayer					
Media Type	Y	Y	Y	Y	Y

Table 4-24 Common Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0 (Continued)

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
Maximum Speed	Y	Y	Y	Y	Y
Is Internal Port	Y	Y	Y	Y	Y
Discarded and Received Input Data Counters	Y	Y	Y	Y	Y
Dropped and Forward Output Data Counters	Y	Y	Y	Y	Y
Administrative Status	Y	Y	Y	Y	Y
Operational Status	Y	Y	Y	Y	Y
Last Changed	Y	Y	Y	Y	Y
IANA Type	Y	Y	Y	Y	Y
IMO Name—IBridge					
Bridge Table	Y	Y	Y	Y	Y
Type	Y	Y	Y	Y	Y
MAC Address	Y	Y	Y	Y	Y
IP Interface	Y	Y	Y	Y	Y
Name	Y	Y	Y	Y	Y
Logical Sons	Y	Y	Y	Y	Y

Additional Technologies

The following table ([Table 4-25](#)) lists the additional technologies protocols attributes that are supported on Calix devices in Prime Network Version 4.0 per technology:

Table 4-25 Additional Technologies Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
IMO Name—IPower Supply					
Voltage names	Y	Y	Y	Y	Y
Voltage Value	Y	Y	Y	Y	Y
IMO Name—IFan					
Fan Name	Y	Y	Y	Y	Y
Fan Value	Y	Y	Y	Y	Y

Additional Technologies(EPS Info)

The following table (Table 4-26) lists the additional technologies (eps info) protocols attributes that are supported on Calix devices in Prime Network Version 4.0 per technology:

Table 4-26 Additional Technologies(EPS Info) Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
IMO Name—IManagedElement					
EPS Device mode	Y	Y	Y	Y	Y
EPS Path group	Y	Y	Y	Y	Y
Untagged vlan id	Y	Y	Y	Y	Y
Mac Address	Y	Y	Y	Y	Y

Additional Technologies(EPS State)

The following table (Table 4-27) lists the additional technologies (eps state) protocols attributes that are supported on Calix devices in Prime Network Version 4.0 per technology:

Table 4-27 Additional Technologies(EPS State)Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
IMO Name—IphysicalLayer					
Tagged	Y	Y	Y	Y	Y
Untagged	Y	Y	Y	Y	Y
Doubleqtag	Y	Y	Y	Y	Y
Ring PG1	Y	Y	Y	Y	Y
Ring PG2	Y	Y	Y	Y	Y
Ring all	Y	Y	Y	Y	Y
SUB	Y	Y	Y	Y	Y
INTC	Y	Y	Y	Y	Y

Additional Technologies(Access Prof Info)

The following table (Table 4-28) lists the additional technologies (access prof info) protocols attributes that are supported on Calix devices in Prime Network Version 4.0 per technology:

Table 4-28 Additional Technologies(Access Prof Info) Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
IMO Name—IphysicalLayer					
Access Profile Name	Y	Y	Y	Y	Y
Service ID	Y	Y	Y	Y	Y
IMO Name—ICalixTLSAccessProfile					
Profile Name		Y			
Input Service Policy		Y			
Output Service Policy		Y			
S-Vid		Y			
Mac Limit		Y			
Priority		Y			
Maximum Priority		Y			
IMO Name—ICalixOne2OneAccessProfile					
Profile Name		Y			
S-Vid		Y			
Priority Map		Y			
Priority		Y			
Maximum Priority		Y			
Input Service Policy		Y			
Output Service Policy		Y			

Additional Technologies(Access Profile)

The following table (Table 4-29) lists the additional technologies (access profile) protocols attributes that are supported on Calix devices in Prime Network Version 4.0 per technology:

Table 4-29 Additional Technologies(Access Profile) Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
IMO Name—IOccamAccessProfile					
Input Service Policy	Y	Y	Y	Y	Y
Output Service Policy	Y	Y	Y	Y	Y
Igmp Port Type	Y	Y	Y	Y	Y
Igmp Source Address	Y	Y	Y	Y	Y

Table 4-29 Additional Technologies(Access Profile) Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0 (Continued)

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
Igmp Max Streams	Y	Y	Y	Y	Y
EPSVlan	Y	Y	Y	Y	Y
Mac Limit	Y	Y	Y	Y	Y
Mac Learning	Y	Y	Y	Y	Y
DHCP Mode	Y	Y	Y	Y	Y
DHCP Servers	Y	Y	Y	Y	Y
DHCP Hot Swap	Y	Y	Y	Y	Y
Arp Mode	Y	Y	Y	Y	Y
Arp Cache Timeout	Y	Y	Y	Y	Y
Profile name	Y	Y	Y	Y	Y

Carrier Ethernet

The following table (Table 4-30) lists the carrier ethernet protocols attributes that are supported on Calix devices in Prime Network Version 4.0 per technology:

Table 4-30 Carrier Ethernet Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
IMO Name—IEfp					
EfpId		Y			
RewriteParams		Y			
EncapsParams		Y			
AdminStatus		Y			
OperStatus		Y			
MatchCriteria		Y			

Encapsulation

The following table (Table 4-31) lists the encapsulation protocol attribute that is supported on Calix devices in Prime Network Version 4.0 per technology:

Table 4-31 *Encapsulation Attribute Support on Calix Blade Series Switches—Prime Network Version 4.0*

Attributes	BLC 6214	BLC 6216	BLC 6312	BLC 6316	BLC 6450
IMO Name—IPTM					
PTMEncapsulationType		Y			



Support Information for DragonWave Devices

This chapter contains support information for Virtual Network Elements (VNEs) that manage DragonWave devices in Prime Network Version 4.0.



Note

For more information about the objects and attributes described in this chapter, see *Cisco Prime Network 4.0 Supported Cisco VNEs*, *Cisco Prime Network 4.0 Supported Service Alarms*, *Cisco Prime Network 4.0 Supported System and Security Events*, and *Cisco Prime Network 4.0 Supported Technologies and Topologies* in the [Cisco Prime Network 4.0 Documentation Guide](#).

This chapter contains the following topics:

- [DragonWave Horizon Compact Device \(Packet Microwave System\)](#), page 5-1
- [DragonWave Horizon Compact Plus Device \(Packet Microwave System\)](#), page 5-3
- [DragonWave Horizon Quantum Device \(Packet Microwave System\)](#), page 5-5
- [Supported Technologies on DragonWave Devices](#), page 5-7

DragonWave Horizon Compact Device (Packet Microwave System)

This section includes the following information about DragonWave Horizon Compact (Packet Microwave System) devices (for information on the NE types supported in Prime Network Version 4.0, see the [DragonWave Horizon Compact Device \(Packet Microwave System\)](#)):

This section contains the following topics:

- [Horizon Compact—Supported Software Versions](#), page 5-2
- [Horizon Compact—Supported Topologies](#), page 5-2
- [Horizon Compact—Supported Modules](#), page 5-2
- [Horizon Compact—Supported Technologies](#), page 5-2
- [Horizon Compact—Supported Service Events](#), page 5-3

Horizon Compact—Supported Software Versions

Table 5-1 Supported Software Versions for Horizon Compact—Prime Network Version 4.0

Software Version	Product Version	DP Version
1.03.02	3.7.2/3.7.3	5.0
1.04.05	3.7.2/3.7.3	5.0

Horizon Compact—Supported Topologies

Table 5-2 Supported Topologies for Horizon Compact—Prime Network Version 4.0

Topology Type	Link Type	Product Version	DP Version
Physical Layer	Physical Layer	3.7.2/3.7.3	5.0
Generic Port	Generic Port ¹	3.7.2/3.7.3	7.0

1. Currently it is supported by using generic methodology.

Horizon Compact—Supported Modules

Table 5-3 Supported Modules for Horizon Compact—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
Horizon Compact	3.7.2/3.7.3	Horizon Compact is not a modular device. It contains 2 Ethernet ports and 1 Wireless port.	5.0

Horizon Compact—Supported Technologies

The following technologies are supported by the Horizon Compact devices in Prime Network Version 4.0:

- [Ethernet, page 5-7](#)
- [Hardware, page 5-8](#)
- [Serial, page 5-9](#)
- [Generic Port, page 5-10](#)
- [Local Switching, page 5-11](#)

Horizon Compact—Supported Service Events

Table 5-4 Supported Service Events for Horizon Compact—Prime Network Version 4.0

Event Name	Product Version	Expedited	DP Version
Link up	3.7.2/3.7.3	N	5.0
Device Unsupported	3.7.2/3.7.3	N	5.0
Port down due to admin	3.7.2/3.7.3	N	5.0
Port down due to oper	3.7.2/3.7.3	N	5.0
Device Managed	3.7.2/3.7.3	N	5.0
Management Unreachable	3.7.2/3.7.3	N	5.0
Device Partially Managed	3.7.2/3.7.3	N	5.0
Port up	3.7.2/3.7.3	N	5.0

DragonWave Horizon Compact Plus Device (Packet Microwave System)

This section includes the following information about DragonWave Horizon Compact Plus (Packet Microwave System) devices (for information on the NE types supported in Prime Network Version 4.0, see the [DragonWave Horizon Compact Plus Device \(Packet Microwave System\)](#)):

This section contains the following topics:

- [Horizon Compact Plus—Supported Software Versions, page 5-3](#)
- [Horizon Compact Plus—Supported Topologies, page 5-4](#)
- [Horizon Compact Plus—Supported Modules, page 5-4](#)
- [Horizon Compact Plus—Supported Technologies, page 5-4](#)
- [Horizon Compact Plus—Supported Service Events, page 5-4](#)

Horizon Compact Plus—Supported Software Versions

Table 5-5 Supported Software Versions for Horizon Compact Plus—Prime Network Version 4.0

Software Version	Product Version	DP Version
1.0.0	3.7.2/3.7.3	8.0
1.1.0	4.0	1308
1.2.0	4.0	1308

Horizon Compact Plus—Supported Topologies

Table 5-6 Supported Topologies for Horizon Compact Plus—Prime Network Version 4.0

Topology Type	Link Type	Product Version	DP Version
Physical Layer	Physical Layer	3.7.2/3.7.3	8.0
Generic Port	Generic Port ¹	3.7.2/3.7.3	8.0

1. Currently it is supported by using LLDP technology.

Horizon Compact Plus—Supported Modules

Table 5-7 Supported Modules for Horizon Compact Plus—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
Horizon Compact Plus	3.7.2/3.7.3	Horizon Compact Plus is not a modular device. It contains Ethernet ports and Wireless ports.	8.0

Horizon Compact Plus—Supported Technologies

The following technologies are supported by the Horizon Compact devices in Prime Network Version 4.0:

- [Ethernet](#), page 5-7
- [Hardware](#), page 5-8
- [Serial](#), page 5-9
- [Generic Port](#), page 5-10
- [Local Switching](#), page 5-11
- [LLDP](#), page 5-12
- [Ethernet OAM](#), page 5-13

Horizon Compact Plus—Supported Service Events

Table 5-8 Supported Service Events for Horizon Compact Plus—Prime Network Version 4.0

Event Name	Product Version	Expedited	DP Version
Link up	3.7.2/3.7.3	N	8.0
Device Unsupported	3.7.2/3.7.3	N	8.0

Table 5-8 Supported Service Events for Horizon Compact Plus—Prime Network Version 4.0

Event Name	Product Version	Expedited	DP Version
Port down due to admin	3.7.2/3.7.3	N	8.0
Port down due to oper	3.7.2/3.7.3	N	8.0
Device Managed	3.7.2/3.7.3	N	8.0
Management Unreachable	3.7.2/3.7.3	N	8.0
Device Partially Managed	3.7.2/3.7.3	N	8.0
Port up	3.7.2/3.7.3	N	8.0

DragonWave Horizon Quantum Device (Packet Microwave System)

This section includes the following information about DragonWave Horizon Quantum (Packet Microwave Device) devices (for information on the NE types supported in Prime Network Version 4.0, see the [DragonWave Horizon Quantum Device \(Packet Microwave System\)](#)):

This section contains the following topics:

- [Horizon Quantum—Supported Software Versions, page 5-5](#)
- [Horizon Quantum—Supported Topologies, page 5-5](#)
- [Horizon Quantum—Supported Modules, page 5-6](#)
- [Horizon Quantum—Supported Technologies, page 5-6](#)
- [Horizon Quantum—Supported Service Events, page 5-6](#)

Horizon Quantum—Supported Software Versions

Table 5-9 Supported Software Versions for Horizon Quantum—Prime Network Version 4.0

Software Version	Product Version	DP Version
1.1.0	3.7.2/3.7.3	5.0

Horizon Quantum—Supported Topologies

Table 5-10 Supported Topologies for Horizon Quantum—Prime Network Version 4.0

Topology Type	Link Type	Product Version	DP Version
Physical Layer	Physical Layer	3.7.2/3.7.3	5.0
Generic Port	Generic Port ¹	3.7.2/3.7.3	7.0

1. Currently it is supported by using Generic methodology.

Horizon Quantum—Supported Modules

Table 5-11 Supported Modules for Horizon Quantum—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
Horizon Quantum	3.7.2/3.7.3	Horizon Quantum is not a modular device. It contains 8 Ethernet ports and 2 wireless ports.	5.0
Horizon Quantum (Radio)	3.7.2/3.7.3	Horizon Quantum is a dummy module that contains the sub modules for Radio properties.	8.0

Horizon Quantum—Supported Technologies

The following technologies are supported by the Horizon Quantum devices in Prime Network Version 4.0:

- [Ethernet, page 5-7](#)
- [Hardware, page 5-8](#)
- [Serial, page 5-9](#)
- [Generic Port, page 5-10](#)
- [Local Switching, page 5-11](#)

Horizon Quantum—Supported Service Events

Table 5-12 Supported Service Events for Horizon Quantum—Prime Network Version 4.0

Event Name	Product Version	Expedited	DP Version
Link up	3.7.2/3.7.3	N	5.0
Device Unsupported	3.7.2/3.7.3	N	5.0
Port down due to admin	3.7.2/3.7.3	N	5.0
Port down due to oper	3.7.2/3.7.3	N	5.0
Device Unsupported	3.7.2/3.7.3	N	5.0

Table 5-12 Supported Service Events for Horizon Quantum—Prime Network Version 4.0

Event Name	Product Version	Expedited	DP Version
Management Unreachable	3.7.2/3.7.3	N	5.0
Device Partially Managed	3.7.2/3.7.3	N	5.0
Port up	3.7.2/3.7.3	N	5.0

Supported Technologies on DragonWave Devices

The following sections list the objects and attributes that are supported on DragonWave devices in Prime Network Version 4.0 per technology:

This section contains the following topics:

- [Ethernet, page 5-7](#)
- [Hardware, page 5-8](#)
- [Serial, page 5-9](#)
- [Generic Port, page 5-10](#)
- [Local Switching, page 5-11](#)
- [LLDP, page 5-12](#)
- [Ethernet OAM, page 5-13](#)

Ethernet

The following table ([Table 5-13](#)) lists the ethernet attributes that are supported on DragonWave devices in Prime Network Version 4.0 per technology:

Table 5-13 Ethernet Attribute Support on DragonWave Devices—Prime Network Version 4.0

Attribute	Horizon Compact	Horizon Compact Plus	Horizon Quantum
IMO Name—IEthernet			
MAC Address	Y	Y	Y
Duplex Mode	Y	Y	Y
IANA Type	Y	Y	
AutoNegotiate	Y	Y	Y

Hardware

Table 5-14 lists the hardware attributes that are supported on DragonWave devices in Prime Network Version 4.0 per technology:

Table 5-14 Hardware Attribute Support on DragonWave Devices—Prime Network Version 4.0

Attribute	Horizon Compact	Horizon Compact Plus	Horizon Quantum
IMO Name—IChassis			
Description	Y	Y	Y
Serial Number	Y	Y	Y
IMO Name—IModule			
Module Name	Y	Y	Y
Module Description	Y	Y	Y
Software Version	Y	Y	Y
Hardware Type & Version	Y	Y	Y
Radio Description (Soft Property)			Y
Radio Oper Status (Soft Property)			Y
Radio Transmit Power (Soft Property)			Y
Radio Power Option (Soft Property)			Y
Radio Actual Transmit Power (Soft Property)			Y
Antenna1Tilt (Soft Property)			Y
Antenna2Tilt (Soft Property)			Y
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
Device Series	Y	Y	Y
System Name	Y	Y	Y

Table 5-14 Hardware Attribute Support on DragonWave Devices—Prime Network Version 4.0

Attribute	Horizon Compact	Horizon Compact Plus	Horizon Quantum
System Description	Y	Y	Y
Up Time	Y	Y	Y
Software Version	Y	Y	Y
Vendor Identity	Y	Y	Y
Sys Contact	Y	Y	Y
Sys Location	Y	Y	Y
IMO Name—IOperatingSystem			
osVersion	Y	Y	Y
bootSoftware	Y	Y	Y
bootLdrSoftware	Y	Y	Y
isK9Sec	Y	Y	Y
cwfamily	Y	Y	Y
IMO Name—ILogicalFile			
fileSize	Y	Y	Y
typeOfFile	Y	Y	Y
fullPathName	Y	Y	Y

Serial

Table 5-15 lists the serial attributes that are supported on DragonWave devices in Prime Network Version 4.0 per technology:

Table 5-15 Serial Attribute Support on DragonWave Devices—Prime Network Version 4.0

Attribute	Horizon Compact	Horizon Compact Plus	Horizon Quantum
IMO Name—IPhysicalLayer			
Media Type	Y	Y	Y
Maximum Speed	Y	Y	Y

Table 5-15 Serial Attribute Support on DragonWave Devices—Prime Network Version 4.0

Attribute	Horizon Compact	Horizon Compact Plus	Horizon Quantum
Is Internal Port			Y
Administrative Status	Y	Y	Y
Operational Status	Y	Y	Y
IANA Type	Y	Y	Y
Port Alias	Y	Y	Y
Location	Y	Y	Y
Connector Description	Y	Y	Y
Status	Y	Y	Y
Managed	Y	Y	Y

Generic Port

The following table (Table 5-16) lists the generic port attributes that are supported on DragonWave devices in Prime Network Version 4.0 per technology:

Table 5-16 Generic Port Attribute Support on DragonWave Devices—Prime Network Version 4.0

Attribute	Horizon Compact	Horizon Compact Plus	Horizon Quantum
IMO Name—IDataLinkLayer			
ModemChannelizedRSL (soft property)	Y	Y	Y
ModemModulationType (soft property)	Y	Y	Y
ModemSNR (soft property)	Y	Y	Y
ModemEbToNoiseRatio (soft property)	Y	Y	Y
ModemRxBlocksOK (soft property)	Y	Y	Y

Table 5-16 Generic Port Attribute Support on DragonWave Devices—Prime Network Version 4.0

Attribute	Horizon Compact	Horizon Compact Plus	Horizon Quantum
ModemRxBlocksError (soft property)	Y	Y	Y
ModemEqualizerStress (soft property)	Y	Y	Y
RadioTransmitPower (soft property)	Y	Y	
RadioOperStatus (soft property)	Y	Y	
RadioTemperature (soft property)	Y	Y	
RadioProgrammedAntennaDiameter (soft property)	Y	Y	
ModemRxFramesOK (soft property)	Y	Y	
ModemRxFramesError (soft property)	Y	Y	
Associated Radio			Y
Associated Radio Index			Y
RadioDescription (soft property)		Y	
RadioActualTransmitPower (soft property)		Y	

Local Switching

The following table ([Table 5-17](#)) lists the local switching attributes that are supported on DragonWave devices in Prime Network Version 4.0 per technology:

Table 5-17 Local Switching Attribute Support on DragonWave Devices—Prime Network Version 4.0

Attribute	Horizon Compact	Horizon Compact Plus	Horizon Quantum
IMO Name—ILocalSwitchingEntry			
Local Switching Entry Key	Y	Y	Y
Local Switching Entry Status	Y	Y	Y
Segment 1	Y	Y	Y
Segment 1 Port Name	Y	Y	Y
Segment 1 Status	Y	Y	Y
Segment 2	Y	Y	Y
Segment 2 Port Name	Y	Y	Y
Segment 2 Status	Y	Y	Y

LLDP

The following table ([Table 5-18](#)) lists the LLDP attributes that are supported on DragonWave devices in Prime Network Version 4.0 per technology:

Table 5-18 LLDP Attribute Support on DragonWave Devices—Prime Network Version 4.0

Attribute	Horizon Compact	Horizon Compact Plus	Horizon Quantum
IMO Name—I LLDPService			
status		Y	
lldpAdvertisementsInterval		Y	
lldpHoldTime		Y	
lldpReinitialisationDelay		Y	
localChassisID		Y	
localSystemName		Y	

Table 5-18 LLDP Attribute Support on DragonWave Devices—Prime Network Version 4.0 (Contin-

Attribute	Horizon Compact	Horizon Compact Plus	Horizon Quantum
IMO Name—ILDPNeighbor			
localPortName		Y	
remotePortDesc		Y	
remoteChassisId		Y	
localPortId		Y	
remotePortId		Y	
remoteSystemName		Y	

Ethernet OAM

The following table (Table 5-19) lists the ethernet OAM attributes that are supported on DragonWave devices in Prime Network Version 4.0 per technology:

Table 5-19 Ethernet OAM Attribute Support on DragonWave Devices—Prime Network Version 4.0

Attribute	Horizon Compact	Horizon Compact Plus	Horizon Quantum
IMO Name—IOAMData			
adminState		Y	
linkFaultAction		Y	
dyingGaspAction		Y	
criticalEventAction		Y	
mode		Y	
unidirectional		Y	
linkMonitor		Y	
remoteLoopback		Y	
portStatus		Y	
loopbackStatus		Y	

Table 5-19 Ethernet OAM Attribute Support on DragonWave Devices—Prime Network Version 4.0 (Continued) (Continued)

Attribute	Horizon Compact	Horizon Compact Plus	Horizon Quantum
remoteData		Y	
name		Y	
ethernetPort		Y	
IMO Name—IOAMRemoteData			
macAddress		Y	
mode		Y	
unidirection		Y	
linkMonitor		Y	
remoteLoopback		Y	



Support Information for Fortinet Devices

This chapter contains support information for Virtual Network Elements (VNEs) that manage Fortinet devices in Prime Network Version 4.0.



Note

For more information about the objects and attributes described in this chapter, see *Cisco Prime Network 4.0 Supported Cisco VNEs*, *Cisco Prime Network 4.0 Supported Service Alarms*, *Cisco Prime Network 4.0 Supported System and Security Events*, and *Cisco Prime Network 4.0 Supported Technologies and Topologies* in the [Cisco Prime Network 4.0 Documentation Guide](#).

