



# CHAPTER 4

## Support Information for Cisco Access Servers

This chapter contains support information for Virtual Network Elements (VNEs) that manage Cisco access servers in Cisco Prime Network 3.9.

- [Cisco Access Server 5800 Series, page 4-1](#)
- [Supported Technologies on Cisco Access Servers, page 4-3](#)



**Note**

For more information about the technologies described in this chapter, see Part 2 Technology Support.

### Cisco Access Server 5800 Series

This section includes the following information about Cisco AS 5800 Series access servers (for information on the NE types supported in Cisco Prime Network 3.9, see [Cisco Access Server 5800 Series](#)):

- [Cisco AS 5800 Series—Supported Software Versions, page 4-1](#)
- [Cisco AS 5800 Series—Supported Topologies, page 4-2](#)
- [Cisco AS 5800 Series—Supported Modules, page 4-2](#)
- [Cisco AS 5800 Series—Supported Technologies, page 4-2](#)
- [Cisco AS 5800 Series—Supported Service Events, page 4-3](#)

### Cisco AS 5800 Series—Supported Software Versions

**Table 4-1** Supported Software Versions for Cisco AS 5800 Series—Cisco Prime Network 3.9

Software Version	Product_Version
IOS 12.1(11b)	3.7.1

## Cisco AS 5800 Series—Supported Topologies

**Table 4-2** Supported Topologies for Cisco AS 5800 Series—Cisco Prime Network 3.9

Topology Type	Link Type	Product_V ersion
Business	Business	3.7.1
Ethernet	Ethernet	3.7.1
Physical Layer	Physical Layer	3.7.1

## Cisco AS 5800 Series—Supported Modules

**Table 4-3** Supported Modules for Cisco AS 5800 Series—Cisco Prime Network 3.9

Module Name	Product_V ersion	Module Description
1.3.6.1.4.1.9.12.3.1.9.12	3.7.1	
AS5800-DSC	3.7.1	Dial Shelf Controller
1.3.6.1.4.1.9.12.3.1.9.12.10	3.7.1	
1.3.6.1.4.1.9.12.3.1.9.12.2	3.7.1	12 Port CE1
.1.3.6.1.4.1.9.12.3.1.9.12.3	3.7.1	
.1.3.6.1.4.1.9.12.3.1.9.12.4	3.7.1	
.1.3.6.1.4.1.9.12.3.1.9.12.5	3.7.1	
.1.3.6.1.4.1.9.12.3.1.9.12.6	3.7.1	
.1.3.6.1.4.1.9.12.3.1.9.12.7	3.7.1	144 Port MICA Modem
.1.3.6.1.4.1.9.12.3.1.9.12.8	3.7.1	
.1.3.6.1.4.1.9.12.3.1.9.12.9	3.7.1	
AS5800-1FE-DSI	3.7.1	1FE Dial Shelf Interconnect

## Cisco AS 5800 Series—Supported Technologies

The following technologies are supported by the Cisco AS 5800 Series in Cisco Prime Network 3.9:

- [IP, page 4-4](#)
- [Routing Protocols, page 4-7](#)
- [Ethernet, page 4-9](#)
- [TDM/DSx, page 4-14](#)
- [Security, page 4-17](#)
- [Hardware, page 4-18](#)
- [Serial, page 4-20](#)

## Cisco AS 5800 Series—Supported Service Events

**Table 4-4** Supported Service Events for Cisco AS 5800 Series—Cisco Prime Network 3.9

Event Name	Product_V ersion	Expedited
Active IP Interfaces Found	3.7.1	Y
All IP Interfaces Down	3.7.1	Y
BGP process up	3.7.1	N
Card Down	3.7.1	Y
Card In	3.7.1	Y
Card Out	3.7.1	Y
Card Up	3.7.1	Y
CPU utilization exceeded upper threshold	3.7.1	N
Device Unsupported	3.7.1	N
Layer 2 Tunnel Down	3.7.1	N
Link up	3.7.1	N
Memory utilization exceeded upper threshold	3.7.1	N
Module Unsupported	3.7.1	N
MPLS Black Hole found	3.7.1	N

## Supported Technologies on Cisco Access Servers

The following sections list the objects and attributes that are supported on Cisco access servers in Cisco Prime Network 3.9 per technology:

- [IP, page 4-4](#)
- [Routing Protocols, page 4-7](#)
- [Ethernet, page 4-9](#)
- [TDM/DSx, page 4-14](#)
- [Security, page 4-17](#)
- [Hardware, page 4-18](#)
- [Serial, page 4-20](#)

## IP

Table 4-5 IP Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9

Attribute	AS 58 00
<b>IMO Name—IIPInterface</b>	
IP Address	Y
Subnetwork Mask	Y
IP Interface Addresses Array	Y
Interface Name	Y
Interface Description	Y
IP Interface State	Y
OSPF Interface Cost	
Broadcast Address	
MTU	
Lookup Method	
Address Resolution Type	
ARP Timeout	
Secured ARP	
ICMP Mask Reply	
IGMP Proxy	
HSRP Groups	
IP Multiplexing Table	
IANA Type	
Containing CTPs	
Contained CTPs	
<b>IMO Name—IIPMuxEntry</b>	
Termination Point	
Destination IP Subnet	
<b>IMO Name—IIRoutingEntity</b>	
Routing Table	Y
ARP Entity	Y
Routing Table Changes	
Name	
Logical Sons	Y
<b>IMO Name—IIRoutingEntry</b>	
Destination IP Subnet	Y
Next Hop IP Address	Y

**Table 4-5** IP Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9 (continued)

Attribute	AS 58 00
Type	Y
Routing Protocol Type	Y
Outgoing Interface Name	Y
<b>IMO Name—IARPEntity</b>	
ARP Table	Y
<b>IMO Name—IARPEntity</b>	
IP Address	Y
MAC Address	Y
Port	Y
Entry Type	Y
<b>IMO Name—IIPPool</b>	
IP Address Pool Entries	
Name	
Index	
<b>IMO Name—IIPRangeBasedIPPoolEntry</b>	
Start IP Address	
End IP Address	
Unused Addresses	
Used Addresses	
Reserved Addresses	
<b>IMO Name—IIPSubnetBasedIPPoolEntry</b>	
IP Subnet	
Unused Addresses	
Used Addresses	
Reserved Addresses	
<b>IMO Name—HSRPGroupEntry</b>	
Group Number	
Port Description	
Priority	
Coupled Router	
State	
Tracking Interfaces	
Virtual IP Address	
Virtual MAC Address	

**Table 4-5** IP Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9 (continued)

Attribute	AS 58 00
<b>IMO Name—I TunnelGRE</b>	
Name	
Tunnel Destination and Source	
IP Address	
IP Interface State	
IANA Type	
Containing CTPs	
Contained CTPs	
Keep Alive Time	
Keep Alive Retry	
<b>IMO Name—IVrrpGroupEntry</b>	
Group Number	
State	
Port Description	
Master IP Address	
Primary IP Address	
Priority	
Virtual Mac Address	
Preempt Mode	
Admin State	
Advertisement Interval	
Tracking Interfaces	
<b>IMO Name—IIPSLAResponderService</b>	
responderStatus	
TWAMPResponderStatus	
tcpConnect	
udpEcho	
<b>IMO Name—IIPAddressPortPair</b>	
type	
ipAddress	
port	

## Routing Protocols

**Table 4-6 Routing Protocols Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9**

Attribute	AS 58 00
<b>IMO Name—IBgpNeighborEntry</b>	
Remote Identifier	
Neighbor Type	
Distributing Interfaces	
Remote Address	
Remote Autonomous System	
Peer State	
Peer AdminState	
Hold Time	
Keep Alive Time	
VrfName	
Address family	
<b>IMO Name—IospfEntry</b>	
Area Identifier	Y
IP Address	Y
Type	Y
Administrative Status	Y
Ospf Entry State	Y
<b>IMO Name—IospfProcess</b>	
Process Id	
OSPF Version	
Router Id	
<b>IMO Name—IospfNeighbor</b>	
Neighbor Id	
Outgoing Interface	
State	
Neighbor Interface Address	
Area Id	
<b>IMO Name—IospfInterface</b>	
Area Id	
Network Type	
Cost	

