



# ADTRAN Operating System

## SNMP in AOS

Configuration Guide

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## Revision History

Rev V	April 2020	Added MIBs for the Carrier Ethernet Terminal Loopback feature and the L2 Forward Discard and L2 Forward Discard Action counters. Content was re-formatted into this updated template.
Rev W	June 2020	Added AOS Factory Reset MIB.

# Table of Contents

<b>Overview</b> .....	<b>5</b>
SNMP Overview .....	5
SNMP Basic Components .....	5
Network Manager .....	5
SNMP Agent .....	5
MIB .....	5
SNMP Functionality .....	6
SNMP Versions .....	6
SNMP Basic Messages .....	7
SNMP Traps .....	8
<b>Hardware and Software Requirements and Limitations</b> .....	<b>10</b>
<b>SNMP Management Configuration Methods</b> .....	<b>11</b>
CLI SNMP Configuration .....	11
<b>Command Summary</b> .....	<b>26</b>
<b>CLI SNMP Configuration Examples</b> .....	<b>30</b>
Example 1: Enabling SNMP Traps for a T1 Interface .....	30
Example 2: SNMP Dying-Gasp Traps .....	31
Example 3: Restricting SNMP Access to a Specific Source Address .....	32
Example 4: Using SNMP Views to Restrict OIDs .....	33
Example 5: Configuring SNMPv3 with Authentication and Encryption .....	34
<b>GUI SNMP Configuration</b> .....	<b>34</b>
Accessing the GUI .....	34
Enable SNMP and Configure the Server .....	35
<b>Troubleshooting</b> .....	<b>38</b>
Sample Output of Troubleshooting Commands .....	39
<b>Quick View of AOS MIBs</b> .....	<b>41</b>
<b>Appendix A: AOS MIBs</b> .....	<b>44</b>
Standard MIBS .....	44
<b>Appendix B: AOS MIB Object Identifiers</b> .....	<b>59</b>
ADTRAN Standard MIB OIDs .....	59
Requesting New Enterprise MIBs .....	130
<b>Warranty and Contact Information</b> .....	<b>132</b>
Warranty .....	132
Contact Information .....	132

# 1. Overview

This configuration guide explains the definition, components, and configuration of Simple Network Management Protocol (SNMP) for ADTRAN's Operating System (AOS) products. The guide includes an overview of SNMP and an explanation of SNMP functionality. Detailed steps with example configurations for both command line interface (CLI) and web-based graphical user interface (GUI) are provided as well as a command summary. The troubleshooting section outlines proper use of **show** and **debug** command to verify proper SNMP configuration.

## SNMP Overview

SNMP is the Internet Engineering Task Force (IETF) industry standard Application Layer protocol for remotely managing networks. SNMP provides management services that include automatic notification when unacceptable network conditions exist, status polling of network devices, and the ability to edit configuration settings. SNMP is defined in the requests for comment (RFCs) 1155, 1157, 1212, and 1441 through 1452.

## SNMP Basic Components

The three basic components of SNMP are the network manager, SNMP agent, and the management information bases (MIBs).

### Network Manager

The network manager is the control program that collects, controls, and presents data pertinent to the operation of the network devices. The network manager runs on a server called a network management station (NMS).

### SNMP Agent

The SNMP agent is a control program that responds to queries and commands from the network manager and returns requested information, or invokes configuration changes initiated by the network manager. The SNMP agent resides in each AOS network device.

### MIB

A MIB is an index to the organized data within a network manager that allows information exchange between the network manager and SNMP agent to operate efficiently. After installing the MIBs, the network manager is familiar with the operating parameters that can be controlled or monitored, and references the parameters with a numerical identification. The parameters are known as MIB object identifiers (OIDs) or MIB variables.

## SNMP Functionality

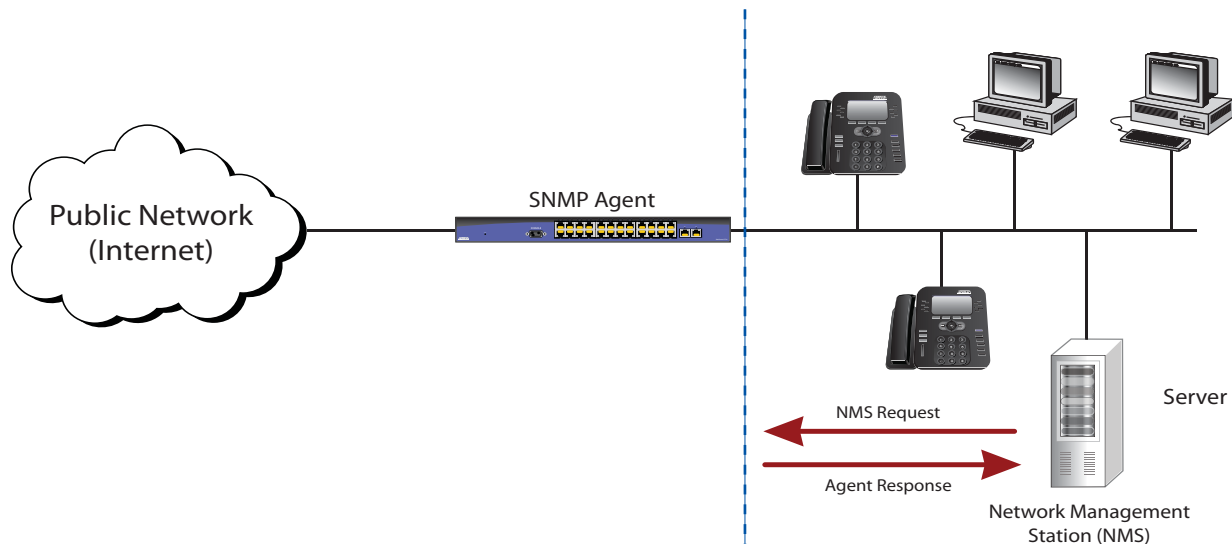


Figure 1. SNMP Network Application

The SNMP components operate similar to client/server based connections. The network manager communicates with the SNMP agent to extract statistics from its MIB variables. The NMS sends requests to the SNMP agent that accesses the MIB variables and responds to the NMS with values. The NMS can also request change to MIB settings. The configuration change is initiated by a message from the NMS to change a variable. The SNMP agent changes the value in the MIB. Communication between the SNMP components is possible with the use of the SNMP basic messages over Internet Protocol (IP) outlined in [Table 2 on page 7](#).

## SNMP Versions

SNMP is available in three versions that defines the security model of the community of users. The user communities define the read, write, notify, and view access for the SNMP information. The least secure is SNMP version 1 (SNMP v1), widely used in the 1990s. SNMP version 2 (SNMP v2) was created to improve SNMP v1 security, management, and performance abilities. SNMP v2 also introduced additional SNMP messages (GetBulk, Inform, and Report). Eventually, SNMP version 3 (SNMP v3) emerged as the IETF standard in 2004. SNMP v3 is the most secure SNMP version. It is defined in RFC 3411 through RFC 3418, and enhances security and introduces remote configuration features. SNMP v3 uses services, such as authentication, privacy, and access control, to provide a higher level of security not present with SNMP v1 or SNMP v2. For these new services, identifying an SNMP server user on a remote entity is necessary to receive and originate notifications, and also to generate and respond to commands. AOS devices support all three versions.

Remote users are specified with an IP address or port number for the remote SNMP entity (where the user resides). Configuration of the SNMP remote engine ID is necessary before SNMP v3 inform notifications can be acknowledged. This is accomplished using the **snmp-server engineID remote** command. The remote entity's SNMP engine ID is used for password authentication and privacy digests. A management device must be knowledgeable about the user, the engine ID of the device, and security parameters, such as authentication, passwords, and security level, in order for the command to be processed by the receiving agent. The SNMP v3 engine ID is a unique identifier for a system on a management domain. The default engine ID contains 11 octets (in hexadecimal notation) that represent certain information about the system. The default engine ID format is as follows:

**Table 1. AOS Engine ID Format**

Octets 1 to 4	Octet 5	Octets 6 to 11
IANA ID for the product manufacturer	Uses <b>03</b> , which identifies that octets 6 through 11 contain a medium access control (MAC) address.	System MAC address

The first 4 octets of the default engine ID for AOS products is 80000298. Octets 1 through 4 represent the SNMP private enterprise number (assigned by the Internet Assigned Numbers Authority (IANA)) for the product manufacturer. The leading bit of octet 1 (the most significant bit) will always be a 1 for a default engine ID (making the leading character in the hex string an 8). AOS products use the IANA ID of 664 (which is 02 98 in hexadecimal notation). Octet 5 is set to **03** to indicate that the engine ID uses a MAC address as the unique identifier. The last six octets of the default engine ID for AOS routers contain the MAC address for the central processing unit (CPU) or system (for example, 800002980300127905257c).

The **snmp-server engineID local** command overrides the default engine ID and replaces it with the first 24 characters of the user-entered string. Because the string is in hexadecimal notation, only numbers 0 through 9 and letters a through f are valid. If fewer than 24 characters are entered, the rest of the string is padded with zeros (in the least significant bits) until the 24-character string is complete. For example, a user input of 8000029805 results in an engine ID of 800002980500000000000000.

**NOTE**

*If the local SNMP engine ID value is changed, you must save your configuration and reboot the unit. If rebooting the unit is not feasible, you will need to reconfigure the existing users and community names in order to apply the SNMP engine ID. Not doing so will result in a loss of SNMP connectivity. This functionality meets the requirement of RFC 2274.*

**SNMP Basic Messages**

SNMP messages are used by the SNMP agent and network manager to exchange information about MIB objects. The User Datagram Protocol (UDP) port 161 is the default port used to send SNMP messages between the network manager and the SNMP agent. The NMS can issue Get Request, GetNext, Set, and GetBulk messages. The SNMP agent can issue Get Response, Trap, Notify, and Inform messages. These message types are outlined in [Table 2](#) below.

**Table 2. SNMP Message**

Messages	Description
Get Request	This request is sent by the network manager to retrieve a single item or the first in a series from a network device.
GetNext Request	This request is sent by the network manager to retrieve the next item in a series of items from a network device.
Set Request	This command is sent by the network manager to edit information or MIB value(s) of the SNMP agent (network device).
GetBulk Request	This command requests large amounts of data to be transferred within the permitted maximum transmission unit (MTU). The MTU is the largest frame size allowed on the network without implementing fragmentation.

**Table 2. SNMP Message (Continued)**

Messages	Description
Get Response	This message is sent by the SNMP agent in response to a network manager's <i>Get</i> and <i>Set</i> requests.
Trap or Notify	This is an unsolicited message issued by an SNMP agent to report an operational anomaly, or an alarm condition to the network manager.
Inform	This message type was created in SNMP v3, and it is sent by the SNMP agent. The message is similar to a trap, but must be acknowledged by the receiver with a Get Response message.

## SNMP Traps

Trap messages are sent by the SNMP agent to report network conditions or status updates from the network device. The trap messages are received by the NMS to alert the administrator of current network conditions. The alarm conditions and thresholds are defined in the AOS MIBs. When the alarms occur within the network device, the traps are generated and sent out to the NMS. UDP port 162 is the default port used to listen for SNMP traps. AOS supports the standard traps listed in [Table 3](#) below, as well as ADTRAN-specific enterprise traps listed in [Table 4 on page 9](#).

Trap notifications in SNMP v1 and SNMP v2 are sent once, and do not require an acknowledgment upon receipt. With SNMP v3, a new form of notification type was introduced, called an inform. Unlike a trap sent with SNMP v1/v2, an inform requires a response be sent to the originating entity. If the originator of the inform notification does not receive the response before a specified timeout, the originator can resend until an acknowledgment response is received, or a specified retry threshold is reached. Sending informs require that the originator of the inform know the user, engine ID, security parameters, and belong to a group that grants access to the information.

**Table 3. AOS Supported Standard Traps**

Name	Description	OID
Cold Start	The SNMP agent is reinitializing, creating an opening to edit its configuration. (0)	1.3.6.1.6.3.1.1.5.1
Warm Start	The SNMP agent is reinitializing in a manner that prohibits configuration changes. (1)	1.3.6.1.6.3.1.1.5.2
Link Down	The network interface has failed. (2)	1.3.6.1.6.3.1.1.5.3
Link Up	The network connection has been reestablished. (3)	1.3.6.1.6.3.1.1.5.4
Authentication Failure	The SNMP agent has received a protocol message that is not properly authenticated. (4)	1.3.6.1.6.3.1.1.5.5
dsx1LineStatusChange	This trap is sent when the status or value of the dsx-1LineStatus variable changes. The NMS uses this trap to trigger polls.	1.3.6.1.2.1.10.18.15.0.1
frDLCIStatusChange	This trap indicates when a Frame Relay virtual circuit changes between active and inactive.	1.3.6.1.2.1.10.32.0.1
bgpEstablished	This trap indicates when the BGP FSM enters the ESTABLISHED state.	1.3.6.1.2.1.15.7.1
bgpBackwardTransition	This trap indicates when the BGP FSM moves from a higher numbered state to a lower numbered state.	1.3.6.1.2.1.15.7.2



**Table 3. AOS Supported Standard Traps (Continued)**

Name	Description	OID
entConfigChange	An entConfigChange notification is generated when the value of entLastChangeTime changes. It can be utilized by an NMS to trigger logical or physical entity table maintenance polls.	1.3.6.1.2.1.47.2.0.1
batteryLowNotification	Signifies the battery has dropped below the internally set low-capacity threshold.	1.3.6.1.2.1.233.0.2
batteryAgingNotification	Signifies the battery will no longer hold or reach an acceptable charging state and should be replaced.	1.3.6.1.2.1.233.0.5
batteryConnectedNotification	Signifies the battery has been connected.	1.3.6.1.2.1.233.0.6
batteryDisconnectedNotification	Signifies the battery has been disconnected.	1.3.6.1.2.1.233.0.7

**Table 4. AOS Enterprise Traps**

Name	Description	OID
adVQMEndOfCallTrap	This trap indicates when the severity level has been met at the end of a call. By default, the severity level is set to warning.	1.3.6.1.4.1.664.5.53.5.3.0.1
adGenAOSDs1Threshold Reached	This trap indicates that a DS1 threshold status has changed.	1.3.6.1.4.1.664.5.53.6.1.0
rssDataRangeAlarm	Signifies that the SNMP entity, acting in an agent role, has detected that the RSSI data value object for the 3G cellular interface has exceeded the range specified by the user.	1.3.6.1.4.1.664.5.53.6.2.0.1
ecioDataRangeAlarm	Signifies that the SNMP entity, acting in an agent role, has detected that the ECIO data value object for the 3G cellular interface has exceeded the range specified by the user.	1.3.6.1.4.1.664.5.53.6.2.0.2
rssDataRangeClear	Signifies that the SNMP entity, acting in an agent role, has detected that the RSSI data value object for the 3G cellular interface has returned to the range specified by the user.	1.3.6.1.4.1.664.5.53.6.2.0.3
ecioDataRangeClear	Signifies that the SNMP entity, acting in an agent role, has detected that the ECIO data value object for the 3G cellular interface has returned to the range specified by the user.	1.3.6.1.4.1.664.5.53.6.2.0.4
configValueSet	Signifies that the SNMP entity, acting in an agent role, has detected that a data value object for the 3G cellular interface from the 3G hardware table has been modified from the previous state.	1.3.6.1.4.1.664.5.53.6.2.0.5
modemResetAlarm	Signifies that the SNMP entity, acting in an agent role, has detected that the 3G modem has been reset.	1.3.6.1.4.1.664.5.53.6.2.0.6

**Table 4. AOS Enterprise Traps (Continued)**

Name	Description	OID
serviceTypeChange-Alarm	Signifies that the SNMP entity, acting in an agent role, has detected that the service type for the 3G cellular interface has changed.	1.3.6.1.4.1.664.5.53.6.2.0.7
connectionState-DownAlarm	Signifies that the SNMP entity, acting in an agent role, as detected that the connection status of the modem has gone down from either DORMANT or a CONNECTED state.	1.3.6.1.4.1.664.5.53.6.2.0.8
adGenAOSnmTrack-State ChgFail	Signifies that the specified track has changed states from pass to fail.	1.2.6.1.4.1.664.5.53.2.2.0.1
adGenAOSnmTrack-State ChgPass	Signifies that the specified track has changed states from fail to pass.	1.2.6.1.4.1.664.5.53.2.2.0.2
adGenAOSFanFailure	Signifies that one of the fans inside the chassis has failed.	1.3.6.1.4.1.664.5.53.1.8.0.1
adGenAOSNetSync-Clock DefectTrap	Signifies a change in network synchronization clock defect status.	1.3.6.1.4.1.664.5.53.1.9.0.1
adGenAOSNetSync-LTIStateChangeTrap	Signifies a change in network synchronization loss of timing information.	1.3.6.1.4.1.664.5.53.1.9.0.2
adGenAOSNet-SyncT4SquelchStateChangeTrap	Signifies a change in network synchronization squelch status.	1.3.6.1.4.1.664.5.53.1.9.0.3
adGenAosOverTemp-ProtectionWarning	Signifies the unit has passed a configurable temperature threshold and is in danger of overheating.	1.3.6.1.4.1.664.5.53.1.10.0.1
adGenAosOverTemp-ProtectionShutdown	Signifies the unit has reached a critical temperature and has restarted in a low power state to avoid damaging the chassis.	1.3.6.1.4.1.664.5.53.1.10.0.2
adGenAOSDying-GaspTrap	Signifies the unit has lost power.	1.3.6.1.4.1.664.5.53.1.11.0.1

## 2. Hardware and Software Requirements and Limitations

The SNMP feature is available on AOS data and voice products as outlined in the [AOS Feature Matrix](#), available online at <https://supportforums.adtran.com>.

As of AOS release R10.7.0, SNMP can be used with the auto-link feature between an AOS device and an n-Command® MSP server. This feature allows SNMP traps to be sent to the same n-Command MSP server that auto-link is currently using. In addition, if auto-link should fail over to another MSP server, SNMP trap reporting will also fail over and send traps to the new server. AOS devices running AOS firmware R10.7.00 or later support the auto-link failover feature, as do n-Command MSP servers running firmware version 6.1 or later. For more information about the auto-link feature and its configuration, refer to the configuration guide [Configuring Auto-Link for AOS and n-Command MSP](#), available online at <https://supportforums.adtran.com>.

Support for multiple virtual routing and forwarding (multi-VRF) instances on AOS devices was added with AOS release R10.8.0 for the SNMP feature. The SNMP server can exist on other VRF instances in addition to the default unnamed VRF.

### 3. SNMP Management Configuration Methods

The following sections detail the steps required to enable SNMP management using the CLI in AOS:

*Step 1: Compile the AOS Product-Specific MIBs on page 11*

*Step 2: Enable SNMP on page 11*

*Step 3: Optional. Configure the System Fields on page 12*

*Step 4: Enable Read-Only and Read-Write SNMP Access on page 13*

*Step 5: Using VRF Context Mapping for Multi-VRF (Optional) on page 17*

*Step 6: Enable Trap Messages and Specify the NMS IP Address on page 18*

*Step 7: Define Trap Conditions to Receive Trap Messages on page 24*

The following sections detail the steps required to enable SNMP management using the GUI in AOS:

*GUI SNMP Configuration on page 34*

- *Accessing the GUI on page 34*
- *Enable SNMP and Configure the Server on page 35*

#### CLI SNMP Configuration

##### Step 1: Compile the AOS Product-Specific MIBs

Download the MIBs you wish to install on your NMS. To retrieve the AOS MIBs, visit ADTRAN's website at [www.adtran.com](http://www.adtran.com) and search the keywords AOS MIBs.

##### Step 2: Enable SNMP

Enter the **snmp agent** command from the Global Configuration mode to enable and configure SNMP. By default, the SNMP agent is disabled. Executing this command enables the SNMP agent within the product. This also allows the product to send traps to a trap management station if configured appropriately. Use the **no** form of this command to disable SNMP.

```
(config)#snmp agent
```



#### NOTE

*In AOS firmware release R10.1.0, the syntax for this command was changed from **ip snmp agent** to **snmp agent**.*

##### Set the SNMP Engine ID

Optional. Use the **snmp-server engineID local** command to define the engine ID for the system. By default, the local SNMP server engine ID is 8000029803xxxxxxxxxxxx (where the string of Xs represents the system's MAC address). ADTRAN recommends using the default engine ID. The use of the default system MAC address ensures the engine ID will be unique.

**NOTE**

*If the local SNMP engine ID value is changed, you must save your configuration and reboot the unit. If rebooting the unit is not feasible, you will need to reconfigure the existing users and community names in order to apply the SNMP engine ID. Not doing so will result in a loss of SNMP connectivity. This functionality meets the requirement of RFC 2274.*

SNMP v3 requires unique engine IDs for all systems in the management domain. When possible, use the default engine ID to ensure the uniqueness of the numbers. Problems can occur on a management network that contains duplicate engine IDs.

```
(config)#snmp-server engineID local <hex string>
```

*<hex string>* specifies the 12-octet hexadecimal representation of the local engine ID of the SNMP server.

The remote engine ID is necessary before SNMP v3 inform notifications can be acknowledged. This is also used in conjunction with the **snmp-server user** command (in [Step 4: Enable Read-Only and Read-Write SNMP Access on page 13](#)) for user accounts that are configured on remote servers. Use the **snmp-server engineID remote** command to identify a remote SNMP entity's engine ID.

```
(config)#snmp-server engineID remote [<ipv4 address> | vrf <name> <ipv4 address> | auto-link] <hex string>
```

*<ipv4 address>* specifies Internet Protocol version 4 (IPv4) address for the remote SNMP device. IPv4 addresses should be expressed in dotted decimal notation (for example, **10.10.10.1**).

**vrf <name>** specifies the VRF instance on which the remote SNMP device exists. If no VRF is specified, the SNMP device exists on the default unnamed VRF. The IPv4 address must also be specified in conjunction with the VRF name.

**auto-link** specifies that the remote SNMP device IPv4 address follows the active auto-link server. For more information about the auto-link feature and its configuration, refer to the configuration guide [Configuring Auto-Link for AOS and n-Command MSP](#), available online at <https://supportforums.adtran.com>.

*<hex string>* specifies the remote engine ID, the 12-octet hexadecimal representation, defining a remote system on the management domain.

### Step 3: Optional. Configure the System Fields

Configure the system contact, location, and chassis ID of the AOS device. Specify SNMP server contact information.

```
(config)#snmp-server contact [email <address> | pager <number> | phone <number> | "<string>"]
```

**email <address>** specifies email address for the SNMP server contact.

**pager <number>** specifies pager number for the SNMP server contact.

**phone <number>** specifies phone number for the SNMP server contact.

**"<string>"** populates the sysContact string using an alphanumeric string enclosed in quotation marks (up to 32 characters in length).

Use the **snmp-server location** command to specify the SNMP system location string. Use the **no** form of this command to remove the value.

```
(config)#snmp-server location "<string>"
```

"<string>" populates the system location string using an alphanumeric string enclosed in quotation marks (up to 32 characters in length).

Use the **snmp-server chassis-id** command to specify a network device identifier. Use the **no** form of this command to remove the configured device identity.

```
(config)#snmp-server chassis-id "<string>"
```

"<string>" populates the system chassis identity string using an alphanumeric string enclosed in quotation marks (up to 32 characters in length).

#### Step 4: Enable Read-Only and Read-Write SNMP Access

An SNMP community string is similar to an authentication password between the NMS and SNMP agent device. The community strings can be used to restrict users access to the SNMP MIB information. Specify a community string or password to control access to the SNMP information. By default, there are no SNMP communities configured. Use one or more of the following variations of the **snmp-server community** command to configure SNMP communities:

```
(config)#snmp-server community <community>
(config)#snmp-server community <community> [ip access-class <ipv4 acl> |
  ipv6 access-class <ipv6 acl>]
(config)#snmp-server community <community> [ip access-class <ipv4 acl> |
  ipv6 access-class <ipv6 acl>] [any-vrf | vrf <name>]
(config)#snmp-server community <community> ro
(config)#snmp-server community <community> ro [ip access-class <ipv4 acl>
  | ipv6 access-class <ipv6 acl>]
(config)#snmp-server community <community> ro [ip access-class <ipv4 acl>
  | ipv6 access-class <ipv6 acl>] [any-vrf | vrf <name>]
(config)#snmp-server community <community> rw
(config)#snmp-server community <community> rw [ip access-class <ipv4 acl>
  | ipv6 access-class <ipv6 acl>]
(config)#snmp-server community <community> rw [ip access-class <ipv4 acl>
  | ipv6 access-class <ipv6 acl>] [any-vrf | vrf <name>]
(config)#snmp-server community <community> view <name>
(config)#snmp-server community <community> view <name> [ip access-class
  <ipv4 acl> | ipv6 access-class <ipv6 acl>]
(config)#snmp-server community <community> view <name> [ip access-class
  <ipv4 acl> | ipv6 access-class <ipv6 acl>] [any-vrf | vrf <name>]
(config)#snmp-server community <community> view <name> ro
(config)#snmp-server community <community> view <name> ro [ip access-class
  <ipv4 acl> | ipv6 access-class <ipv6 acl>]
(config)#snmp-server community <community> view <name> ro [ip access-class
  <ipv4 acl> | ipv6 access-class <ipv6 acl>] [any-vrf | vrf <name>]
(config)#snmp-server community <community> view <name> rw
(config)#snmp-server community <community> view <name> rw [ip access-class
  <ipv4 acl> | ipv6 access-class <ipv6 acl>]
(config)#snmp-server community <community> view <name> rw [ip access-class
  <ipv4 acl> | ipv6 access-class <ipv6 acl>] [any-vrf | vrf <name>]
```

<community> specifies the community string (a selected password to grant SNMP access).

**view <name>** (optional) specifies a previously defined view. Views define specific MIB objects available to the specified community. For information on creating a new view, refer to **snmp-server**

**view** <name> <value> command explanation below.

**ro** (optional) grants read-only (or public) access, allowing retrieval of MIB objects with the specified community string. This is the default behavior for community strings commands that are entered without the **ro** or **rw** tag.

**rw** (optional) grants read-write (or private) access, allowing retrieval and modification of MIB objects with the specified community string.

**ip access-class** <ipv4 acl/> (optional) specifies an IPv4 access control list (ACL) name used to limit access. Refer to the **ip access-list extended** <name> and **ip access-list standard** <name> commands in the [AOS Command Reference Guide](#) (available online at <https://supportforums.adtran.com>) for more information on creating IPv4 ACLs

**ipv6 access-class** <ipv6 acl/> (optional) specifies an IPv6 ACL name used to limit access. Refer to the **ipv6 access-list extended** <name> and **ipv6 access-list standard** <name> commands in the [AOS Command Reference Guide](#) (available online at <https://supportforums.adtran.com>) for more information on creating IPv6 ACLs.

**any-vrf** (optional) specifies the ACL is applied to any VRF instance.

**vrf** <name> (optional) specifies the ACL is applied to a specific instance.

### Configuring SNMP Views

In SNMP, the network devices to be monitored can be configured as views. A view consists of one or more network objects that can be monitored. When you configure a view, specify **included** or **excluded** objects. If an object is not specified in the view, it is excluded by default. A given object can be included in or excluded from any number of views, as necessary. An object is identified by its OID in the network's MIB. The OID is a hierarchal string of numbers. For example, 1.3.6.1.2.1 would identify a specific subtree, and 1.3.6.1.2.1.\* would identify an entire subtree family.

Use the **snmp-server view** command to create or modify an SNMP view entry. Use the **no** form of this command to remove an entry. Variations of this command include:

```
(config)#snmp-server view <name> <value> excluded
(config)#snmp-server view <name> <value> included
```

<name> specifies a label for the view record being created. The name is a record reference.

<value> specifies the OID to include or exclude from the view. To identify the subtree, specify a string using numbers, such as 1.3.6.1.2.1. Replace a single subidentifier with the asterisk (\*) to specify a subtree family.

**excluded** specifies a view to be excluded.

**included** specifies a view to be included.

### Configuring SNMP Groups and Users

Use the **snmp-server group** command to specify a new SNMP group to control access to SNMP information. SNMP groups are used to map SNMP users to SNMP views. To create a group, specify one or more views to which users will have access. A given view can be accessed by more than one group, as needed.



#### NOTE

*If a read-view is not specified, then a default read-view with no restrictions will be assigned. If a notify-view is not specified, then a default notify-view with no restrictions will be assigned. If a write-view is not specified, write access is restricted for all users of the group.*

Variations of this command include:

```
(config)#snmp-server group <groupname> v1 [ip access-class <ipv4 acl> |
  ipv6 access-class <ipv6 acl>] [notify <name>] [read <name>]
  [write <name>] [any-vrf | vrf <name>]
(config)#snmp-server group <groupname> v2c [ip access-class <ipv4 acl> |
  ipv6 access-class <ipv6 acl>] [notify <name>] [read <name>]
  [write <name>] [any-vrf | vrf <name>]
(config)#snmp-server group <groupname> v3 auth [context <context-string>]
  [ip access-class <ipv4 acl> | ipv6 access-class <ipv6 acl>] [notify
  <name>] [read <name>] [write <name>] [any-vrf | vrf <name>]
(config)#snmp-server group <groupname> v3 noauth [context
  <context-string>] [ip access-class <ipv4 acl> | ipv6 access-class <ipv6
  acl>] [notify <name>] [read <name>] [write <name>] [any-vrf | vrf
  <name>]
(config)#snmp-server group <groupname> v3 priv [context <context-string>]
  [ip access-class <ipv4 acl> | ipv6 access-class <ipv6 acl>] [notify
  <name>] [read <name>] [write <name>] [any-vrf | vrf <name>]
```

**<groupname>** specifies the name of the SNMP group (32 characters maximum).

**v1** uses SNMP version 1 security model.

**v2c** uses SNMP version 2c security model.

**v3** uses SNMP version 3 user-based security model (USM).

Options if version 3 is used:

**auth** indicates that authentication is used.

**noauth** indicates that no authentication and no privacy protocol is used.

**priv** indicates that privacy protocol is used.

**context <context-string>** specifies a context name for VRF context mapping. Refer to [Step 5: Using VRF Context Mapping for Multi-VRF \(Optional\) on page 17](#) for more information about this parameter.

**ip access-class <ipv4 acl>** (optional) specifies an IPv4 ACL entry.

**ipv6 access-class <ipv6 acl>** (optional) specifies an IPv6 ACL entry.

**notify <name>** specifies a previously configured SNMP view name to which the group has notify access (32 character maximum). If a view is not specified, the system automatically assigns a default notify-view with no restrictions.

**read <name>** specifies a previously configured SNMP view name to which the group has read-only access (32 character maximum). If a view is not specified, the system automatically assigns a default read-view with no restrictions.

**write <name>** specifies a previously configured SNMP view name to which the group has write access (32 character maximum). If a write-view is not specified, write access is restricted for all users of the group.

**any-vrf** (optional) specifies the ACL is applied to any VRF instance.

**vrf <name>** (optional) specifies the ACL is applied to a specific instance.

To create a user, it is necessary to specify the group to which the user belongs. The user's access to views is determined by that group membership. Use the **snmp-server user** command to configure SNMP users to control access to SNMP information. If an SNMP v3 user is configured on a remote SNMP server as opposed to the local AOS device, the **remote** keyword is needed to specify the remote server address among other

options. Prior to configuring a remote user, the remote SNMP engine ID must be configured with the remote **snmp-server engineID remote** command (refer to [Set the SNMP Engine ID on page 11](#)). There are many variations of this command, therefore they are listed separately based on either a local SNMP server and a remote SNMP server.

Variations of this command for users located on the local AOS device (SNMP server) include:

```
(config)#snmp-server user <username> <groupname> v1
(config)#snmp-server user <username> <groupname> v1 [ip access-class <ipv4
acl> | ipv6 access-class <ipv6 acl>] [any-vrf | vrf <name>]
(config)#snmp-server user <username> <groupname> v2c
(config)#snmp-server user <username> <groupname> v2c [ip access-class
<ipv4 acl> | ipv6 access-class <ipv6 acl>] [any-vrf | vrf <name>]
(config)#snmp-server user <username> <groupname> v3
(config)#snmp-server user <username> <groupname> v3 [ip access-class <ipv4
acl> | ipv6 access-class <ipv6 acl>] [any-vrf | vrf <name>]
(config)#snmp-server user <username> <groupname> v3 auth md5 <auth
password>
[ip access-class <ipv4 acl> | ipv6 access-class <ipv6 acl>] [any-vrf |
vrf <name>]
(config)#snmp-server user <username> <groupname> v3 auth md5 <auth
password> priv des <priv password> [ip access-class <ipv4 acl> | ipv6
access-class <ipv6 acl>] [any-vrf | vrf <name>]
(config)#snmp-server user <username> <groupname> v3
auth sha <auth password> [ip access-class <ipv4 acl> | ipv6 access-class
<ipv6 acl>] [any-vrf | vrf <name>]
(config)#snmp-server user <username> <groupname> v3
auth sha <auth password> priv des <priv password> [ip access-class <ipv4
acl> | ipv6 access-class <ipv6 acl>] [any-vrf | vrf <name>]
```

Variations of this command for users located on a remote SNMP server include:

```
(config)#snmp-server user <username> <groupname> remote [<host> |
auto-link | vrf <name> <host>] v3
(config)#snmp-server user <username> <groupname> remote [<host> |
auto-link | vrf <name> <host>] v3 [ip access-class <ipv4 acl> | ipv6
access-class <ipv6 acl>] [any-vrf | vrf <name>]
(config)#snmp-server user <username> <groupname> remote [<host> |
auto-link | vrf <name> <host>] v3 auth md5 <auth password> [ip
access-class <ipv4 acl> | ipv6 access-class <ipv6 acl>] [any-vrf | vrf
<name>]
(config)#snmp-server user <username> <groupname> remote [<host> |
auto-link | vrf <name> <host>] v3 auth md5 <auth password> priv des
<priv password> [ip access-class <ipv4 acl> | ipv6 access-class <ipv6
acl>] [any-vrf | vrf <name>]
(config)#snmp-server user <username> <groupname> remote [<host> |
auto-link | vrf <name> <host>] v3 auth sha <auth password> [ip
access-class <ipv4 acl> | ipv6 access-class <ipv6 acl>] [any-vrf | vrf
<name>]
(config)#snmp-server user <username> <groupname> remote [<host> |
auto-link | vrf <name> <host>] v3 auth sha <auth password> priv des <priv
password> [ip access-class <ipv4 acl> | ipv6 access-class <ipv6 acl>]
[any-vrf | vrf <name>]
```



*<username>* specifies the name of the user.

*<groupname>* specifies the name of the group to which the user belongs.

**v1** uses SNMP version 1 security model.

**v2c** uses SNMP version 2c security model.

**v3** uses SNMP version 3 (user-based security model).

Options if version 3 is used:

**auth md5** *<auth password>* uses the HMAC-MD5-96 authentication level and a password string to build the key for the authentication level.

**auth sha** uses the HMAC-SHA-96 authentication level and a password string to build the key for the authentication level.

**priv des** *<priv password>* uses the CBC-DES privacy authentication algorithm and a password string for data encryption between the host and agent.

*<host>* identifies the host name or IP address of a remote SNMP entity to which the user belongs. The remote host is necessary for acknowledgement of SNMP version 3 notifications.

**vrf** *<name>* (optional) when used after the **remote** keyword, specifies the remote host exists on the named VRF. If no VRF is provided, the default unnamed VRF is assumed.

**ip access-class** *<ipv4 acl>* specifies an IPv4 ACL entry.

**ipv6 access-class** *<ipv6 acl>* specifies an IPv6 ACL entry.

**encrypted** indicates service password encryption is enabled. Precedes the encrypted password.

**any-vrf** (optional) specifies the ACL is applied to any VRF instance.

**vrf** *<name>* (optional) specifies the ACL is applied to a specific instance.

### Step 5: Using VRF Context Mapping for Multi-VRF (Optional)

If using multi-VRF where at least one non-default VRF is present, an additional step must be considered. VRF context mapping is used to map the context of SNMP requests to the appropriate VRF instance. This is only necessary in multi-VRF installations where the content of the following four MIB tables are used:

- IP-MIB::ipAddressTable
- IP-MIB::ipAddrTable
- IP-FORWARD-MIB::inetCidrRouteTable
- IP-FORWARD-MIB::ipCidrRouteTable



#### NOTE

*Context mapping does not apply to SNMP v1 or v2.*

If your installation meets these requirements, additional steps must be taken to ensure SNMP requests reach the correct destination. The additional steps are:

1. Define VRF instances on the AOS router.
2. Define a VRF context mapping to associate the VRF instance to the appropriate context name.
3. Create an SNMP group for each VRF instance.

4. Create an SNMP user and associate the user to the appropriate SNMP group for each VRF instance.

**NOTE**

*For each additional non-default VRF instance, create a new group and a new user belonging to that group as shown in [Step 4: Enable Read-Only and Read-Write SNMP Access on page 13](#).*

For example, in the following configuration, the router has a default VRF instance and an additional two VRF instances named **RED** and **BLUE**. The default VRF has a group defined named **DEFAULT-GROUP** and a user defined named **DEFAULT-USER** which belongs to the group.

The group and user configuration for the default VRF instance is as follows:

```
(config)#snmp-server group DEFAULT-GROUP v3 auth
(config)#snmp-server user DEFAULT-USER DEFAULT-GROUP v3 auth md5 password
```

The configuration for the non-default VRF instances requires a separate group and user defined for each and uses the **context** <context-name> parameter to identify the VRF context. The additional configuration steps are as follows:

```
(config)#snmp-server group RED-GROUP v3 auth context RED-CONTEXT
(config)#snmp-server group BLUE-GROUP v3 auth context BLUE-CONTEXT
(config)#snmp-server user RED-USER RED-GROUP v3 auth md5 password
(config)#snmp-server user BLUE-USER BLUE-GROUP v3 auth md5 password
```

The configuration steps above require the SNMP context be mapped to the appropriate VRF name using the **snmp-server context** <context-name> vrf <vrf name> commands as follows:

```
(config)#snmp-server context RED-CONTEXT vrf RED-VRF
(config)#snmp-server context BLUE-CONTEXT vrf BLUE-VRF
```

Additionally, the VRF instances must be defined using the **vrf** command:

```
(config)#vrf RED-VRF route-distinguisher as-2byte 1:1
(config)#vrf BLUE-VRF route-distinguisher as-2byte 2:2
```

Refer to the [Configuring Multi-VRF in AOS](#) configuration guide for more information.

