AW-IHT-1271
CLI User Guide

Industrial VivoCam L2+ Managed PoE Switch
8xGE PoE + 4xGE SFP

Release A1
ABOUT THIS GUIDE

PURPOSE This guide gives specific information on how to operate CLI to manage this switch.

AUDIENCE The guide is intended for use by network administrators who are responsible for operating and maintaining network equipment; consequently, it assumes a basic working knowledge of general switch functions, the RS-232 Console, Internet Protocol (IP), and Telnet Protocol.
# Revision History

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<tr>
<th>Release</th>
<th>Date</th>
<th>Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Release</td>
<td>2018/03/30</td>
<td>A1</td>
</tr>
</tbody>
</table>


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CLI Management

The following description is the brief of the network connection.

-- Locate the correct DB-9 (RS-232) cable with female DB-9 connector. RS-232 cable is used for connecting a terminal or terminal emulator to the Managed Switch’s RJ45 port to access the command-line interface.

-- Attach the RJ45 serial port on the switch’s front panel which used to connect to the switch for console configuration.

-- Attach the other end of the DB-9 cable to an ASCII terminal emulator or PC Com-1, 2 port. For example, PC runs Microsoft Windows HyperTerminal utility.

-- At “Com Port Properties” Menu, configure the parameters as below: (see the next section)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baud rate</td>
<td>115200</td>
</tr>
<tr>
<td>Stop bits</td>
<td>1</td>
</tr>
<tr>
<td>Data bits</td>
<td>8</td>
</tr>
<tr>
<td>Parity</td>
<td>N</td>
</tr>
<tr>
<td>Flow control</td>
<td>none</td>
</tr>
</tbody>
</table>
1-1 Login

The command-line interface (CLI) is a text-based interface. User can access the CLI through either a direct serial connection to the device or a Telnet session (Default IP address: DHCP Client). The default user and password to login into the Managed Switch are listed below:

Username:  admin
Password:  <none>

Note: <none> means empty string

After you login successfully, the prompt will be shown as "<sys_name>#". See the following two figures. It means you behave as an administrator and have the privilege for setting the Managed Switch. If log as not the administrator, the prompt will be shown as "<sys_name>>", it means you behave as a guest and are only allowed for setting the system under the administrator. Each CLI command has its privilege

Username: admin
Password: admin
AW-IHT-1271#
1-2 Commands of CLI

The CLI is divided into several modes. If a user has enough privilege to run a particular command, the user has to run the command in the correct mode. To see the commands of the mode, please input "?" after the system prompt, then all commands will be listed in the screen. The command modes are listed as follows:

Command Modes

<table>
<thead>
<tr>
<th>MODE</th>
<th>PROMPT</th>
<th>COMMAND FUNCTION IN THIS MODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>exec</td>
<td>&lt;sys_name&gt;#</td>
<td>Display current configuration, diagnostics, maintenance</td>
</tr>
<tr>
<td>config</td>
<td>&lt;sys_name&gt;(config)#</td>
<td>Configure features other than those below</td>
</tr>
<tr>
<td>Config-if</td>
<td>&lt;sys_name&gt;(config-interface)#</td>
<td>Configure ports</td>
</tr>
<tr>
<td>Config-if-vlan</td>
<td>&lt;sys_name&gt;(config-if-vlan)#</td>
<td>Configure static vlan</td>
</tr>
<tr>
<td>Config-line</td>
<td>&lt;sys_name&gt;(config-line)#</td>
<td>Line Configuration</td>
</tr>
<tr>
<td>Config-impc-profile</td>
<td>&lt;sys_name&gt;(config-impc-profile)#</td>
<td>IPMC Profile</td>
</tr>
<tr>
<td>Config-snmp-host</td>
<td>&lt;sys_name&gt;(config-snmp-host)#</td>
<td>SNMP Server Host</td>
</tr>
<tr>
<td>Config-stp-aggr</td>
<td>&lt;sys_name&gt;(config-stp-aggr)#</td>
<td>STP Aggregation</td>
</tr>
<tr>
<td>Config-dhcp-pool</td>
<td>&lt;sys_name&gt;(config-dhcp-pool)#</td>
<td>DHCP Pool Configuration</td>
</tr>
<tr>
<td>Config-rfc2544-profile</td>
<td>&lt;sys_name&gt;(config-rfc2544-profile)#</td>
<td>RFC2544 Profile</td>
</tr>
</tbody>
</table>

Commands reside in the corresponding modes could only run in that mode. If a user wants to run a particular command, the user has to change to the appropriate mode. The command modes are organized as a tree, and users start in enable mode. The following table explains how to change from one mode to another.

Change Between Command Modes

<table>
<thead>
<tr>
<th>MODE</th>
<th>ENTER MODE</th>
<th>LEAVE MODE</th>
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</table>


### Global Commands of CLI

```
AW-IHT-1271# ?
clear Reset functions
configure Enter configuration mode
copy Copy from source to destination
delete Delete one file in flash: file system
dir Directory of all files in flash: file system
disable Turn off privileged commands
do To run exec commands in config mode
dot1x IEEE Standard for port-based Network Access Control
enable Turn on privileged commands
erps Ethernet Ring Protection Switching
exit Exit from EXEC mode
firmware Firmware upgrade/swap
help Description of the interactive help system
ip IPv4 commands
ipv6 IPv6 configuration commands
link-oam Link OAM configuration
logout Exit from EXEC mode
more Display file
no Negate a command or set its defaults
ping Send ICMP echo messages
platform Platform configuration
ptp Misc non persistent 1588 settings
reload Reload system.
send Send a message to other tty lines
show Show running system information
```
**Exit**

Exit from EXEC mode.

**Syntax:**

`exit`

**Parameter:**

None.

**Example:**

```
AW-IHT-1271(config)# exit
AW-IHT-1271#
```

**Help**

Description of the interactive help system.

**Syntax:**

`help`

**Parameter:**

None.

**Example:**

```
AW-IHT-1271# help
Help may be requested at any point in a command by entering a question mark '?'. If nothing matches, the help list will be empty and you must backup until entering a '?' shows the available options.
Two styles of help are provided:
1. Full help is available when you are ready to enter a command argument (e.g. 'show ?') and describes each possible argument.
2. Partial help is provided when an abbreviated argument is entered and you want to know what arguments match the input (e.g. 'show pr?').
```

```
AW-IHT-1271#
```
**logout**

Exit from EXEC mode.

**Syntax:**

logout

**Parameter:**

none

**Example:**

```
AW-IHT-1271# logout
press ENTER to get started
```

**end**

Go back to EXEC mode.

**Syntax:**

end

**Example:**

```
(config)# end
AW-IHT-1271#
```
## CLEAR of CLI

### Table: CLEAR Commands

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<td>Access management</td>
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<td>access-list</td>
<td>Access list</td>
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<td>dot1x</td>
<td>IEEE Standard for port-based Network Access Control</td>
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<td>eps</td>
<td>Ethernet Protection Switching.</td>
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<td>erps</td>
<td>Ethernet Ring Protection Switching</td>
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<td>link-oam</td>
<td>Clear Link OAM statistics</td>
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<td>lldp</td>
<td>Clears LLDP statistics</td>
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<td>Syslog</td>
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<td>mac</td>
<td>MAC Address Table</td>
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<td>mep</td>
<td>Maintenance Entity Point</td>
</tr>
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<td>mvr</td>
<td>Multicast VLAN Registration configuration</td>
</tr>
<tr>
<td>ptp</td>
<td></td>
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<td>sflow</td>
<td>Statistics flow.</td>
</tr>
<tr>
<td>spanning-tree</td>
<td>STP Bridge</td>
</tr>
<tr>
<td>statistics</td>
<td>Clear statistics for a given interface</td>
</tr>
</tbody>
</table>

### access

Access management.

**Syntax:**

```
clear access management statistics
```

**Parameter:**

- **management**: Access management configuration.
- **statistics**: Statistics data.

**Example:**
**access-list**
Access list.

**Syntax:**
```
Clear access-list ace statistics
```

**Parameter:**
- **ace** Access list entry
- **statistics** Traffic statistics

**Example:**
```
AW-IHT-1271# clear access-list ace statistics
AW-IHT-1271#
```

**dot1x**

**Syntax**
```
Clear dot1x statistics
Clear dot1x statistics interface GigabitEthernet < PORT_TYPE_LIST>
```

**Parameter**
- **statistics** Clears the statistics counters
- **interface** Interface
- **GigabitEthernet** 1 Gigabit Ethernet Port
- **PORT_TYPE_LIST** Port list in 1/1-12 for GigabitEthernet

**EXAMPLE**
```
AW-IHT-1271# clear dot1x statistics interface GigabitEthernet 1/1-12
AW-IHT-1271#
```
**eps**

Ethernet Protection Switching.

**Syntax**

`clear eps <unit> wtr`

**Parameter**

- `<uint>`: The EPS instance number.
- `wtr`: Clear active WTR

**EXAMPLE**

```
AW-IHT-1271# clear eps 1 wtr
AW-IHT-1271#
```

**erps**

Ethernet Ring Protection Switching

**Syntax**

`clear erps 1-64 command [ ( clear | force | manual ) ( port0 | port1 ) ]`

**Parameter**

- `1-64`: ERPS group number
- `command`: Administrative Command
- `clear`: Clear command
- `force`: Force command
- `manual`: Manual command
- `port0`: ERPS Port 0 interface
- `port1`: ERPS Port 1 interface

**EXAMPLE**

```
AW-IHT-1271# clear erps 1 command clear port0
AW-IHT-1271#
```

**evc**

Ethernet Virtual Connections
Syntax

clear evc statistics

clear evc statistics interface [ * | GigabitEthernet ] <port_type_list>

Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>statistics</td>
<td>Statistic counters</td>
</tr>
<tr>
<td>interface</td>
<td>Interface</td>
</tr>
<tr>
<td>*</td>
<td>All switches or All ports</td>
</tr>
<tr>
<td>GigabitEthernet</td>
<td>1 Gigabit Ethernet Port</td>
</tr>
<tr>
<td>&lt;port_type_list&gt;</td>
<td>Port list for all port types</td>
</tr>
<tr>
<td>&lt;port_type_list&gt;</td>
<td>Port list in 1/1-12</td>
</tr>
</tbody>
</table>

EXAMPLE

AW-IHT-1271# clear evc statistics
AW-IHT-1271#

ip

Interface Internet Protocol config commands

Syntax

<table>
<thead>
<tr>
<th>Syntax</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>clear ip arp</td>
<td>Clear ARP cache</td>
</tr>
<tr>
<td>clear ip dhcp detailed statistics { server</td>
<td>client</td>
</tr>
<tr>
<td>clear ip dhcp relay statistics</td>
<td></td>
</tr>
<tr>
<td>clear ip dhcp server binding &lt;ip&gt;</td>
<td></td>
</tr>
<tr>
<td>clear ip dhcp server binding { automatic</td>
<td>manual</td>
</tr>
<tr>
<td>clear ip dhcp server statistics</td>
<td></td>
</tr>
<tr>
<td>clear ip dhcp snooping statistics [ interface ( &lt;port_type&gt; [ &lt;in_port_list&gt; ] ) ]</td>
<td>Internet Group Management Protocol</td>
</tr>
<tr>
<td>clear ip igmp snooping [ vlan &lt;v_vlan_list&gt; ] statistics</td>
<td></td>
</tr>
<tr>
<td>clear ip statistics [ system ] [ interface vlan &lt;v_vlan_list&gt; ] [ icmp ] [ icmp-msg &lt;type&gt; ]</td>
<td>Traffic statistics</td>
</tr>
</tbody>
</table>

Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>arp</td>
<td>Clear ARP cache</td>
</tr>
<tr>
<td>dhcp</td>
<td>Dynamic Host Configuration Protocol</td>
</tr>
<tr>
<td>igmp</td>
<td>Internet Group Management Protocol</td>
</tr>
<tr>
<td>statistics</td>
<td>Traffic statistics</td>
</tr>
</tbody>
</table>
**relay**
DHCP relay agent configuration

**snooping**
DHCP snooping

**interface**
Select an interface to configure

**GigabitEthernet 1**
1 Gigabit Ethernet Port

**vlan IPv4 traffic interface**

**<vlan_list>**
VLAN identifier(s): VID

**EXAMPLE**

```
AW-IHT-1271# clear ip arp
AW-IHT-1271# clear ip dhcp detailed statistics all
interface GigabitEthernet 1/1-12
AW-IHT-1271# clear ip dhcp relay statistics
AW-IHT-1271# clear ip dhcp server binding 192.168.1.11
AW-IHT-1271# clear ip dhcp server binding automatic
AW-IHT-1271# clear ip dhcp server statistics
AW-IHT-1271# Clear ip dhcp snooping statistics interface
GigabitEthernet 1/1-12
AW-IHT-1271# clear ip igmp snooping vlan 1 statistics
AW-IHT-1271# clear ip statistics system interface
AW-IHT-1271# clear ip statistics system interface vlan 1
icmp icmp-msg 2
```

**ipv6**
IPv6 configuration commands.

**Syntax**

```
clear ipv6 mld snooping [ vlan <v_vlan_list> ] statistics
```

```
clear ipv6 neighbors
```

```
clear ipv6 statistics [ system ] [ interface vlan <v_vlan_list> ] [ icmp ] [ icmp-msg <type> ]
```

**Parameter**

```
mld Multicasat Listener Discovery
neighbors IPv6 neighbors
statistics Traffic statistics
snooping Snooping MLD
statistics Running MLD snooping counters
vlan IPv6 interface traffic
<vlan_list> VLAN identifier(s): VID
icmp IPv6 ICMP traffic
```
### icmp-msg
IPv6 ICMP traffic for designated message type

### interface
Select an interface to configure

### system
IPv6 system traffic

< 0~255>
ICMP message type ranges from 0 to 255

### EXAMPLE

```
AW-IHT-1271# clear ipv6 mld snooping vlan 3 statistics
AW-IHT-1271# clear ipv6 neighbors
AW-IHT-1271# Clear ipv6 statistics system icmp icmp-msg 2
```

### lACP
Clear LACP statistics

#### Syntax
Clear lACP statistics

#### Parameter

| statistics       | Clear all LACP statistics |

#### EXAMPLE

```
AW-IHT-1271# clear lACP statistics
AW-IHT-1271#
```

### LLDP
Clears LLDP statistics.

#### Syntax

```
Clear LLDP statistics
Clear LLDP statistics| begin | exclude | include >| LINE >
```

#### Parameter

| statistics       | Clears LLDP statistics. |
| Output modifiers |
| begin            | Begin with the line that matches |
| exclude          | Exclude lines that match |
| include          | Include lines that match |
| <LINE>            | String to match output lines |

#### EXAMPLE

```
```

```
**link-oam**

Clear Link OAM statistics

**Syntax**

```plaintext
clear link-oam statistics

clear link-oam statistics interface ( * | GigabitEthernet ) <port_type_list>
```

**Parameter**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>statistics</td>
<td>Clear Rx/Tx counters</td>
</tr>
<tr>
<td>interface</td>
<td>Clear Link OAM statistic on a specific interface or all interfaces.</td>
</tr>
<tr>
<td>*</td>
<td>All switches or All ports</td>
</tr>
<tr>
<td>GigabitEthernet</td>
<td>1 Gigabit Ethernet Port</td>
</tr>
<tr>
<td>&lt;port_type_list&gt;</td>
<td>Port list for all port types</td>
</tr>
<tr>
<td>&lt;port_type_list&gt;</td>
<td>Port list in 1/1-12</td>
</tr>
</tbody>
</table>

**EXAMPLE**

```plaintext
AW-IHT-1271# clear link-oam statistics interface

GigabitEthernet 1/12
```

**logging**

Syslog.

**Syntax**

```plaintext
clear logging [ info ] [ warning ] [ error ] [ switch <switch_list> ]
```

**Parameter**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
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<td>error</td>
<td>Error</td>
</tr>
<tr>
<td>info</td>
<td>Information</td>
</tr>
<tr>
<td>warning</td>
<td>Warning</td>
</tr>
</tbody>
</table>

**EXAMPLE**

```plaintext
AW-IHT-1271# clear logging info error warning

AW-IHT-1271#
```

**mac**
MAC Address Table.

**Syntax**
```
Clear mac address-table
```

**Parameter**

- **address-table**
  Flush MAC Address table.

**EXAMPLE**
```
AW-IHT-1271# clear mac address-table
AW-IHT-1271#
```

**mep**

Maintenance Entity Point

**Syntax**
```
Clear mep <uint> [ bfd | dm | lm | tst ]
```

**Parameter**

- **<uint>**
  The MEP instance.
- **bfd**
  Clear G.8113.2 BFD CC/CV statistics counters.
- **dm**
  Clear DM measuring information.
- **lm**
  Clear LM measuring information.
- **tst**
  Clear TST measuring information.

**EXAMPLE**
```
AW-IHT-1271# clear mep 1 dm
AW-IHT-1271#
```

**mvr**

Multicast VLAN Registration configuration.

**Syntax**
```
clear mvr [ vlan <v_vlan_list> | name <mvr_name> ] statistics
```

**Parameter**

- **name**
  MVR multicast name
- **statistics**
  Running MVR protocol counters
- **vlan**
  MVR multicast vlan
- **<word16>**
  MVR multicast VLAN name
- **<vlan_list>**
  MVR multicast VLAN list
**ptp**

**Syntax**

```
clear ptp <0-3> servo
```

**Parameter**

- `<0-3>`
- **Servo**

**EXAMPLE**

```
AW-IHT-1271# clear ptp 1 servo
AW-IHT-1271#
```

**sflow**

Statistics flow.

**Syntax**

```
clear sflow statistics { receiver [ <receiver_index_list> ] | samplers [ interface [ <samplers_list> ] ( <port_type>[<v_port_type_list>]) ]}
```

**Parameter**

- **interface** Interface
- **receiver** Clear statistics for receiver.
- `<port_type>` GigabitEthernet
- `<Samplers : option>` runtime
- `<port_type_list>` Port list in 1/1-12 for GigabitEthernet

**EXAMPLE**

```
AW-IHT-1271# clear sflow statistics interface
GigabitEthernet 1/1-12
```
**spanning-tree**

STP Bridge.

**Syntax**

```plaintext
clear spanning-tree { { statistics [ interface ( <port_type> [ <v_port_type_list> ] ) ] } | { detected-protocols [ interface ( <port_type> [ <v_port_type_list_1> ] ) ] } }
```

**Parameter**

- **detected-protocols**: Set the STP migration check
- **statistics**: STP statistics
- **interface**: Choose port
- **<port_type>**: GigabitEthernet
- **<port_type_list>**: Port list in 1/1-12 for Gigabitethernet

**EXAMPLE**

```
AW-IHT-1271# clear spanning-tree detected-protocols interface GigabitEthernet 1/1-12
```

**statistics**

Clear statistics for a given interface

**Syntax**

```plaintext
clear statistics interface <port_type> <port_type_list>
clear statistics <port_type> <port_type_list>
```

**Parameter**

- **<port_type>**: GigabitEthernet
- **<port_type_list>**: Port list in 1/1-12 for Gigabitethernet

**EXAMPLE**

```
AW-IHT-1271# clear statistics GigabitEthernet 1/1-12
AW-IHT-1271#
```
### Table: CONFIGURE Commands

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<td>Configure from the terminal</td>
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<td>Authentication, Authorization and Accounting</td>
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<td>Access management</td>
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<td>access-list</td>
<td>Access list</td>
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<td>Define a login banner</td>
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<td>Set a command to its defaults</td>
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<td>Enable DMS Master</td>
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<td>To run exec commands in config mode</td>
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<td>dot1x</td>
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<td>Modify enable password parameters</td>
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<tr>
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<td>Set Rapid Ring’s configurations</td>
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<td>ring-to-ring</td>
<td>Set Ring to Ring’s configurations</td>
</tr>
<tr>
<td>rmon</td>
<td>Remote Monitoring</td>
</tr>
</tbody>
</table>
sflow Statistics flow.
smtp Set email information
snmp-server Set SNMP server's configurations
spanning-tree Spanning Tree protocol
switchalert-management SwitchAlert Management configuration
switchport Set switching mode characteristics
system Set the SNMP server's configurations
tacacs-server Configure TACACS+
tzidx Configure timezone city/area
udld Enable UDLD in the aggressive or normal mode and to set the configurable message timer on all fiber-optic ports.
upnp Set UPnP's configurations
username Establish User Name Authentication
vlan VLAN commands
voice Voice appliance attributes
web Web

terminal
Configure from the terminal.

Syntax

configure terminal

EXAMPLE

AW-IHT-1271# configure terminal
AW-IHT-1271(config)#
aaa

Authentication, Authorization and Accounting.

SYNTAX

aaa authentication login { console | telnet | ssh | http } { { local | radius | tacacs } [ { local | radius | tacacs } ] }

Parameter

authentication Authentication
login Login
console Configure Console
http Configure HTTP
ssh Configure SSH
telnet Configure Telnet
local Use local database for authentication
radius Use RADIUS for authentication	
tacacs Use TACACS+ for authentication

EXAMPLE

AW-IHT-1271(config)# aaa authentication login http radius
AW-IHT-1271(config)#

access

Access management.

SYNTAX

access management

access management <access_id> <access_vid> <start_addr> [ to <end_addr> ] [ [ web ] [ snmp ] [ telnet ] ]

Parameter
management

Access management configuration

< 1-16>
ID of access management entry

< 1-4094>
The VLAN ID for the access management entry

< ipv4_addr>
Start IPv4 address

< ipv6_addr>
Start IPv6 address

all
All services

snmp
SNMP service

telnet
TELNET/SSH service

to
End address of the range

web
Web service

EXAMPLE

AW-IHT-1271(config)# access management 10 3 192.168.1.1 all
AW-IHT-1271(config)#

access-list

Table : configure – access-list Commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>ace</td>
<td>Access list entry</td>
</tr>
<tr>
<td>rate-limiter</td>
<td>Rate limiter</td>
</tr>
</tbody>
</table>

ace

Access list entry.

SYNTAX

access-list ace{ update<1-256> | <1-256> } [action< deny | filter | permit >]

access-list ace{ update<1-256> | <1-256> } [dmac-type < any | broadcast | multicast | unicast >]

access-list ace{ update<1-256> | <1-256> } [frametype < any | arp | etype | ipv4 | ipv4-icmp | ipv4-tcp | ipv4-udp | ipv6 | ipv6-icmp | ipv6-tcp | ipv6-udp >]
access-list ace{ update<1-256> | <1-256> } [ ingress ] [ ingress interface { <port_type> <port_type_id> | <port_type> <port_type_list> } | any ]

access-list ace{ update<1-256> | <1-256> } [ logging [ disable ] ]

access-list ace{ update<1-256> | <1-256> } [ lookup [ disable ] ]

access-list ace{ update<1-256> | <1-256> } [ mirror [ disable ] ]

access-list ace{ update<1-256> | <1-256> } [ next { <1-256> | last } ]

access-list ace{ update<1-256> | <1-256> } [ policy <0-255> [ policy-bitmask <0x0-0xFF> ] ]

access-list ace{ update<1-256> | <1-256> } [ rate-limiter { <1-16> | disable } ]

access-list ace{ update<1-256> | <1-256> } [ redirect | interface { <port_type> <port_type_id> | <port_type> <port_type_list> } | disable ]

access-list ace{ update<1-256> | <1-256> } [ shutdown ]

access-list ace{ update<1-256> | <1-256> } [ tag { tagged | untagged | any } ]

access-list ace{ update<1-256> | <1-256> } [ tag-priority { <0-7> | any } ]

access-list ace{ update<1-256> | <1-256> } [ vid { <1-4095> | any } ]

**Parameter**

**action**
Access list action

**dmac-type**
The type of destination MAC address

**frametype**
Frame type

**ingress**
Ingress

**logging**
Logging frame information

**lookup**
Second lookup

**mirror**
Mirror frame to destination mirror port

**next**
insert the current ACE before the next ACE ID

**policy**
Policy

**rate-limiter**
Rate limiter

**redirect**
Redirect frame to specific port
shutdown Shutdown incoming port

tag Tag

tag-priority Tag priority

vid VID field

deny Deny

filter Filter

permit Permit

any Don't-care the type of destination MAC address

broadcast Broadcast destination MAC address

multicast Multicast destination MAC address

unicast Unicast destination MAC address

any Don't-care the frame type

arp Frame type of ARP

etype Frame type of etype

ipv4 Frame type of IPv4

ipv4-icmp Frame type of IPv4 ICMP

ipv4-tcp Frame type of IPv4 TCP

ipv4-udp Frame type of IPv4 UDP

ipv6 Frame type of IPv6

ipv6-icmp Frame type of IPv6 ICMP

ipv6-tcp Frame type of IPv6 TCP

ipv6-udp Frame type of IPv6 UDP

interface Select an interface to configure

<port_type> Gigabitethernet

* All switches or All ports

Gigabitethernet 1 Gigabit Ethernet port
**<port_type_id>**
Port ID in the format of switch-no/port-no ex, 1/1-12 for Gigabitethernet

**<port_type>**
* or Gigabitethernet

* All Switches or All ports

Gigabitethernet 1 Gigabit Ethernet Port

**<port_type_list>**
Port list in 1/1-12

any Don't-care the ingress interface

**<0-255>**
Policy ID

**policy-bitmask**
The bitmask for policy ID

**<0x0-0xFF>**
The value of policy bitmask

**<1-4095>**
The value of VID field

**<0-7>**
The value of tag priority

**EXAMPLE**

```
AW-IHT-1271(config)# access-list ace 10 action deny
AW-IHT-1271(config)#
```

**rate-limiter**
Rate limiter.

**SYNTAX**

```
access-list rate-limiter [ <1~16> ] { pps <0-3276700> | 100kbps <0-10000> }
```

**Parameter**

100kbps 100k bits per second

**<RateLimiterList : 1~16>**
Rate limiter ID

**<PpsRate : 0-3276700>**
Rate value

**<0-10000>**
Rate value

**EXAMPLE**
**aggregation**

Aggregation mode.

**SYNTAX**

```
aggregation mode { [dmac][ip][dmac][port] }
```

**Parameter**

- **mode**: Traffic distribution mode
- **dmac**: Destination MAC affects the distribution
- **ip**: IP address affects the distribution
- **port**: IP port affects the distribution
- **smac**: Source MAC affects the distribution

**EXAMPLE**

```
AW-IHT-1271(config)# aggregation mode ip port dmac smac
AW-IHT-1271(config)#
```

**banner**

Define a login banner

**SYNTAX**

