



CHAPTER 4

Support Information for Cisco Gateways

This chapter contains support information for Virtual Network Elements (VNEs) that manage Cisco gateways in Cisco ANA Version 3.7. For more information about the objects and attributes described in this chapter, see Part 2, Technology Support and Information Objects.

This chapter contains the following topics:

- [Cisco AS5300 Series Universal Gateways, page 4-1](#)
- [Supported Technologies on Cisco Gateways, page 4-3](#)

Cisco AS5300 Series Universal Gateways

This section includes the following information about Cisco AS5300 Series gateways (for information on the NE types supported in Cisco ANA Version 3.7, see [Cisco AS5300 Series Universal Gateways](#)):

- [Cisco AS5300 Series—Supported Software Versions, page 4-1](#)
- [Cisco AS5300 Series—Supported Topologies, page 4-2](#)
- [Cisco AS5300 Series—Supported Modules, page 4-2](#)
- [Cisco AS5300 Series—Supported Technologies, page 4-2](#)
- [Cisco AS5300 Series—Supported Service Events, page 4-3](#)

Cisco AS5300 Series—Supported Software Versions

Table 4-1 *Supported Software Versions for Cisco AS5300 Series—Cisco ANA Version 3.7*

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

Cisco AS5300 Series—Supported Topologies

Table 4-2 Supported Topologies for Cisco AS5300 Series—Cisco ANA Version 3.7

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

Cisco AS5300 Series—Supported Modules

Table 4-3 Supported Modules for Cisco AS5300 Series—Cisco ANA Version 3.7

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

Cisco AS5300 Series—Supported Technologies

The following technologies are supported by the Cisco AS5300 Series in Cisco ANA Version 3.7:

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

Cisco AS5300 Series—Supported Service Events

Table 4-4 Supported Service Events for Cisco AS5300 Series—Cisco ANA Version 3.7

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

Supported Technologies on Cisco Gateways

The following sections list the objects and attributes that are supported on Cisco gateways in Cisco ANA Version 3.7 per technology:

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

IP

Table 4-5 IP Attribute Support on Cisco Gateways—Cisco ANA Version 3.7

Attribute	AS5300
IMO Name—IIPInterface	
IP Address	Y
Subnetwork Mask	Y
IP Interface Addresses Array	Y
Interface Name	Y
Interface Description	Y
IP Interface State	Y
OSPF Interface Cost	
Broadcast Address	
MTU	
Lookup Method	
Address Resolution Type	
ARP Timeout	
Secured ARP	
ICMP Mask Reply	
IGMP Proxy	
HSRP Groups	
IP Multiplexing Table	
IANA Type	
Containing CTPs	
Contained CTPs	
IMO Name—IIPMuxEntry	
Termination Point	
Destination IP Subnet	
IMO Name—IRoutingEntity	
Routing Table	Y
ARP Entity	Y
Routing Table Changes	
Name	
Logical Sons	
IMO Name—IRoutingEntry	
Destination IP Subnet	Y
Next Hop IP Address	Y

Table 4-5 IP Attribute Support on Cisco Gateways—Cisco ANA Version 3.7 (continued)

Attribute	AS5300
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
IMO Name—IIPPool	
IP Address Pool Entries	
Name	
Index	
IMO Name—IIPRangeBasedIIPPoolEntry	
Start IP Address	
End IP Address	
Unused Addresses	
Used Addresses	
Reserved Addresses	
IMO Name—IIPSubnetBasedIIPPoolEntry	
IP Subnet	
Unused Addresses	
Used Addresses	
Reserved Addresses	
IMO Name—HSRPGGroupEntry	
Group Number	
Port Description	
Priority	
Coupled Router	
State	
Tracking Interfaces	
Virtual IP Address	
Virtual MAC Address	

Table 4-5 *IP Attribute Support on Cisco Gateways—Cisco ANA Version 3.7 (continued)*

Attribute	AS5300
IMO Name—I Tunnel GRE	
Name	
Tunnel Destination and Source	
IP Address	
IP Interface State	
IANA Type	
Containing CTPs	
Contained CTPs	
Keep Alive Time	
Keep Alive Retry	

Ethernet (IEEE 802.3)

Table 4-6 *Ethernet (IEEE 802.3) Attribute Support on Cisco Gateways—Cisco ANA Version 3.7*

Attribute	AS5300
IMO Name—I Link Aggregation Group 802.3ad	
dot3adAggMACAddress	
dot3adAggActorSystemPriority	
dot3adAggActorSystemID	
dot3adAggActorAdminKey	
dot3adAggActorOperKey	
dot3adAggPartnerSystemID	
dot3adAggPartnerSystemPriority	
dot3adAggPartnerOperKey	
dot3adAggCollectorMaxDelay	
GroupNumber	
AggregationProtocolType	
MacAddress	
ChannelAdminStatus	
ChannelOperStatus	
IMO Name—I Ethernet	
MAC Address	Y

Table 4-6 Ethernet (IEEE 802.3) Attribute Support on Cisco Gateways—Cisco ANA Version 3.7