### Step 6: Enable Trap Messages and Specify the NMS IP Address

Enable the SNMP agent to send traps to the NMS.

**NOTE**

*Not all SNMP trap configuration commands are available in all firmware versions on all AOS units.*

Use the following command to enable all traps available on your system:

```
(config)#snmp-server enable traps
```

Use the following command to only enable application (such as Domain Naming System (DNS)) traps:

```
(config)#snmp-server enable traps application
```

Use the following command to only enable battery traps:

```
(config)#snmp-server enable traps battery
```

Use the following command to only enable Border Gateway Protocol (BGP) traps:

```
(config)#snmp-server enable traps bgp
```

Use the following command to only enable SNMP traps to be buffered instead of sent immediately based on the status of the named track:

```
(config)#snmp-server enable traps delay track <name>
```

Use the following command to only enable entity sensor traps such as insertion and removal of a small form-factor pluggable (SFP) interface module:

```
(config)#snmp-server enable traps entity
```

Use the following command to only enable external power supply (EPS) traps:

```
(config)#snmp-server enable traps eps
```

Use the following command to only enable fan failure notification traps:

```
(config)#snmp-server enable traps fan
```

Use the following command to only enable Frame Relay traps:

```
(config)#snmp-server enable traps frame-relay
```

Use the following command to only enable network synchronization notification traps:

```
(config)#snmp-server enable traps network-sync
```

Use the following command to only enable the resource utilization notification traps (currently, this option is only available on AOS voice products):

```
(config)#snmp-server enable traps resource
```

Use the following command to only enable redundant power supply (RPS) traps:

```
(config)#snmp-server enable traps rps
```

Use the following command to only enable small form-factor pluggable (SFP) traps:

```
(config)#snmp-server enable traps sfp
```

Use the following command to only enable SNMP traps:

```
(config)#snmp-server enable traps snmp
```

Use the following command to only enable network monitor track traps:

```
(config)#snmp-server enable traps track
```

Use the following command to only enable user login/logout traps for the unit:

```
(config)#snmp-server enable traps unit
```

Use the following command to only enable voice traps:

```
(config)#snmp-server enable traps voice
```

Use the following command to only enable Virtual Router Redundancy Protocol version 2 (VRRPv2) and version 3 (VRRPv3) traps:

```
(config)#snmp-server enable traps vrrp
```

Use the following command to enable power failure (dying gasp) traps:

```
(config)#snmp-server enable traps dying-gasp
```

**NOTE**

If **dying-gasp** traps are enabled, the SNMP host must be configured separately to receive the traps using the **snmp-server host** [*<ip address>* | **vrf** *<name>* *<ip address>* | **auto-link**] **dying-gasp-traps** [1 | 2] command. Refer to [Dying Gasp Traps on page 22](#) for more information.

**NOTE**

If **sfp** traps are enabled, use the **sfp trap threshold alarm time-interval** command to set the polling interval for monitoring the sfp alarm thresholds. For more information on this command, refer to the [AOS Command Reference Guide](#), available online at <https://supportforums.adtran.com/welcome>.

**NOTE**

The **snmp-server enable traps sfp** command is available on AOS switches running AOS firmware R13.2.2 or later.

**NOTE**

The **snmp-server enable dying-gasp** command is not available on AOS switch products.

### Specify the NMS IP Address

Configure the SNMP agent with the IP address (or use auto-link), traps version, and community string of the NMS to allow the forwarding of trap messages from the SNMP agent running on the AOS device. Trap messages are sent to the NMS based on the configured alarm or threshold conditions. Trap messages are sourced from the configured IP address of the egress interface used to reach the specified SNMP server host IP address according to the route table unless the **snmp-server source-interface** command is used. Traps can optionally be sent with a community string. Starting with AOS 13.01.00 the community string used for traps must be separately defined with the **snmp-server community** command, as well as being entered in the **snmp-server host** command.

Use the **snmp-server host** command to configure the host to receive SNMP notifications. Traps can be sent to different hosts by entering this command multiple times for each desired IP address. In addition, traps can be sent to the n-Command MSP server IP address that auto-link is currently using. Use the **no** form of this command to remove the specified host.

### Inform Notifications

To configure the host to receive SNMP inform notifications, use the following variations of this command:

```
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
  <name>] | auto-link | <name>] informs
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
  <name>] | auto-link | <name>] informs version 1 <community>
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
  <name>] | auto-link | <name>] informs version 1 <community> [battery]
```

```

[eps] [rps] [sfp] [snmp] [unit]
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] informs version 2c <community>
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] informs version 2c <community> [battery]
[eps] [rps] [sfp] [snmp] [unit]]
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] informs version 3 auth <community>
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] informs version 3 auth <community>
[battery] [eps] [sfp] [snmp] [unit]]
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] informs version 3 noauth <community>
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] informs version 3 noauth <community>
[battery] [eps] [sfp] [snmp] [unit]]

(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] informs version 3 priv <community>
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] informs version 3 priv <community>
[battery] [eps] [sfp] [snmp] [unit]]

```

## SNMP Traps

To configure the host to receive SNMP traps, use the following variations of this command:

```

(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] traps <community>
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] traps version 1 <community> [application]
[battery] [bgp] [entity] [eps] [fan] [frame-relay] [network-sync]
[over-temperature] [resource] [rps] [sfp] [snmp] [track] [unit] [voice]
[vrrp]
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] traps version 2c <community> [application]
[battery] [bgp] [entity] [eps] [fan] [frame-relay] [network-sync]
[over-temperature] [resource] [rps] [sfp] [snmp] [track] [unit] [voice]
[vrrp]
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] traps version 3 auth <community>
[application] [battery] [bgp] [entity] [eps] [fan] [frame-relay]
[network-sync] [over-temperature] [resource] [rps] [sfp] [snmp] [track]
[unit] [voice] [vrrp]
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] traps version 3 noauth <community>
[application] [battery] [bgp] [entity] [eps] [fan] [frame-relay]
[network-sync] [over-temperature] [resource] [rps] [sfp] [snmp] [track]
[unit] [voice] [vrrp]
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] traps version 3 priv <community>

```

```
[application] [battery] [bgp] [entity] [eps] [fan] [frame-relay]
[network-sync] [over-temperature] [resource] [rps] [sfp] [snmp] [track]
[unit] [voice] [vrrp]
```

## Dying Gasp Traps

To configure the host to receive dying gasp traps, use the following variations of this command:

```
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] dying-gasp-traps [1 | 2] <community>
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] dying-gasp-traps [1 | 2] version 1
<community>
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] version 2c <community>
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] dying-gasp-traps [1 | 2] version 3 auth
<user name>
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] dying-gasp-traps [1 | 2] version 3 noauth
<user name>
(config)#snmp-server host [<ip address> | vrf <name> [<ip address> |
<name>] | auto-link | <name>] dying-gasp-traps [1 | 2] version 3 priv
<user name>
```

**<ip address>** specifies the IP address (either Internet Protocol version 4 (IPv4) or Internet Protocol version 6 (IPv6)) of the SNMP host that receives the SNMP information. IPv4 addresses should be expressed in dotted decimal notation (for example, **10.10.10.1**). IPv6 addresses should be expressed in colon hexadecimal format X:X:X::X, for example, **2001:DB8:1::1**.

**vrf <name>** (optional) specifies the VRF instance on which the host exists. If a VRF instance is not specified, the default unnamed VRF is assumed.

**auto-link** specifies that SNMP notifications are sent to the active auto-link server.

**<name>** Specifies the Fully Qualified Domain Name (FQDN) (e.g., **adtran.com**) of the SNMP host that receives the SNMP information.

**dying-gasp-traps** specifies the SNMP host receiving the dying gasp traps.

**1** specifies the first priority host server.

**2** specifies the secondary priority host server.



### NOTE

*An SNMP server must be explicitly configured as a dying gasp server.*

**informs** enables INFORM message types to be sent to this host.



### NOTE

*Informs are only for use with SNMP v3.*

**traps** enables traps to this host. If the version is not specified, version 1 is used.

**<community>** specifies the community string (used as a password) (16 characters maximum) for authorized agents to obtain access to SNMP information.

**version 1** uses SNMP version 1 security model.

**version 2c** uses SNMP version 2c security model.

**version 3** uses SNMP version 3 user-based security model (USM).

**auth** indicates that authentication is used without privacy.

**no auth** indicates that no authentication or privacy is used.

**priv** indicates that authentication and privacy is used.

**<user name>** specifies the user name for SNMP version 3 security.

**application** (optional) enables application traps (such as DNS traps).

**battery** (optional) enables battery inform messages or traps.

**bgp** (optional) enables BGP traps.

**entity** (optional) enables the entity sensor traps such as insertion and removal of an SFP interface module.

**eps** (optional) enables EPS traps.

**fan** (optional) enables the fan failure notification trap.

**frame-relay** (optional) enables Frame Relay traps.

**network-sync** (optional) enables the network synchronization notification traps.

**over-temperature** (optional) enables the over temperature protection traps.

**resource** (optional) enables the resource utilization set of traps.

**rps** (optional) enables RPS traps.

**sfp** (optional) enables small form-factor pluggable (SFP) traps.

**snmp** (optional) enables a subset of traps specified in RFC 1157.

**track** (optional) enables network monitor track traps.

**unit** (optional) enables unit traps for user login/logout.

**voice** (optional) enables voice traps.

**vrrp** (optional) enables VRRP traps.

Use the **snmp-server inform** command configure the number of times the ADTRAN device attempts to contact an SNMP server and the amount of time the router waits to receive a response before sending a new request. These settings apply to SNMP inform notifications that are two-way messages in which the managed device sends a message and waits for an acknowledgement to be sent from the SNMP server. Variations of this command include the following:

```
(config)#snmp-server inform retries <number>
```

```
(config)#snmp-server inform timeout <value>
```

**retries <number>** Specifies number of retries for a response. The range is from **1** to **100**.

**timeout <value>** Specifies time (in seconds) to wait for a response. The range is from **1** to **1000** seconds.

## Specify the SNMP Source Interface

Use the **snmp-server source-interface** command to specify a source interface for SNMP traffic originated by the unit. The IP address of the specified interface will be used to source all SNMP traffic. If the interface is not specified, the source IP address used for SNMP packets will come from the egress interface used to reach the intended party dictated by the route table. If SNMP is used over a VPN tunnel, this command is recommended to be used to specify an address that will match the existing VPN selector statements so the SNMP traffic will be allowed over the VPN tunnel.

```
(config)#snmp-server [vrf <name>] source-interface <interface>
```

**<interface>** specifies the interface that should originate SNMP traffic. Specify an interface in the format **<interface type [slot/port | slot/port.subinterface id | interface id | interface id.subinterface id]>**. For example, for an Ethernet subinterface, use **eth 0/1.1**; for a PPP interface, use **ppp 1**; and for an ATM subinterface, use **atm 1.1**. Type **snmp-server source-interface ?** for a complete list of valid interfaces.

**vrf <name>** (optional) specifies the VRF instance on which the source interface exists.

## Step 7: Define Trap Conditions to Receive Trap Messages

To make changes to the default SNMP traps on an interface, enter the interface configuration command set to define the conditions for sending trap messages to the NMS. Use the following **interface** command to specify the interface:

```
(config)#interface <interface>
```

**<interface>** specifies an interface in the format **<interface type [slot/port | slot/port.subinterface id | interface id | interface id.subinterface id]>**. For example, for a T1 interface, use **t1 0/1**; for an Ethernet subinterface, use **eth 0/1.1**; for a PPP interface, use **ppp 1**; for an ATM interface, use **atm 1.1**. Type **interface ?** for a list of valid interfaces.



### NOTE

*Check the specified interface for the available SNMP trap command support. Type **snmp trap ?** to view the available options within the specified interface.*

Next, use one of the following SNMP commands to define trap settings:

Use the **snmp trap** command to enable all supported SNMP traps on the interface.

```
(config)#interface ethernet 0/1
(config-eth 0/1)#snmp trap
```

The **snmp trap threshold-reached** command is used to control the adGenAosDS1-Ext.mib adGenAOSDs1-ThresholdReached OID (OID number 1.3.6.1.4.1.664.5.53.6.1.0.1). By default, the adGenAOSDs1ThresholdReached OID is set to disabled.

```
(config)#interface t1 1/1
(config-t1 1/1)#snmp trap threshold-reached
```

The **snmp trap line-status** command is used to control the RFC 2495 dsx1LineStatusChangeTrapEnable OID (OID number 1.3.6.1.2.1.10.18.6.1.17.0). By default, the dsx1LineStatusChangeTrapEnable OID is set to enabled for all interfaces except virtual Frame Relay interfaces. Use the **no** form of this command to disable this trap.

```
(config)#interface t1 1/1
(config-t1 1/1)#snmp trap line-status
```



The **snmp trap link-status** command controls the ifLinkUpDownTrapEnable SNMP variable on the specified interface. The trap sends SNMP messages when there is an interface status change. The RFC 2863 ifLinkUpDownTrapEnable OID number is 1.3.6.1.2.1.31.1.1.14.0. By default, the ifLinkUpDownTrapEnable OID is enabled. Use the **no** form of this command to disable this trap.

```
(config)#interface t1 1/1
(config-t1 1/1)#snmp trap link-status
```

The **snmp trap cellular** command is used to control the adGenAos3G.mib traps. By default, all cellular traps, except for the link status traps, are disabled.

```
(config)#interface cellular 1/1
(config-cellular 1/1)#snmp trap cellular
```



#### NOTE

Refer to [Table 5 on page 26](#) for a summary of the command steps outlined in this section. For additional SNMP commands, refer to the [AOS Command Reference Guide](#), available online at <https://supportforums.adtran.com>.

### Enabling Voice Quality Monitoring Traps

If enabling voice traps with the **snmp-server enable traps voice** command or **snmp-server enable traps** command (as explained in [Step 6: Enable Trap Messages and Specify the NMS IP Address on page 18](#)), you must also enable voice quality monitoring (VQM) traps. The default priority level is **warning** unless a specific priority level is specified.

Use the following command to enable VQM traps when a warning or error occurs:

```
(config)#ip rtp quality-monitoring snmp trap
```

To enable VQM SNMP traps only when an error occurs, use the following command:

```
(config)#ip rtp quality-monitoring snmp trap priority-level error
```

To enable VQM SNMP traps on all calls, use the following command:

```
(config)#ip rtp quality-monitoring snmp trap priority-level info
```

To enable VQM SNMP traps when a notice event, warning, or error occurs, use the following command:

```
(config)#ip rtp quality-monitoring snmp trap priority-level notice
```

To enable VQM SNMP traps only when a warning or error occurs, use the following command:

```
(config)#ip rtp quality-monitoring snmp trap priority-level warning
```

### Configuring and Enabling Network Monitoring Traps

If enabling network monitoring traps with the **snmp-server enable traps track** command or **snmp-server enable traps** command (as explained in [Step 6: Enable Trap Messages and Specify the NMS IP Address on page 18](#)), you must also configure the track to send traps when a change in the state of a network monitoring track occurs.

To create and name the track, use the **track <name>** command. The following example creates a track named **backuproute**:

```
(config)#track backuproute
(config-track-backuproute)#
```

Next, configure the track to send traps when a change in its state occurs:

```
(config-track-backuproute)#snmp trap state-change
```

## 4. Command Summary

**Table 5. SNMP Configuration Command Summary**

Step	Command	Explanation
<b>Step 1</b>	Download AOS product-specific MIBs.	Visit ADTRAN's website at <a href="http://www.adtran.com">http://www.adtran.com</a> and search the keywords AOS MIBs.
<b>Step 2</b>	Enable SNMP.	
	<code>(config)#snmp agent</code>	Enables the SNMP agent to permit a MIB browser to access MIBs within the product. This also allows the product to send traps to a trap management station. Use the <b>no</b> form of this command to disable SNMP.
	<code>(config)#snmp-server engineID local &lt;hex string&gt;</code>	Optional. Changes the default SNMP engine ID, and manually sets the SNMP v3 engine ID for the local machine.
<b>Step 3</b>	Configure the system fields (optional).	
	<code>(config)#snmp-server contact [email &lt;address&gt;   pager &lt;number&gt;   phone &lt;number&gt;   "&lt;string&gt;"]</code>	Optional. Specifies SNMP server contact information.
	<code>(config)#snmp-server location "&lt;string&gt;"</code>	Optional. Specifies the SNMP system location string.
	<code>(config)#snmp-server chassis-id "&lt;string&gt;"</code>	Optional. Specifies a network device identifier.
<b>Step 4</b>	Enable read-only and read-write SNMP access.	

Table 5. SNMP Configuration Command Summary (Continued)

Step	Command	Explanation
Step 4 cont'd	<code>(config)#snmp-server community &lt;community&gt; [ro   rw] [ip access-class &lt;ipv4 acl&gt;   ipv6 access-class &lt;ipv6 acl&gt;] [view &lt;name&gt;] [any-vrf   vrf &lt;name&gt;]</code>	Configures a community string to control access to the SNMP information.
	<code>(config)#snmp-server view &lt;name&gt; &lt;value&gt; [included   excluded]</code>	Optional. Specifies an SNMP view to restrict OIDs. Use the <b>no</b> form of this command to remove an entry.
	<code>(config)#snmp-server group &lt;groupname&gt; [v1   v2c   v3] [auth   noauth   priv] [context &lt;context-string&gt;] [ip access-class &lt;ipv4 acl&gt;   ipv6 access-class &lt;ipv6 acl&gt;] [notify &lt;name&gt;] [read &lt;name&gt;] [write &lt;name&gt; ] [any-vrf   vrf &lt;name&gt;]</code>	Configures an SNMP server group to control access to SNMP information. SNMP groups are used to map SNMP users to SNMP views. The <b>context</b> <context-string> parameter is optional and only used in SNMP version 3.
	<code>(config)#snmp-server user &lt;username&gt; &lt;groupname&gt; [v1   v2c   v3] [ip access-class &lt;ipv4 acl&gt;   ipv6 access-class &lt;ipv6 acl&gt;] [any-vrf   vrf &lt;name&gt;]</code>  or for remote SNMP servers using version 3:  <code>(config)#snmp-server user &lt;username&gt; &lt;groupname&gt; remote [&lt;host&gt;   auto-link   vrf &lt;name&gt;] v3 [auth md5   noauth sha   priv des] [ip access-class &lt;ipv4 acl&gt;   ipv6 access-class &lt;ipv6 acl&gt;] [any-vrf   vrf &lt;name&gt;]</code>	Optional. Creates or modifies an SNMP user entry. Use the <b>no</b> form of this command to remove an entry. Additional parameters are available when <b>remote</b> or <b>v3</b> is used.
Step 5	Using VRF context mapping for multi-VRF (optional).	
	<code>snmp-server context &lt;string&gt; vrf &lt;name&gt;</code>	Optional. Associates an SNMP context to the appropriate non-default VRF instance to ensure SNMP requests reach the correct destination.
	Create an SNMP-server group and user for each additional non-default VRF instance. All non-default VRF instances should be created as described in the <a href="#">Configuring Multi-VRF in AOS</a> configuration guide.	
Step 6	Enable trap messages and specify the NMS IP address.	

Table 5. SNMP Configuration Command Summary (Continued)

Step	Command	Explanation
Step 6 cont'd	<code>(config)#snmp-server enable traps [application   battery   delay track &lt;name&gt;   bgp   entity   eps   fan   frame-relay   network-sync   over-temperature   resource   rps   sfp   snmp   unit   track   voice   vrrp]</code>	Enables the SNMP agent to send all traps to the NMS or individual traps.
	<code>(config)#snmp-server host [&lt;ip address&gt;   &lt;name&gt;   auto-link   vrf &lt;name&gt; [&lt;ip address&gt;   &lt;name&gt;] traps version [1   2c   3] [auth   noauth   priv] [&lt;community&gt;   &lt;user name&gt;] [application] [battery] [bgp] [entity] [eps] [fan] [frame-relay] [network-sync] [over-temperature] [resource] [rps] [sfp] [snmp] [track] [unit] [voice   vrrp]</code>	Enables the forwarding of SNMP traps, informs, or dying gasp traps to a specified IP address or FQDN. Additional parameters ( <b>auth</b> , <b>noauth</b> , <b>priv</b> , and <b>&lt;user name&gt;</b> ) are needed when <b>version 3</b> is used.
	<code>(config)#snmp-server host [&lt;ip address&gt;   &lt;name&gt;   auto-link   vrf &lt;name&gt; [&lt;ip address&gt;   &lt;name&gt;] informs version [1   2c   3] [auth   noauth   priv] [&lt;community&gt;   &lt;user name&gt;] [battery] [eps] [rps] [sfp] [snmp] [unit]</code>	Enables the forwarding of SNMP informs to a specified IP address or FQDN. Additional parameters ( <b>auth</b> , <b>noauth</b> , <b>priv</b> , and <b>&lt;user name&gt;</b> ) are needed when <b>version 3</b> is used.
	<code>(config)#snmp-server host [&lt;ip address&gt;   &lt;name&gt;   auto-link   vrf &lt;name&gt; [&lt;ip address&gt;   &lt;name&gt;] dying-gasp-traps [1   2] version [1   2c   3] [auth   noauth   priv] [&lt;community&gt;   &lt;user name&gt;]</code>	Enables the forwarding of SNMP dying gasp traps to a specified IP address or FQDN. Additional parameters ( <b>auth</b> , <b>noauth</b> , <b>priv</b> , and <b>&lt;user name&gt;</b> ) are needed when <b>version 3</b> is used.
	<code>(config)#snmp-server inform [retries &lt;number&gt;   timeout &lt;value&gt;]</code>	Configures the number of times the ADTRAN device attempts to contact an SNMP server and the amount of time the router waits to receive a response before sending a new request.
	<code>(config)#snmp-server [vrf &lt;name&gt;] source-interface &lt;interface&gt;</code>	Optional. Specifies a source interface for SNMP traffic originated by the unit. The IP address of the specified interface will be used to source all SNMP traffic.
	Step 7	Define trap conditions to receive trap messages.

Table 5. SNMP Configuration Command Summary (Continued)

Step	Command	Explanation
Step 7 cont'd	(config) # <b>interface</b> <interface> (config-interface) # <b>snmp trap</b>	Enables all supported SNMP traps on the interface.
	(config) # <b>interface</b> <interface> (config-interface) # <b>snmp trap threshold-reached</b>	Controls the adGenAosDS1-Ext.mib adGenAOSDs1ThresholdReached OID (OID number 1.3.6.1.4.1.664.5.53.6.1.0.1). By default, the adGenAOSDs1ThresholdReached OID is disabled.
	(config) # <b>interface</b> <interface> (config-interface) # <b>snmp trap line-status</b>	Controls the RFC 2495 dsx1LineStatusChangeTrapEnable OID (1.3.6.1.2.1.10.18.6.1.17.0). By default, the dsx1LineStatusChangeTrapEnable OID is set to enabled.
	(config) # <b>interface</b> <interface> (config-interface) # <b>snmp trap link-status</b>	Controls the ifLinkUpDownTrapEnable SNMP variable on the specified interface. The trap sends SNMP messages when there is an interface status change. The RFC 2863 ifLinkUpDownTrapEnable OID number is 1.3.6.1.2.1.31.1.1.1.14.0. By default, the ifLinkUpDownTrapEnable OID is enabled for all supported interfaces except virtual Frame Relay interfaces.
	(config) # <b>interface</b> <interface> (config-interface) # <b>snmp trap cellular</b>	Controls the adGenAos3G.mib traps. By default, all cellular traps, except for the link status traps, are disabled.
	(config) # <b>ip rtp quality-monitoring snmp trap</b> or to assign a specific priority-level: (config) # <b>ip rtp quality-monitoring snmp trap priority-level [error   info   notice   warning]</b>	Controls the adGenAosVQM.mib adVQMEndOfCallTrap OID (OID number 1.3.6.1.4.1.664.5.53.5.3.0.1). By default, the adVQMEndOfCallTrap OID is disabled and the priority-level is set to <b>warning</b> . Other priority levels that can be assigned are <b>error</b> , <b>info</b> , <b>notice</b> , and <b>warning</b> .

## 5. CLI SNMP Configuration Examples

### Example 1: Enabling SNMP Traps for a T1 Interface

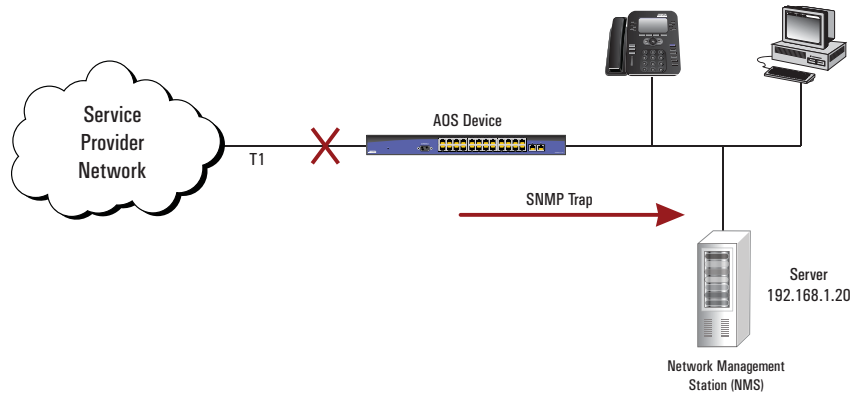


Figure 2. SNMP T1 Trap Example

This configuration example will send SNMP version 2c traps to the NMS located at **192.168.1.20** whenever the status of the T1 interface changes. The SNMP trap is sent with a community string of **TRAP** as required by the NMS. The community string **TRAP** is defined by the command **snmp-server community TRAP ro** so that it can be used in conjunction with the **snmp-server host** command. The following is a sample configuration for this application:

```
!
interface t1 1/1
  snmp trap link-status
  snmp trap line-status
  no shutdown
!
snmp agent
!
snmp-server enable traps snmp
snmp-server community PUBLIC ro
snmp-server community PRIVATE rw
snmp-server community TRAP ro
snmp-server host 192.168.1.20 traps version 2c TRAP snmp
```



#### NOTE

*Portions of this configuration irrelevant to SNMP have been omitted. The T1 interface would normally be configured with a tdm-group and cross-connected to a Layer 2 interface (PPP, HDLC, Frame Relay).*

**NOTE**

The community string used for traps in the **snmp-server host** command must be a previously configured string entered by the **snmp-server community** command.

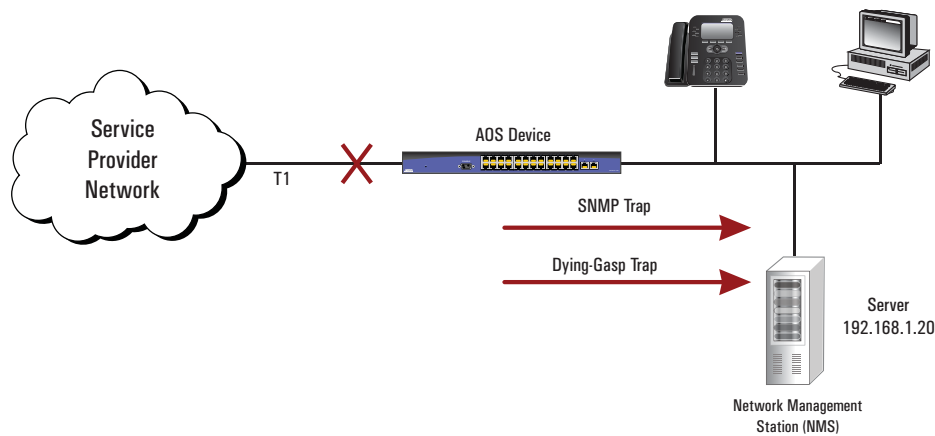
**Example 2: SNMP Dying-Gasp Traps**

Figure 3. SNMP Dying-Gasp Trap Example

This configuration example will dying-gasp SNMP traps to the NMS located at **192.168.1.20** whenever the unit loses power. In addition, this configuration also sends enabled SNMP version 2c traps to the same NMS. The SNMP trap is sent with a community string of **TRAP** as required by the NMS. The community string **TRAP** is defined by the command **snmp-server community TRAP ro** so that it can be used in conjunction with the **snmp-server host** command. The NMS used for dying-gasp traps must be explicitly defined as a dying-gasp server with either a priority 1 or 2. The same NMS server can be configured to receive other traps in addition to dying-gasp by following other examples provided in this guide. The following is a sample configuration for this application:

```
!
interface t1 1/1
  snmp trap link-status
  snmp trap line-status
  no shutdown
!
snmp agent
!
snmp-server enable traps snmp
snmp-server community PUBLIC ro
snmp-server community PRIVATE rw
snmp-server community TRAP ro
snmp-server host 192.168.1.20 traps version 2c TRAP snmp
snmp-server host 192.168.1.20 dying-gasp-traps 1 version 2c TRAP
```

**NOTE**

*There can only exist two dying-gasp trap server hosts. Only one can be defined as priority 1 and only one defined as priority 2.*

**NOTE**

*Even though the dying-gasp server hosts need to be explicitly configured, all traps are stopped by removing the host once using the **no** form of either **snmp-server host** command.*

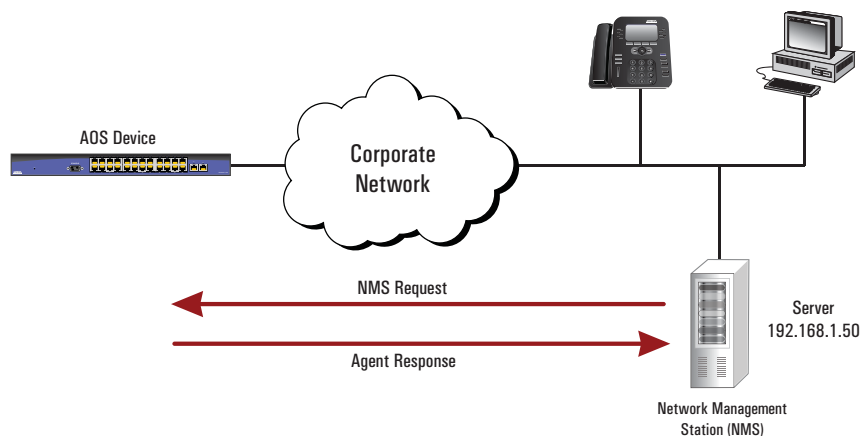
**Example 3: Restricting SNMP Access to a Specific Source Address**

Figure 4. SNMP ACL Example

This configuration example will only allow SNMP requests from the source IP address assigned to the NMS (192.168.1.50). This is accomplished using a standard access list named **NMS** that is applied to the only configured SNMP community strings on the AOS device (**PUBLIC** and **PRIVATE**). The following is sample configuration for this application:

```
!
ip access-list standard NMS
  permit host 192.168.1.50
!
snmp agent
!
snmp-server community PUBLIC ro ip access-class NMS
snmp-server community PRIVATE rw ip access-class NMS
!
```



### Example 4: Using SNMP Views to Restrict OIDs

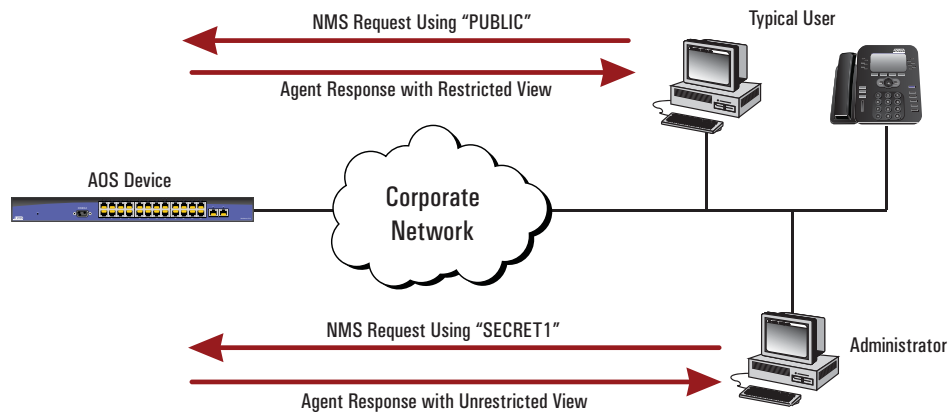


Figure 5. SNMP Views Example

This example will create an SNMP view named **RESTRICTED**. This view will restrict anyone using the **PUBLIC** or **PRIVATE** SNMP community strings to memory and CPU statistics located in the adGenAOS MIB (1.3.6.1.4.1.664.5.53.1.4.\*). The view also excludes a user from being able to access the adGenAOSClearUtilizationStats OID (1.3.6.1.4.1.664.5.53.1.4.2) within the allowed tree to prevent anyone from changing the statistics via an **snmp set** command. No other OIDs will be allowed in this view. An administrator will have unrestricted access to all OIDs using the **SECRET1** and **SECRET2** community strings. The following is sample configuration for this application:

```
!
snmp agent
!
snmp-server view RESTRICTED 1.3.6.1.4.1.664.5.53.1.4.* included
snmp-server view RESTRICTED 1.3.6.1.4.1.664.5.53.1.4.2 excluded
snmp-server community PUBLIC view RESTRICTED ro
snmp-server community PRIVATE view RESTRICTED rw
snmp-server community SECRET1 ro
snmp-server community SECRET2 rw
!
```

## Example 5: Configuring SNMPv3 with Authentication and Encryption

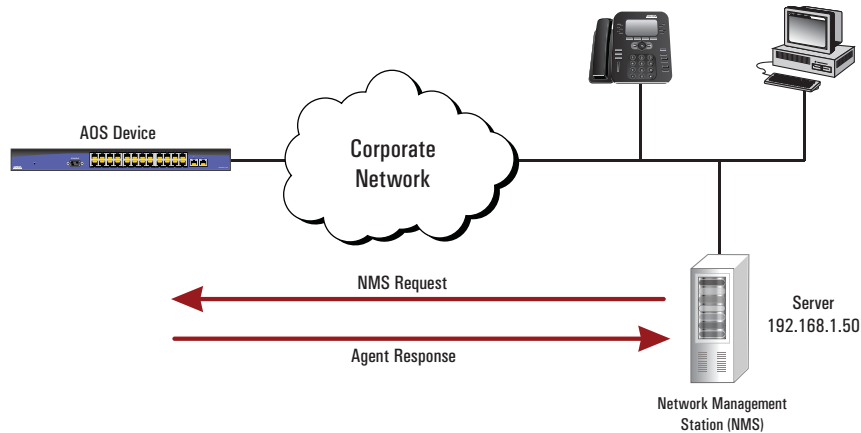


Figure 6. SNMPv3 Example

In this example, the SNMPv3 user **MYUSERNAME** is associated with the group **MYGROUPNAME1**. The user **MYUSERNAME** is secured with MD5 authentication, using the password **MYAUTHPASSWORD**, and privacy is encrypted with DES and a password of **MYPRIVPASSWORD**.

```

!
snmp agent
!
snmp-server user MYUSERNAME MYGROUPNAME1 v3 auth md5 MYAUTHPASSWORD priv
des MYPRIVPASSWORD
snmp-server group MYGROUPNAME1 v3 priv
!

```


## 6. GUI SNMP Configuration

### Accessing the GUI

SNMP can be configured using the GUI. Access your unit from any web browser on your network to configure SNMP using the GUI by following these steps:

1. Connect the unit to your PC using the first Ethernet port on the unit with a 10/100Base-T Ethernet cable.
2. Set your PC to obtain an IP address automatically via Dynamic Host Configuration Protocol (DHCP), or change your PC to a fixed IP address of 10.10.10.2. If you cannot change the PC's IP address, you will need to change the unit's IP address using the CLI.
3. Enter the unit's IP address in your browser's address line. The default IP address is 10.10.10.1. You will then be prompted for the user name and password (the default settings are **admin** and **password**). After entering the correct user name and password, the initial GUI menu will appear.

**NOTE**

While navigating the GUI, you will notice question mark  symbols that indicate additional information is available. Simply place your cursor over the symbol to view the additional information.

## Enable SNMP and Configure the Server

1. Navigate to **System > SNMP**. The **SNMP Settings** menu will appear. On the **Identity** tab, enable SNMP by selecting the **SNMP Server** check box and configure the identity. Select **Apply** to append the settings.

The screenshot displays the 'SNMP Settings' configuration page. On the left is a navigation menu with categories: System, Data, Monitoring, and Utilities. The 'System' menu is expanded, showing options like 'Getting Started', 'Setup Wizard', 'System Summary', 'Physical Interfaces', 'Passwords', 'IP Services', 'DHCP Server', 'Hostname / DNS', 'LLDP', and 'SNMP'. The main content area is titled 'SNMP Settings' and has five tabs: 'Identity', 'Community Strings', 'SNMP Views', 'Traps', and 'Statistics'. The 'Identity' tab is active, showing a section titled 'Identity settings to be returned when queried via SNMP.' Below this are several configuration fields, each with a text input and a descriptive tooltip:

- SNMP Server:** A checked checkbox with the tooltip: 'Check to enable the NetVanta's SNMP server.'
- Contact Name:** Text input containing 'Jane Doe' with tooltip: 'The system contact's name for this NetVanta.'
- Contact Email:** Text input containing 'doe.jane@network.c' with tooltip: 'The system contact's email address for this NetVanta.'
- Contact Phone Number:** Text input containing '256-555-5555' with tooltip: 'The system contact's phone number for this NetVanta.'
- Contact Pager Number:** Text input containing '256-555-1234' with tooltip: 'The system contact's pager number for this NetVanta.'
- Location:** Text input containing 'Huntsville, AL' with tooltip: 'The NetVanta's current location.'
- Chassis ID:** Text input containing 'Chassis ID' with tooltip: 'The chassis ID for this NetVanta.'
- Management URL:** Text input with tooltip: 'The management URL to access this NetVanta.'
- Management URL Label:** Text input with tooltip: 'The management URL label for this NetVanta.'

An 'Apply' button is located at the bottom right of the configuration area.

Figure 7. Identity Tab

2. Select the **Community Strings** tab to define the access to be granted to SNMP users. Select **Add** to create the community string.