```
banner [ motd ] <banner>
banner exec <banner>
banner login <banner>
```

**Parameter**
<LINE> c banner-text c, where 'c' is a delimiting character

exec Set EXEC process creation banner

login Set login banner

motd Set Message of the Day banner

EXAMPLE

AW-IHT-1271(config)# banner exec LINE
Enter TEXT message. End with the character 'L'.
L
AW-IHT-1271(config)#

clock

Configure time-of-day clock.

SYNTAX

clock set <icliDate> <icliTime>

clock summer-time <word16> date [ <start_month_var> <start_date_var> <start_year_var> <start_hour_var> <end_month_var> <end_date_var> <end_year_var> <end_hour_var> [ <offset_var> ] ]

clock summer-time <word16> recurring [ <start_week_var> <start_day_var> <start_month_var> <start_hour_var> <end_week_var> <end_day_var> <end_month_var> <end_hour_var> [ <offset_var> ] ]

clock timezone <word_var> <hour_var> [ <minute_var> ]

Parameter

set set clock

summer-time Configure summer (daylight savings) time

timezone Configure time zone

<date> yyyy/mm/dd

<time> hh:mm:ss

<2000-2097> Year to start
<table>
<thead>
<tr>
<th>hh:mm</th>
<th>Time to start (hh:mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1-12&gt;</td>
<td>Month to end</td>
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<tr>
<td>&lt;1-31&gt;</td>
<td>Date to end</td>
</tr>
<tr>
<td>&lt;2000-2097&gt;</td>
<td>Year to end</td>
</tr>
<tr>
<td>hh:mm</td>
<td>Time to end (hh:mm)</td>
</tr>
<tr>
<td>&lt;1-1440&gt;</td>
<td>Offset to add in minutes</td>
</tr>
<tr>
<td>&lt;1-5&gt;</td>
<td>Week number to start</td>
</tr>
<tr>
<td>&lt;1-7&gt;</td>
<td>Weekday to start</td>
</tr>
<tr>
<td>&lt;1-12&gt;</td>
<td>Month to start</td>
</tr>
</tbody>
</table>

**EXAMPLE**

```
AW-IHT-1271(config)# clock set 2016/09/30 10:22:03
2016-09-30T10:22:03+00:00
AW-IHT-1271(config)# do show clock
System Time : 2016-09-30T10:48+00:00
```

**default**

Set a command to its defaults

**SYNTAX**

```
default access-list rate-limiter [ <rate_limiter_list> ]
```

**Parameter**

| access-list | Access list |
| rate-limiter | Rate limiter |
| <RateLimiterId : 1-16> | Rate limiter ID |

**EXAMPLE**

```
AW-IHT-1271(config)# default access-list rate-limiter 3
AW-IHT-1271(config)#
```
**dms**

Enable DMS Master

**SYNTAX**

```
dms mode [ disabled | enabled | high-priority ]
```

**Parameter**

- **mode**
  - DMS mode
- **disabled**
  - DMS mode is disabled
- **enabled**
  - DMS mode is enabled
- **high-priority**
  - DMS mode is high priority

**EXAMPLE**

```
AW-IHT-1271(config)# dms mode high-priority
AW-IHT-1271(config)#
```

**do**

To run exec commands in config mode.

**SYNTAX**

```
do < LINE >\[< LINE >]\]
```

**Parameter**

- `<LINE>`
  - Exec Command

**EXAMPLE**

**SYNTAX**

```plaintext
dot1x authentication timer inactivity <v_10_to_100000>
dot1x authentication timer re-authenticate <v_1_to_3600>
dot1x feature { [ guest-vlan ] [ radius-qos ] [ radius-vlan ] }*1
dot1x guest-vlan <value>
dot1x guest-vlan supplicant
dot1x max-reauth-req <value>
dot1x re-authentication
dot1x system-auth-control
dot1x timeout quiet-period <v_10_to_100000>
dot1x timeout tx-period <v_1_to_65535>
```

**Parameter**

- **authentication**: Authentication
- **feature**: Globally enables/disables a dot1x feature functionality
- **guest-vlan**: Guest VLAN
max-reauth-req  
Guest VLAN ID used when entering the Guest VLAN.

re-authentication  
Set Re-authentication state

system-auth-control  
Set the global NAS state

timeout  
timeout

timer  
timer

inactivity  
Time in seconds between check for activity on successfully authenticated MAC addresses.

re-authenticate  
The period between re-authentication attempts in seconds

<10-1000000>  
seconds

<1-3600>  
seconds

guest-vlan  
Globally enables/disables state of guest-vlan

radius-qos  
Globally enables/disables state of RADIUS-assigned QoS.

radius-vlan  
Globally enables/disables state of RADIUS-assigned VLAN.

<1-4095>  
The number of times a Request Identity EAPOL frame is sent without response before considering entering the Guest VLAN.

supplicant  
The switch remembers if an EAPOL frame has been received on the port for the life-time of the port. Once the switch considers whether to enter the Guest VLAN, it will first check if this option is enabled or disabled. If disabled (unchecked; default), the switch will only enter the Guest VLAN if an EAPOL frame has not been received on the port for the life-time of the port. If enabled (checked), the switch will consider entering the Guest VLAN even if an EAPOL frame has been received on the port for the life-time of the port.

<1-255>  
number of times

quiet-period  
Time in seconds before a MAC-address that failed
authentication gets a new authentication chance.

**tx-period**
the time between EAPOL retransmissions.

<10-1000000> seconds

<1-65535> seconds

**EXAMPLE**

AW-IHT-1271(config)# dot1x authentication timer inactivity 1000
AW-IHT-1271(config)# dot1x feature guest-vlan radius-qos radius-vlan
AW-IHT-1271(config)# dot1x guest-vlan 33
AW-IHT-1271(config)# dot1x max-reauth-req 3
AW-IHT-1271(config)# dot1x re-authentication
AW-IHT-1271(config)# dot1x system-auth-control
AW-IHT-1271(config)# dot1x timeout quiet-period 3000

**enable**

Modify enable password parameters.

**SYNTAX**

```
enable password [ <level> <1-15> ] <WORD>
```

```
enable secret { 0 | 5 } [ <level> <1-15> ] <WORD>
```

**Parameter**

- **password**
  Assign the privileged level clear password

- **secret**
  Assign the privileged level secret

- **WORD**
  The UNENCRYPTED (cleartext) password

- **level**
  Set exec level password

- **<1-15>**
  Level number

- **0**
  Specifies an UNENCRYPTED password will follow

- **5**
  Specifies an ENCRYPTED secret will follow

**EXAMPLE**
**eps**

Ethernet Protection Switching.

**SYNTAX**

```plaintext
eps 1 1plus1 [ bidirectional | unidirectional ]

eps 1 1plus1 unidirectional

eps 1 command [ exercise | forced | freeze | lockout | lockoutlocal | manualp | manual ]

eps 1 domain port architecture [ 1for1 | 1plus1 ] work-flow [ GigabitEthernet | <uint> ] <port_type_id> protect-flow [ GigabitEthernet | <uint> ]

eps 1 holdoff <uint>

eps 1 mep-work <uint> mep-protect <uint> mep-aps <uint>

eps 1 revertive [ 10m | 10s | 11m | 12m | 30s | 5m | 6m | 7m | 8m | 9m ]

eps 1 revertive wrt-value <uint>
```

**Parameter**

- `<1-100>` The EPS instance number
- `1plus1` EPS 1+1 architecture.
- `command` EPS command.
- `domain` The domain of the EPS.
- `holdoff` Hold off timer.
- `mep-work` Working MEP instance.
- `revertive` Revertive EPS.
- `bidirectional` EPS 1+1 bidirectional protection type.
- `unidirectional` EPS 1+1 unidirectional protection type.
aps  EPS 1+1 unidirectional with APS protection type.
exercise Exercise of the protocol - not traffic effecting. This is only allowed in case of 'Bidirectional' protection type.
forced Force switch normal traffic to protection.
freeze Local Freeze of EPS.
lockout Lockout of protection.
lockoutlocal Local lockout of EPS.
manuapl Manual switch normal traffic to protection.
manualw Manual switch normal traffic to working. This is only allowed in case of 'non-revertive' mode.
port This EPS is protecting in the Port domain.
pw This EPS is protecting in the MPLS-TP Pseudo-Wire domain.
tunnel-tp This EPS is protecting in the MPLS-TP tunnel domain.
arquitectura The EPS architecture.
1for1 The architecture is 1 for 1.
1plus1 The architecture is 1 plus 1.
workflow The working flow instance that the EPS is related to.
GigabitEthernet 1 Gigabit Ethernet Port
<uint> The working flow instance number when not in the port domain.
<port_type_id> Port ID in 1/1-12
protect-flow The protecting flow instance that the EPS is related to.
<uint> The hold off timer value in 100 ms. Max 10 sec.
<mep> Working MEP instance number.
mep-protect Protecting MEP instance.
<uint> Protecting MEP instance number.
mep-aps APS MEP instance.
<uint> APS MEP instance number.

10m WTR is 10 min.

10s WTR is 10 sec.

11m WTR is 11 min.

12m WTR is 12 min.

30s WTR is 30 sec.

5m WTR is 5 min.

6m WTR is 6 min.

7m WTR is 7 min.

8m WTR is 8 min.

9m WTR is 9 min.

wtr-value WTR as value.

<uint> The WTR value in seconds. Range is 1 to 720 seconds.

EXAMPLE

AW-IHT-1271(config)# erps 1 1plus1 bidirectional
AW-IHT-1271(config)#
AW-IHT-1271(config)# erps 1 command manualw
AW-IHT-1271(config)#
AW-IHT-1271(config)# erps 1 revertive 10m
AW-IHT-1271(config)#

erps Ethernet Ring Protection Switching

SYNTAX

erps 1-64 guard 10-2000

erps 1-64 holdoff 0-10000

erps 1-64 major port0 interface GigabitEthernet <port_type_id> port1 interface GigabitEthernet <port_type_id>
erps 1-64 major port0 interface GigabitEthernet <port_type_id> port1 interface GigabitEthernet <port_type_id> interconnect

erps 1-64 mep port0 sf 1-100 aps 1-100 port1 sf 1-100 aps 1-100

erps 1-64 revertive 1-12

erps 1-64 rpl [ neighbor | owner ] [ port0 | port1 ]

erps 1-64 sub port0 interface GigabitEthernet <port_type_id> interconnect 1-64 [ virtual-channel ]

erps 1-64 sub port0 interface GigabitEthernet <port_type_id> port1 interface GigabitEthernet <port_type_id> [ virtual-channel ]

erps 1-64 topology-change propagate

erps 1-64 version [ 1 | 2 ]

erps 1-64 vlan <vlan_list>

erps 1-64 vlan [ add | remove ] <vlan_list>

erps 1-64 vlan none

Parameter

1-64 ERPS group number
guard Guard
holdoff Hold-off time
major Major ring
mep MEP
revertive Revertive
rpl Ring Protection Link
sub Sub-ring
topology-change Topology Change
version Version
vlan VLAN
10-2000 Guard time in ms
0-10000  Hold-off time in ms
port0     ERPS Port 0 interface
interface Ethernet interface
GigabitEthernet 1 Gigabit Ethernet Port
<port_type_id> Port ID in 1/1-12
port1     ERPS Port 1 interface
interconnect Major ring is interconnected
sf         Signal Fail
1-100      Index of Port 0 SignalFail MEP
aps        Automatic Protection Switching
1-12       Wait-to-restore time in minutes
neighbor   Neighbor role
owner      Owner role
interconnect Sub-ring is interconnected
1-64       Major ring group number
virtual-channel Enable virtual channel for sub-ring
propagate  Propagate
1          ERPS version 1
2          ERPS version 2
<vlan_list> List of VLANs
add        Add to set of included VLANs
none       Do not include any VLANs
remove     Remove from set of included VLANs

EXAMPLE
**SYNTAX**

```
evc <1-256>

evc <1-256> inner-tag add { [ dei <0-1> ] [ [ pcp <0-7> ] [ preserve ] [ [ type ( c-tag | none | s-custom-tag | s-tag ) ] ] [ [ vid <vlan_id> ] ] [ [ vid-mode ( normal | tunnel ) ] ] }

nevc <1-256> interface ( * | GigabitEthernet ) [ <port_type_list> ] [ inner-tag | ivid ] [ learning ] [ outer-tag ]

evc <1-256> ivid <vlan_id> [ inner-tag | interface ] [ learning ] [ outer-tag ]

nevc <1-256> learning [ disable | inner-tag | outer-tag ]

evc <1-256> outer-tag add vid <vlan_id> [ inner-tag | learning ]

nevc <1-256> vid <1-4095> [ inner-tag | interface ] [ ivid ] [ learning ] [ outer-tag ]
```

**Parameter**

- `<1-256>` EVC identifier
- `ece` EVC Control Entry
- `policer` Policer (ingress bandwidth profile)
<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>update</td>
<td>Update existing entry</td>
</tr>
<tr>
<td>inner-tag</td>
<td>Setup inner tag options</td>
</tr>
<tr>
<td>interface</td>
<td>Setup NNI port list</td>
</tr>
<tr>
<td>ivid</td>
<td>Setup internal EVC VLAN ID</td>
</tr>
<tr>
<td>learning</td>
<td>Setup learning</td>
</tr>
<tr>
<td>outer-tag</td>
<td>Setup outer tag options</td>
</tr>
<tr>
<td>vid</td>
<td>Setup EVC VLAN ID</td>
</tr>
<tr>
<td>add</td>
<td>Setup inner tag add properties</td>
</tr>
<tr>
<td>dei</td>
<td>Setup added tag DEI</td>
</tr>
<tr>
<td>pcp</td>
<td>Setup added tag PCP</td>
</tr>
<tr>
<td>preserve</td>
<td>Setup tag PCP/DEI preservation</td>
</tr>
<tr>
<td>type</td>
<td>Setup added tag type</td>
</tr>
<tr>
<td>vid</td>
<td>Setup added tag VLAN ID</td>
</tr>
<tr>
<td>vid-mode</td>
<td>Setup inner tag VLAN ID mode</td>
</tr>
<tr>
<td>&lt;0-1&gt;</td>
<td>Added tag DEI</td>
</tr>
<tr>
<td>disable</td>
<td>Disable learning</td>
</tr>
<tr>
<td>&lt;vlan_id&gt;</td>
<td>Added tag VLAN ID</td>
</tr>
<tr>
<td>&lt;0-7&gt;</td>
<td>Added tag PCP</td>
</tr>
<tr>
<td>c-tag</td>
<td>Add C-tag</td>
</tr>
<tr>
<td>none</td>
<td>No tag added</td>
</tr>
<tr>
<td>s-custom-tag</td>
<td>Add custom S-tag</td>
</tr>
<tr>
<td>s-tag</td>
<td>Add S-tag</td>
</tr>
<tr>
<td>normal</td>
<td>Use EVC VLAN ID in outer tag</td>
</tr>
<tr>
<td>tunnel</td>
<td>Use EVC VLAN ID in inner tag</td>
</tr>
<tr>
<td>*</td>
<td>All switches or All ports</td>
</tr>
<tr>
<td>GigabitEthernet</td>
<td>1 Gigabit Ethernet Port</td>
</tr>
</tbody>
</table>
Port list for all port types

EVC VLAN ID

**EXAMPLE**

```bash
AW-IHT-1271(config)# evc 1 outer-tag add vid 3
AW-IHT-1271(config)#
```

**event**

Trap event severity level.

**SYNTAX**

```bash
event group <group_name> { level <lvl> | syslog { enable | disable } | trap { enable | disable } | smtp { enable | disable } | ipush { enable | disable } }
```

**Parameter**

- **Group**: Configure trap event severity level
- **<word32>**


**EXAMPLE**

```bash
AW-IHT-1271(config)# event group VLAN trap enable
AW-IHT-1271(config)#
```

**green-ethernet**

Green ethernet (Power reduction)

**SYNTAX**

```bash
green-ethernet eee optimize-for-power
```
Parameter

**eee**

Powering down of PHYs when there is no traffic.

**optimize-for-power**

Set if EEE shall be optimized for least power consumption (else optimized for least traffic latency).

**EXAMPLE**

```
AW-IHT-1271(config)# green-ethernet eee optimize-for-power
AW-IHT-1271(config)#
```

**gvrp**

Enable GVRP feature

**SYNTAX**

```
gvrp

```

```
gvrp max-vlans <1-4095>

```

```
gvrp time { [ join-time <1-20> ] [ leave-time <60-300> ] [ leave-all-time <1000-5000> ] }*1

```

Parameter

**time**

config gvrp timer value in units of centi seconds [cs]

**EXAMPLE**

```
AW-IHT-1271(config)# gvrp max-vlans 333
AW-IHT-1271(config)# gvrp time join-time 13 leave-all-time 3000 leave-time 200
AW-IHT-1271(config)#
```

**hostname**

Set system's network name.

**SYNTAX**

```
hostname < WORD >
```
**Parameter**

**WORD**  
This system’s network name.

**EXAMPLE**

```
AW-IHT-1271(config)# hostname abc
abc(config)#
```

---

**interface**

Select an interface to configure.

**SYNTAX**

```
interface ( <port_type> [ <plist> ] )
```

```
interface vlan <vlist>
```

**Parameter**

- `<port_type>`  
  GigabitEthernet

- `vlan`  
  VLAN interface configurations

- `<vlan_list>`  
  List of VLAN interface numbers, 1-4095

- `<port_type_list>`  
  Port list in 1/1-12 for GigabitEthernet

**EXAMPLE**

```
AW-IHT-1271(config)# interface GigabitEthernet 1/1-8
AW-IHT-1271(config-if)# poe weekday Fri hour 22
AW-IHT-1271(config-if)# AW-IHT-1271(config)# interface vlan 3
AW-IHT-1271(config-if-vlan)# ip address dhcp
AW-IHT-1271(config-if-vlan)#
```

---

**ip**

Internet Protocol.
SYNTAX

ip arp inspection

ip arp inspection entry interface <port_type> <in_port_type_id> <vlan_var> <mac_var> <ipv4_var>

ip arp inspection translate [ interface <port_type> <in_port_type_id> <vlan_var> <mac_var> <ipv4_var> ]

ip arp inspection vlan <in_vlan_list>

ip arp inspection vlan <in_vlan_list> logging { deny | permit | all }

ip dhcp excluded-address <low_ip> [ <high_ip> ]

ip dhcp pool <pool_name>

ip dhcp relay

ip dhcp relay information option

ip dhcp relay information policy { drop | keep | replace }

ip dhcp server

ip dhcp snooping

ip dns proxy

ip helper-address <v_ipv4_ucast>

ip http secure-redirect

ip http secure-server

ip igmp host-proxy [ leave-proxy ]

ip igmp snooping

ip igmp snooping vlan <v_vlan_list>

ip igmp ssm-range <v_ipv4_mcast> <ipv4_prefix_length>

ip igmp unknown-flooding

ip name-server { <v_ipv4_addr> | dhcp [ interface vlan <v_vlan_id> ] }

ip route <v_ipv4_addr> <v_ipv4_netmask> <v_ipv4_gw>

ip routing

ip source binding interface <port_type> <in_port_type_id> <vlan_var> <ipv4_var> <mac_var>
ip ssh

ip verify source

ip verify source translate

**Parameter**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>arp</td>
<td>Address Resolution Protocol</td>
</tr>
<tr>
<td>dhcp</td>
<td>Dynamic Host Configuration Protocol</td>
</tr>
<tr>
<td>dns</td>
<td>Domain Name System</td>
</tr>
<tr>
<td>helper-address</td>
<td>DHCP relay server</td>
</tr>
<tr>
<td>http</td>
<td>Hypertext Transfer Protocol</td>
</tr>
<tr>
<td>igmp</td>
<td>Internet Group Management Protocol</td>
</tr>
<tr>
<td>name-server</td>
<td>Domain Name System</td>
</tr>
<tr>
<td>route</td>
<td>Add IP route</td>
</tr>
<tr>
<td>routing</td>
<td>Enable routing for IPv4 and IPv6</td>
</tr>
<tr>
<td>source</td>
<td>source command</td>
</tr>
<tr>
<td>ssh</td>
<td>Secure Shell</td>
</tr>
<tr>
<td>verify</td>
<td>verify command</td>
</tr>
<tr>
<td>inspection</td>
<td>ARP inspection</td>
</tr>
<tr>
<td>entry</td>
<td>arp inspection entry</td>
</tr>
<tr>
<td>interface</td>
<td>arp inspection entry interface config</td>
</tr>
<tr>
<td>&lt;port_type&gt;</td>
<td>Port type in Fast, Giga ethernet</td>
</tr>
<tr>
<td>&lt;port_type_id&gt;</td>
<td>Port ID in the format of switch-no/port-no</td>
</tr>
<tr>
<td>&lt;vlan_id&gt;</td>
<td>Select a VLAN id to configure</td>
</tr>
<tr>
<td>&lt;mac_ucast&gt;</td>
<td>Select a MAC address to configure</td>
</tr>
<tr>
<td>&lt;ipv4_ucast&gt;</td>
<td>Select an IP Address to configure</td>
</tr>
<tr>
<td>deny</td>
<td>log denied entries</td>
</tr>
<tr>
<td>permit</td>
<td>log permitted entries</td>
</tr>
</tbody>
</table>
all log all entries
translate arp inspection translate all entries
vlan arp inspection vlan setting
<vlan_list> arp inspection vlan list
relay DHCP relay agent information
information DHCP information option <Option 82>
option DHCP option
information DHCP information option (Option 82)
policy Policy for handling the receiving DHCP packet already include the information option
drop Drop the package when receive a DHCP message that already contains relay information
keep Keep the original relay information when receive a DHCP message that already contains it
replace Replace the original relay information when receive a DHCP message that already contains it
server Enable DHCP server
snooping DHCP snooping
proxy DNS proxy service
secure-redirect Secure HTTP web redirection
secure-server Secure HTTP web server
snooping Snooping IGMP
<word16> Profile name in 16 char’s
vlan IGMP VLAN
ssm-range IPv4 address range of Source Specific Multicast
<ipv4_mcast> Valid IPv4 multicast address
<4-32> Prefix length ranges from 4 to 32
unknown-flooding Flooding unregistered IPv4 multicast traffic
<ipv4_ucast> A valid IPv4 unicast address
dhcp  Dynamic Host Configuration Protocol
interface  Select an interface to configure
vlan  VLAN Interface
<vlan_id>  VLAN identifier(s): VID
<ipv4_addr>  Network
<ipv4_netmask>  Netmask
<ipv4_addr>  Gateway
binding  ip source binding
interface  ip source binding entry interface config
<port_type>  * or Gigabitethernet
  *  All switches or All ports
Gigabitethernet  1 Gigabitethernet Port
<port_type_id>  Port ID in the format of switch-no/port-no, ex 1/1-12 for Gigabitethernet
<vlan_id>  Select a VLAN id to configure
<ipv4_ucast>  Select an IP Address to configure
<ipv4_netmask>  Select a subnet mask to configure
<mac_ucast>  Select a MAC address to configure
source  verify source
limit  limit command
<0-2>  the number of limit
translate  ip verify source translate all entries
loggin  ARP inspection vlan logging mode config

**EXAMPLE**
**ipmc**

IPv4/IPv6 multicast configuration.

**SYNTAX**

- `ipmc profile`  
  - `ipmc profile <profile_name>`

- `ipmc range <entry_name> { <ipv4_mcast> [ <ipv4_mcast_1> ] | <ipv6_mcast> [ <ipv6_mcast_1> ] }`

**Parameter**

- **profile**  
  - IPMC profile configuration

- **range**  
  - A range of IPv4/IPv6 multicast addresses for the profile

- `<word16>`  
  - Range entry name in 16 char’s

- `<ipv4_mcast>`, `<ipv6_mcast>`  
  - Valid IPv4 multicast address

- Valid IPv6 multicast address

**EXAMPLE**

AW-IHT-1271(config)# ip mc profile test  
AW-IHT-1271(config)# ip mc range test { 224.0.0.1 | 3000::1 }
**ipv6**

IPv6 configuration commands

**SYNTAX**

```plaintext
ipv6 mld host-proxy [ leave-proxy ]

ipv6 mld snooping

ipv6 mld snooping vlan <v_vlan_list>

ipv6 mld ssm-range <v_ipv6_mcast> <ipv6_prefix_length>

ipv6 mld unknown-flooding

ipv6 route <v_ipv6_subnet> { <v_ipv6_ucast> | interface vlan <v_vlan_id> <v_ipv6_addr> }
```

**Parameter**

- **mld**  Multicasat Listener Discovery
- **route**  Configure static routes
- **host-proxy**  MLD proxy configuration
- **snooping**  Snooping MLD
- **ssm-range**  IPv6 address range of Source Specific Multicast
- **unknown-flooding**  Flooding unregistered IPv6 multicast traffic
- **leave-proxy**  MLD proxy for leave configuration
- **vlan**  MLD VLAN
- **<vlan_list>**  VLAN identifier(s): VID
- **<ipv6_mcast>**  Valid IPv6 multicast address
- **X:X::X/<0-128>**  IPv6 prefix x:x::y/z

**EXAMPLE**
**lacp**

LACP settings.

**SYNTAX**

```
lacp system-priority <1-65535>
```

**Parameter**

- **system-priority**
  - System priority
- **<1-65535>**
  - Priority value, lower means higher priority

**EXAMPLE**

```
AW-IHT-1271(config)# lacp system-priority 333
AW-IHT-1271(config)#
```

**line**

Configure a terminal line.

**SYNTAX**

