



CHAPTER 5

Support Information for Cisco Gateways

This chapter contains support information for Virtual Network Elements (VNEs) that manage Cisco gateways in Cisco ANA Version 3.6.6. For more information about the objects and attributes described in this chapter, see the [Cisco Active Network Abstraction 3.6.6 Technology Support and Information Model Reference Manual](#).

This chapter contains the following topics:

- [Cisco AS5300 Series Universal Gateways, page 5-1](#)
- [Supported Technologies on Cisco Gateways, page 5-4](#)

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 3.6.6, see [Cisco AS5300 Series Universal Gateways](#)):

- [Cisco AS5300 Series—Supported Software Versions, page 5-1](#)
- [Cisco AS5300 Series—Supported Topologies, page 5-2](#)
- [Cisco AS5300 Series—Supported Modules, page 5-2](#)
- [Cisco AS5300 Series—Supported Technologies, page 5-3](#)
- [Cisco AS5300 Series—Supported Service Events, page 5-3](#)

Cisco AS5300 Series—Supported Software Versions

Table 5-1 **Supported Software Versions for Cisco AS5300 Series—Cisco ANA Version 3.6.6**

Software Version	ANA Version	Certification Level
12.0(3)T1	3.6.0	S
12.1(10a)	3.6.0	S
12.1(11b)	3.6.0	S
12.1(22b)	3.6.0	S
12.19(22b)	3.6.0	S

Table 5-1 Supported Software Versions for Cisco AS5300 Series—Cisco ANA Version 3.6.6

Software Version	ANA Version	Certification Level
12.3(10c)	3.6.0	S
12.3(3)	3.6.0	S

**Note**

Software versions marked with an asterisk (representing a wildcard) are supported by Cisco ANA Version 3.6.6. Specific software versions that have been tested and verified are listed individually and marked as V.

Cisco AS5300 Series—Supported Topologies

Table 5-2 Supported Topologies for Cisco AS5300 Series—Cisco ANA Version 3.6.6

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

Cisco AS5300 Series—Supported Modules

Table 5-3 Supported Modules for Cisco AS5300 Series—Cisco ANA Version 3.6.6

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

Cisco AS5300 Series—Supported Technologies

The following technologies are supported by the Cisco AS5300 Series in Cisco ANA Version 3.6.6:

- [IP](#), page 5-4
- [Ethernet \(IEEE 802.3\)](#), page 5-7
- [ACL](#), page 5-10
- [Physical Equipment](#), page 5-10
- [Base Logical Components](#), page 5-11
- [Common](#), page 5-13

Cisco AS5300 Series—Supported Service Events

Table 5-4 Supported Service Events for Cisco AS5300 Series—Cisco ANA Version 3.6.6

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 3.6.6 per technology:

- [IP, page 5-4](#)
- [Ethernet \(IEEE 802.3\), page 5-7](#)
- [ACL, page 5-10](#)
- [Physical Equipment, page 5-10](#)
- [Base Logical Components, page 5-11](#)
- [Common, page 5-13](#)

IP

Table 5-5 IP Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.6

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	

Table 5-5 IP Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.6 (Continued)

Attribute	AS5300
IMO Name—IIPMuxEntry	
Termination Point	
Destination IP Subnet	
IMO Name—IIRoutingEntity	
Routing Table	Y
ARP Entity	Y
Routing Table Changes	
Name	
Logical Sons	
IMO Name—IIRoutingEntry	
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
IMO Name—IIPPool	
IP Address Pool Entries	
Name	
Index	
IMO Name—IIPRangeBasedIPPoolEntry	
Start IP Address	
End IP Address	
Unused Addresses	
Used Addresses	
Reserved Addresses	
IMO Name—IIPSubnetBasedIPPoolEntry	
IP Subnet	
Unused Addresses	

Table 5-5 *IP Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.6 (Continued)*

Attribute	AS5300
Used Addresses	
Reserved Addresses	
IMO Name—HSRPGroupEntry	
Group Number	
Port Description	
Priority	
Coupled Router	
State	
Tracking Interfaces	
Virtual IP Address	
Virtual MAC Address	
IMO Name—ITunnelIGRE	
Name	
Tunnel Destination and Source	
IP Address	
IP Interface State	
IANA Type	
Containing CTPs	
Contained CTPs	