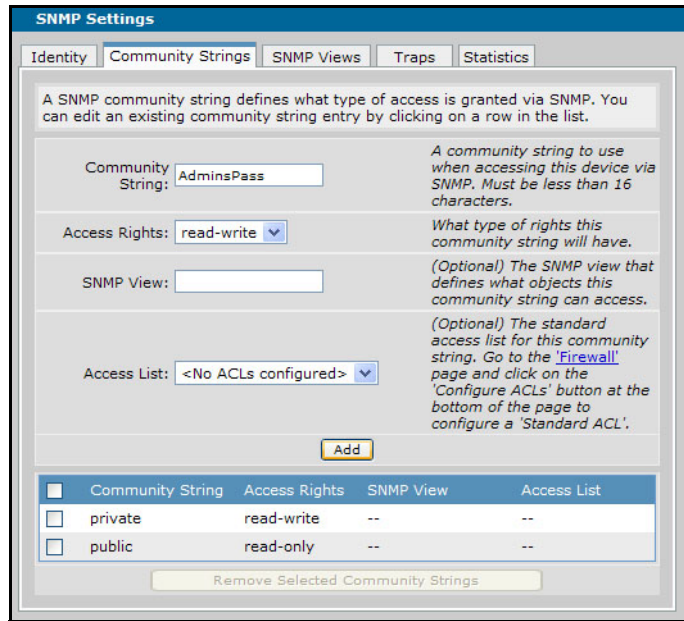


Figure 8. Community Strings Tab

3. Optional. Select the **SNMP Views** tab to restrict the available information for the specified community string(s). Select **Add** to append the settings.

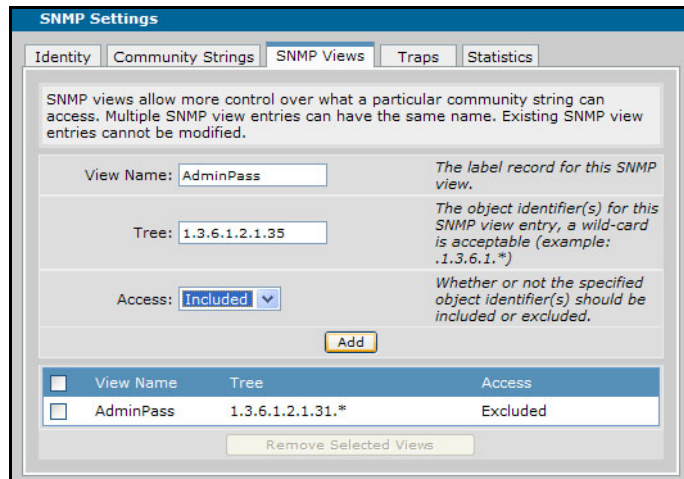


Figure 9. SNMP Views Tab

4. Select the **Traps** tab to configure the SNMP agent to send traps to the specified management station. Select **Add** to create the SNMP trap destination entry.

**SNMP Settings**

Identity | Community Strings | SNMP Views | **Traps** | Statistics

A SNMP trap allows the NetVanta to send a trap message to a specified destination when an event occurs. To modify an existing trap destination entry or add another trap destination entry based on a previously configured entry, click on a row in the list.

Destination Address:  .  .  .  *The destination address to send the SNMP trap to.*

Community String:  *The community string to include in the SNMP trap.*

SNMP Version:  *The version of SNMP trap to send.*

Enable Traps:

- SNMP
- Frame Relay
- Voice
- BGP
- Track
- Application
- Resource
- ALL Traps

*Select the trap(s) the NetVanta will send.*

Destination Address	Community String	Version	Traps
There are currently no SNMP traps defined.			

This is a list of all entities that support sending a trap and the trap that is currently enabled.

Device	Link-Status Trap	Other Traps	
t1 0/1	<input checked="" type="checkbox"/>	<input type="checkbox"/> Line Status	<input type="checkbox"/> Threshold
t1 0/2	<input checked="" type="checkbox"/>	<input type="checkbox"/> Line Status	<input type="checkbox"/> Threshold
t1 0/3	<input checked="" type="checkbox"/>	<input type="checkbox"/> Line Status	<input type="checkbox"/> Threshold
t1 0/4	<input checked="" type="checkbox"/>	<input type="checkbox"/> Line Status	<input type="checkbox"/> Threshold
eth 0/1	<input checked="" type="checkbox"/>		
eth 0/2	<input checked="" type="checkbox"/>		
fxs 0/1	<input checked="" type="checkbox"/>		
fxs 0/2	<input checked="" type="checkbox"/>		
fxs 0/3	<input checked="" type="checkbox"/>		
fxs 0/4	<input checked="" type="checkbox"/>		
fxs 0/5	<input checked="" type="checkbox"/>		
fxs 0/6	<input checked="" type="checkbox"/>		
fxs 0/7	<input checked="" type="checkbox"/>		
fxs 0/8	<input checked="" type="checkbox"/>		
fxs 0/9	<input checked="" type="checkbox"/>		
fxs 0/10	<input checked="" type="checkbox"/>		
fxs 0/11	<input checked="" type="checkbox"/>		
fxs 0/12	<input checked="" type="checkbox"/>		
fxs 0/13	<input checked="" type="checkbox"/>		
fxs 0/14	<input checked="" type="checkbox"/>		
fxs 0/15	<input checked="" type="checkbox"/>		
fxs 0/16	<input checked="" type="checkbox"/>		
VQM	<input type="checkbox"/> EndOfCall	<input type="text" value="info"/>	
DNS Resolution Failure	<input type="checkbox"/> First-Failure	<input type="text" value="Error"/>	

Figure 10. Traps Tab

- Optional. Select the **Statistics** tab to view the SNMP statistics.

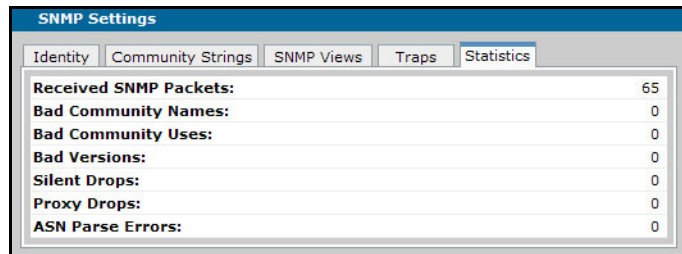


Figure 11. Statistics Tab

- Select **Save** at the top, right side of the menu to save the new SNMP configuration settings.

## 7. Troubleshooting

SNMP is a troubleshooting tool designed to aid administrators with current status conditions and alarms on network devices. After configuring SNMP on your AOS device, and compiling the necessary MIBs on your NMS, the network will be in a monitored environment. The SNMP messages and traps will alert the administrator and assist in troubleshooting network issues. AOS troubleshooting commands specifically for SNMP are listed in [Table 6](#).

Table 6. AOS SNMP Troubleshooting Commands

Command	Explanation
<code>show dynamic-counter</code>	Displays statistics related to the dynamic counter.
<code>show snmp</code>	Displays system SNMP parameters and current status of SNMP communications.
<code>debug snmp packets</code>	Displays debug output from local SNMP traffic.
<code>debug ip udp</code>	Displays UDP debug output messages.



**NOTE**

The output of all **show** commands can be limited by appending the following modifiers to the end of the command: | **begin** <text>, | **exclude** <text>, and | **include** <text>. The **include** modifier limits output to lines that contain the specified text, the **exclude** modifier excludes any lines with the specified text, and the **begin** modifier displays the first line of output with the specified text and all lines thereafter.



**NOTE**

Turning on a large amount of debug information can adversely affect the performance of your unit.

## Sample Output of Troubleshooting Commands

Use the **show dynamic-counter** command to show statistics related to the dynamic counter. Using the keywords provides specific output as described below:

```
#show dynamic-counter [average-rates | <slot/index>]
```

**average-rates** displays the average rate of frames/packets per second and bits per second assigned to a queue for the last 30 seconds and 5 minutes.

**<slot/display>** displays statistics for a specified slot/port.

The following is example output using the show dynamic-counter command:

```
#show dynamic-counter
```

Counter	Type	Port/Queue	Bytes	Packets	Avg Rate (kbps)	Status
0/1	TX	Gig Eth 1/Q 4	74984320	1171630	5	ACTIVE
0/2	CONGEST	Gig Eth 1/Q 4	0	0	0	ACTIVE
0/3	TX	Gig Eth 1/Q 3	75062016	1172844	6	ACTIVE
0/4	CONGEST	Gig Eth 1/Q 3	0	0	0	ACTIVE
0/5	TX	Gig Eth 1/Q 2	74986752	1171668	5	ACTIVE
0/6	CONGEST	Gig Eth 1/Q 2	0	0	0	ACTIVE
0/7	TX	Gig Eth 1/Q 1	75063154	1172856	6	ACTIVE
0/8	CONGEST	Gig Eth 1/Q 1	0	0	0	ACTIVE
0/9	TX	Gig Eth 1/Q 0	110363758	1581014	8	ACTIVE
0/10	CONGEST	Gig Eth 1/Q 0	0	0	0	ACTIVE
0/11	NONE	NONE	0	0	0	N/A

...

Use the **show snmp** command to display the system SNMP current configuration. Using the keywords provides specific output as described below:

```
#show snmp [engineID | group | user]
```

**engineID** displays the hex string that defines the current local engine ID settings.

**group** displays the list of all groups entered.

**user** displays the list of all users entered.

The following is example output using the **show snmp** command for a system with SNMP disabled, the default chassis, and contact parameters:

```
#show snmp
Chassis: Chassis ID
Contact Name:
Contact Phone:
Contact Email:
Contact Pager:
Management URL:
Management URL Label:
0 Rx SNMP packets
0 Bad community names
0 Bad community uses
0 Bad versions
0 Silent drops
```

```
0 Proxy drops
0 ASN parse errors
```

Use the **debug snmp packets** command to enable debug output from local SNMP traffic. Debug messages are displayed (real time) to the terminal (or Telnet) screen. When SNMP packets ingress or egress the unit (local traffic only), the traffic is displayed in a partially decoded form. Use the **no** form of this command to disable the debug messages.

The following is an example of debug output for SNMP packets:

```
>enable
#debug snmp packets
#SNMP V1 RX: GET-NEXT Request PDU from 10.23.1.157:2922 (community=public)
request id=3, error status=0, error index=0
max repetitions=0, non repetitions=0
VarBinds:
OID=1.3.6.1.2.1.1.3
value=empty
#SNMP V1 TX: GET Response PDU to 10.23.1.157:2922 (community=public)
request id=3, error status=0, error index=0
max repetitions=1, non repetitions=0
VarBinds:
OID=1.3.6.1.2.1.1.3.0
value=410825
```

Use the **debug ip udp** command to activate debug messages associated with UDP send and receive events in AOS. Debug messages are displayed (real time) to the terminal (or Telnet) screen. Use the **no** form of this command to disable the debug messages.

In the **debug ip udp** information, the message **no listener** means that there is no service listening on this UDP port (i.e., the data is discarded). The following is an example of IP UDP debug output:

```
>enable
#debug ip udp
2003.02.17 07:38:48 IP.UDP RX: src=10.200.3.236:138,
dst=10.200.255.255:138, 229 bytes, no listener
2003.02.17 07:38:48 IP.UDP RX: src=10.200.2.7:138, dst=10.200.255.255:138,
227 bytes, no listener
2003.02.17 07:38:48 IP.UDP RX: src=10.200.201.240:138,
dst=10.200.255.255:138, 215 bytes, no listener
```



## 8. Quick View of AOS MIBs

Use [Table 7](#) (below) and [Table 8 on page 42](#) to take a quick look at the widely used AOS MIBs. For a complete list of AOS MIBs, refer to [Appendix A: AOS MIBs on page 44](#).

**Table 7. AOS Standard MIBs Quick View**

MIB Names	Brief Description
ATM MIB	Contains configuration and statistics for ATM virtual connections. Refer to <a href="#">IETF ATM MIB on page 46</a> and <a href="#">IETF ATM MIB OIDs on page 65</a> for more information.
Battery MIB	Describes objects for monitoring batteries. Refer to <a href="#">Battery MIB on page 51</a> and <a href="#">Battery MIB OIDs on page 91</a> .
BGP MIB	Describes objects for managing the Border Gateway Protocol Version 4 or lower. Refer to <a href="#">BGP MIB on page 44</a> and <a href="#">BGP MIB OIDs on page 59</a> for more information.
Bridge MIB	Refer to <a href="#">Bridge MIB on page 44</a> and <a href="#">Bridge MIB OIDs on page 61</a> for more information.
DS1 MIB	Describes DS1, E1, DS2, and E2 interface objects. Refer to <a href="#">DS1 MIB on page 44</a> and <a href="#">DS1 MIB OIDs (RFC 2495) on page 63</a> for more information.
Entity MIB	Allows NMS to determine what modules are installed in a device. Refer to <a href="#">IETF ENTITY MIB OIDs on page 67</a> for more information.
Entity Sensor MIB	Defines Entity MIB extensions for physical sensors. Refer to <a href="#">IETF ENTITY SENSOR MIB OIDs on page 68</a> for more information.
EtherLike MIB	Describes generic objects for Ethernet-like network interfaces. Refer to <a href="#">IETF EtherLike MIB on page 47</a> and <a href="#">IETF EtherLike MIB OIDs on page 69</a> for more information.
Frame Relay DTE MIB	Describes the use of a Frame Relay interface by a DTE. Refer to <a href="#">IETF Frame Relay DTE MIB on page 47</a> and <a href="#">IETF Frame Relay DTE MIB OIDs on page 70</a> for more information.
IF-MIB	Describes generic objects for network interface sublayers. Refer to <a href="#">IETF Interfaces MIB on page 47</a> and <a href="#">IETF IF MIB OIDs on page 72</a> for more information.
IP Forward MIB	Describes CIDR multi-path IP routes. Refer to <a href="#">IETF IP Forward MIB on page 48</a> and <a href="#">IETF IP Forward MIB OIDs on page 76</a> for more information.
IP and ICMP MIB	Describes IP and ICMP implementations, excluding the management of IP routes. Refer to <a href="#">IETF IP and ICMP MIB on page 48</a> and <a href="#">IETF IP OIDs on page 74</a> for more information.
LLDP MIB	Refer to <a href="#">IEEE LLDP MIB on page 45</a> and <a href="#">LLDP MIB OIDs on page 82</a> for more information.
MAU MIB	Management information for 802.3 Media Access Units (MAU or transceiver). Refer to <a href="#">IETF MAU Ethernet Interfaces and Hub MIB on page 49</a> and <a href="#">IETF MAU Ethernet Interfaces and Hub MIB OIDs (MAU.MIB) on page 77</a> for more information.

**Table 7. AOS Standard MIBs Quick View**

MIB Names	Brief Description
OSPF MIB	Describes objects for managing OSPF version 2. Refer to <a href="#">OSPF MIB on page 49</a> and <a href="#">OSPF MIB OIDs on page 80</a> for more information.
SNMPv2-MIB	The SNMP-v2 MIB is a collection of objects common to all managed systems. This MIB module contains system group, snmp group, and standard traps. Refer to <a href="#">SNMPv2-MIB on page 49</a> and <a href="#">SNMPv2-MIB OIDs (RFC 1213 MIB-2) on page 86</a> for more information.
MEF SOAM PM MIB	Describes objects for managing Ethernet Services Operations, Administration and Maintenance for Performance Monitoring. Refer to <a href="#">MEF-SOAM-PM (Y.1731) MIB on page 51</a> and <a href="#">MEF-SOAM-PM OIDs (MEF 36) on page 87</a> for more information.

**Table 8. ADTRAN Enterprise MIBs Quick View**

MIB Names	Brief Description
AOS Unit MIB	Contains general information about the unit, including contact information, management URL, device manufacturer, serial number, and system health. Refer to <a href="#">AOS UNIT MIB on page 59</a> and <a href="#">AOS Unit MIB OIDs on page 117</a> for more information.
AOS CPU MIB	Contains information regarding AOS CPU utilization, memory utilization, and status of all system processes. Refer to <a href="#">AOS CPU MIB on page 53</a> and <a href="#">AOS CPU MIB OIDs on page 93</a> for more information.
AOS Download MIB	Allows for download and upload of configuration, as well as firmware images. The MIB allows setting the IP address of a TFTP server that the unit will use to get or put files that are specified within other OIDs of the MIB. Refer to <a href="#">AOS Download MIB on page 54</a> and <a href="#">AOS Download MIB OIDs on page 95</a> for more information.
AOS Dying Gasp MIB	Defines Dying Gasp Traps for AOS products. Refer to <a href="#">AOS Dying Gasp Trap MIB on page 54</a> for more information.
AOS Fan MIB	Defines fan configuration information and traps for AOS products. Refer to <a href="#">ADTRAN AOS Fan MIB on page 52</a> for more information.
AOS Filesystem MIB	Contains a table listing the file systems contained within the unit, and a table with all files in the files system. Deleting a row will delete a file. Refer to <a href="#">AOS FileSystem MIB on page 55</a> and <a href="#">AOS System MIB OIDs on page 116</a> for more information.
AOS Network Sync MIB	Defines network synchronization configuration information and traps for AOS products. Refer to <a href="#">ADTRAN AOS Network Synchronization MIB on page 52</a> for more information.
AOS SFP MIB	Contains information about SFP status, such as Tx/Rx power, supply voltage, temperature, bias, and SFP failure. Refer to <a href="#">AOS SFP MIB on page 59</a> and <a href="#">AOS SFP Status MIB OIDs on page 114</a> for more information.
AOS SNMP MIB	Contains information about the SNMP communities and trap manager settings. Refer to <a href="#">AOS SNMP MIB on page 58</a> and <a href="#">AOS SNMP MIB OIDs on page 115</a> for more information.

**Table 8. ADTRAN Enterprise MIBs Quick View (Continued)**

MIB Names	Brief Description
<b>AOS Router MIBs</b>	
AOS IF MIB	This MIB module provides information regarding network interfaces (Gigabit Ethernet and EFM groups), including received and transmitted packet information, frame size, and other statistics used to monitor and analyze traffic passing through the interface. Refer to <a href="#">ADTRAN IF MIB on page 52</a> and <a href="#">AOS IF MIB OIDs on page 98</a> for more information.
AOS Network Monitor MIB	This MIB module provides probe and responder statistics, as well as the ability to configure network monitor probes and responders. Refer to <a href="#">AOS Network Monitor MIB on page 57</a> and <a href="#">AOS Network Monitor MIB OIDs on page 99</a> for more information.
Quality of Service MIB	Displays quality of service (QoS) statistical data. Refer to <a href="#">AOS QoS MIB on page 58</a> and <a href="#">AOS QoS MIB OIDs on page 111</a> for more information.
VRRP MIB	Contains information about the VRRP V2 and V3 notifications for AOS products and virtual router instances. Refer to <a href="#">AOS VRRP MIB on page 59</a> and <a href="#">AOS VRRP MIB OIDs on page 129</a> for more information.
<b>AOS Switch MIBs</b>	
MAC Based Port Security	This MIB contains a trap for identification of port activity. Refer to <a href="#">AOS MAC Based Port Security on page 55</a> for more information.
<b>AOS Voice MIBs</b>	
AOS Media Gateway MIB	This MIB contains statistics for monitoring the media gateway statistics in AOS Voice over Internet Protocol (VoIP) capable products. Refer to <a href="#">AOS Media Gateway MIB on page 56</a> for more information.
AOS SIP Trunk Registration MIB	This MIB contains information about SIP trunk registration events. Refer to <a href="#">AOS SIP Registration MIB on page 58</a> and <a href="#">AOS SIP Trunk Registration MIB OIDs on page 115</a> for more information.
AOS Voice Quality Monitoring MIB	Displays Voice Quality Monitoring configuration and statistical information. Refer to <a href="#">ADTRAN AOS Voice Quality Monitoring MIB on page 52</a> and <a href="#">AOS Voice Quality Monitoring MIB OIDs on page 118</a> for more information.
<b>AOS WAN MIBs</b>	
3G MIB	Displays 3G module data relating to profile information, hardware information, and statistical data. Refer to <a href="#">AOS 3G MIB on page 53</a> and <a href="#">AOS 3G MIB OIDs on page 91</a> for more information.
AOS DS1 Threshold MIB	This is a MIB module for checking different thresholds of DS1 line statistics. Refer to <a href="#">AOS DS1 Thresholds on page 54</a> and <a href="#">AOS DS1 Thresholds MIB OIDs on page 96</a> for more information.

## 9. Appendix A: AOS MIBs

A MIB contains the definitions for all items that can be managed via an SNMP network management station for a particular device. An SNMP management station can retrieve network performance statistics, and modify configuration options with the use of MIBs. Enterprise MIBs are ADTRAN's product-specific MIBs that define the unique AOS configuration options and statistics available for retrieval. All compatible AOS MIBs (standard and enterprise), including specific variables and OID values, can be downloaded at <http://www.adtran.com>.



### NOTE

*MIBs identified in the following tables as Legacy MIBs\* are MIBs that were supported prior to the AOS convergence (R10.1.0) in 2012.*

### Standard MIBS

**Table A-1. BGP MIB**

<b>MIB Name</b>	BGP MIB (bgp.mib)	<b>Standards Reference</b>	RFC 1657
<b>Note</b>	OID 1.3.6.1.2.1.15	<b>Software Version</b>	AOS 18.1
<b>Description</b>	This MIB defines objects for managing the Border Gateway Protocol Version 4 or lower.		
<b>Exclusions</b>	bgpRcvdPathAttrTable		

**Table A-2. Bridge MIB**

<b>MIB Name</b>	Bridge MIB (bridge.mib)	<b>Standards Reference</b>	RFC 1493
<b>Note</b>	OID 1.3.6.1.2.1.17	<b>Software Version</b>	AOS 8.1
<b>Description</b>	Contains bridge entries for switch fabric.		
<b>Exclusions</b>	dot1dTpPortMaxInfo dot1dTpPortInFrames dot1dTpPortOutFrames	dot1dTpPortInDiscards dot1dTpLearnedEntryDiscards	

**Table A-3. DS1 MIB**

<b>MIB Name</b>	DS1 MIB (Ds1.mib)	<b>Standards Reference</b>	RFC 2495
<b>Note</b>	OID 1.3.6.1.2.1.10.18	<b>Software Version</b>	AOS 2.1
<b>Description</b>	This MIB provides information pertaining to T1 and E1 physical layer performance information, as well as specific settings for each of those interfaces. Types of items covered include ES, SES, UAS, Framing, and Coding.		
<b>Exclusions</b>	dsx1FarEndCurrentTable dsx1FarEndIntervalEntry dsx1FarEndTotalEntry	dsx1FracTable dsx1ChanMappingTable	

**Table A-4. HDLSL2 SHDSL Line MIB**

<b>MIB Name</b>	HDLSL2 SHDSL LINE MIB (HDLSL2-SHDSL-LINE-MIB[rfc4319].mib)	<b>Standards Reference</b>	RFC 4319
<b>Note</b>	OID: 1.3.6.1.2.1.10.48	<b>Software Version</b>	AOS R11.1
<b>Description</b>	This MIB module defines a collection of objects for managing HDLSL2/SHDSL lines.		
<b>Exclusions</b>	hdsl2ShdslSpanConfTable hdsl2ShdslEndpointConfTable hdsl2ShdslStatusNumAvailRepeaters hdsl2ShdslEndpointMaintTable	hdsl2ShdslUnitMaintTable hdsl2ShdslSpanConfProfileTable hdsl2ShdslEndpointAlarmConfProfileTable	

**Table A-5. IANA Address Family Numbers MIB**

<b>MIB Name</b>	Address Family MIB (IANA-ADDRESS-FAMILY-NUMBERS.mib)	<b>Standards Reference</b>	RFC 2677
<b>Note</b>	OID: 1.3.6.1.2.1.172	<b>Software Version</b>	Legacy MIB*
<b>Description</b>	The MIB module defines the AddressFamilyNumbers textual convention.		
<b>Exclusions</b>	None		

**Table A-6. IANA ifType MIB**

<b>MIB Name</b>	ifType MIB (ianaif.mib)	<b>Standards Reference</b>	RFC 1573
<b>Note</b>	OID: 1.3.6.1.2.1.30	<b>Software Version</b>	Legacy MIB*
<b>Description</b>	This MIB module defines the IANAifType textual convention, and thus the enumerated values of the ifType object is defined in MIB-II's ifTable.		
<b>Exclusions</b>	None		

**Table A-7. IEEE LLDP MIB**

<b>MIB Name</b>	LLDP MIB (LLDP.MIB)	<b>Standards Reference</b>	IEEE 802.3ab
<b>Note</b>	OID: 1.0.8802.1.1.2	<b>Software Version</b>	AOS 8.1
<b>Description</b>	MIB module for LLDP configuration, statistics, local system data and remote systems data components. Contains a list of neighboring devices discovered via LLDP Discovery Protocol.		
<b>Exclusions</b>	SNMP Notifications		

**Table A-8. IETF ATM MIB**

<b>MIB Name</b>	ATM MIB (atm.mib)	<b>Standards Reference</b>	RFC 2515
<b>Note</b>	OID 1.3.6.1.2.1.37	<b>Software Version</b>	AOS 8.1
<b>Description</b>	This is the MIB module for ATM and AAL5-related objects for managing ATM interfaces, ATM virtual links, ATM cross connects, AAL5 entities, and AAL5 connections.		
<b>Exclusions</b>	atmInterfaceDs3PlcpTable atmInterfaceTCTable atmTrafficDescrParamTable atmVpITable atmVclTable aal5VccTable atmVpCrossConnectIndexNext atmVpCrossConnectTable atmVcCrossConnectIndexNext atmVcCrossConnectTable atmTrafficDescrParamIndexNext	atmInterfaceAddressType atmInterfaceLmiVpi atmInterfaceLmiVci atmInterfaceAdminAddress atmInterfaceMyNeighborIpAddress atmInterfaceMyNeighborIfName atmInterfaceSubscrAddress atmVclCrossConnectIdentifier atmVclRowStatus atmVclCastType atmVclConnKind	

**Table A-9. IETF ATM Textual Conventions MIB**

<b>MIB Name</b>	ATM Textual Conventions MIB (atm-tc.mib)	<b>Standards Reference</b>	RFC 2514
<b>Note</b>	None	<b>Software Version</b>	Legacy MIB*
<b>Description</b>	This MIB module provides textual conventions and OBJECT-IDENTITY Objects to be used by ATM systems.		
<b>Exclusions</b>	None		

**Table A-10. IETF ENTITY MIB**

<b>MIB Name</b>	ENTITY MIB (entity.mib)	<b>Standards Reference</b>	RFC 2737
<b>Note</b>	OID 1.3.6.1.2.1.47	<b>Software Version</b>	AOS 8.1
<b>Description</b>	Allows NMS to determine what modules are installed in a device.		
<b>Exclusions</b>	entityLogical entLogicalTable	entLPMappingTable entAliasMappingTable	

**Table A-11. IETF ENTITY SENSOR MIB**

<b>MIB Name</b>	ENTITY SENSOR MIB (entity-sensor.mib)	<b>Standards Reference</b>	RFC 3433
<b>Note</b>	OID 1.3.6.1.2.1.99	<b>Software Version</b>	AOS R10.11.1
<b>Description</b>	Allows NMS to query sensors present in AOS device.		
<b>Exclusions</b>			

**Table A-12. IETF EtherLike MIB**

<b>MIB Name</b>	EtherLike MIB (Ether-Like.MIB)	<b>Standards Reference</b>	RFC 2665
<b>Note</b>	dot3 OID: 1.3.6.1.2.1.10.7 EtherMIB OID: 1.3.6.1.2.1.35	<b>Software Version</b>	AOS 2.1
<b>Description</b>	This MIB contains information regarding the type of Ethernet interface and the current status, such as speed and duplex, as well as hardware address.		
<b>Exclusions</b>	dot3CollTable dot3StatsEtherChipSet dot3StatsSQETestErrors dot3ControlInUnknown- Opcodes	dot3InPauseFrames dot3OutPauseFrames dot3Tests dot3Errors	

**Table A-13. IETF Frame Relay DTE MIB**

<b>MIB Name</b>	Frame Relay DTE MIB (FR.MIB)	<b>Standards Reference</b>	RFC 2115
<b>Note</b>	OID 1.3.6.1.2.1.10.32	<b>Software Version</b>	AOS 2.1
<b>Description</b>	This MIB contains information about Frame Relay status and operational statistics.		
<b>Exclusions</b>	frDlcmiAddress frDlcmiAddressLen frDlcmiMulticast	frCircuitRowStatus frErrTable	

**Table A-14. IETF Interfaces MIB**

<b>MIB Name</b>	IF-MIB (If.mib)	<b>Standards Reference</b>	RFC 2863
<b>Note</b>	interfaces OID: 1.3.6.1.2.1.2 ifMIB OID: 1.3.6.1.2.1.31	<b>Software Version</b>	AOS 2.1
<b>Description</b>	This provides a listing of all interfaces in the managed unit and the operational status, administrative status, and statistics about the interface.		
<b>Exclusions</b>	ifRcvAddressTable ifTestTable	ifSpecific ifOutQLen	

**Table A-15. IETF IP and ICMP MIB**

<b>MIB Name</b>	IP MIB (Ip.MIB)	<b>Standards Reference</b>	RFC 2011
<b>Note</b>	IP OID: 1.3.6.1.2.1.4 ICMP OID: 1.3.6.1.2.1.5	<b>Software Version</b>	AOS 6.1
<b>Description</b>	Contains information about ICMP and IP implementations. It contains no route information. This is used by management stations to determine how to display logical connections.		
<b>Exclusions</b>	ipIfStatsTable ipv4InterfaceTableLast-Change ipv6InterfaceTableLast-Change ipSystemStatsInOctets ipSystemStatsHCInOctets ipSystemStatsHCInDelivers ipSystemStatsHCOutRequests ipSystemStatsOutOctets ipSystemStatsHCOutOctets ipSystemStatsInMcastPkts ipSystemStatsHCInMcastPkts ipSystemStatsInMcastOctets ipSystemStatsHCInMcastOctets ipSystemStatsOutMcastPkts ipSystemStatsHCOutMcastPkts	ipSystemStatsOutMcastOctets ipSystemStatsHCOutMcastOctets ipSystemStatsInBcastPkts ipSystemStatsHCInBcastPkts ipSystemStatsOutBcastPkts ipSystemStatsHCOutBcastPkts ipSystemStatsDiscontinuityTime ipSystemStatsRefreshRate ipIfStatsTableLastChange ipAddressSpinLock ipAddressCreated ipAddressLastChanged ipv6RouterAdvertSpinLock icmpMsgStatsTable ipAddressPrefixTable	

**Table A-16. IETF IP Forward MIB**

<b>MIB Name</b>	IP Forward MIB (IpFwd.mib)	<b>Standards Reference</b>	RFC 2096
<b>Note</b>	OID: 1.3.6.1.2.1.4.24	<b>Software Version</b>	AOS 6.1
<b>Description</b>	Table of IP routes within unit.		
<b>Exclusions</b>	ipCidrRouteNumber ipForwardNumber	ipForwardTable	



**Table A-17. IETF MAU Ethernet Interfaces and Hub MIB**

<b>MIB Name</b>	MAU MIB (MAU.mib)	<b>Standards Reference</b>	RFC 2668
<b>Note</b>	OID: 1.3.6.1.2.1.26	<b>Software Version</b>	AOS 2.1
<b>Description</b>	Defines settings for MAUs. This MIB contains settings and statistics for IEEE 802.3 devices. Settings include features, such as duplex and speed. This MIB includes Gigabit settings.		
<b>Exclusions</b>	mauRpGrpBasic mauRpGrp100Mbs mauRpGrpJack mauBroadBasic rpMauNotifications maulfGrpAu- toNeg1000Mbps	ifMauTypeList ifMauAutoNegCapability ifMauAutoNegCapAdvertised ifMauAutoNegCapReceived ifMauAutoNegRemoteFaultAdvertised ifMauAutoNegRemoteFaultReceived	

**Table A-18. OSPF MIB**

<b>MIB Name</b>	OSPF MIB (OSPF.mib)	<b>Standards Reference</b>	RFC 1253
<b>Note</b>	OID: 1.3.6.1.2.1.14	<b>Software Version</b>	AOS 18.1
<b>Description</b>	This MIB defines objects for managing OSPF version 2.		
<b>Exclusions</b>	ospfHostTable ospfAreaRangeTable	ospfVirtIfTable ospfVirtNbrTable	

**Table A-19. SNMP Framework MIB**

<b>MIB Name</b>	SNMP Framework MIB (snmp-Framework.mib)	<b>Standards Reference</b>	RFC 2571
<b>Note</b>	OID: 1.3.6.1.6.3.10	<b>Software Version</b>	AOS R10.10.1
<b>Description</b>	The SNMP Management Architecture MIB.		
<b>Exclusions</b>	snmpFrameworkAdmin		

**Table A-20. SNMPv2-MIB**

<b>MIB Name</b>	SNMPv2- MIB	<b>Standards Reference</b>	RFC 1907
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**Table A-20. SNMPv2-MIB**

<b>Note</b>	OID: 1.3.6.1.2.1.1	<b>Software Version</b>	AOS 2.1
<b>Description</b>	A collection of objects common to all managed systems. This MIB module contains system group, SNMP group, and standard traps.		
<b>Exclusions</b>	snmpOutPkts snmpInTooBig snmpInNoSuchNames snmpInBadValues snmpInReadOnly snmpInGenErrs snmpInTotalReqVars snmpInTotalSetVars snmpInGetRequests snmpInGetNexts snmpInSetRequests snmpInGetResponses	snmpInTraps snmpOutTooBig snmpOutNoSuchNames snmpOutBadValues snmpOutGenErrs snmpOutGetRequests snmpOutGetNexts snmpOutSetRequests snmpOutGetResponses snmpOutTraps sysORTable sysORLastChange	

**Table A-21. SNMPv2-TC MIB**

<b>MIB Name</b>	SNMPv2-TC MIB (SNMPv2-TC.mib)	<b>Standards Reference</b>	RFC 854
<b>Note</b>	None	<b>Software Version</b>	Legacy MIB*
<b>Description</b>	Represents textual information taken from the NVT ASCII character set, as defined in pages 4, 10, and 11 of RFC 854.		
<b>Exclusions</b>	None		

**Table A-22. IEEE8021 CFM MIB**

<b>MIB Name</b>	IEEE8021-CFM-MIB (IEEE8021-CFM-MIB.mib)	<b>Standards Reference</b>	IEEE 802.1ag
<b>Note</b>	Only read support is provided for the implemented tables. A MaNet in this MIB corresponds to an MEG in the Y.1731 MIB (MEF-SOAM-PM-MIB).	<b>Software Version</b>	AOS R11.6
<b>Description</b>	Connectivity Fault Management module for managing IEEE 802.1ag.		
<b>Exclusions</b>	dot1agCfmStackTable dot1agCfmVlanTable dot1agCfmDefaultMdTable dot1agCfmConfigErrorListTable dot1agCfmMdTable	dot1agCfmMaCompTable dot1agCfmMaMepListTable dot1agCfmLtrTable dot1agCfmMepDbTable	

**Table A-23. MEF-SOAM-PM (Y.1731) MIB**

<b>MIB Name</b>	MEF-SOAM-PM MIB (mefSoamPmMib.mib)	<b>Standards Reference</b>	MEF 36
<b>Note</b>	Only read support for tables.	<b>Software Version</b>	AOS R11.6
<b>Description</b>	This MIB module contains the management objects for the management of Ethernet services operations, administration and maintenance for performance monitoring.		
<b>Exclusions</b>	mefSoamPmMepTable mefSoamLmMeasuredStatsTable mefSoamLmCurrentAvailStatsTable mefSoamLmHistoryAvailStatsTable mefSoamLmHistoryStatsTable mefSoamDmCfgMeasBinTable	mefSoamDmMeasuredStatsTable mefSoamDmCurrentStatsBinsTable mefSoamDmHistoryStatsTable mefSoamDmHistoryStatsBinsTable mefSoamLmThresholdCfgTable mefSoamDmThresholdCfgTable	

**Table A-24. Battery MIB**

<b>MIB Name</b>	Battery MIB (battery.mib)	<b>Standards Reference</b>	RFC 7577
<b>Note</b>	OID 1.3.6.1.2.1.233	<b>Software Version</b>	AOS R11.10.0
<b>Description</b>	This MIB module defines a set of objects for monitoring batteries of networked devices and of their components.		
<b>Exclusions</b>	None		

**Table A-25. ADTRAN MIB**

<b>MIB Name</b>	ADTRAN MIB (adtran.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664
<b>Software Version</b>	Legacy MIB*
<b>Description</b>	The MIB module that describes the base organization for all enterprises MIBs developed by ADTRAN, Inc.

**Table A-26. ADTRAN AOS MIB**

<b>MIB Name</b>	ADTRAN AOS MIB (adGenAos.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53
<b>Software Version</b>	Legacy MIB*
<b>Description</b>	This MIB defines the AOS enterprise tree node. It provides a basis for the definition of all other AOS MIBs.

**Table A-27. ADTRAN AOS Fan MIB**

<b>MIB Name</b>	ADTRAN AOS FAN MIB (adGenAosFan.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.1.8
<b>Software Version</b>	AOS R10.11.1
<b>Description</b>	The MIB module defines fan configuration information and traps for AOS products.

**Table A-28. ADTRAN AOS Network Synchronization MIB**

<b>MIB Name</b>	ADTRAN AOS NETWORK SYNC MIB (adGenAosNetSync.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.1.9
<b>Software Version</b>	AOS R10.11.1
<b>Description</b>	The MIB module defines Network Sync configuration information and traps for AOS products.

**Table A-29. ADTRAN AOS Voice Quality Monitoring MIB**

<b>MIB Name</b>	ADTRAN AOS VQ MIB (adGenAosVQM.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.5.3 Trap: adVQMEndOfCallTrap
<b>Software Version</b>	Legacy MIB*
<b>Description</b>	This MIB defines the Voice Quality Monitoring statistics for AOS products.

**Table A-30. ADTRAN IF MIB**

<b>MIB Name</b>	ADTRAN IF MIB (adGenAosIf.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.2.4
<b>Software Version</b>	AOS R13.2.0
<b>Description</b>	This MIB module defines traffic statistics used to monitor and analyze traffic flow through network interfaces. This MIB is only supported on the NetVanta 4660, 5660, and 6360 products.

**Table A-31. ADTRAN IF Performance History MIB**

<b>MIB Name</b>	ADTRAN IF PERF History MIB (adGenAosIfPerformaceHistory.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.1.7
<b>Software Version</b>	AOS R10.10.1
<b>Description</b>	This MIB module defines high capacity performance statistics for interfaces within an AOS product.

**Table A-32. ADTRAN Text Convention MIB**

<b>MIB Name</b>	ADTRAN Text Convention MIB (adtrantc.mib)
<b>Note</b>	ADTRAN General Text Conventions (SNMP v2)
<b>Software Version</b>	Legacy MIB*
<b>Description</b>	MIB module provides definitions of textual conventions that can be imported into MIB modules so that independent additions can be made for new products without affecting existing MIBs.