```
line { <0~16> | console 0 | vty <0~15> }
```

**Parameter**

- **<0~16>**
  - List of line numbers
- **console**
  - Console terminal line
- **0**
  - Console Line number
- **vty**
  - Virtual terminal
- **<0~15>**
  - List of vty numbers
**lldp**

LACP configurations.

**SYNTAX**

- `lldp holdtime <2-10>`
- `lldp med datum { wgs84 | nad83_navad88 | nad83_mllw }
- `lldp med fast <1-10>`
- `lldp med location-tlv altitude { meters | floors } <word11>`
- `lldp med location-tlv civic-addr { country | state | county | city | district | block | street | leading-street-direction | trailing-street-suffix | street-suffix | house-no | house-no-suffix | landmark | additional-info | name | zip-code | building | apartment | floor | room-number | place-type | postal-community-name | p-o-box | additional-code } <string250>`
- `lldp med location-tlv elin-addr <dword25>`
- `lldp med location-tlv latitude { north | south } <word8>`
- `lldp med location-tlv longitude { west | east } <word9>`
- `lldp med media-vlan policy-list <range_list>`
- `lldp med media-vlan-policy <0-31> { voice | voice-signaling | guest-voice-signaling | guest-voice | softphone-voice | video-conferencing | streaming-video | video-signaling } { tagged <vlan_id> | untagged } [ l2-priority <0-7> ] [ dscp <0-63> ]`
- `lldp reinit <1-10>`
- `lldp timer <5-32768>`
- `lldp transmission-delay <1-8192>`

**Parameter**

- `holdtime` Sets LLDP hold time (The neighbor switch will
discarded the LLDP information after "hold time"
multiplied with "timer" seconds).

med  Media Endpoint Discovery.

reinit  LLDP tx reinitialization delay in seconds.

timer  Sets LLDP TX interval (The time between each LLDP frame transmitted in seconds).

transmission-delay  Sets LLDP transmission delay (the amount of time that the transmission of LLDP frames will delayed after LLDP configuration has changed) in seconds.)

<2-10>  2-10 seconds.

<1-10>  1-10 seconds.

<5-32768>  5-32768 seconds.

<1-8192>  1-8192 seconds.

datum  Datum (geodetic system) type.

fast  Number of times to repeat LLDP frame transmission at fast start.

location-tlv  LLDP-MED Location Type Length Value parameter.

media-vlan-policy  Use the media-vlan-policy to create a policy, which can be assigned to an interface.

nad83_mllw  Mean lower low water datum 1983

nad83_navd88  North American vertical datum 1983

wgs84  World Geodetic System 1984

altitude  Altitude parameter

meter  Altitude value

floors  Altitude value
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>civic-addr</td>
<td>Civic address information and postal information</td>
<td></td>
</tr>
<tr>
<td>country</td>
<td>The two-letter ISO 3166 country code in capital ASCII letters</td>
<td>DK, DE or US</td>
</tr>
<tr>
<td>state</td>
<td>National subdivisions (state, canton, region, province, prefecture)</td>
<td></td>
</tr>
<tr>
<td>county</td>
<td>County, parish, gun (Japan), district.</td>
<td></td>
</tr>
<tr>
<td>city</td>
<td>City, township, shi (Japan) - Example: Copenhagen.</td>
<td></td>
</tr>
<tr>
<td>district</td>
<td>City division, borough, city district, ward, chou (Japan).</td>
<td></td>
</tr>
<tr>
<td>block</td>
<td>Neighbourhood, block.</td>
<td></td>
</tr>
<tr>
<td>street</td>
<td>Street - Example: Poppelvej.</td>
<td></td>
</tr>
<tr>
<td>leading-street-direction</td>
<td>Leading street direction - Example: N.</td>
<td></td>
</tr>
<tr>
<td>trailing-street-suffix</td>
<td>Trailing street suffix - Example: SW.</td>
<td></td>
</tr>
<tr>
<td>street-suffix</td>
<td>Street suffix - Example: Ave, Platz.</td>
<td></td>
</tr>
<tr>
<td>house-no</td>
<td>House number - Example: 21.</td>
<td></td>
</tr>
<tr>
<td>house-no-suffix</td>
<td>House number suffix - Example: A, 1/2.</td>
<td></td>
</tr>
<tr>
<td>landmark</td>
<td>Landmark or vanity address - Example: Columbia University.</td>
<td></td>
</tr>
<tr>
<td>additional-info</td>
<td>Additional location info - Example: South Wing.</td>
<td></td>
</tr>
<tr>
<td>name</td>
<td>Name (residence and office occupant) - Example: Flemming Jahn.</td>
<td></td>
</tr>
<tr>
<td>zip-code</td>
<td>Postal/zip code - Example: 2791.</td>
<td></td>
</tr>
<tr>
<td>building</td>
<td>Building (structure) - Example: Low Library.</td>
<td></td>
</tr>
<tr>
<td>apartment</td>
<td>Unit (Apartment, suite) - Example: Apt 42.</td>
<td></td>
</tr>
<tr>
<td>floor</td>
<td>Floor - Example: 4.</td>
<td></td>
</tr>
<tr>
<td>room-number</td>
<td>Room number - Example: 450F.</td>
<td></td>
</tr>
<tr>
<td>place-type</td>
<td>Place type - Example: Office.</td>
<td></td>
</tr>
<tr>
<td>postal-community-name</td>
<td>Postal community name - Example: Leonia.</td>
<td></td>
</tr>
<tr>
<td>p-o-box</td>
<td>Post office box (P.O. BOX) - Example: 12345.</td>
<td></td>
</tr>
<tr>
<td>additional-code</td>
<td>Additional code - Example: 1320300003.</td>
<td></td>
</tr>
</tbody>
</table>
Value for the corresponding selected civic address.

Emergency Location Identification Number, (e.g. E911 and others), such as defined by TIA or NENA.

ELIN value

Setting latitude direction to north.

Setting latitude direction to south.

Latitude degrees (0.0000-90.0000).

Assignment of policies.

Policies to assign to the interface.

Policy id for the policy which is created.

Create a voice policy.

Create a voice signaling policy.

Create a guest voice signaling policy.

Create a guest voice policy.

Create a softphone voice policy.

Create a video conferencing policy.

Create a streaming video policy.

Create a video signaling policy.

The policy uses tagged frames.

The VLAN the policy uses tagged frames.

The policy uses un-tagged frames.

Layer 2 priority.

Priority 0-7

Differentiated Services Code Point.

DSCP value 0-63.

EXAMPLE
**logging**

Syslog.

**SYNTAX**

logging host { <ipv4_ucast> | <hostname> }

logging level { info | warning | error }

logging on

**Parameter**

- **host**
  - **host**
- **<ipv4_ucast>**
  - IP address of the log server
- **<hostname>**
  - Domain name of the log server
- **level**
  - **level**
- **info**
  - Information
- **warning**
  - Warning
- **error**
  - Error
- **on**
  - Enable syslog server

**EXAMPLE**

AW-IHT-1271(config)# logging level error
AW-IHT-1271(config)# logging on
AW-IHT-1271(config)#

---

Note: According to IEEE 802.1AB-clause 10.5.4.2 the transmission-delay must not be larger than LLDP timer * 0.25. LLDP timer changed to 13332
**loop-protect**

Loop protection configuration.

**SYNTAX**

```plaintext
loop-protect

loop-protect shutdown-time <0-604800>

loop-protect transmit-time <1-10>
```

**Parameter**

- **shutdown-time**  Loop protection shutdown time interval
- **<0-604800>**  Shutdown time in second
- **transmit-time**  Loop protection transmit time interval
- **<1-10>**  Transmit time in second

**EXAMPLE**

```
AW-IHT-1271(config)# loop-protect
AW-IHT-1271(config)# loop-protect shutdown-time 333
AW-IHT-1271(config)# loop-protect transmit-time 3
AW-IHT-1271(config)#
```

**mac**

MAC table entries/configuration.

**SYNTAX**

```plaintext
mac address-table aging-time <0,10-1000000>

mac address-table static <mac_addr> vlan <vlan_id> interface <port_type> <port_type_list>
```

**Parameter**

- **address-table**  Mac Address Table
- **aging-time**  Mac address aging time
Aging time in seconds, 0 disables aging

static
Static MAC address

<mac_addr>

vlan
VLAN keyword

<vlan_id>
VLAN IDs 1-4095

interface
Select an interface to configure

<port_type>
Port type * or Gigabitethernet

*  
All switches or All ports

Gigabitethernet
1 Gigabit Ethernet port

<port_type_list>
Port list in 1/1-12 for Gigabitethernet

**EXAMPLE**

```
AW-IHT-1271(config)# mac address-table aging-time 3333
AW-IHT-1271(config)#
```

**mep**

Maintenance Entity Point

**SYNTAX**

```
mep <1-100> ais [ fr1m | fr1s | protect ]
mep <1-100> aps <0-7> [ laps ]
mep <1-100> aps <0-7> ( multi | uni ) { [ laps ] | [ raps ] octet <unit> }
mep <1-100> cc <0-7> ( fr100s | fr10s | fr1m | fr1s | fr300s | fr6h | fr6m )
mep <1-100> ccm-tlv
mep <1-100> client domain ( evc | lsp | vlan ) flow <uint> { [ ais-prio [ ais-highest | lck-prio | level ] ] | [ lck-prio [ ais-prio | lck- highest | level ] ] | [ level <0-7> [ ais-prio | lck-prio ] ]
mep <1-100> dm <0-7> { dual [ flow | interval | multi | rdtrp | uni ] } | { flow [ dual | interval | multi | single | uni ] } | { interval [unit ] last-n } | { multi [ dual | flow | interval | rdtrp | single ] } | { rdtrp [ dual | interval | multi | single | uni ] } | { single [ flow | interval | multi | rdtrp | uni ] } | { uni mep-id <unit> [ dual | flow | interval | rdtrp | single ] }
```
**mep** <1-100> down domain [ evc | lsp | port | pw | tp-link | tunnel-tp | vlan ] [ ( flow <uint> ) ] [ ( level <0-7> ) ] [ ( vid <vlan_id> ) ]

**mep** <1-100> lb <0-7> ( count <uint> | dei | mpls | multi | uni )

**Parameter**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1-100&gt;</td>
<td>The MEP instance number</td>
</tr>
<tr>
<td>os-tlv</td>
<td>Organization-Specific TLV</td>
</tr>
<tr>
<td>ais</td>
<td>Alarm Indication Signal</td>
</tr>
<tr>
<td>aps</td>
<td>Automatic Protection Switching protocol.</td>
</tr>
<tr>
<td>cc</td>
<td>Continuity Check.</td>
</tr>
<tr>
<td>ccm-tlv</td>
<td>The CCM TLV enable/disable</td>
</tr>
<tr>
<td>client</td>
<td></td>
</tr>
<tr>
<td>dm</td>
<td>Delay Measurement.</td>
</tr>
<tr>
<td>down</td>
<td>This MEP is a Down-MEP</td>
</tr>
<tr>
<td>lb</td>
<td>Loop Back</td>
</tr>
<tr>
<td>lck</td>
<td>Locked Signal</td>
</tr>
<tr>
<td>level</td>
<td>The MEG level of the MEP.</td>
</tr>
<tr>
<td>link-state-tracking</td>
<td>Link State Tracking. When LST is enabled in an instance, Local SF or received 'isDown' in CCM Interface Status TLV, will bring down the residence port. Only valid in Up-MEP. The CCM rate must be 1 t/s or faster.</td>
</tr>
<tr>
<td>lm</td>
<td>Loss Measurement.</td>
</tr>
<tr>
<td>lm-avail</td>
<td>Availability for Loss Measurement</td>
</tr>
<tr>
<td>lm-hli</td>
<td>High Loss Interval for Loss Measurement</td>
</tr>
<tr>
<td>lm-notif</td>
<td>Loss Measurement JSON notifications</td>
</tr>
<tr>
<td>lm-sdeg</td>
<td>Signal Degrade for Loss Measurement</td>
</tr>
<tr>
<td>It</td>
<td>Link Trace.</td>
</tr>
<tr>
<td>meg-id</td>
<td>The ITU/IEEE MEG-ID.</td>
</tr>
</tbody>
</table>
**mep-id**  The MEP-ID.

**mip**  This MEP instance is a half-MIP.

**peer-mep-id**  The peer MEP-ID.

**performance-monitoring**  Performance monitoring Data Set collection (MEF35).

**syslog**  Enable syslog.

**tst**  Test Signal

**up**  This MEP is a UP-MEP.

**vid**  The MEP VID.

**voe**  MEP is VOE based.

**fr1m**  Frame rate is 1 f/min.

**fr1s**  Frame rate is 1 f/s.

**protect**  The AIS can be used for protection. At the point of state change three AIS PDU is transmitted as fast as possible.

**<0-7>**  Priority in case of tagged OAM. In the MPLS and EVC domain this is the COS-ID.

**laps**  Linear Automatic Protection Switching protocol.

**multi**  OAM PDU is transmitted with multicast MAC. Must me 'multi' in case of RAPS.

**raps**  Ring Automatic Protection Switching protocol.

**uni**  OAM PDU is transmitted with unicast MAC. The MAC is taken from peer MEP MAC database. Only possible in case of LAPS.

**octet**  Then last OCTET in the multivast MAC. Only possible in case of RAPS.

**<uint>**  Last OCTET value

**fr100s**  Frame rate is 100 f/s.

**fr10s**  Frame rate is 10 f/s.

**fr1m**  Frame rate is 1 f/min.

**fr1s**  Frame rate is 1 f/s.

**fr300s**  Frame rate is 300 f/s.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>fr6h</td>
<td>Frame rate is 6 f/hour.</td>
</tr>
<tr>
<td>fr6m</td>
<td>Frame rate is 6 f/min.</td>
</tr>
<tr>
<td>domain</td>
<td>Client flow domain</td>
</tr>
<tr>
<td>evc</td>
<td>EVC client flow.</td>
</tr>
<tr>
<td>lsp</td>
<td>MPLS-TP LSP client flow.</td>
</tr>
<tr>
<td>vian</td>
<td>VLAN client flow.</td>
</tr>
<tr>
<td>flow</td>
<td>Client flow instance.</td>
</tr>
<tr>
<td>&lt;uint&gt;</td>
<td>Client flow instance number value.</td>
</tr>
<tr>
<td>ais-prio</td>
<td>AIS injection priority.</td>
</tr>
<tr>
<td>lck-prio</td>
<td>LCK injection priority.</td>
</tr>
<tr>
<td>level</td>
<td>The MEG level on the client layer.</td>
</tr>
<tr>
<td>&lt;0-7&gt;</td>
<td>AIS injection priority value.</td>
</tr>
<tr>
<td>ais-highest</td>
<td>Request the highest possible AIS priority.</td>
</tr>
<tr>
<td>lck-highest</td>
<td>Request the highest possible LCK priority.</td>
</tr>
<tr>
<td>&lt;0-7&gt;</td>
<td>The MEG level value.</td>
</tr>
<tr>
<td>bin</td>
<td>Delay Measurement Binning.</td>
</tr>
<tr>
<td>ns</td>
<td>Nano Seconds</td>
</tr>
<tr>
<td>overflow-reset</td>
<td>Reset all Delay Measurement results on total delay counter overflow.</td>
</tr>
<tr>
<td>proprietary</td>
<td>Proprietary Delay Measurement.</td>
</tr>
<tr>
<td>synchronized</td>
<td>Near end and far end is real time synchronized.</td>
</tr>
<tr>
<td>dual</td>
<td>Delay Measurement based on 1DM PDU transmission.</td>
</tr>
<tr>
<td>flow</td>
<td>The two way delay is calculated as round trip symmetrical flow delay. The far end residence time is subtracted.</td>
</tr>
<tr>
<td>Interval</td>
<td>Interval between PDU transmission in 10ms. Min value is 10.</td>
</tr>
<tr>
<td>Multi</td>
<td>OAM PDU is transmitted with multicast MAC.</td>
</tr>
</tbody>
</table>
| rdtrp        | The two way delay is calculated as round trip delay. The far end residence time is
single

Delay Measurement based on DMM/DMR PDU.

uni

OAM PDU is transmitted with unicast MAC. The MAC is taken from peer MEP MAC database.

<uint>

Interval value.

last-n

The last N delays used for average last N calculation. Min value is 10.

mep-id

Peer MEP-ID for unicast DM. The MAC is taken from peer MEP MAC database.

<uint>

Peer MEP-ID value.

domain

The domain of the MEP.

evc

This MEP is a EVC domain MEP.

lsp

This MIP is an MPLS-TP LSP domain MIP.

port

This MEP is a Port domain MEP.

pw

This MEP is an MPLS-TP Pseudo-Wire domain MEP.

tp-link

This MEP is an MPLS-TP link domain MEP.

tunnel-tp

This MEP is an MPLS-TP tunnel domain MEP.

vlan

This MEP is a VLAN domain MEP.

flow

In case the MEP is a VLAN, EVC, MPLS-TP link, tunnel, LSP or Pseudo-Wire domain MEP, the flow instance that the MEP is related to must be given.

level

The MEG level of the MEP.

vid

In case the MEP is a Port domain Up-MEP or a EVC domain customer MIP (on the UNI), the VID must be given.

<uint>

The VLAN, EVC, MPLS-TP link, MPLS-TP tunnel, MPLS-TP LSP or MPLS-TP Pseudo-Wire flow instance number.

count

The number of LBM PDUs to send in one loop test. The value 0 indicate infinite transmission (test behaviour). This is HW based LBM/LBR and Requires VOE.

dei

Drop Eligible Indicator in case of tagged OAM.
mpls
Specify optional values for loopback initiated from an MPLS-TP MEP.

<uint>
Number of LBM PDUs to send value.

ttl
Specify Time-To-Live value to be used for the MPLS-TP OAM LBM PDU. Default is to use TTL value 255.

**EXAMPLE**

```
AW-IHT-1271(config)# mep 1 cc 3 frm
AW-IHT-1271(config)#
AW-IHT-1271(config)# mep 1 ccm-tlv
AW-IHT-1271(config)#
```

**monitor**

Set monitor configuration.

**SYNTAX**

```
monitor destination interface <port_type> <port_type_id>
monitor source { interface <port_type> <port_type_list> | cpu } { both | rx | tx }
```

**Parameter**

- **destination**
  The destination port. That is the port that trafficed should be mirrored to.

- **interface**
  Interface to mirror traffic to.

- **source**
  The source port. That is the source port to be mirrored to the destination port.

- **interface**
  Mirror interface traffic.

- **<port_type>**
  1 Gigabit Ethernet port

- **<port_type_list>**
  Port list in 1/1-12.

- **cpu**
  Mirror CPU traffic.

- **both**
  Setting source port to both will mirror both ingress and egress traffic.

- **rx**
  Setting source port to rx will mirror bothingress traffic.
tx

Setting source port to tx will mirror both egress traffic.

<port_type>

Port type in Gigabitethernet

<port_type_list>

Port list in 1/1-12 for Gigabitethernet

EXAMPLE

AW-IHT-1271(config)# monitor destination interface GigabitEthernet 1/8
AW-IHT-1271(config)# monitor source cpu both
AW-IHT-1271(config)#

mvr

Multicast VLAN Registration configuration.

SYNTAX

mvr

mvr name <mvr_name> channel <profile_name>

mvr name <mvr_name> frame priority <cos_priority>

mvr name <mvr_name> frame tagged

mvr name <mvr_name> igmp-address <v_ipv4_ucast>

mvr name <mvr_name> last-member-query-interval <ipmc_lmqi>

mvr name <mvr_name> mode { dynamic | compatible }

mvr vlan <v_vlan_list> [ name <mvr_name> ]

mvr vlan <v_vlan_list> channel <profile_name>

mvr vlan <v_vlan_list> frame priority <cos_priority>

mvr vlan <v_vlan_list> frame tagged

mvr vlan <v_vlan_list> igmp-address <v_ipv4_ucast>

mvr vlan <v_vlan_list> last-member-query-interval <ipmc_lmqi>

mvr vlan <v_vlan_list> mode { dynamic | compatible }

Parameter
<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>MVR multicast name</td>
</tr>
<tr>
<td>&lt;word16&gt;</td>
<td>MVR multicast VLAN name</td>
</tr>
<tr>
<td>channel</td>
<td>MVR channel configuration</td>
</tr>
<tr>
<td>&lt;word16&gt;</td>
<td>Profile name in 16 char’s</td>
</tr>
<tr>
<td>frame</td>
<td>MVR control frame in TX</td>
</tr>
<tr>
<td>priority</td>
<td>Interface CoS priority</td>
</tr>
<tr>
<td>&lt;0-7&gt;</td>
<td>CoS priority ranges from 0 to 7</td>
</tr>
<tr>
<td>tagged</td>
<td>Tagged IGMP/MLD frames will be sent</td>
</tr>
<tr>
<td>igmp-address</td>
<td>MVR address configuration used in IGMP</td>
</tr>
<tr>
<td>&lt;ipv4_ucast&gt;</td>
<td>A valid IPv4 unicast address MVR multicast VLAN name</td>
</tr>
<tr>
<td>last-member-query-interval</td>
<td>Last Member Query Interval in tenths of seconds</td>
</tr>
<tr>
<td>&lt;0-31744&gt;</td>
<td>0 - 31744 tenths of seconds</td>
</tr>
<tr>
<td>mode</td>
<td>MVR mode of operation</td>
</tr>
<tr>
<td>dynamic</td>
<td>Dynamic MVR operation mode</td>
</tr>
<tr>
<td>compatible</td>
<td>Compatible MVR operation mode</td>
</tr>
<tr>
<td>vlan</td>
<td>MVR multicast vlan</td>
</tr>
<tr>
<td>&lt;vlan_list&gt;</td>
<td>MVR multicast VLAN list</td>
</tr>
<tr>
<td>channel</td>
<td>MVR channel configuration</td>
</tr>
<tr>
<td>&lt;word16&gt;</td>
<td>Profile name in 16 char’s</td>
</tr>
<tr>
<td>frame</td>
<td>MVR control frame in TX</td>
</tr>
<tr>
<td>priority</td>
<td>Interface CoS priority</td>
</tr>
<tr>
<td>&lt;0-7&gt;</td>
<td>CoS priority ranges from 0 to 7</td>
</tr>
<tr>
<td>igmp-address</td>
<td>MVR address configuration used in IGMP</td>
</tr>
<tr>
<td>&lt;ipv4_ucast&gt;</td>
<td>A valid IPv4 unicast address</td>
</tr>
<tr>
<td>&lt;vlan_list&gt;</td>
<td>MVR multicast VLAN list</td>
</tr>
</tbody>
</table>
<0-31744> 0 · 31744 tenths of seconds

compatible  Compatible MVR operation mode

**EXAMPLE**

```
AW-IHT-1271(config)# mvr vlan 10 mode dynamic
AW-IHT-1271(config)#
```

**no**

Negate a command or set its defaults

**Table: configure - no Commands**

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<th>Function</th>
</tr>
</thead>
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<td>access</td>
<td>Access management</td>
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<tr>
<td>access-list</td>
<td>Access list</td>
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<td>Define a login banner</td>
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<td>dot1x</td>
<td>IEEE Standard for port-based Network Access Control</td>
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<td>enable</td>
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<tr>
<td>eps</td>
<td>Ethernet Protection Switching</td>
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<td>erps</td>
<td>Ethernet Ring Protection Switching</td>
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<tr>
<td>evc</td>
<td>Ethernet Virtual Connections</td>
</tr>
<tr>
<td>green-ethernet</td>
<td>Green ethernet (Power reduction)</td>
</tr>
<tr>
<td>gvrp</td>
<td>Enable GVRP feature</td>
</tr>
<tr>
<td>hostname</td>
<td>Set system's network name</td>
</tr>
<tr>
<td>interface</td>
<td>none</td>
</tr>
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<td>ip</td>
<td>Internet Protocol</td>
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<tr>
<td>ipmc</td>
<td>IPv4/IPv6 multicast configuration</td>
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<tr>
<td>ipv6</td>
<td>IPv6 configuration commands</td>
</tr>
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<td>lacp</td>
<td>LACP settings</td>
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<td>lldp</td>
<td>LLDP configurations</td>
</tr>
<tr>
<td>logging</td>
<td>Syslog</td>
</tr>
<tr>
<td>loop-protect</td>
<td>Loop protection configuration</td>
</tr>
<tr>
<td>mac</td>
<td>MAC table entries/configuration</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------------------------------------------</td>
</tr>
<tr>
<td>mep</td>
<td>Maintenance Entity Point</td>
</tr>
<tr>
<td>monitor</td>
<td>Set monitor configuration.</td>
</tr>
<tr>
<td>mvr</td>
<td>Multicast VLAN Registration configuration</td>
</tr>
<tr>
<td>ntp</td>
<td>Configure NTP</td>
</tr>
<tr>
<td>poe</td>
<td>Power Over Ethernet</td>
</tr>
<tr>
<td>port-security</td>
<td>Enable/disable port security globally.</td>
</tr>
<tr>
<td>Privilege</td>
<td>Command privilege parameters</td>
</tr>
<tr>
<td>ptp</td>
<td>Precision time Protocol (1588)</td>
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<tr>
<td>qos</td>
<td>Quality of Service</td>
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<tr>
<td>radius-server</td>
<td>Configure RADIUS</td>
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<tr>
<td>rmon</td>
<td>Remote Monitoring</td>
</tr>
<tr>
<td>sflow</td>
<td>Statistics flow.</td>
</tr>
<tr>
<td>snmp-server</td>
<td>Enable SNMP server</td>
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<tr>
<td>spanning-tree</td>
<td>STP Bridge</td>
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<td>switchalert-management</td>
<td>SwitchAlert Management configuration</td>
</tr>
<tr>
<td>switchport</td>
<td>VLAN</td>
</tr>
<tr>
<td>system</td>
<td>Set the SNMP server's configurations</td>
</tr>
<tr>
<td>tacacs-server</td>
<td>Configure TACACS+</td>
</tr>
<tr>
<td>udld</td>
<td>Disable UDLD configurations on all fiber-optic</td>
</tr>
<tr>
<td></td>
<td>ports.</td>
</tr>
<tr>
<td>upnp</td>
<td>Set UPnP's configurations</td>
</tr>
<tr>
<td>username</td>
<td>Establish User Name Authentication</td>
</tr>
<tr>
<td>vlan</td>
<td>Vlan commands</td>
</tr>
<tr>
<td>voice</td>
<td>Voice appliance attributes</td>
</tr>
<tr>
<td>web</td>
<td>Web</td>
</tr>
</tbody>
</table>

**aaa**

Authentication, Authorization and Accounting

**SYNTAX**

`no aaa authentication login { console | telnet | ssh | http }`

**Parameter**

- **authentication**  
  Authentication
- **login**  
  Login
- **console**  
  Disable Console
http  Disable HTTP
ssh  Disable SSH
telnet  Disable Telnet

**EXAMPLE**

AW-IHT-1271(config)# no aaa authentication login ssh
AW-IHT-1271(config)#

**access**

Access management

**SYNTAX**

no access management [<1~16>]

no access management  

**Parameter**

management  Access management configuration

<1~16>  ID of access management entry

**EXAMPLE**

AW-IHT-1271(config)# no access management
AW-IHT-1271(config)#

**access-list**

Access list

**SYNTAX**

no access-list ace <1~256>

**Parameter**

ace  Access list entry

<Aceld : 1-256>  ACE ID
### Aggregation

Aggregation mode

### Syntax

```plaintext
no aggregation mode
```

**Parameter**

`:mode` Traffic distribution mode

### Example

```
AW-IHT-1271(config)# no aggregation mode
AW-IHT-1271(config)#
```

### Banner

Define a login banner

### Syntax

```plaintext
no banner [ motd ]
no banner exec
no banner login
```

**Parameter**

`:exec` Set EXEC process creation banner

`:login` Set login banner

`:motd` Set Message of the Day banner

### Example

```
AW-IHT-1271(config)# no banner
AW-IHT-1271(config)#
```
**clock**

Configure time-of-day clock

**SYNTAX**

```plaintext
no clock summer-time
no clock timezone
```

**Parameter**

- `summer-time` Configure summer (daylight savings) time
- `timezone` Configure time zone

**EXAMPLE**

```plaintext
AW-IHT-1271(config)# no clock summer-time
AW-IHT-1271(config)# no clock timezone
AW-IHT-1271(config)#
```

**debug**

Debugging functions

**SYNTAX**

