



Intel® Active Management Technology

Cisco* ACS Configuration Guide for Intel® AMT Posture Data

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(Reference Guide for Network/IT Administrators)

This document only describes the Intel AMT Posture Plug-in specific attributes required for configuring the server side (for example, in a Cisco* ACS 4.0 product). It does not describe the configuration for Cisco ACS 4.0 posture validation, including Intel AMT posture validation. For this information, please refer to the *Cisco ACS Configuration Guide*.

Step 1: Install and configure Cisco ACS 4.0 server.

Step 2: Add Intel AMT posture specific AVPs to Cisco ACS 4.0. To accomplish this, the following items must be performed by the administrator:

- a. Go to the directory where the Cstutil tool for Cisco ACS 4.0 is installed. The typical directory command for this is:

```
cd %program files%\ciscosecure acs v4.0\bin\
```

- b. Use Cstutil to add Intel AMT posture AVPs by using the following command:

```
cstutil -addAVP attr.txt [attr.txt file is shown below.]
```

- c. Restart ACS using following commands:

```
net stop CSAdmin
net stop CSAuth
net stop CSLog
net start CSLog
net start CSAuth
net start CSAdmin
```

The Cisco NAC Posture Plug-in for Intel® AMT shall provide the following data about Advanced Management Technology (the parameters are always in network order):

Attribute Number	Length (bytes)	Name	Details
32800	4	AMTPostureVersion	Posture version (always 01 00 00 00 in Intel AMT Release 2.5)
32801	4	AMTTimeStamp	Time of posture creation (seconds since 1 January 1970)
32802	4	AMTPostureId	Value incremented on each posture request. Reset when firmware is reset.
32803	4	AMTPostureSender	0=Host 1= Intel AMT
5	8	AMTVersion	Firmware code version
32804	4	AMTSecParams	Security parameters: BIT0: Operational Mode (0=SMB, 1=Enterprise)

Attribute Number	Length (bytes)	Name	Details
			BIT1: TLS enabled (1=Enabled) BIT2: TLS remote mutual authentication enabled (1=Enabled) BIT3: TLS local mutual authentication enabled (1=Enabled) BIT4: TLS PSK enabled (1=Enabled) BIT5-BIT6: Provisioning State (0=Pre, 1=In, 2=Post) BIT7: Network Interface (1=Enabled) BIT8: Web UI (1=Enabled) BIT9: IDER State (1=Enabled) BIT10: SOL State (1=Enabled) BIT11: FW Update (1=Enabled)
32805	4	AMTHwInfo	BIT0: (1=Crypto enabled; 0=Crypto disabled)
32806	4	AMTCurrentBootDevice	Current boot device (0x00=authorized hard disk, 0x01=network, 0x02=New HDD, 3=Removable device, 0xFF=Boot device not supplied by BIOS)
32807	4	AMTAuthorizedBoots	Number of times the device has been booted from the primary ATA hard disk when the disk manufacturer's ID and serial number are the same as the previous saved boot data
32808	4	AMTNetworkBootCounter	Number of times the device has been booted from the network
32809	4	AMTHddBootCounter	Number of times the device has been booted from a new hard disk drive
32810	4	AMTRemovableBootCounter	Number of times the device has been booted from a removable disk
32811	4	AMTIdersessionState	IDER session state (1=session open; 0=closed)
32812	4	AMTIdersessionIPV4	Console IP address (relevant only when an IDER session is open; default is 0.0.0.0)
32813	2	AMTIdersessionPort	Console port (relevant only when an IDER session is open; default is 00 00.)
32814	64	AMTFqdn	Device FQDN
32815	16	AMTUuid	Device UUID
32816	4	AMTDigestMethodCode	Method for hashing the posture before signing it (0 = HMAC_SHA1)
32817	256	AMTSignature	An RSA-encrypted hash of selected AVPs in the posture, including the UUID and FQDN, but not including the time stamp. If there is no signature, the default value is 0.
32818	up to 256	AMTCertIssuerCode	Issuer of the certificate that the Intel AMT device used to sign the posture
32819	up to 20	AMTCertSerialNumCode	Serial number of the certificate that the Intel AMT device used to sign the posture. Default is 0.

Note: The information in this table corresponds to the attr.txt file below.

```
[attr#0]
vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
```

attribute-id=32800
attribute-name=AMTPostureVersion
attribute-profile=in out
attribute-type=unsigned integer

[attr#1]
vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
attribute-id=32801
attribute-name=AMTTimeStamp
attribute-profile=in out
attribute-type=date

[attr#2]
vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
attribute-id=32802
attribute-name=AMTPostureId
attribute-profile=in out
attribute-type=unsigned integer

[attr#3]
vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
attribute-id=32803
attribute-name=AMTPostureSender
attribute-profile=in out
attribute-type=unsigned integer

[attr#4]
vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
attribute-id=5
attribute-name=AMTVersion
attribute-profile=in out
attribute-type=version

[attr#5]

vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
attribute-id=32804
attribute-name=AMTSecParams
attribute-profile=in out
attribute-type=unsigned integer

[attr#6]
vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
attribute-id=32805
attribute-name=AMTHwInfo
attribute-profile=in out
attribute-type=unsigned integer

[attr#7]
vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
attribute-id=32806
attribute-name=AMTCurrentBootDevice
attribute-profile=in out
attribute-type=unsigned integer

[attr#8]
vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
attribute-id=32807
attribute-name=AMTAuthorizedBoots
attribute-profile=in out
attribute-type=unsigned integer

[attr#9]
vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
attribute-id=32808
attribute-name=AMTNetworkBootCounter

attribute-profile=in out
attribute-type=unsigned integer

[attr#10]
vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
attribute-id=32809
attribute-name=AMTHddBootCounter
attribute-profile=in out
attribute-type=unsigned integer

[attr#11]
vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
attribute-id=32810
attribute-name=AMTRemovableBootCounter
attribute-profile=in out
attribute-type=unsigned integer

[attr#12]
vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
attribute-id=32811
attribute-name=AMTIdersessionState
attribute-profile=in out
attribute-type=unsigned integer

[attr#13]
vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
attribute-id=32812
attribute-name=AMTIdersessionState
attribute-profile=in out
attribute-type=ipaddr

[attr#14]
vendor-id=343
vendor-name=Intel

application-id=32770
application-name=Intel_AMT
attribute-id=32813
attribute-name=AMTIderConsolePort
attribute-profile=in out
attribute-type=octet-array

[attr#15]
vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
attribute-id=32814
attribute-name=AMTFqdn
attribute-profile=in out
attribute-type=string

[attr#16]
vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
attribute-id=32815
attribute-name=AMTUuid
attribute-profile=in out
attribute-type=octet-array

[attr#17]
vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
attribute-id=32816
attribute-name=AMTDigestMethodCode
attribute-profile=in out
attribute-type=unsigned integer

[attr#18]
vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
attribute-id=32817
attribute-name=AMTSignature
attribute-profile=in out
attribute-type=octet-array


```
[attr#19]
vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
attribute-id=32818
attribute-name=AMTCertIssuerCode
attribute-profile=in out
attribute-type=octet-array
```

```
[attr#20]
vendor-id=343
vendor-name=Intel
application-id=32770
application-name=Intel_AMT
attribute-id=32819
attribute-name=AMTCertSerialNumCode
attribute-profile=in out
attribute-type=octet-array
```

Step 3: After the Intel AMT posture AVPs have been added to Cisco ACS 4.0, the administrator should be able to use them to configure posture validation rules inside the ACS 4.0 web interface. Refer to the Cisco ACS 4.0 configuration guide for instructions on configuration of posture validation rules.