**Table A-33. AOS 3G MIB**

<b>MIB Name</b>	AOS 3G MIB (adGenAos3G.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.6.2
<b>Software Version</b>	AOS 17.4
<b>Description</b>	MIB used to set or display 3G module data relating to profile information, hardware information, and statistical data.

**Table A-34. AOS CPU MIB**

<b>MIB Name</b>	AOS CPU MIB (adGenAOSCpuUtil.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.1.4
<b>Software Version</b>	AOS 9.1
<b>Description</b>	Contains information regarding AOS CPU utilization, memory utilization, and status of all system processes.

**Table A-35. AOS Desktop Auditing MIB**

<b>MIB Name</b>	AOS Desktop Auditing MIB (adGenAosDesktopAuditing.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.4.2
<b>Software Version</b>	17.08
<b>Description</b>	Displays client NAP information, such as firewall, anti-virus, anti-spyware, and security states.

**Table A-36. AOS Download MIB**

<b>MIB Name</b>	AOS Download MIB (adAosDownload.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.1.3
<b>Software Version</b>	AOS 8.1
<b>Description</b>	Allows for download and upload of configuration, as well as firmware images. The MIB allows setting the IP address of a TFTP server that the unit will use to get or put files that are specified within other OIDs of the MIB.

**Table A-37. AOS DNS MIB**

<b>MIB Name</b>	AOS DNS MIB (adGenAosDns.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.8.1
<b>Software Version</b>	Legacy MIB*
<b>Description</b>	MIB module for AOS DNS statistics.

**Table A-38. AOS DS1 Thresholds**

<b>MIB Name</b>	ADTRAN AOS DS1 Threshold MIB (adGenAosDS1-Ext.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.6.1
<b>Software Version</b>	Legacy MIB*
<b>Description</b>	This is a MIB module for checking different thresholds of DS1 line statistics.

**Table A-39. AOS Dying Gasp Trap MIB**

<b>MIB Name</b>	ADTRAN AOS Dying Gasp MIB (adGenAOSDyingGaspMib.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.1.11
<b>Software Version</b>	AOS R11.6
<b>Description</b>	The MIB module defines dying gasp traps for AOS products.

**Table A-40. AOS Ethernet Loopback MIB**

<b>MIB Name</b>	ADTRAN AOS Ethernet Loopback Terminal/Facility MIB (AdGenAosEthLpbk.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.9.10
<b>Software Version</b>	AOS R11.7
<b>Description</b>	The MIB module defines Ethernet terminal loopback statistics for AOS products.

**Table A-41. AOS Factory Reset MIB**

<b>MIB Name</b>	ADTRAN AOS Factory Reset MIB (adAOSFactoryReset.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.1.1.28
<b>Software Version</b>	AOS R13.8.0
<b>Description</b>	Setting this object to true (1) causes the device to factory reset. Reading the object always returns false (2).

**Table A-42. AOS FileSystem MIB**

<b>MIB Name</b>	AOS FileSystem MIB (adGenAOSFileSystem.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.1.6
<b>Software Version</b>	AOS 10.1
<b>Description</b>	Contains a table listing the file systems contained within the unit, and a table with all files in the files system. Deleting a row will delete a file.

**Table A-43. AOS Implement userLogin MIB**

<b>MIB Name</b>	ADTRAN AOS Implement userLogin MIB (adGenAosUserLogin.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.1.1.0.1
<b>Software Version</b>	AOS R13.3.0
<b>Description</b>	The MIB module defines traps for when a user has successfully logged in over console or SSH.

**Table A-44. AOS Implement userLogout MIB**

<b>MIB Name</b>	ADTRAN AOS Implement userLogout MIB (adGenAosUserLogout.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.1.1.0.2
<b>Software Version</b>	AOS R13.3.0
<b>Description</b>	The MIB module defines traps for when a user has successfully logged out over console or SSH.

**Table A-45. AOS MAC Based Port Security**

<b>MIB Name</b>	MAC Based Port Security
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.4.1

**Table A-45. AOS MAC Based Port Security**

<b>Description</b>	This MIB contains a trap for identification of port activity.
<b>Software Version</b>	AOS 8.1
<b>Exclusions</b>	This MIB is not supported in products with basic switch fabrics. This includes the NetVanta 2054 and the NetVanta 344.

**Table A-46. AOS Media Gateway MIB**

<b>MIB Name</b>	ADTRAN AOS Media Gateway MIB (adGenAosMediaGateway.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.5.2
<b>Software Version</b>	AOS 10.1
<b>Description</b>	This MIB contains statistics for monitoring the media gateway statistics in AOS VoIP capable products.

**Table A-47. AOS MEF Per CoS Per EVC Performance MIB**

<b>MIB Name</b>	ADTRAN MEF Per CoS Per EVC Performance MIB (adGenAosMefPerCos-PerEvcPerfHistory.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.9.4
<b>Software Version</b>	AOS R11.5
<b>Description</b>	This MIB defines high capacity performance statistics per CoS per EVC within an AOS product.

**Table A-48. AOS MEF Per CoS Per UNI Performance MIB**

<b>MIB Name</b>	ADTRAN MEF Per CoS Per UNI Performance MIB (adGenAosMefPerCosPerUni-PerfHistory.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.9.2
<b>Software Version</b>	AOS R11.5
<b>Description</b>	This MIB defines high capacity performance statistics per CoS per UNI within an AOS product.

**Table A-49. AOS MEF Per EVC Performance MIB**

<b>MIB Name</b>	ADTRAN MEF Per EVC Performance MIB (adGenAosMefPerEvcPerfHistory.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.9.3
<b>Software Version</b>	AOS R11.5
<b>Description</b>	This MIB defines high capacity performance statistics per EVC within an AOS product.



**Table A-50. AOS MEF Per UNI Performance MIB**

<b>MIB Name</b>	ADTRAN MEF Per UNI Performance MIB (adGenAosMefPerUniPerfHistory.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.9.1
<b>Software Version</b>	AOS R11.5
<b>Description</b>	This MIB defines high capacity performance statistics per UNI within an AOS product.

**Table A-51. AOS Network Monitor MIB**

<b>MIB Name</b>	ADTRAN AOS Network Monitor MIB (adGenAosNetMon.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.2.2
<b>Software Version</b>	AOS 17.5
<b>Description</b>	This MIB is used to configure and display statistics for network monitor probes and responders.

**Table A-52. AOS Over Temperature Protection MIB**

<b>MIB Name</b>	ADTRAN AOS Over Temperature Protection MIB (adGenAosOverTempProtection.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.1.10
<b>Software Version</b>	AOS R11.6
<b>Description</b>	The MIB module defines over-temperature configuration information and traps for AOS products.
<b>MIB Name</b>	ADTRAN AOS Over Temperature Protection MIB (adGenAosOverTempProtection.mib)

**Table A-53. AOS Port Security**

<b>MIB Name</b>	ADTRAN AOS Port Security MIB (adGenAosPortSecurity.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.4.1 Trap: adGenAOSPortSecurityViolation
<b>Software Version</b>	Legacy MIB*
<b>Description</b>	The MIB module for general configuration of port security.

**Table A-54. AOS Power MIB**

<b>MIB Name</b>	ADTRAN AOS Power MIB (adGenAosPower.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.7
<b>Software Version</b>	Legacy MIB*
<b>Description</b>	The MIB module for general configuration of power monitoring options for devices with battery backup.

**Table A-55. AOS Power over Ethernet Status MIB**

<b>MIB Name</b>	ADTRAN AOS Power over Ethernet Status MIB (adGenAOSPoEStatusInfo.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.4.3
<b>Software Version</b>	AOS R13.4
<b>Description</b>	MIB used to display Power over Ethernet (PoE) status and usage information.

**Table A-56. AOS QoS MIB**

<b>MIB Name</b>	ADTRAN AOS QoS MIB (adGenAosQoS.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.2.1
<b>Software Version</b>	AOS 17.4
<b>Description</b>	MIB used to display QoS statistical data.

**Table A-57. AOS SIP Registration MIB**

<b>MIB Name</b>	ADTRAN AOS SIP Registration MIB (adGenAosSipRegistration.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.5.4
<b>Software Version</b>	Legacy MIB* AOS R11.2.0: Added support for SIP Registration Status information
<b>Description</b>	This MIB contains information regarding SIP registrations.

**Table A-58. AOS SNMP MIB**

<b>MIB Name</b>	ADTRAN AOS SNMP MIB (adAosSNMP.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.1.2
<b>Software Version</b>	AOS 9.1
<b>Description</b>	This MIB defines how the method for configuring an ADTRAN OS device for SNMP community names and configuration for TRAP manager destinations.

**Table A-59. AOS SFP MIB**

<b>MIB Name</b>	ADTRAN AOS SFP MIB (adGenAosSfp.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.1.12
<b>Software Version</b>	AOS R13.2.0
<b>Description</b>	This MIB contains information about SFP status, such as Tx/Rx power, supply voltage, temperature, bias, and SFP failure.

**Table A-60. AOS UNIT MIB**

<b>MIB Name</b>	ADTRAN AOS UNIT MIB (adAosUnit.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.1.1
<b>Software Version</b>	AOS 9.1
<b>Description</b>	Contains general information about the unit, including contact information, management URL, device manufacturer, serial number, and system health.

**Table A-61. AOS VRRP MIB**

<b>MIB Name</b>	ADTRAN AOS VRRP MIB (adGenAosVrrp.mib)
<b>Note</b>	OID: 1.3.6.1.4.1.664.5.53.2.3
<b>Software Version</b>	AOS R11.3
<b>Description</b>	This MIB defines VRRP V2 and V3 notifications for AOS Products and information about the virtual router instance.

## 10. Appendix B: AOS MIB Object Identifiers

### ADTRAN Standard MIB OIDs

**Table B-1. BGP MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.15	bgp	NODE	
1.3.6.1.2.1.15.1	bgpVersion	LEAF	OCTET STRING
1.3.6.1.2.1.15.2	bgpLocalAs	LEAF	INTEGER
1.3.6.1.2.1.15.3	bgpPeerTable	NODE	
1.3.6.1.2.1.15.3.1	bgpPeerEntry	NODE	
1.3.6.1.2.1.15.3.1.1	bgpPeerIdentifier	LEAF	IpAddress

**Table B-1. BGP MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.15.3.1.2	bgpPeerState	LEAF	INTEGER
1.3.6.1.2.1.15.3.1.3	bgpPeerAdminStatus	LEAF	INTEGER
1.3.6.1.2.1.15.3.1.4	bgpPeerNegotiatedVersion	LEAF	Integer32
1.3.6.1.2.1.15.3.1.5	bgpPeerLocalAddr	LEAF	IpAddress
1.3.6.1.2.1.15.3.1.6	bgpPeerLocalPort	LEAF	INTEGER
1.3.6.1.2.1.15.3.1.7	bgpPeerRemoteAddr	LEAF	IpAddress
1.3.6.1.2.1.15.3.1.8	bgpPeerRemotePort	LEAF	INTEGER
1.3.6.1.2.1.15.3.1.9	bgpPeerRemoteAs	LEAF	INTEGER
1.3.6.1.2.1.15.3.1.10	bgpPeerInUpdates	LEAF	Counter32
1.3.6.1.2.1.15.3.1.11	bgpPeerOutUpdates	LEAF	Counter32
1.3.6.1.2.1.15.3.1.12	bgpPeerInTotalMessages	LEAF	Counter32
1.3.6.1.2.1.15.3.1.13	bgpPeerOutTotalMessages	LEAF	Counter32
1.3.6.1.2.1.15.3.1.14	bgpPeerLastError	LEAF	OCTET STRING
1.3.6.1.2.1.15.3.1.15	bgpPeerFsmEstablishedTransitions	LEAF	Counter32
1.3.6.1.2.1.15.3.1.16	bgpPeerFsmEstablishedTime	LEAF	Gauge32
1.3.6.1.2.1.15.3.1.17	bgpPeerConnectRetryInterval	LEAF	INTEGER
1.3.6.1.2.1.15.3.1.18	bgpPeerHoldTime	LEAF	INTEGER
1.3.6.1.2.1.15.3.1.19	bgpPeerKeepAlive	LEAF	INTEGER
1.3.6.1.2.1.15.3.1.20	bgpPeerHoldTimeConfigured	LEAF	INTEGER
1.3.6.1.2.1.15.3.1.21	bgpPeerKeepAliveConfigured	LEAF	INTEGER
1.3.6.1.2.1.15.3.1.22	bgpPeerMinASOriginationInterval	LEAF	INTEGER
1.3.6.1.2.1.15.3.1.23	bgpPeerMinRouteAdvertisement Interval	LEAF	INTEGER
1.3.6.1.2.1.15.3.1.24	bgpPeerInUpdateElapsedTime	LEAF	Gauge32
1.3.6.1.2.1.15.4	bgpIdentifier	LEAF	IpAddress
1.3.6.1.2.1.15.6	bgp4PathAttrTable	NODE	
1.3.6.1.2.1.15.6.1	bgp4PathAttrEntry	NODE	
1.3.6.1.2.1.15.6.1.1	bgp4PathAttrPeer	LEAF	IpAddress
1.3.6.1.2.1.15.6.1.2	bgp4PathAttrIpAddrPrefixLen	LEAF	INTEGER
1.3.6.1.2.1.15.6.1.3	bgp4PathAttrIpAddrPrefix	LEAF	IpAddress
1.3.6.1.2.1.15.6.1.4	bgp4PathAttrOrigin	LEAF	INTEGER
1.3.6.1.2.1.15.6.1.5	bgp4PathAttrASPathSegment	LEAF	OCTET STRING

**Table B-1. BGP MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.15.6.1.6	bgp4PathAttrNextHop	LEAF	IpAddress
1.3.6.1.2.1.15.6.1.7	bgp4PathAttrMultiExitDisc	LEAF	INTEGER
1.3.6.1.2.1.15.6.1.8	bgp4PathAttrLocalPref	LEAF	INTEGER
1.3.6.1.2.1.15.6.1.9	bgp4PathAttrAtomicAggregate	LEAF	INTEGER
1.3.6.1.2.1.15.6.1.10	bgp4PathAttrAggregatorAS	LEAF	INTEGER
1.3.6.1.2.1.15.6.1.11	bgp4PathAttrAggregatorAddr	LEAF	IpAddress
1.3.6.1.2.1.15.6.1.12	bgp4PathAttrCalcLocalPref	LEAF	INTEGER
1.3.6.1.2.1.15.6.1.13	bgp4PathAttrBest	LEAF	INTEGER
1.3.6.1.2.1.15.6.1.14	bgp4PathAttrUnknown	LEAF	OCTET STRING
1.3.6.1.2.1.15.7	bgpTraps	NODE	
1.3.6.1.2.1.15.7.1	bgpEstablished	NODE	
1.3.6.1.2.1.15.7.2	bgpBackwardTransition	NODE	

**Table B-2. Bridge MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.17	dot1dBridge	NODE	
1.3.6.1.2.1.17.1	dot1dBase	NODE	
1.3.6.1.2.1.17.1.1	dot1dBaseBridgeAddress	LEAF	MacAddress
1.3.6.1.2.1.17.1.2	dot1dBaseNumPorts	LEAF	INTEGER
1.3.6.1.2.1.17.1.3	dot1dBaseType	LEAF	INTEGER
1.3.6.1.2.1.17.1.4	dot1dBasePortTable	NODE	
1.3.6.1.2.1.17.1.4.1	dot1dBasePortEntry	NODE	
1.3.6.1.2.1.17.1.4.1.1	dot1dBasePort	LEAF	INTEGER
1.3.6.1.2.1.17.1.4.1.2	dot1dBasePortIfIndex	LEAF	INTEGER
1.3.6.1.2.1.17.1.4.1.3	dot1dBasePortCircuit	LEAF	OBJECT IDENTIFIER
1.3.6.1.2.1.17.1.4.1.4	dot1dBasePortDelayExceeded Discards	LEAF	Counter
1.3.6.1.2.1.17.1.4.1.5	dot1dBasePortMtuExceeded Discards	LEAF	Counter
1.3.6.1.2.1.17.2	dot1dStp	NODE	
1.3.6.1.2.1.17.2.1	dot1dStpProtocolSpecification	LEAF	INTEGER
1.3.6.1.2.1.17.2.2	dot1dStpPriority	LEAF	INTEGER
1.3.6.1.2.1.17.2.3	dot1dStpTimeSinceTopologyChange	LEAF	TimeTicks

**Table B-2. Bridge MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.17.2.4	dot1dStpTopChanges	LEAF	Counter
1.3.6.1.2.1.17.2.5	dot1dStpDesignatedRoot	LEAF	Bridgeld
1.3.6.1.2.1.17.2.6	dot1dStpRootCost	LEAF	INTEGER
1.3.6.1.2.1.17.2.7	dot1dStpRootPort	LEAF	INTEGER
1.3.6.1.2.1.17.2.8	dot1dStpMaxAge	LEAF	Timeout
1.3.6.1.2.1.17.2.9	dot1dStpHelloTime	LEAF	Timeout
1.3.6.1.2.1.17.2.10	dot1dStpHoldTime	LEAF	INTEGER
1.3.6.1.2.1.17.2.11	dot1dStpForwardDelay	LEAF	Timeout
1.3.6.1.2.1.17.2.12	dot1dStpBridgeMaxAge	LEAF	Timeout
1.3.6.1.2.1.17.2.13	dot1dStpBridgeHelloTime	LEAF	Timeout
1.3.6.1.2.1.17.2.14	dot1dStpBridgeForwardDelay	LEAF	Timeout
1.3.6.1.2.1.17.2.15	dot1dStpPortTable	NODE	
1.3.6.1.2.1.17.2.15.1	dot1dStpPortEntry	NODE	
1.3.6.1.2.1.17.2.15.1.1	dot1dStpPort	LEAF	INTEGER
1.3.6.1.2.1.17.2.15.1.2	dot1dStpPortPriority	LEAF	INTEGER
1.3.6.1.2.1.17.2.15.1.3	dot1dStpPortState	LEAF	INTEGER
1.3.6.1.2.1.17.2.15.1.4	dot1dStpPortEnable	LEAF	INTEGER
1.3.6.1.2.1.17.2.15.1.5	dot1dStpPortPathCost	LEAF	INTEGER
1.3.6.1.2.1.17.2.15.1.6	dot1dStpPortDesignatedRoot	LEAF	Bridgeld
1.3.6.1.2.1.17.2.15.1.7	dot1dStpPortDesignatedCost	LEAF	INTEGER
1.3.6.1.2.1.17.2.15.1.8	dot1dStpPortDesignatedBridge	LEAF	Bridgeld
1.3.6.1.2.1.17.2.15.1.9	dot1dStpPortDesignatedPort	LEAF	OCTET STRING
1.3.6.1.2.1.17.2.15.1.10	dot1dStpPortForwardTransitions	LEAF	Counter
1.3.6.1.2.1.17.3	dot1dSr	NODE	
1.3.6.1.2.1.17.4	dot1dTp	NODE	
1.3.6.1.2.1.17.4.2	dot1dTpAgingTime	LEAF	INTEGER
1.3.6.1.2.1.17.4.3	dot1dTpFdbTable	NODE	
1.3.6.1.2.1.17.4.3.1	dot1dTpFdbEntry	NODE	
1.3.6.1.2.1.17.4.3.1.1	dot1dTpFdbAddress	LEAF	MacAddress
1.3.6.1.2.1.17.4.3.1.2	dot1dTpFdbPort	LEAF	INTEGER
1.3.6.1.2.1.17.4.3.1.3	dot1dTpFdbStatus	LEAF	INTEGER
1.3.6.1.2.1.17.4.4	dot1dTpPortTable	NODE	

**Table B-2. Bridge MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.17.4.4.1	dot1dTpPortEntry	NODE	
1.3.6.1.2.1.17.4.4.1.1	dot1dTpPort	LEAF	INTEGER
1.3.6.1.2.1.17.5	dot1dStatic	NODE	
1.3.6.1.2.1.17.5.1	dot1dStaticTable	NODE	
1.3.6.1.2.1.17.5.1.1	dot1dStaticEntry	NODE	
1.3.6.1.2.1.17.5.1.1.1	dot1dStaticAddress	LEAF	MacAddress
1.3.6.1.2.1.17.5.1.1.2	dot1dStaticReceivePort	LEAF	INTEGER
1.3.6.1.2.1.17.5.1.1.3	dot1dStaticAllowedToGoTo	LEAF	OCTET STRING
1.3.6.1.2.1.17.5.1.1.4	dot1dStaticStatus	LEAF	INTEGER

**Table B-3. DS1 MIB OIDs (RFC 2495)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.10.18	ds1	NODE	
1.3.6.1.2.1.10.18.6	dsx1ConfigTable	NODE	
1.3.6.1.2.1.10.18.6.1	dsx1ConfigEntry	NODE	
1.3.6.1.2.1.10.18.6.1.1	dsx1LineIndex	LEAF	InterfaceIndex
1.3.6.1.2.1.10.18.6.1.2	dsx1IfIndex	LEAF	InterfaceIndex
1.3.6.1.2.1.10.18.6.1.3	dsx1TimeElapsed	LEAF	INTEGER
1.3.6.1.2.1.10.18.6.1.4	dsx1ValidIntervals	LEAF	INTEGER
1.3.6.1.2.1.10.18.6.1.5	dsx1LineType	LEAF	INTEGER
1.3.6.1.2.1.10.18.6.1.6	dsx1LineCoding	LEAF	INTEGER
1.3.6.1.2.1.10.18.6.1.7	dsx1SendCode	LEAF	INTEGER
1.3.6.1.2.1.10.18.6.1.8	dsx1CircuitIdentifier	LEAF	DisplayString
1.3.6.1.2.1.10.18.6.1.9	dsx1LoopbackConfig	LEAF	INTEGER
1.3.6.1.2.1.10.18.6.1.10	dsx1LineStatus	LEAF	INTEGER
1.3.6.1.2.1.10.18.6.1.11	dsx1SignalMode	LEAF	INTEGER
1.3.6.1.2.1.10.18.6.1.12	dsx1TransmitClockSource	LEAF	INTEGER
1.3.6.1.2.1.10.18.6.1.13	dsx1Fdl	LEAF	INTEGER
1.3.6.1.2.1.10.18.6.1.14	dsx1InvalidIntervals	LEAF	INTEGER
1.3.6.1.2.1.10.18.6.1.15	dsx1LineLength	LEAF	INTEGER

**Table B-3. DS1 MIB OIDs (RFC 2495) (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.10.18.6.1.16	dsx1LineStatusLastChange	LEAF	TimeStamp
1.3.6.1.2.1.10.18.6.1.17	dsx1LineStatusChangeTrapEnable	LEAF	INTEGER
1.3.6.1.2.1.10.18.6.1.18	dsx1LoopbackStatus	LEAF	INTEGER
1.3.6.1.2.1.10.18.6.1.19	dsx1Ds1ChannelNumber	LEAF	INTEGER
1.3.6.1.2.1.10.18.6.1.20	dsx1Channelization	LEAF	INTEGER
1.3.6.1.2.1.10.18.7	dsx1CurrentTable	NODE	
1.3.6.1.2.1.10.18.7.1	dsx1CurrentEntry	NODE	
1.3.6.1.2.1.10.18.7.1.1	dsx1CurrentIndex	LEAF	InterfaceIndex
1.3.6.1.2.1.10.18.7.1.2	dsx1CurrentESs	LEAF	PerfCurrentCount
1.3.6.1.2.1.10.18.7.1.3	dsx1CurrentSEsSs	LEAF	PerfCurrentCount
1.3.6.1.2.1.10.18.7.1.4	dsx1CurrentSEFSs	LEAF	PerfCurrentCount
1.3.6.1.2.1.10.18.7.1.5	dsx1CurrentUASs	LEAF	PerfCurrentCount
1.3.6.1.2.1.10.18.7.1.6	dsx1CurrentCSSs	LEAF	PerfCurrentCount
1.3.6.1.2.1.10.18.7.1.7	dsx1CurrentPCVs	LEAF	PerfCurrentCount
1.3.6.1.2.1.10.18.7.1.8	dsx1CurrentLESs	LEAF	PerfCurrentCount
1.3.6.1.2.1.10.18.7.1.9	dsx1CurrentBESs	LEAF	PerfCurrentCount
1.3.6.1.2.1.10.18.7.1.10	dsx1CurrentDMs	LEAF	PerfCurrentCount
1.3.6.1.2.1.10.18.7.1.11	dsx1CurrentLCVs	LEAF	PerfCurrentCount
1.3.6.1.2.1.10.18.8	dsx1IntervalTable	NODE	
1.3.6.1.2.1.10.18.8.1	dsx1IntervalEntry	NODE	
1.3.6.1.2.1.10.18.8.1.1	dsx1IntervalIndex	LEAF	InterfaceIndex
1.3.6.1.2.1.10.18.8.1.2	dsx1IntervalNumber	LEAF	INTEGER
1.3.6.1.2.1.10.18.8.1.3	dsx1IntervalESs	LEAF	PerfIntervalCount
1.3.6.1.2.1.10.18.8.1.4	dsx1IntervalSEsSs	LEAF	PerfIntervalCount
1.3.6.1.2.1.10.18.8.1.5	dsx1IntervalSEFSs	LEAF	PerfIntervalCount
1.3.6.1.2.1.10.18.8.1.6	dsx1IntervalUASs	LEAF	PerfIntervalCount
1.3.6.1.2.1.10.18.8.1.7	dsx1IntervalCSSs	LEAF	PerfIntervalCount
1.3.6.1.2.1.10.18.8.1.8	dsx1IntervalPCVs	LEAF	PerfIntervalCount
1.3.6.1.2.1.10.18.8.1.9	dsx1IntervalLESs	LEAF	PerfIntervalCount
1.3.6.1.2.1.10.18.8.1.10	dsx1IntervalBESs	LEAF	PerfIntervalCount
1.3.6.1.2.1.10.18.8.1.11	dsx1IntervalDMs	LEAF	PerfIntervalCount
1.3.6.1.2.1.10.18.8.1.12	dsx1IntervalLCVs	LEAF	PerfIntervalCount



**Table B-3. DS1 MIB OIDs (RFC 2495) (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.10.18.8.1.13	dsx1IntervalValidData	LEAF	TruthValue
1.3.6.1.2.1.10.18.9	dsx1TotalTable	NODE	
1.3.6.1.2.1.10.18.9.1	dsx1TotalEntry	NODE	

**Table B-4. IETF ATM MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.37	atmMIB	NODE	
1.3.6.1.2.1.37.1	atmMIBObjects	NODE	
1.3.6.1.2.1.37.1.1	atmTrafficDescriptorTypes	NODE	
1.3.6.1.2.1.37.1.1.1	atmNoTrafficDescriptor	NODE	
1.3.6.1.2.1.37.1.1.2	atmNoClpNoScr	NODE	
1.3.6.1.2.1.37.1.1.3	atmClpNoTaggingNoScr	NODE	
1.3.6.1.2.1.37.1.1.4	atmClpTaggingNoScr	NODE	
1.3.6.1.2.1.37.1.1.5	atmNoClpScr	NODE	
1.3.6.1.2.1.37.1.1.6	atmClpNoTaggingScr	NODE	
1.3.6.1.2.1.37.1.1.7	atmClpTaggingScr	NODE	
1.3.6.1.2.1.37.1.1.8	atmClpNoTaggingMcr	NODE	
1.3.6.1.2.1.37.1.1.9	atmClpTransparentNoScr	NODE	
1.3.6.1.2.1.37.1.1.10	atmClpTransparentScr	NODE	
1.3.6.1.2.1.37.1.1.11	atmNoClpTaggingNoScr	NODE	
1.3.6.1.2.1.37.1.1.12	atmNoClpNoScrCdvt	NODE	
1.3.6.1.2.1.37.1.1.13	atmNoClpScrCdvt	NODE	
1.3.6.1.2.1.37.1.1.14	atmClpNoTaggingScrCdvt	NODE	
1.3.6.1.2.1.37.1.1.15	atmClpTaggingScrCdvt	NODE	
1.3.6.1.2.1.37.1.2	atmInterfaceConfTable	NODE	
1.3.6.1.2.1.37.1.2.1	atmInterfaceConfEntry	NODE	
1.3.6.1.2.1.37.1.2.1.1	atmInterfaceMaxVpcs	LEAF	INTEGER
1.3.6.1.2.1.37.1.2.1.2	atmInterfaceMaxVccs	LEAF	INTEGER
1.3.6.1.2.1.37.1.2.1.3	atmInterfaceConfVpcs	LEAF	INTEGER
1.3.6.1.2.1.37.1.2.1.4	atmInterfaceConfVccs	LEAF	INTEGER
1.3.6.1.2.1.37.1.2.1.5	atmInterfaceMaxActiveVpiBits	LEAF	INTEGER

**Table B-4. IETF ATM MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.37.1.2.1.6	atmInterfaceMaxActiveVciBits	LEAF	INTEGER
1.3.6.1.2.1.37.1.2.1.13	atmInterfaceCurrentMaxVpiBits	LEAF	INTEGER
1.3.6.1.2.1.37.1.2.1.14	atmInterfaceCurrentMaxVciBits	LEAF	INTEGER
1.3.6.1.2.1.37.2	atmMIBConformance	NODE	
1.3.6.1.2.1.37.2.1	atmMIBGroups	NODE	
1.3.6.1.2.1.37.2.1.1	atmInterfaceConfGroup	NODE	
1.3.6.1.2.1.37.2.1.2	atmTrafficDescrGroup	NODE	
1.3.6.1.2.1.37.2.1.3	atmInterfaceDs3PlcpGroup	NODE	
1.3.6.1.2.1.37.2.1.4	atmInterfaceTCGroup	NODE	
1.3.6.1.2.1.37.2.1.5	atmVpcTerminationGroup	NODE	
1.3.6.1.2.1.37.2.1.6	atmVccTerminationGroup	NODE	
1.3.6.1.2.1.37.2.1.7	atmVpCrossConnectGroup	NODE	
1.3.6.1.2.1.37.2.1.8	atmVcCrossConnectGroup	NODE	
1.3.6.1.2.1.37.2.1.9	aal5VccGroup	NODE	
1.3.6.1.2.1.37.2.1.10	atmInterfaceConfGroup2	NODE	
1.3.6.1.2.1.37.2.1.11	atmTrafficDescrGroup2	NODE	
1.3.6.1.2.1.37.2.1.12	atmVpcTerminationGroup2	NODE	
1.3.6.1.2.1.37.2.1.13	atmVccTerminationGroup2	NODE	
1.3.6.1.2.1.37.2.1.14	atmVplCrossConnectGroup	NODE	
1.3.6.1.2.1.37.2.1.15	atmVpPvcCrossConnectGroup	NODE	
1.3.6.1.2.1.37.2.1.16	atmVclCrossConnectGroup	NODE	
1.3.6.1.2.1.37.2.1.17	atmVcPvcCrossConnectGroup	NODE	
1.3.6.1.2.1.37.2.2	atmMIBCompliances	NODE	
1.3.6.1.2.1.37.2.2.1	atmMIBCompliance	NODE	
1.3.6.1.2.1.37.2.2.2	atmMIBCompliance2	NODE	
1.3.6.1.2.1.37.3	atmTCMIB	NODE	
1.3.6.1.2.1.37.3.1	atmObjectIdentities	NODE	

**Table B-5. IETF ENTITY MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.47	entityMIB	NODE	
1.3.6.1.2.1.47.1	entityMIBObjects	NODE	
1.3.6.1.2.1.47.1.1	entityPhysical	NODE	
1.3.6.1.2.1.47.1.1.1	entPhysicalTable	NODE	
1.3.6.1.2.1.47.1.1.1.1	entPhysicalEntry	NODE	
1.3.6.1.2.1.47.1.1.1.1.1	entPhysicalIndex	LEAF	PhysicalIndex
1.3.6.1.2.1.47.1.1.1.1.2	entPhysicalDescr	LEAF	SnmpAdminString
1.3.6.1.2.1.47.1.1.1.1.3	entPhysicalVendorType	LEAF	AutonomousType
1.3.6.1.2.1.47.1.1.1.1.4	entPhysicalContainedIn	LEAF	INTEGER
1.3.6.1.2.1.47.1.1.1.1.5	entPhysicalClass	LEAF	PhysicalClass
1.3.6.1.2.1.47.1.1.1.1.6	entPhysicalParentRelPos	LEAF	INTEGER
1.3.6.1.2.1.47.1.1.1.1.7	entPhysicalName	LEAF	SnmpAdminString
1.3.6.1.2.1.47.1.1.1.1.8	entPhysicalHardwareRev	LEAF	SnmpAdminString
1.3.6.1.2.1.47.1.1.1.1.9	entPhysicalFirmwareRev	LEAF	SnmpAdminString
1.3.6.1.2.1.47.1.1.1.1.10	entPhysicalSoftwareRev	LEAF	SnmpAdminString
1.3.6.1.2.1.47.1.1.1.1.11	entPhysicalSerialNum	LEAF	SnmpAdminString
1.3.6.1.2.1.47.1.1.1.1.12	entPhysicalMfgName	LEAF	SnmpAdminString
1.3.6.1.2.1.47.1.1.1.1.13	entPhysicalModelName	LEAF	SnmpAdminString
1.3.6.1.2.1.47.1.1.1.1.14	entPhysicalAlias	LEAF	SnmpAdminString
1.3.6.1.2.1.47.1.1.1.1.15	entPhysicalAssetID	LEAF	SnmpAdminString
1.3.6.1.2.1.47.1.1.1.1.16	entPhysicalIsFRU	LEAF	TruthValue
1.3.6.1.2.1.47.1.3	entityMapping	NODE	
1.3.6.1.2.1.47.1.3.3	entPhysicalContainsTable	NODE	
1.3.6.1.2.1.47.1.3.3.1	entPhysicalContainsEntry	NODE	
1.3.6.1.2.1.47.1.3.3.1.1	entPhysicalChildIndex	LEAF	PhysicalIndex
1.3.6.1.2.1.47.1.4	entityGeneral	NODE	
1.3.6.1.2.1.47.1.4.1	entLastChangeTime	LEAF	TimeStamp
1.3.6.1.2.1.47.2	entityMIBTraps	NODE	
1.3.6.1.2.1.47.2.0	entityMIBTrapPrefix	NODE	
1.3.6.1.2.1.47.2.0.1	entConfigChange	NODE	
1.3.6.1.2.1.47.3	entityConformance	NODE	

**Table B-5. IETF ENTITY MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.47.3.1	entityCompliances	NODE	
1.3.6.1.2.1.47.3.1.1	entityCompliance	NODE	
1.3.6.1.2.1.47.3.1.2	entity2Compliance	NODE	
1.3.6.1.2.1.47.3.2	entityGroups	NODE	
1.3.6.1.2.1.47.3.2.1	entityPhysicalGroup	NODE	
1.3.6.1.2.1.47.3.2.2	entityLogicalGroup	NODE	
1.3.6.1.2.1.47.3.2.3	entityMappingGroup	NODE	
1.3.6.1.2.1.47.3.2.4	entityGeneralGroup	NODE	
1.3.6.1.2.1.47.3.2.5	entityNotificationsGroup	NODE	
1.3.6.1.2.1.47.3.2.6	entityPhysical2Group	NODE	
1.3.6.1.2.1.47.3.2.7	entityLogical2Group	NODE	

**Table B-6. IETF ENTITY SENSOR MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.99.1	entitySensorObjects	NODE	
1.3.6.1.2.1.99.1.1	entPhySensorTable	NODE	
1.3.6.1.2.1.99.1.1.1	entPhySensorEntry	NODE	
1.3.6.1.2.1.99.1.1.1.1	entPhySensorType	LEAF	EntitySensorDataType
1.3.6.1.2.1.99.1.1.1.2	entPhySensorScale	LEAF	EntitySensorDataScale
1.3.6.1.2.1.99.1.1.1.3	entPhySensorPrecision	LEAF	EntitySensorPrecision
1.3.6.1.2.1.99.1.1.1.4	entPhySensorValue	LEAF	EntitySensorValue
1.3.6.1.2.1.99.1.1.1.5	entPhySensorOperStatus	LEAF	EntitySensorStatus
1.3.6.1.2.1.99.1.1.1.6	entPhySensorUnitsDisplay	LEAF	SnmpAdminString
1.3.6.1.2.1.99.1.1.1.7	entPhySensorValueTimeStamp	LEAF	TimeStamp
1.3.6.1.2.1.99.1.1.1.8	entPhySensorValueUpdateRate	LEAF	Unsigned32
1.3.6.1.2.1.99.3	entitySensorConformance	NODE	
1.3.6.1.2.1.99.3.1	entitySensorCompliances	NODE	
1.3.6.1.2.1.99.3.1.1	entitySensorCompliance	NODE	
1.3.6.1.2.1.99.3.2	entitySensorGroups	NODE	
1.3.6.1.2.1.99.3.2.1	entitySensorValueGroup	NODE	

**Table B-7. IETF Ether MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.35	etherMIB	NODE	
1.3.6.1.2.1.35.1	etherMIBObjects	NODE	
1.3.6.1.2.1.35.2	etherConformance	NODE	
1.3.6.1.2.1.35.2.1	etherGroups	NODE	
1.3.6.1.2.1.35.2.1.1	etherStatsGroup	NODE	
1.3.6.1.2.1.35.2.1.2	etherCollisionTableGroup	NODE	
1.3.6.1.2.1.35.2.1.3	etherStats100MbsGroup	NODE	
1.3.6.1.2.1.35.2.1.4	etherStatsBaseGroup	NODE	
1.3.6.1.2.1.35.2.1.5	etherStatsLowSpeedGroup	NODE	
1.3.6.1.2.1.35.2.1.6	etherStatsHighSpeedGroup	NODE	
1.3.6.1.2.1.35.2.1.7	etherDuplexGroup	NODE	
1.3.6.1.2.1.35.2.1.8	etherControlGroup	NODE	
1.3.6.1.2.1.35.2.1.9	etherControlPauseGroup	NODE	
1.3.6.1.2.1.35.2.2	etherCompliances	NODE	
1.3.6.1.2.1.35.2.2.1	etherCompliance	NODE	
1.3.6.1.2.1.35.2.2.2	ether100MbsCompliance	NODE	
1.3.6.1.2.1.35.2.2.3	dot3Compliance	NODE	