**Table 4-6 Routing Protocols Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9 (continued)**

Attribute	AS 58 00
State	
Interface Address	
Type	
IF Priority	
DR Id	
BDR Id	
<b>IMO Name—ISpfTimers</b>	
Schedule Delay	
Min Hold Time	
Max Wait Time	
<b>IMO Name—IISISProcess</b>	
ISIS Version	
Manual Area Address	
IS Type	
System Id	
Process Id	
<b>IMO Name—IISISMetric</b>	
IS Type	
Metric Style	
Metric Value	
Address Family	
<b>IMO Name—IISISInterface</b>	
Interface Name	
<b>IMO Name—IISISNeighbor</b>	
IS Type	
System Id	
Admin State	
Hold Time	
SNPA	
Interface Name	
IP Address	
Address Family	



# Ethernet

**Table 4-7 Ethernet Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9**

Attribute	AS5800
<b>IMO Name—ILinkAggregationGroup802dot3ad</b>	
dot3adAggMACAddress	
dot3adAggActorSystemPriority	
dot3adAggActorSystemID	
dot3adAggActorAdminKey	
dot3adAggActorOperKey	
dot3adAggPartnerSystemID	
dot3adAggPartnerSystemPriority	
dot3adAggPartnerOperKey	
dot3adAggCollectorMaxDelay	
GroupNumber	
AggregationProtocolType	
MacAddress	
ChannelAdminStatus	
ChannelOperStatus	
<b>IMO Name—IEthernet</b>	
MAC Address	Y
Duplex Mode	
Output Flow Control	Y
Input Flow Control	Y
IANA Type	
Containing CTPs	
Contained CTPs	
Port Type	
isElmiEnabled	
isLOAMEnabled	
<b>IMO Name—IVlanInterface</b>	
Mode	
Native VLAN Identification	
Virtual LAN Table	
IANA Type	
Containing CTPs	
Contained CTPs	

**Table 4-7 Ethernet Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9**

<b>Attribute</b>	<b>AS5800</b>
vlanAdminType	
vlanencapType	
getAccess	
Allowed Vlans	
<b>IMO Name—IVlanEncapMux</b>	
IANA Type	
Containing CTPs	
Contained CTPs	
<b>IMO Name—IVlanMapping</b>	
direction	
vlanMatchCriteria	
vlanRewriteDefinition	
Drop	
Vlan	
innerVlan	
translatedVlan	
translatedInnerVlan	
<b>IMO Name—IIEEE802</b>	
VLAN Identification	
Binding Information	
Binding Status	
IANA Type	
Containing CTPs	
Contained CTPs	
<b>IMO Name—IStpService</b>	
StpProtocol	
StpMaxAge	
StpHelloTime	
StpBridgeForwardDelay	
StpInstanceInfoTable	
Same as ISystemService	
StpUplinkFastState	
StpBackboneFastState	
StpForwardDelay	
StpBridgeMaxAge	
StpBridgeHelloTime	

**Table 4-7 Ethernet Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9**

<b>Attribute</b>	<b>AS5800</b>
<b>IMO Name—IMstService</b>	
MstProperties	
Same as IStpService	
<b>IMO Name—IPvstpService</b>	
UpLinkFast	
BackboneFast	
<b>IMO Name—IMstProperties</b>	
MstForceVersion	
MstCfgIdFmtSel	
MstExternalRootCost	
MstMaxInstances	
MstCfgIdName	
MstCfgIdRevLevel	
<b>IMO Name—IStpInstanceInfo</b>	
Object Identification	
StpBridgeId	
BridgePriority	
Designated Parent and Root Bridges	
StpRootCost	
IsRoot	
StpRootPort	
StpPortInfoTable	
STP Instance Id	
Vlan Id	
StpDesignatedBridge	
StpDesignatedRoot	
<b>IMO Name—IMstInstanceInfo</b>	
MstVlanIds	
Same as IStpInstanceInfo	
<b>IMO Name—IPvstpInstanceInfo</b>	
Protocol Type	
StpBridgeMaxAge	
StpBridgeHelloTime	
StpBridgeForwardDelay	
StpProtocolSpecification	
StpVlanId	