```plaintext
no debug mep <uint> dm tx (dual | single ) <0-7> interval
no debug mep <uint> dm tx (dual | single ) <0-7> interval <uint>
no debug mep <uint> dm tx (dual | single ) <0-7> interval <uint> synchronized
no debug mep <uint> dm tx (dual | single ) <0-7> synchronized
no debug mep <uint> dm tx (dual | single ) <0-7> synchronized interval <uint>
no debug mep <uint> tx dm (dual | single ) <0-7> interval
no debug mep <uint> tx dm (dual | single ) <0-7> interval <uint>
no debug mep <uint> tx dm (dual | single ) <0-7> interval <uint> synchronized
```
no debug mep <uint> tx dm (dual | single) <0-7> synchronized

no debug mep <uint> tx dm (dual | single) <0-7> synchronized interval <uint>

no debug mep <uint> volatile

**Parameter**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>mep</td>
<td>Maintenance Entity Point.</td>
</tr>
<tr>
<td>&lt;uint&gt;</td>
<td>The MEP instance number.</td>
</tr>
<tr>
<td>dm</td>
<td>Delay Measurement.</td>
</tr>
<tr>
<td>test</td>
<td>Test Generation.</td>
</tr>
<tr>
<td>volatile</td>
<td>The MEP instance is change to volatile.</td>
</tr>
<tr>
<td>tx</td>
<td>Transmit DM/1DM.</td>
</tr>
<tr>
<td>dual</td>
<td>Dual ended - 1DM based.</td>
</tr>
<tr>
<td>single</td>
<td>Single ended - DMM/DMR based.</td>
</tr>
<tr>
<td>&lt;0-7&gt;</td>
<td>Priority in case of tagged OAM. In the EVC domain this is the COS-ID.</td>
</tr>
<tr>
<td>interval</td>
<td>Interval between PDU transmission in 10ms. Min value is 10.</td>
</tr>
<tr>
<td>synchronized</td>
<td>Near end and far end is real time synchronized.</td>
</tr>
<tr>
<td>&lt;uint&gt;</td>
<td>Interval value.</td>
</tr>
<tr>
<td>tx</td>
<td>Transmit Test.</td>
</tr>
</tbody>
</table>

**EXAMPLE**

```
AW-IHT-1271(config)# no debug mep 1 dm tx dual 0
AW-IHT-1271(config)#
AW-IHT-1271(config)# no debug mep 1 volatile
AW-IHT-1271(config)#
```

dot1x

IEEE Standard for port-based Network Access Control

**SYNTAX**
no dot1x authentication timer inactivity
no dot1x authentication timer re-authenticate
no dot1x feature { [guest-vlan] [radius-qos] [radius-vlan] }
no dot1x guest-vlan [supplicant]
no dot1x max-reauth-req
no dot1x re-authentication
no dot1x system-auth-control
no dot1x timeout quiet-period
no dot1x timeout tx-period

**Parameter**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>authentication</td>
<td>Authentication</td>
</tr>
<tr>
<td>feature</td>
<td>Globally enables/disables a dot1x feature functionality</td>
</tr>
<tr>
<td>guest-vlan</td>
<td>Guest VLAN</td>
</tr>
<tr>
<td>max-reauth-req</td>
<td>The number of time a Request Identity EAPOL frame is sent without response before considering entering the Guest VLAN.</td>
</tr>
<tr>
<td>re-authentication</td>
<td>Set Re-authentication state</td>
</tr>
<tr>
<td>system-auth-control</td>
<td>Set the global NAS state</td>
</tr>
<tr>
<td>timeout</td>
<td>timeout</td>
</tr>
<tr>
<td>timer</td>
<td>timer</td>
</tr>
<tr>
<td>inactivity</td>
<td>Time in seconds between check for activity on successfully authenticated MAC addresses.</td>
</tr>
<tr>
<td>re-authenticate</td>
<td>The period between re-authentication attempts in seconds</td>
</tr>
<tr>
<td>guest-vlan</td>
<td>Globally enables/disables state of guest-vlan</td>
</tr>
<tr>
<td>radius-qos</td>
<td>Globally enables/disables state of RADIUS-assigned QoS.</td>
</tr>
<tr>
<td>radius-vlan</td>
<td>Globally enables/disables state of RADIUS-assigned VLAN.</td>
</tr>
</tbody>
</table>
The switch remembers if an EAPOL frame has been received on the port for the life-time of the port. Once the switch considers whether to enter the Guest VLAN, it will first check if this option is enabled or disabled. If disabled (unchecked; default), the switch will only enter the Guest VLAN if an EAPOL frame has not been received on the port for the life-time of the port. If enabled (checked), the switch will consider entering the Guest VLAN even if an EAPOL frame has been received on the port for the life-time of the port.

**quiet-period**

Time in seconds before a MAC-address that failed authentication gets a new authentication chance.

**tx-period**

the time between EAPOL retransmissions.

**EXAMPLE**

```bash
AW-IHT-1271(config)# no dot1x authentication timer inactivity
AW-IHT-1271(config)# no dot1x feature guest-vlan radius-qos radius-vlan
AW-IHT-1271(config)# no dot1x guest-vlan supplicant
AW-IHT-1271(config)# no dot1x max-reauth-req
AW-IHT-1271(config)# no dot1x re-authentication
AW-IHT-1271(config)# no dot1x system-auth-control
AW-IHT-1271(config)# no dot1x timeout tx-period
AW-IHT-1271(config)#
```

**enable**

Modify enable password parameters

**SYNTAX**

```bash
no enable password [ level <1-15> ]
no enable secret [0|5 [ level <1-15> ]]
```
**Parameter**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>password</td>
<td>Assign the privileged level clear password</td>
</tr>
<tr>
<td>secret</td>
<td>Assign the privileged level secret</td>
</tr>
<tr>
<td>0</td>
<td>Specifies an UNENCRYPTED password will follow</td>
</tr>
<tr>
<td>5</td>
<td>Specifies an ENCRYPTED password will follow</td>
</tr>
<tr>
<td>level</td>
<td>Set exec level password</td>
</tr>
<tr>
<td>&lt;1-15&gt;</td>
<td>Level number</td>
</tr>
</tbody>
</table>

**EXAMPLE**

```
AW-IHT-1271(config)# no enable secret level 15
AW-IHT-1271(config)# no enable password level 15
AW-IHT-1271(config)#
```

**eps**

Ethernet Protection Switching.

**SYNTAX**

```
no eps <uint>
no eps <uint> [ command | hold off | revertive ]
```

**Parameter**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;uint&gt;</td>
<td>The EPS instance number.</td>
</tr>
<tr>
<td>command</td>
<td>Clear command on EPS.</td>
</tr>
<tr>
<td>holdoff</td>
<td></td>
</tr>
<tr>
<td>revertive</td>
<td>Revertive EPS.</td>
</tr>
</tbody>
</table>

**EXAMPLE**

```
AW-IHT-1271(config)# no eps 1
AW-IHT-1271(config)#
```
**erps**

Ethernet Ring Protection Switching

**SYNTAX**

```diff
no erps 1-64 [ guard | holdoff | mep | revertive | rpl | ( topology-change | propagate ) | version | vlan ]
```

**Parameter**

- **1-64**: ERPS group number
- **guard**: Guard
- **holdoff**: Hold-off
- **mep**: MEP
- **revertive**: Revertive
- **rpl**: Ring Protection Link
- **topology-change**: Topology Change
- **version**: Version
- **vlan**: VLAN.
- **propagate**: Propagate

**EXAMPLE**

```bash
AW-IHT-1271(config)# no erps 1 vlan
AW-IHT-1271(config)#
```

**evc**

Ethernet Virtual Connections

**SYNTAX**

...
no evc [ <1-256> ] [ ece <1-256> ]

Parameter

<1-256> EVC identifier
ece EVC Control Entry

EXAMPLE

```bash
AW-IHT-1271(config)# no evc ece 1
AW-IHT-1271(config)#
```

**Green-ethernet**

Green ethernet (Power reduction)

**SYNTAX**

no green-ethernet eee optimize-for-power

Parameter

eee Powering down of PHYs when there is no traffic.
optimize-for-power Set if EEE shall be optimized for least power consumption (else optimized for least traffic latency).

**EXAMPLE**

```bash
AW-IHT-1271(config)# no green-ethernet eee optimize-for-power
AW-IHT-1271(config)#
```

**gvrp**

Enable GVRP feature.

**SYNTAX**
gvrp

**gvrp max-vlans** `<maxvlans>`

**gvrp time** `[[ join-time <jointime> ] [ leave-time <leavetime> ] [ leave-all-time <leavealltime> ]]`*1

**Parameter**

**max-vlans**
Number of simultaneously VLANs that GVRP can control

**time**
Config GARP protocol timer parameters. IEEE 802.1D-2004, clause 12.11.

**join-time**
Set GARP protocol parameter JoinTime. See IEEE 802.1D-2004, clause 12.11

**leave-all-time**
Set GARP protocol parameter LeaveAllTime. See IEEE 802.1D-2004, clause 12.11

**leave-time**
Set GARP protocol parameter LeaveTime. See IEEE 802.1D-2004, clause 12.11

**EXAMPLE**

```
AW-IHT-1271(config)#no gvrp max-vlans 1
AW-IHT-1271(config)#no gvrp time join-time 10
AW-IHT-1271(config)#no gvrp time leave-all-time 2000
AW-IHT-1271(config)#no gvrp time leave-time 70
AW-IHT-1271(config)#
```

**hostname**

Set system's network name.

**SYNTAX**

```
no hostname
```

**EXAMPLE**

```
AW-IHT-1271(config)# no hostname
AW-IHT-1271(config)#
```

**interface**

**SYNTAX**

```
no interface vlan <vlan_list>
```
**Parameter**

- **vlan**: Vlan interface configurations

- **<vlan_list>**: Vlan list

**EXAMPLE**

```
AW-IHT-1271(config)# no interface vlan 10
AW-IHT-1271(config)#
```

**Ip**

Set system's network name.

**SYNTAX**

- `no ip arp inspection`
- `no ip arp inspection entry interface Gigabitethernet <port_type_id> <vlan_id> <mac_ucast> <ipv4_ucast>`
- `no ip arp inspection vlan <vlan_list> [logging]`
- `no dhcp excluded-address [<ip_address> [<ip_address>]]`
- `no dhcp pool <WORD>`
- `no ip dhcp relay [information {option| policy }]`
- `no ip dhcp server`
- `no ip dhcp snooping`
- `no ip dns proxy`
- `no ip helper-address`
- `no ip http secure-redirect`
- `no ip http secure-server`
- `no ip igmp host-proxy [ leave-proxy ]`
- `no ip igmp snooping`
- `no ip igmp snooping vlan [ <vlan_list> ]`
- `no ip igmp ssm-range`
no ip igmp unknown-flooding

no ip name-server

no ip route <ipv4_addr> <ipv4_netmask> <ipv4_addr>

no ip routing

no ip source binding interface Gigabitethernet <port_type_id> <vlan_id> <ipv4_ucast> { <ipv4_netmask> | <mac_ucast> }

no ip ssh

no ip verify source

Parameter

arp Address Resolution Protocol

inspection ARP inspection

entry arp inspection entry

interface arp inspection entry interface config

GigabitEthernet 1 Gigabit Ethernet Port

<port_type_id> Port ID in the format of switch-no/port-no, 1/1-12 for Gigabitethernet

<vlan_id> Select a VLAN id to configure

<mac_ucast> Select a MAC address to configure

<ipv4_ucast> Select an IP Address to configure

vlan arp inspection vlan setting

<vlan_list> arp inspection vlan list

logging ARP inspection vlan logging mode config

dhcp Dynamic Host Configuration Protocol

excluded-address Prevent DHCP from assigning certain address

<ip_address> Low IP address and High IP address

<WORD> Pool name in 32 characters

pool Configure DHCP address pools
relay  DHCP relay agent configuration
server  enable DHCP server
snooping  DHCP snooping
information  DHCP information option (Option 82)
option  DHCP option
policy  Policy for handling the receiving DHCP packet already include the information option
snooping  DHCP snooping
dns  Domain Name System
proxy  DNS proxy service
helper-address  None.
http  Hypertext Transfer Protocol
secure-redirect  Secure HTTP web redirection
secure-server  Secure HTTP web server
igmp  Internet Group Management Protocol
host-proxy  IGMP proxy configuration
leave-proxy  IGMP proxy for leave configuration
snooping  Snooping IGMP
vlan  IGMP VLAN
<vlan_list>  VLAN identifier(s): VID
ssm-range  IPv4 address range of Source Specific Multicast
unknown-flooding  Flooding unregistered IPv4 multicast traffic
name-server  Domain Name System
Route  none
<ipv4_addr>  Network
<ipv4_netmask>  Netmask
<ipv4_gateway>  Gateway
**routing**
Disable routing for IPv4 and IPv6

**source**
source command

**binding**
ip source binding

**interface**
isspace binding entry interface config

**Gigabitethernet**
1 Gigabitethernet port

**<port_type_id>**
Port ID in the format of switch-no/port-no, ex., 1/1-12 for Gigabitethernet

**<vlan_id>**
Select a VLAN id to configure

**<ipv4_ucast>**
Select an IP Address to configure

**<ipv4_netmask>**
Select a subnet mask to configure

**<mac_ucast>**
Select a MAC address to configure

**ssh**
Secure Shell

**verify**
verify command

**source**
verify source

**EXAMPLE**

```
AW-IHT-1271(config)# no ip arp inspection vlan 3 logging
AW-IHT-1271(config)# no ip dhcp relay information option
AW-IHT-1271(config)# no ip dns proxy
AW-IHT-1271(config)# no ip helper-address
AW-IHT-1271(config)# no ip http secure-redirect
AW-IHT-1271(config)# no ip igmp snooping
AW-IHT-1271(config)# no ip name-server
AW-IHT-1271(config)# no ip routing
AW-IHT-1271(config)# no ip ssh
AW-IHT-1271(config)# no ip verify source
AW-IHT-1271(config)#
```
IPv4/IPv6 multicast configuration

SYNTAX

no ipmc profile <Profilename : word16>

no ipmc range <Entryname : word16>

Parameter

profile  IPMC profile configuration

<Profilename : word16>  Profile name in 16 char's

range  A range of IPv4/IPv6 multicast addresses for the profile

<Entryname : word16>  Range entry name in 16 char's

EXAMPLE

AW-IHT-1271(config)# no ipmc profile

ipv6

IPv6 configuration commands

SYNTAX

no ipv6 mld host-proxy [ leave-proxy ]

no ipv6 mld snooping

no ipv6 mld snooping [vlan <vlan_list>] 

no ipv6 mld ssm-range

no ipv6 mld unknown-flooding

no ipv6 route <ipv6_subnet> { <ipv6_ucast> | interface vlan <vlan_id> <ipv6_linklocal> }

Parameter

mld  Multicasat Listener Discovery

host-proxy  MLD proxy configuration
leave-proxy  MLD proxy for leave configuration
snooping    Snooping MLD
vlan        MLD VLAN
<vlan_list> VLAN identifier(s): VID
ssm-range   IPv6 address range of Source Specific Multicast
unknown-flooding Flooding unregistered IPv6 multicast traffic
route       Configure static routes
<ipv6_subnet> IPv6 prefix x::y/z
<ipv6_ucast> IPv6 unicast address (except link-local address) of next-hop
interface   Select an interface to configure
vlan        VLAN Interface
<vlan_id>   VLAN identifier(s): VID
<ipv6_linklocal> IPv6 link-local address of next-hop

EXAMPLE

AW-IHT-1271(config)# no ipv6 mld snooping
AW-IHT-1271(config)#

lacp

LACP settings

SYNTAX

no lacp system-priority <1-65535>

Parameter

system-priority System priority
<1-65535> Priority value, lower means higher priority

EXAMPLE
**lldp**

LLDP configurations..

**SYNTAX**

```plain
no lldp holdtime
no lldp med datum
no lldp med fast
no lldp med location-tlv altitude
no lldp med location-tlv civic_addr { country | state | county | city | district | block | street | leading-street-direction | trailing-street-suffix | street-suffix | house-no | house-no-suffix | landmark | additional-info | name | zip-code | building | apartment | floor | room-number | place-type | postal-community-name | p-o-box | additional-code }
no lldp med location-tlv elin-addr
no lldp med location-tlv latitude
no lldp med location-tlv longitude
no lldp med media-vlan-policy <0~31>
no lldp reinit
no lldp timer
no lldp transmission-delay
```

**Parameter**

- **holdtime**
  - Sets LLDP hold time (The neighbor switch will discarded the LLDP information after "hold time" multiplied with "timer" seconds).

- **med**
  - Media Endpoint Discovery.

- **reinit**
  - Sets LLDP reinitialization delay.
timer
Sets LLDP TX interval (The time between each LLDP frame transmitted in seconds).

tlv-select
Which optional TLVs to transmit.

transmission-delay
Sets LLDP transmission delay. LLDP transmission delay (the amount of time that the transmission of LLDP frames will delayed after LLDP configuration has changed) in seconds.)

datum
Set datum to default value.

fast
Set fast repeat count to default value.

location-tlv
LLDP-MED Location Type Length Value parameter.

media-vlan-policy
Use the media-vlan-policy to create a policy, which can be assigned to an interface.

altitude
Setting altitude to default.

civic-addr
Civic address information and postal information

elin-addr
Set elin address to default value.

latitude
Setting Latitude parameter to default.

longitude
Setting longitude to default.

additional-code
Additional code - Example: 1320300003.

additional-info
Additional location info - Example: South Wing.

apartment
Unit (Apartment, suite) - Example: Apt 42.

block
Neighbourhood, block.

building
Building (structure) - Example: Low Library.

city
City, township, shi (Japan) - Example: Copenhagen.

country
The two-letter ISO 3166 country code in capital ASCII letters - Example: DK, DE or US.

county
County, parish, gun (Japan), district.
**EXAMPLE**

```
AW-IHT-1271(config)# no lldp holdtime
AW-IHT-1271(config)# no lldp med location-tlv civic-addr floor
AW-IHT-1271(config)# no lldp reinit
AW-IHT-1271(config)# no lldp timer
AW-IHT-1271(config)# no lldp transmission-delay
AW-IHT-1271(config)#
```

**logging**
Syslog.

**SYNTAX**

no logging host

no logging on

**Parameter**

- **host** host
- **on** Enable syslog server

**EXAMPLE**

AW-IHT-1271(config)# no logging host
AW-IHT-1271(config)# no logging on
AW-IHT-1271(config)#

---

**loop-protect**

Loop protection configuration

**SYNTAX**

- **no loop-protect**
- **no loop-protect shutdown-time**
- **no loop-protect transmit-time**

**Parameter**

- **shutdown-time** Loop protection shutdown time interval
- **transmit-time** Loop protection transmit time interval

**EXAMPLE**

AW-IHT-1271(config)# no loop-protect shutdown-time
AW-IHT-1271(config)# no loop-protect transmit-time
AW-IHT-1271(config)#
mac

MAC table entries/configuration

SYNTAX

no mac address-table aging-time [<0,10-1000000> ]

no mac address-table static <mac_addr> vlan <vlan_id> interface [*|Gigabitethernet [<port_type_list>]]

Parameter

address-table Mac table entries configuration/table
aging-time Mac address aging time
<0,10-1000000> Aging time in seconds, 0 disables aging
static Static MAC address
vlan VLAN keyword
<vlan_id> VLAN IDs 1-4095
interface Select an interface to configure
Gigabitethernet 1 Gigabit Ethernet port
<port_type_list> Port list in 1/1-12 for Gigaethernet

EXAMPLE

AW-IHT-1271(config)# no mac address-table aging-time 10000
AW-IHT-1271(config)#

mep

Maintenance Entity Point

SYNTAX

no mep <uint> [ ais | aps | cc | ccm-tlv | lb | lck | link-state-tracking | lm-hli | lm-notif | lm-sdeg | lt | performance-monitoring | syslog | vid | voe ]
no mep <uint> client domain [ evc | lsp | vlan ] flow [ <uint> | all ]

no mep <uint> dm bin ( fd | ifdv ) <2-10>

no mep <uint> dm bin threshold <1-50000>

no mep <uint> dm [ ns | overflow-reset | proprietary | synchronized ]

no mep <uint> lm [ flow-counting ]

no mep <uint> lm [ oam-counting ] [ all | y1731 ]

no mep <uint> lm-avail maintenance

no mep <uint> peer-mep [ <uint> | all ]

no mep <uint> tst [ rx | tx ]

**Parameter**

<uint> The MEP instance number.

**aging-time** Mac address aging time

ais Alarm Indication Signal.

aps Automatic Protection Switching protocol.

cc Continuity Check.

ccm-tlv The CCM TLV enable/disable

client Client flow instance number.

dm Delay Measurement.

lb Loop Back.

lck Locked Signal

**link-state-tracking** Link State Tracking. When LST is enabled in an instance, Local SF or received ‘isDown’ in CCM Interface Status TLV, will bring down the residence port. Only valid in Up-MEP. The CCM rate must be 1 f/s or faster.

lm Loss Measurement.

lm-avail Availability for Loss Measurement.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>im-hli</td>
<td>High Loss Interval for Loss Measurement.</td>
</tr>
<tr>
<td>im-notif</td>
<td>Loss Measurement JSON notifications</td>
</tr>
<tr>
<td>im-sdeg</td>
<td>Signal Degradation for Loss Measurement.</td>
</tr>
<tr>
<td>It</td>
<td>Link Trace.</td>
</tr>
<tr>
<td>peer-mep-id</td>
<td>The peer MEP-ID.</td>
</tr>
<tr>
<td>performance-monitoring</td>
<td>Performance monitoring Data Set collection (MEF35).</td>
</tr>
<tr>
<td>syslog</td>
<td>Enable syslog.</td>
</tr>
<tr>
<td>tst</td>
<td>Test Signal.</td>
</tr>
<tr>
<td>vid</td>
<td></td>
</tr>
<tr>
<td>voe</td>
<td>MEP is VOE based.</td>
</tr>
<tr>
<td>domain</td>
<td>Client flow domain.</td>
</tr>
<tr>
<td>evc</td>
<td>EVC client flow.</td>
</tr>
<tr>
<td>lsp</td>
<td>MPLS-TP LSP client flow.</td>
</tr>
<tr>
<td>vlan</td>
<td>VLAN client flow.</td>
</tr>
<tr>
<td>flow</td>
<td>Client flow instance.</td>
</tr>
<tr>
<td>&lt;uint&gt;</td>
<td>Client flow instance number value.</td>
</tr>
<tr>
<td>all</td>
<td>Delete all client flow instances.</td>
</tr>
<tr>
<td>bin</td>
<td>Delay Measurement Binning.</td>
</tr>
<tr>
<td>ns</td>
<td>Nano Seconds</td>
</tr>
<tr>
<td>overflow-reset</td>
<td>Reset all Delay Measurement results on total delay counter overflow.</td>
</tr>
<tr>
<td>proprietary</td>
<td>Proprietary Delay Measurement.</td>
</tr>
<tr>
<td>synchronized</td>
<td>Near end and far end is real time synchronized.</td>
</tr>
<tr>
<td>fd</td>
<td>the number of FD Measurement Bins.</td>
</tr>
<tr>
<td>ifdv</td>
<td>the number of IFDV Measurement Bins.</td>
</tr>
<tr>
<td>threshold</td>
<td>the threshold for each Delay Measurement Binning.</td>
</tr>
<tr>
<td>&lt;2-10&gt;</td>
<td>the number of FD Measurement Bins.</td>
</tr>
</tbody>
</table>
the threshold for each Delay Measurement Binning.

flow-counting  Loss Measurement is counting service frames per flow - all priority in one.

oam-counting  Loss Measurement is counting OAM frames either as Y1731 or all

all  Loss Measurement is counting all OAM frames as service frames.

y1731  Loss Measurement is counting OAM frames as service frames as described in Y1731.

maintenance  Availability Maintenance indicator.

<UINT>  The peer MEP-ID value.

all  All peer MEP-ID will be deleted.

rx  Receive Test Signal.

tx  Transmit Test Signal.

EXAMPLE

AW-IHT-1271(config)# no mep 1 client domain evc flow all
AW-IHT-1271(config)#
AW-IHT-1271(config)# no mep 1 dm bin fd 2
AW-IHT-1271(config)#

monitor

Set monitor configuration.

SYNTAX

no monitor destination

no monitor source { interface Gigabitethernet <port_type_list> | cpu}

Parameter

Destination

source  The source port(s). That is the ports to be mirrored to the destination port.

cpu  Mirror CPU traffic.
interface   Mirror Interface traffic.
Gigabitethernet   1 Gigabit Ethernet Port
<port_type_list>   Port list in 1/1-12 for Gigabitethernet

EXAMPLE

AW-IHT-1271(config)# no monitor destination
AW-IHT-1271(config)# no monitor source cpu
AW-IHT-1271(config)#

mvr

Multicast VLAN Registration configuration.

SYNTAX

no mvr

no mvr name <word16> channel

no mvr name <word16> frame priority

no mvr name <word16> frame tagged

no mvr name <word16> igmp-address

no mvr name <word16> last-member-query-interval

no mvr name <word16> mode

no mvr vlan <vlan_list>

no mvr vlan <vlan_list> channel

no mvr vlan <vlan_list> frame priority

no mvr vlan <vlan_list> frame tagged

no mvr vlan <vlan_list> igmp-address

no mvr vlan <vlan_list> last-member-query-interval

no mvr vlan <vlan_list> mode [channel | frame | igmp-address | last-member-query-interval]
name MVR multicast name

<word16> MVR multicast VLAN name

channel MVR channel configuration

frame MVR control frame in TX

priority Interface CoS priority

tagged Tagged IGMP/MLD frames will be sent

igmp-address MVR address configuration used in IGMP

last-member-query-interval Last Member Query Interval in tenths of seconds

mode MVR mode of operation

vlan MVR multicast vlan

<vlan_list> MVR multicast VLAN list

EXAMPLE

AW-IHT-1271(config)# no mvr vlan 12 mode
AW-IHT-1271(config)#

ntp

Configure NTP.

SYNTAX

no ntp

no ntp server <1-5>

Parameter

server Configure NTP server

<1-5> index number

EXAMPLE

AW-IHT-1271(config)# no ntp server 2
AW-IHT-1271(config)#
**poe**

Power Over Ethernet.

**SYNTAX**

```plaintext
no poe [ ( management mode ) | ping-check | [ [ profile ] ( id <1-16> ) ] ] | reboot-chip ]
```

**Parameter**

- **management**: POE_MANAGEMENT_MODE_HELP
- **ping-check**: Enable POE Ping Check.
- **profile**: erase poe scheduling profile
- **reboot-chip**: erase all poe reboot scheduling
- **mode**: mode
- **id**: erase poe scheduling profile id
- **<1-16>**: profile id from 1 to 16

**EXAMPLE**

```
AW-IHT-1271(config)# no poe profile id 1
AW-IHT-1271(config)#
```

**port-security**

Enable/disable port security globally.

**SYNTAX**

```plaintext
no port-security
no port-security aging
no port-security aging time
```

**Parameter**

- **aging**: Enable/disable port security aging.
**time**

Time in seconds between check for activity on learned MAC addresses.

**EXAMPLE**

```
AW-IHT-1271(config)# no port-security aging time
AW-IHT-1271(config)#
```

**privilege**

Command privilege parameters

**SYNTAX**

```
no privilege <cword> level <0-15> <line128>
```

**Parameter**

- `<cword>`: Valid words are 'config-vlan' 'configure' 'dhcp-pool' 'exec' 'if-vlan' 'interface' 'ipmc-profile' 'line' 'snmps-host' 'stp-aggr'
- `level`: Set privilege level of command
- `<0-15>`: Privilege level
- `<line128>`: Initial valid words and literals of the command to modify, in 128 characters

**EXAMPLE**

```
AW-IHT-1271(config)# no privilege config-vlan
AW-IHT-1271(config)#
```

**ptp**

Precision time Protocol (1588)

**SYNTAX**

```
no ptp <0-3> [ clk | domain | filter | ho | log | priority1 | priority2 | p2ptransparent | ```
no ptp <0-3> mode [ bcfrontend | boundary | e2etransparent | master | slave ]

no ptp <0-3> servo [ ad | ai | ap | displaystates | phase-mode ]

no ptp <0-3> uni <0-4>

no ptp [ ext | system-time ]