**Table B-8. IETF EtherLike MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.10	transmission	NODE	
1.3.6.1.2.1.10.7	dot3	NODE	
1.3.6.1.2.1.10.7.2	dot3StatsTable	NODE	
1.3.6.1.2.1.10.7.2.1	dot3StatsEntry	NODE	
1.3.6.1.2.1.10.7.2.1.1	dot3StatsIndex	LEAF	InterfaceIndex
1.3.6.1.2.1.10.7.2.1.2	dot3StatsAlignmentErrors	LEAF	Counter32
1.3.6.1.2.1.10.7.2.1.3	dot3StatsFCSErrors	LEAF	Counter32
1.3.6.1.2.1.10.7.2.1.4	dot3StatsSingleCollisionFrames	LEAF	Counter32
1.3.6.1.2.1.10.7.2.1.5	dot3StatsMultipleCollisionFrames	LEAF	Counter32
1.3.6.1.2.1.10.7.2.1.7	dot3StatsDeferredTransmissions	LEAF	Counter32

**Table B-8. IETF EtherLike MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.10.7.2.1.8	dot3StatsLateCollisions	LEAF	Counter32
1.3.6.1.2.1.10.7.2.1.9	dot3StatsExcessiveCollisions	LEAF	Counter32
1.3.6.1.2.1.10.7.2.1.10	dot3StatsInternalMacTransmitErrors	LEAF	Counter32
1.3.6.1.2.1.10.7.2.1.11	dot3StatsCarrierSenseErrors	LEAF	Counter32
1.3.6.1.2.1.10.7.2.1.13	dot3StatsFrameTooLongs	LEAF	Counter32
1.3.6.1.2.1.10.7.2.1.16	dot3StatsInternalMacReceiveErrors	LEAF	Counter32
1.3.6.1.2.1.10.7.2.1.18	dot3StatsSymbolErrors	LEAF	Counter32
1.3.6.1.2.1.10.7.2.1.19	dot3StatsDuplexStatus	LEAF	INTEGER
1.3.6.1.2.1.10.7.9	dot3ControlTable	NODE	
1.3.6.1.2.1.10.7.9.1	dot3ControlEntry	NODE	
1.3.6.1.2.1.10.7.9.1.1	dot3ControlFunctionsSupported	LEAF	BITS
1.3.6.1.2.1.10.7.10	dot3PauseTable	NODE	
1.3.6.1.2.1.10.7.10.1	dot3PauseEntry	NODE	
1.3.6.1.2.1.10.7.10.1.1	dot3PauseAdminMode	LEAF	INTEGER
1.3.6.1.2.1.10.7.10.1.2	dot3PauseOperMode	LEAF	INTEGER

**Table B-9. IETF Frame Relay DTE MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.10.32	frameRelayDTE	NODE	
1.3.6.1.2.1.10.32.0	frameRelayTraps	NODE	
1.3.6.1.2.1.10.32.0.1	frDLCIStatusChange	NODE	
1.3.6.1.2.1.10.32.1	frDlcmiTable	NODE	
1.3.6.1.2.1.10.32.1.1	frDlcmiEntry	NODE	
1.3.6.1.2.1.10.32.1.1.1	frDlcmiIfIndex	LEAF	InterfaceIndex
1.3.6.1.2.1.10.32.1.1.2	frDlcmiState	LEAF	INTEGER
1.3.6.1.2.1.10.32.1.1.5	frDlcmiPollingInterval	LEAF	Integer32
1.3.6.1.2.1.10.32.1.1.6	frDlcmiFullEnquiryInterval	LEAF	Integer32
1.3.6.1.2.1.10.32.1.1.7	frDlcmiErrorThreshold	LEAF	Integer32
1.3.6.1.2.1.10.32.1.1.8	frDlcmiMonitoredEvents	LEAF	Integer32
1.3.6.1.2.1.10.32.1.1.9	frDlcmiMaxSupportedVCs	LEAF	DLCI
1.3.6.1.2.1.10.32.1.1.11	frDlcmiStatus	LEAF	INTEGER

**Table B-9. IETF Frame Relay DTE MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.10.32.1.1.12	frDlcmiRowStatus	LEAF	RowStatus
1.3.6.1.2.1.10.32.2	frCircuitTable	NODE	
1.3.6.1.2.1.10.32.2.1	frCircuitEntry	NODE	
1.3.6.1.2.1.10.32.2.1.1	frCircuitIfIndex	LEAF	InterfaceIndex
1.3.6.1.2.1.10.32.2.1.2	frCircuitDlci	LEAF	DLCI
1.3.6.1.2.1.10.32.2.1.3	frCircuitState	LEAF	INTEGER
1.3.6.1.2.1.10.32.2.1.4	frCircuitReceivedFECNs	LEAF	Counter32
1.3.6.1.2.1.10.32.2.1.5	frCircuitReceivedBECNs	LEAF	Counter32
1.3.6.1.2.1.10.32.2.1.6	frCircuitSentFrames	LEAF	Counter32
1.3.6.1.2.1.10.32.2.1.7	frCircuitSentOctets	LEAF	Counter32
1.3.6.1.2.1.10.32.2.1.8	frCircuitReceivedFrames	LEAF	Counter32
1.3.6.1.2.1.10.32.2.1.9	frCircuitReceivedOctets	LEAF	Counter32
1.3.6.1.2.1.10.32.2.1.10	frCircuitCreationTime	LEAF	TimeStamp
1.3.6.1.2.1.10.32.2.1.11	frCircuitLastTimeChange	LEAF	TimeStamp
1.3.6.1.2.1.10.32.2.1.12	frCircuitCommittedBurst	LEAF	Integer32
1.3.6.1.2.1.10.32.2.1.13	frCircuitExcessBurst	LEAF	Integer32
1.3.6.1.2.1.10.32.2.1.14	frCircuitThroughput	LEAF	Integer32
1.3.6.1.2.1.10.32.2.1.15	frCircuitMulticast	LEAF	INTEGER
1.3.6.1.2.1.10.32.2.1.16	frCircuitType	LEAF	INTEGER
1.3.6.1.2.1.10.32.2.1.17	frCircuitDiscards	LEAF	Counter32
1.3.6.1.2.1.10.32.2.1.18	frCircuitReceivedDEs	LEAF	Counter32
1.3.6.1.2.1.10.32.2.1.19	frCircuitSentDEs	LEAF	Counter32
1.3.6.1.2.1.10.32.2.1.20	frCircuitLogicalIfIndex	LEAF	InterfaceIndex
1.3.6.1.2.1.10.32.4	frameRelayTrapControl	NODE	
1.3.6.1.2.1.10.32.4.1	frTrapState	LEAF	INTEGER
1.3.6.1.2.1.10.32.4.2	frTrapMaxRate	LEAF	Integer32
1.3.6.1.2.1.10.32.6	frConformance	NODE	
1.3.6.1.2.1.10.32.6.1	frGroups	NODE	
1.3.6.1.2.1.10.32.6.1.1	frPortGroup	NODE	
1.3.6.1.2.1.10.32.6.1.2	frCircuitGroup	NODE	
1.3.6.1.2.1.10.32.6.1.3	frTrapGroup	NODE	
1.3.6.1.2.1.10.32.6.1.4	frErrGroup	NODE	

**Table B-9. IETF Frame Relay DTE MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.10.32.6.1.5	frNotificationGroup	NODE	
1.3.6.1.2.1.10.32.6.1.6	frPortGroup0	NODE	
1.3.6.1.2.1.10.32.6.1.7	frCircuitGroup0	NODE	
1.3.6.1.2.1.10.32.6.1.8	frErrGroup0	NODE	
1.3.6.1.2.1.10.32.6.1.9	frTrapGroup0	NODE	
1.3.6.1.2.1.10.32.6.2	frCompliances	NODE	
1.3.6.1.2.1.10.32.6.2.1	frCompliance	NODE	
1.3.6.1.2.1.10.32.6.2.2	frCompliance0	NODE	

**Table B-10. IETF IF MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.31	ifMIB	NODE	
1.3.6.1.2.1.31.1	ifMIBObjects	NODE	
1.3.6.1.2.1.31.1.1	ifXTable	NODE	
1.3.6.1.2.1.31.1.1.1	ifXEntry	NODE	
1.3.6.1.2.1.31.1.1.1.1	ifName	LEAF	DisplayString
1.3.6.1.2.1.31.1.1.1.2	ifInMulticastPkts	LEAF	Counter32
1.3.6.1.2.1.31.1.1.1.3	ifInBroadcastPkts	LEAF	Counter32
1.3.6.1.2.1.31.1.1.1.4	ifOutMulticastPkts	LEAF	Counter32
1.3.6.1.2.1.31.1.1.1.5	ifOutBroadcastPkts	LEAF	Counter32
1.3.6.1.2.1.31.1.1.1.6	ifHCInOctets	LEAF	Counter64
1.3.6.1.2.1.31.1.1.1.7	ifHCInUcastPkts	LEAF	Counter64
1.3.6.1.2.1.31.1.1.1.8	ifHCInMulticastPkts	LEAF	Counter64
1.3.6.1.2.1.31.1.1.1.9	ifHCInBroadcastPkts	LEAF	Counter64
1.3.6.1.2.1.31.1.1.1.10	ifHCOctets	LEAF	Counter64
1.3.6.1.2.1.31.1.1.1.11	ifHCOctetsUcastPkts	LEAF	Counter64
1.3.6.1.2.1.31.1.1.1.12	ifHCOctetsMulticastPkts	LEAF	Counter64
1.3.6.1.2.1.31.1.1.1.13	ifHCOctetsBroadcastPkts	LEAF	Counter64
1.3.6.1.2.1.31.1.1.1.14	ifLinkUpDownTrapEnable	LEAF	INTEGER
1.3.6.1.2.1.31.1.1.1.15	ifHighSpeed	LEAF	Gauge32
1.3.6.1.2.1.31.1.1.1.16	ifPromiscuousMode	LEAF	TruthValue



**Table B-10. IETF IF MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.31.1.1.1.17	ifConnectorPresent	LEAF	TruthValue
1.3.6.1.2.1.31.1.1.1.18	ifAlias	LEAF	DisplayString
1.3.6.1.2.1.31.1.1.1.19	ifCounterDiscontinuityTime	LEAF	TimeStamp
1.3.6.1.2.1.31.1.5	ifTableLastChange	LEAF	TimeTicks
1.3.6.1.2.1.31.1.6	ifStackLastChange	LEAF	TimeTicks
1.3.6.1.2.1.31.2	ifConformance	NODE	
1.3.6.1.2.1.31.2.1	ifGroups	NODE	
1.3.6.1.2.1.31.2.1.1	ifGeneralGroup	NODE	
1.3.6.1.2.1.31.2.1.2	ifFixedLengthGroup	NODE	
1.3.6.1.2.1.31.2.1.3	ifHCFixedLengthGroup	NODE	
1.3.6.1.2.1.31.2.1.4	ifPacketGroup	NODE	
1.3.6.1.2.1.31.2.1.5	ifHCPacketGroup	NODE	
1.3.6.1.2.1.31.2.1.6	ifVHCPacketGroup	NODE	
1.3.6.1.2.1.31.2.1.7	ifRcvAddressGroup	NODE	
1.3.6.1.2.1.31.2.1.8	ifTestGroup	NODE	
1.3.6.1.2.1.31.2.1.9	ifStackGroup	NODE	
1.3.6.1.2.1.31.2.1.10	ifGeneralInformationGroup	NODE	
1.3.6.1.2.1.31.2.1.11	ifStackGroup2	NODE	
1.3.6.1.2.1.31.2.1.12	ifOldObjectsGroup	NODE	
1.3.6.1.2.1.31.2.1.13	ifCounterDiscontinuityGroup	NODE	
1.3.6.1.2.1.31.2.1.14	linkUpDownNotificationsGroup	NODE	
1.3.6.1.2.1.31.2.2	ifCompliances	NODE	
1.3.6.1.2.1.31.2.2.1	ifCompliance	NODE	
1.3.6.1.2.1.31.2.2.2	ifCompliance2	NODE	
1.3.6.1.2.1.31.2.2.3	ifCompliance3	NODE	

**Table B-11. IETF Interfaces MIB OIDs (IF.mib)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.2	interfaces	NODE	
1.3.6.1.2.1.2.1	ifNumber	LEAF	Integer32
1.3.6.1.2.1.2.2	ifTable	NODE	

**Table B-11. IETF Interfaces MIB OIDs (IF.mib) (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.2.2.1	ifEntry	NODE	
1.3.6.1.2.1.2.2.1.1	ifIndex	LEAF	InterfaceIndex
1.3.6.1.2.1.2.2.1.2	ifDescr	LEAF	DisplayString
1.3.6.1.2.1.2.2.1.3	ifType	LEAF	IANAIfType
1.3.6.1.2.1.2.2.1.4	ifMtu	LEAF	Integer32
1.3.6.1.2.1.2.2.1.5	ifSpeed	LEAF	Gauge32
1.3.6.1.2.1.2.2.1.6	ifPhysAddress	LEAF	PhysAddress
1.3.6.1.2.1.2.2.1.7	ifAdminStatus	LEAF	INTEGER
1.3.6.1.2.1.2.2.1.8	ifOperStatus	LEAF	INTEGER
1.3.6.1.2.1.2.2.1.9	ifLastChange	LEAF	TimeTicks
1.3.6.1.2.1.2.2.1.10	ifInOctets	LEAF	Counter32
1.3.6.1.2.1.2.2.1.11	ifInUcastPkts	LEAF	Counter32
1.3.6.1.2.1.2.2.1.12	ifInNUcastPkts	LEAF	Counter32
1.3.6.1.2.1.2.2.1.13	ifInDiscards	LEAF	Counter32
1.3.6.1.2.1.2.2.1.14	ifInErrors	LEAF	Counter32
1.3.6.1.2.1.2.2.1.15	ifInUnknownProtos	LEAF	Counter32
1.3.6.1.2.1.2.2.1.16	ifOutOctets	LEAF	Counter32
1.3.6.1.2.1.2.2.1.17	ifOutUcastPkts	LEAF	Counter32
1.3.6.1.2.1.2.2.1.18	ifOutNUcastPkts	LEAF	Counter32
1.3.6.1.2.1.2.2.1.19	ifOutDiscards	LEAF	Counter32
1.3.6.1.2.1.2.2.1.20	ifOutErrors	LEAF	Counter32

**Table B-12. IETF IP OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.4	ip	NODE	
1.3.6.1.2.1.4.1	ipForwarding	LEAF	INTEGER
1.3.6.1.2.1.4.2	ipDefaultTTL	LEAF	INTEGER
1.3.6.1.2.1.4.3	ipInReceives	LEAF	Counter32
1.3.6.1.2.1.4.4	ipInHdrErrors	LEAF	Counter32
1.3.6.1.2.1.4.5	ipInAddrErrors	LEAF	Counter32
1.3.6.1.2.1.4.6	ipForwDatagrams	LEAF	Counter32

**Table B-12. IETF IP OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.4.7	ipInUnknownProts	LEAF	Counter32
1.3.6.1.2.1.4.8	ipInDiscards	LEAF	Counter32
1.3.6.1.2.1.4.9	ipInDelivers	LEAF	Counter32
1.3.6.1.2.1.4.10	ipOutRequests	LEAF	Counter32
1.3.6.1.2.1.4.11	ipOutDiscards	LEAF	Counter32
1.3.6.1.2.1.4.12	ipOutNoRoutes	LEAF	Counter32
1.3.6.1.2.1.4.13	ipReasmTimeout	LEAF	Integer32
1.3.6.1.2.1.4.14	ipReasmReqds	LEAF	Counter32
1.3.6.1.2.1.4.15	ipReasmOKs	LEAF	Counter32
1.3.6.1.2.1.4.16	ipReasmFails	LEAF	Counter32
1.3.6.1.2.1.4.17	ipFragOKs	LEAF	Counter32
1.3.6.1.2.1.4.18	ipFragFails	LEAF	Counter32
1.3.6.1.2.1.4.19	ipFragCreates	LEAF	Counter32
1.3.6.1.2.1.4.20	ipAddrTable	NODE	
1.3.6.1.2.1.4.20.1	ipAddrEntry	NODE	
1.3.6.1.2.1.4.20.1.1	ipAdEntAddr	LEAF	IpAddress
1.3.6.1.2.1.4.20.1.2	ipAdEntIfIndex	LEAF	INTEGER
1.3.6.1.2.1.4.20.1.3	ipAdEntNetMask	LEAF	IpAddress
1.3.6.1.2.1.4.20.1.4	ipAdEntBcastAddr	LEAF	INTEGER
1.3.6.1.2.1.4.20.1.5	ipAdEntReasmMaxSize	LEAF	INTEGER
1.3.6.1.2.1.4.22	ipNetToMediaTable	NODE	
1.3.6.1.2.1.4.22.1	ipNetToMediaEntry	NODE	
1.3.6.1.2.1.4.22.1.1	ipNetToMediaIfIndex	LEAF	INTEGER
1.3.6.1.2.1.4.22.1.2	ipNetToMediaPhysAddress	LEAF	PhysAddress
1.3.6.1.2.1.4.22.1.3	ipNetToMediaNetAddress	LEAF	IpAddress
1.3.6.1.2.1.4.22.1.4	ipNetToMediaType	LEAF	INTEGER
1.3.6.1.2.1.4.23	ipRoutingDiscards	LEAF	Counter32

**Table B-13. IETF IP Forward MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.4.24	ipForward	NODE	
1.3.6.1.2.1.4.24.4	ipCidrRouteTable	NODE	
1.3.6.1.2.1.4.24.4.1	ipCidrRouteEntry	NODE	
1.3.6.1.2.1.4.24.4.1.1	ipCidrRouteDest	LEAF	IpAddress
1.3.6.1.2.1.4.24.4.1.2	ipCidrRouteMask	LEAF	IpAddress
1.3.6.1.2.1.4.24.4.1.3	ipCidrRouteTos	LEAF	Integer32
1.3.6.1.2.1.4.24.4.1.4	ipCidrRouteNextHop	LEAF	IpAddress
1.3.6.1.2.1.4.24.4.1.5	ipCidrRouteIfIndex	LEAF	Integer32
1.3.6.1.2.1.4.24.4.1.6	ipCidrRouteType	LEAF	INTEGER
1.3.6.1.2.1.4.24.4.1.7	ipCidrRouteProto	LEAF	INTEGER
1.3.6.1.2.1.4.24.4.1.8	ipCidrRouteAge	LEAF	Integer32
1.3.6.1.2.1.4.24.4.1.9	ipCidrRouteInfo	LEAF	OBJECT IDENTIFIER
1.3.6.1.2.1.4.24.4.1.10	ipCidrRouteNextHopAS	LEAF	Integer32
1.3.6.1.2.1.4.24.4.1.11	ipCidrRouteMetric1	LEAF	Integer32
1.3.6.1.2.1.4.24.4.1.12	ipCidrRouteMetric2	LEAF	Integer32
1.3.6.1.2.1.4.24.4.1.13	ipCidrRouteMetric3	LEAF	Integer32
1.3.6.1.2.1.4.24.4.1.14	ipCidrRouteMetric4	LEAF	Integer32
1.3.6.1.2.1.4.24.4.1.15	ipCidrRouteMetric5	LEAF	Integer32
1.3.6.1.2.1.4.24.4.1.16	ipCidrRouteStatus	LEAF	RowStatus
1.3.6.1.2.1.4.24.5	ipForwardConformance	NODE	
1.3.6.1.2.1.4.24.5.1	ipForwardGroups	NODE	
1.3.6.1.2.1.4.24.5.1.2	ipForwardMultiPathGroup	NODE	
1.3.6.1.2.1.4.24.5.1.3	ipForwardCidrRouteGroup	NODE	
1.3.6.1.2.1.4.24.5.2	ipForwardCompliances	NODE	
1.3.6.1.2.1.4.24.5.2.1	ipForwardCompliance	NODE	
1.3.6.1.2.1.4.24.5.2.2	ipForwardOldCompliance	NODE	

**Table B-14. IETF MAU Ethernet Interfaces and Hub MIB OIDs (MAU.MIB)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.26	snmpDot3MauMgt	NODE	
1.3.6.1.2.1.26.0	snmpDot3MauTraps	NODE	
1.3.6.1.2.1.26.0.1	rpMauJabberTrap	NODE	
1.3.6.1.2.1.26.0.2	ifMauJabberTrap	NODE	
1.3.6.1.2.1.26.1	dot3RpMauBasicGroup	NODE	
1.3.6.1.2.1.26.1.1	rpMauTable	NODE	
1.3.6.1.2.1.26.1.1.1	rpMauEntry	NODE	
1.3.6.1.2.1.26.1.1.1.1	rpMauGroupIndex	LEAF	Integer32
1.3.6.1.2.1.26.1.1.1.2	rpMauPortIndex	LEAF	Integer32
1.3.6.1.2.1.26.1.1.1.3	rpMauIndex	LEAF	Integer32
1.3.6.1.2.1.26.1.1.1.4	rpMauType	LEAF	OBJECT IDENTIFIER
1.3.6.1.2.1.26.1.1.1.5	rpMauStatus	LEAF	INTEGER
1.3.6.1.2.1.26.1.1.1.6	rpMauMediaAvailable	LEAF	INTEGER
1.3.6.1.2.1.26.1.1.1.7	rpMauMediaAvailableStateExits	LEAF	Counter32
1.3.6.1.2.1.26.1.1.1.8	rpMauJabberState	LEAF	INTEGER
1.3.6.1.2.1.26.1.1.1.9	rpMauJabberingStateEnters	LEAF	Counter32
1.3.6.1.2.1.26.1.1.1.10	rpMauFalseCarriers	LEAF	Counter32
1.3.6.1.2.1.26.1.2	rpJackTable	NODE	
1.3.6.1.2.1.26.1.2.1	rpJackEntry	NODE	
1.3.6.1.2.1.26.1.2.1.1	rpJackIndex	LEAF	Integer32
1.3.6.1.2.1.26.1.2.1.2	rpJackType	LEAF	JackType
1.3.6.1.2.1.26.2	dot3IfMauBasicGroup	NODE	
1.3.6.1.2.1.26.2.1	ifMauTable	NODE	
1.3.6.1.2.1.26.2.1.1	ifMauEntry	NODE	
1.3.6.1.2.1.26.2.1.1.1	ifMauIfIndex	LEAF	Integer32
1.3.6.1.2.1.26.2.1.1.2	ifMauIndex	LEAF	Integer32
1.3.6.1.2.1.26.2.1.1.3	ifMauType	LEAF	OBJECT IDENTIFIER
1.3.6.1.2.1.26.2.1.1.4	ifMauStatus	LEAF	INTEGER
1.3.6.1.2.1.26.2.1.1.5	ifMauMediaAvailable	LEAF	INTEGER
1.3.6.1.2.1.26.2.1.1.6	ifMauMediaAvailableStateExits	LEAF	Counter32
1.3.6.1.2.1.26.2.1.1.7	ifMauJabberState	LEAF	INTEGER

**Table B-14. IETF MAU Ethernet Interfaces and Hub MIB OIDs (MAU.MIB) (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.26.2.1.1.8	ifMauJabberingStateEnters	LEAF	Counter32
1.3.6.1.2.1.26.2.1.1.9	ifMauFalseCarriers	LEAF	Counter32
1.3.6.1.2.1.26.2.1.1.11	ifMauDefaultType	LEAF	OBJECT IDENTIFIER
1.3.6.1.2.1.26.2.1.1.12	ifMauAutoNegSupported	LEAF	TruthValue
1.3.6.1.2.1.26.2.1.1.13	ifMauTypeListBits	LEAF	BITS
1.3.6.1.2.1.26.2.2	ifJackTable	NODE	
1.3.6.1.2.1.26.2.2.1	ifJackEntry	NODE	
1.3.6.1.2.1.26.2.2.1.1	ifJackIndex	LEAF	Integer32
1.3.6.1.2.1.26.2.2.1.2	ifJackType	LEAF	JackType
1.3.6.1.2.1.26.3	dot3BroadMauBasicGroup	NODE	
1.3.6.1.2.1.26.3.1	broadMauBasicTable	NODE	
1.3.6.1.2.1.26.3.1.1	broadMauBasicEntry	NODE	
1.3.6.1.2.1.26.3.1.1.1	broadMauIflIndex	LEAF	Integer32
1.3.6.1.2.1.26.3.1.1.2	broadMauIndex	LEAF	Integer32
1.3.6.1.2.1.26.3.1.1.3	broadMauXmtRcvSplitType	LEAF	INTEGER
1.3.6.1.2.1.26.3.1.1.4	broadMauXmtCarrierFreq	LEAF	Integer32
1.3.6.1.2.1.26.3.1.1.5	broadMauTranslationFreq	LEAF	Integer32
1.3.6.1.2.1.26.4	dot3MauType	NODE	
1.3.6.1.2.1.26.4.1	dot3MauTypeAUI	NODE	
1.3.6.1.2.1.26.4.2	dot3MauType10Base5	NODE	
1.3.6.1.2.1.26.4.3	dot3MauTypeFoil	NODE	
1.3.6.1.2.1.26.4.4	dot3MauType10Base2	NODE	
1.3.6.1.2.1.26.4.5	dot3MauType10BaseT	NODE	
1.3.6.1.2.1.26.4.6	dot3MauType10BaseFP	NODE	
1.3.6.1.2.1.26.4.7	dot3MauType10BaseFB	NODE	
1.3.6.1.2.1.26.4.8	dot3MauType10BaseFL	NODE	
1.3.6.1.2.1.26.4.9	dot3MauType10Broad36	NODE	
1.3.6.1.2.1.26.4.10	dot3MauType10BaseTHD	NODE	
1.3.6.1.2.1.26.4.11	dot3MauType10BaseTFD	NODE	
1.3.6.1.2.1.26.4.12	dot3MauType10BaseFLHD	NODE	
1.3.6.1.2.1.26.4.13	dot3MauType10BaseFLFD	NODE	
1.3.6.1.2.1.26.4.14	dot3MauType100BaseT4	NODE	

**Table B-14. IETF MAU Ethernet Interfaces and Hub MIB OIDs (MAU.MIB) (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.26.4.15	dot3MauType100BaseTXHD	NODE	
1.3.6.1.2.1.26.4.16	dot3MauType100BaseTXFD	NODE	
1.3.6.1.2.1.26.4.17	dot3MauType100BaseFXHD	NODE	
1.3.6.1.2.1.26.4.18	dot3MauType100BaseFXFD	NODE	
1.3.6.1.2.1.26.4.19	dot3MauType100BaseT2HD	NODE	
1.3.6.1.2.1.26.4.20	dot3MauType100BaseT2FD	NODE	
1.3.6.1.2.1.26.4.21	dot3MauType1000BaseXHD	NODE	
1.3.6.1.2.1.26.4.22	dot3MauType1000BaseXFD	NODE	
1.3.6.1.2.1.26.4.23	dot3MauType1000BaseLXHD	NODE	
1.3.6.1.2.1.26.4.24	dot3MauType1000BaseLXFD	NODE	
1.3.6.1.2.1.26.4.25	dot3MauType1000BaseSXHD	NODE	
1.3.6.1.2.1.26.4.26	dot3MauType1000BaseSXFD	NODE	
1.3.6.1.2.1.26.4.27	dot3MauType1000BaseCXHD	NODE	
1.3.6.1.2.1.26.4.28	dot3MauType1000BaseCXFD	NODE	
1.3.6.1.2.1.26.4.29	dot3MauType1000BaseTHD	NODE	
1.3.6.1.2.1.26.4.30	dot3MauType1000BaseTFD	NODE	
1.3.6.1.2.1.26.5	dot3IfMauAutoNegGroup	NODE	
1.3.6.1.2.1.26.5.1	ifMauAutoNegTable	NODE	
1.3.6.1.2.1.26.5.1.1	ifMauAutoNegEntry	NODE	
1.3.6.1.2.1.26.5.1.1.1	ifMauAutoNegAdminStatus	LEAF	INTEGER
1.3.6.1.2.1.26.5.1.1.2	ifMauAutoNegRemoteSignaling	LEAF	INTEGER
1.3.6.1.2.1.26.5.1.1.4	ifMauAutoNegConfig	LEAF	INTEGER
1.3.6.1.2.1.26.5.1.1.8	ifMauAutoNegRestart	LEAF	INTEGER
1.3.6.1.2.1.26.5.1.1.9	ifMauAutoNegCapabilityBits	LEAF	BITS
1.3.6.1.2.1.26.5.1.1.10	ifMauAutoNegCapAdvertisedBits	LEAF	BITS
1.3.6.1.2.1.26.5.1.1.11	ifMauAutoNegCapReceivedBits	LEAF	BITS
1.3.6.1.2.1.26.6	mauMod	NODE	
1.3.6.1.2.1.26.6.1	mauModConf	NODE	
1.3.6.1.2.1.26.6.1.1	mauModCompls	NODE	
1.3.6.1.2.1.26.6.1.1.1	mauModRpCompl	NODE	
1.3.6.1.2.1.26.6.1.1.2	mauModIfCompl	NODE	
1.3.6.1.2.1.26.6.1.1.3	mauModIfCompl2	NODE	

**Table B-14. IETF MAU Ethernet Interfaces and Hub MIB OIDs (MAU.MIB) (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.26.6.1.1.4	mauModRpCompl2	NODE	
1.3.6.1.2.1.26.6.1.2	mauModObjGrps	NODE	
1.3.6.1.2.1.26.6.1.2.4	maulfGrpBasic	NODE	
1.3.6.1.2.1.26.6.1.2.5	maulfGrp100Mbs	NODE	
1.3.6.1.2.1.26.6.1.2.6	maulfGrpJack	NODE	
1.3.6.1.2.1.26.6.1.2.7	maulfGrpAutoNeg	NODE	
1.3.6.1.2.1.26.6.1.2.9	maulfGrpHighCapacity	NODE	
1.3.6.1.2.1.26.6.1.2.10	maulfGrpAutoNeg2	NODE	
1.3.6.1.2.1.26.6.1.3	mauModNotGrps	NODE	
1.3.6.1.2.1.26.6.1.3.2	ifMauNotifications	NODE	

**Table B-15. OSPF MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.14	ospf	NODE	
1.3.6.1.2.1.14.1	ospfGeneralGroup	NODE	
1.3.6.1.2.1.14.1.1	ospfRouterId	LEAF	RouterID
1.3.6.1.2.1.14.1.2	ospfAdminStat	LEAF	Status
1.3.6.1.2.1.14.1.3	ospfVersionNumber	LEAF	INTEGER
1.3.6.1.2.1.14.1.4	ospfAreaBdrRtrStatus	LEAF	TruthValue
1.3.6.1.2.1.14.1.5	ospfASBdrRtrStatus	LEAF	TruthValue
1.3.6.1.2.1.14.1.6	ospfExternLSACount	LEAF	Gauge
1.3.6.1.2.1.14.1.7	ospfExternLSACKsumSum	LEAF	INTEGER
1.3.6.1.2.1.14.1.8	ospfTOSSupport	LEAF	TruthValue
1.3.6.1.2.1.14.1.9	ospfOriginateNewLSAs	LEAF	Counter
1.3.6.1.2.1.14.1.10	ospfRxNewLSAs	LEAF	Counter
1.3.6.1.2.1.14.2	ospfAreaTable	NODE	
1.3.6.1.2.1.14.2.1	ospfAreaEntry	NODE	
1.3.6.1.2.1.14.2.1.1	ospfAreald	LEAF	AreaID
1.3.6.1.2.1.14.2.1.2	ospfAuthType	LEAF	INTEGER
1.3.6.1.2.1.14.2.1.3	ospfImportASEExtern	LEAF	TruthValue



**Table B-15. OSPF MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.14.2.1.4	ospfSpfRuns	LEAF	Counter
1.3.6.1.2.1.14.2.1.5	ospfAreaBdrRtrCount	LEAF	Gauge
1.3.6.1.2.1.14.2.1.6	ospfASBdrRtrCount	LEAF	Gauge
1.3.6.1.2.1.14.2.1.7	ospfAreaLSACount	LEAF	Gauge
1.3.6.1.2.1.14.2.1.8	ospfAreaLSACksumSum	LEAF	INTEGER
1.3.6.1.2.1.14.3	ospfStubAreaTable	NODE	
1.3.6.1.2.1.14.3.1	ospfStubAreaEntry	NODE	
1.3.6.1.2.1.14.3.1.1	ospfStubAreaID	LEAF	AreaID
1.3.6.1.2.1.14.3.1.2	ospfStubTOS	LEAF	TOSType
1.3.6.1.2.1.14.3.1.3	ospfStubMetric	LEAF	BigMetric
1.3.6.1.2.1.14.3.1.4	ospfStubStatus	LEAF	Validation
1.3.6.1.2.1.14.4	ospfLsdbTable	NODE	
1.3.6.1.2.1.14.4.1	ospfLsdbEntry	NODE	
1.3.6.1.2.1.14.4.1.1	ospfLsdbAreald	LEAF	AreaID
1.3.6.1.2.1.14.4.1.2	ospfLsdbType	LEAF	INTEGER
1.3.6.1.2.1.14.4.1.3	ospfLsdbLSID	LEAF	IpAddress
1.3.6.1.2.1.14.4.1.4	ospfLsdbRouterId	LEAF	RouterID
1.3.6.1.2.1.14.4.1.5	ospfLsdbSequence	LEAF	INTEGER
1.3.6.1.2.1.14.4.1.6	ospfLsdbAge	LEAF	INTEGER
1.3.6.1.2.1.14.4.1.7	ospfLsdbChecksum	LEAF	INTEGER
1.3.6.1.2.1.14.4.1.8	ospfLsdbAdvertisement	LEAF	OCTET STRING
1.3.6.1.2.1.14.7	ospflfTable	NODE	
1.3.6.1.2.1.14.7.1	ospflfEntry	NODE	
1.3.6.1.2.1.14.7.1.1	ospflfIpAddress	LEAF	IpAddress
1.3.6.1.2.1.14.7.1.2	ospfAddressLessIf	LEAF	INTEGER
1.3.6.1.2.1.14.7.1.3	ospflfAreald	LEAF	AreaID
1.3.6.1.2.1.14.7.1.4	ospflfType	LEAF	INTEGER
1.3.6.1.2.1.14.7.1.5	ospflfAdminStat	LEAF	Status
1.3.6.1.2.1.14.7.1.6	ospflfRtrPriority	LEAF	DesignatedRouterPriority
1.3.6.1.2.1.14.7.1.7	ospflfTransitDelay	LEAF	UpToMaxAge
1.3.6.1.2.1.14.7.1.8	ospflfRetransInterval	LEAF	UpToMaxAge
1.3.6.1.2.1.14.7.1.9	ospflfHelloInterval	LEAF	HelloRange

**Table B-15. OSPF MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.14.7.1.10	ospflfRtrDeadInterval	LEAF	PositiveInteger
1.3.6.1.2.1.14.7.1.11	ospflfPollInterval	LEAF	PositiveInteger
1.3.6.1.2.1.14.7.1.12	ospflfState	LEAF	INTEGER
1.3.6.1.2.1.14.7.1.13	ospflfDesignatedRouter	LEAF	IpAddress
1.3.6.1.2.1.14.7.1.14	ospflfBackupDesignatedRouter	LEAF	IpAddress
1.3.6.1.2.1.14.7.1.15	ospflfEvents	LEAF	Counter
1.3.6.1.2.1.14.7.1.16	ospflfAuthKey	LEAF	OCTET STRING
1.3.6.1.2.1.14.8	ospflfMetricTable	NODE	
1.3.6.1.2.1.14.8.1	ospflfMetricEntry	NODE	
1.3.6.1.2.1.14.8.1.1	ospflfMetricIpAddress	LEAF	IpAddress
1.3.6.1.2.1.14.8.1.2	ospflfMetricAddressLessIf	LEAF	INTEGER
1.3.6.1.2.1.14.8.1.3	ospflfMetricTOS	LEAF	TOSType
1.3.6.1.2.1.14.8.1.4	ospflfMetricMetric	LEAF	Metric
1.3.6.1.2.1.14.8.1.5	ospflfMetricStatus	LEAF	Validation
1.3.6.1.2.1.14.10	ospfNbrTable	NODE	
1.3.6.1.2.1.14.10.1	ospfNbrEntry	NODE	
1.3.6.1.2.1.14.10.1.1	ospfNbrIpAddress	LEAF	IpAddress
1.3.6.1.2.1.14.10.1.2	ospfNbrAddressLessIndex	LEAF	InterfaceIndex
1.3.6.1.2.1.14.10.1.3	ospfNbrRtrId	LEAF	RouterID
1.3.6.1.2.1.14.10.1.4	ospfNbrOptions	LEAF	INTEGER
1.3.6.1.2.1.14.10.1.5	ospfNbrPriority	LEAF	DesignatedRouterPriority
1.3.6.1.2.1.14.10.1.6	ospfNbrState	LEAF	INTEGER
1.3.6.1.2.1.14.10.1.7	ospfNbrEvents	LEAF	Counter
1.3.6.1.2.1.14.10.1.8	ospfNbrLSRetransQLen	LEAF	Gauge
1.3.6.1.2.1.14.10.1.9	ospfNBMANbrStatus	LEAF	Validation

**Table B-16. LLDP MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.0.8802	iso8802	NODE	
1.0.8802.1	ieee802dot1	NODE	
1.0.8802.1.1	ieee802dot1mibs	NODE	