This chapter contains the following topics:

- [Fortinet FortiGate 5000 Series Firewall](#), page 6-1
- [Supported Technologies on Fortinet Devices](#), page 6-3

Fortinet FortiGate 5000 Series Firewall

This section includes the following information about Fortinet Fortigate 5000 Series Firewall devices (for information on the NE types supported in Prime Network Version 4.0., see [Fortinet FortiGate 5000 Series Firewall](#), page 2-4):

- [Fortinet FortiGate 5000 Series Firewall—Supported Software Versions](#), page 6-2
- [Fortinet FortiGate 5000 Series Firewall—Supported Topologies](#), page 6-2
- [Fortinet FortiGate 5000 Series Firewall—Supported Modules](#), page 6-2
- [Fortinet FortiGate 5000 Series Firewall—Supported Technologies](#), page 6-2
- [Fortinet FortiGate 5000 Series Firewall—Supported Service Events](#), page 6-3

Fortinet FortiGate 5000 Series Firewall—Supported Software Versions

Table 6-1 *Supported Software Versions for Fortinet FortiGate 5000 Series Firewall—Prime Network Version 4.0*

Software Version	Product Version	DP Version
3.0 MR4	3.8.x-To-3.9.x	DP1206
3.0 MR7	3.8.x-To-3.9.x	DP1206

Fortinet FortiGate 5000 Series Firewall—Supported Topologies

Table 6-2 *Supported Topologies for Fortinet FortiGate 5000 Series Firewall—Prime Network Version 4.0*

Topology Type	Link Type	Product Version	DP Version
Ethernet	Ethernet	3.9	DP1208
Physical Layer	Physical Layer	3.9	DP1208

Fortinet FortiGate 5000 Series Firewall—Supported Modules

Table 6-3 *Supported Modules for Fortinet FortiGate 5000 Series Firewall—Prime Network Version 4.0*

Module Name	Product Version	Module Description	DP Version
FGT 5005FA2 or FGT 50051	3.8.x-To-3.9.x	Dummy Module(Fortinet FGT 5005FA2)	DP1206

Fortinet FortiGate 5000 Series Firewall—Supported Technologies

The following technologies are supported by the Fortinet FortiGate 5000 Series Firewall Device in Prime Network Version 4.0:

- [IP, page 6-4](#)
- [Ethernet, page 6-5](#)
- [Hardware, page 6-5](#)
- [Serial, page 6-6](#)

Fortinet FortiGate 5000 Series Firewall—Supported Service Events

Table 6-4 *Supported Service Events for Fortinet FortiGate 5000 Series Firewall—Prime Network Version 4.0*

Event Name	Product Version	Expedited	DP Version
All IP Interfaces Down / Active IP Interfaces Found	3.8.x-To-3.9.x	N	DP1206
Interface Status Down/Up	3.8.x-To-3.9.x	N	DP1206
Card In/Out	3.8.x-To-3.9.x	N	DP1206
Link Down/Up	3.8.x-To-3.9.x	N	DP1206
Device Unreachable	3.8.x-To-3.9.x	N	DP1206
Device Unsupported	3.8.x-To-3.9.x	N	DP1206
Module Unsupported	3.8.x-To-3.9.x	N	DP1206
Card Up/Down	3.8.x-To-3.9.x	N	DP1206

Supported Technologies on Fortinet Devices

The following sections list the objects and attributes that are supported on Fortinet devices in Prime Network Version 4.0 per technology:

- [IP, page 6-4](#)
- [Ethernet, page 6-5](#)
- [Hardware, page 6-5](#)
- [Serial, page 6-6](#)

IP

The following table ([Table 6-5](#)) lists the ip attributes that are supported on Fortinet devices in Prime Network Version 4.0 per technology:

Table 6-5 *IP Attribute Support on Fortinet FortiGate 5000 Series Firewall—Prime Network Version 4.0*

Attributes	FGT 5000 Series	
IMO Name—IIPInterface		
IP Address		Y
Subnetwork Mask		Y
Interface Name		Y
IP Interface State		Y
Interface Description		Y
IMO Name—IRoutingEntity		
Routing Table		Y
ARP Entity		Y
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—IARPEntity		
IP Address		Y
MAC Address		Y
Port		Y
Entry Type		Y

Ethernet

The following table (Table 6-6) lists the ethernet attributes that are supported on Fortinet devices in Prime Network Version 4.0 per technology:

Table 6-6 Ethernet Attribute Support on Fortinet FortiGate 5000 Series Firewall—Prime Network Version 4.0

	FGT 5000 Series
Attributes	
IMO Name—IEthernet	
MAC Address	Y

Hardware

The following table (Table 6-7) lists the hardware attributes that are supported on Fortinet devices in Prime Network Version 4.0 per technology:

Table 6-7 Physical Equipment Attribute Support on Fortinet FortiGate 5000 Series Firewall—Prime Network Version 4.0

	FGT 5000 Series
Attributes	
IMO Name—IManagedElement	
IP Address	Y
Communication State	Y
Investigation State	Y
Element Category	Y
Element Type and Key	Y
Device Name	Y
Device Series	Y
System Name	Y
System Description	Y
Up Time	Y
Software Version	Y
Vendor Identity	Y
Memory and CPU Usage	Y
Sys Contact	Y

Table 6-7 Physical Equipment Attribute Support on Fortinet FortiGate 5000 Series Firewall—Prime Network Version 4.0 (Continued)

Attributes		FGT 5000 Series
Sys Location		Y
Serial Number		Y
IMO Name—IChassis		
Description		Y
Equipment Holder Type		Y
IMO Name—IModule		
Module Name		Y
Module Description		Y
Serial Number (soft property)		Y

Serial

The following table (Table 6-8) lists the serial attributes that are supported on Fortinet devices in Prime Network Version 4.0 per technology:

Table 6-8 Serial Attribute Support on Fortinet FortiGate 5000 Series Firewall—Prime Network Version 4.0

Attributes		FGT 5000 Series
IMO Name—IPhysicalLayer		
Maximum Speed		Y
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



Support Information for Huawei Devices

This chapter contains support information for Virtual Network Elements (VNEs) that manage Huawei devices in Prime Network Version 4.0.



Note

For more information about the objects and attributes described in this chapter, see *Cisco Prime Network 4.0 Supported Cisco VNEs*, *Cisco Prime Network 4.0 Supported Service Alarms*, *Cisco Prime Network 4.0 Supported System and Security Events*, and *Cisco Prime Network 4.0 Supported Technologies and Topologies* in the [Cisco Prime Network 4.0 Documentation Guide](#).

This chapter contains the following topics:

- [Huawei - Quidway@ S9300 Series Terabit Routing Switch](#), page 7-1
- [Huawei - Quidway@ CX600-CarrierSwitch and ATN-Cellsite-Gateway](#), page 7-3
- [Supported Technologies on Huawei Devices](#), page 7-6

Huawei - Quidway@ S9300 Series Terabit Routing Switch

This section includes the following information about Quidway@S9300 Series devices (for information on the NE types supported in Prime Network Version 4.0, see the [Huawei - Quidway@ S9300 Series Terabit Routing Switch](#)):

This section contains the following topics:

- [Quidway@S9300 Series—Supported Software Versions](#), page 7-2
- [Quidway@S9300 Series—Supported Topologies](#), page 7-2
- [Quidway@S9300 Series—Supported Modules](#), page 7-2
- [Quidway@S9300 Series—Supported Technologies](#), page 7-2
- [Quidway@S9300 Series—Supported Service Events](#), page 7-3

Quidway@S9300 Series—Supported Software Versions

Table 7-1 Supported Software Versions for Quidway@S9300 Series—Prime Network Version 4.0

Software Version	Product Version	DP Version
5.50	3.7.2	3.0

Quidway@S9300 Series—Supported Topologies

Table 7-2 Supported Topologies for Quidway@S9300 Series—Prime Network Version 4.0

Topology Type	Link Type	Product Version	DP Version
Ethernet	Ethernet	3.7.2	3.0

Quidway@S9300 Series—Supported Modules

Table 7-3 Supported Modules for Quidway@S9300 Series—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
Power Module	3.7.2	Power Module	3.0
CMU	3.7.2	CMU manages the power supplies and fans of the system uniformly.	3.0
LPU	3.7.2	Line Processing Unit	3.0
MPU	3.7.2	Main Processing Unit	3.0
Fan	3.7.2	Fan	3.0

Quidway@S9300 Series—Supported Technologies

The following technologies are supported by the Quidway S9300 Series in Prime Network Version 4.0:

- [IP, page 7-6](#)
- [Ethernet, page 7-7](#)
- [Hardware, page 7-8](#)
- [Serial, page 7-10](#)

Quidway@S9300 Series—Supported Service Events

Table 7-4 Supported Service Events for Quidway@S9300 Series—Prime Network Version 4.0

Event Name	Product Version	Expedited	DP Version
Link Down	3.7.2	N	3.0
Link Up	3.7.2	N	3.0

Huawei - Quidway@ CX600-CarrierSwitch and ATN-Cellsite-Gateway

This section includes the following information about Quidway@CX600-CarrierSwitch and ATN-Cellsite-Gateway devices (for information on the NE types supported in Prime Network Version 4.0, see the [Huawei - Quidway@ CX600-CarrierSwitch and ATN-Cellsite-Gateway](#)):

This section contains the following topics:

- [Quidway@CX600/ATN Series—Supported Software Versions](#), page 7-3
- [Quidway@CX600/ATN Series—Supported Topologies](#), page 7-3
- [Quidway@CX600/ATN Series—Supported Modules](#), page 7-4
- [Quidway@CX600/ATN Series—Supported Technologies](#), page 7-5
- [Quidway@CX600/ATN Series—Supported Service Events](#), page 7-6

Quidway@CX600/ATN Series—Supported Software Versions

Table 7-5 Supported Software Versions for Quidway@CX600/ATN Series—Prime Network Version 4.0

Software Version	Product Version	DP Version
5.90	3.7.2/3.7.3	5.0

Quidway@CX600/ATN Series—Supported Topologies

Table 7-6 Supported Topologies for Quidway@CX600/ATN Series—Prime Network Version 4.0

Topology Type	Link Type	Product Version	DP Version
Ethernet	Ethernet	3.7.2/3.7.3	5.0

Table 7-6 Supported Topologies for Quidway@CX600/ATN Series—Prime Network Version 4.0

Topology Type	Link Type	Product Version	DP Version
MPBGP	MPBGP	3.7.2/3.7.3	5.0
L3 VPN	VPN	3.7.2/3.7.3	5.0

Quidway@CX600/ATN Series—Supported Modules

Table 7-7 Supported Modules for Quidway@CX600/ATN Series—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
Power Module	3.7.2/3.7.3	Power Module	5.0
Fan	3.7.2/3.7.3	Fan	5.0
CR53LPUF	3.7.2/3.7.3	CX600,CR53LPUFC0,Flexible Card Line Processing Unit(LPUF-10,four slots)	5.0
CR52LPUN	3.7.2/3.7.3	CX600,CR52LPUF40A,Flexible Card Line Processing Unit(LPUF-40,2 sub-slots) A (L3VPN,MVPN,IPv6 Enhanced)	5.0
CR52EEGFNB	3.7.2/3.7.3	20-Port 100/1000Base-X-SFP Flexible Card A(Supporting 1588v2)	5.0
CR52L2XXNB	3.7.2/3.7.3	2-Port 10GBase LAN/WAN-XFP Flexible Card A(Supporting 1588v2)	5.0
CR52LPUK	3.7.2/3.7.3	CX600,CX61LPUK31,Flexible Card Line Processing Unit(LPUF-21,2 sub-slots) B	5.0
CR56RPUA	3.7.2/3.7.3	CX600,CX61SRU40A4,Switch and Route Processing Unit A4(Including 1*2G Memory and 1*1G CF Card)	5.0
CR57FRA40A	3.7.2/3.7.3	CX600,CX61SRU40A4,Switch and Route Processing Unit A4(Including 1*2G Memory and 1*1G CF Card)	5.0
CR57SFU40B	3.7.2/3.7.3	CX600,CX61SFU40C1,40Gbps Switch Fabric Unit C	5.0
CX67MPUG	3.7.2/3.7.3	CX600,CX67MPUG0,Main Processing Unit G(Including 1*1G CF Card)	5.0
CX67L2XX	3.7.2/3.7.3		5.0
CX67DE1A0	3.7.2/3.7.3	16-Port E1(120ohm) Flexible Interface Card (FIC)	5.0
CX67E8GFA	3.7.2/3.7.3	8-Port 100/1000Base-X-SFP High-speed Interface Card A (HIC, Supporting 1588v2)	5.0

Table 7-7 Supported Modules for Quidway@CX600/ATN Series—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
CX67NPUI	3.7.2/3.7.3	CX600,CX67NPUI20,Network Processing Unit Integrated with 2-Port 10GBase LAN/WAN-XFP	5.0
CX67E8FE	3.7.2/3.7.3	8-Port 100Base-RJ45 Flexible Interface Card (FIC, Supporting 1588v2)	5.0
CX67C1CF0	3.7.2/3.7.3	1-Port Channelized OC3c/STM1c POS-SFP Flexible Interface Card (FIC)	5.0
AND1CXP	3.7.2/3.7.3	TND1CXP,System Control,Cross-connect and Multi-protocol Process Unit,1*1	5.0
AND1EG4F	3.7.2/3.7.3		5.0
AND1MD1B	3.7.2/3.7.3	TND1MD1B,32 Channels E1 Interface Board(120ohm) ,1*1	5.0
AND1EF8T	3.7.2/3.7.3	TND1EF8T, 8 Channels Fast Ethernet Electric Interface Board,1*1	5.0
CXP	3.7.2/3.7.3	TND1CXP,System Control,Cross-connect and Multi-protocol Process Unit,1*1	5.0
ANC1CXP	3.7.2/3.7.3	ANC1CXP,System Control,Cross-connect and Multi-protocol Process Unit(120ohm),1*1	5.0
AND1VIRCARD	3.7.2/3.7.3		5.0
AND1EG2	3.7.2/3.7.3	ATN	5.0

Quidway@CX600/ATN Series—Supported Technologies

The following technologies are supported by the Quidway@CX600/ATN Series in Prime Network Version 4.0:

- [IP, page 7-6](#)
- [Ethernet, page 7-7](#)
- [Hardware, page 7-8](#)
- [Routing Protocols, page 7-9](#)
- [Serial, page 7-10](#)
- [LLDP, page 7-11](#)
- [VPN \(VRF\), page 7-11](#)

Quidway@CX600/ATN Series—Supported Service Events

Table 7-8 *Supported Service Events for Quidway@CX600/ATN Series—Prime Network Version 4.0*

Event Name	Product Version	Expedited	DP Version
Link Down	3.7.2/3.7.3	N	5.0
Link Up	3.7.2/3.7.3	N	5.0

Supported Technologies on Huawei Devices

The following sections list the objects and attributes that are supported on Huawei devices in Prime Network Version 4.0 per technology:

This section contains the following topics:

- [IP, page 7-6](#)
- [Ethernet, page 7-7](#)
- [Hardware, page 7-8](#)
- [Routing Protocols, page 7-9](#)
- [Serial, page 7-10](#)
- [LLDP, page 7-11](#)
- [VPN \(VRF\), page 7-11](#)

IP

The following table ([Table 7-9](#)) lists the ip attributes that are supported on Huawei devices in Prime Network Version 4.0 per technology:

Table 7-9 *IP Attribute Support on Huawei Devices—Prime Network Version 4.0*

Attribute	S9300-Series	CX600 and ATN
IMO Name—IIPInterface		
IP Address	Y	Y
Subnetwork Mask	Y	Y
Interface Name	Y	Y
IP Interface State	Y	Y
IMO Name—IRoutingEntity		
Routing Table	Y	Y

Table 7-9 IP Attribute Support on Huawei Devices—Prime Network Version 4.0 (Continued)

Attribute	S9300-Series	CX600 and ATN
ARP Entity	Y	Y
Name	Y	Y
Logical Sons	Y	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	Y
IMO Name—IARPEntity		
Name	Y	Y
IP Address	Y	Y
MAC Address	Y	Y
Port		Y
Entity Type	Y	Y

Ethernet

The following table (Table 7-10) lists the ethernet attributes that are supported on Huawei devices in Prime Network Version 4.0 per technology:

Table 7-10 Ethernet Attribute Support on Huawei Devices—Prime Network Version 4.0

Attribute	S9300-Series	CX600 and ATN
IMO Name—IEthernet		
MAC Address	Y	Y

Hardware

The following table (Table 7-11) lists the hardware attributes that are supported on Huawei devices in Prime Network Version 4.0 per technology:

Table 7-11 Hardware Attribute Support on Huawei Devices—Prime Network Version 4.0

Attribute	S9300-Series CX600 and ATN	
IMO Name—IChassis		
Description	Y	Y
Equipment Holder Type	Y	Y
Serial Number	Y	Y
IMO Name—IModule		
Module Name	Y	Y
Module Description	Y	Y
Software Version	Y	Y
Hardware Type & Version	Y	Y
Serial Number (soft property)	Y	Y
Fan Description		Y
Hardware version		Y
Power Supply Description		Y
Hardware version		Y
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
Device Series	Y	Y
System Name	Y	Y
System Description	Y	Y
Up Time	Y	Y
Software Version	Y	Y
Vendor Identity	Y	Y

Routing Protocols

The following table (Table 7-12) lists the routing protocols attributes that are supported on Huawei devices in Prime Network Version 4.0 per technology:

Table 7-12 Routing Protocols Attribute Support on Huawei Devices—Prime Network Version 4.0

Attribute	S9300-Series	CX600 and ATN
IMO Name—IIBgpNeighborEntry		
Remote Identifier		Y
Remote Address		Y
Remote Autonomous System		Y
Peer State		Y
Hold Time		Y
Keep Alive Time		Y
VrfName		Y
Address family		Y
IMO Name—IIOspfProcess		
Process Id		Y
OSPF Version		Y
Router Id		Y
IMO Name—IIOspfNeighbor		
Neighbor Id		Y
Outgoing Interface		Y
State		Y
Neighbor Interface Address		Y
Area Id		Y
IMO Name—IIOspfInterface		
Area Id		Y
Network Type		Y
Cost		Y
State		Y
Interface Address		Y
Interface name		Y
IF Proirity		Y
DR Id		Y

Table 7-12 Routing Protocols Attribute Support on Huawei Devices—Prime Network Version 4.0 (Continued)

Attribute	S9300-Series	CX600 and ATN
BDR Id		Y
IMO Name—ISpfTimers		
Schedule Delay		Y
Min Hold Time		Y
Max Wait Time		Y

Serial

The following table ([Table 7-13](#)) lists the serial attributes that are supported on Huawei devices in Prime Network Version 4.0 per technology:

Table 7-13 Serial Attribute Support on Huawei Devices—Prime Network Version 4.0

Attribute	S9300-Series	CX600 and ATN
IMO Name—IPhysicalLayer		
Media Type	Y	Y
Maximum Speed	Y	Y
Is Internal Port	Y	Y
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

LLDP

The following table (Table 7-14) lists the lldp attributes that are supported on Huawei devices in Prime Network Version 4.0 per technology:

Table 7-14 LLDP Attribute Support on Huawei Devices—Prime Network Version 4.0

Attribute	S9300-Series	CX600 and ATN
IMO Name—ILLDPSERVICE		
status		Y
lldpAdvertisementsInterval		Y
lldpHoldTime		Y
lldpReinitialisationDelay		Y
localChassisID		Y
localSystemName		Y
IMO Name—ILLDPNeighbor		
localPortName		Y
remotePortDesc		Y
remoteChassisId		Y
remoteManagementIP		Y
localPortId		Y
remotePortId		Y
remoteSystemName		Y

VPN (VRF)

The following table (Table 7-15) lists the vpn (vrf) attributes that are supported on Huawei devices in Prime Network Version 4.0 per technology:

Table 7-15 VPN (VRF) Attribute Support on Huawei Devices—Prime Network Version 4.0

Attribute	S9300-Series	CX600 and ATN
IMO Name—IVrf		
Virtual Routing Table		Y

Table 7-15 VPN (VRF) Attribute Support on Huawei Devices—Prime Network Version 4.0

Attribute	S9300-Series	CX600 and ATN
Exported Route Targets		Y
Imported Route Targets		Y
Route Distinguisher		Y
Name		Y
IMO Name—IVrfEntry		
Destination IP Subnet		Y
Next Hop IP Address		Y
Type		Y
Routing Protocol Type		Y
Outgoing Interface Name		Y
IMO Name—IMpBgp		
BGP Identifier		Y
Local Autonomous System		Y
BGP Neighbors		Y



Support Information for Juniper Devices

This chapter contains support information for Virtual Network Elements (VNEs) that manage Juniper devices in Prime Network Version 4.0.



Note

For more information about the objects and attributes described in this chapter, see *Cisco Prime Network 4.0 Supported Cisco VNEs*, *Cisco Prime Network 4.0 Supported Service Alarms*, *Cisco Prime Network 4.0 Supported System and Security Events*, and *Cisco Prime Network 4.0 Supported Technologies and Topologies* in the [Cisco Prime Network 4.0 Documentation Guide](#).