**Parameter**

- **<0-3>** Instance number: 0-3
- **ext** Set the 1PPS and External clock output configuration and vcxo frequency rate adjustment option to default values
- **system-time** Disable synchronization between PTP and System time
- **clk** Set PTP slave clock options, to freerunning
- **domain** Default Clock domain
- **filter** Set PTP clock filter data to default values
- **ho** Reset PTP Servo holdover parameters to default values
- **log** Disable the PTP debug logging
- **mode** Delete PTP clock instance
- **priority1** Default Clock priority 1
- **priority2** Default Clock priority 2
- **servo** Set Servo parameters
- **uni** Clear a Unicast Slave configuration entry
- **bcfrontend** Delete if Boundary clock frontend
- **boundary** Delete if boundary clock
- **e2etransparent** Delete if e2e TC
- **master** Delete if master only
- **p2ptransparent** Delete if p2p TC
- **slave** Delete if slave only
- **ad** Disable 'P' parameter in the servo
ai  Disable 'P' parameter in the servo

ap  Disable 'P' parameter in the servo

displaystates  Enable logging of servo parameters on the console

phase-mode  Disable phase mode in the servo

<0-4>  [0..4] Index in the slave table

**EXAMPLE**

```bash
AW-IHT-1271(config)# no ptp 0 uni 1
AW-IHT-1271(config)#
```

**qos**

Quality of Service

**SYNTAX**

```
no qos map cos-dscp <0-7> dpl 0-1

no qos map [ dscp-classify | dscp-cos | dscp-egress-translation | dscp-ingress-translation ] [ <0-63> | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | be | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va ]

no qos qce 1-256

no qos storm [ broadcast | multicast | unicast ]
```

**Parameter**

- **map**  Global QoS Map/Table
- **qce**  QoS Control Entry
- **storm**  Storm policer
- **cos-dscp**  Map for COS to DSCP
- **dscp-classify**  Map for DSCP classify enable
- **dscp-cos**  Map for DSCP to COS
- **dscp-egress-translation**  Map for DSCP egress translation
<table>
<thead>
<tr>
<th>dscp-ingress-translation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;0~7&gt;</td>
<td>Specific class of service or range</td>
</tr>
<tr>
<td>dpl</td>
<td>Specify drop precedence level</td>
</tr>
<tr>
<td>0~1</td>
<td>Specific drop precedence level or range</td>
</tr>
<tr>
<td>&lt;0~63&gt;</td>
<td>Specific DSCP or range</td>
</tr>
<tr>
<td>af11</td>
<td>Assured Forwarding PHB AF11(DSCP 10)</td>
</tr>
<tr>
<td>af12</td>
<td>Assured Forwarding PHB AF12(DSCP 12)</td>
</tr>
<tr>
<td>af13</td>
<td>Assured Forwarding PHB AF13(DSCP 14)</td>
</tr>
<tr>
<td>af21</td>
<td>Assured Forwarding PHB AF21(DSCP 18)</td>
</tr>
<tr>
<td>af22</td>
<td>Assured Forwarding PHB AF22(DSCP 20)</td>
</tr>
<tr>
<td>af23</td>
<td>Assured Forwarding PHB AF23(DSCP 22)</td>
</tr>
<tr>
<td>af31</td>
<td>Assured Forwarding PHB AF31(DSCP 26)</td>
</tr>
<tr>
<td>af32</td>
<td>Assured Forwarding PHB AF32(DSCP 28)</td>
</tr>
<tr>
<td>af33</td>
<td>Assured Forwarding PHB AF33(DSCP 30)</td>
</tr>
<tr>
<td>af41</td>
<td>Assured Forwarding PHB AF41(DSCP 34)</td>
</tr>
<tr>
<td>af42</td>
<td>Assured Forwarding PHB AF42(DSCP 36)</td>
</tr>
<tr>
<td>af43</td>
<td>Assured Forwarding PHB AF43(DSCP 38)</td>
</tr>
<tr>
<td>be</td>
<td>Default PHB(DSCP 0) for best effort traffic</td>
</tr>
<tr>
<td>cs1</td>
<td>Class Selector PHB CS1 precedence 1(DSCP 8)</td>
</tr>
<tr>
<td>cs2</td>
<td>Class Selector PHB CS2 precedence 2(DSCP 16)</td>
</tr>
<tr>
<td>cs3</td>
<td>Class Selector PHB CS3 precedence 3(DSCP 24)</td>
</tr>
<tr>
<td>cs4</td>
<td>Class Selector PHB CS4 precedence 4(DSCP 32)</td>
</tr>
<tr>
<td>cs5</td>
<td>Class Selector PHB CS5 precedence 5(DSCP 40)</td>
</tr>
<tr>
<td>cs6</td>
<td>Class Selector PHB CS6 precedence 6(DSCP 48)</td>
</tr>
<tr>
<td>cs7</td>
<td>Class Selector PHB CS7 precedence 7(DSCP 56)</td>
</tr>
<tr>
<td>ef</td>
<td>Expedited Forwarding PHB(DSCP 46)</td>
</tr>
</tbody>
</table>
vaVoice Admit PHB(DSCP 44)

1~256QCE ID

broadcastPolice broadcast frames

multicastPolice multicast frames

unicastPolice unicast frames

**EXAMPLE**

```
AW-IHT-1271(config)# no qos storm unicast
AW-IHT-1271(config)#
```

**radius-server**

Configure RADIUS.

**SYNTAX**

```
no radius-server attribute {32 | 4 | 95}

no radius-server deadtime

no radius-server host \{<word1-255>|<ipv4_uccast>|<ipv6_uccast>\} [ auth-port <0-65535> ] [ acct-port <0-65535> ]

no radius-server key

no radius-server retransmit

no radius-server timeout
```

**Parameter**

**Attribute**

- **deadtime** Time to stop using a RADIUS server that doesn't respond
- **host** Specify a RADIUS server
- **key** Set RADIUS encryption key
**retransmit**
Specify the number of retries to active server

**timeout**
Time to wait for a RADIUS server to reply

EXAMPLE

```
AW-IHT-1271(config)# no radius-server attribute 4
AW-IHT-1271(config)# no radius-server deadtime
AW-IHT-1271(config)# no radius-server key
AW-IHT-1271(config)# no radius-server retransmit
AW-IHT-1271(config)# no radius-server timeout
AW-IHT-1271(config)#
```

**rmon**
Remote Monitoring.

**SYNTAX**

```
no rmon alarm <alarm : 1-65535>

no rmon event <event : 1-65535>
```

**Parameter**

- **alarm**
  Configure an RMON alarm
- **event**
  Configure an RMON event
- **<alarm : 1-65535>**
  Alarm entry ID
- **<event : 1-65535>**
  Event entry ID

**EXAMPLE**

```
AW-IHT-1271(config)# no rmon alarm 1000
AW-IHT-1271(config)#
```

**sflow**
Statistics flow.

**SYNTAX**
no sflow agent-ip

no sflow collector-address

no sflow collector-port

no sflow max-datagram-size

no sflow timeout

**Parameter**

**agent-ip**
Sets the agent IP address used as agent-address in UDP datagrams to 127.0.0.1.

**collector-address**
Collector address

**collector-port**
Collector UDP port

**max-datagram-size**
Maximum datagram size.

**timeout**
Receiver timeout measured in seconds. The switch decrements the timeout once per second, and as long as it is non-zero, the receiver receives samples. Once the timeout reaches 0, the receiver and all its configuration is reset to defaults.

**EXAMPLE**

AW-IHT-1271(config)# no sflow agent-ip
AW-IHT-1271(config)# no sflow collector-address
AW-IHT-1271(config)# no sflow collector-port
AW-IHT-1271(config)# no sflow max-datagram-size
AW-IHT-1271(config)# no sflow timeout
AW-IHT-1271(config)#

**snmp-server**

Enable SNMP server.

**SYNTAX**
no snmp-server

no snmp-server access <Groupname : word32> model { v1 | v2c | v3 | any } level { auth | noauth | priv }

no snmp-server community v2c

no snmp-server community v3 <Community : word127>

no snmp-server contact

no snmp-server engined-id local

no snmp-server host <Conf : word32>

no snmp-server location

no snmp-server security-to-group model { v1 | v2c | v3 } name <Securityname : word32>

no snmp-server trap

no snmp-server user <Username : word32> engine-id <Engineid : word10-32>

no snmp-server version

no snmp-server view <Viewname : word32> <Oidsubtree : word255>

Parameter

access access configuration

<Groupname : word32> group name

model security model

v1 v1 security model

v2c v2c security model

v3 v3 security model

any any security model

level security level

auth authNoPriv Security Level

noauth noAuthNoPriv Security Level

priv authPriv Security Level

community Set the SNMP community
contact: Clear the SNMP server's contact string

ingined-id: Set SNMP engine ID

host: Set SNMP host's configurations

location: Clear the SNMP server's location string

security-to-group: security-to-group configuration

trap: Set trap's configurations

user: user who can access SNMP server

version: Set the SNMP server's version

view: MIB view configuration

<Community : word127>: 

local: Set SNMP local engine ID

<ConfName : word32>: Name of the host configuration

model: security model

v1: v1 security model

v2c: v2c security model

v3: v3 security model

name: security user

<SecurityName : word32>: security user name

<Username : word32>: name of user

engine-id: engine ID

<Engineid : word10-32>: engine ID octet string

<Viewname : word32>: MIB view name

<Oidsubtree : word255>: MIB view OID

EXAMPLE
spanning-tree

STP Bridge.

SYNTAX

no spanning-tree edge bpdu-filter

no spanning-tree edge bpdu-guard

no spanning-tree mode

no spanning-tree mst <instance> priority

no spanning-tree mst <instance> vlan

no spanning-tree mst forward-time

no spanning-tree mst max-age

no spanning-tree mst max-hops

no spanning-tree mst name

no spanning-tree recovery interval

no spanning-tree transmit hold-count

Parameter

edge          Edge ports
<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>mode</td>
<td>STP protocol mode</td>
</tr>
<tr>
<td>mst</td>
<td>STP bridge instance</td>
</tr>
<tr>
<td>recovery</td>
<td>The error recovery timeout</td>
</tr>
<tr>
<td>transmit</td>
<td>BPDUs to transmit</td>
</tr>
<tr>
<td>bpdu-filter</td>
<td>Enable BPDU filter (stop BPDU tx/rx)</td>
</tr>
<tr>
<td>bpdu-guard</td>
<td>Enable BPDU guard</td>
</tr>
<tr>
<td>&lt;Instance : 0-7&gt;</td>
<td>instance 0-7 (CIST=0, MST2=1...)</td>
</tr>
<tr>
<td>priority</td>
<td>Priority of the instance</td>
</tr>
<tr>
<td>forward-time</td>
<td>Delay between port states</td>
</tr>
<tr>
<td>max-age</td>
<td>Max bridge age before timeout</td>
</tr>
<tr>
<td>max-hops</td>
<td>MSTP bridge max hop count</td>
</tr>
<tr>
<td>name</td>
<td>Name keyword</td>
</tr>
<tr>
<td>vlan</td>
<td>VLAN keyword</td>
</tr>
<tr>
<td>interval</td>
<td>The interval</td>
</tr>
<tr>
<td>hold-count</td>
<td>Max number of transmit BPDUs per sec</td>
</tr>
</tbody>
</table>

**EXAMPLE**

```
AW-IHT-1271(config)# no spanning-tree edge bpdu-filter
AW-IHT-1271(config)# no spanning-tree mode
AW-IHT-1271(config)# no spanning-tree mst max-age
AW-IHT-1271(config)# no spanning-tree recovery interval
AW-IHT-1271(config)# no spanning-tree transmit hold-count
AW-IHT-1271(config)#
```

**switchalert-management**

SwitchAlert Management configuration
SYNTAX

no switchalert-management port-name interface [ * | GigabitEthernet ] <port_type_list>

Parameter

port-name Interface specific description
interface Select an interface to configure
* All switches or All ports
GigabitEthernet 1 Gigabit Ethernet Port
<port_type_list> Port list for all port types
<port_type_list> Port list in 1/1-12

EXAMPLE

AW-IHT-1271(config)# no switchalert-management port-name interface *
AW-IHT-1271(config)#

switchport

VLAN

SYNTAX

no switchport vlan mapping <1-12> <vlan_list>

Parameter

vlan Add VLAN translation entry into a group.
mapping Group id
<1-12>
<vlan_list>

EXAMPLE
system

Set the system description

SYNTAX

no system [ contact | description | location | name | reboot ]

Parameter

contact Clear the SNMP server's contact string
description Clear the system description string
location Clear the SNMP server's location string
name Clear the SNMP server's system model name string
reboot erase all Switch Reboot scheduling

EXAMPLE

AW-IHT-1271(config)# no switchport vlan mapping 1 12
AW-IHT-1271(config)#

tacacs-server

Configure TACACS+.

SYNTAX

no tacacs-server deadtime
no tacacs-server host <host_name> [ port <port> ]

no tacacs-server key

no tacacs-server timeout

**Parameter**

**deadtime**
Time to stop using a TACACS+ server that doesn't respond

**host**
Specify a TACACS+ server

<Hostname : word1-255>
Host name or IP address

**key**
Set TACACS+ encryption key

**timeout**
Time to wait for a TACACS+ server to reply

**key**
Server specific key (overrides default)

**port**
TCP port for TACACS+ server

**timeout**
Time to wait for this TACACS+ server to reply (overrides default)

<Port : 0-65535>
TCP port number

**EXAMPLE**

AW-IHT-1271(config)# no tacacs-server deadtime
AW-IHT-1271(config)# no tacacs-server host 192.168.1.1 port 10000
AW-IHT-1271(config)# no tacacs-server key
AW-IHT-1271(config)# no tacacs-server timeout
AW-IHT-1271(config)#

**udld**

Disable UDLD configurations on all fiber-optic ports.

**SYNTAX**

no udld [ aggressive | enable ]

**Parameter**

**aggressive**
Disable UDLD aggressive mode on all fiber-optic interfaces.
enable     Disable UDLD on all fiber-optic interfaces.

**EXAMPLE**

```
AW-IHT-1271(config)# no udld enable
AW-IHT-1271(config)#
```

**upnp**

Set UPnP’s configurations.

**SYNTAX**

```
no upnp
no upnp advertising-duration
no upnp ttl
```

**Parameter**

```
advertising-duration        Set advertising duration
ttl                        Set TTL value
```

**EXAMPLE**

```
AW-IHT-1271(config)# no upnp advertising-duration
AW-IHT-1271(config)# no upnp ttl
AW-IHT-1271(config)#
```

**username**

Establish User Name Authentication.

**SYNTAX**

```
no username <Username : word31>
```

**Parameter**

```
<Username : word31>     User name allows letters, numbers and underscores
```
EXAMPLE

AW-IHT-1271(config)# no username admin
AW-IHT-1271(config)#

**vlan**

Vlan commands.

**SYNTAX**

no vlan protocol { { eth2 { <0x600-0xffff> \| arp \| ip \| ipx \| at } } \| { snap { <0x0-0xffffff> \| rfc_1042 \| snap_8021h } <0x0-0xffff> } \| { llc <0x0-0xff> <0x0-0xff> } } group <word16>

no vlan { [ ethertype s-custom-port ] \| <vlan_list> }

**Parameter**

- **protocol**  
  Protocol-based VLAN commands

- **eth2**  
  Ethernet-based VLAN commands

- **<0x600-0xffff>**  
  Ether Type(Range: 0x600 - 0xFFFF)

- **arp**  
  Ether Type is ARP

- **ip**  
  Ether Type is IP

- **ipx**  
  Ether Type is IPX

- **at**  
  Ether Type is AppleTalk

- **snap**  
  SNAP-based VLAN group

- **<0x0-0xffffff>**  
  SNAP OUI (Range 0x000000 - 0xFFFFFFFF)

- **rfc_1042**  
  SNAP OUI is rfc_1042

- **snap_8021h**  
  SNAP OUI is 8021h

- **<0x0-0xffff>**  
  PID (Range: 0x0 - 0xFFFF)

- **llc**  
  LLC-based VLAN group

- **<0x0-0xff>**  
  DSAP (Range: 0x00 - 0xFF)

- **<0x0-0xff>**  
  SSAP (Range: 0x00 - 0xFF)
group Protocol-based VLAN group commands

<word16> Group Name (Range: 1 - 16 characters)

<vlan_list> Vlan list

ethertype

s-custom-port

EXAMPLE

AW-IHT-1271(config)# no vlan 3
AW-IHT-1271(config)# no vlan ethertype s-custom-port
AW-IHT-1271(config)#

voice

Voice appliance attributes.

SYNTAX

no voice vlan

no voice vlan aging-time

no voice vlan class

no voice vlan oui <oui>

no voice vlan vid

Parameter

vlan Vlan for voice traffic

aging-time Set secure learning aging time

class Set traffic class

oui OUI configuration

<oui> Traffic class value

vid Set VLAN ID
**EXAMPLE**

AW-IHT-1271(config)# no voice vlan vid
AW-IHT-1271(config)# no voice vlan class
AW-IHT-1271(config)# no voice vlan aging-time
AW-IHT-1271(config)#

**web**

Web.

**SYNTAX**

```no web privilege group [ <group_name> ] level```

**Parameter**

- **privilege**: Web privilege
- **group**: Web privilege group
- **<CWORD>**: Valid words are 'Aggregation' 'Debug' 'Dhcp_Client' 'Diagnostics'
  - 'EEE' 'GARP' 'GVRP' 'Green_Ethernet' 'IP2' 'IPMC_Snooping' 'LACP' 'LLDP'
  - 'Loop_Protect' 'MAC_Table' 'MEP' 'MVR' 'Maintenance'
  - 'Mirroring' 'NTP' 'POE' 'Ports' 'Private_VLANs' 'QoS'
  - 'RPC' 'Security' 'Spanning_Tree' 'System' 'Timer'
  - 'UPnP' 'VCL' 'VLANs' 'Voice_VLAN' 'XRP'
  - 'sFlow'

- **level**: Web privilege group level

**EXAMPLE**

AW-IHT-1271(config)# no web privilege group LACP level
AW-IHT-1271(config)#

**ntp**

Configure NTP.
SYNTAX

ntp

ntp server <1-5> ip-address <hostname>

ntp server <1-5> ip-address <ipv4_ucast>

ntp server <1-5> ip-address <ipv6_ucast>

Parameter

server Configure NTP server

<1-5> index number

ip-address ip address

<ipv4_ucast> ipv4 address

<ipv6_ucast> ipv6 address

<hostname> domain name

EXAMPLE

AW-IHT-1271(config)# ntp server 3 ip-address 192.168.1.1
AW-IHT-1271(config)#

poe

Configure poe.

SYNTAX

poe management mode { class-consumption | class-reserved-power | allocation-consumption |
allocation-reserved-power | lldp-consumption | lldp-reserved-power }

poe ping-check { enable | disable }

poe select-all <port_list>

Parameter

management Use management mode to configure PoE power management method.

select-all Configure PoE Schedule mode.

Ping-check Enable/Disable POE Ping Check.

Mode PoE Power Management Mode

allocation-consumption Max. port power determined by allocated, and power is managed according to power
consumption.

**allocation-reserved-power**  Max. port power determined by allocated, and power is managed according to reserved power.

**class-consumption**  Max. port power determined by class, and power is managed according to power consumption.

**class-reserved-power**  Max. port power determined by class, and power is managed according to reserved power.

**lldp-consumption**  Max. port power determined by LLDP Media protocol, and power is managed according to power consumption.

**lldp-reserved-power**  Max. port power determined by LLDP Media protocol, and power is managed according to reserved power.

**EXAMPLE**

```
AW-IHT-1271(config)# poe management mode allocation-consumption
AW-IHT-1271(config)# poe management mode allocation-reserved-power
AW-IHT-1271(config)# poe management mode class-consumption
AW-IHT-1271(config)# poe management mode class-reserved-power
AW-IHT-1271(config)# poe management mode lldp-consumption
AW-IHT-1271(config)# poe management mode lldp-reserved-power
AW-IHT-1271(config)# Poe ping-check enable
AW-IHT-1271(config)# Poe select-all 3
AW-IHT-1271(config)#
```

**port-security**

Enable/disable port security globally.

**SYNTAX**

```
port-security
port-security aging

port-security aging time <v_10_to_10000000>
```

**Parameter**

- **aging**  Time in seconds between check for activity on learned MAC addresses.
- **time**  Time in seconds between check for activity on learned MAC addresses.
EXAMPLE

AW-IHT-1271(config)# port-security agin time 1000
AW-IHT-1271(config)#

privilege

Command privilege parameters.

SYNTAX

```
privilege { exec | configure | config-vlan | line | interface | if-vlan | ipmc-profile | snmps-host | stp-aggr | dhcp-pool
| rfc2544-profile } level <privilege> <cmd>
```

Parameter

- **config-vlan**: VLAN Configuration Mode
- **configure**: Global configuration mode
- **dhcp-pool**: DHCP Pool Configuration Mode
- **exec**: Exec mode
- **if-vlan**: VLAN Interface Mode
- **interface**: Port List Interface Mode
- **ipmc-profile**: IPMC Profile Mode
- **line**: Line configuration mode
- **rfc2544-profile**: RFC2544 Profile Mode
- **snmps-host**: SNMP Server Host Mode
- **stp-aggr**: STP Aggregation Mode
- **level**: Set privilege level of command
- **<LINE>**: Initial valid words and literals of the command to modify, in 128 char's

EXAMPLE
**ptp**

Precision time Protocol (1588)

**SYNTAX**

```plaintext
ptp <0-3> clk sync <1-1000> ap <1-40>

ptp <0-3> domain <0-127>

ptp <0-3> filter { [ delay <0-6> ] [ dist <1-10> ] [ filter-type (basic | ms-pdv) ] [ period <1-1000> ] }

ptp <0-3> ho [ adj-threshold <1-1000> ] [ filter <10-86400> ]

ptp <0-3> log <1-4>

ptp <0-3> mode { bcfrontend | boundary | e2etransparent | master | p2ptransparent | slave } { [ clock-domain 0 ] [ dscp <0-63> ] [ ethernet ] [ ethernet-mixed ] [ id <clock_id> ] [ ip4mixed ] [ ip4multi ] [ ip4unicast ] [ mep <1-100> ] [ oam ] [ onepps ] [ onestep ] [ oneway ] [ profile ( g8265.1 | g9275.1 | ieee1588 ) ] [ twostep ] [ twoway ] [ vid <vlan_id> ] }

ptp <0-3> ( priority1 | priority2 ) <0-255> |

ptp <0-3> servo ( ad <1-10000> ) | ( ai <1-10000> ) | ( ap <1-1000> ) | displaystates | phase-mode

ptp <0-3> slave-cfg [ offset-fail | offset-ok | stable-offset ]

ptp <0-3> time-property { freq-traceable | leap-59 | leap-61 | ptptimescale | time-source | time-traceable | utc-offset | valid }

ptp <0-3> uni <0-4> [ <ipv4_ucast> | ( duration <10-1000> < ipv4_ucast> ) ]

ptp ext [ [ ext <1-25000000> ] [ input ( ext | ltc-freq | ltc-phase | osc | sysnce-dpll | vcxo ) ] [ ltc-freq ( ext | input | out-in | output ) ] [ ltc-phase ( ext | input | out-in | output ) ] [ osc ( ext | input | out-in | output ) ] [ out-in ( ext | ltc-freq | ltc-phase | osc | sysnce-dpll | vcxo ) ] [ sync-dpll ( ext | input | out-in | output ) ] [ vcxo ( ext | input | out-in | output ) ] ]

ptp system-time ( get | set )