**Table B-16. LLDP MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.0.8802.1.1.2	IldpMIB	NODE	
1.0.8802.1.1.2.0	IldpNotifications	NODE	
1.0.8802.1.1.2.0.0	IldpNotificationPrefix	NODE	
1.0.8802.1.1.2.0.0.1	IldpRemTablesChange	NODE	
1.0.8802.1.1.2.1	IldpObjects	NODE	
1.0.8802.1.1.2.1.1	IldpConfiguration	NODE	
1.0.8802.1.1.2.1.1.1	IldpMessageTxInterval	LEAF	Integer32
1.0.8802.1.1.2.1.1.2	IldpMessageTxHoldMultiplier	LEAF	Integer32
1.0.8802.1.1.2.1.1.3	IldpReinitDelay	LEAF	Integer32
1.0.8802.1.1.2.1.1.4	IldpTxDelay	LEAF	Integer32
1.0.8802.1.1.2.1.1.5	IldpNotificationInterval	LEAF	Integer32
1.0.8802.1.1.2.1.1.6	IldpPortConfigTable	NODE	
1.0.8802.1.1.2.1.1.6.1	IldpPortConfigEntry	NODE	
1.0.8802.1.1.2.1.1.6.1.1	IldpPortConfigPortNum	LEAF	IldpPortNumber
1.0.8802.1.1.2.1.1.6.1.2	IldpPortConfigAdminStatus	LEAF	INTEGER
1.0.8802.1.1.2.1.1.6.1.4	IldpPortConfigTLVsTxEnable	LEAF	BITS
1.0.8802.1.1.2.1.2	IldpStatistics	NODE	
1.0.8802.1.1.2.1.2.1	IldpStatsRemTablesLastChange Time	LEAF	TimeStamp
1.0.8802.1.1.2.1.2.2	IldpStatsRemTablesInserts	LEAF	ZeroBasedCounter32
1.0.8802.1.1.2.1.2.3	IldpStatsRemTablesDeletes	LEAF	ZeroBasedCounter32
1.0.8802.1.1.2.1.2.4	IldpStatsRemTablesDrops	LEAF	ZeroBasedCounter32
1.0.8802.1.1.2.1.2.5	IldpStatsRemTablesAgeouts	LEAF	ZeroBasedCounter32
1.0.8802.1.1.2.1.2.6	IldpStatsTxPortTable	NODE	
1.0.8802.1.1.2.1.2.6.1	IldpStatsTxPortEntry	NODE	
1.0.8802.1.1.2.1.2.6.1.1	IldpStatsTxPortNum	LEAF	IldpPortNumber
1.0.8802.1.1.2.1.2.6.1.2	IldpStatsTxPortFramesTotal	LEAF	Counter32
1.0.8802.1.1.2.1.2.7	IldpStatsRxPortTable	NODE	
1.0.8802.1.1.2.1.2.7.1	IldpStatsRxPortEntry	NODE	
1.0.8802.1.1.2.1.2.7.1.1	IldpStatsRxPortNum	LEAF	IldpPortNumber
1.0.8802.1.1.2.1.2.7.1.2	IldpStatsRxPortFramesDiscarded Total	LEAF	Counter32
1.0.8802.1.1.2.1.2.7.1.3	IldpStatsRxPortFramesErrors	LEAF	Counter32

**Table B-16. LLDP MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.0.8802.1.1.2.1.2.7.1.4	IldpStatsRxPortFramesTotal	LEAF	Counter32
1.0.8802.1.1.2.1.2.7.1.5	IldpStatsRxPortTLVsDiscardedTotal	LEAF	Counter32
1.0.8802.1.1.2.1.2.7.1.6	IldpStatsRxPortTLVsUnrecognize Total	LEAF	Counter32
1.0.8802.1.1.2.1.2.7.1.7	IldpStatsRxPortAgeoutsTotal	LEAF	ZeroBasedCounter32
1.0.8802.1.1.2.1.3	IldpLocalSystemData	NODE	
1.0.8802.1.1.2.1.3.1	IldpLocChassisIdSubtype	LEAF	LldpChassisIdSubtype
1.0.8802.1.1.2.1.3.2	IldpLocChassisId	LEAF	LldpChassisId
1.0.8802.1.1.2.1.3.3	IldpLocSysName	LEAF	SnmpAdminString
1.0.8802.1.1.2.1.3.4	IldpLocSysDesc	LEAF	SnmpAdminString
1.0.8802.1.1.2.1.3.5	IldpLocSysCapSupported	LEAF	LldpSystemCapabilities Map
1.0.8802.1.1.2.1.3.6	IldpLocSysCapEnabled	LEAF	LldpSystemCapabilities Map
1.0.8802.1.1.2.1.3.7	IldpLocPortTable	NODE	
1.0.8802.1.1.2.1.3.7.1	IldpLocPortEntry	NODE	
1.0.8802.1.1.2.1.3.7.1.1	IldpLocPortNum	LEAF	LldpPortNumber
1.0.8802.1.1.2.1.3.7.1.2	IldpLocPortIdSubtype	LEAF	LldpPortIdSubtype
1.0.8802.1.1.2.1.3.7.1.3	IldpLocPortId	LEAF	LldpPortId
1.0.8802.1.1.2.1.3.7.1.4	IldpLocPortDesc	LEAF	SnmpAdminString
1.0.8802.1.1.2.1.3.8	IldpLocManAddrTable	NODE	
1.0.8802.1.1.2.1.3.8.1	IldpLocManAddrEntry	NODE	
1.0.8802.1.1.2.1.3.8.1.1	IldpLocManAddrSubtype	LEAF	AddressFamilyNumbers
1.0.8802.1.1.2.1.3.8.1.2	IldpLocManAddr	LEAF	LldpManAddress
1.0.8802.1.1.2.1.3.8.1.3	IldpLocManAddrLen	LEAF	Integer32
1.0.8802.1.1.2.1.3.8.1.4	IldpLocManAddrRfSubtype	LEAF	LldpManAddrRfSubtype
1.0.8802.1.1.2.1.3.8.1.5	IldpLocManAddrRfId	LEAF	Integer32
1.0.8802.1.1.2.1.3.8.1.6	IldpLocManAddrOID	LEAF	OBJECT
1.0.8802.1.1.2.1.4	IldpRemoteSystemsData	NODE	
1.0.8802.1.1.2.1.4.1	IldpRemTable	NODE	
1.0.8802.1.1.2.1.4.1.1	IldpRemEntry	NODE	
1.0.8802.1.1.2.1.4.1.1.1	IldpRemTimeMark	LEAF	TimeFilter
1.0.8802.1.1.2.1.4.1.1.2	IldpRemLocalPortNum	LEAF	LldpPortNumber

**Table B-16. LLDP MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.0.8802.1.1.2.1.4.1.1.3	IldpRemIndex	LEAF	Integer32
1.0.8802.1.1.2.1.4.1.1.4	IldpRemChassisIdSubtype	LEAF	IldpChassisIdSubtype
1.0.8802.1.1.2.1.4.1.1.5	IldpRemChassisId	LEAF	IldpChassisId
1.0.8802.1.1.2.1.4.1.1.6	IldpRemPortIdSubtype	LEAF	IldpPortIdSubtype
1.0.8802.1.1.2.1.4.1.1.7	IldpRemPortId	LEAF	IldpPortId
1.0.8802.1.1.2.1.4.1.1.8	IldpRemPortDesc	LEAF	SnmpAdminString
1.0.8802.1.1.2.1.4.1.1.9	IldpRemSysName	LEAF	SnmpAdminString
1.0.8802.1.1.2.1.4.1.1.10	IldpRemSysDesc	LEAF	SnmpAdminString
1.0.8802.1.1.2.1.4.1.1.11	IldpRemSysCapSupported	LEAF	IldpSystemCapabilities Map
1.0.8802.1.1.2.1.4.1.1.12	IldpRemSysCapEnabled	LEAF	IldpSystemCapabilities Map
1.0.8802.1.1.2.1.4.2	IldpRemManAddrTable	NODE	
1.0.8802.1.1.2.1.4.2.1	IldpRemManAddrEntry	NODE	
1.0.8802.1.1.2.1.4.2.1.1	IldpRemManAddrSubtype	LEAF	AddressFamilyNumbers
1.0.8802.1.1.2.1.4.2.1.2	IldpRemManAddr	LEAF	IldpManAddress
1.0.8802.1.1.2.1.4.2.1.3	IldpRemManAddrIfSubtype	LEAF	IldpManAddrIfSubtype
1.0.8802.1.1.2.1.4.2.1.4	IldpRemManAddrIfId	LEAF	Integer32
1.0.8802.1.1.2.1.4.2.1.5	IldpRemManAddrOID	LEAF	OBJECT IDENTIFIER
1.0.8802.1.1.2.1.4.3	IldpRemUnknownTLVTable	NODE	
1.0.8802.1.1.2.1.4.3.1	IldpRemUnknownTLVEntry	NODE	
1.0.8802.1.1.2.1.4.3.1.1	IldpRemUnknownTLVType	LEAF	Integer32
1.0.8802.1.1.2.1.4.3.1.2	IldpRemUnknownTLVInfo	LEAF	OCTET STRING
1.0.8802.1.1.2.1.4.4	IldpRemOrgDeflInfoTable	NODE	
1.0.8802.1.1.2.1.4.4.1	IldpRemOrgDeflInfoEntry	NODE	
1.0.8802.1.1.2.1.4.4.1.1	IldpRemOrgDeflInfoOUI	LEAF	OCTET STRING
1.0.8802.1.1.2.1.4.4.1.2	IldpRemOrgDeflInfoSubtype	LEAF	Integer32
1.0.8802.1.1.2.1.4.4.1.3	IldpRemOrgDeflInfoIndex	LEAF	Integer32
1.0.8802.1.1.2.1.4.4.1.4	IldpRemOrgDeflInfo	LEAF	OCTET STRING
1.0.8802.1.1.2.1.5	IldpExtensions	NODE	
1.0.8802.1.1.2.2	IldpConformance	NODE	
1.0.8802.1.1.2.2.1	IldpCompliances	NODE	
1.0.8802.1.1.2.2.1.1	IldpCompliance	NODE	

**Table B-16. LLDP MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.0.8802.1.1.2.2.2	IldpGroups	NODE	
1.0.8802.1.1.2.2.2.1	IldpConfigGroup	NODE	
1.0.8802.1.1.2.2.2.2	IldpConfigRxGroup	NODE	
1.0.8802.1.1.2.2.2.3	IldpConfigTxGroup	NODE	
1.0.8802.1.1.2.2.2.4	IldpStatsRxGroup	NODE	
1.0.8802.1.1.2.2.2.5	IldpStatsTxGroup	NODE	
1.0.8802.1.1.2.2.2.6	IldpLocSysGroup	NODE	
1.0.8802.1.1.2.2.2.7	IldpRemSysGroup	NODE	
1.0.8802.1.1.2.2.2.8	IldpNotificationsGroup	NODE	

**Table B-17. SNMP v2 MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.11	snmp	NODE	
1.3.6.1.2.1.11.1	snmpInPkts	LEAF	Counter32
1.3.6.1.2.1.11.3	snmpInBadVersions	LEAF	Counter32
1.3.6.1.2.1.11.4	snmpInBadCommunityNames	LEAF	Counter32
1.3.6.1.2.1.11.5	snmpInBadCommunityUses	LEAF	Counter32
1.3.6.1.2.1.11.6	snmpInASNParseErrs	LEAF	Counter32
1.3.6.1.2.1.11.30	snmpEnableAuthenTraps	LEAF	INTEGER
1.3.6.1.2.1.11.31	snmpSilentDrops	LEAF	Counter32
1.3.6.1.2.1.11.32	snmpProxyDrops	LEAF	Counter32

**Table B-18. SNMPv2-MIB OIDs (RFC 1213 MIB-2)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3	org	NODE	
1.3.6	dod	NODE	
1.3.6.1	internet	NODE	
1.3.6.1.1	directory	NODE	
1.3.6.1.2	mgmt	NODE	
1.3.6.1.2.1	mib-2	NODE	
1.3.6.1.2.1.1	system	NODE	

**Table B-18. SNMPv2-MIB OIDs (RFC 1213 MIB-2) (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.1.1	sysDescr	LEAF	DisplayString
1.3.6.1.2.1.1.2	sysObjectID	LEAF	OBJECT IDENTIFIER
1.3.6.1.2.1.1.3	sysUpTime	LEAF	TimeTicks
1.3.6.1.2.1.1.4	sysContact	LEAF	DisplayString
1.3.6.1.2.1.1.5	sysName	LEAF	DisplayString
1.3.6.1.2.1.1.6	sysLocation	LEAF	DisplayString
1.3.6.1.2.1.1.7	sysServices	LEAF	INTEGER

**Table B-19. MEF-SOAM-PM OIDs (MEF 36)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.15007	mef	NODE	
1.3.6.1.4.1.15007.1	mefSoam	NODE	
1.3.6.1.4.1.15007.1.1	mefSoamTcMib	NODE	
1.3.6.1.4.1.15007.1.3	mefSoamPmMib	NODE	
1.3.6.1.4.1.15007.1.3.1	mefSoamPmMibObjects	NODE	
1.3.6.1.4.1.15007.1.3.1.2	mefSoamPmLmObjects	NODE	
1.3.6.1.4.1.15007.1.3.1.2.1	mefSoamLmCfgTable	NODE	
1.3.6.1.4.1.15007.1.3.1.2.1.1	mefSoamLmCfgEntry	NODE	
1.3.6.1.4.1.15007.1.3.1.2.1.1.1	mefSoamLmCfgIndex	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.2.1.1.2	mefSoamLmCfgType	LEAF	INTEGER
1.3.6.1.4.1.15007.1.3.1.2.1.1.3	mefSoamLmCfgVersion	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.2.1.1.4	mefSoamLmCfgEnabled	LEAF	TruthValue
1.3.6.1.4.1.15007.1.3.1.2.1.1.5	mefSoamLmCfgMeasurementEnable	LEAF	BITS
1.3.6.1.4.1.15007.1.3.1.2.1.1.6	mefSoamLmCfgMessagePeriod	LEAF	MefSoamTcMeasurementPeriodType
1.3.6.1.4.1.15007.1.3.1.2.1.1.7	mefSoamLmCfgPriority	LEAF	IEEE8021Priority-Value
1.3.6.1.4.1.15007.1.3.1.2.1.1.8	mefSoamLmCfgFrameSize	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.2.1.1.12	mefSoamLmCfgMeasurementInterval	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.2.1.1.14	mefSoamLmCfgDestMacAddress	LEAF	MacAddress
1.3.6.1.4.1.15007.1.3.1.2.1.1.15	mefSoamLmCfgDestMepId	LEAF	Dot1agCfmMepIdOrZero
1.3.6.1.4.1.15007.1.3.1.2.1.1.16	mefSoamLmCfgDestIsMepId	LEAF	TruthValue

**Table B-19. MEF-SOAM-PM OIDs (MEF 36)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.15007.1.3.1.2.1.1.17	mefSoamLmCfgStartTimeType	LEAF	MefSoamTcOperationTimeType
1.3.6.1.4.1.15007.1.3.1.2.1.1.18	mefSoamLmCfgFixedStartDateAndTime	LEAF	DateAndTime
1.3.6.1.4.1.15007.1.3.1.2.1.1.20	mefSoamLmCfgStopTimeType	LEAF	MefSoamTcOperationTimeType
1.3.6.1.4.1.15007.1.3.1.2.1.1.22	mefSoamLmCfgRelativeStopTime	LEAF	TimeInterval
1.3.6.1.4.1.15007.1.3.1.2.1.1.23	mefSoamLmCfgRepetitionTime	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.2.1.1.24	mefSoamLmCfgAlignMeasurementIntervals	LEAF	TruthValue
1.3.6.1.4.1.15007.1.3.1.2.1.1.25	mefSoamLmCfgAlignMeasurementOffset	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.2.1.1.31	mefSoamLmCfgSessionType	LEAF	MefSoamTcSessionType
1.3.6.1.4.1.15007.1.3.1.2.1.1.32	mefSoamLmCfgSessionStatus	LEAF	MefSoamTcStatusType
1.3.6.1.4.1.15007.1.3.1.2.4	mefSoamLmCurrentStatsTable	NODE	
1.3.6.1.4.1.15007.1.3.1.2.4.1	mefSoamLmCurrentStatsEntry	NODE	
1.3.6.1.4.1.15007.1.3.1.2.4.1.1	mefSoamLmCurrentStatsIndex	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.2.4.1.2	mefSoamLmCurrentStatsStartTime	LEAF	DateAndTime
1.3.6.1.4.1.15007.1.3.1.2.4.1.3	mefSoamLmCurrentStatsElapsedTime	LEAF	TimeInterval
1.3.6.1.4.1.15007.1.3.1.2.4.1.4	mefSoamLmCurrentStatsSuspect	LEAF	TruthValue
1.3.6.1.4.1.15007.1.3.1.2.4.1.5	mefSoamLmCurrentStatsForwardTransmittedFrames	LEAF	Gauge32
1.3.6.1.4.1.15007.1.3.1.2.4.1.6	mefSoamLmCurrentStatsForwardReceivedFrames	LEAF	Gauge32
1.3.6.1.4.1.15007.1.3.1.2.4.1.7	mefSoamLmCurrentStatsForwardMinFlr	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.2.4.1.8	mefSoamLmCurrentStatsForwardMaxFlr	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.2.4.1.9	mefSoamLmCurrentStatsForwardAvgFlr	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.2.4.1.10	mefSoamLmCurrentStatsBackwardTransmittedFrames	LEAF	Gauge32
1.3.6.1.4.1.15007.1.3.1.2.4.1.11	mefSoamLmCurrentStatsBackwardReceivedFrames	LEAF	Gauge32
1.3.6.1.4.1.15007.1.3.1.2.4.1.12	mefSoamLmCurrentStatsBackwardMinFlr	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.2.4.1.13	mefSoamLmCurrentStatsBackwardMaxFlr	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.2.4.1.14	mefSoamLmCurrentStatsBackwardAvgFlr	LEAF	Unsigned32



**Table B-19. MEF-SOAM-PM OIDs (MEF 36)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.15007.1.3.1.2.4.1.15	mefSoamLmCurrentStatsSoamPdusSent	LEAF	Gauge32
1.3.6.1.4.1.15007.1.3.1.2.4.1.16	mefSoamLmCurrentStatsSoamPdusReceived	LEAF	Gauge32
1.3.6.1.4.1.15007.1.3.1.3	mefSoamPmDmObjects	NODE	
1.3.6.1.4.1.15007.1.3.1.3.1	mefSoamDmCfgTable	NODE	
1.3.6.1.4.1.15007.1.3.1.3.1.1	mefSoamDmCfgEntry	NODE	
1.3.6.1.4.1.15007.1.3.1.3.1.1.1	mefSoamDmCfgIndex	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.1.1.2	mefSoamDmCfgType	LEAF	INTEGER
1.3.6.1.4.1.15007.1.3.1.3.1.1.3	mefSoamDmCfgVersion	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.1.1.4	mefSoamDmCfgEnabled	LEAF	TruthValue
1.3.6.1.4.1.15007.1.3.1.3.1.1.5	mefSoamDmCfgMeasurementEnable	LEAF	BITS
1.3.6.1.4.1.15007.1.3.1.3.1.1.6	mefSoamDmCfgMessagePeriod	LEAF	MefSoamTcMeasurementPeriodType
1.3.6.1.4.1.15007.1.3.1.3.1.1.7	mefSoamDmCfgPriority	LEAF	IEEE8021PriorityValue
1.3.6.1.4.1.15007.1.3.1.3.1.1.8	mefSoamDmCfgFrameSize	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.1.1.12	mefSoamDmCfgMeasurementInterval	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.1.1.14	mefSoamDmCfgDestMacAddress	LEAF	MacAddress
1.3.6.1.4.1.15007.1.3.1.3.1.1.15	mefSoamDmCfgDestMepld	LEAF	Dot1agCfmMepldOrZero
1.3.6.1.4.1.15007.1.3.1.3.1.1.16	mefSoamDmCfgDestIsMepld	LEAF	TruthValue
1.3.6.1.4.1.15007.1.3.1.3.1.1.18	mefSoamDmCfgStartTimeType	LEAF	MefSoamTcOperationTimeType
1.3.6.1.4.1.15007.1.3.1.3.1.1.19	mefSoamDmCfgFixedStartDateAndTime	LEAF	DateAndTime
1.3.6.1.4.1.15007.1.3.1.3.1.1.21	mefSoamDmCfgStopTimeType	LEAF	MefSoamTcOperationTimeType
1.3.6.1.4.1.15007.1.3.1.3.1.1.23	mefSoamDmCfgRelativeStopTime	LEAF	TimeInterval
1.3.6.1.4.1.15007.1.3.1.3.1.1.24	mefSoamDmCfgRepetitionTime	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.1.1.25	mefSoamDmCfgAlignMeasurementIntervals	LEAF	TruthValue
1.3.6.1.4.1.15007.1.3.1.3.1.1.26	mefSoamDmCfgAlignMeasurementOffset	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.1.1.31	mefSoamDmCfgSessionType	LEAF	MefSoamTcSessionType
1.3.6.1.4.1.15007.1.3.1.3.1.1.32	mefSoamDmCfgSessionStatus	LEAF	MefSoamTcStatusType
1.3.6.1.4.1.15007.1.3.1.3.4	mefSoamDmCurrentStatsTable	NODE	

**Table B-19. MEF-SOAM-PM OIDs (MEF 36)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.15007.1.3.1.3.4.1	mefSoamDmCurrentStatsEntry	NODE	
1.3.6.1.4.1.15007.1.3.1.3.4.1.1	mefSoamDmCurrentStatsIndex	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.4.1.2	mefSoamDmCurrentStatsStartTime	LEAF	DateAndTime
1.3.6.1.4.1.15007.1.3.1.3.4.1.3	mefSoamDmCurrentStatsElapsedTime	LEAF	TimeInterval
1.3.6.1.4.1.15007.1.3.1.3.4.1.4	mefSoamDmCurrentStatsSuspect	LEAF	TruthValue
1.3.6.1.4.1.15007.1.3.1.3.4.1.5	mefSoamDmCurrentStatsFrameDelay-TwoWayMin	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.4.1.6	mefSoamDmCurrentStatsFrameDelay-TwoWayMax	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.4.1.7	mefSoamDmCurrentStatsFrameDelay-TwoWayAvg	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.4.1.8	mefSoamDmCurrentStatsFrameDelay-ForwardMin	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.4.1.9	mefSoamDmCurrentStatsFrameDelay-ForwardMax	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.4.1.10	mefSoamDmCurrentStatsFrameDelay-ForwardAvg	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.4.1.11	mefSoamDmCurrentStatsFrameDelay-BackwardMin	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.4.1.12	mefSoamDmCurrentStatsFrameDelay-BackwardMax	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.4.1.13	mefSoamDmCurrentStatsFrameDelay-BackwardAvg	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.4.1.14	mefSoamDmCurrentStatsIldvForwardMin	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.4.1.15	mefSoamDmCurrentStatsIldvForward-Max	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.4.1.16	mefSoamDmCurrentStatsIldvForwardAvg	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.4.1.17	mefSoamDmCurrentStatsIldvBackward-Min	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.4.1.18	mefSoamDmCurrentStatsIldvBackward-Max	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.4.1.19	mefSoamDmCurrentStatsIldvBackward-Avg	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.4.1.20	mefSoamDmCurrentStatsIldvTwoWayMin	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.4.1.21	mefSoamDmCurrentStatsIldvTwoWay-Max	LEAF	Unsigned32

**Table B-19. MEF-SOAM-PM OIDs (MEF 36)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.15007.1.3.1.3.4.1.22	mefSoamDmCurrentStatsIldvTwo-WayAvg	LEAF	Unsigned32
1.3.6.1.4.1.15007.1.3.1.3.4.1.29	mefSoamDmCurrentStatsSoamPdusSent	LEAF	Gauge32
1.3.6.1.4.1.15007.1.3.1.3.4.1.30	mefSoamDmCurrentStatsSoamPdusReceived	LEAF	Gauge32

**Table B-20. Battery MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.2.1.233	batteryMIB	NODE	
1.3.6.1.2.1.233.0	batteryNotifications	NODE	
1.3.6.1.2.1.233.0.2	batteryLowNotification	NODE	
1.3.6.1.2.1.233.0.5	batteryAgingNotification	NODE	
1.3.6.1.2.1.233.0.6	batteryConnectedNotification	NODE	
1.3.6.1.2.1.233.0.7	batteryDisconnectedNotification	NODE	
1.3.6.1.2.1.233.1	batteryObjects	NODE	
1.3.6.1.2.1.233.1.1	batteryTable	NODE	
1.3.6.1.2.1.233.1.1.1	batteryEntry	NODE	
1.3.6.1.2.1.233.1.1.1.1	batteryIdentifier	LEAF	SnmpAdminString
1.3.6.1.2.1.233.1.1.1.10	batteryActualCapacity	LEAF	Unsigned32
1.3.6.1.2.1.233.1.1.1.11	batteryChargingCycleCount	LEAF	Unsigned32
1.3.6.1.2.1.233.1.1.1.15	batteryActualCharge	LEAF	Unsigned32
1.3.6.1.2.1.233.1.1.1.16	batteryActualVoltage	LEAF	Unsigned32
1.3.6.1.2.1.233.1.1.1.25	batteryCellIdentifier	LEAF	SnmpAdminString

**Table B-21. AOS 3G MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.6.2	adGenAOS3G	NODE	
1.3.6.1.4.1.664.5.53.6.2.0	adGenAOS3GTraps	NODE	
1.3.6.1.4.1.664.5.53.6.2.0.1	rssDataRangeAlarm	NODE	
1.3.6.1.4.1.664.5.53.6.2.0.2	ecioDataRangeAlarm	NODE	
1.3.6.1.4.1.664.5.53.6.2.0.3	rssDataRangeClear	NODE	
1.3.6.1.4.1.664.5.53.6.2.0.4	ecioDataRangeClear	NODE	

**Table B-21. AOS 3G MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.6.2.0.5	configValueSet	NODE	
1.3.6.1.4.1.664.5.53.6.2.0.6	modemResetAlarm	NODE	
1.3.6.1.4.1.664.5.53.6.2.0.7	serviceTypeChangeAlarm	NODE	
1.3.6.1.4.1.664.5.53.6.2.0.8	connectionStateDownAlarm	NODE	
1.3.6.1.4.1.664.5.53.6.2.1	adGenAOS3GTable	NODE	
1.3.6.1.4.1.664.5.53.6.2.1.1	adGenAOS3GEntry	NODE	
1.3.6.1.4.1.664.5.53.6.2.1.1.1	adGenAOS3GNetworkAccessID	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.6.2.1.1.2	adGenAOS3GHASS	LEAF	BITS
1.3.6.1.4.1.664.5.53.6.2.1.1.3	adGenAOS3GHASPI	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.2.1.1.4	adGenAOS3GAAASS	LEAF	BITS
1.3.6.1.4.1.664.5.53.6.2.1.1.5	adGenAOS3GAAASPI	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.2.1.1.6	adGenAOS3GReverseTunneling	LEAF	BITS
1.3.6.1.4.1.664.5.53.6.2.1.1.7	adGenAOS3GHomeAddress	LEAF	IpAddress
1.3.6.1.4.1.664.5.53.6.2.1.1.8	adGenAOS3GPrimaryHomeAddress	LEAF	IpAddress
1.3.6.1.4.1.664.5.53.6.2.1.1.9	adGenAOS3GSecHomeAddress	LEAF	IpAddress
1.3.6.1.4.1.664.5.53.6.2.1.1.10	adGenAOS3GRSSI	LEAF	Integer32
1.3.6.1.4.1.664.5.53.6.2.1.1.11	adGenAOS3GECIO	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.6.2.1.1.12	adGenAOS3GPnOffset	LEAF	Integer32
1.3.6.1.4.1.664.5.53.6.2.1.1.13	adGenAOS3GServiceType	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.6.2.1.1.14	adGenAOS3GServiceTypePreference	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.6.2.1.1.15	adGenAOS3GConnectionState	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.6.2.1.1.16	adGenAOS3GECIOIntegerValue	LEAF	Integer32
1.3.6.1.4.1.664.5.53.6.2.2	adGenAOS3GHHardwareDataTable	NODE	
1.3.6.1.4.1.664.5.53.6.2.2.1	adGenAOS3GHHardwareDataEntry	NODE	
1.3.6.1.4.1.664.5.53.6.2.2.1.1	adGenAOS3GSystemID	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.2.2.1.2	adGenAOS3GNetworkID	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.6.2.2.1.3	adGenAOS3GPreferredRoamList	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.2.2.1.4	adGenAOS3GMobileDirNumber	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.6.2.2.1.5	adGenAOS3GESN	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.6.2.2.1.6	adGenAOS3GMobileStationID	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.6.2.2.1.7	adGenAOS3GHHardwareVersion	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.6.2.2.1.8	adGenAOS3GFirmwareVersion	LEAF	DisplayString

**Table B-21. AOS 3G MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.6.2.3	adGenAOS3GThresholdDataTable	NODE	
1.3.6.1.4.1.664.5.53.6.2.3.1	adGenAOS3GThresholdDataEntry	NODE	
1.3.6.1.4.1.664.5.53.6.2.3.1.1	adGenAOS3GEnableTraps	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.6.2.3.1.2	adGenAOS3GRSSIThreshold	LEAF	Integer32
1.3.6.1.4.1.664.5.53.6.2.3.1.3	adGenAOS3GECIOThreshold	LEAF	Integer32

**Table B-22. AOS CPU MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.1.4	adGenAOSCpuUtil	NODE	
1.3.6.1.4.1.664.5.53.1.4.1	adGenAOSCurrentCpuUtil	LEAF	Gauge32
1.3.6.1.4.1.664.5.53.1.4.2	adGenAOSClearUtilizationStats	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.1.4.3	adGenAOS1MinCpuUtil	LEAF	Gauge32
1.3.6.1.4.1.664.5.53.1.4.4	adGenAOS5MinCpuUtil	LEAF	Gauge32
1.3.6.1.4.1.664.5.53.1.4.5	adGenAOSMaxCpuUtil	LEAF	Gauge32
1.3.6.1.4.1.664.5.53.1.4.6	adGenAOSMemPool	LEAF	Gauge32
1.3.6.1.4.1.664.5.53.1.4.7	adGenAOSHeapSize	LEAF	Gauge32
1.3.6.1.4.1.664.5.53.1.4.8	adGenAOSHeapFree	LEAF	Gauge32
1.3.6.1.4.1.664.5.53.1.4.9	adGenAOSProcessTable	NODE	
1.3.6.1.4.1.664.5.53.1.4.9.1	adGenAOSProcessEntry	NODE	
1.3.6.1.4.1.664.5.53.1.4.9.1.1	adGenAOSProcID	LEAF	Integer32
1.3.6.1.4.1.664.5.53.1.4.9.1.2	adGenAOSProcName	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.1.4.9.1.3	adGenAOSProcPriority	LEAF	Integer32
1.3.6.1.4.1.664.5.53.1.4.9.1.4	adGenAOSProcState	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.1.4.9.1.5	adGenAOSProcCount	LEAF	Gauge32
1.3.6.1.4.1.664.5.53.1.4.9.1.6	adGenAOSProcExecTime	LEAF	Gauge32
1.3.6.1.4.1.664.5.53.1.4.9.1.7	adGenAOSProcRunTime	LEAF	Gauge32
1.3.6.1.4.1.664.5.53.1.4.9.1.8	adGenAOSProc1SecLd	LEAF	Gauge32

**Table B-23. AOS Desktop Auditing MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.4.2	adGenDesktopAuditing	NODE	
1.3.6.1.4.1.664.5.53.4.2.0	adGenNapClients	NODE	
1.3.6.1.4.1.664.5.53.4.2.0.1	adGenNapClientsTable	NODE	
1.3.6.1.4.1.664.5.53.4.2.0.1.1	adGenNapClientsEntry	NODE	
1.3.6.1.4.1.664.5.53.4.2.0.1.1.1	adNapClientMac	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.4.2.0.1.1.2	adNapClientVlanId	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.4.2.0.1.1.3	adNapClientIp	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.4.2.0.1.1.4	adNapClientHostname	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.4.2.0.1.1.5	adNapClientSrcPortIflId	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.4.2.0.1.1.6	adNapClientSrcPortIflType	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.4.2.0.1.1.7	adNapServerMac	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.4.2.0.1.1.8	adNapServerIp	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.4.2.0.1.1.9	adNapCollectionMethod	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.4.2.0.1.1.10	adNapCollectionTime	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.4.2.0.1.1.11	adNapCapableClient	LEAF	TruthValue
1.3.6.1.4.1.664.5.53.4.2.0.1.1.12	adNapCapableServer	LEAF	TruthValue
1.3.6.1.4.1.664.5.53.4.2.0.1.1.13	adNapClientOsVersion	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.4.2.0.1.1.14	adNapClientOsServicePk	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.4.2.0.1.1.15	adNapClientOsProcessorArc	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.4.2.0.1.1.16	adNapClientLastSecurityUpdate	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.4.2.0.1.1.17	adNapClientSecurityUpdateServer	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.4.2.0.1.1.18	adNapClientRequiresRemediation	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.4.2.0.1.1.19	adNapClientLocalPolicyViolator	LEAF	TruthValue
1.3.6.1.4.1.664.5.53.4.2.0.1.1.20	adNapClientFirewallState	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.4.2.0.1.1.21	adNapClientFirewall	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.4.2.0.1.1.22	adNapClientAntivirusState	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.4.2.0.1.1.23	adNapClientAntivirus	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.4.2.0.1.1.24	adNapClientAntispywareState	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.4.2.0.1.1.25	adNapClientAntispyware	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.4.2.0.1.1.26	adNapClientAutoupdateState	LEAF	INTEGER

**Table B-23. AOS Desktop Auditing MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.4.2.0.1.1.27	adNapClientSecurityupdateState	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.4.2.0.1.1.28	adNapClientSecuritySeverity	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.4.2.0.1.1.29	adNapClientConnectionState	LEAF	INTEGER

**Table B-24. AOS Download MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.1.3	adAOSDownload	NODE	
1.3.6.1.4.1.664.5.53.1.3.1	adAOSDownloadTable	NODE	
1.3.6.1.4.1.664.5.53.1.3.1.1	adAOSDownloadEntry	NODE	
1.3.6.1.4.1.664.5.53.1.3.1.1.1	adAOSDownloadIndex	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.1.3.1.1.2	adAOSDownloadOwnerAddress	LEAF	TAddress
1.3.6.1.4.1.664.5.53.1.3.1.1.3	adAOSDownloadOwnerDomain	LEAF	TDomain
1.3.6.1.4.1.664.5.53.1.3.1.1.4	adAOSDownloadTAddress	LEAF	TAddress
1.3.6.1.4.1.664.5.53.1.3.1.1.5	adAOSDownloadTDomain	LEAF	TDomain
1.3.6.1.4.1.664.5.53.1.3.1.1.6	adAOSDownloadFilename	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.1.3.1.1.7	adAOSDownloadResetType	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.1.3.1.1.8	adAOSDownloadErrorStatus	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.1.3.1.1.9	adAOSDownloadErrorText	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.1.3.1.1.10	adAOSDownloadStatus	LEAF	RowStatus
1.3.6.1.4.1.664.5.53.1.3.1.1.11	adAOSDownloadPassesLeft	LEAF	Integer32
1.3.6.1.4.1.664.5.53.1.3.1.1.12	adAOSDownloadOctetCount	LEAF	Integer32
1.3.6.1.4.1.664.5.53.1.3.1.1.13	adAOSDownloadDestination	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.1.3.1.1.14	adAOSDownloadDestinationType	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.1.3.2	adAOSDownloadLogMaxSize	LEAF	Integer32
1.3.6.1.4.1.664.5.53.1.3.3	adAOSDownloadLogSize	LEAF	Gauge32
1.3.6.1.4.1.664.5.53.1.3.4	adAOSDownloadLogTable	NODE	
1.3.6.1.4.1.664.5.53.1.3.4.1	adAOSDownloadLogEntry	NODE	
1.3.6.1.4.1.664.5.53.1.3.4.1.1	adAOSDILogIndex	LEAF	Integer32
1.3.6.1.4.1.664.5.53.1.3.4.1.2	adAOSDILogOwnerAddress	LEAF	TAddress
1.3.6.1.4.1.664.5.53.1.3.4.1.3	adAOSDILogOwnerDomain	LEAF	TDomain
1.3.6.1.4.1.664.5.53.1.3.4.1.4	adAOSDILogTAddress	LEAF	TAddress

**Table B-24. AOS Download MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.1.3.4.1.5	adAOSDILogTDomain	LEAF	TDomain
1.3.6.1.4.1.664.5.53.1.3.4.1.6	adAOSDILogFilename	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.1.3.4.1.7	adAOSDILogResetType	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.1.3.4.1.8	adAOSDILogErrorStatus	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.1.3.4.1.9	adAOSDILogErrorText	LEAF	DisplayString

**Table B-25. AOS DS1 Thresholds MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.6.1	adGenAOSDs1Threshold	NODE	
1.3.6.1.4.1.664.5.53.6.1.0	adGenAOSDs1ThresholdTraps	NODE	
1.3.6.1.4.1.664.5.53.6.1.0.1	adGenAOSDs1ThresholdReached	NODE	
1.3.6.1.4.1.664.5.53.6.1.1	adGenAOSDs1ThresholdsReachedTable	NODE	
1.3.6.1.4.1.664.5.53.6.1.1.1	adGenAOSDs1ThresholdsReachedEntry	NODE	
1.3.6.1.4.1.664.5.53.6.1.1.1.1	adGenAOSDs1Index	LEAF	InterfaceIndex
1.3.6.1.4.1.664.5.53.6.1.1.1.2	adGenAOSDs1ThresholdAlarms	LEAF	BITS
1.3.6.1.4.1.664.5.53.6.1.1.1.3	adGenAOSDs1PreviousThresholdAlarms	LEAF	BITS
1.3.6.1.4.1.664.5.53.6.1.1.1.4	adGenAOSDs1LastThresholdChange	LEAF	TimeStamp
1.3.6.1.4.1.664.5.53.6.1.2	adGenAOSDs1Threshold15MinBES	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.1.3	adGenAOSDs1Threshold15MinCSS	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.1.4	adGenAOSDs1Threshold15MinDM	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.1.5	adGenAOSDs1Threshold15MinES	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.1.6	adGenAOSDs1Threshold15MinLCV	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.1.7	adGenAOSDs1Threshold15MinLES	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.1.8	adGenAOSDs1Threshold15MinPCV	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.1.9	adGenAOSDs1Threshold15MinSES	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.1.10	adGenAOSDs1Threshold15MinSEFS	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.1.11	adGenAOSDs1Threshold15MinUAS	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.1.12	adGenAOSDs1Threshold24HrBES	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.1.13	adGenAOSDs1Threshold24HrCSS	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.1.14	adGenAOSDs1Threshold24HrDM	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.1.15	adGenAOSDs1Threshold24HrES	LEAF	Unsigned32



**Table B-25. AOS DS1 Thresholds MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.6.1.16	adGenAOSDs1Threshold24HrLCV	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.1.17	adGenAOSDs1Threshold24HrLES	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.1.18	adGenAOSDs1Threshold24HrPCV	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.1.19	adGenAOSDs1Threshold24HrSES	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.1.20	adGenAOSDs1Threshold24HrSEFS	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.6.1.21	adGenAOSDs1Threshold24HrUAS	LEAF	Unsigned32