Ethernet (IEEE 802.3)

Table 5-6 Ethernet (IEEE 802.3) Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.6

Attribute	AS5300
IMO Name—IILagPortEntry	
Actor and Partner Admin Keys	
Actor and Partner Oper Keys	
Selected and Attached Aggregation Identification	
Actor Port	
Actor Port Priority	
Partner Admin and Oper Port	
Partner Admin and Oper Port Priority	
Actor and Partner Admin States	
Actor and Partner Oper States	
IMO Name—IEthernet	
MAC Address	Y
Duplex Mode	
Output Flow Control	
Input Flow Control	
IANA Type	
Containing CTPs	
Contained CTPs	
IMO Name—IVlanInterface	
Mode	
Native VLAN Identification	
Virtual LAN Table	
IANA Type	
Containing CTPs	
Contained CTPs	
IMO Name—IVlanEncapMux	
IANA Type	
Containing CTPs	
Contained CTPs	
IMO Name—IIEEE802	
VLAN Identification	

Table 5-6 Ethernet (IEEE 802.3) Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.6

Attribute	AS5300
Binding Information	
Binding Status	
IANA Type	
Containing CTPs	
Contained CTPs	
IMO Name—IStpService	
Protocol Type	
Current and Bridge Max Age	
Current and Bridge Hello Time	
Current and Bridge Forward Delay	
Instance Information Table	
Same as ISystemService	
IMO Name—IMstService	
Protocol Properties	
Same as IStpService	
IMO Name—IMstProperties	
Force Version	
Configuration Format, Region Name and Revision Level	
External Root Cost	
Maximum Instances	
IMO Name—IStpInstanceInfo	
Object Identification	
Identification	
Priority	
Designated Parent and Root Bridges	
Root Cost	
Is Root	
Root Port Identification	
Port Information Table	
STP Instance Id	
Vlan Id	
IMO Name—IMstInstanceInfo	
Instance Identification	

Table 5-6 Ethernet (IEEE 802.3) Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.6

Attribute	AS5300
Same as IStpInstanceInfo	
IMO Name—IPvstpInstanceInfo	
Protocol Type	
Current and Bridge Maximum Age	
Current and Bridge Hello Time	
Current and Bridge Forward Delay	
Same as IStpInstanceInfo	
IMO Name—IRstpInstanceInfo	
Force Version	
Same as IStpInstanceInfo	
IMO Name—IStpPortInfo	
Object Identification	
Priority	
State	
Path Cost	
Is Edge	
Is Point to Point	
Role	
IMO Name—IMstPortInfo	
Hello Time	
Same as IStpPortInfo	
IMO Name—IEthernetChannel	
Group Number	
Bandwidth	
Aggregation Protocol	
IANA Type	
Containing CTPs	
Contained CTPs	

ACL

Table 5-7 *ACL Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.6*

Attribute	AS5300
IMO Name—IAccessList	
Type	
Access List Entries	
Name	
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
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 5-8 *Physical Equipment Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.6*

Attribute	AS5300
IMO Name—IChassis	
Description	
Equipment Holder Type	
Contained Equipment Holders	
Contained Equipments	
Serial Number	Y

Table 5-8 Physical Equipment Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.6

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

Base Logical Components

Table 5-9 Base Logical Components Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.6

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

Table 5-9 *Base Logical Components Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.6 (Continued)*

Attribute	AS5300
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
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 5-10 Common Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.6

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
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
Connectort Serial Num	Y
IMO Name—IBridge	
Bridge Table	
Type	
MAC Address	
IP Interface	
Name	
Logical Sons	

Table 5-10 Common Attribute Support on Cisco Gateways—Cisco ANA Version 3.6.6

Attribute	AS5300
IMO Name—IBridgeEntry	
Destination MAC	
Outgoing Interface	
IMO Name—IVcSwitchingEntity	
Cross Connect Table	
Logical Sons	