ptp tc-internal [ mode <0-3> ]
```
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>config-vlan</td>
<td>VLAN Configuration Mode</td>
</tr>
<tr>
<td>configure</td>
<td>Global configuration mode</td>
</tr>
<tr>
<td>&lt;0-3&gt;</td>
<td>Clock instance [0-3]</td>
</tr>
<tr>
<td>ext</td>
<td>Update the 1PPS and External clock output configuration and vcxo frequency rate adjustment option</td>
</tr>
<tr>
<td>system-time</td>
<td>Enable synchronization between PTP time and system time</td>
</tr>
<tr>
<td>tc-internal</td>
<td>Define the internal mode used in TC's</td>
</tr>
<tr>
<td>clk</td>
<td>Set PTP slave clock options</td>
</tr>
<tr>
<td>domain</td>
<td>Clock domain for PTP</td>
</tr>
<tr>
<td>filter</td>
<td>Set filter parameters</td>
</tr>
<tr>
<td>ho</td>
<td>Set PTP Servo holdover parameters</td>
</tr>
<tr>
<td>log</td>
<td>Set the PTP debug mode</td>
</tr>
<tr>
<td>mode</td>
<td>Enable a PTP instance</td>
</tr>
<tr>
<td>priority1</td>
<td>Clock priority 1 for PTP BMC algorithm (0 is highest priority)</td>
</tr>
<tr>
<td>priority2</td>
<td>Clock priority 2 for PTP BMC algorithm (0 is highest priority)</td>
</tr>
<tr>
<td>servo</td>
<td>Set Servo parameters</td>
</tr>
<tr>
<td>slave-cfg</td>
<td>Set PTP clock Slave Configuration</td>
</tr>
<tr>
<td>time-property</td>
<td>Set time properties</td>
</tr>
<tr>
<td>uni</td>
<td>Set a Unicast Slave configuration entry</td>
</tr>
<tr>
<td>sync</td>
<td>Set PTP slave clock options to 'clock is SyncE locked'</td>
</tr>
<tr>
<td>&lt;1-1000&gt;</td>
<td>[1..1000] Threshold in ns for offsetFromMaster defines when the offset increment/decrement mode is entered</td>
</tr>
<tr>
<td>ap</td>
<td>Set the adjustment factor</td>
</tr>
<tr>
<td>&lt;1-40&gt;</td>
<td>[1..40] The offset increment/decrement adjustment factor</td>
</tr>
<tr>
<td>&lt;0-127&gt;</td>
<td>PTP domain: range = 0-127</td>
</tr>
</tbody>
</table>
delay  Set delay filter parameter

dist   Set offset filter dist parameter

filter-type Define offset filter type

period Set offset filter period parameter

<0-6>  Log2 of timeconstant in delay lowpass filter, valid range: 1-6. Setting the value to 0
        means use the same filter function as for the offset measurement, in this case the
        delay filter uses the 'period' and 'dist' parameters.

<1-10> Distance between servo update n number of measurement periods,
        valid range: 1-10

basic Basic offset filter

ms-pdv MS-PDV

<1-10000> Measurement period in number of sync events, valid range: 1-10000

adj-threshold Set adjustment threshold

filter Set stabilization period

<1-1000>  [1..1000]  max frequency adjustment change within the holdover stabilization period
           (in units of 0.1 ppb)

filter Set stabilization period

<10-86400> [10..86400] Holdover filter and stabilization period

<1-4>    1-4 Debug log mode, 1 => log offset from master, 2 => log sync packets,
          3 => log Delay_req, 4 => log both

bcfrontend Boundary Clock front end

boundary Ordinary / Boundary clock

e2etransparent End to end transparent clock

master Master only clock

p2ptransparent Peer to peer transparent clock

slave Slave only clock
<table>
<thead>
<tr>
<th><strong>clock-domain</strong></th>
<th>Define clock domain used by this instance. Instances with different clock domain can have different time.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>dscp</strong></td>
<td>Define DSCP field used in IPv4 encapsulation</td>
</tr>
<tr>
<td><strong>ethernet</strong></td>
<td>Ethernet protocol encapsulation</td>
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<tr>
<td><strong>ethernet-mixed</strong></td>
<td>Ethernet protocol encapsulation using mix of unicast and multicast</td>
</tr>
<tr>
<td><strong>id</strong></td>
<td>define PTP clock instance identifier</td>
</tr>
<tr>
<td><strong>ip4mixed</strong></td>
<td>IPv4 mixed multicast/unicast protocol encapsulation</td>
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<tr>
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<td>IPv4 unicast protocol encapsulation</td>
</tr>
<tr>
<td><strong>mep</strong></td>
<td>Define MEP id used in OAM based PTP</td>
</tr>
<tr>
<td><strong>oam</strong></td>
<td>OAM encapsulation (only used in Serval based Distributed TC)</td>
</tr>
<tr>
<td><strong>onepps</strong></td>
<td>1PPS master slave synchronization (only used with Gen2 1588 PHY's)</td>
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<td><strong>onestep</strong></td>
<td>One-step mode</td>
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<tr>
<td><strong>oneway</strong></td>
<td>Oneway slave mode (no Delay_req)</td>
</tr>
<tr>
<td><strong>profile</strong></td>
<td>Indication that clock has an associated profile</td>
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<tr>
<td><strong>twostep</strong></td>
<td>Two-step mode</td>
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<tr>
<td><strong>twoway</strong></td>
<td>Twoway slave mode</td>
</tr>
<tr>
<td><strong>vid</strong></td>
<td>define VLAN ID</td>
</tr>
<tr>
<td><strong>0</strong></td>
<td>Clock domain used. The Clock domain may be HW based or SW based. Jaguar2 has 3 hw clock domains, other switches have 1 hw clock domain.</td>
</tr>
<tr>
<td><strong>&lt;0-63&gt;</strong></td>
<td>DSCP field value used in IPv4 encapsulation</td>
</tr>
<tr>
<td><strong>&lt;clock_id&gt;</strong></td>
<td>PTP clock instance identifier (8 bytes)</td>
</tr>
<tr>
<td><strong>&lt;1-100&gt;</strong></td>
<td>MEP instance number used if the OAM protocol option is used</td>
</tr>
<tr>
<td><strong>g8265.1</strong></td>
<td>G8265.1 profile</td>
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<tr>
<td><strong>g8275.1</strong></td>
<td>G8275.1 profile</td>
</tr>
<tr>
<td><strong>ieee1588</strong></td>
<td>IEEE 1588 profile</td>
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<tr>
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<td>Description</td>
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<td>--------------------</td>
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<td>&lt;vlan_id&gt;</td>
<td>VLAN id</td>
</tr>
<tr>
<td>&lt;0-255&gt;</td>
<td>PTP clock priority1: range = 0-255</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>ad</td>
<td>Set 'D' parameter in the servo</td>
</tr>
<tr>
<td>ai</td>
<td>Set 'I' parameter in the servo</td>
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<td>ap</td>
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</tr>
<tr>
<td>displaystates</td>
<td>Enable logging of servo parameters on the console</td>
</tr>
<tr>
<td>phase-mode</td>
<td>Enable phase mode in the servo</td>
</tr>
<tr>
<td>&lt;1-10000&gt;</td>
<td>[1..10000] 'D' component in PID servo regulator</td>
</tr>
<tr>
<td>&lt;1-10000&gt;</td>
<td>[1..10000] 'I' component in PID servo regulator.</td>
</tr>
<tr>
<td>&lt;1-1000&gt;</td>
<td>[1..1000] 'P' component in PID servo regulator</td>
</tr>
<tr>
<td>offset-fail</td>
<td>set the offset-fail threshold</td>
</tr>
<tr>
<td>offset-ok</td>
<td>set the offset-ok threshold</td>
</tr>
<tr>
<td>stable-offset</td>
<td>set the stable-offset threshold</td>
</tr>
<tr>
<td>freq-traceable</td>
<td>frequency is traceable</td>
</tr>
<tr>
<td>leap-59</td>
<td>leap59 in current day</td>
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<tr>
<td>leap-61</td>
<td>leap61 in current day</td>
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<tr>
<td>ptptimescale</td>
<td>timing is a PTP time scale</td>
</tr>
<tr>
<td>time-source</td>
<td>set timesource</td>
</tr>
<tr>
<td>time-traceable</td>
<td>timing is traceable</td>
</tr>
<tr>
<td>utc-offset</td>
<td>set utc offset</td>
</tr>
<tr>
<td>valid</td>
<td>UTC offset is valid</td>
</tr>
<tr>
<td>&lt;0-4&gt;</td>
<td>[0..4] Index in the slave table</td>
</tr>
<tr>
<td>&lt;ipv4_ucast&gt;</td>
<td>IPv4 address of requested master clock</td>
</tr>
<tr>
<td>duration</td>
<td>Set the Duration parameter</td>
</tr>
<tr>
<td>&lt;10-1000&gt;</td>
<td>Duration [10..1000]. Number of seconds for which the Announce/Sync messages</td>
</tr>
</tbody>
</table>
are requested

**ext**  Enable external clock frequency output

**input**  Enable 1PPS input

**ltc-freq**  Select Local Time Counter (LTC) frequency control

**ltc-phase**  Select Local Time Counter (LTC) phase control (assumes that the frequency is locked by means of SyncE)

**osc**  Select an oscillator independent of SyncE for frequency control, if supported by the HW

**out-in**  Enable 1PPS output and input (Jaguar1 only)

**output**  Enable 1PPS output

**synce-dpll**  Select SyncE DPLL frequency control, if allowed by SyncE

**vcxo**  Enable VCXO frequency control (same as synce-dpll, kept here for backwards compatibility)

**<1-25000000>**  \([1..25.000.000]\) External Clock output frequency in Hz

**get**  Get (update) the PTP time from the system time

**set**  Set (update) the system time from the PTP time

**mode**  Set mode

**<0-3>**  mode \([0-3]\) (0 = MODE_30BIT, 1 = MODE_32BIT, 2 = MODE_44BIT, 3 = MODE_48BIT)

---

**EXAMPLE**

```
AW-IHT-1271(config)# ptp 1 clk sync 1 ap 1
AW-IHT-1271(config)#
AW-IHT-1271(config)# ptp 1 ho adj-threshold 1 filter 19
AW-IHT-1271(config)#
AW-IHT-1271(config)# ptp 1 log 2
AW-IHT-1271(config)#
```
**qos**

### Table: configure – qos Commands

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<th>Function</th>
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<tr>
<td>qce</td>
<td>QoS Control Entry</td>
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<tr>
<td>storm</td>
<td>Storm policer</td>
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</tbody>
</table>

**map**

Global QoS Map/Table.

**SYNTAX**

```plaintext
qos map cos-dscp <0~7> dpl <dpl : 0~1> dscp { <DscpNum : 0-63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } }

qos map dscp-classify { <dscpNum : 0~63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } }

qos map dscp-cos { <dscpNum : 0~63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } } cos <Cos : 0~7> dpl <dpl>

qos map dscp-egress-translation { <DscpNum : 0~63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } } <Dpl : 0~1> to { <Dscpnum : 0-63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } }

qos map dscp-ingress-translation { <DscpNum : 0~63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } } to { <DscpNum : 0-63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } }
```

**Parameter**

- **cos-dscp**: Map for cos to dscp
- **dscp-classify**: Map for dscp classify enable
- **dscp-cos**: Map for dscp to cos
- **dscp-egress-translation**: Map for dscp egress translation
- **dscp-ingress-translation**: Map for dscp ingress translation
dpl

Specify drop precedence level

<\text{Dpl} : 0\text{-}1>

Specific drop precedence level or range

dscp

Specify DSCP

<\text{DscpNum} : 0\text{-}63>

Specific DSCP

cos

Specify class of QoS

<\text{Cos} : 0\text{-}7>

Specific class of QoS

\text{af11}

Assured Forwarding PHB AF11(DSCP 10)

\text{af12}

Assured Forwarding PHB AF12(DSCP 12)

\text{af13}

Assured Forwarding PHB AF13(DSCP 14)

\text{af21}

Assured Forwarding PHB AF21(DSCP 18)

\text{af22}

Assured Forwarding PHB AF22(DSCP 20)

\text{af23}

Assured Forwarding PHB AF23(DSCP 22)

\text{af31}

Assured Forwarding PHB AF31(DSCP 26)

\text{af32}

Assured Forwarding PHB AF32(DSCP 28)

\text{af33}

Assured Forwarding PHB AF33(DSCP 30)

\text{af41}

Assured Forwarding PHB AF41(DSCP 34)

\text{af42}

Assured Forwarding PHB AF42(DSCP 36)

\text{af43}

Assured Forwarding PHB AF43(DSCP 38)

\text{be}

Default PHB(DSCP 0) for best effort traffic

\text{cs1}

Class Selector PHB CS1 precedence 1(DSCP 8)

\text{cs2}

Class Selector PHB CS2 precedence 2(DSCP 16)

\text{cs3}

Class Selector PHB CS3 precedence 3(DSCP 24)

\text{cs4}

Class Selector PHB CS4 precedence 4(DSCP 32)

\text{cs5}

Class Selector PHB CS5 precedence 5(DSCP 40)

\text{cs6}

Class Selector PHB CS6 precedence 6(DSCP 48)

\text{cs7}

Class Selector PHB CS7 precedence 7(DSCP 56)
**EXAMPLE**

```
AW-IHT-1271(config)# qos map cos-dscp 5 dpl 1 dscp 20
AW-IHT-1271(config)#
```

---

**qce**

QoS Control Entry.

**SYNTAX**

```
qos qce [ [ update ] ] <Id : 1-256> [ [ next <Id : 1-256> ] ] [ last ] [ ingress interface *|Gigabitethernet <PORT_LIST> ] [ tag { tagged | untagged | any } ] [ vid { <vlan_list> | any } ] [ pcp { <pcp> | any } ] [ dei { <Dpl : 0-1> | any } ] [ smac { <mac_addr> | <oui> | any } ] [ dmac-type { unicast | multicast | broadcast | any } ] [ frametype { any | { etype [ [ <0x600-0x7ff,0x801-0x86dc,0x86de-0xffff> | any } ] | [ llc [ dsap { <0-0xff> | any } ] [ ssap { <0-0xff> | any } ] [ control { <0-0xff> | any } ] ] [ snap [ [ <0-0xffff> | any } ] [ ipv4 [ proto { <0-255> | tcp | udp | any } ] [ sip { <ipv4_subnet> | any } ] [ dscp { <0-63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } | any } ] [ frag { yes | no | any } ] [ sport { <0-65535> | any } ] [ dport { <0-65535> | any } ] ] [ ipv6 [ proto { <0-255> | tcp | udp | any } ] [ sip { <ipv6_subnet> | any } ] [ dscp { <0-63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } | any } ] [ sport { <0-65535> | any } ] [ dport { <0-65535> | any } ] ] [ action { [ cos { <0-7> | default } ] [ dpl { <0-1> | default } ] [ dscp { <0-63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } | default } ] ]
```

**Parameter**

- `<Id : 1-256>` QCE ID
- `refresh` Refresh QCE tables in hardware
- `update` Update an existing QCE
- `action` Specify action
- `dei` Specify DEI (Drop Eligible Indicator)
dmac-type Specify DMAC type
frametype Specify frame type
ingress Ingress interfaces
last Place QCE at the end
next Place QCE before the next QCE ID
pcp Specify PCP (Priority Code Point)
smac Specify SMAC. If 'qos qce dmac-dip' is set, this parameter specifies the DMAC
tag Specify tag options
vid Specify VLAN ID
cos Specify class of service
dpl Specify drop precedence level
dscp Specify DSCP
cos Specify class of service
<Cos : 0-7> Specific class of service
default Keep default class of service
<Dpl : 0-1> Specific drop precedence level
default Keep default drop precedence level
<Dscp : 0-63> Specific DSCP
af11 Assured Forwarding PHB AF11(DSCP 10)
af12 Assured Forwarding PHB AF12(DSCP 12)
af13 Assured Forwarding PHB AF13(DSCP 14)
af21 Assured Forwarding PHB AF21(DSCP 18)
af22 Assured Forwarding PHB AF22(DSCP 20)
af23 Assured Forwarding PHB AF23(DSCP 22)
af31 Assured Forwarding PHB AF31(DSCP 26)
af32 Assured Forwarding PHB AF32(DSCP 28)
af33 Assured Forwarding PHB AF33(DSCP 30)
af41 Assured Forwarding PHB AF41(DSCP 34)
af42 Assured Forwarding PHB AF42(DSCP 36)
af43 Assured Forwarding PHB AF43(DSCP 38)
be Default PHB(DSCP 0) for best effort traffic
cs1 Class Selector PHB CS1 precedence 1(DSCP 8)
cs2 Class Selector PHB CS2 precedence 2(DSCP 16)
cs3 Class Selector PHB CS3 precedence 3(DSCP 24)
cs4 Class Selector PHB CS4 precedence 4(DSCP 32)
cs5 Class Selector PHB CS5 precedence 5(DSCP 40)
cs6 Class Selector PHB CS6 precedence 6(DSCP 48)
cs7 Class Selector PHB CS7 precedence 7(DSCP 56)
default Keep default DSCP
ef Expedited Forwarding PHB(DSCP 46)
va Voice Admit PHB(DSCP 44)
any Any
broadcast Broadcast
multicast Multicast
unicast Unicast
etype Ethernet frames
ipv4 IPv4 frames
ipv6 IPv6 frames
llc LLC frames
snap SNAP frames

<Etype : 0x600-0x7ff,0x801-0x86dc,0x86de-0xffff> Specific EtherType

interface Interfaces
<Next : 1-256> The next QCE ID

<Pcp : pcp> Specific PCP (0-7) or range (0-1, 2-3, 4-5, 6-7, 0-3 or 4-7)

<Smac : mac_addr> Specific SMAC (XX-XX-XX-XX-XX)

tagged Tagged frames only

untagged Untagges frames only

<Vid : vlan_list> Specific VLAN ID or range

interface Interfaces

Gigabitethernet 1 Gigabit Ethernet Port

<PORT_LIST> Port list in 1/1-12 for Gigabitethernet

**EXAMPLE**

AW-IHT-1271(config)# qos qce 100 vid any
AW-IHT-1271(config)#

---

**storm**

Storm policer.

**SYNTAX**

```bash
qos storm { unicast | multicast | broadcast } <Rate : 1,2,4,8,16,32,64,128,256,512,1024> [ kfps ]
```

**Parameter**

- **broadcast** Police broadcast frames
- **multicast** Police multicast frames
- **unicast** Police unicast frames

```bash
<Rate : 1,2,4,8,16,32,64,128,256,512,1024> Policer rate (default fps)
```

- **kfps** Rate is kfps

**EXAMPLE**

AW-IHT-1271(config)# qos storm broadcast 256 kfps
AW-IHT-1271(config)#
Configure RADIUS.

**SYNTAX**

radius-server attribute 32 \(<line1\text{-}255>\)

radius-server attribute 4 \(<ipv4\_ucast>\)

radius-server attribute 95 \(<ipv6\_ucast>\)

radius-server deadtime \(<1\text{-}1440>\)

radius-server host \{ <word1\text{-}255> | <ipv4\_ucast> | <ipv6\_ucast> \} [ auth-port \(<0\text{-}65535>\) ] [ acct-port \(<0\text{-}65535>\) ] [ timeout \(<1\text{-}1000>\) ] [ retransmit \(<1\text{-}1000>\) ] [ key \(<line1\text{-}63>\) ]

radius-server key \(<line1\text{-}63>\)

radius-server retransmit \(<1\text{-}1000>\)

radius-server timeout \(<1\text{-}1000>\)

**Parameter**

**Attribute**

deadtime Time to stop using a RADIUS server that doesn't respond

host Specify a RADIUS server

key Set RADIUS encryption key

retransmit Specify the number of retries to active server

timeout Time to wait for a RADIUS server to reply

\(<\text{Minutes : 1\text{-}1440}>\) Time in minutes

\(<\text{Host4 : ipv4\_ucast}>\) IPv4 address

\(<\text{Host6 : ipv6\_ucast}>\) IPv6 address

\(<\text{HostName : word1\text{-}255}>\) Hostname

acct-port UDP port for RADIUS accounting server
auth-port  UDP port for RADIUS authentication server

key  Server specific key (overrides default)

retransmit  Specify the number of retries to active server (overrides default)

timeout  Time to wait for this RADIUS server to reply (overrides default)

<AuthPort : 0-65535>  UDP port number

<Seconds : 1-1000>  Wait time in seconds

<Key : line1-63>  The shared key

<1-1000>  Number of retries for a transaction

EXAMPLE

AW-IHT-1271(config)# radius-server host device key 12
AW-IHT-1271(config)#

**rapid-ring**

Set Rapid Ring's configurations

**SYNTAX**

```
r rapid-ring entry <uint8> role ( disabled | master | member | rapid-chain ) port1 GigabitEthernet <port_type_id>
port2 GigabitEthernet <port_type_id>
```

**Parameter**

`entry`  Set entry index

`<uint8>`  index

`role`  Set role value

`disabled`  role value disabled

`master`  role value master

`member`  role value member

`rapid-chain`  role value rapid-chain

`port1`  Set port1
GigabitEthernet 1 Gigabit Ethernet Port

<port_type_id> Port ID in 1/1-12

port2 Set port2

**EXAMPLE**

```plaintext
AW-IHT-1271(config)# ring-to-ring role active port GigabitEthernet 1/3
port2 GigabitEthernet 1/1
AW-IHT-1271(config)#
```

**ring-to-ring**

Set Ring to Ring's configurations

**SYNTAX**

```plaintext
ring-to-ring role ( active | backup | disabled ) port GigabitEthernet <port_type_id>
```

**Parameter**

- **role** Set role value
  - **active** role value active
  - **backup** role value backup
  - **disabled** role value disabled
- **port** Set port
- **GigabitEthernet** 1 Gigabit Ethernet Port
- **<port_type_id>** Port ID in 1/1-12

**EXAMPLE**

```plaintext
AW-IHT-1271(config)# ring-to-ring role active port GigabitEthernet 1/3
AW-IHT-1271(config)#
```

**rmon**
Remote Monitoring.

**SYNTAX**

```
rmon alarm <1-65535> <WORD> <1-2147483647> { absolute | delta } rising-threshold <2147483648-2147483647> [ <0-65535> ] falling-threshold <2147483648-2147483647> [ <0-65535> ] { [ rising | falling | both ] }
```

```
rmon alarm <1-65535> { ifInOctets | ifInUcastPkts | ifInNUcastPkts | ifInDiscards | ifInErrors | ifInUnknownProtos | ifOutOctets | ifOutUcastPkts | ifOutNUcastPkts | ifOutDiscards | ifOutErrors } <uint> <1-2147483647> { absolute | delta } rising-threshold <2147483648-2147483647> [ <0-65535> ] falling-threshold <2147483648-2147483647> [ <0-65535> ] { [ rising | falling | both ] }
```

```
rmon event <1-65535> [ log ] [ trap <word127> ] { [ description <line127> ] }
```

**Parameter**

- **alarm**
  - Configure an RMON alarm
- **event**
  - Configure an RMON event
- **<1-65535>**
  - Alarm entry ID
- **<WORD>**
  - MIB object to monitor
- **<1-2147483647>**
  - Sample interval
- **absolute**
  - Test each sample directly
- **delta**
  - Test delta between samples
- **rising-threshold**
  - Configure the rising threshold
- **<2147483648-2147483647>**
  - rising threshold value
- **<0-65535>**
  - Event to fire on rising threshold crossing
- **falling-threshold**
  - Configure the falling threshold
- **<2147483648-2147483647>**
  - falling threshold value
- **rising**
  - Trigger alarm when the first value is larger than the rising threshold
- **falling**
  - Trigger alarm when the first value is less than the falling threshold
- **both**
  - Trigger alarm when the first value is larger than the rising threshold or less than the falling threshold (default)
ifInOctets  The total number of octets received on the interface, including framing characters

ifInUcastPkts  The number of uni-cast packets delivered to a higher-layer protocol

ifInNUcastPkts  The number of broad-cast and multi-cast packets delivered to a higher-layer protocol

ifInDiscards  The number of inbound packets that are discarded even though the packets are normal

ifInErrors  The number of inbound packets that contained errors preventing them from being deliverable to a higher-layer protocol

ifInUnknownProtos  The number of the inbound packets that were discarded because of the unknown or un-support protocol

ifOutOctets  The number of octets transmitted out of the interface, including framing characters

ifOutUcastPkts  The number of uni-cast packets that request to transmit

ifOutNUcastPkts  The number of broad-cast and multi-cast packets that request to transmit

ifOutDiscards  The number of outbound packets that are discarded event the packets is normal

ifOutErrors  The number of outbound packets that could not be transmitted because of errors

<uint>  ifIndex

<1-2147483647>  Sample interval

absolute  Test each sample directly

delta  Test delta between samples

rising-threshold  Configure the rising threshold

EXAMPLE

AW-IHT-1271 (config)# rmon alarm 10000 ifInErrors 10 9999 absolute rising-threshold 0 falling-threshold 0 both

AW-IHT-1271 (config)#

sflow

Statistics flow

SYNTAX

sflow agent-ip { ipv4 <ipv4_addr> | ipv6 <ipv6_addr> }
sflow collector-address { <ipv4_addr> | <ipv6_addr> }

sflow collector-port <1-65535>

sflow max-datatype-size [ receiver <range_list> ] <200-1468>

sflow timeout [ receiver <range_list> ] <0-2147483647>

**Parameter**

agent-ip The agent IP address used as agent-address in UDP datagrams. Defaults to IPv4 loopback address.

ipv4 address

ipv6 address

ipv6 address

ipv6 address

Collector address

Collector address

Collector UDP port

Port Number

Maximum datagram size.

Bytes

Receiver timeout measured in seconds. The switch decrements the timeout once per second, and as long as it is non-zero, the receiver receives samples. Once the timeout reaches 0, the receiver and all its configuration is reset to defaults.

Bytes

Number in seconds

**EXAMPLE**

```bash
AW-IHT-1271(config)# sflow agent-ip ipv4 192.168.1.2
AW-IHT-1271(config)# sflow collector-port 3
AW-IHT-1271(config)# sflow max-datatype-size 333
AW-IHT-1271(config)# sflow timeout 3333
AW-IHT-1271(config)#
```
smtp

Set email information

SYNTAX

smtp delete mailaddress <1-6>

smtp delete [ returnpath | sender | server | username ]

smtp mailaddress <1-6> <word47>

smtp ( returnpath | sender | server ) <word47>

smtp username <word31> <word31>

Parameter

delete Delete command

mailaddress Configure email address

returnpath Configure email returnpath

sender Configure email sender

server Configure email server

username Configure email user name

mailaddress Delete email address

returnpath Delete returnpath

sender Delete sender

server Delete email server

username Delete username and password

<1-6> Email address index

<word47> Up to 47 characters describing mail address

<word47> Up to 47 characters describing returnpath

<word47> Up to 47 characters describing sender

<word47> Up to 47 characters describing email server

<word31> Up to 47 characters describing user name
Configure email password

EXAMPLE

AW-IHT-1271(config)# smtp delete mailaddress 1
AW-IHT-1271(config)# smtp delete returnpath
AW-IHT-1271(config)#
**snmp-server**

Set SNMP server's configurations

**SYNTAX**

```
snmp-server
```

**Table: configure –snmp-server Commands**

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<th>Function</th>
</tr>
</thead>
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<td>access configuration</td>
</tr>
<tr>
<td>community</td>
<td>Set the SNMP community</td>
</tr>
<tr>
<td>contact</td>
<td>Set the SNMP server's contact string</td>
</tr>
<tr>
<td>engine-id</td>
<td>Set SNMP engine ID</td>
</tr>
<tr>
<td>host</td>
<td>Set SNMP host's configurations</td>
</tr>
<tr>
<td>location</td>
<td>Set the SNMP server's location string</td>
</tr>
<tr>
<td>security-to-group</td>
<td>security-to-group configuration</td>
</tr>
<tr>
<td>trap</td>
<td>Set trap's configurations</td>
</tr>
<tr>
<td>user</td>
<td>Set the SNMPv3 user's configurations</td>
</tr>
<tr>
<td>version</td>
<td>Set the SNMP server's version</td>
</tr>
<tr>
<td>view</td>
<td>MIB view configuration</td>
</tr>
</tbody>
</table>

**access**

access configuration.

**SYNTAX**

```
snmp-server access <GroupName : word32> model { v1 | v2c | v3 | any } level { auth | noauth | priv } [ read <ViewName : word255> ] [ write <WriteName : word255> ]
```

**Parameter**

- `<GroupName : word32>`: group name
- `model`: security model
- `any`: any security model
- `v1`: v1 security model
- `v2c`: v2c security model
v3 v3 security model
level security level
auth authNoPriv Security Level
noauth noAuthNoPriv Security Level
priv authPriv Security Level
read specify a read view for the group
write specify a write view for the group
<ViewName : word255> read view name
<WriteName : word255> write view name

EXAMPLE

AW-IHT-1271(config)# snmp-server access text model v2c level noauth write text
AW-IHT-1271(config)#

**community**

Set the SNMP community.

**SYNTAX**

```
snmp-server community v2c <Community : word127> [ ro | rw ]
snmp-server community v3 <word127> [ <ipv4_addr> <ipv4_netmask> ]
```

**Parameter**

- **v2c** SNMPv2c
- **<Community : word127>** Community word
- **ro** Read only
- **rw** Read write
- **v3** SNMPv3
Contact

Set the SNMP server's contact string.

Syntax

```
snmp-server contact <line255>
```

Parameter

- `contact`: Set the SNMP server's contact string
- `<line255>`: contact string

Example

```
AW-IHT-1271(config)# snmp-server contact text
AW-IHT-1271(config)#
```

Engine-Id

Set SNMP engine ID.

Syntax

```
snmp-server engine-id local <Engineid : word10-32>
```

Parameter

- `local`: Set SNMP local engine ID
- `<Engineid : word10-32>`: local engine ID

Example
host

Set SNMP host's configurations.

SYNTAX

```
snmp-server host <word32>
```

Parameter

```
<word32> Name of the host configuration
```

EXAMPLE

```
AW-IHT-1271(config)# snmp-server host text
AW-IHT-1271(config-snmps-host)#
```

location

Set the SNMP server's location string.

SYNTAX