This chapter contains the following topics:

- [Juniper E-Series ERX Edge Routing Switches](#), page 8-1
- [Juniper JCS Control System](#), page 8-4
- [Juniper M-Series Multiservice Edge Routers](#), page 8-6
- [Juniper MX-Series Ethernet Service Routers](#), page 8-12
- [Juniper Netscreen Security Firewall/VPN Device](#), page 8-16
- [Juniper T-Series Core Platforms](#), page 8-19
- [Supported Technologies on Juniper Devices](#), page 8-22

Juniper E-Series ERX Edge Routing Switches

This section includes the following information about Juniper E-Series devices (for information on the NE types supported in Prime Network Version 4.0, see the [Juniper E-Series ERX Edge Routing Switches](#)):

This section contains the following topics:

- [Juniper E-Series—Supported Software Versions](#), page 8-2
- [Juniper E-Series—Supported Topologies](#), page 8-2
- [Juniper E-Series—Supported Modules](#), page 8-2
- [Juniper E-Series—Supported Technologies](#), page 8-3
- [Juniper E-Series—Supported Service Events](#), page 8-3

Juniper E-Series—Supported Software Versions

Table 8-1 Supported Software Versions for Juniper E-Series—Prime Network Version 4.0

Software Version	Product Version	DP Version
5.2.4 patch-0.2	3.7.2	3.0

Juniper E-Series—Supported Topologies

Table 8-2 Supported Topologies for Juniper E-Series—Prime Network Version 4.0

Topology Type	Link Type	Product Version	DP Version
Ethernet	Ethernet	3.7.2	3.0
Physical Layer	Physical Layer	3.7.2	3.0

Juniper E-Series—Supported Modules

Table 8-3 Supported Modules for Juniper E-Series—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
OC3 quad port, ATM	3.7.2	OC-3/STM-1 ATM Line Modules	3.0
System/Route Processor 10G ECC	3.7.2	System/Route Processor 10G ECC	3.0
Fully Channelized E1	3.7.2	Fully Channelized E1	3.0
Fast Ethernet 8-port	3.7.2	Fast Ethernet 8-port	3.0
Dual Port Fast Ethernet	3.7.2	Dual Port Fast Ethernet	3.0
OC12/STM-4 Packet over SONET Line Modules	3.7.2	OC12/STM-4 Packet over SONET Line Modules	3.0
OC-12/STM-4 ATM Line Modules	3.7.2	OC-12/STM-4 ATM Line Modules	3.0
OC3/STM-1 Packet over SONET Line Modules	3.7.2	OC3/STM-1 Packet over SONET Line Modules	3.0
Gigabit Ethernet Line Modules	3.7.2	Gigabit Ethernet Line Modules	3.0
Generic OC3/OC12 POS (multi-personality)	3.7.2	Generic OC3/OC12 POS (multi-personality)	3.0
Generic OC3/OC12 ATM (multi-personality)	3.7.2	Generic OC3/OC12 ATM (multi-personality)	3.0
Channelized T3 Line Module	3.7.2	Channelized T3 Line Module	3.0
UnChannelized T3	3.7.2	UnChannelized T3	3.0

Table 8-3 *Supported Modules for Juniper E-Series—Prime Network Version 4.0 (Continued)*

Module Name	Product Version	Module Description	DP Version
Channelized OC3/STM-1	3.7.2	Channelized OC3/STM-1	3.0
OC48/STM-16 Packet over SONET Line Modules	3.7.2	OC48/STM-16 Packet over SONET Line Modules	3.0
T3 ATM (4 ports)	3.7.2	T3 ATM (4 ports)	3.0
T3 Frame (12 ports)	3.7.2	T3 Frame (12 ports)	3.0
E3 ATM	3.7.2	E3 ATM	3.0
E3 Frame (12 ports)	3.7.2	E3 Frame (12 ports)	3.0

Juniper E-Series—Supported Technologies

The following technologies are supported by the Juniper E-Series in Prime Network Version 4.0:

- [IP, page 8-23](#)
- [Routing Protocols, page 8-24](#)
- [Ethernet, page 8-26](#)
- [MPLS, page 8-29](#)
- [VPN \(VRF\), page 8-33](#)
- [Hardware, page 8-34](#)
- [Serial, page 8-37](#)
- [Additional Technologies, page 8-40](#)

Juniper E-Series—Supported Service Events

Table 8-4 *Supported Service Events for Juniper E-Series—Prime Network Version 4.0*

Event Name	Product Version	Expedited	DP Version
Active IP Interfaces Found	3.6.0	Y	
All IP Interfaces Down	3.6.0	Y	
BGP process up	3.6.0	N	
Card Down	3.6.0	Y	
Card In	3.6.0	Y	
Card Out	3.6.0	Y	
Card Up	3.6.0	Y	
Cloud Problem	3.6.0	N	
CPU utilization exceeded upper threshold	3.6.0	N	

Table 8-4 **Supported Service Events for Juniper E-Series—Prime Network Version 4.0**

Event Name	Product Version	Expedited	DP Version
Device Unreachable	3.6.0	N	
Device Unsupported	3.6.0	N	
Interface status down flapping	3.6.0	Y	
Interface status down flapping update	3.6.0	Y	
Keepalive configured	3.6.0	N	
Keepalive not configured	3.6.0	N	
Layer 2 Tunnel Down	3.6.0	N	
Link Down	3.6.0	N	
Link up	3.6.0	N	
Memory utilization exceeded upper threshold	3.6.0	Y	
Module Unsupported	3.6.0	N	
Port Down	3.6.0	N	
Port Flapping	3.6.0	N	
Rx utilization exceeded upper threshold	3.6.0	N	
Tx utilization exceeded upper threshold	3.6.0	N	
VPN Leak	3.6.0	N	

Juniper JCS Control System

This section includes the following information about Juniper JCS Control System devices (for information on the NE types supported in Prime Network Version 4.0, see the [Juniper JCS Control System](#)):

This section contains the following topics:

- [Juniper JCS—Supported Software Versions, page 8-5](#)
- [Juniper JCS—Supported Topologies, page 8-5](#)
- [Juniper JCS—Supported Modules, page 8-5](#)
- [Juniper JCS—Supported Technologies, page 8-6](#)
- [Juniper JCS—Supported Service Events, page 8-6](#)

Juniper JCS—Supported Software Versions

Table 8-5 Supported Software Versions for Juniper JCS—Prime Network Version 4.0

Software Version	Product Version	DP Version
10.0R3.10	3.7.2/3.7.3	6.0
10.0S8.2	3.7.2/3.7.3	6.0
11.1R3.5	3.8.x-To-3.9.x	DP1206
10.4 R8.5	3.8.x-To-3.9.x	DP1206
10.4	3.8.x-To-3.9.x	DP1206

Juniper JCS—Supported Topologies

Table 8-6 Supported Topologies for Juniper JCS—Prime Network Version 4.0

Topology Type	Link Type	Product Version	DP Version
Ethernet	Ethernet	3.7.2/3.7.3	6.0
Physical Layer	Physical Layer	3.7.2/3.7.3	6.0
BFD	BFD	3.8.x-To-3.9.x	DP1206

Juniper JCS—Supported Modules

Table 8-7 Supported Modules for Juniper JCS—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
Mid Plane	3.7.2/3.7.3	Midplane	6.0
Routing Engine	3.7.2/3.7.3	Routing engine	6.0
PCMCIA card	3.7.2/3.7.3	Blade Bay data	6.0

Juniper JCS—Supported Technologies

The following technologies are supported by the Juniper JCS in Prime Network Version 4.0:

- [IP, page 8-23](#)
- [Routing Protocols, page 8-24](#)
- [Ethernet, page 8-26](#)
- [Hardware, page 8-34](#)
- [BFD, page 8-38](#)

Juniper JCS—Supported Service Events

Table 8-8 *Supported Service Events for Juniper JCS—Prime Network Version 4.0*

Event Name	Product Version	Expedited	DP Version
Active IP Interfaces Found	3.7.2	Y	6.0
All IP Interfaces Down	3.7.2	Y	6.0
Link Down	3.7.2	N	6.0
Link up	3.7.2	N	6.0
Device Unsupported	3.7.2	N	6.0
Device Unreachable	3.7.2	N	6.0

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 Prime Network Version 4.0, see the [Juniper M-Series Multiservice Edge Routers](#)):

This section contains the following topics:

- [Juniper M-Series—Supported Software Versions, page 8-7](#)
- [Juniper M-Series—Supported Topologies, page 8-7](#)
- [Juniper M-Series—Supported Modules, page 8-7](#)
- [Juniper M-Series—Supported Technologies, page 8-11](#)
- [Juniper M-Series—Supported Service Events, page 8-11](#)

Juniper M-Series—Supported Software Versions

Table 8-9 Supported Software Versions for Juniper M-Series—Prime Network Version 4.0

Software Version	Product Version	DP Version
7.1R2.2	3.7.2	1.0
7.6 R3.6	3.7.2	1.0
7.6 R4.2	3.7.2	1.0
7.6 R4.3	3.7.2	1.0
8.1R2.4	3.7.2	1.0
8.1R4.3	3.7.2	1.0
8.2R3.5	3.7.2	1.0
8.2R3.6	3.7.2	1.0
8.1R4.3	3.7.2	1.0
9.0R1.10	3.7.2	1.0
9.3S2	3.7.2	1.0
8.2R4.5	3.7.2	1.0

Juniper M-Series—Supported Topologies

Table 8-10 Supported Topologies for Juniper M-Series—Prime Network Version 4.0

Topology Type	Link Type	Product Version	DP Version
Ethernet	Ethernet	3.7.2	1.0

Juniper M-Series—Supported Modules

Table 8-11 Supported Modules for Juniper M-Series—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
CB	3.7.2	Control Board	1.0
CFEB INTERNET PROCESSOR II	3.7.2	Fuse Module	1.0
CIP	3.7.2	Connector Interface Pannel	1.0
FPC: M320 FPC TYPE 1	3.7.2	Flexible PIC Concentrators	1.0
FPM GBUS	3.7.2	Fuse Module	1.0
JNXCBD	3.7.2	CBD	1.0

Table 8-11 Supported Modules for Juniper M-Series—Prime Network Version 4.0 (Continued)

Module Name	Product Version	Module Description	DP Version
JNXFAN	3.7.2	Fan	1.0
JNXFPB	3.7.2	FPB	1.0
JNXFPC	3.7.2	FPC	1.0
JNXHM	3.7.2	HM	1.0
JNXPICTYPE3TENPORTGIGETHER	3.7.2	PIC: 10x 1GE(LAN), 1000 BASE	1.0
JNXPOWER	3.7.2	Power Supply	1.0
M10I HCM	3.7.2	M10i High-Availability Chassis Manager	1.0
M10I MIDPLANE	3.7.2	M10i Midplane	1.0
M320-FPC2	3.7.2	Juniper Networks Flexible PIC Concentrator FPC2 - expansion module	1.0
M320MIDPLANE	3.7.2	M320 Midplane	1.0
MEM-FPC-512-S	3.7.2	Optional FPC Memory Upgrade	1.0
PB-1GE-SFP-QPP	3.7.2	1 PORT GIGABIT ETHERNET IQ PIC (USES SFP OPTICS MODULES - SEE INTERFACE ACCESSORIES SECTION)	1.0
PB-2GE-SFP-QPP	3.7.2	2-Port Gigabit Ethernet Services PIC with QPP	1.0
PB-2GE-SFP-QPP	3.7.2	2-Port Gigabit Ethernet IQ PIC (Uses SFP Optics Modules)	1.0
PB-2OC3-ATM2-SMIR	3.7.2	2-PORT OC-3/STM1 ATM SERVICES PIC, SINGLE MODE, IR (WITH DIFF. SERV)	1.0
PB-4CHDS3-QPP	3.7.2	4-Port Channelized DS3 to DS0 Services PIC with QPP, BNC	1.0
PB-4GE-SFP	3.7.2	Juniper Networks expansion module	1.0
PB-4GE-SFP	3.7.2	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)	1.0
PB-4OC3-SON-SMIR	3.7.2	4-Port SONET/SDH OC3/STM-1 PIC, SingleMode IR, for M160-FPC1	1.0
PC-1XGE-XENPAC	3.7.2	1 PORT 10 GIGABIT Ethernet PIC M320,T320,T640	1.0
PC-4OC3-SON-SMIR	3.7.2	4-port SONET,SDH OC3,STM1 PIC, SMIR (For use with T640 and T320 FPC2)	1.0

Table 8-11 Supported Modules for Juniper M-Series—Prime Network Version 4.0 (Continued)

Module Name	Product Version	Module Description	DP Version
PC-8GE-TYPE3-SFP-IQ2	3.7.2	8-Port Type3 Gigabit Ethernet IQ2 PIC (Uses SFP Optics Modules - See Interface Accessories section)	1.0
PEM	3.7.2	AC/DC Power Supply	1.0
PIC: 10X CHE1 IQ	3.7.2	10 Port Channelized E1 IQ PIC	1.0
PIC: 1X 10GE(LAN/WAN) IQ2	3.7.2	1Port 10-Gigabit Ethernet IQ2 PIC with XFP	1.0
PIC: 1X CHSTM1 IQ SDH, SMIR	3.7.2	1 Port Channelized STM1 IQ PIC	1.0
PIC: 1X G/E IQ, 1000 BASE	3.7.2	1 Port Gigabit Ethernet IQ PIC with SFP	1.0
PIC: 1X G/E, 1000 BASE	3.7.2	1 Port Gigabit Ethernet PIC with SFP	1.0
PIC: 1X G/E, 1000 BASE-SX	3.7.2	1 Port Gigabit Ethernet IQ PIC with SFP	1.0
PIC: 1X OC-12 SONET, SMIR	3.7.2	1 Port SONET/SDH OC12c/STM4 PIC	1.0
PIC: 1X OC-48 SONET SFP	3.7.2	1 Port SONET/SDH OC48c/STM16 PIC with SFP	1.0
PIC: 1X STM-16 SDH, SMSR	3.7.2	1 Port STM16 PIC with SFP	1.0
PIC: 1X STM-4 SDH, MM	3.7.2	1 Port SONET/SDH OC12c/STM4 PIC	1.0
PIC: 1X TUNNEL	3.7.2	Tunnel Services PIC	1.0
PIC: 2X OC-3 ATM-II IQ, SMIR	3.7.2	2 Port ATM2 OC3/STM1 IQ PIC	1.0
PIC: 2X T3	3.7.2	2 Port T3 PIC	1.0
PIC: 4X CHDS3 IQ	3.7.2	4 Port Channelized DS3 IQ PIC	1.0
PIC: 4X E1, RJ48	3.7.2	4-Port E1 with RJ48 connectors	1.0
PIC: 4X E3 IQ	3.7.2	4 Port E3 IQ PIC	1.0
PIC: 4X F/E, 100 BASE-TX	3.7.2	4 100Base-TX ports Fast Ethernet PICs	1.0
PIC: 4X STM-1 SDH, SMIR	3.7.2	4 Port SONET/SDH OC3c/STM1 PIC	1.0
PIC: 4X STM-4 SDH, SMIR	3.7.2	4 Port SONET/SDH OC12c/STM4 PIC	1.0
PIC: ADAPTIVE SERVICES-II	3.7.2	Physical Interface Card	1.0
RE-1600-2048-BB	3.7.2	Juniper M-Series routing engine with 1600MHz panel and 2GB memory - Base Bundle	1.0
ROUTING ENGINE 0	3.7.2	Routing Engine	1.0
SFP-1GE-LX	3.7.2	Small Form Factor Pluggable 1000Base-LX Gigabit Ethernet Optic Module	1.0
SIB	3.7.2	Switch Interface Board	1.0
TOP FAN	3.7.2	Fan Module	1.0
XENPAK-1XGE-LR	3.7.2	Juniper Networks transceiver module	1.0

Table 8-11 **Supported Modules for Juniper M-Series—Prime Network Version 4.0 (Continued)**

Module Name	Product Version	Module Description	DP Version
JNXM20FPC	3.7.2/3.7.3	FPC	4.0
JNXM20FAN	3.7.2/3.7.3	Fan Tray - M20	4.0
JNXM20SSB	3.7.2/3.7.3	SSB	4.0
JNXBACKPLANEM20	3.7.2/3.7.3	Backplane	4.0
JNXM20RE	3.7.2/3.7.3	Routing Engine 0	4.0
JNXM20POWER	3.7.2/3.7.3	PEM	4.0
JNXM20FRONTPANEL	3.7.2/3.7.3	Front Panel	4.0
JNXM40EFPC	3.7.2/3.7.3	FPC	4.0
JNXM40EFan	3.7.2/3.7.3	Fan Tray - M40e	4.0
JNXM40ESFM	3.7.2/3.7.3	SFM	4.0
JNXMIDPLANEM40e	3.7.2/3.7.3	Midplane	4.0
JNXM40EHM	3.7.2/3.7.3	Routing Engine 0	4.0
JNXM40EPOWER	3.7.2/3.7.3	PEM	4.0
JNXM40EPCG	3.7.2/3.7.3	PCG	4.0
JNXM40EMCS	3.7.2/3.7.3	MCS	4.0
JNXM40EFPM	3.7.2/3.7.3	FPM	4.0
JNXM40ECIP	3.7.2/3.7.3	CIP	4.0
JNXM120FEB	3.7.2/3.7.3	FEB	4.0
PIC: 4x OC-3 SONET SMIR	3.7.2/3.7.3	4 Port SONET/SDH OC3/STM4 PIC	6.0
PIC: ASP - Integrated	3.7.2/3.7.3	PIC: ASP - Integrated	6.0

Table 8-11 Supported Modules for Juniper M-Series—Prime Network Version 4.0 (Continued)

Module Name	Product Version	Module Description	DP Version
PIC: 2x F/E, 100 BASE-TX	3.7.2/3.7.3	2 Port Fast Ethernet PIC with SFP	6.0
M7i Midplane	3.7.2/3.7.3	M7i Midplane	6.0
PIC: 2x CHSTM-1 IQE SDH	3.8	2 Port Channelized STM PIC	2.0

Juniper M-Series—Supported Technologies

The following technologies are supported by the Juniper M-Series in Prime Network Version 4.0:

- [IP, page 8-23](#)
- [Routing Protocols, page 8-24](#)
- [Ethernet, page 8-26](#)
- [ATM, page 8-27](#)
- [Frame Relay, page 8-27](#)
- [PPP, page 8-28](#)
- [SONET/SDH, page 8-28](#)
- [TDM/DSx, page 8-29](#)
- [MPLS, page 8-29](#)
- [VPN \(VRF\), page 8-33](#)
- [Hardware, page 8-34](#)
- [BFD, page 8-38](#)
- [Serial, page 8-37](#)

Juniper M-Series—Supported Service Events

Table 8-12 Supported Service Events for Juniper M-Series—Prime Network Version 4.0

Event Name	Product Version	Expedited	DP Version
Active IP Interfaces Found	3.6.1	Y	
All IP Interfaces Down	3.6.1	Y	
BGP link down vrf due to oper	3.6.1	Y	
BGP link up	3.6.1	Y	

Table 8-12 **Supported Service Events for Juniper M-Series—Prime Network Version 4.0**

Event Name	Product Version	Expedited	DP Version
BGP process up	3.6.1	N	
Card Down	3.6.1	Y	
Card In	3.6.1	Y	
Card Out	3.6.1	Y	
Card Up	3.6.1	Y	
Cloud Problem	3.6.1	N	
CPU utilization exceeded upper threshold	3.6.1	N	
Device Unreachable	3.6.1	N	
Device Unsupported	3.6.1	N	
Interface status down flapping	3.6.1	Y	
Interface status down flapping update	3.6.1	Y	
Interface Status Down/Up	3.6.1	N	
Keepalive configured	3.6.1	N	
Keepalive not configured	3.6.1	N	
Layer 2 Tunnel Down	3.6.1	N	
Link Down	3.6.1	N	
Link up	3.6.1	N	
Memory utilization exceeded upper threshold	3.6.1	N	
Module Unsupported	3.6.1	N	
Port Down	3.6.1	N	
Port Flapping	3.6.1	N	
Rx utilization exceeded upper threshold	3.6.1	N	
Tx utilization exceeded upper threshold	3.6.1	N	
VPN Leak	3.6.1	N	

Juniper MX-Series Ethernet Service Routers

This section includes the following information about Juniper MX-Series devices (for information on the NE types supported in Prime Network Version 4.0, see the [Juniper MX-Series Ethernet Service Routers](#)):

This section contains the following topics:

- [Juniper MX-Series—Supported Software Versions, page 8-13](#)
- [Juniper MX-Series—Supported Topologies, page 8-13](#)

- [Juniper MX-Series—Supported Modules, page 8-14](#)
- [Juniper MX-Series—Supported Technologies, page 8-15](#)
- [Juniper MX-Series—Supported Service Events, page 8-15](#)

Juniper MX-Series—Supported Software Versions

Table 8-13 Supported Software Versions for Juniper MX-Series—Prime Network Version 4.0

Software Version	Product Version	DP Version
9.2S2	3.7.2	2.0
9.2-20081012.0	3.7.2	2.0
9.2R4.4	3.7.2	2.0
10.0S7.1	3.7.2	2.0
9.3R4.4	3.7.2	2.0
10.4	3.8.x-To-3.9.x	DP1206
10.4R6.5	3.8.x-To-3.9.x	DP1206
10.4R8.5	3.8.x-To-3.9.x	DP1206
10.0S8.2	3.8.x-To-3.9.x	DP1206
10.0R2.10	3.8.x-To-3.9.x	DP1206
10.4R4.4	3.8.x-To-3.9.x	DP1206

Juniper MX-Series—Supported Topologies

Table 8-14 Supported Topologies for Juniper MX-Series—Prime Network Version 4.0

Topology Type	Link Type	Product Version	DP Version
Ethernet	Ethernet	3.7.2	2.0
Physical Layer	Physical Layer	3.7.2	2.0

Juniper MX-Series—Supported Modules

Table 8-15 Supported Modules for Juniper MX-Series—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
MX960 Midplane	3.7.2	MX960 Midplane	2.0
FPM Board	3.7.2	MX960 Front Panel Display	2.0
PDM	3.7.2	MX960 Power Distribution Module	2.0
PEM	3.7.2	PS 1.7kW	2.0
200-240VAC in Routing Engine 1	3.7.2	RE-S-2000	2.0
CB	3.7.2	MX SCB (Switch Control Board)	2.0
MX960FPC	3.7.2	DPCE 40x 1GE REQ	2.0
MX960 CPU FPC	3.7.2	DPC 4x 10GE R	2.0
MX960 CPU	3.7.2	DPC PMB	2.0
PIC: 1x10GE(LAN/WAN)	3.7.2	PIC: 1x10GE(LAN/WAN)	2.0
Xcvr 0: XFP-10G-LR	3.7.2	XFP-10G-LR	2.0
Xcvr 0: XFP-10G-SR	3.7.2	XFP-10G-SR	2.0
MX960 FPC 9	3.7.2	DPC 40x 1GE R	2.0
Top Fan Tray	3.7.2	Top Fan Tray	2.0
Bottom Fan Tray	3.7.2	Bottom Fan Tray	2.0
MX480 Midplane	3.7.2	MX480 Midplane	3.0
FPM Board	3.7.2	MX480 Front Panel Display	3.0
PEM	3.7.2	PEM	3.0
Rear Fan Tray	3.7.2	Rear Fan Tray	3.0
MX240 Midplane	3.7.2/3.7.3	MX240 Midplane	4.0
PEM	3.8.x-To-3.9.x	DC Power Entry Module for MX960	DP1206
RE-S-2000-4096-S	3.8.x-To-3.9.x	MX 960 Routing Engine	DP1206
DPCE-R-40GE-SFP	3.8.x-To-3.9.x	40x1GE Enhanced DPC	DP1206
DPCE-R-4XGE-XFP	3.8.x-To-3.9.x	4x10GE Enhanced DPC	DP1206
XFP-10G-LR	3.8.x-To-3.9.x	Dual Rate 10G pluggable transceiver for 10GE and OC192, 1310nm	DP1206
SFP-LX10	3.8.x-To-3.9.x	1000Base-LX Gigabit Ethernet Optic Module	DP1206
SFP-1GE-T	3.8.x-To-3.9.x	1000Base-T Gigabit Ethernet Module	DP1206