**Table B-26. AOS Ethernet Loopback MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.9.10	adGenAosEthLpbk	NODE	
1.3.6.1.4.1.664.5.53.9.10.1	adGenAosEthLpbkTable	NODE	
1.3.6.1.4.1.664.5.53.9.10.1.1	adGenAosEthLpbkEntry	NODE	
1.3.6.1.4.1.664.5.53.9.10.1.1.1	adGenAosEthLpbkNameFixedLen	LEAF	
1.3.6.1.4.1.664.5.53.9.10.1.1.2	adGenAosEthLpbkName	LEAF	
1.3.6.1.4.1.664.5.53.9.10.1.1.3	adGenAosEthLpbkSTag	LEAF	
1.3.6.1.4.1.664.5.53.9.10.1.1.4	adGenAosEthLpbkMacDa	LEAF	
1.3.6.1.4.1.664.5.53.9.10.1.1.5	adGenAosEthLpbkSysMacDa	LEAF	
1.3.6.1.4.1.664.5.53.9.10.1.1.6	adGenAosEthLpbkCfgStatus	LEAF	
1.3.6.1.4.1.664.5.53.9.10.1.1.7	adGenAosEthLpbkType	LEAF	
1.3.6.1.4.1.664.5.53.9.10.1.1.8	adGenAosEthLpbkIfName	LEAF	
1.3.6.1.4.1.664.5.53.9.10.1.1.9	adGenAosEthLpbkAdminStatus	LEAF	
1.3.6.1.4.1.664.5.53.9.10.1.1.10	adGenAosEthLpbkOperStatus	LEAF	
1.3.6.1.4.1.664.5.53.9.10.1.1.11	adGenAosEthLpbkIfIndex	LEAF	

**Table B-27. AOS Fan Trap MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.1.8	adGenAOSFan	NODE	
1.3.6.1.4.1.664.5.53.1.8.0	adGenAOSFanTrap	NODE	
1.3.6.1.4.1.664.5.53.1.8.0.1	adGenAOSFanFailure	LEAF	
1.3.6.1.4.1.664.5.53.1.8.0.2	adGenAOSFanFailureResume	LEAF	
1.3.6.1.4.1.664.5.53.1.8.1	adGenAOSFanTrapControl	NODE	

**Table B-27. AOS Fan Trap MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.1.8.1.1	adGenAOSFanTrapEnable	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.1.8.2	adGenAOSFanInfo	NODE	
1.3.6.1.4.1.664.5.53.1.8.2.1	adGenAOSFanNumber	LEAF	Integer32

**Table B-28. AOS IF MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.2.4.1	adGenAOSIfTable	NODE	
1.3.6.1.4.1.664.5.53.2.4.1.1	adGenAOSIfEntry	NODE	
1.3.6.1.4.1.664.5.53.2.4.1.1.1	adGenAOSIfName	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.2.4.1.1.2	adGenAOSInOctets30s	LEAF	CounterBasedGauge64
1.3.6.1.4.1.664.5.53.2.4.1.1.3	adGenAOSOutOctets30s	LEAF	CounterBasedGauge64
1.3.6.1.4.1.664.5.53.2.4.1.1.4	adGenAOSInPackets30s	LEAF	CounterBasedGauge64
1.3.6.1.4.1.664.5.53.2.4.1.1.5	adGenAOSOutPackets30s	LEAF	CounterBasedGauge64
1.3.6.1.4.1.664.5.53.2.4.1.1.6	adGenAOSInOctets5m	LEAF	CounterBasedGauge64
1.3.6.1.4.1.664.5.53.2.4.1.1.7	adGenAOSOutOctets5m	LEAF	CounterBasedGauge64
1.3.6.1.4.1.664.5.53.2.4.1.1.8	adGenAOSInPackets5m	LEAF	CounterBasedGauge64
1.3.6.1.4.1.664.5.53.2.4.1.1.9	adGenAOSOutPackets5m	LEAF	CounterBasedGauge64
1.3.6.1.4.1.664.5.53.2.4.1.1.10	adGenAOSInUndersizedFrames	LEAF	Gauge32
1.3.6.1.4.1.664.5.53.2.4.1.1.11	adGenAOSInOversizedFrames	LEAF	Gauge32
1.3.6.1.4.1.664.5.53.2.4.1.1.12	adGenAOSInFramesFCS	LEAF	Gauge32
1.3.6.1.4.1.664.5.53.2.4.1.1.13	adGenAOSInInvalidCeVlanIdDrops	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.4.1.1.14	adGenAOSInRxBufOverflowDrops	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.4.1.1.15	adGenAOSInl2FwdDiscActCtr	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.4.1.1.16	adGenAOSInl2FwdDiscCtr	LEAF	Counter64

**Table B-29. AOS Network Monitor MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.2.2	adGenAOSNetMon	NODE	
1.3.6.1.4.1.664.5.53.2.2.0	adGenAOSnmTrackTraps	NODE	
1.3.6.1.4.1.664.5.53.2.2.0.1	adGenAOSnmTrackStateChgFail	NODE	
1.3.6.1.4.1.664.5.53.2.2.0.2	adGenAOSnmTrackStateChgPass	NODE	
1.3.6.1.4.1.664.5.53.2.2.1	adGenAOSnmProbeTableNextIndex	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.2	adGenAOSnmProbeTable	NODE	
1.3.6.1.4.1.664.5.53.2.2.2.1	adGenAOSnmProbeEntry	NODE	
1.3.6.1.4.1.664.5.53.2.2.2.1.1	adGenAOSnmIndex	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.2.1.2	adGenAOSnmName	LEAF	OCTET STRING
1.3.6.1.4.1.664.5.53.2.2.2.1.3	adGenAOSnmType	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.2.1.4	adGenAOSnmRowStatus	LEAF	RowStatus
1.3.6.1.4.1.664.5.53.2.2.3	adGenAOSnmConfigProbeTable	NODE	
1.3.6.1.4.1.664.5.53.2.2.3.1	adGenAOSnmConfigProbeEntry	NODE	
1.3.6.1.4.1.664.5.53.2.2.3.1.1	adGenAOSnmCfgName	LEAF	OCTET STRING
1.3.6.1.4.1.664.5.53.2.2.3.1.2	adGenAOSnmAdminStatus	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.3.1.3	adGenAOSnmPollPeriod	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.3.1.4	adGenAOSnmTimeoutPeriod	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.3.1.5	adGenAOSnmToleranceMode	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.3.1.6	adGenAOSnmFailTolerance	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.3.1.7	adGenAOSnmPassTolerance	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.3.1.8	adGenAOSnmToleranceTestSize	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.3.1.9	adGenAOSnmClearCounters	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.4	adGenAOSnmProbeStatusTable	NODE	
1.3.6.1.4.1.664.5.53.2.2.4.1	adGenAOSnmProbeStatusEntry	NODE	
1.3.6.1.4.1.664.5.53.2.2.4.1.1	adGenAOSnmStatusName	LEAF	OCTET STRING
1.3.6.1.4.1.664.5.53.2.2.4.1.2	adGenAOSnmTestStatus	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.4.1.3	adGenAOSnmTestsRun	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.4.1.4	adGenAOSnmTestsFailed	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.4.1.5	adGenAOSnmStatsToleranceTestSize	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.4.1.6	adGenAOSnmStatsToleranceTestValue	LEAF	Counter32

**Table B-29. AOS Network Monitor MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.2.2.4.1.7	adGenAOSnmTimeSinceLastStatusChange	LEAF	TimeTicks
1.3.6.1.4.1.664.5.53.2.2.5	adGenAOSnmCfgTwampProbeTable	NODE	
1.3.6.1.4.1.664.5.53.2.2.5.1	adGenAOSnmCfgTwampProbeEntry	NODE	
1.3.6.1.4.1.664.5.53.2.2.5.1.1	adGenAOSnmCfgTwName	LEAF	OCTET STRING
1.3.6.1.4.1.664.5.53.2.2.5.1.2	adGenAOSnmTwDestHostname	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.2.2.5.1.3	adGenAOSnmTwDestPort	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.5.1.4	adGenAOSnmTwSrcIP	LEAF	IpAddress
1.3.6.1.4.1.664.5.53.2.2.5.1.5	adGenAOSnmTwSrcPort	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.5.1.6	adGenAOSnmTwDscp	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.5.1.7	adGenAOSnmTwPaddingLen	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.5.1.8	adGenAOSnmTwPaddingFormat	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.5.1.9	adGenAOSnmTwPaddingPattern	LEAF	OCTET STRING
1.3.6.1.4.1.664.5.53.2.2.5.1.10	adGenAOSnmTwDataPadType	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.5.1.11	adGenAOSnmTwPktSendCnt	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.5.1.12	adGenAOSnmTwSendScheduleType	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.5.1.13	adGenAOSnmTwSendScheduleValue	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.5.1.14	adGenAOSnmTwlpdvAbsInMinFail	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.5.1.15	adGenAOSnmTwlpdvAbsInAvgFail	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.5.1.16	adGenAOSnmTwlpdvAbsInMaxFail	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.5.1.17	adGenAOSnmTwlpdvAbsInMinPass	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.5.1.18	adGenAOSnmTwlpdvAbsInAvgPass	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.5.1.19	adGenAOSnmTwlpdvAbsInMaxPass	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.5.1.20	adGenAOSnmTwlpdvAbsOutMinFail	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.5.1.21	adGenAOSnmTwlpdvAbsOutAvgFail	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.5.1.22	adGenAOSnmTwlpdvAbsOutMaxFail	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.5.1.23	adGenAOSnmTwlpdvAbsOutMinPass	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.5.1.24	adGenAOSnmTwlpdvAbsOutAvgPass	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.5.1.25	adGenAOSnmTwlpdvAbsOutMaxPass	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.5.1.26	adGenAOSnmTwlpdvAbsRtMinFail	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.5.1.27	adGenAOSnmTwlpdvAbsRtAvgFail	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.5.1.28	adGenAOSnmTwlpdvAbsRtMaxFail	LEAF	Unsigned32

**Table B-29. AOS Network Monitor MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.2.2.5.1.29	adGenAOSnmTwIpdvAbsRtMinPass	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.5.1.30	adGenAOSnmTwIpdvAbsRtAvgPass	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.5.1.31	adGenAOSnmTwIpdvAbsRtMaxPass	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.5.1.32	adGenAOSnmTwDelayInMinFail	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.5.1.33	adGenAOSnmTwDelayInAvgFail	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.5.1.34	adGenAOSnmTwDelayInMaxFail	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.5.1.35	adGenAOSnmTwDelayInMinPass	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.5.1.36	adGenAOSnmTwDelayInAvgPass	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.5.1.37	adGenAOSnmTwDelayInMaxPass	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.5.1.38	adGenAOSnmTwDelayOutMinFail	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.5.1.39	adGenAOSnmTwDelayOutAvgFail	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.5.1.40	adGenAOSnmTwDelayOutMaxFail	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.5.1.41	adGenAOSnmTwDelayOutMinPass	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.5.1.42	adGenAOSnmTwDelayOutAvgPass	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.5.1.43	adGenAOSnmTwDelayOutMaxPass	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.5.1.44	adGenAOSnmTwDelayRtMinFail	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.5.1.45	adGenAOSnmTwDelayRtAvgFail	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.5.1.46	adGenAOSnmTwDelayRtMaxFail	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.5.1.47	adGenAOSnmTwDelayRtMinPass	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.5.1.48	adGenAOSnmTwDelayRtAvgPass	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.5.1.49	adGenAOSnmTwDelayRtMaxPass	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.5.1.50	adGenAOSnmTwPktRtLossFail	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.5.1.51	adGenAOSnmTwPktRtLossPass	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.5.1.52	adGenAOSnmTwHistoryDepth	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.6	adGenAOSnmTwampHistoryTable	NODE	
1.3.6.1.4.1.664.5.53.2.2.6.1	adGenAOSnmTwampHistoryEntry	NODE	
1.3.6.1.4.1.664.5.53.2.2.6.1.1	adGenAOSnmTwSeqNum	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.6.1.2	adGenAOSnmTwHistoryName	LEAF	OCTET STRING
1.3.6.1.4.1.664.5.53.2.2.6.1.3	adGenAOSnmTwStartTime	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.2.2.6.1.4	adGenAOSnmTwEndTime	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.2.2.6.1.5	adGenAOSnmTwLocalSyncState	LEAF	TruthValue
1.3.6.1.4.1.664.5.53.2.2.6.1.6	adGenAOSnmTwLocalClkErr	LEAF	Counter64

**Table B-29. AOS Network Monitor MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.2.2.6.1.7	adGenAOSnmTwRemoteSyncState	LEAF	TruthValue
1.3.6.1.4.1.664.5.53.2.2.6.1.8	adGenAOSnmTwRemoteClkErr	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.6.1.9	adGenAOSnmTwDelayInMin	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.6.1.10	adGenAOSnmTwDelayInMax	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.6.1.11	adGenAOSnmTwDelayOutMin	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.6.1.12	adGenAOSnmTwDelayOutMax	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.6.1.13	adGenAOSnmTwDelayRtMin	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.6.1.14	adGenAOSnmTwDelayRtMax	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.6.1.15	adGenAOSnmTwLossRoundTrip	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.16	adGenAOSnmTwDelayOutSum	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.6.1.17	adGenAOSnmTwDelayOutSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.6.1.18	adGenAOSnmTwDelayOutNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.19	adGenAOSnmTwDelayInSum	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.6.1.20	adGenAOSnmTwDelayInSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.6.1.21	adGenAOSnmTwDelayInNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.22	adGenAOSnmTwDelayRtSum	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.6.1.23	adGenAOSnmTwDelayRtSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.6.1.24	adGenAOSnmTwDelayRtNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.25	adGenAOSnmTwIpvPosInMin	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.26	adGenAOSnmTwIpvPosInMax	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.27	adGenAOSnmTwIpvPosInSum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.28	adGenAOSnmTwIpvPosInSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.6.1.29	adGenAOSnmTwIpvPosInNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.30	adGenAOSnmTwIpvPosOutMin	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.31	adGenAOSnmTwIpvPosOutMax	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.32	adGenAOSnmTwIpvPosOutSum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.33	adGenAOSnmTwIpvPosOutSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.6.1.34	adGenAOSnmTwIpvPosOutNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.35	adGenAOSnmTwIpvPosRtMin	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.36	adGenAOSnmTwIpvPosRtMax	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.37	adGenAOSnmTwIpvPosRtSum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.38	adGenAOSnmTwIpvPosRtSum2	LEAF	Counter64

**Table B-29. AOS Network Monitor MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.2.2.6.1.39	adGenAOSnmTwIpvPosRtNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.40	adGenAOSnmTwIpvNegInMin	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.41	adGenAOSnmTwIpvNegInMax	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.42	adGenAOSnmTwIpvNegInSum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.43	adGenAOSnmTwIpvNegInSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.6.1.44	adGenAOSnmTwIpvNegInNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.45	adGenAOSnmTwIpvNegOutMin	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.46	adGenAOSnmTwIpvNegOutMax	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.47	adGenAOSnmTwIpvNegOutSum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.48	adGenAOSnmTwIpvNegOutSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.6.1.49	adGenAOSnmTwIpvNegOutNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.50	adGenAOSnmTwIpvNegRtMin	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.51	adGenAOSnmTwIpvNegRtMax	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.52	adGenAOSnmTwIpvNegRtSum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.53	adGenAOSnmTwIpvNegRtSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.6.1.54	adGenAOSnmTwIpvNegRtNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.55	adGenAOSnmTwIpvAbsInMin	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.56	adGenAOSnmTwIpvAbsInMax	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.57	adGenAOSnmTwIpvAbsInSum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.58	adGenAOSnmTwIpvAbsInSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.6.1.59	adGenAOSnmTwIpvAbsInNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.60	adGenAOSnmTwIpvAbsOutMin	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.61	adGenAOSnmTwIpvAbsOutMax	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.62	adGenAOSnmTwIpvAbsOutSum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.63	adGenAOSnmTwIpvAbsOutSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.6.1.64	adGenAOSnmTwIpvAbsOutNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.65	adGenAOSnmTwIpvAbsRtMin	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.66	adGenAOSnmTwIpvAbsRtMax	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.67	adGenAOSnmTwIpvAbsRtSum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.68	adGenAOSnmTwIpvAbsRtSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.6.1.69	adGenAOSnmTwIpvAbsRtNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.6.1.70	adGenAOSnmTwPktSentCount	LEAF	Counter32

**Table B-29. AOS Network Monitor MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.2.2.7	adGenAOSnmCfgICMPTSProbeTable	NODE	
1.3.6.1.4.1.664.5.53.2.2.7.1	adGenAOSnmCfgICMPTSProbeEntry	NODE	
1.3.6.1.4.1.664.5.53.2.2.7.1.1	adGenAOSnmCfgICMPTSPName	LEAF	OCTET STRING
1.3.6.1.4.1.664.5.53.2.2.7.1.2	adGenAOSnmICMPTSDestHostname	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.2.2.7.1.3	adGenAOSnmICMPTSSrcIP	LEAF	IpAddress
1.3.6.1.4.1.664.5.53.2.2.7.1.4	adGenAOSnmICMPTSDscp	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.7.1.5	adGenAOSnmICMPTSPaddingLen	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.7.1.6	adGenAOSnmICMPTSPaddingFormat	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.7.1.7	adGenAOSnmICMPTSPaddingPattern	LEAF	OCTET STRING
1.3.6.1.4.1.664.5.53.2.2.7.1.8	adGenAOSnmICMPTSDataPadType	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.7.1.9	adGenAOSnmICMPTSPktSendCnt	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.7.1.10	adGenAOSnmICMPTSSendSchedule Type	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.7.1.11	adGenAOSnmICMPTSSendSchedule Value	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.7.1.12	adGenAOSnmICMPTSIpdvAbsInMinFail	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.7.1.13	adGenAOSnmICMPTSIpdvAbsInAvgFail	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.7.1.14	adGenAOSnmICMPTSIpdvAbsInMaxFail	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.7.1.15	adGenAOSnmICMPTSIpdvAbsInMinPass	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.7.1.16	adGenAOSnmICMPTSIpdvAbsInAvgPass	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.7.1.17	adGenAOSnmICMPTSIpdvAbsInMaxPass	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.7.1.18	adGenAOSnmICMPTSIpdvAbsOutMinFail	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.7.1.19	adGenAOSnmICMPTSIpdvAbsOutAvgFail	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.7.1.20	adGenAOSnmICMPTSIpdvAbsOutMax Fail	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.7.1.21	adGenAOSnmICMPTSIpdvAbsOutMin Pass	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.7.1.22	adGenAOSnmICMPTSIpdvAbsOutAvg Pass	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.7.1.23	adGenAOSnmICMPTSIpdvAbsOutMax Pass	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.7.1.24	adGenAOSnmICMPTSIpdvAbsRtMinFail	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.7.1.25	adGenAOSnmICMPTSIpdvAbsRtAvgFail	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.7.1.26	adGenAOSnmICMPTSIpdvAbsRtMaxFail	LEAF	Unsigned32



**Table B-29. AOS Network Monitor MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.2.2.7.1.27	adGenAOSnmICMPTSIpdvAbsRtMinPass	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.7.1.28	adGenAOSnmICMPTSIpdvAbsRtAvgPass	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.7.1.29	adGenAOSnmICMPTSIpdvAbsRtMax Pass	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.7.1.30	adGenAOSnmICMPTSDelayInMinFail	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.7.1.31	adGenAOSnmICMPTSDelayInAvgFail	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.7.1.32	adGenAOSnmICMPTSDelayInMaxFail	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.7.1.33	adGenAOSnmICMPTSDelayInMinPass	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.7.1.34	adGenAOSnmICMPTSDelayInAvgPass	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.7.1.35	adGenAOSnmICMPTSDelayInMaxPass	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.7.1.36	adGenAOSnmICMPTSDelayOutMinFail	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.7.1.37	adGenAOSnmICMPTSDelayOutAvgFail	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.7.1.38	adGenAOSnmICMPTSDelayOutMaxFail	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.7.1.39	adGenAOSnmICMPTSDelayOutMinPass	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.7.1.40	adGenAOSnmICMPTSDelayOutAvgPass	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.7.1.41	adGenAOSnmICMPTSDelayOutMaxPass	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.7.1.42	adGenAOSnmICMPTSDelayRtMinFail	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.7.1.43	adGenAOSnmICMPTSDelayRtAvgFail	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.7.1.44	adGenAOSnmICMPTSDelayRtMaxFail	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.7.1.45	adGenAOSnmICMPTSDelayRtMinPass	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.7.1.46	adGenAOSnmICMPTSDelayRtAvgPass	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.7.1.47	adGenAOSnmICMPTSDelayRtMaxPass	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.7.1.48	adGenAOSnmICMPTSPktRtLossFail	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.7.1.49	adGenAOSnmICMPTSPktRtLossPass	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.7.1.50	adGenAOSnmICMPTSHistoryDepth	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.8	adGenAOSnmICMPTSHistoryTable	NODE	
1.3.6.1.4.1.664.5.53.2.2.8.1	adGenAOSnmICMPTSHistoryEntry	NODE	
1.3.6.1.4.1.664.5.53.2.2.8.1.1	adGenAOSnmICMPTSSeqNum	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.8.1.2	adGenAOSnmICMPTSHistoryName	LEAF	OCTET STRING
1.3.6.1.4.1.664.5.53.2.2.8.1.3	adGenAOSnmICMPTSSendTime	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.2.2.8.1.4	adGenAOSnmICMPTSEndTime	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.2.2.8.1.5	adGenAOSnmICMPTSDelayInMin	LEAF	Integer32

**Table B-29. AOS Network Monitor MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.2.2.8.1.6	adGenAOSnmICMPTSDelayInMax	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.8.1.7	adGenAOSnmICMPTSDelayOutMin	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.8.1.8	adGenAOSnmICMPTSDelayOutMax	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.8.1.9	adGenAOSnmICMPTSDelayRtMin	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.8.1.10	adGenAOSnmICMPTSDelayRtMax	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.8.1.11	adGenAOSnmICMPTSLossRoundTrip	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.12	adGenAOSnmICMPTSDelayOutSum	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.8.1.13	adGenAOSnmICMPTSDelayOutSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.8.1.14	adGenAOSnmICMPTSDelayOutNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.15	adGenAOSnmICMPTSDelayInSum	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.8.1.16	adGenAOSnmICMPTSDelayInSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.8.1.17	adGenAOSnmICMPTSDelayInNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.18	adGenAOSnmICMPTSDelayRtSum	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.8.1.19	adGenAOSnmICMPTSDelayRtSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.8.1.20	adGenAOSnmICMPTSDelayRtNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.21	adGenAOSnmICMPTSIpvPosInMin	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.22	adGenAOSnmICMPTSIpvPosInMax	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.23	adGenAOSnmICMPTSIpvPosInSum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.24	adGenAOSnmICMPTSIpvPosInSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.8.1.25	adGenAOSnmICMPTSIpvPosInNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.26	adGenAOSnmICMPTSIpvPosOutMin	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.27	adGenAOSnmICMPTSIpvPosOutMax	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.28	adGenAOSnmICMPTSIpvPosOutSum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.29	adGenAOSnmICMPTSIpvPosOutSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.8.1.30	adGenAOSnmICMPTSIpvPosOutNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.31	adGenAOSnmICMPTSIpvPosRtMin	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.32	adGenAOSnmICMPTSIpvPosRtMax	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.33	adGenAOSnmICMPTSIpvPosRtSum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.34	adGenAOSnmICMPTSIpvPosRtSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.8.1.35	adGenAOSnmICMPTSIpvPosRtNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.36	adGenAOSnmICMPTSIpvNegInMin	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.37	adGenAOSnmICMPTSIpvNegInMax	LEAF	Counter32

**Table B-29. AOS Network Monitor MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.2.2.8.1.38	adGenAOSnmICMPTSIpvNegInSum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.39	adGenAOSnmICMPTSIpvNegInSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.8.1.40	adGenAOSnmICMPTSIpvNegInNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.41	adGenAOSnmICMPTSIpvNegOutMin	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.42	adGenAOSnmICMPTSIpvNegOutMax	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.43	adGenAOSnmICMPTSIpvNegOutSum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.44	adGenAOSnmICMPTSIpvNegOutSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.8.1.45	adGenAOSnmICMPTSIpvNegOutNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.46	adGenAOSnmICMPTSIpvNegRtMin	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.47	adGenAOSnmICMPTSIpvNegRtMax	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.48	adGenAOSnmICMPTSIpvNegRtSum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.49	adGenAOSnmICMPTSIpvNegRtSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.8.1.50	adGenAOSnmICMPTSIpvNegRtNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.51	adGenAOSnmICMPTSIpvAbsInMin	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.52	adGenAOSnmICMPTSIpvAbsInMax	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.53	adGenAOSnmICMPTSIpvAbsInSum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.54	adGenAOSnmICMPTSIpvAbsInSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.8.1.55	adGenAOSnmICMPTSIpvAbsInNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.56	adGenAOSnmICMPTSIpvAbsOutMin	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.57	adGenAOSnmICMPTSIpvAbsOutMax	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.58	adGenAOSnmICMPTSIpvAbsOutSum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.59	adGenAOSnmICMPTSIpvAbsOutSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.8.1.60	adGenAOSnmICMPTSIpvAbsOutNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.61	adGenAOSnmICMPTSIpvAbsRtMin	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.62	adGenAOSnmICMPTSIpvAbsRtMax	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.63	adGenAOSnmICMPTSIpvAbsRtSum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.64	adGenAOSnmICMPTSIpvAbsRtSum2	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.2.8.1.65	adGenAOSnmICMPTSIpvAbsRtNum	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.8.1.66	adGenAOSnmICMPTSPktSentCount	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.9	adGenAOSnmICMPTResponder	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.10	adGenAOSnmTWAMPResponder	LEAF	INTEGER

**Table B-29. AOS Network Monitor MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.2.2.11	adGenAOSnmICMPTSRresponderStats Table	NODE	
1.3.6.1.4.1.664.5.53.2.2.11.1	adGenAOSnmICMPTSRresponderStats Entry	NODE	
1.3.6.1.4.1.664.5.53.2.2.11.1.1	adGenAOSnmICMPTSRresponderStatsIndex	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.11.1.2	adGenAOSnmICMPTSRresponderPacketsReceived	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.11.1.3	adGenAOSnmICMPTSRresponderPacketsSent	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.11.1.4	adGenAOSnmClearICMPTSRresponderCounters	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.12	adGenAOSnmTwampResponderStats Table	NODE	
1.3.6.1.4.1.664.5.53.2.2.12.1	adGenAOSnmTwampResponderStats Entry	NODE	
1.3.6.1.4.1.664.5.53.2.2.12.1.1	adGenAOSnmTwampResponderStatsIndex	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.2.12.1.2	adGenAOSnmTwampResponderPacketsReceived	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.12.1.3	adGenAOSnmTwampResponderPacketsSent	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.12.1.4	adGenAOSnmTwampResponderSessionClosed	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.12.1.5	adGenAOSnmTwampResponderSessionOpened	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.12.1.6	adGenAOSnmTwampResponderSessionRejected	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.2.12.1.7	adGenAOSnmClearTwampResponderCounters	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.13	adGenAOSnmCfgleProbeTable	NODE	
1.3.6.1.4.1.664.5.53.2.2.13.1	adGenAOSnmCfgleProbeEntry	NODE	
1.3.6.1.4.1.664.5.53.2.2.13.1.1	adGenAOSnmCfgleName	LEAF	OCTET STRING
1.3.6.1.4.1.664.5.53.2.2.13.1.2	adGenAOSnmIEDestHostname	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.2.2.13.1.3	adGenAOSnmIESrcIP	LEAF	IpAddress
1.3.6.1.4.1.664.5.53.2.2.13.1.4	adGenAOSnmIEPacketLength	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.2.13.1.5	adGenAOSnmIEPacketPattern	LEAF	OCTET STRING
1.3.6.1.4.1.664.5.53.2.2.14	adGenAOSnmTrackTable	NODE	

**Table B-29. AOS Network Monitor MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.2.2.14.1	adGenAOSnmTrackEntry	NODE	
1.3.6.1.4.1.664.5.53.2.2.14.1.1	adGenAOSnmTrackIndex	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.2.14.1.2	adGenAOSnmTrackName	LEAF	OCTET STRING

**Table B-30. AOS Network Sync Trap MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.1.9	adGenAOSNetSync	NODE	INTEGER
1.3.6.1.4.1.664.5.53.1.9.0	adGenAOSNetSyncTrap	NODE	INTEGER
1.3.6.1.4.1.664.5.53.1.9.0.1	adGenAOSNetSyncClockDefectTrap	NODE	INTEGER
1.3.6.1.4.1.664.5.53.1.9.0.2	adGenAOSNetSyncLTISStateChangeTrap	NODE	INTEGER
1.3.6.1.4.1.664.5.53.1.9.0.3	adGenAOSNetSyncT4SquelchStateChangeTrap	NODE	INTEGER
1.3.6.1.4.1.664.5.53.1.9.1	adGenAOSNetSyncTrapControl	NODE	INTEGER
1.3.6.1.4.1.664.5.53.1.9.1.1	adGenAOSNetSyncTrapEnable	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.1.9.2	adGenAOSNetSyncInfo	NODE	INTEGER
1.3.6.1.4.1.664.5.53.1.9.2.1	adGenAOSNetSyncLTISState	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.1.9.2.2	adGenAOSNetSyncClockNumber	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.1.9.2.3	adGenAOSNetSyncClockDefectStatus	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.1.9.2.4	adGenAOSNetSyncT4SquelchState	LEAF	INTEGER

**Table B-31. AOS Over Temp Protection MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.1.10	adGenAOSOverTempProtection	NODE	
1.3.6.1.4.1.664.5.53.1.10.0	adGenAOSOverTempProtectionTrap	NODE	
1.3.6.1.4.1.664.5.53.1.10.0.1	adGenAOSOverTempProtectionWarning	LEAF	
1.3.6.1.4.1.664.5.53.1.10.0.2	adGenAOSOverTempProtectionShutdown	LEAF	
1.3.6.1.4.1.664.5.53.1.10.0.3	adGenAOSOverTempProtectionWarningResume	LEAF	
1.3.6.1.4.1.664.5.53.1.10.0.4	adGenAOSOverTempProtectionShutdownResume	LEAF	

**Table B-32. AOS Power Over Ethernet Status MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.99.35	adGenAOSPowerOverEthernetConformance	NODE	
1.3.6.1.4.1.664.5.53.99.35.1	adGenAOSPowerOverEthernetGroups	NODE	
1.3.6.1.4.1.664.5.53.99.35.1.1	adGenAOSPoESysInfoGroup	NODE	DisplayString
1.3.6.1.4.1.664.5.53.99.35.1.2	adGenAOSPoEPortInfoGroup	NODE	DisplayString
1.3.6.1.4.1.664.5.53.99.35.2	adGenAOSPoEPortInfoGroup	NODE	DisplayString
1.3.6.1.4.1.664.5.53.99.35.2	adGenAOSPowerOverEthernetCompliances	NODE	
1.3.6.1.4.1.664.5.53.99.35.2.1	adGenAOSPowerOverEthernetFullCompliance	NODE	
1.3.6.1.4.1.664.5.53.4.3	adGenAOSPoEMon	NODE	
1.3.6.1.4.1.664.5.53.4.3.1	adGenAOSPoESysInfo	NODE	
1.3.6.1.4.1.664.5.53.4.3.1.1	adGenAOSPoEPseTotalPower	LEAF	
1.3.6.1.4.1.664.5.53.4.3.1.2	adGenAOSPoEPseTotalPowerUsed	LEAF	
1.3.6.1.4.1.664.5.53.4.3.1.3	adGenAOSPoEPseTotalPowerAvailable	LEAF	
1.3.6.1.4.1.664.5.53.4.3.1.4	adGenAOSPoEPseAverageTotalPowerUsed	LEAF	
1.3.6.1.4.1.664.5.53.4.3.2	adGenAOSPoEPortInfo	NODE	
1.3.6.1.4.1.664.5.53.4.3.2.1	adGenAOSPoEPortInfoTable	NODE	
1.3.6.1.4.1.664.5.53.4.3.2.1.1	adGenAOSPoEPortInfoTableEntry	NODE	
1.3.6.1.4.1.664.5.53.4.3.2.1.1.1	adGenAOSPoEPsePortIfName	LEAF	
1.3.6.1.4.1.664.5.53.4.3.2.1.1.2	adGenAOSPoEPsePortPowerAdminMode	LEAF	
1.3.6.1.4.1.664.5.53.4.3.2.1.1.3	adGenAOSPoEPsePortPowerStatusMode	LEAF	
1.3.6.1.4.1.664.5.53.4.3.2.1.1.4	adGenAOSPoEPortPowerUsed	LEAF	
1.3.6.1.4.1.664.5.53.4.3.2.1.1.5	adGenAOSPoEPsePortPowerClassifications	LEAF	
1.3.6.1.4.1.664.5.53.4.3.2.1.1.6	adGenAOSPoEPsePortVoltage	LEAF	

**Table B-32. AOS Power Over Ethernet Status MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.4.3.2.1.1.7	adGenAOSPsePortCurrent	LEAF	
1.3.6.1.4.1.664.5.53.4.3.2.1.1.8	adGenAOSPsePortMaxPower	LEAF	
1.3.6.1.4.1.664.5.53.4.3.2.1.1.9	adGenAOSPsePortAveragePower	LEAF	

**Table B-33. AOS QoS MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.2.1	adGenAOSQos	NODE	
1.3.6.1.4.1.664.5.53.2.1.1	adGenAOSQoSMapSetTable	NODE	
1.3.6.1.4.1.664.5.53.2.1.1.1	adGenAOSQoSMapSetEntry	NODE	
1.3.6.1.4.1.664.5.53.2.1.1.1.1	adGenAOSQoSMapSetId	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.1.1.2	adGenAOSQoSMapSetName	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.2.1.1.1.3	adGenAOSQoSMapIsChild	LEAF	TruthValue
1.3.6.1.4.1.664.5.53.2.1.2	adGenAOSQoSMapEntriesTable	NODE	
1.3.6.1.4.1.664.5.53.2.1.2.1	adGenAOSQoSMapEntriesEntry	NODE	
1.3.6.1.4.1.664.5.53.2.1.2.1.1	adGenAOSQoSMapEntryId	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.2.1.2	adGenAOSQoSMapSeqNum	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.2.1.3	adGenAOSQoSMapEntrySetName	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.2.1.2.1.4	adGenAOSQoSMapChildSetName	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.2.1.2.1.5	adGenAOSQoSMapQueuingAction Type	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.1.2.1.6	adGenAOSQoSMapQueuingBWType	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.1.2.1.7	adGenAOSQoSMapQueuingBWValue	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.3	adGenAOSQoSInterfaceTable	NODE	
1.3.6.1.4.1.664.5.53.2.1.3.1	adGenAOSQoSInterfaceEntry	NODE	
1.3.6.1.4.1.664.5.53.2.1.3.1.1	adGenAOSQoSInterfaceName	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.2.1.3.1.2	adGenAOSQoSInterfaceOutboundMapSet- Name	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.2.1.3.1.3	adGenAOSQoSInterfaceInboundMap SetName	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.2.1.3.1.4	adGenAOSQoSInterfaceMapState	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.1.3.1.5	adGenAOSQoSInterfaceTXQType	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.1.3.1.6	adGenAOSQoSInterfaceTXQSubq PktLimit	LEAF	Unsigned32

**Table B-33. AOS QoS MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.2.1.3.1.7	adGenAOSQoSInterfaceTXQSize	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.3.1.8	adGenAOSQoSInterfaceTXQPktHighWater	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.3.1.9	adGenAOSQoSInterfaceTXQMaxTotal	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.3.1.10	adGenAOSQoSInterfaceTXQDrops	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.3.1.11	adGenAOSQoSInterfaceTXQHdlcRingLimit	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.3.1.12	adGenAOSQoSInterfaceTXQAvailableBW	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.3.1.13	adGenAOSQoSInterfaceTXQConvActive	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.3.1.14	adGenAOSQoSInterfaceTXQConvMaxActive	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.3.1.15	adGenAOSQoSInterfaceTXQConvMaxTotal	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.4	adGenAOSQoSClassConvHistoryTable	NODE	
1.3.6.1.4.1.664.5.53.2.1.4.1	adGenAOSQoSClassConvHistoryEntry	NODE	
1.3.6.1.4.1.664.5.53.2.1.4.1.1	adGenAOSQoSMapParentEntryId	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.4.1.2	adGenAOSQoSClassConvSetId	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.4.1.3	adGenAOSQoSClassConvHistoryClassConvId	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.4.1.4	adGenAOSQoSClassConvHistoryMatches	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.1.4.1.5	adGenAOSQoSClassConvHistoryDiscards	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.1.4.1.6	adGenAOSQoSClassConvHistoryMatchesBytes	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.1.4.1.7	adGenAOSQoSClassConvHistoryDiscardsBytes	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.1.4.1.8	adGenAOSQoSClassConvHistoryDepth	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.4.1.9	adGenAOSQoSClassConvHistoryHighWater	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.5	adGenAOSQoSConversationTable	NODE	
1.3.6.1.4.1.664.5.53.2.1.5.1	adGenAOSQoSConversationEntry	NODE	
1.3.6.1.4.1.664.5.53.2.1.5.1.1	adGenAOSQoSConvId	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.5.1.2	adGenAOSQoSMapConvParentEntryId	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.5.1.3	adGenAOSQoSConvMatches	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.1.5.1.4	adGenAOSQoSConvDiscards	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.1.5.1.5	adGenAOSQoSConvMatchesBytes	LEAF	Counter64