**Table 4-7 Ethernet Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9**

<b>Attribute</b>	<b>AS5800</b>
StpForwardDelay	
StpMaxAge	
<b>IMO Name—IRstpInstanceInfo</b>	
StpForceVersion	
Same as IStpInstanceInfo	
<b>IMO Name—IStpPortInfo</b>	
StpPort	
StpPortPriority	
StpPortState	
StpPortPathCost	
StpPortEdgePort	
StpPortPointToPoint	
StpPortRole	
StpDesignatedPortIdentifier	
StpDesignatedBridge	
StpPortIdentifier	
StpPortBpduGuardState	
StpPortBpduFilterState	
<b>IMO Name—IMstPortInfo</b>	
MstPortHelloTime	
Same as IStpPortInfo	
<b>IMO Name—IPvstpPortInfo</b>	
PvstpPortFastState	
<b>IMO Name—IEthernetChannel</b>	
Group Number	
Bandwidth	
Aggregation Protocol	
IANA Type	
Containing CTPs	
Contained CTPs	
Mac Address	
Admin Status	
Oper Status	
<b>IMO Name—ITokenRingLayer2</b>	
MAC Address	
IANA Type	

**Table 4-7 Ethernet Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9**

<b>Attribute</b>	<b>AS5800</b>
Containing CTPs	
Contained CTPs	
<b>IMO Name—ITokenRingLayer1</b>	
Same as IPhysicalLayer	
<b>IMO Name—IVtpService</b>	
Version	
OperatingMode	
DomainName	
ConfigurationRevision	
isPruningEnabled	
isAuthenticationEnabled	
<b>IMO Name—IREPService</b>	
version	
administrativeVlan	
notificationEnabled	
<b>IMO Name—IREPSegmentInfo</b>	
segmentId	
segmentComplete	
<b>IMO Name—IREPPortInfo</b>	
portName	
portKey	
segmentId	
portType	
portRole	
operStatus	
blockedVlans	
preemptTimer	
IslAgeoutTimer	
remoteDeviceName	
remoteDeviceMac	
remotePortName	
configuredLoadBalancingBlockedVlans	
<b>IMO Name—IBridgeLan</b>	
Id	
<b>IMO Name—IIBridgeEntry</b>	
IS Id	

**Table 4-7 Ethernet Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9**

Attribute	AS5800
IBridge	
BBridge	

## TDM/DSx

**Table 4-8 TDM/DSx Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9**

Attribute	AS5800
<b>IMO Name—IDS0Bundle</b>	
Bundled Time Slots	
Bundle Location	
IANA Type	
Containing CTPs	
Contained CTPs	
AdminStatus	
OperStatus	
<b>IMO Name—IDS1Pdh / IDS3Pdh</b>	
Framing Type	
Cell Mapping Type	
Loopback Type	
Scrambling Mode	
Same as IPhysicalLayer	
portDescription	Y
internationalBit	
nationalBits	
framing	
lineCode	
cableLength	
recoveredClockingId	
clocking	
loopback	
alarmState	Y
<b>IMO Name—IClockService</b>	
ActiveClockSource	
NcsMode	
HoldTimeout	

**Table 4-8** TDM/DSx Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9

Attribute	AS5800
UseStratum4	
Mode	
NcsPriorityList	
PtpService	
ClockSourceTable	
PseudowireClockRecovery	
SynchronousEthernet	
<b>IMO Name—IClockSource</b>	
Priority	
Source	
Status	
Type	
<b>IMO Name—IPtpService</b>	
Mode	
ClockId	
Domain	
Priority1	
Priority2	
PtpEnabled	
PtpInterfaceList	
ptpState	
<b>IMO Name—IPtpInterface</b>	
Version	
AnnounceInterval	
AnnounceTimeout	
DestinationAddress	
SourceAddress	
DelayReq	
MasterMode	
SlaveMode	
SyncInterval	
SyncLimit	
InterfaceXid	
Role	
Transport	
State	

**Table 4-8 TDM/DSx Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9**

Attribute	AS5800
<b>IMO Name—IACRService</b>	
RecoveredClockSource	
RecoveredClockMode	
CemInterface	
RecoveredClockList	
<b>IMO Name—IRecoveredClock</b>	
ClockId	
RecoveredClockMode	
Port	
Cem	
Status	
FrequencyOffset	
CEMGroupId	
CEMInterfaceName	
TransferType	
<b>IMO Name—ICEMEncap</b>	
cemIfName	
<b>IMO Name—ICEMGroup</b>	
IdlePattern	
IdleCAS	
DeJitter	
PayloadSize	
RTP	
RTPHeader	
TimeSlots	
AdminStatus	
OperStatus	
<b>IMO Name—ISyncE</b>	
synchronousMode	
equipmentClock	
clockMode	
ssmOption	
esmcMode	
holdOffTimer	
waitToRestore	
Revertive	