Attribute	AS5300
Duplex Mode	
Output Flow Control	
Input Flow Control	
IANA Type	
Containing CTPs	
Contained CTPs	
Port Type	
IMO Name—IVlanInterface	
Mode	
Native VLAN Identification	
Virtual LAN Table	
IANA Type	
Containing CTPs	
Contained CTPs	
vlanAdminType	
vlanencapType	
getAccess	
Allowed Vlans	
IMO Name—IVlanEncapMux	
IANA Type	
Containing CTPs	
Contained CTPs	
IMO Name—IVlanMapping	
direction	
vlanMatchCriteria	
vlanRewriteDefinition	
Drop	
Vlan	
innerVlan	
translatedVlan	
translatedInnerVlan	
IMO Name—IIEEE802	
VLAN Identification	
Binding Information	
Binding Status	

Table 4-6 Ethernet (IEEE 802.3) Attribute Support on Cisco Gateways—Cisco ANA Version 3.7

Attribute	AS5300
IANA Type	
Containing CTPs	
Contained CTPs	
IMO Name—IStpService	
StpProtocol	
StpMaxAge	
StpHelloTime	
StpBridgeForwardDelay	
StpInstanceInfoTable	
Same as ISystemService	
StpUplinkFastState	
StpBackboneFastState	
StpForwardDelay	
StpBridgeMaxAge	
StpBridgeHelloTime	
IMO Name—IMstService	
MstProperties	
Same as IStpService	
IMO Name—IPvstpService	
UpLinkFast	
BackboneFast	
IMO Name—IMstProperties	
MstForceVersion	
MstCfgIdFmtSel	
MstExternalRootCost	
MstMaxInstances	
MstCfgIdName	
MstCfgIdRevLevel	
IMO Name—IStpInstanceInfo	
Object Identification	
StpBridgeId	
BridgePriority	
Designated Parent and Root Bridges	
StpRootCost	

Table 4-6 Ethernet (IEEE 802.3) Attribute Support on Cisco Gateways—Cisco ANA Version 3.7

Attribute	AS5300
IsRoot	
StpRootPort	
StpPortInfoTable	
STP Instance Id	
Vlan Id	
StpDesignatedBridge	
StpDesignatedRoot	
IMO Name—IMstInstanceInfo	
MstVlanIds	
Same as IStpInstanceInfo	
IMO Name—IPvstpInstanceInfo	
Protocol Type	
StpBridgeMaxAge	
StpBridgeHelloTime	
StpBridgeForwardDelay	
StpProtocolSpecification	
StpVlanId	
StpForwardDelay	
StpMaxAge	
IMO Name—IRstpInstanceInfo	
StpForceVersion	
Same as IStpInstanceInfo	
IMO Name—IStpPortInfo	
StpPort	
StpPortPriority	
StpPortState	
StpPortPathCost	
StpPortEdgePort	
StpPortPointToPoint	
StpPortRole	
StpDesignatedPortIdentifier	
StpDesignatedBridge	
StpPortIdentifier	
StpPortBpduGuardState	
StpPortBpduFilterState	

Table 4-6 Ethernet (IEEE 802.3) Attribute Support on Cisco Gateways—Cisco ANA Version 3.7

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

ACL

Table 4-7 ACL Attribute Support on Cisco Gateways—Cisco ANA Version 3.7

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

Table 4-7 *ACL Attribute Support on Cisco Gateways—Cisco ANA Version 3.7 (continued)*

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

Physical Equipment

Table 4-8 *Physical Equipment Attribute Support on Cisco Gateways—Cisco ANA Version 3.7*

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

Table 4-8 *Physical Equipment Attribute Support on Cisco Gateways—Cisco ANA Version 3.7*

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

Base Logical Components

Table 4-9 *Base Logical Components Attribute Support on Cisco Gateways—Cisco ANA Version 3.7*

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

Table 4-9 *Base Logical Components Attribute Support on Cisco Gateways—Cisco ANA Version 3.7 (continued)*

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

Common

Table 4-10 *Common Attribute Support on Cisco Gateways—Cisco ANA Version 3.7*

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

Table 4-10 Common Attribute Support on Cisco Gateways—Cisco ANA Version 3.7 (continued)

Attribute	AS5300
Administrative Status	Y
Operational Status	Y
Last Changed	Y
IANA Type	Y
Containing CTPs	
Contained CTPs	
Port Alias	Y
Location	Y
Sending Alarms	Y
Connector Description	Y
Part ID	Y
Connector Serial Num	Y
Product	Y
Status	Y
Managed	Y
IMO Name—IBridge	
Bridge Table	
Type	
MAC Address	
IP Interface	
Name	
Logical Sons	
Vlan Type	
IMO Name—IBridgeEntry	
Destination MAC	
Outgoing Interface	

CDP

Table 4-11 CDP Attribute Support on Cisco Gateways—Cisco ANA Version 3.7

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

Discovery Protocol

Table 4-12 Discovery Protocol Attribute Support on Cisco Gateways—Cisco ANA Version 3.7

Attribute	AS5300
IMO Name—IDiscoveryProtocol	
DiscoveryProtocolType	Y
Info	Y