Table 8-15 *Supported Modules for Juniper MX-Series—Prime Network Version 4.0 (Continued)*

Module Name	Product Version	Module Description	DP Version
FANTRAY-MX960-HC-S	3.8.x-To-3.9.x	Enhanced Fan Tray	DP1206
MX-MPC2-3D-R-B	3.8.x-To-3.9.x	MPC type 2, full scale L3 features	DP1206
MIC-3D-4XGE-XFP	3.8.x-To-3.9.x	4x10G MIC	DP1206
MS-DPC	3.8.x-To-3.9.x	Multi Services DPC	DP1206

Juniper MX-Series—Supported Technologies

The following technologies are supported by the Juniper MX-Series in Prime Network Version 4.0:

- [IP](#), page 8-23
- [Routing Protocols](#), page 8-24
- [Ethernet](#), page 8-26
- [MPLS](#), page 8-29
- [MPLS-TE](#), page 8-31
- [VPN \(VRF\)](#), page 8-33
- [PWE3](#), page 8-34
- [Hardware](#), page 8-34
- [Serial](#), page 8-37
- [Carrier Ethernet](#), page 8-37
- [BFD](#), page 8-38
- [LLDP](#), page 8-39
- [CGN](#), page 8-39

Juniper MX-Series—Supported Service Events

Table 8-16 *Supported Service Events for Juniper MX-Series—Prime Network Version 4.0*

Event Name	Product Version	Expedited	DP Version
All IP Interfaces Down / Active IP Interfaces Found	3.6.0	Y	
Interface Status Down/Up	3.6.0	N	
Card In/Out	3.6.0	N	

Table 8-16 **Supported Service Events for Juniper MX-Series—Prime Network Version 4.0**
(Continued)

Event Name	Product Version	Expedited	DP Version
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	
MPLS TE Tunnel Down/Flapping	3.7.2	Y	8.0
BGP Neighbor Down	3.6.0	Y	
Card Up/Down	3.6.0	N	
LDP neighbor down	3.7.2	Y	8.0
LDP neighbor up	3.7.2	Y	8.0
MPLS interface added	3.6.0	Y	
MPLS interface removed	3.6.0	Y	
MPLS-TE tunnel up	3.7.2	Y	8.0
OSPFneighbor down	3.6.0	Y	
OSPFneighbor up	3.6.0	Y	

Juniper Netscreen Security Firewall/VPN Device

This section includes the following information about Juniper Netscreen Security Firewall/VPN devices (for information on the NE types supported in Prime Network Version 4.0, see the [Juniper Netscreen Security Firewall/VPN Device](#)):

This section contains the following topics:

- [Juniper NetScreen Security Firewall/VPN Device—Supported Software Versions](#), page 8-17
- [Juniper NetScreen Security Firewall/VPN Device—Supported Topologies](#), page 8-17
- [Juniper NetScreen Security Firewall/VPN Device—Supported Modules](#), page 8-17
- [Juniper NetScreen Security Firewall/VPN Device—Supported Technologies](#), page 8-18
- [Juniper NetScreen Security Firewall/VPN Device—Supported Service Events](#), page 8-18

Juniper NetScreen Security Firewall/VPN Device—Supported Software Versions

Table 8-17 Supported Software Versions for Juniper NetScreen Security Firewall/VPN Device—Prime Network Version 4.0

Software Version	Product Version	DP Version
ScreenOS 6.2 revision 2 Cb8	3.7.2/3.7.3	6.0
Screen OS6.3.0revision7.0	3.7.2/3.7.3	6.0

Juniper NetScreen Security Firewall/VPN Device—Supported Topologies

Table 8-18 Supported Topologies for Juniper NetScreen Security Firewall/VPN Device—Prime Network Version 4.0

Topology Type	Link Type	Product Version	DP Version
Ethernet	Ethernet	3.7.2/3.7.3	6.0
Physical Layer	Physical Layer	3.7.2/3.7.3	6.0

Juniper NetScreen Security Firewall/VPN Device—Supported Modules

Table 8-19 Supported Modules for Juniper NetScreen Security Firewall/VPN Device—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
Fan Tray	3.7.2/3.7.3	Fan Tray	6.0
5000-MG3	3.7.2/3.7.3	Management Module 3	6.0
5000-8G2-G4	3.7.2/3.7.3	8 x GigE Secure Port Module (SPM) - includes 8 x transceivers (SX)	6.0
Power Entry Module	3.7.2/3.7.3	Power supply module	6.0

Juniper NetScreen Security Firewall/VPN Device—Supported Technologies

The following technologies are supported by the Juniper NetScreen in Prime Network Version 4.0:

- [IP, page 8-23](#)
- [Ethernet, page 8-26](#)
- [Hardware, page 8-34](#)
- [Serial, page 8-37](#)

Juniper NetScreen Security Firewall/VPN Device—Supported Service Events

Table 8-20 *Supported Service Events for Juniper NetScreen Security Firewall/VPN Device—Prime Network Version 4.0*

Event Name	Product Version	Expedited	DP Version
All IP Interfaces Down / Active IP Interfaces Found	3.7.2	N	
Interface Status Down/Up	3.7.2	Y	
Card In/Out	3.7.2	N	
Link Down/Up	3.7.2	N	
Device Unreachable	3.7.2	N	
CPU Over Utilized	3.7.2	N	
Memory Over Utilized	3.7.2	N	
Device Unsupported	3.7.2	N	
Discard Packets	3.7.2	N	
Dropped Packets	3.7.2	N	
Module Unsupported	3.7.2	N	
Port Flapping	3.7.2	N	
Port Down	3.7.2	N	
Rx Over Utilized	3.7.2	N	
Tx Over Utilized	3.7.2	N	
VPN Leak	3.7.2	N	
BGP Neighbor Down	3.7.2	N	
Card Up/Down	3.7.2	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 Prime Network Version 4.0, see the [Juniper T-Series Core Platforms](#)):

This section contains the following topics:

- [Juniper T-Series—Supported Software Versions, page 8-19](#)
- [Juniper T-Series—Supported Topologies, page 8-19](#)
- [Juniper T-Series—Supported Modules, page 8-19](#)
- [Juniper T-Series—Supported Technologies, page 8-21](#)
- [Juniper T-Series—Supported Service Events, page 8-22](#)

Juniper T-Series—Supported Software Versions

Table 8-21 Supported Software Versions for Juniper T-Series—Prime Network Version 4.0

Software Version	Product Version	DP Version
8.2R3.6	3.7.2	1.0
7.6R3.6	3.7.2	1.0
8.2R3.5	3.7.2	1.0
9.1R2.10	3.7.2	3.0
9.0R2.10	3.7.2	3.0

Juniper T-Series—Supported Topologies

Table 8-22 Supported Topologies for Juniper T-Series—Prime Network Version 4.0

Topology Type	Link Type	Product Version	DP Version
Ethernet	Ethernet	3.7.2	1.0

Juniper T-Series—Supported Modules

Table 8-23 Supported Modules for Juniper T-Series—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
CIP-L-T640-S	3.7.2	Connector Interface Panel	1.0
FT-T640	3.7.2	Fan Tray - T640	1.0
MEM-FPC-512-S	3.7.2	512MB DRAM for FPC	1.0
PC-10GE-SFP	3.7.2	PIC: 10x 1GE(LAN), 1000 BASE	1.0

Table 8-23 Supported Modules for Juniper T-Series—Prime Network Version 4.0 (Continued)

Module Name	Product Version	Module Description	DP Version
PC-1XGE-XENPAK	3.7.2	PIC, 1-Port 10GE, XENPAK Optics	1.0
PC-8GE-TYPE3-SFP-IQ2	3.7.2	Gigabit Ethernet IQ2, 8-port SFP	1.0
PIC: 1X OC-192 SM SR1	3.7.2	PIC: 1x OC-192 SM SR1	1.0
PIC: 1X TUNNEL	3.7.2	Tunnel Services PIC	1.0
RE-1600-2048-BB	3.7.2	Routing Engine, 1600Mhz, 2048 MB DRAM	1.0
RE-1600-2048-R	3.7.2	Routing Engine, 1600 Mhz, 2048 MB DRAM - redundant	1.0
SCG-T	3.7.2	T Series Sonet ClockGenerator	1.0
SCG-T-BB	3.7.2	T640 SONET Clock Generator Board	1.0
SFP-1GE-LH	3.7.2	SFP Pluggable 1000Base-LH GE Optic Module	1.0
SFP-1GE-LX	3.7.2	SFP Pluggable 1000Base-LX GE Optic Module	1.0
T640-FPC3-E2	3.7.2	FPC: E2-FPC Type 1, FPC: E-FPC Type 3	1.0
XENPAK-1XGE-LR	3.7.2	XENPAK Pluggable 10GBase-LR Optic Module	1.0
JNXT320FPC	3.7.2	Enhanced II FPC3	3.0
JNXT320Fan	3.7.2	Fan Tray - T320	3.0
JNXT320CIP	3.7.2	Connector Interface Panel	3.0
JNXMidplaneT320	3.7.2	Midplane	3.0
JNXT320FPB	3.7.2	FPM Display	3.0
JNXT320CB	3.7.2	CB 0	3.0
JNXT320SCG	3.7.2	SCG 0	3.0
JNXT320SPMB	3.7.2	SPMB 0	3.0
JNXT320HM	3.7.2	Routing Engine 0	3.0
JNXPCMCIACard	3.7.2	Routing Engine 0 PCMCIA Card 0	3.0
JNXT320Power	3.7.2	PEM	3.0
JNXT320SIB	3.7.2	SIB 0	3.0
PIC: 4x OC-3 SONET	3.7.2	PIC: 4x OC-3 SONET, SMIR @ 0/0/*	3.0
JNXT1600FPC	3.7.2/3.7.3	Enhanced II FPC3	4.0
JNXT1600Fan	3.7.2/3.7.3	Fan Tray - T1600	4.0
JNXT1600CIP	3.7.2/3.7.3	Connector Interface Panel	4.0

Table 8-23 Supported Modules for Juniper T-Series—Prime Network Version 4.0 (Continued)

Module Name	Product Version	Module Description	DP Version
JNXMidplaneT1600	3.7.2/3.7.3	midplane	4.0
JNXT1600FPB	3.7.2/3.7.3	FPM Display	4.0
JNXT1600CB	3.7.2/3.7.3	CB 0	4.0
JNXT1600SCG	3.7.2/3.7.3	SCG 0	4.0
JNXT1600SPMB	3.7.2/3.7.3	SPMB 0	4.0
JNXT1600HM	3.7.2/3.7.3	Routing Engine 0	4.0
JNXPCMCIACard	3.7.2/3.7.3	Routing Engine 0 PCMCIA Card 0	4.0
JNXT1600Power	3.7.2/3.7.3	PEM	4.0
JNXT1600SIB	3.7.2/3.7.3	SIB 0	4.0

Juniper T-Series—Supported Technologies

The following technologies are supported by the Juniper T-Series in Prime Network Version 4.0:

- [IP, page 8-23](#)
- [Routing Protocols, page 8-24](#)
- [Ethernet, page 8-26](#)
- [ATM, page 8-27](#)
- [Frame Relay, page 8-27](#)
- [PPP, page 8-28](#)
- [MPLS, page 8-29](#)
- [VPN \(VRF\), page 8-33](#)
- [Hardware, page 8-34](#)
- [Serial, page 8-37](#)
- [BFD, page 8-38](#)

Juniper T-Series—Supported Service Events

Table 8-24 *Supported Service Events for Juniper T-Series—Prime Network Version 4.0*

Event Name	Product Version	Expedited	DP Version
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	Y	
Port Flapping	3.6.1	N	
Port Down	3.6.1	Y	
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 Prime Network Version 4.0 per technology:

This section contains the following topics:

- [IP, page 8-23](#)
- [Routing Protocols, page 8-24](#)
- [Ethernet, page 8-26](#)
- [ATM, page 8-27](#)
- [Frame Relay, page 8-27](#)
- [PPP, page 8-28](#)
- [SONET/SDH, page 8-28](#)
- [TDM/DSx, page 8-29](#)
- [MPLS, page 8-29](#)
- [MPLS-TE, page 8-31](#)
- [VPN \(VRF\), page 8-33](#)
- [Hardware, page 8-34](#)

- [Serial](#), page 8-37
- [Carrier Ethernet](#), page 8-37
- [BFD](#), page 8-38
- [LLDP](#), page 8-39
- [CGN](#), page 8-39
- [Additional Technologies](#), page 8-40

IP

The following table ([Table 8-25](#)) lists the ip attributes that are supported on Juniper devices in Prime Network Version 4.0 per technology:

Table 8-25 IP Attribute Support on Juniper Devices—Prime Network Version 4.0

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IMO Name—IPIInterface						
IP Address	Y	Y	Y	Y	Y	Y
Subnetwork Mask	Y	Y	Y	Y	Y	Y
IP Interface Addresses Array		Y	Y			Y
Interface Name	Y	Y	Y	Y	Y	Y
Interface Description				Y		
IP Interface State	Y	Y	Y	Y	Y	Y
IMO Name—IRoutingEntity						
Routing Table	Y	Y	Y	Y	Y	Y
ARP Entity		Y	Y	Y	Y	Y
Name	Y	Y	Y	Y	Y	Y
Logical Sons	Y		Y	Y	Y	Y
IMO Name—IRoutingEntry						
Destination IP Subnet	Y	Y	Y	Y	Y	Y
Next Hop IP Address	Y	Y	Y	Y	Y	Y
Type	Y	Y	Y	Y	Y	Y
Routing Protocol Type	Y	Y	Y	Y	Y	Y
Outgoing Interface Name	Y	Y	Y	Y	Y	Y
IMO Name—IARPEntity						
ARP Table	Y	Y	Y	Y	Y	Y

Table 8-25 *IP Attribute Support on Juniper Devices—Prime Network Version 4.0 (Continued)*

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IMO Name—IARPEntry						
IP Address	Y	Y	Y	Y	Y	Y
MAC Address	Y	Y	Y	Y	Y	Y
Port	Y	Y	Y	Y	Y	Y
Entry Type	Y	Y	Y	Y	Y	Y

Routing Protocols

The following table ([Table 8-26](#)) lists the routing protocols attributes that are supported on Juniper devices in Prime Network Version 4.0 per technology:

Table 8-26 *Routing Protocols Attribute Support on Juniper Devices—Prime Network Version 4.0*

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IMO Name—IBgpNeighborEntry						
Remote Identifier		Y	Y	Y		Y
Neighbor Type		Y	Y			Y
Remote Address		Y	Y	Y		Y
Remote Autonomous System		Y	Y	Y		Y
Peer State		Y	Y	Y		Y
Hold Time		Y	Y	Y		Y
Keep Alive Time		Y	Y	Y		Y
IMO Name—IOspfProcess						
Process Id		Y	Y	Y		Y
OSPF Version		Y	Y	Y		Y
Router Id		Y	Y	Y		Y
IMO Name—IOspfNeighbor						
Neighbor Id		Y	Y	Y		Y
Outgoing Interface		Y	Y	Y		Y
State		Y	Y	Y		Y

Table 8-26 Routing Protocols Attribute Support on Juniper Devices—Prime Network Version 4.0

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
Neighbor Interface Address		Y	Y	Y		Y
Area Id		Y	Y	Y		Y
IMO Name—IOSpfInterface						
Area Id		Y	Y	Y		Y
Network Type		Y	Y	Y		Y
Cost		Y	Y	Y		Y
State		Y	Y	Y		Y
Interface Address		Y	Y	Y		Y
Type		Y	Y	Y		Y
IF Priority		Y	Y	Y		Y
DR Id		Y	Y	Y		Y
BDR Id		Y	Y	Y		Y
IMO Name—ISpfTimers						
Schedule Delay		Y	Y	Y		Y
Min Hold Time			Y			
Max Wait Time			Y			
IMO Name—IISISProcess						
ISIS Version				Y		
Manual Area Address				Y		
IS Type				Y		
System Id				Y		
Process Id				Y		
IMO Name—IISISMetric						
IS Type				Y		
Metric Style				Y		
Metric Value				Y		
Address Family				Y		
IMO Name—IISISInterface						
Interface Name				Y		
IMO Name—IISISNeighbor						
IS Type				Y		
System Id				Y		

Table 8-26 Routing Protocols Attribute Support on Juniper Devices—Prime Network Version 4.0

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
Admin State				Y		
Hold Time				Y		
SNPA				Y		
Interface Name				Y		
IP Address				Y		
Adress Family				Y		

Ethernet

The following table ([Table 8-27](#)) lists the ethernet protocols attributes that are supported on Juniper devices in Prime Network Version 4.0 per technology:

Table 8-27 Ethernet Attribute Support on Juniper Devices—Prime Network Version 4.0

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IMO Name—IEthernet						
MAC Address	Y	Y	Y	Y	Y	Y
isElmiEnabled		Y		Y	Y	
AutoNegotiate		Y	Y	Y		Y
IMO Name—IVlanInterface						
Native VLAN Identification				Y		
vlanencapType				Y		
IMO Name—IVlanEncapMux						
IANA Type		Y	Y			Y
IMO Name—IIEEE802						
VLAN Identification		Y	Y			Y
IANA Type		Y	Y			Y

ATM

The following table (Table 8-28) lists the atm protocols attributes that are supported on Juniper devices in Prime Network Version 4.0 per technology:

Table 8-28 ATM Attribute Support on Juniper Devices—Prime Network Version 4.0

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IMO Name—IAtm						
Interface Type						Y
VC Table			Y			Y
IANA Type			Y			Y
Tx Allocated Bandwidth			Y			Y
Tx Maximum Bandwidth			Y			Y
Tx UBR Allocated Bandwidth			Y			Y
Tx CBR Allocated Bandwidth			Y			Y
Rx Allocated Bandwidth			Y			Y
Rx Maximum Bandwidth			Y			Y
Rx UBR Allocated Bandwidth			Y			Y
Rx CBR Allocated Bandwidth			Y			Y
IMO Name—IAtmVc						
Virtual Channel Identifier			Y			Y
Virtual Path Identifier			Y			Y
Administrative Status			Y			Y
Operational Status			Y			Y

Frame Relay

The following table (Table 8-29) lists the frame relay protocols attributes that are supported on Juniper devices in Prime Network Version 4.0 per technology:

Table 8-29 *Frame Relay Attribute Support on Juniper Devices—Prime Network Version 4.0*

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IMO Name—IframeRelay/IFrTrunk						
Protocol Type			Y			Y
VC Table			Y			Y
IMO Name—IfrVc						
Data Link Connection Identifier			Y			Y
Administrative Status			Y			Y
Operational Status			Y			Y
IMO Name—IEncapsulation						
Virtual Connection Interface			Y			Y

PPP

The following table (Table 8-30) lists the ppp protocols attributes that are supported on Juniper devices in Prime Network Version 4.0 per technology:

Table 8-30 *PPP Attribute Support on Juniper Devices—Prime Network Version 4.0*

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IMO Name—IvcBasedEncapsulation						
Virtual Connection			Y			Y

SONET/SDH

The following table (Table 8-31) lists the SONET/SDH protocols attributes that are supported on Juniper devices in Prime Network Version 4.0 per technology:

Table 8-31 SONET/SDH Attribute Support on Juniper Devices—Prime Network Version 4.0

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IMO Name—ISonetSdh)						
Loopback Type			Y			
Scrambling Mode			Y			
clocking			Y			

TDM/DSx

The following table (Table 8-32) lists the TDM/DSx protocols attributes that are supported on Juniper devices in Prime Network Version 4.0 per technology:

Table 8-32 TDM/DSx Attribute Support on Juniper Devices—Prime Network Version 4.0

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IMO Name—IDS1Pdh / IDS3Pdh						
Framing Type			Y			
Scrambling Mode			Y			
clocking			Y			
loopback			Y			

MPLS

The following table (Table 8-33) lists the mpls protocols attributes that are supported on Juniper devices in Prime Network Version 4.0 per technology:

Table 8-33 MPLS Attribute Support on Juniper Devices—Prime Network Version 4.0

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IMO Name—IMpls						
Distribution Protocol	Y		Y	Y		Y
Outer and Inner Labels	Y		Y			Y
Traffic Engineering Properties				Y		
IMO Name—ILse						
MPLS Table	Y		Y	Y		Y
MPLS Aggregate Table			Y	Y		Y
MPLS Tunnel Segments			Y			Y
LDP Service			Y	Y		Y
Logical Sons	Y			Y		
IMO Name—ILdpService						
Local Identification Status			Y	Y		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	Y		Y
Session Status			Y	Y		Y
Hold Time			Y	Y		Y
Keep Alive Time			Y	Y		Y
Peer Discovery Sources			Y	Y		Y
IMO Name—ILdpDiscoverySource						
Interface Name			Y			Y
Source Address			Y			Y
Type			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

Table 8-33 MPLS Attribute Support on Juniper Devices—Prime Network Version 4.0 (Continued)

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
Destination address			Y	Y		Y
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		

MPLS-TE

The following table (Table 8-34) lists the mpls-te protocols attributes that are supported on Juniper devices in Prime Network Version 4.0 per technology:

Table 8-34 MPLS-TE Attribute Support on Juniper Devices—Prime Network Version 4.0

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IMO Name—IMplsTETunnel						
Destination Address				Y		
Outgoing Interface and Label				Y		
LSP Identification				Y		
Requested Bandwidth				Y		
Measured Average Burst and Peak Bandwidth				Y		
Setup and Hold Priority				Y		
Affinity Bits				Y		
Automatic Route Announcement Status				Y		
Optimization Lock Down Status				Y		
Path Option				Y		
Name				Y		

Table 8-34 MPLS-TE Attribute Support on Juniper Devices—Prime Network Version 4.0

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
Description				Y		
Administrative Status				Y		
Operational Status				Y		
IANA Type				Y		
is FRR Enabled				Y		
TunnelType				Y		
IMO Name—IMplsTEProperties						
Signaling Protocol				Y		
Available Physical and Reservable Bandwidth				Y		
Reserved Bandwidth				Y		
Administrative Weight				Y		
IMO Name—IMplsTEPropertiesAllocationEntry						
Priority Level				Y		
Allocated and Cumulative Bandwidth				Y		
IMO Name—IMplsTESegment						
Segment Type				Y		
Measured Average Burst and Peak Bandwidth				Y		
LSP Identification				Y		
Name				Y		
FRRTunnelName				Y		
FRRTunnelState				Y		
AverageBandwidth				Y		
In Interface				Y		
Out interface				Y		
In Label				Y		
Out Label				Y		
Source address				Y		
Destination address				Y		
TunnelType				Y		

VPN (VRF)

The following table (Table 8-35) lists the vpn (vrf) protocols attributes that are supported on Juniper devices in Prime Network Version 4.0 per technology:

Table 8-35 VPN (VRF) Attribute Support on Juniper Devices—Prime Network Version 4.0

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
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
Name	Y		Y	Y		Y
Logical Sons			Y	Y		Y
Description			Y	Y		Y
Import Route-Map			Y	Y		Y
Export Route-Map			Y	Y		Y
IMO Name—IVrfEntry						
Next Hop BGP Address	Y					
Incoming and Outgoing Inner Label						
Outer Label						
Destination IP Subnet	Y	Y	Y	Y		Y
Next Hop IP Address	Y	Y	Y	Y		Y
Type	Y	Y	Y	Y		Y
Routing Protocol Type	Y	Y	Y	Y		Y
Outgoing Interface Name	Y	Y	Y	Y		Y
IMO Name—IMpBgp						
BGP Identifier			Y	Y		
Local Autonomous System			Y	Y		
BGP Neighbors			Y	Y		Y

PWE3

The following table (Table 8-36) lists the pwe3 protocols attributes that are supported on Juniper devices in Prime Network Version 4.0 per technology:

Table 8-36 PWE3 Attribute Support on Juniper Devices—Prime Network Version 4.0

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IMO Name—IIP/MPLS Tunnel						
Local and Remote Router Addresses				Y		
Local and Remote Virtual Connection Labels				Y		
Tunnel Identification				Y		
Tunnel Status				Y		
Pseudowire Type				Y		
Local MTU				Y		
Signaling Protocol				Y		

Hardware

The following table (Table 8-37) lists the hardware protocols attributes that are supported on Juniper devices in Prime Network Version 4.0 per technology:

Table 8-37 Hardware Attribute Support on Juniper Devices—Prime Network Version 4.0

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IMO Name—IChassis						
Description		Y	Y	Y	Y	Y
Equipment Holder Type	Y	Y	Y	Y	Y	Y
Serial Number		Y	Y	Y	Y	
IMO Name—I Shelf						
Equipment Holder Type	Y					

Table 8-37 Hardware Attribute Support on Juniper Devices—Prime Network Version 4.0 (Continued)

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IMO Name—IModule						
Module Name	Y	Y	Y	Y	Y	Y
Module Description	Y	Y	Y	Y	Y	Y
Operational Status	Y	Y	Y	Y	Y	Y
Hardware Type + Version	Y	Y	Y	Y		Y
Operational Status Last Changed			Y	Y		
Serial Number (soft property)	Y	Y	Y	Y		Y
Configured Redundancy		Y	Y	Y		Y
Redundancy Status		Y	Y	Y	Y	Y
IMO Name—IManagedElement						
IP Address	Y	Y	Y	Y	Y	Y
Communication State	Y	Y	Y	Y	Y	Y
Investigation State	Y	Y	Y	Y	Y	Y
Element Category	Y	Y	Y	Y	Y	Y
Element Type and Key	Y	Y	Y	Y	Y	Y
Device Name	Y	Y	Y	Y	Y	Y
Device Series	Y	Y	Y	Y	Y	Y
System Name	Y	Y	Y	Y	Y	Y
System Description	Y	Y	Y	Y	Y	Y
Up Time	Y	Y	Y	Y	Y	Y
Software Version	Y	Y	Y	Y	Y	Y
Vendor Identity	Y	Y	Y	Y	Y	Y
Memory and CPU Usage		Y	Y	Y	Y	Y
Flash Device Size				Y		
Sys Contact		Y	Y	Y	Y	
Sys Location		Y	Y	Y	Y	
Serial Number		Y	Y		Y	
IMO Name—IContext						
Name	Y					
IMO Name—IBridge						
Bridge Table				Y		
Type				Y		

Table 8-37 Hardware Attribute Support on Juniper Devices—Prime Network Version 4.0 (Continued)

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
MAC Address				Y		
Name				Y		
IMO Name—IBridgeEntry						
Destination MAC				Y		
Outgoing Interface				Y		
IMO Name—IPluggableTransceiver						
ConnectorDescription			Y	Y		
PID			Y	Y		
ConnectorSerialNumber			Y	Y		
ConnectorType			Y	Y		
PluggablePortState			Y	Y		
PluggableType			Y	Y		
IMO Name—IOperatingSystem						
osVersion			Y			
romVersion			Y			
bootSoftware			Y			
bootReason			Y			
bootLdrSoftware			Y			
RamSize			Y			
IMO Name—IFlashDevice						
flashPartition			Y			
capacity			Y			
availableSpace			Y			
typeOfMemory			Y			
logicalFiles			Y			
IMO Name—ILogicalFile						
checksum			Y			
fileSize			Y			
typeOfFile			Y			
fullPathName			Y			

Serial

The following table (Table 8-38) lists the serial protocols attributes that are supported on Juniper devices in Prime Network Version 4.0 per technology:

Table 8-38 Serial Attribute Support on Juniper Devices—Prime Network Version 4.0

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IMO Name—IPhysicalLayer						
Media Type			Y	Y		Y
Clocking Source			Y			Y
Maximum Speed	Y		Y	Y	Y	Y
Is Internal Port	Y		Y	Y		Y
Discarded and Received Input Data Counters	Y		Y	Y		Y
Dropped and Forward Output Data Counters	Y		Y	Y		Y
Administrative Status	Y		Y	Y	Y	Y
Operational Status	Y		Y	Y	Y	Y
Last Changed	Y		Y	Y		Y
IANA Type	Y		Y	Y		Y
Port Alias				Y		
Location				Y		
Sending Alarms				Y		
Connector Description				Y		
Status				Y		
Managed				Y		

Carrier Ethernet

The following table (Table 8-39) lists the carrier ethernet protocols attributes that are supported on Juniper devices in Prime Network Version 4.0 per technology:

Table 8-39 Carrier Ethernet Attribute Support on Juniper Devices—Prime Network Version 4.0

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IMO Name—IVsi						
vsiInstanceName				Y		
vpnId				Y		
discoveryMode				Y		
vsiMode				Y		
Operational state				Y		
Administrative state				Y		

BFD

The following table ([Table 8-40](#)) lists the bfd protocols attributes that are supported on Juniper devices in Prime Network Version 4.0 per technology:

Table 8-40 BFD Attribute Support on Juniper Devices—Prime Network Version 4.0

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IMO Name—IBfdSession						
SourceIp		Y	Y	Y		Y
DestinationIp		Y	Y	Y		Y
Interval		Y	Y	Y		Y
Multiplier		Y	Y	Y		Y
Protocol		Y	Y	Y		Y
State		Y	Y	Y		Y
Interface		Y	Y	Y		Y

LLDP

The following table (Table 8-41) lists the lldp protocols attributes that are supported on Juniper devices in Prime Network Version 4.0 per technology:

Table 8-41 LLDP Attribute Support on Juniper Devices—Prime Network Version 4.0

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IM0 Name—ILLDPService						
status				Y		
lldpAdvertisementsInterval				Y		
lldpHoldTime				Y		
lldpReinitialisationDelay				Y		
localChassisID				Y		
localSystemName				Y		
IM0 Name—ILLDPNeighbor						
localPortName				Y		
remotePortDesc				Y		
remoteChassisId				Y		
remoteManagementIP				Y		
localPortId				Y		
remotePortId				Y		

CGN

The following table (Table 8-42) lists the cgn protocols attributes that are supported on Juniper devices in Prime Network Version 4.0 per technology:

Table 8-42 CGN Attribute Support on Juniper Devices—Prime Network Version 4.0

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IM0 Name—ICgnService						
cgnName				Y		
IM0 Name—ICgnStatsEntry						

Table 8-42 CGN Attribute Support on Juniper Devices—Prime Network Version 4.0 (Continued)

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
StatName				Y		
IMO Name—ICgnServiceAddressPool						
addressPool				Y		
addressFamily				Y		

Additional Technologies

The following table ([Table 8-42](#)) lists the additional technologies protocols attributes that are supported on Juniper devices in Prime Network Version 4.0 per technology:

Table 8-43 Additional Technologies Attribute Support on Juniper Devices—Prime Network Version 4.0

Attribute	E-Series	JCS	M-Series	MX-Series	NetScreen-Series	T-Series
IMO Name—POS						
POS	Y					



Support Information for RAD Devices

This chapter contains support information for Virtual Network Elements (VNEs) that manage RAD devices in Prime Network Version 4.0.



Note

For more information about the objects and attributes described in this chapter, see *Cisco Prime Network 4.0 Supported Cisco VNEs*, *Cisco Prime Network 4.0 Supported Service Alarms*, *Cisco Prime Network 4.0 Supported System and Security Events*, and *Cisco Prime Network 4.0 Supported Technologies and Topologies* in the [Cisco Prime Network 4.0 Documentation Guide](#).

This chapter contains the following topics:

- [RAD ACE-3000-Series Cell-Site Gateway](#), page 9-1
- [RAD ETX-Series Carrier Ethernet Demarcation Device](#), page 9-3
- [RAD IPmux-4L TDM Pseudowire Access Gateway](#), page 9-4
- [RAD LA-210 EFM DSL Network Termination Unit](#), page 9-6
- [Supported Technologies on RAD Devices](#), page 9-7

RAD ACE-3000-Series Cell-Site Gateway

This section includes the following information about RAD ACE-3000-Series Cell-Site Gateway devices (for information on the NE types supported in Prime Network Version 4.0, see [RAD ACE-3000-Series Cell-Site Gateway](#)):

- [RAD ACE CSG-Series—Supported Software Versions](#), page 9-2
- [RAD ACE CSG-Series—Supported Topologies](#), page 9-2
- [RAD ACE CSG-Series—Supported Modules](#), page 9-2
- [RAD ACE CSG-Series—Supported Technologies](#), page 9-2
- [RAD ACE CSG-Series—Supported Service Events](#), page 9-3

RAD ACE CSG-Series—Supported Software Versions

Table 9-1 Supported Software Versions for RAD ACE CSG-Series—Prime Network Version 4.0

Software Version	Product Version	DP Version
RadOS V5.4	3.7.2	2.0
RadOS V6.1	3.7.2	2.0

RAD ACE CSG-Series—Supported Topologies

Table 9-2 Supported Topologies for RAD ACE CSG-Series—Prime Network Version 4.0

Topology Type	Link Type	Product Version	DP Version
Ethernet	Ethernet	3.7.2	1.0
ATM	ATM	3.7.2	2.0
ATM	PNNI	3.7.2	2.0
MPLS	MPLS	3.7.2	2.0
PWE3 (Martini)	Tunnel	3.7.2	2.0
GRE Tunnel	GRE Tunnel	3.7.2	2.0
Physical Layer	Physical Layer	3.7.2	2.0

RAD ACE CSG-Series—Supported Modules

Table 9-3 Supported Modules for RAD ACE CSG-Series—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
ACE-3205	3.7.2	Cell-Site Gateway	1.0
ACE-3105	3.7.2	Cell-Site Gateway	2.0
ACE-3100	3.7.2/3.7.3	Cell-Site Gateway	4.0
ACE-3200	3.7.2/3.7.3	Cell-Site Gateway	4.0

RAD ACE CSG-Series—Supported Technologies

The following technologies are supported by the RAD ACE CSG-Series in Prime Network Version 4.0:

- [IP, page 9-7](#)
- [Ethernet, page 9-10](#)

- [ATM, page 9-11](#)
- [xDSL, page 9-12](#)
- [TDM/DSx, page 9-13](#)
- [MPLS, page 9-13](#)
- [PWE3, page 9-14](#)
- [Hardware, page 9-15](#)
- [Serial, page 9-16](#)
- [Additional Technologies, page 9-17](#)

RAD ACE CSG-Series—Supported Service Events

Table 9-4 *Supported Service Events for RAD ACE CSG-Series—Prime Network Version 4.0*

Event Name	Product Version	Expedited	DP Version
GRE tunnel down	3.7.2	N	3.0
GRE tunnel up	3.7.2	N	3.0
LDP neighbor down	3.7.2	N	2.0
LDP neighbor up	3.7.2	N	2.0
Link Down	3.7.2	N	2.0
Link up	3.7.2	N	2.0

RAD ETX-Series Carrier Ethernet Demarcation Device

This section includes the following information about RAD ETX-Series devices (for information on the NE types supported in Prime Network Version 4.0, see [RAD ETX-Series Carrier Ethernet Demarcation Device](#)):

- [RAD ETX-Series—Supported Software Versions, page 9-4](#)
- [RAD ETX-Series—Supported Modules, page 9-4](#)
- [RAD ETX-Series—Supported Technologies, page 9-4](#)
- [RAD ETX-Series—Supported Service Events, page 9-4](#)

RAD ETX-Series—Supported Software Versions

Table 9-5 Supported Software Versions for RAD ETX-Series—Prime Network Version 4.0

Software Version	Product Version	DP Version
ETX V2.2	3.7.2	2.0

RAD ETX-Series—Supported Modules

Table 9-6 Supported Modules for RAD ETX-Series—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
ETX-204AW (Wide Box)	3.7.2	Carrier Ethernet Demarcation Device	2.0
ETX-204A (Short Box)	3.7.2/3.7.3	Carrier Ethernet Demarcation Device	4.0

RAD ETX-Series—Supported Technologies

The following technologies are supported by the RAD ETX-Series in Prime Network Version 4.0:

- [Ethernet \(IEEE 802.3ad\), page 9-8](#)
- [Ethernet\(IEEE 802.3\), page 9-9](#)
- [Ethernet, page 9-10](#)
- [Hardware, page 9-15](#)
- [Serial, page 9-16](#)

RAD ETX-Series—Supported Service Events

Table 9-7 Supported Service Events for RAD ETX-Series—Prime Network Version 4.0

Event Name	Product Version	Expedited	DP Version
Link Down	3.7.2	N	2.0
Link Up	3.7.2	N	2.0

RAD IPmux-4L TDM Pseudowire Access Gateway

This section includes the following information about RAD IPmux-4L devices (for information on the NE types supported in Prime Network Version 4.0, see [RAD IPmux-4L TDM Pseudowire Access Gateway](#)):

- [RAD IPmux-4L—Supported Software Versions, page 9-5](#)
- [RAD IPmux-4L—Supported Modules, page 9-5](#)
- [RAD IPmux-4L—Supported Technologies, page 9-5](#)
- [RAD IPmux-4L—Supported Service Events, page 9-5](#)

RAD IPmux-4L—Supported Software Versions

Table 9-8 *Supported Software Versions for RAD IPmux-4L—Prime Network Version 4.0*

Software Version	Product Version	DP Version
1.00	3.7.2	2.0

RAD IPmux-4L—Supported Modules

Table 9-9 *Supported Modules for RAD IPmux-4L—Prime Network Version 4.0*

Module Name	Product Version	Module Description	DP Version
IPmux-4L	3.7.2	TDM Pseudowire Access Gateway. It also offers Ethernet based Access services	2.0

RAD IPmux-4L—Supported Technologies

The following technologies are supported by the RAD IPmux-4L in Prime Network Version 4.0:

- [Ethernet, page 9-10](#)
- [TDM/DSx, page 9-13](#)
- [Hardware, page 9-15](#)
- [Serial, page 9-16](#)
- [Additional Technologies, page 9-17](#)

RAD IPmux-4L—Supported Service Events

Table 9-10 *Supported Service Events for RAD IPmux-4L—Prime Network Version 4.0*

Event Name	Product Version	Expedited	DP Version
Link Down	3.7.2	N	2.0
Link Up	3.7.2	N	2.0

RAD LA-210 EFM DSL Network Termination Unit

This section includes the following information about RAD LA-210 devices (for information on the NE types supported in Prime Network Version 4.0, see [RAD LA-210 EFM DSL Network Termination Unit](#)):

- [RAD LA-210—Supported Software Versions, page 9-6](#)
- [RAD LA-210—Supported Modules, page 9-6](#)
- [RAD LA-210—Supported Technologies, page 9-6](#)
- [RAD LA-210—Supported Service Events, page 9-6](#)

RAD LA-210—Supported Software Versions

Table 9-11 Supported Software Versions for RAD LA-210—Prime Network Version 4.0

Software Version	Product Version	DP Version
LA-210 V2.6	3.7.2	2.0
LA-210 V2.7	3.7.2	2.0

RAD LA-210—Supported Modules

Table 9-12 Supported Modules for RAD LA-210—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
LA-210	3.7.2	EFM DSL Network Termination Unit	2.0

RAD LA-210—Supported Technologies

The following technologies are supported by the RAD LA-210 in Prime Network Version 4.0:

- [Ethernet, page 9-10](#)
- [xDSL, page 9-12](#)
- [Hardware, page 9-15](#)
- [Serial, page 9-16](#)

RAD LA-210—Supported Service Events

Table 9-13 Supported Service Events for RAD LA-210—Prime Network Version 4.0

Event Name	Product Version	Expedited	DP Version
Link Down	3.7.2	N	2.0

Table 9-13 Supported Service Events for RAD LA-210—Prime Network Version 4.0 (Continued)

Event Name	Product Version	Expedited	DP Version
Link Up	3.7.2	N	2.0

Supported Technologies on RAD Devices

The following sections list the objects and attributes that are supported on RAD devices in Cisco Product Version 3.7.2 and 3.7.3 per technology:

- [IP](#), page 9-7
- [Ethernet \(IEEE 802.3ad\)](#), page 9-8
- [Ethernet](#), page 9-10
- [ATM](#), page 9-11
- [xDSL](#), page 9-12
- [TDM/DSx](#), page 9-13
- [MPLS](#), page 9-13
- [PWE3](#), page 9-14
- [Hardware](#), page 9-15
- [Serial](#), page 9-16
- [Additional Technologies](#), page 9-17

IP

The following table ([Table 9-14](#)) lists the ip protocols attributes that are supported on RAD devices in Prime Network Version 4.0 per technology:

Table 9-14 IP Attribute Support on RAD Devices—Prime Network Version 4.0

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
IMO Name—IInterface				
IP Address	Y			
Subnetwork Mask	Y			
Interface Name	Y			
IP Interface State	Y			
IMO Name—IRoutingEntity				
Routing Table	Y			

Table 9-14 IP Attribute Support on RAD Devices—Prime Network Version 4.0 (Continued)

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
IMO Name—IRoutingEntry				
Destination IP Subnet	Y			
Next Hop IP Address	Y			
Type	Y			
Routing Protocol Type	Y			
Outgoing Interface Name	Y			
IMO Name—I Tunnel GRE				
Name	Y			
Tunnel Destination and Source	Y			
IP Address	Y			

Ethernet (IEEE 802.3ad)

The following table (Table 9-15) lists the ethernet (ieee 802.3ad) protocols attributes that are supported on RAD devices in Prime Network Version 4.0 per technology:

Table 9-15 Ethernet (IEEE 802.3ad) Attribute Support on RAD Devices—Prime Network Version 4.0

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
IMO Name—I LinkAggregationGroup802dot3ad				
dot3adAggMACAddress				Y
dot3adAggActorSystemPriority				Y
dot3adAggActorSystemID				Y
dot3adAggActorAdminKey				Y
dot3adAggActorOperKey				Y
dot3adAggPartnerSystemID				Y
dot3adAggPartnerSystemPriority				Y
dot3adAggPartnerOperKey				Y
GroupNumber				Y

Table 9-15 Ethernet (IEEE 802.3ad) Attribute Support on RAD Devices—Prime Network Version 4.0 (Continued)

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
AggregationProtocolType				Y
MacAddress				Y
ChannelAdminStatus				Y
ChannelOperStatus				Y
IMO Name—I LagPortEntry				
Selected and Attached Aggregation Identification				Y
Actor Port				Y
Actor Port Priority				Y
Partner Admin and Oper Port ¹				Y
Partner Admin and Oper Port Priority ²				Y
Actor and Partner Admin States				Y
Actor and Partner Oper States				Y

1. ETX-Series supports only Partner Oper Port.

2. ETX-Series supports only Partner Oper Port Priority.

Ethernet(IEEE 802.3)

The following table (Table 9-17) lists the ethernet (IEEE 802.3) protocols attributes that are supported on RAD devices in Prime Network Version 4.0 per technology:

Table 9-16 Ethernet (IEEE 802.3)Attribute Support on RAD Devices—Prime Network Version 4.0

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
IMO Name—I LagPortEntry				
Selected and Attached Aggregation Identification				Y
Actor Port				Y
Actor Port Priority				Y

Table 9-16 Ethernet (IEEE 802.3)Attribute Support on RAD Devices—Prime Network Version 4.0 (Continued)

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
Partner Admin and Oper Port				Y
Partner Admin and Oper Port Priority				Y
Actor and Partner Admin States				Y
Actor and Partner Oper States				Y

Ethernet

The following table (Table 9-17) lists the ethernet protocols attributes that are supported on RAD devices in Prime Network Version 4.0 per technology:

Table 9-17 Ethernet Attribute Support on RAD Devices—Prime Network Version 4.0

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
IMO Name—IEthernet				
MAC Address	Y		Y	Y
Duplex Mode	Y	Y	Y	Y
IMO Name—IVlanInterface				
Mode		Y	Y	
Virtual LAN Table		Y	Y	
IANA Type		Y	Y	
vlanencapType		Y	Y	
IMO Name—IIEEE802				
VLAN Identification		Y	Y	
IMO Name—ILinkAggregationGroup802dot3ad				
dot3adAggMACAddress				Y
dot3adAggActorSystemPriority				Y
dot3adAggActorSystemID				Y
dot3adAggActorAdminKey				Y
dot3adAggActorOperKey				Y

Table 9-17 Ethernet Attribute Support on RAD Devices—Prime Network Version 4.0 (Continued)

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
dot3adAggPartnerSystemID				Y
dot3adAggPartnerSystemPriority				Y
dot3adAggPartnerOperKey				Y
GroupNumber				Y
AggregationProtocolType				Y
MacAddress				Y
ChannelAdminStatus				Y
ChannelOperStatus				Y

ATM

The following table (Table 9-18) lists the atm protocols attributes that are supported on RAD devices in Prime Network Version 4.0 per technology:

Table 9-18 ATM Attribute Support on RAD Devices—Prime Network Version 4.0

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
IMO Name—IAtm				
VC Table	Y			
Cross-Connect Table	Y			
IMO Name—IAtmVc				
Virtual Channel Identifier	Y			
Virtual Path Identifier	Y			
Operational Status	Y			
IMO Name—IIMAGroup				
Description	Y			
Admin Status	Y			
Oper Status	Y			
Oper Status Last Change	Y			
GroupNumber	Y			

Table 9-18 ATM Attribute Support on RAD Devices—Prime Network Version 4.0 (Continued)