**Table 4-8** TDM/DSx Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9

Attribute	AS5800
<b>IMO Name—IISyncEInterface</b>	
InterfaceName	
selectionInput	
ingressESMCMMode	
egressESMCMMode	
ingressQLMode	
ingressQuality	
egressQLMode	
egressQuality	
waitToRestore	
holdOffTimer	
ingressConfQuality	
egressConfQuality	
Priority	
ingressSSM	
egressSSM	
clockModeStr	

## Security

**Table 4-9** Security Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9

Attribute	AS5800
<b>IMO Name—IAccessList</b>	
Type	Y
Access List Entries	Y
Name or Id	Y
Index	Y
<b>IMO Name—IAccessListEntry</b>	
Entry Identification	
Action Logic	
Source and Destination Address	
Source and Destination Wildcard	
Protocol Type	
Source and Destination Port Ranges	

**Table 4-9 Security Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9**

Attribute	AS5800
Source and Destination Port Action	
Protocol Specific Info	
Differential Services Code Points	
Type of Service	
Precedence	
Matches	

## Hardware

**Table 4-10 Hardware Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9**

Attribute	AS5800
<b>IMO Name—IChassis</b>	
Description	
Equipment Holder Type	
Contained Equipment Holders	
Contained Equipments	
Serial Number	Y
<b>IMO Name—IShelf</b>	
Description	
Status	
Equipment Holder Type	
Contained Equipment Holders	
Contained Equipments	
Serial Number	
<b>IMO Name—IModule</b>	
Module Name	Y
Module Description	Y
Software Version	
Operational Status	Y
Hardware Type + Version	Y
Managed IP Address	
Redundant Equipment	
Configured Redundancy	
Redundancy Status	

**Table 4-10** Hardware Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9

Attribute	AS5800
Operational Status Last Changed	
Supported Physical Termination Points	
Serial Number (soft property)	
Slots Number	
<b>IMO Name—IPowerSupply</b>	
Same as IModule	
<b>IMO Name—IFanTray</b>	
Same as IModule	
<b>IMO Name—IPluggableTransceiver</b>	
ConnectorDescription	
PID	
ConnectorSerialNumber	
ConnectorType	
PluggablePortState	
PluggableType	
<b>IMO Name—IManagedElement</b>	
IP Address	Y
Communication State	Y
Investigation State	Y
Element Category	Y
Element Type and Key	Y
Device Name	Y
System Name	Y
System Description	Y
Up Time	Y
Software Version	Y
Vendor Identity	Y
Memory and CPU Usage	Y
DRAM Free	
DRAM Used	
Flash Device Size	Y
NVRAM Size	Y
Processor DRAM	
Sys Contact	Y
Sys Location	Y
Serial Number	Y

**Table 4-10** Hardware Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9

Attribute	AS5800
File Systems	
<b>IMO Name—IContext</b>	
Name	
Bounded Connections	
IP Address Pools	
Forwarding Components List	
Traffic Descriptors List	
Tunnel Containers List	
Data Link Aggregation Containers List	
<b>IMO Name—ISystemService</b>	
Type	
Status	
Up Time	
<b>IMO Name—IBridge</b>	
Bridge Table	
Type	
MAC Address	
IP Interface	
Name	
Logical Sons	
Vlan Type	
<b>IMO Name—IBridgeEntry</b>	
Destination MAC	
Outgoing Interface	

## Serial

**Table 4-11** Serial Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9

Attribute	AS5800
<b>IMO Name—IPhysicalLayer</b>	
Media Type	
Clocking Source	
Maximum Speed	Y
Is Internal Port	
Discarded Bandwidth	

**Table 4-11 Serial Attribute Support on Cisco Access Servers—Cisco Prime Network 3.9**

<b>Attribute</b>	<b>AS5800</b>
Dropped Bandwidth	
Input Bandwidth	
Output Bandwidth	
Discarded and Received Input Data Counters	Y
Dropped and Forward Output Data Counters	Y
Administrative Status	Y
Operational Status	Y
Last Changed	Y
IANA Type	
Containing CTPs	
Contained CTPs	
Port Alias	Y
Location	Y
Sending Alarms	Y
Connector Description	
Part ID	
Connector Serial Num	
Product	Y
Status	Y
Managed	Y