```
snmp-server location <line255>
```

Parameter

```
<location255> location string
```

EXAMPLE

```
AW-IHT-1271(config)# snmp-server location text
AW-IHT-1271(config)#
```

security-to-group

security-to-group configuration.
**SYNTAX**

`snmp-server security-to-group model { v1 | v2c | v3 } name <SecurityName : word32> group <GroupName : word32>`

**Parameter**

- **model**  
  security model
- **v1**  
  v1 security model
- **v2c**  
  v2c security model
- **v3**  
  v3 security model
- **name**  
  security user

- `<SecurityName : word32>`  
  security user name
- **group**  
  security group
- `<GroupName : word32>`  
  security group name

**EXAMPLE**

```
AW-IHT-1271(config)# snmp-server security-to-group model v2c name text
group text
AW-IHT-1271(config)#
```

**trap**

Set trap's configurations.

**SYNTAX**

`snmp-server trap`

**EXAMPLE**

```
AW-IHT-1271(config)# snmp-server trap
AW-IHT-1271(config)#
```

**user**

Set the SNMPv3 user's configurations.
SYNTAX

```
snmp-server user <Username: word32> engine-id <Engineid: word10-32> [ { md5 <Md5Passwd: word8-32> | sha <ShaPasswd: word8-40> } [ priv { des | aes } <word8-32> ] ]
```

Parameter

- `<Username: word32>`: Username
- `engine-id`: Engine ID
- `<Engineid: word10-32>`: Engine ID octet string
- `md5`: Set MD5 protocol
- `<Md5Passwd: word8-32>`: MD5 password
- `sha`: Set SHA protocol
- `<ShaPasswd word8-40>`: SHA password
- `priv`: Set Privacy
- `des`: Set DES protocol
- `aes`: Set AES protocol
- `<word8-32>`: Set privacy password

EXAMPLE

```
AW-IHT-1271(config)# snmp-server user text engine-id 1234567891 md5 12345678 priv aes 12345678
AW-IHT-1271(config)#
```

version

Set the SNMP server's version.

SYNTAX

```
snmp-server version { v1 | v2c | v3 }
```

Parameter

- `v1`: SNMPv1
v2c  SNMPv2c
v3   SNMPv3

EXAMPLE

AW-IHT-1271(config)# snmp-server version v2c
AW-IHT-1271(config)#

**view**

MIB view configuration.

**SYNTAX**

```text
snmp-server view <ViewName : word32> <OidSubtree : word255> { include | exclude }
```

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&lt;ViewName : word32&gt;</code></td>
<td>MIB view name</td>
</tr>
<tr>
<td><code>&lt;OidSubtree : word255&gt;</code></td>
<td>MIB view OID</td>
</tr>
<tr>
<td><code>include</code></td>
<td>Excluded type from the view</td>
</tr>
<tr>
<td><code>exclude</code></td>
<td>Excluded type from the view</td>
</tr>
</tbody>
</table>

**EXAMPLE**

AW-IHT-1271(config)# snmp-server view text .1 include
AW-IHT-1271(config)#

**spanning-tree**

Spanning Tree protocol

**Table: configure –spanning-tree Commands**

<table>
<thead>
<tr>
<th>Command</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>aggregation</td>
<td>Aggregation mode</td>
</tr>
<tr>
<td>edge</td>
<td>Edge ports</td>
</tr>
<tr>
<td>mode</td>
<td>STP protocol mode</td>
</tr>
<tr>
<td>mst</td>
<td>STP bridge instance</td>
</tr>
</tbody>
</table>
**aggregation**

Aggregation mode.

**SYNTAX**

```plaintext
spanning-tree aggregation
```

**EXAMPLE**

```
AW-IHT-1271(config)# spanning-tree aggregation
AW-IHT-1271(config-stp-aggr)#
```

**edge**

Edge ports.

**SYNTAX**

```plaintext
spanning-tree edge bpdu-filter
spanning-tree edge bpdu-guard
```

**Parameter**

- **bpdu-filter**  Enable BPDU filter (stop BPDU tx/rx)
- **bpdu-guard**   Enable BPDU guard

**EXAMPLE**

```
AW-IHT-1271(config)# spanning-tree edge bpdu-filter
AW-IHT-1271(config)#
```

**mode**

STP protocol mode.

**SYNTAX**
**spanning-tree** mode { stp | rstp | mstp }

**Parameter**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>mstp</td>
<td>Multiple Spanning Tree (802.1s)</td>
</tr>
<tr>
<td>rstp</td>
<td>Rabid Spanning Tree (802.1w)</td>
</tr>
<tr>
<td>stp</td>
<td>802.1D Spanning Tree</td>
</tr>
</tbody>
</table>

**EXAMPLE**

```
AW-IHT-1271(config)# spanning-tree mode stp
AW-IHT-1271(config)#
```

**mst**

STP bridge instance.

**SYNTAX**

```
spanning-tree mst <Instance : 0-7> priority <Prio : 0-61440>

spanning-tree mst <Instance : 0-7> vlan <vlan_list>

spanning-tree mst forward-time <Fwdtime : 4-30>

spanning-tree mst max-age <Maxage : 6-40> [ forward-time <Fwdtime : 4-30> ]

spanning-tree mst max-hops <Maxhops : 6-40>

spanning-tree mst name <Name : word32> revision <0-65535>
```

**Parameter**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;Instance : 0-7&gt;</td>
<td>instance 0-7 (CIST=0, MST2=1...)</td>
</tr>
<tr>
<td>forward-time</td>
<td>Delay between port states</td>
</tr>
<tr>
<td>max-age</td>
<td>Max bridge age before timeout</td>
</tr>
<tr>
<td>max-hops</td>
<td>MSTP bridge max hop count</td>
</tr>
<tr>
<td>name</td>
<td>Name keyword</td>
</tr>
<tr>
<td>priority</td>
<td>Priority of the instance</td>
</tr>
<tr>
<td>vlan</td>
<td>VLAN keyword</td>
</tr>
</tbody>
</table>
<**Prio** : 0-61440> Range in seconds

<vlan_list> Range of VLANs

<**Fwdtime** : 4-30> Range in seconds

<**Maxage** : 6-40> Range in seconds

<**Maxhops** : 6-40> Hop count range

<**Name** : word32> Name of the bridge

**revision** Revision keyword

<0-65535> Revision number

**EXAMPLE**

```
AW-IHT-1271(config)# spanning-tree mst 7 vlan 10
AW-IHT-1271(config)#
```

**recovery**

The error recovery timeouts.

**SYNTAX**

```
spanning-tree recovery interval <Interval : 30-86400>
```

**Parameter**

```
interval The interval

<Interval : 30-86400> Range in seconds
```

**EXAMPLE**

```
AW-IHT-1271(config)# spanning-tree recovery interval 50
AW-IHT-1271(config)#
```

**transmit**

BPDUs to transmit.

**SYNTAX**
spanning-tree transmit hold-count \(<\text{Holdcount} : 1-10>\)

**Parameter**

**hold-count** Max number of transmit BPDUs per sec

\(<\text{Holdcount} : 1-10>\) 1-10 per sec, 6 is default

**EXAMPLE**

```
AW-IHT-1271(config)# spanning-tree transmit hold-count 5
AW-IHT-1271(config)#
```

**switchalert-management**

switchAlert Management configuration

**SYNTAX**

```
switchalert-management delete \(<1-6>\)
switchalert-management get activity-code
switchalert-management link-option [automatic | ( manual \(<1-65535>\) ) ]
switchalert-management ( port-name | port-role ) interface [ GigabitEthernet \(<\text{port_type_list}>\) ( \(<\text{line47}>\) | * | GigabitEthernet ) ] | [ * ( \(<\text{line47}>\) | \(<\text{port_type_list}>\) ) ]
switchalert-management server \(<\text{word47}>\)
switchalert-management switchalert-management-mode [ disable | enable ]
```

**Parameter**

- **delete** Delete Mobile in List
- **get** Get Activity Code Action from SwitchAlert Management Server
- **link-option** Configure NAT Option
- **port-name** Interface specific description
- **port-role** Configure Port Role
- **server** Configure SwitchAlert Management server IP address
**switchalert-management-mode**  Configure SwitchAlert Management mode

<1-6> Mobile ID, available value is from 1 to 6

**activity-code**  Get Activity Code Action from SwitchAlert Management Server

**automatic**  Enable NAT Option as Automatic

**manual**  Enable NAT Option as Manual

<1-65535> Port number

**interface**  Select an interface to configure

* All switches or All ports

**GigabitEthernet**  1 Gigabit Ethernet Port

<line47> Up to 47 characters describing this interface

<port_type_list> Port list for all port types

<word47> SwitchAlert Management IP address or host name

**disable**  Disable SwitchAlert Management mode

**enable**  Enable SwitchAlert Management mode

**EXAMPLE**

```
AW-IHT-1271(config)# switchalert-management delete 1
AW-IHT-1271(config)# switchalert-management get activity-code
AW-IHT-1271(config-stp-aggr)#
```

**switchport**

Set switching mode characteristics

**SYNTAX**

```
switchport vlan mapping <1-12> <vlan_list> <vlan_id>
```

**Parameter**

```
vlan  vlan
```
mapping
Add VLAN translation entry into a group.

<1-12>
Group id

<vlan_list>

<vlan_id>

EXAMPLE

AW-IHT-1271(config)# switchport vlan mapping 1 1 1
AW-IHT-1271(config)#

system
Set the SNMP server's configurations

SYNTAX

system contact <v_line255>
system location <v_line255>
system name <v_line255>

Parameter

contact Set the SNMP server's contact string
location Set the SNMP server's location string
name Set the SNMP server's system model name string

Example

AW-IHT-1271(config)# system contact 222
AW-IHT-1271(config)# system location 333
AW-IHT-1271(config)# system name GE
AW-IHT-1271(config)#

tacacs-server
Configure TACACS+.
**SYNTAX**

- `tacacs-server deadtime <minutes>`
- `tacacs-server host <host_name> [ port <port> ] [ timeout <seconds> ] [ key <key> ]`
- `tacacs-server key <key>`
- `tacacs-server timeout <seconds>`

**Parameter**

- `deadtime`: Time to stop using a TACACS+ server that doesn't respond
- `host`: Specify a TACACS+ server
- `key`: Set TACACS+ encryption key
- `timeout`: Time to wait for a TACACS+ server to reply
  - `<Minutes : 1-1440>`: Time in minutes
  - `<Key : line1-63>`: The shared key
  - `<Seconds : 1-1000>`: Wait time in seconds
  - `<word1-255>`: Hostname
  - `<ipv4_ucast>`: IPv4 address
  - `<ipv6_ucast>`: IPv6 address
- `port`: TCP port for TACACS+ server
  - `<0-65535>`: TCP port number

**EXAMPLE**

```
AW-IHT-1271(config)# tacacs-server deadtime 300
AW-IHT-1271(config)# tacacs-server host 192.168.1.2
AW-IHT-1271(config)# tacacs-server key 33
AW-IHT-1271(config)# tacacs-server timeout 300
AW-IHT-1271(config)#
```

**tzidx**

Configure timezone city/area
**SYNTAX**

```
tzidx <int>
```

**Parameter**

```
<int> index of city/area
```

**EXAMPLE**

```
AW-IHT-1271(config)# tzidx 5
AW-IHT-1271(config)#
```

---

**udld**

Enable UDLD in the aggressive or normal mode and to set the configurable message timer on all fiber-optic ports.

**SYNTAX**

```
udld [ aggressive | enable | ( message time-interval <7-90> ) ]
```

**Parameter**

- **aggressive** Enables UDLD in aggressive mode on all fiber-optic ports.
- **enable** Enables UDLD in normal mode on all fiber-optic ports.
- **message** Configures the period of time between UDLD probe messages on ports that are in the advertisement phase and are determined to be bidirectional. The range is from 7 to 90 seconds (currently default message time interval 7 sec is supported).
- **time-interval** Configures the period of time between UDLD probe messages on ports that are in the advertisement phase and are determined to be bidirectional. The range is from 7 to 90 seconds (currently default message time interval 7 sec is supported).
- **<7-90>** Configures the period of time between UDLD probe messages on ports that are in the advertisement phase and are determined to be bidirectional. The range is from 7 to 90 seconds (currently default message time interval 7 sec is supported).
from 7 to 90 seconds (currently default message time interval 7 sec is supported).

**EXAMPLE**

```
AW-IHT-1271(config)# udld message time-interval 7
AW-IHT-1271(config)#
```

**upnp**

Set UPnP's configurations.

**SYNTAX**

```
upnp

upnp advertising-duration <100-86400>

upnp ttl <1-255>
```

**Parameter**

- **advertising-duration**: Set advertising duration
- **ttl**: Set TTL value

**EXAMPLE**

```
AW-IHT-1271(config)# upnp advertising-duration 8
AW-IHT-1271(config)# upnp ttl 25
AW-IHT-1271(config)#
```

**username**

Establish User Name Authentication.
SYNTAX

username <username> privilege <priv> password encrypted <encry_password>

username <username> privilege <priv> password none

username <username> privilege <priv> password unencrypted <password>

Parameter

<Username : word31> User name allows letters, numbers and underscores

privilege Set user privilege level

<privilegeLevel : 0-15> User privilege level

password Specify the password for the user

encrypted Specifies an ENCRYPTED password will follow

none NULL password

unencrypted Specifies an UNENCRIPTED password will follow

>Password : line31> The UNENCRIPTED (Plain Text) user password. Any printable characters including space is accepted.

Notice that you have no change to get the Plain Text password after this command. The system will always display the ENCRYPTED password.

>Password : word4-44> The ENCRYPTED (hidden) user password. Notice the ENCRYPTED password will be decoded by system internally. You cannot directly use it as same as the Plain Text and it is not human-readable text normally.

EXAMPLE

AW-IHT-1271(config)# username jefferson privilege 15
password none
VLAN commands.

**SYNTAX**

```
vlan <vlan_list>

vlan ethertype s-custom-port <0x0600-0xffff>

vlan protocol { { eth2 { <0x600-0xffff> | arp | ip | ipx | at } } | { snap { <0x0-0xffff> | rfc_1042 | snap_8021h } <0x0-0xffff> } | { llc <0x0-0xff> <0x0-0xff> } } group <word16>
```

**Parameter**

- `<vlan_list>`: ISL VLAN IDs 1-4095
- `ethertype`: Ether type for Custom S-ports
- `protocol`: Protocol-based VLAN commands
- `s-custom-port`: Custom S-ports configuration
- `<0x0600-0xffff>`: Ether type (Range: 0x0600-0xffff)
- `eth2`: Ethernet-based VLAN commands
- `<0x600-0xffff>`: Ether Type(Range: 0x600 - 0xFFFF)
- `arp`: Ether Type is ARP
- `ip`: Ether Type is IP
- `ipx`: Ether Type is IPX
- `at`: Ether Type is AppleTalk
- `snap`: SNAP-based VLAN group
- `<0x0-0xffff>`: SNAP OUI (Range 0x000000 - 0xFFFFFFF)
- `rfc_1042`: SNAP OUI is rfc_1042
- `snap_8021h`: SNAP OUI is 8021h
- `<0x0-0xffff>`: PID (Range: 0x0 - 0xFFFF)
- `llc`: LLC-based VLAN group
- `<0x0-0xff>`: DSAP (Range: 0x00 - 0xFF)
<0x0-0xff> SSAP (Range: 0x00 - 0xFF)
group Protocol-based VLAN group commands
<word16> Group Name (Range: 1 - 16 characters)

**EXAMPLE**

```
AW-IHT-1271(config)# vlan ethertype s-custom-port 0x1111
AW-IHT-1271(config)# vlan protocol eth2 arp group 123
AW-IHT-1271(config)#
```

**voice**

Voice appliance attributes.

**SYNTAX**

```
voice vlan
voice vlan aging-time <aging_time>
voice vlan class { <traffic_class> | low | normal | medium | high }
voice vlan oui <oui> [ description <description> ]
voice vlan vid <vid>
```

**Parameter**

- `advertising-duration` Set advertising duration
- `vlan` Vlan for voice traffic
- `aging-time` Set secure learning aging time
- `<10-10000000>` Aging time, 10-10000000 seconds
- `class` Set traffic class
- `<0-7>` Traffic class value
- `oui` OUI configuration
- `<oui>` OUI value
description  Set description for the OUI
<line32>  Description line
vid  Set VLAN ID
<vlan_id>  VLAN ID, 1-4095

EXAMPLE
AW-IHT-1271(config)# voice vlan aging-time 3333
AW-IHT-1271(config)# voice vlan class 7
AW-IHT-1271(config)# voice vlan vid 3333
AW-IHT-1271(config)#

web
Web.

SYNTAX
web privilege group <CWORD> level { [ cro <0-15> ] [ crw <0-15> ] [ sro <0-15> ] [ srw <0-15> ] }

Parameter

privilege  Web privilege

group  Web privilege group

CWORD  Valid words are 'Aggregation' 'Debug' 'Dhcp_Client'

'Green_Ethernet' 'IP2' 'IPMC_Snooping' 'LACP' 'LLDP'

'Loop_Protect' 'MAC_Table' 'MEP' 'MVR' 'Maintenance'

'Mirroring' 'NTP' 'POE' 'Ports' 'Private_VLANs' 'QoS'

'RPC' 'Security' 'Spanning_Tree' 'System' 'Timer'

'UPnP' 'VCL' 'VLAN_Translation' 'VLANs' 'Voice_VLAN'

'sFlow'

level  Web privilege group level

cro  Configuration Read-only level
<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>crw</td>
<td>Configuration Read-write level</td>
</tr>
<tr>
<td>sro</td>
<td>Status/Statistics Read-only level</td>
</tr>
<tr>
<td>srw</td>
<td>Status/Statistics Read-write level</td>
</tr>
</tbody>
</table>

**EXAMPLE**

```
AW-IHT-1271(config)# web privilege group ptp level sro 10
```
COPY Commands of CLI

Copy from source to destination

SYNTAX

```
copy { startup-config | running-config | < flash:filename | tftp://server/path-and-filename > } { startup-config | running-config | < flash:filename | tftp://server/path-and-filename > } [ syntax-check ] [ { begin | exclude | include }{ <LINE> } ]
```

Parameter

- `flash:filename | tftp://server/path-and-filename`: File in FLASH or on TFTP server
- `running-config`: Currently running configuration
- `startup-config`: Startup configuration
- `|`: Output modifiers
- `syntax-check`: Perform syntax check on source configuration
- `begin`: Begin with the line that matches
- `exclude`: Exclude lines that match
- `include`: Include lines that match
- `<LINE>`: String to match output lines

EXAMPLE

```
AW-IHT-1271# copy startup-config running-config syntax-check | include
```

DELETE Commands of CLI

Delete one file in flash: file system

**SYNTAX**

Delete  <Path : word>

**Parameter**

<Path : word>   Name of file to delete

**EXAMPLE**

```
AW-IHT-1271# delete text
AW-IHT-1271#
```
DIR Commands of CLI

Directory of all files in flash: file system

SYNTAX

Dir [ | begin | exclude | include <LINE>]

Parameter

| Output modifiers
begin Begin with the line that matches
exclude Exclude lines that match
include Include lines that match
<br />

EXAMPLE

AW-IHT-1271# dir
Directory of flash:
  r- 2011-01-01 00:00:00  720 default-config
  rw 2011-01-01 00:00:11  1777 startup-config
2 files, 2497 bytes total.
Turn off privileged commands

**SYNTAX**

```plaintext
disable <0-15>
```

**Parameter**

- `<0-15>` Privilege level

**EXAMPLE**

```
AW-IHT-1271# disable 10
AW-IHT-1271#
```
To run exec commands in config mode

**SYNTAX**

```
Do <LINE>{{LINE}}
```

**Parameter**

- **LINE**: Exec Command

**EXAMPLE**

AW-IHT-1271# do show clock
System Time : 2011-01-01T00:03:44+00:00
IEEE Standard for port-based Network Access Control

**SYNTAX**

```
dot1x initialize [ interface ( <port_type> [ <plist> ] ) ]
```

**Parameter**

- `initialize` Force re-authentication immediately
- `interface` Interface
- `*` All switches or All ports
- `Gigabitethernet` 1 GigabitEthernet port
- `<port_type_list>` Port list in 1/1-12 for GigabitEthernet

**EXAMPLE**

```
AW-IHT-1271# dot1x initialize interface GigabitEthernet 1/1-12
```
Turn on privileged commands

**Syntax**

Enable <1-15>

**Parameter**

<0-15> Choose privileged level

**EXAMPLE**

AW-IHT-1271# enable 10
AW-IHT-1271#
Ethernet Ring Protection Switching

Syntax

`erps 1-64 command [ clear | force | manual ] [ port0 | port1 ]`

Parameter

- **1-64**: ERPS group number
- **command**: Administrative Command
- **clear**: Clear command
- **force**: Force command
- **manual**: Manual command
- **port0**: ERPS Port 0 interface
- **port1**: ERPS Port 1 interface

EXAMPLE

```
AW-IHT-1271# erps 7 command manual port1
AW-IHT-1271#
```
Firmware upgrade/swap

**Syntax**

```
firmware swap
```

```
firmware upgrade <TFTPServer_path_file : word>
```

**Parameter**

- **swap**: Swap between Active and Alternate firmware image.
- **upgrade**: Firmware upgrade
- `<TFTPServer_path_file : word>`: TFTP Server IP address, path and file name for the server containing the new image.

**EXAMPLE**

```
AW-IHT-1271# firmware upgrade tftp://192.168.1.1/path/GEL2706
Programming image...
AW-IHT-1271#
```
IPv4 commands

Syntax

ip dhcp retry interface vlan <vlan_id>

Parameter

dhcp Dhcp commands
retry Restart the DHCP query process
interface Interface
vlan Vlan interface
<vlan_id> Vlan ID

EXAMPLE

AW-IHT-1271# ip dhcp retry interface vlan 1
% Failed to restart DHCP client on VLAN = 1.
IPv6 configuration commands

**Syntax**

`ipv6 dhcp-client restart`

`ipv6 dhcp-client restart interface vlan <vlan_list>`

**Parameter**

- `dhcp-client`: Manage DHCPv6 client server
- `restart`: Restart DHCPv6 client service
- `interface`: Select an interface to configure
- `vlan`: VLAN of IPv6 interface
- `<vlan_list>`: IPv6 interface VLAN list

**EXAMPLE**

```
AW-IHT-1271# ipv6 dhcp-client restart
AW-IHT-1271#
```
Link OAM configuration

Syntax

```
link-oam remote-loopback [ start | stop ] interface [ * | GigabitEthernet ] <port_type_list>
```

Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>remote-loopback</td>
<td>Configure remote loopback on interface</td>
</tr>
<tr>
<td>start</td>
<td>Start remote loopback test on interface</td>
</tr>
<tr>
<td>stop</td>
<td>Stop remote loopback test on interface</td>
</tr>
<tr>
<td>interface</td>
<td>Start/Stop remote loopback test on a specific interface or interfaces.</td>
</tr>
<tr>
<td>*</td>
<td>All switches or All ports</td>
</tr>
<tr>
<td>GigabitEthernet</td>
<td>1 Gigabit Ethernet Port</td>
</tr>
<tr>
<td>&lt;port_type_list&gt;</td>
<td>Port list for all port types</td>
</tr>
<tr>
<td>&lt;port_type_list&gt;</td>
<td>Port list in 1/1-12</td>
</tr>
</tbody>
</table>

EXAMPLE

```
AW-IHT-1271# link-oam remote-loopback start interface *
AW-IHT-1271#
```

Negate a command or set its defaults

Syntax

```
no debug prompt
```
**Parameter**

- **debug**  
  Debugging functions

- **prompt**  
  Clear prompt for testing

**EXAMPLE**

```
AW-IHT-1271# no debug prompt
AW-IHT-1271#
```
Send ICMP echo messages

**Syntax**

```
ping ip <word1-255> [ repeat <Count : 1-60> ] [ size <Size : 2-1452> ] [ interval <Seconds : 0-30> ]
ping ipv6 <ipv6_addr> [ repeat <Count : 1-60> ] [ size <Size : 2-1452> ] [ interval <Seconds : 0-30> ] [ interface vlan <vlan_id> ]
```

**Parameter**

- **ip**
  - IP (ICMP) echo
- **<word1-255>**
  - ICMP destination address
- **repeat**
  - Specify repeat count
- **<Count : 1-60>**
  - 1-60; Default is 5
- **size**
  - Specify datagram size
- **<Size : 2-1452>**
  - 2-1452; Default is 56 (excluding MAC, IP and ICMP headers)
- **interval**
  - Specify repeat interval
- **<Seconds : 0-30>**
  - 0-30; Default is 0
- **ipv6**
  - IPv6 (ICMPv6) echo
- **<ipv6_addr>**
  - ICMPv6 destination address
- **repeat**
  - Specify repeat count
- **<1-60>**
  - 1-60; Default is 5
- **size**
  - Specify datagram size
- **<2-1452>**
  - 2-1452; Default is 56 (excluding MAC, IP and ICMP headers)
- **interval**
  - Specify repeat interval
- **<0-30>**
  - 0-30; Default is 0
- **interface**
  - Select an interface to configure
**vlan**

VLAN Interface

<vlan_id>

VLAN identifier(s): VID

**EXAMPLE**

AW-IHT-1271# ping ip 33 interval 22 repeat 33 size 444
PING server 0.0.0.33, 444 bytes of data
Platform configuration

**Syntax**

```plaintext
platform debug [ allow | deny ]
```

**Parameter**

- **debug**  
  Debug command setting
- **allow**  
  Allow debug commands
- **deny**  
  Deny debug commands

**EXAMPLE**

```
AW-IHT-1271# platform debug allow
AW-IHT-1271#
AW-IHT-1271# platform debug deny
AW-IHT-1271#
```
PTP of CLI

Misc non persistent 1588 settings

Syntax

\[ \text{ptp} \ <0-3> \ \text{local-clock ratio} \ <\text{-10000000-10000000}> \]

\[ \text{ptp} \ <0-3> \ \text{local-clock update} \]

\[ \text{ptp} \ <0-3> \ \text{wireless delay} \ <0-\text{10000000000}> \ <0-\text{10000000}> \ \text{interface} \]

\[ \text{ptp} \ <0-3> \ \text{wireless delay} \ <0-\text{10000000000}> \ \text{interface} * \]

\[ \text{ptp} \ <0-3> \ \text{wireless delay} \ <0-\text{10000000000}> \ \text{interface} \ ( * | \text{GigabitEthernet} ) \ <\text{port_type_list}> \]

\[ \text{ptp} \ <0-3> \ \text{wireless} \ ( \text{mode} | \text{pre-notification} ) \ \text{interface} * \]

\[ \text{ptp} \ <0-3> \ \text{wireless} \ ( \text{mode} | \text{pre-notification} ) \ \text{interface} \ ( * | \text{GigabitEthernet} ) \ <\text{port_type_list}> \]

Parameter

\(<0-3>\) PTP Clock instance [0-3]

local-clock Update local clock current time, or set clock ratio

wireless Enable wireless mode for one or more interfaces.

ratio Set the local master clock frequency ratio.

update The local clock is synchronized to the system clock

\(<\text{0-10000000-10000000}>\) Ratio in units of 0,1 PPB, (ratio > 0 => faster clock, ratio < 0 => slower clock).

delay

mode Enable wireless mode for an interface.

pre-notification Issue a pre notification that the wireless modem is going to change.

\(<0-\text{10000000000}>\) Base wireless transmission delay (in pico seconds)

\(<0-\text{1000000}>\) Incremental wireless transmission delay pr. byte (in pico seconds)

interface Interface parameter
All switches or All ports

GigabitEthernet 1 Gigabit Ethernet Port

<port_type_list> Port list for all port types

<port_type_list> Port list in 1/1-12

interface Interface

EXAMPLE

AW-IHT-1271# ptp 0 wireless pre-notification interface *
Wireless mode not available for ptp instance 0, port 1
Wireless mode not available for ptp instance 0, port 2
Wireless mode not available for ptp instance 0, port 3
Wireless mode not available for ptp instance 0, port 4
Wireless mode not available for ptp instance 0, port 5
Wireless mode not available for ptp instance 0, port 6
Wireless mode not available for ptp instance 0, port 7
Wireless mode not available for ptp instance 0, port 8
Wireless mode not available for ptp instance 0, port 9
Wireless mode not available for ptp instance 0, port 10
Wireless mode not available for ptp instance 0, port 11
Wireless mode not available for ptp instance 0, port 12
AW-IHT-1271#
Reload system.

Syntax

```
reload {{ (cold | warm) [ sid <usid> ] } | { defaults [ keep-ip ] }}
```

Parameter

- **cold**
  Reload cold, i.e. reboot.
- **defaults**
  Reload defaults without rebooting.
- **keep-ip**
  Attempt to keep VLAN1 IP setup.

EXAMPLE

```
AW-IHT-1271# reload defaults
% Reloading defaults. Please stand by.
AW-IHT-1271# reload cold
% Cold reload in progress, please stand by.
AW-IHT-1271# +M25PXX : Init device with JEDEC ID 0x20BA19.
   Luton26 board detected (VSC7427 Rev. D).