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
ImaVersion	Y			
ConfiguredBandwidth	Y			
NumberOfLinks	Y			
NumberOfActiveLinks	Y			
MinimumNumberOfTxLinks	Y			
MinimumNumberOfRxLinks	Y			
ClockMode	Y			
FrameLength	Y			
interfaceName	Y			
groupStatus	Y			
IANA Type	Y			
Ima Group Rx Speed	Y			
Ima Group Tx Speed	Y			
IMO Name—IAtmTrafficDescriptor				
Traffic Descriptor Type	Y			
Service Category	Y			
Cell Loss Priority	Y			
Cell Delay 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			
Index	Y			
IMO Name—IVcSwitchingEntity				
Cross Connect Table	Y			

xDSL

The following table ([Table 9-19](#)) lists the dsl protocols attributes that are supported on RAD devices in Prime Network Version 4.0 per technology:

Table 9-19 DSL Attribute Support on RAD Devices—Prime Network Version 4.0

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
IMO Name—IDsl / Ildsl / ISdsl / Ishdsl				
Same as IPhysicalLayer	Y		Y	
IMO Name—IADsl				
Same as IDsl	Y			
IMO Name—IADsl2				
Same as IADsl	Y			

TDM/DSx

The following table (Table 9-20) lists the TDM/DSx protocols attributes that are supported on RAD devices in Prime Network Version 4.0 per technology:

Table 9-20 TDM/DSx Attribute Support on RAD Devices—Prime Network Version 4.0

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
IMO Name—IDS1Pdh / IDS3Pdh				
Framing Type	Y	Y		
Loopback Type	Y	Y		
Same as IPhysicalLayer	Y	Y		

MPLS

The following table (Table 9-21) lists the mpls protocols attributes that are supported on RAD devices in Prime Network Version 4.0 per technology:

Table 9-21 MPLS Attribute Support on RAD Devices—Prime Network Version 4.0

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
IMO Name—ILse				
LDP Service	Y			
IMO Name—ILdpService				
Local Identification Status	Y			
LDP Peers	Y			
IMO Name—ILdpPeer				
Peer Identification	Y			
Distribution Method	Y			
Protocol Type	Y			
Session Status	Y			
Protocol Version Hold Time	Y			
Hold Time	Y			
Keep Alive Time	Y			

PWE3

The following table (Table 9-22) lists the pwe3 protocols attributes that are supported on RAD devices in Prime Network Version 4.0 per technology:

Table 9-22 PWE3 Attribute Support on RAD Devices—Prime Network Version 4.0

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
IMO Name—IPTPLayer2MplsTunnel				
Local and Remote Router Addresses	Y			
Local and Remote Virtual Connection Labels	Y			
Tunnel Identification	Y			
Tunnel Status	Y			
PsuedowireType	Y			
LocalMTU	Y			
RemoteMTU	Y			

Table 9-22 *PWE3 Attribute Support on RAD Devices—Prime Network Version 4.0 (Continued)*

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
LocalVcLabel	Y			
PeerVcLabel	Y			

Hardware

The following table (Table 9-23) lists the hardware protocols attributes that are supported on RAD devices in Prime Network Version 4.0 per technology:

Table 9-23 *Physical Equipment Attribute Support on RAD Devices—Prime Network Version 4.0*

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
IMO Name—IChassis				
Description	Y	Y	Y	Y
Equipment Holder Type	Y	Y	Y	Y
IMO Name—IModule				
Module Name	Y	Y	Y	Y
Module Description	Y	Y	Y	Y
Software Version	Y	Y	Y	Y
Operational Status	Y	Y	Y	Y
Hardware Type & Version	Y	Y	Y	Y
IMO Name—IManagedElement				
IP Address	Y	Y	Y	Y
Communication State	Y	Y	Y	Y
Investigation State	Y	Y	Y	Y
Element Category	Y	Y	Y	Y
Element Type and Key	Y	Y	Y	Y
Device Name	Y	Y	Y	Y
Device Series	Y	Y	Y	Y
System Name	Y	Y	Y	Y
System Description	Y	Y	Y	Y

Table 9-23 *Physical Equipment Attribute Support on RAD Devices—Prime Network Version 4.0 (Continued)*

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
Up Time	Y	Y	Y	Y
Software Version	Y	Y	Y	Y
Vendor Identity	Y	Y	Y	Y
Sys Contact	Y	Y	Y	Y
Sys Location	Y	Y	Y	Y
IMO Name—IPower Supply				
Voltage names	Y	Y	Y	Y
Voltage Description	Y	Y	Y	Y
Voltage Status	Y	Y	Y	Y
Voltage Type	Y	Y	Y	Y
IMO Name—IFan				
Fan Name	Y		Y	Y
Fan Value	Y		Y	Y
IMO Name—IBridge				
Type		Y	Y	
Name		Y	Y	

Serial

The following table ([Table 9-24](#)) lists the serial protocols attributes that are supported on RAD devices in Prime Network Version 4.0 per technology:

Table 9-24 *Common Attribute Support on RAD Devices—Prime Network Version 4.0*

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
IMO Name—IPhysicalLayer				
Media Type	Y	Y	Y	
Clocking Source	Y	Y		
Maximum Speed	Y	Y	Y	Y

Table 9-24 Common Attribute Support on RAD Devices—Prime Network Version 4.0 (Continued)

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
Administrative Status	Y	Y	Y	Y
Operational Status	Y	Y	Y	Y
IANA Type	Y	Y	Y	Y
Connector Description	Y	Y	Y	Y
IMO Name—IVcSwitchingEntity				
Cross Connect Table	Y			

Additional Technologies

The following table (Table 9-25) lists the additional technologies protocols attributes that are supported on RAD devices in Prime Network Version 4.0 per technology:

Table 9-25 Additional Technologies Attribute Support on RAD Devices—Prime Network Version 4.0

Attributes	ACE CSG-Series	IPmux-4L	LA-210	ETX-Series
IMO Name—IIMAGroup				
Ima Group Rx Speed	Y			
Ima Group Tx Speed	Y			
IMO Name—IADSL2+				
Adsl2+ Maximum Rx Speed	Y			
Adsl2+ Maximum Tx Speed	Y			
IMO Name—ISHDSL				
Shdsl Speed	Y			



Support Information for Symmetricom Devices

This chapter contains support information for Virtual Network Elements (VNEs) that manage Symmetricom devices in Prime Network Version 4.0.



Note

For more information about the objects and attributes described in this chapter, see *shijee Cisco Prime Network 4.0 Supported Cisco VNEs*, *Cisco Prime Network 4.0 Supported Service Alarms*, *Cisco Prime Network 4.0 Supported System and Security Events*, and *Cisco Prime Network 4.0 Supported Technologies and Topologies* in the [Cisco Prime Network 4.0 Documentation Guide](#).

This chapter contains the following topics:

- [Symmetricom Timeprovider 2700, page 10-1](#)
- [Symmetricom Timeprovider 5000, page 10-2](#)
- [Supported Technologies on Symmetricom Devices, page 10-3](#)

Symmetricom Timeprovider 2700

This section includes information about Symmetricom Timeprovider 2700 (for information on the NE type supported in Prime Network Version 4.0, see [Symmetricom Timeprovider 2700](#)):

This section contains the following topics:

- [Symmetricom Timeprovider 2700—Supported Software Versions, page 10-1](#)
- [Symmetricom Timeprovider 2700—Supported Modules, page 10-2](#)
- [Symmetricom Timeprovider 2700—Supported Technologies, page 10-2](#)

Symmetricom Timeprovider 2700—Supported Software Versions

Table 10-1 **Supported Software Versions for Symmetricom Timeprovider 2700—Prime Network Version 4.0**

Software Version	Product Version	DP Version
1.0.7	4.0	1310

Symmetricom Timeprovider 2700—Supported Modules

Table 10-2 *Supported Modules for Symmetricom Timeprovider 2700—Prime Network Version 4.0*

Module Name	Product Version	Module Description	DP Version
TP2700-AC-RB	4.0	Dummy Module (TP2700-AC-RB)	1310

Symmetricom Timeprovider 2700—Supported Technologies

The following technologies are supported by Symmetricom Timeprovider 2700 in Prime Network Version 4.0:

- [Ethernet, page 10-3](#)
- [Hardware, page 10-4](#)
- [Serial, page 10-5](#)

Symmetricom Timeprovider 5000

This section includes information about Symmetricom Timeprovider 5000 (for information on the NE type supported in Prime Network Version 4.0, see [Symmetricom Timeprovider 5000](#)):

This section contains the following topics:

- [Symmetricom Timeprovider 5000—Supported Software Versions, page 10-2](#)
- [Symmetricom Timeprovider 5000—Supported Modules, page 10-3](#)
- [Symmetricom Timeprovider 5000—Supported Technologies, page 10-3](#)

Symmetricom Timeprovider 5000—Supported Software Versions

Table 10-3 *Supported Software Versions for Symmetricom Timeprovider 5000—Prime Network Version 4.0*

Software Version	Product Version	DP Version
2.1.4	4.0	1310

Symmetricom Timeprovider 5000—Supported Modules

Table 10-4 *Supported Modules for Symmetricom Timeprovider 5000—Prime Network Version 4.0*

Module Name	Product Version	Module Description	DP Version
IOC module	4.0	IOC1 module	1310
IOC module	4.0	IOC2 module	1310
IMC module	4.0	IMC module	1310
I/O module	4.0	I/O module	1310

Symmetricom Timeprovider 5000—Supported Technologies

The following technologies are supported by Symmetricom Timeprovider 5000 in Prime Network Version 4.0:

- [Ethernet, page 10-3](#)
- [Hardware, page 10-4](#)
- [Serial, page 10-5](#)

Supported Technologies on Symmetricom Devices

The following sections list the objects and attributes that are supported on Symmetricom devices in Prime Network Version 4.0 per technology:

- [Ethernet, page 10-3](#)
- [Hardware, page 10-4](#)
- [Serial, page 10-5](#)

Ethernet

The following table ([Table 10-5](#)) lists the ethernet protocols attributes that are supported on Symmetricom devices in Prime Network Version 4.0 per technology:

Table 10-5 Ethernet Attribute Support on Symmetricom Devices—Prime Network Version 4.0

Attribute	Symmetricom Timeprovider 2700		Symmetricom Timeprovider 5000	
	IMO Name—IEthernet			
MAC Address	Y		Y	
Port Type	Y		Y	
Auto Negotiate	Y		Y	

Hardware

The following table (Table 10-6) lists the hardware protocols attributes that are supported on Symmetricom devices in Prime Network Version 4.0 per technology:

Table 10-6 Hardware Attribute Support on Symmetricom Devices—Prime Network Version 4.0

Attribute	Symmetricom Timeprovider 2700		Symmetricom Timeprovider 5000
	IMO Name—IChassis		
Description	Y	Y	
Equipment Holder Type	Y	Y	
Serial Number	Y	Y	
IMO Name—IModule			
Module Name	Y	Y	
Module Description	Y	Y	
Software Version	Y	Y	

Table 10-6 *Hardware Attribute Support on Symmetricom Devices—Prime Network Version 4.0 (Continued)*

Attribute	Symmetricom Timeprovider 2700	Symmetricom Timeprovider 5000
Hardware Type & Version	Y	Y
Serial Number (soft property)	Y	Y
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
System Name	Y	Y
System Description	Y	Y
Up Time	Y	Y
Software Version	Y	Y
Vendor Identity	Y	Y
Sys Contact	Y	Y
Sys Location	Y	Y

Serial

The following table (Table 10-7) lists the serial protocols attributes that are supported on Symmetricom devices in Prime Network Version 4.0 per technology:

Table 10-7 *Serial Attribute Support on Symmetricom Devices—Prime Network Version 4.0*

Attribute	Symmetricom Timeprovider 2700	Symmetricom Timeprovider 5000
	IMO Name—IPhysicalLayer	
Maximum Speed	Y	Y
IANA Type	Y	Y
Admin Status	Y	Y
Oper Status	Y	Y
Last Changed		Y
Is Internal Port	Y	Y



Support Information for Tellabs Devices

This chapter contains support information for Virtual Network Elements (VNEs) that manage Tellabs devices in Prime Network Version 4.0.



Note

For more information about the objects and attributes described in this chapter, see *Cisco Prime Network 4.0 Supported Cisco VNEs*, *Cisco Prime Network 4.0 Supported Service Alarms*, *Cisco Prime Network 4.0 Supported System and Security Events*, and *Cisco Prime Network 4.0 Supported Technologies and Topologies* in the [Cisco Prime Network 4.0 Documentation Guide](#).

This chapter contains the following topics:

- [Tellabs 8840 Multiservice Router](#), page 11-1
- [Supported Technologies on Tellabs Devices](#), page 11-4

Tellabs 8840 Multiservice Router

This section includes the following information about Tellabs 8840 Multiservice Router devices (for information on the NE types supported in Prime Network Version 4.0, see [Tellabs 8840 Multiservice Router](#)):

- [Tellabs 8840 Multiservice Router—Supported Software Versions](#), page 11-1
- [Tellabs 8840 Multiservice Router—Supported Topologies](#), page 11-2
- [Tellabs 8840 Multiservice Router—Supported Modules](#), page 11-2
- [Tellabs 8840 Multiservice Router—Supported Technologies](#), page 11-3
- [Tellabs 8840 Multiservice Router—Supported Service Events](#), page 11-4

Tellabs 8840 Multiservice Router—Supported Software Versions

Table 11-1 **Supported Software Versions for Tellabs 8840 Multiservice Router—Prime Network Version 4.0**

Software Version	Product Version	DP Version
TMOS 7.0.0.3	3.7.2	6.0

Table 11-1 *Supported Software Versions for Tellabs 8840 Multiservice Router—Prime Network Version 4.0 (Continued)*

Software Version	Product Version	DP Version
TMOS 8.1.0.1	3.7.2	6.0
TMOS 8.1.0.1a	3.7.2	6.0
TMOS 8.1.0.1b	3.8.x-To-3.9.x	DP1206

Tellabs 8840 Multiservice Router—Supported Topologies

Table 11-2 *Supported Topologies for Tellabs 8840 Multiservice Router—Prime Network Version 4.0*

Topology Type	Link Type	Product Version	DP Version
Ethernet	Ethernet	3.7.2	6.0
MPLS	MPLS	3.7.2	6.0
Physical Layer	Physical Layer	3.7.2	6.0
BGP	BGP	3.7.2	6.0

Tellabs 8840 Multiservice Router—Supported Modules

Table 11-3 *Supported Modules for Tellabs 8840 Multiservice Router—Prime Network Version 4.0*

Module Name	Product Version	Module Description	DP Version
Tellabs 8840 Multi-Service Router Base Unit	3.7.2	Tellabs Multi-Service Router 8840	6.0
81.88X0-ULC-2	3.7.2	Tellabs 88X0 9M Universal Line Card (ULC)	6.0
Switch Control Card	3.7.2	Switch Control Card	6.0
81.8800-PLM 003C-30	3.7.2	4 PORT Oc-3c(155Mbps) concatenated long reach 40kms	6.0
81.8800-PLM 012C-20	3.7.2	4 PORT 622Mbps OC-12c MS SMF IR concatenated intermediate 15 kms	6.0
81.8800-PLM048C-10	3.7.2	1 PORT 2.5Gbps OC-48c MS SMF IR concatenated intermediate 2 kms	6.0
81.8800-PLMGE-20	3.7.2	4port Gigabit Ethernet PLM - 1000BaseLX (Includes 4 LC/SFP optics) 550 meters	6.0
81.8800-PLM10GE-40	3.7.2	1port 10Gigabit Ethernet PLM SMF LR(LAN PHY) 40Kms	6.0

Table 11-3 Supported Modules for Tellabs 8840 Multiservice Router—Prime Network Version 4.0

Module Name	Product Version	Module Description	DP Version
4 port Gigabit Ethernet PLM LX	3.7.2	4 port Gigabit Ethernet PLM LX	6.0
2 port OC-3STM-1 SMF IR	3.7.2	2 port OC-3STM-1 SMF IR	6.0
4port OC-3/STM-1 TDM MSPLM SMFIR	3.7.2	4port OC-3/STM-1 TDM MSPLM SMFIR	6.0
1port OC-48C/STM-16c TDM MSPLM SMF IR	3.7.2	1port OC-48C/STM-16c TDM MSPLM SMF IR	6.0
1 port 9M 10GiG ENET SMF LR	3.7.2	1 port 9M 10GiG ENET SMF LR	6.0
82.88X0-ULC-3-R5	3.8.x-To-3.9.x	ULC_with_36M_CAM	DP1206
81.8800-PLM003C-30	3.8.x-To-3.9.x	4Port_OC-3C/STM-1_MSPLM_LR	DP1206
81.8800-PLMTE3A-10	3.8.x-To-3.9.x	6port-DS3E3_Clear_Channel_W/ATM	DP1206
81.88X0ELCA-R5	3.8.x-To-3.9.x	12_PORT_GE_ELC_88X0_NO_OPTICS	DP1206
81.88X0ELCB-R5	3.8.x-To-3.9.x	1_PORT_10GE_ELC_LAN/WAN_88X0_NO_OPTICS	DP1206
81.88X0LCA-R5	3.8.x-To-3.9.x	Line_Card_Adapter_for_ELC	DP1206
82.88X0PLML-R5	3.8.x-To-3.9.x	10GIGE_LAN_ULC-3_-_XFP_NO_OPTIC_PLUG	DP1206
81.8800-XFP-SR1	3.8.x-To-3.9.x	1P 10GE, SR-1, LC/XFP, SMF Optics Plug, 1310 nm, 12 km	DP1206
81.8800-XFP-IR2	3.8.x-To-3.9.x	1P 10GE, IR-2, LC/XFP, SMF Optics Plug, 1550 nm, 40 km	DP1206
81.8800-XFP-LR2	3.8.x-To-3.9.x	1P 10GE, LR-2, LC/XFP, SMF Optics Plug, 1550 nm, 80 km	DP1206

Tellabs 8840 Multiservice Router—Supported Technologies

The following technologies are supported by the Tellabs 8840 Multiservice Router in Prime Network Version 4.0:

- [IP, page 11-5](#)
- [Routing Protocols, page 11-6](#)
- [Ethernet, page 11-7](#)
- [MPLS, page 11-8](#)
- [MPLS-TE, page 11-8](#)
- [Hardware, page 11-10](#)
- [Serial, page 11-11](#)

- [ATM, page 11-12](#)
- [SONET/SDH, page 11-12](#)
- [BFD, page 11-13](#)

Tellabs 8840 Multiservice Router—Supported Service Events

Table 11-4 *Supported Service Events for Tellabs 8840 Multiservice Router—Prime Network Version 4.0*

Event Name	Product Version	Expedited	DP Version
All IP Interfaces Down / Active IP Interfaces Found	3.7.2		6.0
Interface Status Down/Up	3.7.2		6.0
Card In/Out	3.7.2		6.0
Link Down/Up	3.7.2		6.0
Device Unreachable	3.7.2		6.0
CPU Over Utilized	3.7.2		6.0
Memory Over Utilized	3.7.2		6.0
Device Unsupported	3.7.2		6.0
Discard Packets	3.7.2		6.0
Dropped Packets	3.7.2		6.0
Module Unsupported	3.7.2		6.0
Port Flapping	3.7.2		6.0
Port Down	3.7.2		6.0
Rx Over Utilized	3.7.2		6.0
Tx Over Utilized	3.7.2		6.0
Card Up/Down	3.7.2		6.0
BGP Neighbor Down	3.7.2		6.0

Supported Technologies on Tellabs Devices

The following sections list the objects and attributes that are supported on Tellabs devices in Prime Network Version 4.0 per technology:

- [IP, page 11-5](#)
- [Routing Protocols, page 11-6](#)
- [Ethernet, page 11-7](#)

- [MPLS, page 11-8](#)
- [MPLS-TE, page 11-8](#)
- [Hardware, page 11-10](#)
- [Serial, page 11-11](#)
- [ATM, page 11-12](#)
- [SONET/SDH, page 11-12](#)
- [BFD, page 11-13](#)

IP

The following table ([Table 11-5](#)) lists the ip protocols attributes that are supported on Tellabs devices in Prime Network Version 4.0 per technology:

Table 11-5 *IP Attribute Support on Tellabs 8840 Multiservice Router Devices—Prime Network Version 4.0*

Attributes		MSE8840
IMO Name—IIPInterface		
IP Address		Y
Subnetwork Mask		Y
IP Interface Addresses Array		Y
Interface Name		Y
IP Interface State		Y
Interface Description		Y
IMO Name—IRoutingEntity		
Routing Table		Y
ARP Entity		Y
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—IARPEntity		
IP Address		Y

Table 11-5 *IP Attribute Support on Tellabs 8840 Multiservice Router Devices—Prime Network Version 4.0 (Continued)*

Attributes	MSE8840
MAC Address	Y
Port	Y
Entry Type	Y

Routing Protocols

The following table (Table 11-6) lists the routing protocols attributes that are supported on Tellabs devices in Prime Network Version 4.0 per technology:

Table 11-6 *Routing Protocols Attribute Support on Tellabs 8840 Multiservice Router Devices—Prime Network Version 4.0*

Attributes	MSE8840
IMO Name—IOSpfProcess	
Process Id	Y
OSPF Version	Y
Router Id	Y
IMO Name—IOSpfNeighbor	
Neighbor Id	Y
Outgoing Interface	Y
State	Y
Neighbor Interface Address	Y
Area Id	Y
IMO Name—IOSpfEntry	
Area Identifier	Y
IP Address	Y
Type	Y
Administrative Status	Y
Ospf Entry State	Y
IMO Name—IOSpfInterface	
Area Id	Y
Network Type	Y
Cost	Y
State	Y

Table 11-6 Routing Protocols Attribute Support on Tellabs 8840 Multiservice Router Devices—Prime Network Version 4.0 (Continued)

	MSE8840
Attributes	
Interface Address	Y
Interface Name	Y
IF Priority	Y
DR Id	Y
BDR Id	Y
IMO Name—ISpfTimers	
Schedule Delay	Y
Min Hold Time	Y
IMO Name—IBgpNeighborEntry	
Remote Identifier	Y
Remote Address	Y
Remote Autonomous System	Y
Peer State	Y
Hold Time	Y
Keep Alive Time	Y

Ethernet

The following table (Table 11-7) lists the ethernet attributes that are supported on Tellabs devices in Prime Network Version 4.0 per technology:

Table 11-7 Ethernet Attribute Support on Tellabs 8840 Multiservice Router Devices—Prime Network Version 4.0

	MSE8840
Attribute	
IMO Name—IEthernet	
MAC Address	Y
Duplex Mode	Y
isElmiEnabled	Y
AutoNegotiate	Y

MPLS

The following table (Table 11-8) lists the mpls attributes that are supported on Tellabs devices in Prime Network Version 4.0 per technology:

Table 11-8 MPLS Attribute Support on Tellabs 8840 Multiservice Router Devices—Prime Network Version 4.0