**Table B-33. AOS QoS MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.2.1.5.1.6	adGenAOSQoSConvDiscardsBytes	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.1.5.1.7	adGenAOSQoSConvDepth	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.5.1.8	adGenAOSQoSConvHighWater	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.5.1.9	adGenAOSQoSConvWeight	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.5.1.10	adGenAOSQoSConvPktLen	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.5.1.11	adGenAOSQoSConvProttype	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.1.5.1.12	adGenAOSQoSConvSubQType	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.1.5.1.13	adGenAOSQoSConvPktHeader	LEAF	OCTET STRING
1.3.6.1.4.1.664.5.53.2.1.6	adGenAOSQoSPriorityRateLimiterTable	NODE	
1.3.6.1.4.1.664.5.53.2.1.6.1	adGenAOSQoSPriorityRateLimiterEntry	NODE	
1.3.6.1.4.1.664.5.53.2.1.6.1.1	adGenAOSQoSPriorityRateLimiter ParentEntryId	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.6.1.2	adGenAOSQoSPriorityRateLimiterSetId	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.6.1.3	adGenAOSQoSPriorityRateLimiterCurrBudget	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.6.1.4	adGenAOSQoSPriorityRateLimiterMaxBudget	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.6.1.5	adGenAOSQoSPriorityRateLimiter UpdateTimestamp	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.6.1.6	adGenAOSQoSPriorityRateLimiter BudgetRate	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.6.1.7	adGenAOSQoSPriorityRateLimiterMaxFillTime	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.2.1.6.1.8	adGenAOSQoSPriorityRateLimiter Matches	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.1.6.1.9	adGenAOSQoSPriorityRateLimiter Drops	LEAF	Counter32
1.3.6.1.4.1.664.5.53.2.1.6.1.10	adGenAOSQoSPriorityRateLimiter MatchesBytes	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.1.6.1.11	adGenAOSQoSPriorityRateLimiter DropsBytes	LEAF	Counter64
1.3.6.1.4.1.664.5.53.2.1.6.1.12	adGenAOSQoSPriorityRateLimiterClear- Counters	LEAF	INTEGER

**Table B-34. AOS SFP Status MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.1.12	adGenAOSSfp	NODE	
1.3.6.1.4.1.664.5.53.1.12.0	adSfpThresholdTraps	NODE	
1.3.6.1.4.1.664.5.53.1.12.0.1	adSfpAlarmRxPowerError	LEAF	
1.3.6.1.4.1.664.5.53.1.12.0.2	adSfpAlarmRxPowerResume	LEAF	
1.3.6.1.4.1.664.5.53.1.12.0.3	adSfpAlarmTxPowerError	LEAF	
1.3.6.1.4.1.664.5.53.1.12.0.4	adSfpAlarmTxPowerResume	LEAF	
1.3.6.1.4.1.664.5.53.1.12.0.5	adSfpAlarmSupplyVoltageError	LEAF	
1.3.6.1.4.1.664.5.53.1.12.0.6	adSfpAlarmSupplyVoltageResume	LEAF	
1.3.6.1.4.1.664.5.53.1.12.0.7	adSfpAlarmTemperatureError	LEAF	
1.3.6.1.4.1.664.5.53.1.12.0.8	adSfpAlarmTemperatureResume	LEAF	
1.3.6.1.4.1.664.5.53.1.12.0.9	adSfpAlarmBiasCurrentError	LEAF	
1.3.6.1.4.1.664.5.53.1.12.0.10	adSfpAlarmBiasCurrentResume	LEAF	
1.3.6.1.4.1.664.5.53.1.12.0.11	adSfpTypeFailure	LEAF	
1.3.6.1.4.1.664.5.53.1.12.0.12	adSfpEntConfigChangeInsertion	LEAF	
1.3.6.1.4.1.664.5.53.1.12.0.13	adSfpEntConfigChangeRemoval	LEAF	

**Table B-35. AOS SIP Registration Conformance MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.99.12	adSipRegistrationConformance	NODE	
1.3.6.1.4.1.664.5.53.99.12.1	adSipRegistrationGroups	NODE	
1.3.6.1.4.1.664.5.53.99.12.1.1	adSipRegistrationNotificationGroup	NODE	
1.3.6.1.4.1.664.5.53.99.12.1.2	adSipRegistrationNotificationUtilityGroup	NODE	
1.3.6.1.4.1.664.5.53.99.12.1.3	adSipRegistrationStatisticsGroup	NODE	
1.3.6.1.4.1.664.5.53.99.12.2	adSipRegistrationCompliances	NODE	
1.3.6.1.4.1.664.5.53.99.12.2.1	adSipRegistrationFullCompliance		

**Table B-36. AOS SIP Trunk Registration MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.5.4.0.1	adSipTrunkRegistrationAlarm	NODE	
1.3.6.1.4.1.664.5.53.5.4.1	adSipTrunkRegistrationAlarmTrunkIdentity	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.4.2	adSipTrunkRegistrationAlarmSipIdentity	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.4.3	adSipTrunkRegistrationAlarmRegistrar	LEAF	IpAddress
1.3.6.1.4.1.664.5.53.5.4.4	adSipTrunkRegistrationAlarmTimestamp	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.4.5	adSipTrunkRegistrationTable	NODE	
1.3.6.1.4.1.664.5.53.5.4.5.1	adSipTrunkRegistrationEntry	NODE	
1.3.6.1.4.1.664.5.53.5.4.5.1.1	adSipTrunkRegistrationTableIndex	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.4.5.1.2	adSipTrunkRegistrationTrunkIdentity	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.4.5.1.3	adSipTrunkRegistrationSipIdentity	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.4.5.1.4	adSipTrunkRegistrationStatus	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.4.5.1.5	adSipTrunkRegistrarIpAddress	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.4.5.1.6	adSipTrunkRegistrationGrantTime	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.4.5.1.7	adSipTrunkRegistrationExpireTime	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.4.5.1.8	adSipTrunkRegistrationSuccesses	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.4.5.1.9	adSipTrunkRegistrationFailures	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.4.5.1.10	adSipTrunkRegistrationRequests	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.4.5.1.11	adSipTrunkRegistrationChallenges	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.4.5.1.12	adSipTrunkRegistrationRollovers	LEAF	Unsigned32

**Table B-37. AOS SNMP MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.1.2	adGenAOSSnmp	NODE	
1.3.6.1.4.1.664.5.53.1.2.1	adAOSSNMPCommunitiesTable	NODE	
1.3.6.1.4.1.664.5.53.1.2.1.1	adAOSSNMPCommunitiesEntry	NODE	
1.3.6.1.4.1.664.5.53.1.2.1.1.1	adAOSSNMPCommunitiesIndex	LEAF	Integer32
1.3.6.1.4.1.664.5.53.1.2.1.1.2	adAOSSNMPCommunitiesString	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.1.2.1.1.3	adAOSSNMPCommunitiesPrivilege	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.1.2.1.1.4	adAOSSNMPCommunitiesStatus	LEAF	RowStatus
1.3.6.1.4.1.664.5.53.1.2.2	adAOSSNMPTrapsTable	NODE	

**Table B-37. AOS SNMP MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.1.2.2.1	adAOSSNMPTrapsEntry	NODE	
1.3.6.1.4.1.664.5.53.1.2.2.1.1	adAOSSNMPTrapsIndex	LEAF	Integer32
1.3.6.1.4.1.664.5.53.1.2.2.1.2	adAOSSNMPTrapsString	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.1.2.2.1.3	adAOSSNMPTrapsMngmtAddr	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.1.2.2.1.4	adAOSSNMPTrapsStatus	LEAF	RowStatus
1.3.6.1.4.1.664.5.53.1.2.3	adAOSSNMPEnableTraps	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.1.2.4	adAOSSNMPAuthenticationTraps	LEAF	INTEGER

**Table B-38. AOS System MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.1.6	adGenAOSFileSystem	NODE	
1.3.6.1.4.1.664.5.53.1.6.1	adAOSFileSystemRecordTable	NODE	
1.3.6.1.4.1.664.5.53.1.6.1.1	adAOSFileSystemRecordEntry	NODE	
1.3.6.1.4.1.664.5.53.1.6.1.1.1	adAOSFileSystemRecordID	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.1.6.1.1.2	adAOSFileSystemRecordSystem	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.1.6.1.1.3	adAOSFileSystemRecordType	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.1.6.1.1.4	adAOSFileSystemRecordPath	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.1.6.1.1.5	adAOSFileSystemRecordName	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.1.6.1.1.6	adAOSFileSystemRecordSize	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.1.6.1.1.7	adAOSFileSystemRecordStatus	LEAF	RowStatus
1.3.6.1.4.1.664.5.53.1.6.2	adAOSFileSystemTable	NODE	
1.3.6.1.4.1.664.5.53.1.6.2.1	adAOSFileSystemEntry	NODE	
1.3.6.1.4.1.664.5.53.1.6.2.1.1	adAOSFileSystemID	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.1.6.2.1.2	adAOSFileSystemType	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.1.6.2.1.3	adAOSFileSystemTotalSize	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.1.6.2.1.4	adAOSFileSystemFreeSize	LEAF	Unsigned32

**Table B-39. AOS Unit MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.3	experimental	NODE	
1.3.6.1.4	private	NODE	
1.3.6.1.4.1	enterprises	NODE	
1.3.6.1.4.1.664	adtran	NODE	
1.3.6.1.4.1.664.5	adShared	NODE	
1.3.6.1.4.1.664.5.53	adGenAOS	NODE	
1.3.6.1.4.1.664.5.53.1	adGenAOSCommon	NODE	
1.3.6.1.4.1.664.5.53.1.1	adGenAOSUnit	NODE	
1.3.6.1.4.1.664.5.53.1.1.0.1	adGenAOSUserLogin	LEAF	
1.3.6.1.4.1.664.5.53.1.1.0.2	adGenAOSUserLogout	LEAF	
1.3.6.1.4.1.664.5.53.1.1.1	adAOSBootRevision	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.1.1.2	adAOSCurrentImage	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.1.1.3	adAOSRunConfigChecksum	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.1.1.4	adAOSStartConfigChecksum	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.1.1.5	adAOSDeviceIndex	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.1.1.6	adAOSDeviceGlobalUniqueID	LEAF	Octet String
1.3.6.1.4.1.664.5.53.1.1.7	adAOSDeviceHealth	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.1.1.8	adAOSDeviceSysObjID	LEAF	Octet String
1.3.6.1.4.1.664.5.53.1.1.9	adAOSDeviceManagementURL	LEAF	Octet String
1.3.6.1.4.1.664.5.53.1.1.10	adAOSDeviceManagementURLLabel	LEAF	Octet String
1.3.6.1.4.1.664.5.53.1.1.11	adAOSDeviceManufacturer	LEAF	Octet String
1.3.6.1.4.1.664.5.53.1.1.12	adAOSDeviceProductName	LEAF	Octet String
1.3.6.1.4.1.664.5.53.1.1.13	adAOSDeviceSerialNumber	LEAF	Octet String
1.3.6.1.4.1.664.5.53.1.1.14	adAOSDeviceVersion	LEAF	Octet String
1.3.6.1.4.1.664.5.53.1.1.15	adAOSDeviceHWVersion	LEAF	Octet String
1.3.6.1.4.1.664.5.53.1.1.16	adAOSDeviceContactPerson	LEAF	Octet String
1.3.6.1.4.1.664.5.53.1.1.17	adAOSDeviceContactPhone	LEAF	Octet String
1.3.6.1.4.1.664.5.53.1.1.18	adAOSDeviceContactEmail	LEAF	Octet String
1.3.6.1.4.1.664.5.53.1.1.19	adAOSDeviceContactPagerNumber	LEAF	Octet String
1.3.6.1.4.1.664.5.53.1.1.20	adAOSDeviceLocation	LEAF	Octet String
1.3.6.1.4.1.664.5.53.1.1.21	adGenAOSSaveConfig	LEAF	INTEGER

**Table B-39. AOS Unit MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.1.1.22	adGenAOSReloadSystem	LEAF	Integer32
1.3.6.1.4.1.664.5.53.1.1.23	adGenAOSCancelReload	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.1.1.24	adAOSPrimaryImage	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.1.1.25	adAOSBackupImage	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.1.1.26	adAOSDevicePartNumber	LEAF	Octet String
1.3.6.1.4.1.664.5.53.1.1.28	adAOSFactoryReset	LEAF	Truth Value

**Table B-40. AOS Voice Quality Monitoring MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.5.3	adVQM	NODE	
1.3.6.1.4.1.664.5.53.5.3.0	adVQMTrap	NODE	
1.3.6.1.4.1.664.5.53.5.3.0.1	adVQMEndOfCallTrap	NODE	
1.3.6.1.4.1.664.5.53.5.3.1	adVQMTrapControl	NODE	
1.3.6.1.4.1.664.5.53.5.3.1.1	adVqmTrapState	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.1.2	adVqmTrapCfgSeverityLevel	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.1.3	adVqmTrapEventType	LEAF	BITS
1.3.6.1.4.1.664.5.53.5.3.2	adVQMCfg	NODE	
1.3.6.1.4.1.664.5.53.5.3.2.1	adVqmCfgEnable	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.2.2	adVqmCfgSipEnable	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.2.3	adVqmCfgUdpEnable	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.2.4	adVqmCfgInternationalCode	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.2.5	adVqmCfgJitterBufferType	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.2.6	adVqmCfgJitterBufferAdaptiveMin	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.2.7	adVqmCfgJitterBufferAdaptiveNominal	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.2.8	adVqmCfgJitterBufferAdaptiveMax	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.2.9	adVqmCfgJitterBufferFixedNominal	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.2.10	adVqmCfgJitterBufferFixedSize	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.2.11	adVqmCfgJitterBufferThresholdEarlyMs	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.2.12	adVqmCfgJitterBufferThresholdLateMs	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.2.13	adVqmCfgRoundTripPingEnabled	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.2.14	adVqmCfgRoundTripPingType	LEAF	INTEGER

**Table B-40. AOS Voice Quality Monitoring MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.5.3.2.15	adVqmCfgCallHistorySize	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.2.16	adVqmCfgHistoryThresholdLqmos	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.2.17	adVqmCfgHistoryThresholdCqmos	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.2.18	adVqmCfgHistoryThresholdPqmos	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.2.19	adVqmCfgHistoryThresholdLoss	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.2.20	adVqmCfgHistoryThresholdOutOfOrder	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.2.21	adVqmCfgHistoryThresholdJitter	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.2.22	adVqmCfgClear	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.2.23	adVqmCfgClearCallHistory	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.3	adVQMThreshold	NODE	
1.3.6.1.4.1.664.5.53.5.3.3.1	adVqmThresholdLqmosInfo	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.3.2	adVqmThresholdLqmosNotice	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.3.3	adVqmThresholdLqmosWarning	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.3.4	adVqmThresholdLqmosError	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.3.5	adVqmThresholdPqmosInfo	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.3.6	adVqmThresholdPqmosNotice	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.3.7	adVqmThresholdPqmosWarning	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.3.8	adVqmThresholdPqmosError	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.3.9	adVqmThresholdOutOfOrderInfo	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.3.10	adVqmThresholdOutOfOrderNotice	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.3.11	adVqmThresholdOutOfOrderWarning	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.3.12	adVqmThresholdOutOfOrderError	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.3.13	adVqmThresholdLossInfo	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.3.14	adVqmThresholdLossNotice	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.3.15	adVqmThresholdLossWarning	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.3.16	adVqmThresholdLossError	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.3.17	adVqmThresholdJitterInfo	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.3.18	adVqmThresholdJitterNotice	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.3.19	adVqmThresholdJitterWarning	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.3.20	adVqmThresholdJitterError	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.4	adVQMSysPerf	NODE	
1.3.6.1.4.1.664.5.53.5.3.4.1	adVqmSysActiveCalls	LEAF	Counter32

**Table B-40. AOS Voice Quality Monitoring MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.5.3.4.2	adVqmSysActiveExcellent	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.4.3	adVqmSysActiveGood	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.4.4	adVqmSysActiveFair	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.4.5	adVqmSysActivePoor	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.4.6	adVqmSysCallHistoryCalls	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.4.7	adVqmSysCallHistoryExcellent	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.4.8	adVqmSysCallHistoryGood	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.4.9	adVqmSysCallHistoryFair	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.4.10	adVqmSysCallHistoryPoor	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.4.11	adVqmSysAllCallsExcellent	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.4.12	adVqmSysAllCallsGood	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.4.13	adVqmSysAllCallsFair	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.4.14	adVqmSysAllCallsPoor	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.5	adVQMInterface	NODE	
1.3.6.1.4.1.664.5.53.5.3.5.1	adVQMInterfaceTable	NODE	
1.3.6.1.4.1.664.5.53.5.3.5.1.1	adVQMInterfaceEntry	NODE	
1.3.6.1.4.1.664.5.53.5.3.5.1.1.1	adVqmlfcId	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.2	adVqmlfcName	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.3.5.1.1.3	adVqmlfcPktsRx	LEAF	Counter64
1.3.6.1.4.1.664.5.53.5.3.5.1.1.4	adVqmlfcPktsLost	LEAF	Counter64
1.3.6.1.4.1.664.5.53.5.3.5.1.1.5	adVqmlfcPktsOoo	LEAF	Counter64
1.3.6.1.4.1.664.5.53.5.3.5.1.1.6	adVqmlfcPktsDiscarded	LEAF	Counter64
1.3.6.1.4.1.664.5.53.5.3.5.1.1.7	adVqmlfcNumberActiveCalls	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.8	adVqmlfcTerminatedCalls	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.9	adVqmlfcRLqMinimum	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.10	adVqmlfcRLqAverage	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.11	adVqmlfcRLqMaximum	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.12	adVqmlfcRCqMinimum	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.13	adVqmlfcRCqAverage	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.14	adVqmlfcRCqMaximum	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.15	adVqmlfcRG107Minimum	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.16	adVqmlfcRG107Average	LEAF	Unsigned32



**Table B-40. AOS Voice Quality Monitoring MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.5.3.5.1.1.17	adVqmlfcRG107Maximum	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.18	adVqmlfcMosLqMinimum	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.5.1.1.19	adVqmlfcMosLqAverage	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.5.1.1.20	adVqmlfcMosLqMaximum	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.5.1.1.21	adVqmlfcMosCqMinimum	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.5.1.1.22	adVqmlfcMosCqAverage	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.5.1.1.23	adVqmlfcMosCqMaximum	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.5.1.1.24	adVqmlfcMosPqMinimum	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.5.1.1.25	adVqmlfcMosPqAverage	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.5.1.1.26	adVqmlfcMosPqMaximum	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.5.1.1.27	adVqmlfcLossMinimum	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.28	adVqmlfcLossAverage	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.29	adVqmlfcLossMaximum	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.30	adVqmlfcDiscardsMinimum	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.31	adVqmlfcDiscardsAverage	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.32	adVqmlfcDiscardsMaximum	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.33	adVqmlfcPdvAverageMs	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.5.1.1.34	adVqmlfcPdvMaximumMs	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.5.1.1.35	adVqmlfcDelayMinMsec	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.36	adVqmlfcDelayAvgMsec	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.37	adVqmlfcDelayMaxMsec	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.38	adVqmlfcNumberStreamsExcellent	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.39	adVqmlfcNumberStreamsGood	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.40	adVqmlfcNumberStreamsFair	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.41	adVqmlfcNumberStreamsPoor	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.5.1.1.42	adVqmlfcClear	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.6	adVQMEndPoint	NODE	
1.3.6.1.4.1.664.5.53.5.3.6.1	adVQMEndPointTable	NODE	
1.3.6.1.4.1.664.5.53.5.3.6.1.1	adVQMEndPointEntry	NODE	
1.3.6.1.4.1.664.5.53.5.3.6.1.1.1	adVqmEndPointRtpSourceIp	LEAF	IpAddress
1.3.6.1.4.1.664.5.53.5.3.6.1.1.2	adVqmEndPointNumberCompletedCalls	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.6.1.1.3	adVqmEndPointInterfaceId	LEAF	Unsigned32

**Table B-40. AOS Voice Quality Monitoring MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.5.3.6.1.1.4	adVqmEndPointInterfaceName	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.3.6.1.1.5	adVqmEndPointMosLqMinimum	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.6.1.1.6	adVqmEndPointMosLqAverage	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.6.1.1.7	adVqmEndPointMosLqMaximum	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.6.1.1.8	adVqmEndPointMosPqMinimum	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.6.1.1.9	adVqmEndPointMosPqAverage	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.6.1.1.10	adVqmEndPointMosPqMaximum	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.6.1.1.11	adVqmEndPointPktsLostTotal	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.6.1.1.12	adVqmEndPointPktsOutOfOrder	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.6.1.1.13	adVqmEndPointJitterMaximum	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.6.1.1.14	adVqmEndPointNumberStreamsExcellent	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.6.1.1.15	adVqmEndPointNumberStreamsGood	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.6.1.1.16	adVqmEndPointNumberStreamsFair	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.6.1.1.17	adVqmEndPointNumberStreamsPoor	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.7	adVQMHistory	NODE	
1.3.6.1.4.1.664.5.53.5.3.7.1	adVQMCallHistoryTable	NODE	
1.3.6.1.4.1.664.5.53.5.3.7.1.1	adVQMCallHistoryEntry	NODE	
1.3.6.1.4.1.664.5.53.5.3.7.1.1.1	adVqmCallHistRtpSourceIp	LEAF	IpAddress
1.3.6.1.4.1.664.5.53.5.3.7.1.1.2	adVqmCallHistRtpSourcePort	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.3	adVqmCallHistRtpDestIp	LEAF	IpAddress
1.3.6.1.4.1.664.5.53.5.3.7.1.1.4	adVqmCallHistRtpDestPort	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.5	adVqmCallHistSrcid	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.6	adVqmCallHistTo	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.3.7.1.1.7	adVqmCallHistFrom	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.3.7.1.1.8	adVqmCallHistRtpSourceUri	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.3.7.1.1.9	adVqmCallHistCallid	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.3.7.1.1.10	adVqmCallHistCcmid	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.11	adVqmCallHistSourceIntName	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.3.7.1.1.12	adVqmCallHistDestIntName	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.3.7.1.1.13	adVqmCallHistSourceIntDescription	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.3.7.1.1.14	adVqmCallHistDestIntDescription	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.3.7.1.1.15	adVqmCallHistCallStart	LEAF	DisplayString

**Table B-40. AOS Voice Quality Monitoring MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.5.3.7.1.1.16	adVqmCallHistCallDurationMs	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.17	adVqmCallHistCodec	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.7.1.1.18	adVqmCallHistCodecClass	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.7.1.1.19	adVqmCallHistDscp	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.20	adVqmCallHistPktsRcvdTotal	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.21	adVqmCallHistPktsLostTotal	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.22	adVqmCallHistPktsDiscardedTotal	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.23	adVqmCallHistOutOfOrder	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.24	adVqmCallHistPdvAverageMs	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.25	adVqmCallHistPdvMaximumMs	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.26	adVqmCallHistRtDelayInst	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.7.1.1.27	adVqmCallHistRtDelayAverage	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.7.1.1.28	adVqmCallHistRtDelayMaximum	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.7.1.1.29	adVqmCallHistOnewayDelayInst	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.7.1.1.30	adVqmCallHistOnewayDelayAverage	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.7.1.1.31	adVqmCallHistOnewayDelayMaximum	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.7.1.1.32	adVqmCallHistOrigDelayInst	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.7.1.1.33	adVqmCallHistOrigDelayAverage	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.7.1.1.34	adVqmCallHistOrigDelayMaximum	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.7.1.1.35	adVqmCallHistTermDelayMinimum	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.7.1.1.36	adVqmCallHistTermDelayAverage	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.7.1.1.37	adVqmCallHistTermDelayMaximum	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.7.1.1.38	adVqmCallHistRLq	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.39	adVqmCallHistRCq	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.40	adVqmCallHistRNominal	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.41	adVqmCallHistRG107	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.42	adVqmCallHistMosLq	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.7.1.1.43	adVqmCallHistMosCq	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.7.1.1.44	adVqmCallHistMosPq	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.7.1.1.45	adVqmCallHistMosNominal	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.7.1.1.46	adVqmCallHistDegLoss	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.7.1.1.47	adVqmCallHistDegDiscard	LEAF	Percentage

**Table B-40. AOS Voice Quality Monitoring MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.5.3.7.1.1.48	adVqmCallHistDegVocoder	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.7.1.1.49	adVqmCallHistDegRecency	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.7.1.1.50	adVqmCallHistDegDelay	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.7.1.1.51	adVqmCallHistDegSiglvl	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.7.1.1.52	adVqmCallHistDegNoiselvl	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.7.1.1.53	adVqmCallHistDegEcholvl	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.7.1.1.54	adVqmCallHistBurstRLq	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.55	adVqmCallHistBurstCount	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.56	adVqmCallHistBurstRateAvg	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.7.1.1.57	adVqmCallHistBurstLenAvgPkts	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.58	adVqmCallHistBurstLenAvgMsec	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.59	adVqmCallHistGapR	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.60	adVqmCallHistGapCount	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.61	adVqmCallHistGapLossRateAvg	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.7.1.1.62	adVqmCallHistGapLenPkts	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.63	adVqmCallHistGapLenMsec	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.64	adVqmCallHistLossRateAvg	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.7.1.1.65	adVqmCallHistNetworkLossAvg	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.7.1.1.66	adVqmCallHistDiscardRateAvg	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.7.1.1.67	adVqmCallHistExcessBurst	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.68	adVqmCallHistExcessGap	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.69	adVqmCallHistPpdvMsec	LEAF	MsecValue
1.3.6.1.4.1.664.5.53.5.3.7.1.1.70	adVqmCallHistLateThresholdMs	LEAF	MsecValue
1.3.6.1.4.1.664.5.53.5.3.7.1.1.71	adVqmCallHistLateThresholdPc	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.7.1.1.72	adVqmCallHistLateUnderThresh	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.73	adVqmCallHistLateTotalCount	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.74	adVqmCallHistLatePeakJitterMs	LEAF	MsecValue
1.3.6.1.4.1.664.5.53.5.3.7.1.1.75	adVqmCallHistEarlyThreshMs	LEAF	MsecValue
1.3.6.1.4.1.664.5.53.5.3.7.1.1.76	adVqmCallHistEarlyThreshPc	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.7.1.1.77	adVqmCallHistEarlyUnderThresh	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.78	adVqmCallHistEarlyTotalCount	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.79	adVqmCallHistEarlyPeakJitterMs	LEAF	MsecValue

**Table B-40. AOS Voice Quality Monitoring MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.5.3.7.1.1.80	adVqmCallHistDelayIncreaseCount	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.81	adVqmCallHistDelayDecreaseCount	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.82	adVqmCallHistResyncCount	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.83	adVqmCallHistJitterBufferType	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.7.1.1.84	adVqmCallHistJbCfgMin	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.85	adVqmCallHistJbCfgNom	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.86	adVqmCallHistJbCfgMax	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.87	adVqmCallHistDuplicatePkts	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.88	adVqmCallHistEarlyPkts	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.89	adVqmCallHistLatePkts	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.90	adVqmCallHistOverrunDiscardPkts	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.91	adVqmCallHistUnderrunDiscardPkts	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.92	adVqmCallHistDelayMinMsec	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.93	adVqmCallHistDelayAvgMsec	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.94	adVqmCallHistDelayMaxMsec	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.95	adVqmCallHistDelayCurrentMsec	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.96	adVqmCallHistExtRLqIn	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.7.1.1.97	adVqmCallHistExtRLqOut	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.7.1.1.98	adVqmCallHistExtRCqIn	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.7.1.1.99	adVqmCallHistExtRCqOut	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.7.1.1.100	adVqmCallHistThroughPutIndex	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.101	adVqmCallHistReliabilityIndex	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.7.1.1.102	adVqmCallHistBitrate	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8	adVQMActive	NODE	
1.3.6.1.4.1.664.5.53.5.3.8.1	adVQMActiveCallTable	NODE	
1.3.6.1.4.1.664.5.53.5.3.8.1.1	adVQMActiveCallEntry	NODE	
1.3.6.1.4.1.664.5.53.5.3.8.1.1.1	adVqmActCallRtpSourceIp	LEAF	IpAddress
1.3.6.1.4.1.664.5.53.5.3.8.1.1.2	adVqmActCallRtpSourcePort	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.3	adVqmActCallRtpDestIp	LEAF	IpAddress
1.3.6.1.4.1.664.5.53.5.3.8.1.1.4	adVqmActCallRtpDestPort	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.5	adVqmActCallSsrcId	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.6	adVqmActCallTo	LEAF	DisplayString

**Table B-40. AOS Voice Quality Monitoring MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.5.3.8.1.1.7	adVqmActCallFrom	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.3.8.1.1.8	adVqmActCallRtpSourceUri	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.3.8.1.1.9	adVqmActCallCallid	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.3.8.1.1.10	adVqmActCallCcmid	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.11	adVqmActCallSourceIntName	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.3.8.1.1.12	adVqmActCallDestIntName	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.3.8.1.1.13	adVqmActCallSourceIntDescription	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.3.8.1.1.14	adVqmActCallDestIntDescription	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.3.8.1.1.15	adVqmActCallCallStart	LEAF	DisplayString
1.3.6.1.4.1.664.5.53.5.3.8.1.1.16	adVqmActCallCallDurationMs	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.17	adVqmActCallCodec	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.8.1.1.18	adVqmActCallCodecClass	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.8.1.1.19	adVqmActCallDscp	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.20	adVqmActCallPktsRcvdTotal	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.21	adVqmActCallPktsLostTotal	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.22	adVqmActCallPktsDiscardedTotal	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.23	adVqmActCallOutOfOrder	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.24	adVqmActCallPdvAverageMs	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.25	adVqmActCallPdvMaximumMs	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.26	adVqmActCallRtDelayInst	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.8.1.1.27	adVqmActCallRtDelayAverage	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.8.1.1.28	adVqmActCallRtDelayMaximum	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.8.1.1.29	adVqmActCallOnewayDelayInst	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.8.1.1.30	adVqmActCallOnewayDelayAverage	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.8.1.1.31	adVqmActCallOnewayDelayMaximum	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.8.1.1.32	adVqmActCallOrigDelayInst	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.8.1.1.33	adVqmActCallOrigDelayAverage	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.8.1.1.34	adVqmActCallOrigDelayMaximum	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.8.1.1.35	adVqmActCallTermDelayMinimum	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.8.1.1.36	adVqmActCallTermDelayAverage	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.8.1.1.37	adVqmActCallTermDelayMaximum	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.8.1.1.38	adVqmActCallIRLq	LEAF	Unsigned32

**Table B-40. AOS Voice Quality Monitoring MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.5.3.8.1.1.39	adVqmActCallRCq	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.40	adVqmActCallRNominal	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.41	adVqmActCallRG107	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.42	adVqmActCallMosLq	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.8.1.1.43	adVqmActCallMosCq	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.8.1.1.44	adVqmActCallMosPq	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.8.1.1.45	adVqmActCallMosNominal	LEAF	MOSvalue
1.3.6.1.4.1.664.5.53.5.3.8.1.1.46	adVqmActCallDegLoss	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.8.1.1.47	adVqmActCallDegDiscard	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.8.1.1.48	adVqmActCallDegVocoder	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.8.1.1.49	adVqmActCallDegRecency	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.8.1.1.50	adVqmActCallDegDelay	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.8.1.1.51	adVqmActCallDegSiglvl	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.8.1.1.52	adVqmActCallDegNoiselvl	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.8.1.1.53	adVqmActCallDegEcholvl	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.8.1.1.54	adVqmActCallBurstRLq	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.55	adVqmActCallBurstCount	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.56	adVqmActCallBurstRateAvg	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.8.1.1.57	adVqmActCallBurstLenAvgPkts	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.58	adVqmActCallBurstLenAvgMsec	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.59	adVqmActCallGapR	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.60	adVqmActCallGapCount	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.61	adVqmActCallGapLossRateAvg	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.8.1.1.62	adVqmActCallGapLenPkts	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.63	adVqmActCallGapLenMsec	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.64	adVqmActCallLossRateAvg	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.8.1.1.65	adVqmActCallNetworkLossAvg	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.8.1.1.66	adVqmActCallDiscardRateAvg	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.8.1.1.67	adVqmActCallExcessBurst	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.68	adVqmActCallExcessGap	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.69	adVqmActCallPpdvMsec	LEAF	MsecValue
1.3.6.1.4.1.664.5.53.5.3.8.1.1.70	adVqmActCallLateThresholdMs	LEAF	MsecValue

**Table B-40. AOS Voice Quality Monitoring MIB OIDs (Continued)**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.5.3.8.1.1.71	adVqmActCallLateThresholdPc	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.8.1.1.72	adVqmActCallLateUnderThresh	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.73	adVqmActCallLateTotalCount	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.74	adVqmActCallLatePeakJitterMs	LEAF	MsecValue
1.3.6.1.4.1.664.5.53.5.3.8.1.1.75	adVqmActCallEarlyThreshMs	LEAF	MsecValue
1.3.6.1.4.1.664.5.53.5.3.8.1.1.76	adVqmActCallEarlyThreshPc	LEAF	Percentage
1.3.6.1.4.1.664.5.53.5.3.8.1.1.77	adVqmActCallEarlyUnderThresh	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.78	adVqmActCallEarlyTotalCount	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.79	adVqmActCallEarlyPeakJitterMs	LEAF	MsecValue
1.3.6.1.4.1.664.5.53.5.3.8.1.1.80	adVqmActCallDelayIncreaseCount	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.81	adVqmActCallDelayDecreaseCount	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.82	adVqmActCallResyncCount	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.83	adVqmActCallJitterBufferType	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.8.1.1.84	adVqmActCallJbCfgMin	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.85	adVqmActCallJbCfgNom	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.86	adVqmActCallJbCfgMax	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.87	adVqmActCallDuplicatePkts	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.88	adVqmActCallEarlyPkts	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.89	adVqmActCallLatePkts	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.90	adVqmActCallOverrunDiscardPkts	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.91	adVqmActCallUnderrunDiscardPkts	LEAF	Counter32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.92	adVqmActCallDelayMinMsec	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.93	adVqmActCallDelayAvgMsec	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.94	adVqmActCallDelayMaxMsec	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.95	adVqmActCallDelayCurrentMsec	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.96	adVqmActCallExtRLqIn	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.8.1.1.97	adVqmActCallExtRLqOut	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.8.1.1.98	adVqmActCallExtRCqIn	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.8.1.1.99	adVqmActCallExtRCqOut	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.5.3.8.1.1.100	adVqmActCallThroughPutIndex	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.101	adVqmActCallReliabilityIndex	LEAF	Unsigned32
1.3.6.1.4.1.664.5.53.5.3.8.1.1.102	adVqmActCallBitrate	LEAF	Unsigned32



**Table B-41. AOS VRRP MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.2.3	adGenAOSVrrp	NODE	
1.3.6.1.4.1.664.5.53.2.3.0	adGenAOSVrrpTrap	NODE	
1.3.6.1.4.1.664.5.53.2.3.0.1	adGenAOSVrrpMasterTrap	NODE	
1.3.6.1.4.1.664.5.53.2.3.1	adGenAOSVrrpTrapCntl	NODE	
1.3.6.1.4.1.664.5.53.2.3.1.1	adGenAOSVrrpMasterTrapCntl	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.3.2	adGenAOSVrrpTable	NODE	
1.3.6.1.4.1.664.5.53.2.3.2.1	adGenAOSVrrpEntry	NODE	
1.3.6.1.4.1.664.5.53.2.3.2.1.1	adGenAOSVrrpVersion	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.3.2.1.2	adGenAOSVrrpIid	LEAF	Integer32
1.3.6.1.4.1.664.5.53.2.3.2.1.3	adGenAOSVrrpInetAddrType	LEAF	InetAddressType
1.3.6.1.4.1.664.5.53.2.3.2.1.4	adGenAOSVrrpInetAddr	LEAF	InetAddress
1.3.6.1.4.1.664.5.53.2.3.2.1.5	adGenAOSVrrpOperStatus	LEAF	INTEGER
1.3.6.1.4.1.664.5.53.2.3.2.1.6	adGenAOSVrrpPriority		

**Table B-42. AOS VRRP Conformance MIB OIDs**

MIB Object Identifier	MIB Object Name	Tree	Data Type
1.3.6.1.4.1.664.5.53.99.20	adGenAOSVrrpConformance	NODE	
1.3.6.1.4.1.664.5.53.99.20.1	adGenAOSVrrpGroups	NODE	
1.3.6.1.4.1.664.5.53.99.20.1.1	adGenAOSVrrpObjectGroup	NODE	
1.3.6.1.4.1.664.5.53.99.20.1.2	adGenAOSVrrpTrapCfgGroup	NODE	
1.3.6.1.4.1.664.5.53.99.20.1.3	adGenAOSVrrpTrapGroup	NODE	
1.3.6.1.4.1.664.5.53.99.20.1.4	adGenAOSVrrpNotificationGroup	NODE	
1.3.6.1.4.1.664.5.53.99.20.2	adGenAOSVrrpCompliances	NODE	
1.3.6.1.4.1.664.5.53.99.20.2.1	adGenAOSVrrpFullCompliance	NODE	
1.3.6.1.4.1.664.5.53.99.20.2.2	adGenAOSVrrpReadOnlyCompliance	NODE	

## Requesting New Enterprise MIBs

A new enterprise MIB request can be submitted by following the procedure below:

1. Complete the [ADTRAN MIB Information Request Form on page 131](#) and email it to [mibs@adtran.com](mailto:mibs@adtran.com).
2. Once the completed request form has been reviewed by ADTRAN, a MIBs License Agreement will be emailed to the agreement contact person designated on the request form. The appropriate person in your company will need to review, initial where appropriate, and sign the agreement. The agreement should then be faxed back to ADTRAN's Contract Department at (256) 963-6725.
3. The agreement will be executed within ADTRAN. The executed agreement and the MIBs you have requested will be emailed to the designated contact person.

## ADTRAN MIB Information Request Form

Company Name:

Location:

Date of Request:

Contact Person for MIB Information:

Email Address of Contact Person:

Contact Person for MIB License Agreement Execution (if different):

Email Address of Agreement Contact Person:

Complete the following table with the part numbers and firmware versions of the MIBs you are requesting. For systems products, each type of the module in the platform will need to be identified below. Add more rows as necessary.

Product Part Number	Firmware Version

Please provide a description of the intended use of the MIBs, as well as the software package that will be using the MIB files (i.e., HP Openview, Micromuse Netcool, etc.).

## 11. Warranty and Contact Information

Warranty and contact information for all ADTRAN products can be obtained using the information in the following sections.

### Warranty

Warranty information can be found online by visiting [www.adtran.com/warranty](http://www.adtran.com/warranty).

### Contact Information

To contact ADTRAN, choose one of the following methods:

Department	Contact Information	
<b>Customer Care</b>	From within the U.S.: From outside the U.S.:	(888) 4ADTRAN ((888)-423-8726)+ +1 (256) 963-8716
<b>Technical Support</b>	Support Community Product Support:	<a href="http://www.supportforums.adtran.com">www.supportforums.adtran.com</a> <a href="http://www.adtran.com/support">www.adtran.com/support</a>
<b>Training</b>	Email: ADTRAN University:	<a href="mailto:training@adtran.com">training@adtran.com</a> <a href="http://www.adtran.com/training">www.adtran.com/training</a>
<b>Sales</b>	For pricing and availability:	1 (800) 827-0807