		MSE8840
Attributes		
IMO Name—ILdpPeer		
Peer Identification		Y
Transport Address		Y
Distribution Method		Y
Protocol Type		Y
Path Vector Limi		Y
Session Status		Y
Protocol Version		Y
Hold Time		Y
Keep Alive Time		Y
Peer Discovery Sources		Y
IMO Name—IMpls		
Distribution Protocol		Y
IMO Name—ILse		
Logical Sons		Y
IMO Name—ILdpService		
LDP Peers		Y
IMO Name—IMplsEntry		
Incoming Label		Y
Outgoing Interface and Label		Y
Switching Action		Y
Next Hop IP Address		Y
Destination Mask		Y
Destination address		Y

MPLS-TE

The following table (Table 11-9) lists the mpls-te attributes that are supported on Tellabs devices in Prime Network Version 4.0 per technology:

Table 11-9 *MPLS-TE Attribute Support on Tellabs 8840 Multiservice Router Devices—Prime Network Version 4.0*

Attributes		MSE8840
IMO Name—IMplsTETunnel		
Destination Address	Y	
Outgoing Interface and Label	Y	
LSP Identification	Y	
Requested Bandwidth	Y	
Measured Average Burst and Peak Bandwidth	Y	
Setup and Hold Priority	Y	
Affinity Bits and Mask	Y	
Automatic Route Announcement Status	Y	
Optimization Lock Down Status	Y	
Path Option	Y	
Name	Y	
Description	Y	
Administrative Status	Y	
Operational Status	Y	
IANA Type	Y	
IMO Name—IMplsTEProperties		
Administrative Weight	Y	
Attributes Identifier	Y	
Signaling Protocol	Y	
Available Physical and Reservable Bandwidth	Y	
Reserved Bandwidth	Y	
IMO Name—IMplsTEPropertiesAllocationEntry		
Priority Level	Y	
Allocated and Cumulative Bandwidth	Y	
IMO Name—IMplsTESegment		
Segment Type	Y	
Measured Average Burst and Peak Bandwidth	Y	
LSP Identification	Y	
Name	Y	

Table 11-9 MPLS-TE Attribute Support on Tellabs 8840 Multiservice Router Devices—Prime Network Version 4.0 (Continued)

Attributes	MSE8840
AverageBandwidth	Y
In Interface	Y
Out interface	Y
In Label	Y
Out Label	Y
Source address	Y
Destination address	Y

Hardware

The following table (Table 11-10) lists the hardware attributes that are supported on Tellabs devices in Prime Network Version 4.0 per technology:

Table 11-10 Physical Equipment Attribute Support on Tellabs 8840 Multiservice Router Devices—Prime Network Version 4.0

Attributes	MSE8840
IMO Name—IChassis	
Description	Y
Equipment Holder Type	Y
Serial Number	Y
IMO Name—IModule	
Module Name	Y
Module Description	Y
Software Version	Y
Operational Status	Y
Hardware Type & Version	Y
Serial Number (soft property)	Y
Slots Number	Y
IMO Name—IManagedElement	
IP Address	Y
Communication State	Y

Table 11-10 Physical Equipment Attribute Support on Tellabs 8840 Multiservice Router Devices—Prime Network Version 4.0 (Continued)

Attributes	MSE8840
Investigation State	Y
Element Category	Y
Element Type and Key	Y
Device Name	Y
Device Series	Y
System Name	Y
System Description	Y
Up Time	Y
Software Version	Y
Vendor Identity	Y
Memory and CPU Usage	Y
Sys Contact	Y
Sys Location	Y

Serial

The following table ([Table 11-11](#)) lists the serial attributes that are supported on Tellabs devices in Prime Network Version 4.0 per technology:

Table 11-11 Serial Attribute Support on Tellabs 8840 Multiservice Router Devices—Prime Network Version 4.0

Attributes	MSE8840
IMO Name—IPhysicalLayer	
Media Type	Y
Clocking Source	Y
Maximum Speed	Y
Is Internal Port	Y
Discarded and Received Input Data Counters	Y
Dropped and Forward Output Data Counters	Y
Administrative Status	Y

Table 11-11 Serial Attribute Support on Tellabs 8840 Multiservice Router Devices—Prime Network Version 4.0 (Continued)

Attributes	MSE8840
Operational Status	Y
Last Changed	Y
Port Alias	Y
Location	Y
Sending Alarms	Y
Connector Description	Y
Status	Y
Managed	Y

ATM

The following table (Table 11-12) lists the atm attributes that are supported on Tellabs devices in Prime Network Version 4.0 per technology:

Table 11-12 ATM Attribute Support on Tellabs 8840 Multiservice Router Devices—Prime Network Version 4.0

Attributes	MSE8840
IMO Name—IAtmTrafficDescriptor	
Traffic Descriptor Type	Y
Service Category	Y
Cell Loss Priority	Y
Cell Delay Variation	Y
Cell Delay Variation Tolerance	Y
Index	Y

SONET/SDH

The following table (Table 11-13) lists the sonet/sdh attributes that are supported on Tellabs devices in Prime Network Version 4.0 per technology:

Table 11-13 *SONET/SDH Attribute Support on Tellabs 8840 Multiservice Router Devices—Prime Network Version 4.0*

Attributes	MSE8840
IMO Name—ISonetSdh	
Clocking	Y
Loopback Type	Y
Scrambling Mode	Y

BFD

The following table (Table 11-14) lists the sonet/sdh attributes that are supported on Tellabs devices in Prime Network Version 4.0 per technology:

Table 11-14 *BFD Attribute Support on Tellabs 8840 Multiservice Router Devices—Prime Network Version 4.0*

Attributes	MSE8840
IMO Name—IBfdSession	
SourceIp	Y
DestinationIp	Y
Interval	Y
Multiplier	Y
Protocol	Y
State	Y
Interface	Y
Process	Y



VNE Customization Builder

This chapter introduces the Virtual Network Element Customization Builder (VCB) in Cisco Prime Network (Prime Network).

This chapter contains the following topics:

- [About the VCB, page 12-1](#)
- [VCB Template Reference, page 12-2](#)

About the VCB

The VCB is a command-line tool for Prime Network admin users to add—to an installed Prime Network system and for their own support—network elements (NEs), modules, and events, thereby extending what is delivered in Prime Network software. The VCB is installed when you install Prime Network and is targeted at professional service organizations and other power users.

Use the VCB to customize VNE drivers in the installed Prime Network at the customer site for additional discovery and recognition of the following:

- Cards—Enable Prime Network to recognize cards that would otherwise be treated as “Unknown”.
- Syslogs and traps—Enable Prime Network to process a syslog or a trap as a Prime Network event.
- Traps in a MIB—Provide MIBs as input to the VCB to produce a list of unsupported traps for a particular MIB, alternatively to produce an editable script to run to add the unsupported traps as Prime Network events.
- NE maintenance software—Enable VNE driver to recognize a maintenance software release of a device assuming that the management interface has not changed.
- Devices that extend an NE type—Clone from an existing VNE driver to manage new devices which has compatible management interface and fit within an existing supported device family.



Note

Prime Network 3.9 supports only Cards and Syslogs/Traps that are associated with managed element.

Use the VCB to create user-defined VNE drivers for discovery of unsupported devices based on U-VNE templates. When using a U-VNE template, you must investigate the management interface instrumentation in the device and determine how closely it matches with those used in the U-VNE template.

Customizations using the VCB affect VNE drivers and update the Prime Network registry in a safe manner. The VCB enables you to roll back easily; you can remove:

- All VCB customizations with one command, restoring your system to a factory-defined state.
- Selective VCB customizations, using one command per customization that you want to remove.

Because VCB customizations are carried forward during an upgrade to a new version of Prime Network, your customizations continue to override any new or updated VNE drivers or newly supported events and modules. The ability to remove changes selectively enables you to discontinue particular overrides only and take advantage of any newly added support.

Briefly, the VCB works as follows:

- You select vcb commands and templates and supply parameters.
- The VCB writes extensions into a local registry file, `site.xml`, thereby avoiding impact on the Prime Network code. You do not need to know a great deal about the Prime Network registry to use the VCB.
- You verify the extension using your test resources, such as a simulator

VCB displays the details of the Cisco and the non-Cisco drivers in different tabs in the VCB GUI as Prime Network 4.0 supports separate installation directories and registry service for Cisco and non-Cisco drivers. Non-Cisco VNEs do not support pluggable module specification, and the pluggable module information is retrieved from the network element itself.


Note

The Non-Cisco Drivers tab in VCB GUI is displayed only after successful installation of non-Cisco device package in Prime Network.

For more information about VNE Customization Builder, see [Cisco Active Network Abstraction 4.0 Customization User Guide](#).

VCB Template Reference

Module Templates


Note

Module templates are applicable to standard modules only (not pluggable modules). You do not need to use a module template to add a pluggable module.

Module templates define a set of port layers—from the connector at Layer 0 to encapsulation at Layer 2—that are applicable to a module. For example, typical port layers for an OC3 ATM card are:

- Layer 0—Fiber Optic
- Layer 1—OC-3
- Layer 2—ATM

Use module templates to enable developed VNEs to recognize new modules.


Note

You cannot add modules to generic U-VNEs.

Module templates ensure that each port is modeled with the correct port layer information based on the `ifType` obtained from the SNMP MIB output.

Event Templates

Event templates work together to extract information from a syslog or a trap and to generate the keys and the location ID for associating a Prime Network event with a managed element device component.

For more information, see the [Cisco Active Network Abstraction 4.0 Customization User Guide](#).

Module Groups and Module Specification Files

**Note**

Unlike the modeling that Prime Network does for standard modules, Prime Network models only the ports for pluggable modules. The only module group for pluggable modules is the pluggable-ports-spec file. The remainder of this section applies to standard modules only (not pluggable modules).

A module group is the name of a vendor-specific module specification file that is stored in the Prime Network registry. A module specification file is an XML file that lists supported modules and other properties, such as port layers and sysOID. When you use vcb module commands to add, modify, or delete a module:

- You provide the name of a module specification file as an argument to the -group option.
- The VCB modifies the module specification file: adding, updating, or deleting the module definition.

**Note**

The VCB allows you to update and delete only those modules that you added using the VCB.

Alcatel Template Reference

This section contains the following topic:

- [Module Templates, page 12-3](#)
- [Event Templates, page 12-9](#)

Module Templates

This section contains the following topics:

- [Module Groups and Module Specification Files, page 12-3](#)
- [Module Templates by Technology, page 12-5](#)

For more information, see [Module Templates, page 12-2](#).

Module Groups and Module Specification Files

For more information, see [Module Groups and Module Specification Files, page 12-3](#).

Prime Network 4.0 enables you to extend the alcatel-ess-physicalspec, alcatel-sar-physical-spec, alcatel-sr-physical-spec, and alcatelasamphysicalspec module specification files.

[Table 12-1](#) summarizes the technologies that are supported and the module templates that are provided in the module specification files. For more information about a module template, use the link in the Technologies column.

Table 12-1 **Module Group Summary for Standard Modules—Prime Network Version 4.0**

Module Group	Technologies	Template Names
alcatel-ess-physicalspec	Ethernet(Fixed), page 12-5	• ethernetDefault • faEthernetDefault • gigaEthernetDefault
	Channelized OCXX (Fixed), page 12-8	• OC3-default • OC12-default • OC48-default
		empty-port-loader
alcatel-sar-physical-spec	Ethernet(Fixed), page 12-5	• ethernetDefault • ethernetRJ48Default • ethernetFiberDefault • faEthernetDefault • faEthernetRJ48Default • faEthernetFiberDefault • gigaRJ48Default • gigaEthernetFiberDefault • gigaEthernetDefault
	Channelized OCXX (Fixed), page 12-8	• OC12-default • OC3-default • OC48-default
		empty-port-loader
alcatel-sr-physical-spec	Ethernet(Fixed), page 12-5	• ethernetDefault • ethernetRJ48Default • ethernetFiberDefault • faEthernetDefault • faEthernetRJ48Default • faEthernetFiberDefault • gigaRJ48Default • gigaEthernetFiberDefault • gigaEthernetDefault
	Channelized OCXX (Fixed), page 12-8	• OC12-default • OC3-default • OC48-default • OC192-default
		empty-port-loader

Table 12-1 **Module Group Summary for Standard Modules—Prime Network Version 4.0 (Continued)**

Module Group	Technologies	Template Names
alcatelasamphysicalspec	Ethernet(Fixed), page 12-5	• 117 • 6
	ATM (Fixed), page 12-7	• 168 • 18 • 19 • 249 • 30 • 39 • 94
		empty-port-loader

Module Templates by Technology

This section presents module templates organized by technology:

- [Ethernet\(Fixed\), page 12-5](#)
- [Channelized OCXX \(Fixed\), page 12-8](#)

Ethernet(Fixed)

[Table 12-2](#) lists module templates for Ethernet(Fixed) for Alcatel-Lucent 7450 ESS.

Table 12-2 **Module Templates—Ethernet(Fixed) for Alcatel-Lucent 7450 ESS**

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
ethernetDefault	RJ45	EthernetCSMA /CD	• Ethernet • Fast Ethernet • Gigabit Ethernet	MDA 20 Ports 10/100/1000 Ethernet TX
faEthernetDefault	RJ45	EthernetCSMA /CD	Fast Ethernet	MDA 60 Ports 10/100 Ethernet TX
gigaEthernetDefault	Fiber Optic	EthernetCSMA /CD	Gigabit Ethernet	MDA 10 Ports 1-Gigabit Ethernet SFP

Table 12-3 lists module templates for Ethernet(Fixed) for Alcatel-Lucent 7705 SAR.

Table 12-3 **Module Templates—Ethernet(Fixed) for Alcatel-Lucent 7705 SAR**

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
ethernetDefault	RJ45	EthernetCSMA /CD	- Ethernet - Fast Ethernet - Gigabit Ethernet	MDA 6 10/100 Ethernet, 2 Port 1-Gigabit SFP
ethernetRJ48Default	RJ48	EthernetCSMA /CD	- Ethernet - Fast Ethernet - Gigabit Ethernet	MDA 6 10/100 Ethernet, 2 Port 1-Gigabit SFP
ethernetFiberDefault	Fiber optic	EthernetCSMA /CD	- Ethernet - Fast Ethernet - Gigabit Ethernet	MDA 6 10/100 Ethernet, 2 Port 1-Gigabit SFP
faEthernetDefault	RJ45	EthernetCSMA /CD	Fast Ethernet	MDA 6 10/100 Ethernet, 2 Port 1-Gigabit SFP
faEthernetRJ48Default	RJ48	EthernetCSMA /CD	Fast Ethernet	MDA 6 10/100 Ethernet, 2 Port 1-Gigabit SFP
faEthernetFiberDefault	Fiber optic	EthernetCSMA /CD	Fast Ethernet	MDA 6 10/100 Ethernet, 2 Port 1-Gigabit SFP
gigaEthernetDefault	RJ45	EthernetCSMA /CD	Gigabit Ethernet	MDA 6 10/100 Ethernet, 2 Port 1-Gigabit SFP
gigaRJ48Default	RJ48	EthernetCSMA /CD	Gigabit Ethernet	MDA 6 10/100 Ethernet, 2 Port 1-Gigabit SFP
gigaEthernetFiberDefault	Fiber optic	EthernetCSMA /CD	Gigabit Ethernet	MDA 6 10/100 Ethernet, 2 Port 1-Gigabit SFP

Table 12-4 lists module templates for Ethernet(Fixed) for Alcatel-Lucent ATM Subscriber Access Multiplexer.

Table 12-4 **Module Templates—Ethernet(Fixed) for Alcatel-Lucent ATM Subscriber Access Multiplexer**

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
117	RJ45	EthernetCSMA /CD	Gigabit Ethernet	
6	RJ45	EthernetCSMA /CD	Fast Ethernet	

ATM (Fixed)

Table 12-5 lists module templates for ATM (Fixed) for Alcatel-Lucent ATM Subscriber Access Multiplexer.

Table 12-5 *Module Templates—ATM (Fixed) Alcatel-Lucent ATM Subscriber Access Multiplexer*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
169	RJ11	SHDSL	EdgeATM	
18	BNC	DS1	ATM	
19	RJ48	DS1		
249	RJ11	ADSL2	EdgeATM	
30	BNC	DS3	ATM	
39	FiberOptic	OC3	ATM	
94	RJ11	ADSL	EdgeATM	

Table 12-6 lists module templates for Ethernet(Fixed) for Alcatel-Lucent 7750/7710 SR.

Table 12-6 *Module Templates—Ethernet(Fixed) for Alcatel-Lucent 7750/7710 SR*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
ethernetDefault	RJ45	EthernetCSMA/CD	- Ethernet - Fast Ethernet - Gigabit Ethernet	MDA 10-Port 10/100/1000 Ethernet Extended Performance SFP
ethernetRJ48Default	RJ48	EthernetCSMA/CD	- Ethernet - Fast Ethernet - Gigabit Ethernet	MDA 10-Port 10/100/1000 Ethernet Extended Performance SFP
ethernetFiberDefault	Fiber optic	EthernetCSMA/CD	- Ethernet - Fast Ethernet - Gigabit Ethernet	MDA 10-Port 10/100/1000 Ethernet Extended Performance SFP
faEthernetDefault	RJ45	EthernetCSMA/CD	Fast Ethernet	MDA 10-Port 10/100/1000 Ethernet Extended Performance SFP
faEthernetRJ48Default	RJ48	EthernetCSMA/CD	Fast Ethernet	MDA 10-Port 10/100/1000 Ethernet Extended Performance SFP

Table 12-6 *Module Templates—Ethernet(Fixed) for Alcatel-Lucent 7750/7710 SR (Continued)*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
faEthernetFiberDefault	Fiber optic	EthernetCSMA/CD	Fast Ethernet	MDA 10-Port 10/100/1000 Ethernet Extended Performance SFP
gigaEthernetDefault	RJ45	EthernetCSMA/CD	Gigabit Ethernet	MDA 10-Port 10/100/1000 Ethernet Extended Performance SFP
gigaRJ48Default	RJ48	EthernetCSMA/CD	Gigabit Ethernet	MDA 10-Port 10/100/1000 Ethernet Extended Performance SFP
gigaEthernetFiberDefault	Fiber optic	EthernetCSMA/CD	Gigabit Ethernet	MDA 10-Port 10/100/1000 Ethernet Extended Performance SFP

Channelized OCXX (Fixed)

[Table 12-7](#) lists module templates for Channelized OCXX (Fixed) for Alcatel-Lucent 7450 ESS.

Table 12-7 *Module Templates—Channelized OCXX (Fixed) for Alcatel-Lucent 7450 ESS*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
OC3-default	Fiber optic	OC3	-	MDA 16 Ports OC3 SFP
OC12-default	Fiber optic	OC12	-	MDA 16 Ports OC12/OC3 SFP
OC48-default	Fiber optic	OC48	-	MDA 4 Ports OC48 SFP

[Table 12-8](#) lists module templates for Channelized OCXX (Fixed) for Alcatel-Lucent 7705 SAR.

Table 12-8 *Module Templates—Channelized OCXX (Fixed) for Alcatel-Lucent 7705 SAR*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
OC3-default	Fiber optic	OC3	-	MDA 4 Port OC3 SFP
OC12-default	Fiber optic	OC12	-	-
OC48-default	Fiber optic	OC48	-	-
OC192-default	Fiber optic	OC192	-	-

[Table 12-9](#) lists module templates for Channelized OCXX (Fixed) for Alcatel-Lucent 7750/7710 SR.

Table 12-9 *Module Templates—Channelized OCXX (Fixed) for Alcatel-Lucent 7750/7710 SR*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
OC3-default	Fiber optic	OC3	-	MDA 8-Port OC3 SFP
OC12-default	Fiber optic	OC12	-	MDA 4-Port ATM OC12/OC3
OC48-default	Fiber optic	OC48	-	MDA 2 Ports OC48 SFP
OC192-default	Fiber optic	OC192	-	MDA 1-Port OC192

Event Templates

Table 12-10 lists the repositories and parsing rules files for Alcatel.

Table 12-10 Parsing Rules and Repositories

Parsing Rules Files	Repository Files
Select based on the scheme and whether you are adding support for a trap or a syslog: - product scheme: - alcatel-ess-syslog-product-parsing-rules - alcatel-ess-trap-product-parsing-rules - alcatel-sar-syslog-product-parsing-rules - alcatel-sar-trap-product-parsing-rules - alcatel-sr-syslog-ipcore-parsing-rules - alcatel-sr-trap-ipcore-parsing-rules - alcatel-asam-trap-product-parsing-rules	Select based on whether you are supporting a syslog or a trap: - Trap: - alcatel-7450-trap-repository - alcatel-7705-trap-repository - alcatel-7750/7710-trap-repository - mib2-trap-repository¹ - alcatel-trap-repository

1. Select mib2-trap-repository when you are adding a standard MIB-II trap. Otherwise, select alcatel-7450-trap-repository.

Calix Template Reference

This section contains the following topic:

- Module Templates, page 12-9
- Event Templates, page 12-11

Module Templates

This section contains the following topics:

- Module Groups and Module Specification Files, page 12-9
- Module Templates by Technology, page 12-10

For more information, see [Module Templates, page 12-2](#).

Module Groups and Module Specification Files

For more information, see [Module Groups and Module Specification Files, page 12-3](#).

Prime Network Version 4.0 enables you to extend the Calix-blc-physicalspec module specification files.

Table 12-11 summarizes the technologies that are supported and the module templates that are provided in the module specification files. For more information about a module template, use the link in the Technologies column.

Table 12-11 *Module Group Summary for Standard Modules—Prime Network Version 4.0*

Module Group	Technologies	Template Names
Calix-blc-physicalsec	Ethernet(Fixed), page 12-10	- FiberOpticEthernetDefault - FiberOpticOrPluggableEthernetDefault - UTPEthernetDefault
	ATM (Fixed), page 12-10	ADSL2Default
	Generic, page 12-10	DefaultLoader
		empty-port-loader

Module Templates by Technology

This section presents module templates organized by technology:

- [Ethernet\(Fixed\), page 12-10](#)
- [ATM \(Fixed\), page 12-10](#)
- [Generic, page 12-10](#)

Ethernet(Fixed)

[Table 12-12](#) lists module templates for Ethernet(Fixed) for Calix.

Table 12-12 *Module Templates—Ethernet(Fixed) for RAD*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
UTPEthernetDefault	RJ45	EthernetCSMA/CD	Ethernet	
FiberOpticEthernetDefault	FiberOptic	EthernetCSMA/CD	Gigabit Ethernet	
FiberOpticOrPluggableEthernetDefault	FiberOptic	EthernetCSMA/CD	Gigabit Ethernet	

ATM (Fixed)

[Table 12-13](#) lists module templates for ATM (Fixed) for Calix.

Table 12-13 *Module Templates—ATM (Fixed) for RAD*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
ADSL2Default	RJ45	ADSL2	ATM	

Generic

[Table 12-14](#) lists module templates for Generic for Calix.

Table 12-14 *Module Templates—Generic Calix*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
DefaultLoader	RJ45			

Event Templates

[Table 12-15](#) lists the repositories and parsing rules files for Calix.

Table 12-15 *Parsing Rules and Repositories*

Parsing Rules Files	Repository Files
Select based on the scheme and whether you are adding support for a trap or a syslog: - Product Scheme: - Calix-trap-product-parsing-rules.xml	Select based on whether you are supporting a syslog or a trap: - Trap: - Calix-trap-repository.xml

Huawei Template Reference

This section contains the following topic:

- [Module Templates, page 12-11](#)
- [Event Templates, page 12-15](#)

Module Templates

This section contains the following topics:

- [Module Groups and Module Specification Files, page 12-11](#)
- [Module Templates by Technology, page 12-12](#)

For more information, see [Module Templates, page 12-2](#).

Module Groups and Module Specification Files

For more information, see [Module Groups and Module Specification Files, page 12-3](#).

Prime Network 4.0 enables you to extend the huawei-trs-physicalspec module specification files.

[Table 12-16](#) summarizes the technologies that are supported and the module templates that are provided in the module specification files. For more information about a module template, use the link in the Technologies column.

Table 12-16 **Module Group Summary for Standard Modules—Prime Network Version 4.0**

Module Group	Technologies	Template Names
huawei-trs-physicalspec	Ethernet(Fixed), page 12-12	- ethernetDefault - ethernet-default-over-optic - gigaEthernetDefault - A10GigaEthernet - ethernetFiberDefault - gigaEthernet - ethernetDefault1 - fastEthernetFiberDefault - gigaEthernetFiberDefault - fastEthernetDefault
	Ethernet (Multiloader), page 12-13	E1OrEthOrGig
	Channelized T1/E1, page 12-14	E1Default
	ATM (Fixed), page 12-14	- DS1Default - AtmDefault
	POS (Fixed), page 12-14	- FiberDefault-pos - FiberDefault-pos-ppp
	Generic, page 12-14	generic-port
	Multitechnology, page 12-14	MultiTechnologiesModuleDefault
		empty-port-loader

Module Templates by Technology

This section presents module templates organized by technology:

- [Ethernet\(Fixed\), page 12-12](#)
- [Ethernet \(Multiloader\), page 12-13](#)
- [Channelized T1/E1, page 12-14](#)
- [ATM \(Fixed\), page 12-14](#)
- [POS \(Fixed\), page 12-14](#)
- [Generic, page 12-14](#)
- [Multitechnology, page 12-14](#)

Ethernet(Fixed)

[Table 12-17](#) lists module templates for Ethernet(Fixed).

Table 12-17 *Module Templates—Ethernet(Fixed)*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
ethernetDefault	RJ45	EthernetCSMA/CD	- Ethernet - Fast Ethernet 10 Gigabit Ethernet - Gigabit Ethernet	
ethernet-default-over-optic	Fiber optic	EthernetCSMA/CD	- Ethernet - Fast Ethernet 10 Gigabit Ethernet - Gigabit Ethernet	G24SC
gigaEthernetDefault	RJ45	Ethernet CSMA/CD	Gigabit Ethernet	AND1EG2
A10GigaEthernet	Fiber optic	Ethernet CSMA/CD	10 Gigabit Ethernet	CR52L2XXNB
ethernetFiberDefault	Fiber optic	Ethernet CSMA/CD	Ethernet	CR52EEGFNB
gigaEthernet	Fiber optic	Ethernet CSMA/CD	Gigabit Ethernet	
ethernetDefault1	RJ45	Ethernet CSMA/CD	Ethernet	AND1VIRCARD
fastEthernetFiberDefault	Fiber optic	Ethernet CSMA/CD	Ethernet	CR52EEGFNB
gigaEthernetFiberDefault	Fiber optic	Ethernet CSMA/CD	Gigabit Ethernet	CR52EEGFNB
fastEthernetDefault	RJ45	Ethernet CSMA/CD	Fast Ethernet	AND1VIRCARD

Ethernet (Multiloader)

[Table 12-18](#) lists module templates for Ethernet (Multiloader).

Table 12-18 *Module Templates—Ethernet (Multiloader)*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
E1OrEthOrGig	RJ45	E1		

Channelized T1/E1

[Table 12-19](#) lists module templates for Channelized T1/E1.

Table 12-19 Module Templates—Channelized T1/E1

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
E1Default	RJ45	E1		AND1VIRCARD

ATM (Fixed)

[Table 12-20](#) lists module templates for ATM (Fixed).

Table 12-20 Module Templates—ATM (Fixed)

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
DS1Default	DS1 connector	DS1		AND1VIRCARD
AtmDefault	Fiber optic	OC3	ATM	CR53A4CF

POS (Fixed)

[Table 12-21](#) lists module templates for POS (Fixed).

Table 12-21 Module Templates—POS (Fixed)

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
FiberDefault-pos	Fiber optic	OC3	PPP	CX67C1CF0
FiberDefault-pos-ppp	Fiber optic	OC3	PPP	CR53P8CF

Generic

[Table 12-22](#) lists module templates for Generic.

Table 12-22 Module Templates—Generic

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
generic-port	POS Connector	Generic Layer 1	Generic Layer 2	

Multitechnology

[Table 12-23](#) lists module templates for Multitechnology.

Table 12-23 *Module Templates—Multitechnology*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
MultiTechnologies ModuleDefault	• RJ11 • RJ45 • RJ48 • Fiber optic • DB60	• EthernetCSMA/CD • DS1 • E1 • OC3 • ADSL • Serial	• Fast Ethernet • Gigabit Ethernet • PPP • HDLC • Frame relay • ATM	

Event Templates

Table 12-24 lists the repositories and parsing rules files for Huawei.

Table 12-24 *Parsing Rules and Repositories*

Parsing Rules Files	Repository Files
Select based on the scheme and whether you are adding support for a trap or a syslog: • product scheme: – huawei-trs-trap-ipcore-parsing-rules	Select based on whether you are supporting a syslog or a trap: • Trap: – mib2-trap-repository¹ – huawei-trap-repository

1. Select mib2-trap-repository when you are adding a standard MIB-II trap. Otherwise, select huawei-trap-repository.

Juniper Template Reference

This section contains the following topic:

- [Module Templates, page 12-15](#)
- [Event Templates, page 12-19](#)

Module Templates

This section contains the following topics:

- [Module Groups and Module Specification Files, page 12-15](#)
- [Module Templates by Technology, page 12-5](#)

For more information, see [Module Templates, page 12-2](#)

Module Groups and Module Specification Files

For more information, see [Module Groups and Module Specification Files, page 12-3](#).

Prime Network 4.0 enables you to extend the juniper-junos-physicalspec and juniper-screenos-physicalspec module specification files.

Table 12-25 summarizes the technologies that are supported and the module templates that are provided in the module specification files. For more information about a module template, use the link in the Technologies column.

Table 12-25 **Module Group Summary for Standard Modules—Prime Network Version 4.0**

Module Group	Technologies	Template Names
juniper-junos-physicalspec	Ethernet (Fixed), page 12-17	- A10GigaEthernet - gigaEthernet - fxp - ethernet-over-baseband - gigabit ethernet over baseband - gigabit-ethernet-over-fiber
	POS (Fixed), page 12-17	ppp over oc48
	POS (Multiloader), page 12-17	- ppp over oc12 - ppp over oc192 - ppp-over-oc3
	Channelized T1/E1 (Fixed), page 12-18	- E3Default - E1
	ATM (Fixed), page 12-18	- atmDefault - atm over oc12 - atm over ds3
	ATM (Multiloader), page 12-18	- layer2-over-ds3 - layer2-over-oc12 - layer2-over-oc48 - layer2-over-oc3
	Multitechnology, page 12-19	MultiTechnologiesModuleDefault
juniper-screenos-physicalspec		empty-port-loader
	Generic, page 12-19	DefaultLoader
	Ethernet (Fixed), page 12-17	- SfpGigaEthernetDefault - FastEthernetDefault
		empty-port-loader

Module Templates by Technology

This section presents module templates organized by technology:

- [Ethernet \(Fixed\), page 12-17](#)
- [POS \(Fixed\), page 12-17](#)

- [POS \(Multiloader\)](#), page 12-17
- [Channelized T1/E1 \(Fixed\)](#), page 12-18
- [ATM \(Fixed\)](#), page 12-18
- [ATM \(Multiloader\)](#), page 12-18
- [Multitechnology](#), page 12-19
- [Generic](#), page 12-19

Ethernet (Fixed)

[Table 12-26](#) lists module templates for Ethernet (Fixed).

Table 12-26 *Module Templates—Ethernet (Fixed)*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
A10GigaEthernet	Fiber optic	EthernetCSMA/CD	10 Gigabit Ethernet	PIC: 1×10GE(LAN), XENPAK
gigaEthernet	Fiber optic	EthernetCSMA/CD	Gigabit Ethernet	PIC: 10×1GE(LAN)
fxp	RJ45	EthernetCSMA/CD	Ethernet	FPC
ethernet-over-baseband	RJ45	EthernetCSMA/CD	Ethernet	PIC: 4×F/E, 10 BASE-TX
gigabit ethernet over baseband	RJ45	EthernetCSMA/CD	Ethernet	PIC: 2×F/E, 100 BASE-TX
gigabit-ethernet-over-fiber	Fiber optic	EthernetCSMA/CD	Ethernet	PIC: 1×10GE(LAN/WAN) IQ2
SfpGigaEthernetDefault	RJ45	EthernetCSMA/CD	Gigabit Ethernet	Management-Board II, Processing- 8G2
FastEthernetDefault	RJ45	EthernetCSMA/CD	Fast Ethernet	Management-Board II, Processing- 8G2

POS (Fixed)

[Table 12-27](#) lists module templates for POS (Fixed).

Table 12-27 *Module Templates—POS (Fixed)*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
ppp over oc48	Fiber optic	OC48	PPP	

POS (Multiloader)

[Table 12-28](#) lists module templates for POS (Multiloader).

Table 12-28 *Module Templates—POS (Multiloader)*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
ppp over oc12	Fiber optic	OC12	PPP	
ppp over oc192	Fiber optic	OC192	PPP	PIC: 1×OC-192 SM SR1
ppp-over-oc3	Fiber optic	OC3	PPP	jnxM20QuadSonetOc3

Channelized T1/E1 (Fixed)

[Table 12-29](#) lists module templates for Channelized T1/E1 (Fixed).

Table 12-29 *Module Templates—Channelized T1/E1 (Fixed)*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
E3 Default	BNC	DS3	-	
E1	RJ48	DS1	PPP	PIC: 4×E1, RJ48

ATM (Fixed)

[Table 12-30](#) lists module templates for ATM (Fixed).

Table 12-30 *Module Templates—ATM (Fixed)*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
atmDefault	Fiber optic	OC3	ATM	PIC: 2×OC-3 ATM-II IQ, SMIR
atm over oc12	Fiber optic	OC12	ATM	
atm over ds3	BNC	DS3	ATM	jnxM20QuadSonetOc3

ATM (Multiloader)

[Table 12-31](#) lists module templates for ATM (Multiloader).

Table 12-31 *Module Templates—ATM (Multiloader)*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
layer2-over-ds3	BNC	DS3	• PPP • HDLC • Frame relay • ATM	• PIC: 2×T3 • PIC: 10×CHE1 IQ
layer2-over-oc12	Fiber optic	OC12	• PPP • HDLC • Frame relay • ATM	PIC: 1×CHOC12 IQ SONET, SMIR

Table 12-31 *Module Templates—ATM (Multiloader) (Continued)*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
layer2-over-oc48	Fiber optic	OC48	• PPP • HDLC • Frame relay • ATM	PIC: 1×STM-16 SDH, SMSR
layer2-over-oc3	Fiber optic	OC3	• PPP • HDLC • Frame relay • ATM	PIC: 2×OC-3 SONET, MM

Multitechnology

[Table 12-32](#) lists module templates for Multitechnology.

Table 12-32 *Module Templates—Multitechnology*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
MultiTechnologies ModuleDefault	• RJ11 • RJ45 • RJ48 • Fiber optic • DB60	• EthernetCSMA/CD • DS1 • E1 • OC3 • ADSL • Serial	• Fast Ethernet • Gigabit Ethernet • PPP • HDLC • Frame relay • ATM	

Generic

[Table 12-33](#) lists module templates for Generic.

Table 12-33 *Module Templates—Generic*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
DefaultLoader	RJ45			

Event Templates

[Table 12-34](#) lists the repositories and parsing rules files for Juniper.

Table 12-34 Parsing Rules and Repositories

Parsing Rules Files	Repository Files
Select based on the scheme and whether you are adding support for a trap or a syslog: - product scheme: - juniper-syslog-product-parsing-rules - juniper-trap-product-parsing-rules - ipcore scheme: - juniper-syslog-ipcore-parsing-rules - juniper-trap-ipcore-parsing-rules - juniper-netscreen-trap-ipcore-parsing-rules	Select based on whether you are supporting a syslog or a trap: - Syslog: - juniper-syslog-repository - Trap: - juniper-traps-repository - mib2-trap-repository¹ - juniper-netscreen-trap-repository

1. Select mib2-trap-repository when you are adding a standard MIB-II trap. Otherwise, select juniper-traps-repository.

RAD Template Reference

This section contains the following topic:

- [Module Templates, page 12-20](#)
- [Event Templates, page 12-22](#)

Module Templates

This section contains the following topics:

- [Module Groups and Module Specification Files, page 12-20](#)
- [Module Templates by Technology, page 12-21](#)

For more information, see [Module Templates, page 12-2](#).

Module Groups and Module Specification Files

For more information, see [Module Groups and Module Specification Files, page 12-3](#).

Prime Network Version 4.0 enables you to extend the rad-ace-csg-physicalspec, rad-etx-physicalspec, rad-ipmux-physicalspec, and rad-la-physicalspec module specification files.

[Table 12-35](#) summarizes the technologies that are supported and the module templates that are provided in the module specification files. For more information about a module template, use the link in the Technologies column.

Table 12-35 **Module Group Summary for Standard Modules—Prime Network Version 4.0**

Module Group	Technologies	Template Names
rad-ace-csg-physicsspec	Ethernet(Fixed), page 12-22	- FastEthernetDefault - EthernetDefault - gigaEthernetDefault
	ATM (Fixed), page 12-22	- ADSL2Default - DS1Default - SHDSLDefault
	Generic, page 12-22	DefaultLoader
		empty-port-loader
rad-etx-physicsspec	Ethernet(Fixed), page 12-22	- gigaEthernetDefault - FastEthernetDefault - EthernetDefault - SfpOrUtpEthernetDefault - SfpOrUtpFastEthernetDefault - SfpOrUtpGigaEthernetDefault
	ATM (Fixed), page 12-22	DS1Default
	Generic, page 12-22	DefaultLoader
		empty-port-loader
rad-ipmux-physicsspec	Ethernet(Fixed), page 12-22	- EthernetDefault - FastEthernetDefault - gigaEthernetDefault
	ATM (Fixed), page 12-22	DS1Default
	Generic, page 12-22	DefaultLoader
		empty-port-loader
rad-la-physicsspec	Ethernet(Fixed), page 12-22	- EthernetDefault - FastEthernetDefault - gigaEthernetDefault
	ATM (Fixed), page 12-22	SHDSLDefault
	Generic, page 12-22	DefaultLoader
		empty-port-loader

Module Templates by Technology

This section presents module templates organized by technology:

- [Ethernet\(Fixed\), page 12-22](#)
- [ATM \(Fixed\), page 12-22](#)
- [Generic, page 12-22](#)

Ethernet(Fixed)

[Table 12-36](#) lists module templates for Ethernet(Fixed) for RAD.

Table 12-36 Module Templates—Ethernet(Fixed) for RAD

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
FastEthernetDefault	RJ45	EthernetCSMA/CD	Fast Ethernet	
EthernetDefault	RJ45	EthernetCSMA/CD	Ethernet	
gigaEthernetDefault	RJ45	EthernetCSMA/CD	- Gigabit Ethernet - SfpOrUtpGigaEthernetDefault	

ATM (Fixed)

[Table 12-37](#) lists module templates for ATM (Fixed) for RAD ATM Subscriber Access Multiplexer.

Table 12-37 Module Templates—ATM (Fixed) for RAD

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
ADSL2Default	RJ45	ADSL2	ATM	
DS1Default	RJ45	DS1	ATM	
SHDSLDefault	RJ45	SHDSL	EdgeATM	

Generic

[Table 12-38](#) lists module templates for Generic for RAD.

Table 12-38 Module Templates—Generic RAD

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
DefaultLoader	RJ45			

Event Templates

[Table 12-39](#) lists the repositories and parsing rules files for RAD.

Table 12-39 Parsing Rules and Repositories

Parsing Rules Files	Repository Files
Select based on the scheme and whether you are adding support for a trap or a syslog: - Product Scheme: - rad-etx-syslog-product-parsing-rules - rad-etx-trap-product-parsing-rules - rad-ipmux-syslog-product-parsing-rules - rad-ipmux-trap-product-parsing-rules - rad-la-syslog-product-parsing-rules - rad-la-trap-product-parsing-rules - rad-csg-syslog-product-parsing-rules - rad-csg-trap-product-parsing-rules	Select based on whether you are supporting a syslog or a trap: - Trap: - rad-etx-trap-repository - rad-trap-repository - rad-ipmux-trap-repository - rad-la-trap-repository - rad-csg-trap-repository

Tellabs Template Reference

This section contains the following topic:

- [Module Templates, page 12-11](#)
- [Event Templates, page 12-25](#)

Module Templates

This section contains the following topics:

- [Module Groups and Module Specification Files, page 12-11](#)
- [Module Templates by Technology, page 12-12](#)

For more information, see [Module Templates, page 12-2](#).

Module Groups and Module Specification Files

For more information, see [Module Groups and Module Specification Files, page 12-3](#).

Prime Network Version 4.0 enables you to extend the tellabs-msr-physicalspec module specification files.

[Table 12-40](#) summarizes the technologies that are supported and the module templates that are provided in the module specification files. For more information about a module template, use the link in the Technologies column.

Table 12-40 *Module Group Summary for Standard Modules—Prime Network Version 4.0*

Module Group	Technologies	Template Names
tellabs-msr-physicalspec	Ethernet(Fixed), page 12-24	• A10GigaEthernet • GigabitEthernetDefault • FastEthernetDefault
	ATM (Fixed), page 12-25	• E3Default • ADSL2Default • DS1Default • SHDSLDefault
	Generic, page 12-25	DefaultLoader
		empty-port-loader

Module Templates by Technology

This section presents module templates organized by technology:

- [Ethernet\(Fixed\), page 12-24](#)
- [ATM \(Fixed\), page 12-25](#)
- [Generic, page 12-25](#)

Ethernet(Fixed)

[Table 12-41](#) lists module templates for Ethernet(Fixed).

Table 12-41 *Module Templates—Ethernet(Fixed)*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
A10GigaEthernet	Fiber optic	EthernetCSMA/CD	10 Gigabit Ethernet	
GigabitEthernetDefault	Fiber optic	EthernetCSMA/CD	Gigabit Ethernet	
FastEthernetDefault	RJ45	EthernetCSMA/CD	Fast Ethernet	

ATM (Fixed)

Table 12-42 lists module templates for ATM (Fixed).

Table 12-42 *Module Templates—ATM (Fixed)*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
ADSL2Default	RJ45	ADSL2		
DS1Default	RJ45	DS1	ATM	
E3Default	BNC	DS3		
SHDSLDefault	RJ45	SHDSL	EdgeATM	

Generic

Table 12-43 lists module templates for Generic.

Table 12-43 *Module Templates—Generic*

Template Name	Layer 0	Layer 1	Layer 2	Example Modules
DefaultLoader	RJ45			

Event Templates

Table 12-44 lists the repositories and parsing rules files for Tellabs.

Table 12-44 *Parsing Rules and Repositories*

Parsing Rules Files	Repository Files
Select based on the scheme and whether you are adding support for a trap or a syslog: - product scheme: - tellabs-msr-trap-product-parsing-rules	Select based on whether you are supporting a syslog or a trap: - Trap: - tellabs-trap-repository - tellabs-msr-trap-repository - mib2-trap-repository¹

1. Select mib2-trap-repository when you are adding a standard MIB-II trap. Otherwise, select tellabs-trap-repository.



Support for Change and Configuration Management

Cisco Prime Network Change and Configuration Management (CCM) provides tools for managing software images and device configuration files used by devices in your network. See [CCM Supported Third-Party Devices](#) for more information.

Set Up Change and Configuration Management

For information on setting up and using Change and Configuration Management, see [Set Up Change and Configuration Management](#) in Cisco Prime Network User Guide, 4.0.

CCM Supported Third-Party Devices

Table 13-1 *Third-party devices supported by CCM*

Device	Software Version
Juniper M10i	8.4R1.13
	8.1R2.4
DragonWave Horizon Compact	1.04.08
	1.04.00
DragonWave Horizon Quantum	1.1.0
	1.02.06
	1.01.05.01
DragonWave Horizon Compact Plus	1.2.0
	1.1.0
	1.0.1

CCM Supported Operations

Table 13-2 *Change and configuration management supported operations*

CCM Operation	Description	Juniper M10i	DragonWave Horizon Compact	DragonWave Horizon Quantum	DragonWave Horizon Compact Plus
Configuration Backup	Copy the device files to the archive (backups).	Yes	Yes	Yes	Yes
Configuration Restore	Copy the archive files to the device.	Yes	Yes	Yes	Yes
Image Distribute	Distribute the images from images repository to devices.	Yes	Yes	Yes	Yes
Image Activate	Activate the images from existing images of the device.	Yes	No ¹	Yes	Yes
Image Baseline	Backup the current running image from device.	Yes	No ¹	No ¹	No ¹

1. Not supported by the device.

See [Cisco Prime Network 4.0 User Guide](#) for more information.

Prerequisites

For DragonWave devices, enter the following commands before performing CCM operations.

```
./runRegTool.sh -gs localhost setEncrypted 127.0.0.1 nccm-settings/ftpsettings/username
primenetworkusername
./runRegTool.sh -gs localhost setEncrypted 127.0.0.1 nccm-settings/ftpsettings/password
password for primenetworkuser
./runRegTool.sh -gs localhost setEncrypted 127.0.0.1 nccm-settings/ftpsettings/ftpserver
FTP server IP address
```