RedBoo(tm) bootstrap and debug environment [ROMRAM]
Non-certified release, version 1_15a-Vitesse - built 18:36:46, Sep 30 2016

   Free Software Foundation, Inc.
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   GNU General Public License. You are welcome to change it and/or distribute
   copies of it under certain conditions. Under the license terms, RedBoot's
   source code and full license terms must have been made available to you.
   Redboot comes with ABSOLUTELY NO WARRANTY.
```
Send of CLI

Send a message to other tty lines

Syntax

```
send { * | <session_list> | console 0 | vty <vty_list> } <message>
```

Parameter

- `*` All tty lines
- `<0~16>` Send a message to multiple lines
- `console` Primary terminal line
- `0` Send a message to a specific line
- `vty` Virtual terminal
- `<0~15>` Send a message to multiple lines
- `<LINE>` Message to be sent to lines, in 128 char's

EXAMPLE

```bash
AW-IHT-1271# send * yes,i do
Enter TEXT message. End with the character 'y'.

y

-----------------------------------------
*** Message from line 0:
yes,i do

-----------------------------------------
AW-IHT-1271#
```
### Table: SHOW Commands

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<td>access-list</td>
<td>Access list</td>
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<td>Aggregation port configuration</td>
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<td>Configure time-of-day clock</td>
</tr>
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<td>IEEE Standard for port-based Network Access Control</td>
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<td>eps</td>
<td>Ethernet Protection Switching</td>
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<td>Show trap event configuration</td>
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<td>Green ethernet (Power reduction)</td>
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<tr>
<td>history</td>
<td>Display the session command history</td>
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<td>interface</td>
<td>Interface status and configuration</td>
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<td>ip</td>
<td>Internet Protocol</td>
</tr>
<tr>
<td>ipmc</td>
<td>IPv4/IPv6 multicast configuration</td>
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<td>ipv6</td>
<td>IPv6 configuration commands</td>
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<td>TTY line information</td>
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<td>link-oam</td>
<td>Link OAM configuration</td>
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<tr>
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</tr>
<tr>
<td>mac</td>
<td>Mac Address Table information</td>
</tr>
<tr>
<td>mep</td>
<td>Maintenance Entity Point</td>
</tr>
<tr>
<td>monitor</td>
<td>Monitoring different system events</td>
</tr>
<tr>
<td>mvr</td>
<td>Multicast VLAN Registration configuration</td>
</tr>
<tr>
<td>ntp</td>
<td>Configure NTP</td>
</tr>
<tr>
<td>platform</td>
<td>platform specific information</td>
</tr>
<tr>
<td>poe</td>
<td>Power over ethernet</td>
</tr>
<tr>
<td>port-security</td>
<td></td>
</tr>
</tbody>
</table>
privilege Display command privilege
process process
ptp Precision time Protocol (1588)
pvlan PVLAN status
qos Quality of Service
radius-server RADIUS configuration
rapid-ring Display Rapid Ring configurations
rmon RMON statistics
running-config Show running system information
sflow Statistics flow.
sntp Show email information
snmp Display SNMP configurations
spanning-tree STP Bridge
switchalert-management Show SwitchAlert Management information
switchport Display switching mode characteristics
System show system information
tacacs-server TACACS+ configuration
terminal Display terminal configuration parameters
udld Unidirectional Link Detection (UDLD) configurations, statistics and status
upnp Display UPnP configurations
user-privilege Users privilege configuration
users Display information about terminal lines
version System hardware and software status
vlan VLAN status
voice Voice appliance attributes
web Web

aaa
Login methods.

SYNTAX

\texttt{show} aaa [ | \{begin | exclude | include \} <LINE>]

Parameter
| Output modifiers
begin Begin with the line that matches
exclude Exclude lines that match
include Include lines that match
<LINE> String to match output lines

EXAMPLE

AW-IHT-1271# show aaa
console : local
telnet : local
ssh : local
http : local
AW-IHT-1271#

access

Access management.

SYNTAX

show access management [ statistics | <access_id_list> ]

Parameter

management Access management configuration
statistics Statistics data
<AccessidList : 1~16> ID of access management entry
Output modifiers

begin Begin with the line that matches
exclude Exclude lines that match
include Include lines that match

<String to match output lines>

EXAMPLE

AW-IHT-1271# show access management
Switch access management mode is disabled

W: WEB/HTTPS
S: SNMP
T: TELNET/SSH

Idx VID  Start IP Address                End IP Address                 W S T
--- ---  ------------------------------- -------------------------------

AW-IHT-1271# show access management statistics

Access Management Statistics:
-----------------------------
HTTP  Receive:    0  Allow:    0  Discard:    0
HTTPS Receive:    0  Allow:    0  Discard:    0
SNMP  Receive:    0  Allow:    0  Discard:    0
TELNET Receive:   0  Allow:    0  Discard:    0
SSH   Receive:    0  Allow:    0  Discard:    0

AW-IHT-1271#

access-list

Access list

SYNTAX
show access-list [ interface [ * | Gigabitetherne <PORT_LIST> ] ] [ rate-limiter [ <RateLimiterList : 1~16> ] ] [ ace statistics [ <AceId : 1~256> ] ]

show access-list ace-status [ static ] [ loop-protect ] [ dhcp ] [ upnp ] [ arp-inspection ] [ mep ] [ ipmc ]
[ ip-source-guard ] [ ip-mgmt ] [ conflicts ]

Parameter

interface Select an interface to configure
* All Switches or All Ports
Gigabitethernet 1 Gigabit Ethernet Port
<port_type_list> Port list in 1/1-12
rate-limiter Rate limiter
< RateLimiterList : 1~16> Rate limiter ID
ace Access list entry
statistics Traffic statistics
<Aceld : 1~256> ACE ID
ace-status The local ACEs status
static The ACEs that are configured by users manually
loop-protect The ACEs that are configured by Loop Protect module
dhcp The ACEs that are configured by DHCP module
upnp The ACEs that are configured by UPnP module
arp-inspection The ACEs that are configured by ARP Inspection module
mep The ACEs that are configured by MEP module
ipmc The ACEs that are configured by IPMC module
ip-source-guard The ACEs that are configured by IP Source Guard module
ip-mgmt The ACEs that are configured by IP Management module
conflicts The conflicts ACEs that does not applied to the hardware due to hardware limitations
| Output modifiers
begin
Begin with the line that matches

exclude
Exclude lines that match

include
Include lines that match

&lt;LINE&gt;
String to match output lines

EXAMPLE

AW-IHT-1271# show access-list ace statistics rate-limiter

Switch access-list ace number: 0

Switch access-list rate limiter ID 1 is 1 pps
Switch access-list rate limiter ID 2 is 1 pps
Switch access-list rate limiter ID 3 is 1 pps
Switch access-list rate limiter ID 4 is 1 pps
Switch access-list rate limiter ID 5 is 1 pps
Switch access-list rate limiter ID 6 is 1 pps
Switch access-list rate limiter ID 7 is 1 pps
Switch access-list rate limiter ID 8 is 1 pps
Switch access-list rate limiter ID 9 is 1 pps
Switch access-list rate limiter ID 10 is 1 pps
Switch access-list rate limiter ID 11 is 1 pps
Switch access-list rate limiter ID 12 is 1 pps
Switch access-list rate limiter ID 13 is 1 pps
Switch access-list rate limiter ID 14 is 1 pps
Switch access-list rate limiter ID 15 is 1 pps
Switch access-list rate limiter ID 16 is 1 pps

AW-IHT-1271#

aggregation
Aggregation port configuration.

SYNTAX
show aggregation [ mode ] [ | begin | exclude | include ] <LINE>

**Parameter**

- **mode**  Traffic distribution mode
- **|**  Output modifiers
- **begin**  Begin with the line that matches
- **exclude**  Exclude lines that match
- **include**  Include lines that match
- **<LINE>**  String to match output lines

**EXAMPLE**

```plaintext
AW-IHT-1271# show aggregation Mode

Aggregation Mode:

SMAC : Enabled
DMAC : Disabled
IP   : Enabled
Port : Enabled

AW-IHT-1271#
```

**clock**

Configure time-of-day clock.

**SYNTAX**

```plaintext
show clock [detail]
```

**Parameter**

- **detail**  Display detailed information

**EXAMPLE**
**dot1x**


**SYNTAX**

```
show dot1x statistics { eapol | radius | all } [ interface <port_type> <port_type_list> ] [ | { begin | exclude | include } <LINE>]
```

```
show dot1x status [ interface ( <port_type> [ <port_type_list> ] ) ] [ brief ] [ | { begin | exclude | include } <LINE>]
```
Parameter

statistics  Shows statistics for either eapol or radius.
all        Show all dot1x statistics
eapol      Show EAPOL statistics
radius     Show Backend Server statistics
<port_type >  GigabitEthernet
<port_type_list>  Port list in 1/1-12 for GigabitEthernet
Status      Shows dot1x status, such as admin state, port state and last source.
brief      Show status in a brief format
interface  Interface
*          All Switches or All Ports
GigabitEthernet  1 Gigabit Ethernet Port
<port_type_list>  Port list in 1/1-12 for GigabitEthernet

EXAMPLE

AW-IHT-1271# show dot1x statistics radius

<table>
<thead>
<tr>
<th>Interface</th>
<th>Rx Access</th>
<th>Rx Other</th>
<th>Rx Auth.</th>
<th>Rx Auth.</th>
<th>Tx</th>
<th>MAC Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>GigabitEthernet 1/1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>GigabitEthernet 1/2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>GigabitEthernet 1/3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>GigabitEthernet 1/4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>GigabitEthernet 1/5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
</tbody>
</table>

AW-IHT-1271#
**eps**

Ethernet Protection Switching

**SYNTAX**

```
show eps [ | ( begin | exclude | include ) <line> ] | [<range_list>] | [ detail | | <range_list> ) ]
```

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Output modifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&lt;range_list&gt;</code></td>
<td>The range of EPS instances.</td>
</tr>
<tr>
<td><code>detail</code></td>
<td>Show detailed state including configuration information.</td>
</tr>
<tr>
<td><code>begin</code></td>
<td>Begin with the line that matches</td>
</tr>
<tr>
<td><code>exclude</code></td>
<td>Exclude lines that match</td>
</tr>
<tr>
<td><code>include</code></td>
<td>Include lines that match</td>
</tr>
<tr>
<td><code>&lt;line&gt;</code></td>
<td>String to match output lines</td>
</tr>
</tbody>
</table>

**EXAMPLE**

```
AW-IHT-1271# show eps detail ?
| Output modifiers
|<range_list> The range of EPS instances.
<cr>
AW-IHT-1271# show eps detail

EPS state is:
<table>
<thead>
<tr>
<th>Inst</th>
<th>State</th>
<th>Wstate</th>
<th>Pstate</th>
<th>TxAps r b</th>
<th>RxAps r b</th>
<th>FopPm</th>
<th>FopCm</th>
<th>FopNr</th>
<th>FopNoAps</th>
</tr>
</thead>
</table>

EPS Configuration is:
<table>
<thead>
<tr>
<th>Inst</th>
<th>Dom</th>
<th>Archi</th>
<th>Wflow</th>
<th>Pflow</th>
<th>Wmep</th>
<th>Pmep</th>
<th>APSmep</th>
<th>Direct</th>
<th>Revert</th>
<th>Wtr</th>
<th>Hold</th>
<th>Aps</th>
</tr>
</thead>
</table>

EPS Command is:
<table>
<thead>
<tr>
<th>Inst</th>
<th>Command</th>
</tr>
</thead>
</table>

AW-IHT-1271#```
**erps**

Ethernet Ring Protection Switching

**SYNTAX**

```
show erps 1-64 command ( clear | force | manual ) ( port0 | port1 )
```

**Parameter**

- **1-64**  
  ERPS group number
- **command**  
  Administrative Command
- **clear**  
  Clear command
- **force**  
  Force command
- **manual**  
  Manual command
- **port0**  
  ERPS Port 0 interface
- **port1**  
  ERPS Port 1 interface

**EXAMPLE**

```
AW-IHT-1271# erps 1 command clear port1
AW-IHT-1271#
```

**evc**

Ethernet Protection Switching

**SYNTAX**

```
show evc { [ [ ( begin | exclude | include ) <line> ] [ <1-256> ( | ( begin | exclude | include ) <line> ) ] [ ece ( ( | ( begin | exclude | include ) <line> ) | <1-256> ) ) ] [ all ( ( | ( begin | exclude | include ) <line> ) | ( ece ( ( | <1-256> ) ) ) ] | ece ( ( | <1-256> ) ) | statistics }
```
### Parameter

| | Output modifiers  
|---|---
| <1-256> | EVC identifier  
| all | Process all EVCs  
| ece | EVC Control Entry  
| statistics | Statistic counters  
| begin | Begin with the line that matches  
| exclude | Exclude lines that match  
| include | Include lines that match  

**EXAMPLE**

```
AW-IHT-1271# show evc 1
AW-IHT-1271#
```

---

**event**

Show trap event configuration

**SYNTAX**

```
show event [ port ]
```

**Parameter**

| | Show event port configuration  
|---|---
| port |  

**EXAMPLE**
AW-IHT-1271# show event port
Port Active  LinkOn  LinkOff Overload RxThreshold TrafficDuration Syslog Trap  SMTP
Switch2go DigitalOut Severity
---- ------- ------- ------- ------- ------- ------- ------- ------- -------
1 enable enable enable disable 0 1 enable disable disable
disable disable Warning
2 enable enable enable disable 0 1 enable disable disable
disable disable Warning
3 enable enable enable disable 0 1 enable disable disable
disable disable Warning
4 enable enable enable disable 0 1 enable disable disable
disable disable Warning
5 enable enable enable disable 0 1 enable disable disable
disable disable Warning
6 enable enable enable disable 0 1 enable disable disable
disable disable Warning
7 enable enable enable disable 0 1 enable disable disable
disable disable Warning
8 enable enable enable disable 0 1 enable disable disable
disable disable Warning
9 enable enable enable disable 0 1 enable disable disable
disable disable Warning
10 enable enable enable disable 0 1 enable disable disable
disable disable Warning
11 enable enable enable disable 0 1 enable disable disable
disable disable Warning
12 enable enable enable disable 0 1 enable disable disable
disable disable Warning
AW-IHT-1271#

green-ethernet

Green ethernet (Power reduction).
**SYNTAX**

`show green-ethernet [ interface <port_type> <port_type_list> ]`

`show green-ethernet eee [ interface <port_type> <port_type_list> ]`

`show green-ethernet energy-detect [ interface <port_type> <port_type_list> ]`

`show green-ethernet short-reach [ interface <port_type> <port_type_list> ]`

**Parameter**

**eee**  
Shows green ethernet EEE status for a specific port or ports.

**energy-detect**  
Shows green ethernet energy-detect status for a specific port or ports.

**interface**  
Shows green ethernet status for a specific port or ports.

**short-reach**  
Shows green ethernet short-reach status for a specific interface

**<port_type>**  
GigabitEthernet or

**<port_type_list>**  
Port list in 1/1-12 for GigabitEthernet

**EXAMPLE**

```
AW-IHT-1271# show green-ethernet eee

<table>
<thead>
<tr>
<th>Interface</th>
<th>Lnk</th>
<th>EEE Capable</th>
<th>EEE Enabled</th>
<th>LP EEE Capable</th>
<th>In Power Save</th>
</tr>
</thead>
<tbody>
<tr>
<td>----------------</td>
<td>-----</td>
<td>-------------</td>
<td>-------------</td>
<td>-----------------</td>
<td>---------------</td>
</tr>
<tr>
<td>GigabitEthernet 1/1</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>GigabitEthernet 1/2</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>GigabitEthernet 1/3</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>GigabitEthernet 1/4</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>GigabitEthernet 1/5</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>GigabitEthernet 1/6</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>GigabitEthernet 1/7</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>GigabitEthernet 1/8</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>GigabitEthernet 1/9</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
```
**history**

Display the session command history.

**SYNTAX**

```
show history [ [begin | exclude | include] <LINE>]
```

**Parameter**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Output modifiers</td>
</tr>
<tr>
<td>begin</td>
<td>Begin with the line that matches</td>
</tr>
<tr>
<td>exclude</td>
<td>Exclude lines that match</td>
</tr>
<tr>
<td>include</td>
<td>Include lines that match</td>
</tr>
<tr>
<td>&lt;LINE&gt;</td>
<td>String to match output lines</td>
</tr>
</tbody>
</table>

**EXAMPLE**

```
AW-IHT-1271# show history
show evc statistics
show green-ethernet EEE
show green-ethernet EEE interface GigabitEthernet
show history
AW-IHT-1271#
```

**interface**

Interface status and configuration.

**SYNTAX**

```
show interface <port_type> <port_type_list> [ switchport [ access | trunk | hybrid ] ]
```
show interface <port_type> <port_type_list> capabilities

show interface <port_type> <port_type_list> statistics [ { packets | bytes | errors | discards | filtered | { priority [ <0~7> ] } } ] [ { up | down } ]

show interface <port_type> <port_type_list> status

show interface <port_type> <port_type_list> veriphy

show interface vlan [ <vlan_list> ]

Parameter

<port_type> Gigabitethernet

* All Switches or All ports

Gigabitethernet 1 Gigabitethernet Port

<port_type_list> Port list in 1/1-12 for Gigabitethernet

capabilities Display capabilities.

statistics Display statistics counters.

status Display status.

switchport Show interface switchport information

veriphy Run cable diagnostics and show result.

bytes Show byte statistics.

discards Show discard statistics.

down Show ports which are down

errors Show error statistics.

filtered Show filtered statistics.

packets Show packet statistics.

priority Queue number

up Show ports which are up

vlan VLAN status

<vlan_list> VLAN list
**EXAMPLE**

```
AW-IHT-1271# show interface GigabitEthernet 1/1-3 capabilities

GigabitEthernet 1/1 Capabilities:
SFP Type: None
SFP Vendor name:
SFP Vendor PN:
SFP Vendor revision:

GigabitEthernet 1/2 Capabilities:
SFP Type: None
SFP Vendor name:
SFP Vendor PN:
SFP Vendor revision:

GigabitEthernet 1/3 Capabilities:
SFP Type: None
SFP Vendor name:
SFP Vendor PN:
SFP Vendor revision:

AW-IHT-1271#
```
show ip http server secure status

show ip igmp snooping [ vlan <vlan_list> ] [ group-database [ interface <port_type> <port_type_list> ] [ sfm-information ] ] [ detail ]

show ip igmp snooping mrouter [ detail ]

show ip interface brief

show ip name-server

show ip route

show ip source binding [ dhcp-snooping | static ] [ interface <port_type> <port_type_list> ]

show ip ssh

show ip statistics [ system ] [ interface vlan <vlan_list> ] [ icmp ] [ icmp-msg <0~255> ]

show ip verify source [ interface <port_type> <port_type_list> ]

Parameter

arp Address Resolution Protocol

inspection ARP inspection

interface arp inspection entry interface config

<port_type> Gigabitethernet

<port_type_list> Port list in 1/1-12 for Gigabitethernet

vlan VLAN configuration

<vlan_list> Select a VLAN id to configure

dhcp-snooping learn from dhcp snooping

static setting from static entries

dhcp Dynamic Host Configuration Protocol

relay DHCP relay agent configuration

statistics Traffic statistics

snooping DHCP snooping
http  Hypertext Transfer Protocol
server HTTP web server
secure Secure
status Status
igmp Internet Group Management Protocol
snooping Snooping IGMP
vlan Search by VLAN
<vlan_list> VLAN identifier(s): VID
<group-database> Multicast group database from IGMP
<sfm-information> Including source filter multicast information from IGMP
detail Detail running information/statistics of IGMP snooping
<mrouter> Multicast router port status in IGMP
detail Detail running information/statistics of IGMP snooping
<interface> IP interface status and configuration
<brief> Brief IP interface status
<name-server> Domain Name System
<route> Display the current ip routing table
<binding> ip source binding
<dhcp-snooping> learn from dhcp snooping
ssh Secure Shell
<system> IPv4 system traffic
<icmp> IPv4 ICMP traffic
<icmp-msg> IPv4 ICMP traffic for designated message type
<0~255> ICMP message type ranges from 0 to 255
<verify> verify command
<source> verify source
### EXAMPLE

AW-IHT-1271# show ip statistics system

IPv4 statistics:

- **Rcvd:** 411 total in 36226 bytes
  - 273 local destination, 0 forwarding
  - 0 header error, 0 address error, 0 unknown protocol
  - 0 no route, 0 truncated, 138 discarded
- **Sent:** 0 total in 0 byte
  - 0 generated, 0 forwarded
  - 0 no route, 0 discarded
- **Frags:** 0 reassemble (0 reassembled, 0 couldn't reassemble)
  - 0 fragment (0 fragmented, 0 couldn't fragment)
  - 0 fragment created
- **Mcast:** 411 received in 36226 bytes
  - 0 sent in 0 byte
- **Bcast:** 273 received, 0 sent

AW-IHT-1271#

### ipmc

IPv4/IPv6 multicast configuration.

### SYNTAX

- `show ipmc profile [ <ProfileName : word16> ] [ detail ] [ | { begin | exclude | include } <LINE>]`
- `show ipmc range [ <EntryName : word16> ] [ | { begin | exclude | include } <LINE>]`

### Parameter

- **profile**  | IPMC profile configuration
- **range**   | A range of IPv4/IPv6 multicast addresses for the profile
- **<ProfileName : word16>** | Profile name in 16 char's
- **detail**  | Detail information of a profile
EntryName : word16

<table>
<thead>
<tr>
<th>Output modifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>begin</td>
</tr>
<tr>
<td>exclude</td>
</tr>
<tr>
<td>include</td>
</tr>
<tr>
<td>&lt;LINE&gt;</td>
</tr>
</tbody>
</table>

Range entry name in 16 char's

EXAMPLE

AW-IHT-1271# show ipmc range
AW-IHT-1271#

**ipv6**

IPv6 configuration commands.

**SYNTAX**

```
show ipv6 interface [ vlan <vlan_list> { brief | statistics } ] [ | (begin | exclude | include ) <LINE>]
show ipv6 mld snooping [ vlan <vlan_list> ] [ group-database [ interface <port_type> <port_type_list> ] [ sfm-information ] ] [ detail ]
show ipv6 mld snooping mrouter [ detail ]
show ipv6 neighbor [ interface vlan <vlan_list> ]
show ipv6 route [ interface vlan <vlan_list> ]
show ipv6 statistics [ system ] [ interface vlan <vlan_list> ] [ icmp ] [ icmp-msg <Type : 0~255> ]
```

**Parameter**

- **interface** Select an interface to configure
- **vlan** VLAN of IPv6 interface
- **<vlan_list>** IPv6 interface VLAN list
- **brief** Brief summary of IPv6 status and configuration
- **statistics** Traffic statistics
<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>mld</td>
<td>Multicast Listener Discovery</td>
</tr>
<tr>
<td>snooping</td>
<td>Snooping MLD</td>
</tr>
<tr>
<td>vlan</td>
<td>Search by VLAN</td>
</tr>
<tr>
<td>&lt;vlan_list&gt;</td>
<td>VLAN identifier(s): VID</td>
</tr>
<tr>
<td>group-database</td>
<td>Multicast group database from MLD</td>
</tr>
<tr>
<td>interface</td>
<td>Search by port</td>
</tr>
<tr>
<td>&lt;port_type&gt;</td>
<td>Gigabitethernet</td>
</tr>
<tr>
<td>*</td>
<td>All Switches or All ports</td>
</tr>
<tr>
<td>Gigabitethernet</td>
<td>1 Gigabit Ethernet Port</td>
</tr>
<tr>
<td>&lt;port_type_list&gt;</td>
<td>Port list in 1/1-12 for Gigabitethernet</td>
</tr>
<tr>
<td>sfm-information</td>
<td>Including source filter multicast information from MLD</td>
</tr>
<tr>
<td>detail</td>
<td>Detail running information/statistics of MLD snooping</td>
</tr>
<tr>
<td>mrouter</td>
<td>Multicast router port status in MLD</td>
</tr>
<tr>
<td>neighbor</td>
<td>IPv6 neighbors</td>
</tr>
<tr>
<td>route</td>
<td>IPv6 routes</td>
</tr>
<tr>
<td>statistics</td>
<td>Traffic statistics</td>
</tr>
<tr>
<td>system</td>
<td>IPv6 system traffic</td>
</tr>
<tr>
<td>icmp</td>
<td>IPv6 ICMP traffic</td>
</tr>
<tr>
<td>icmp-msg</td>
<td>IPv6 ICMP traffic for designated message type</td>
</tr>
<tr>
<td>&lt;Type : 0-255&gt;</td>
<td>ICMP message type ranges from 0 to 255</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>begin</td>
<td>Begin with the line that matches</td>
</tr>
<tr>
<td>exclude</td>
<td>Exclude lines that match</td>
</tr>
<tr>
<td>include</td>
<td>Include lines that match</td>
</tr>
<tr>
<td>&lt;LINE&gt;</td>
<td>String to match output lines</td>
</tr>
</tbody>
</table>
**SYNTAX**

```
show lacp { internal | statistics | system-id | neighbour } [ | {begin | exclude | include} <LINE>]
```

**Parameter**

- **internal**: Internal LACP configuration
- **neighbour**: Neighbour LACP status
- **statistics**: Internal LACP statistics
- **system-id**: LACP system id
- **|**: Output modifiers
- **begin**: Begin with the line that matches
**exclude**  Exclude lines that match

**include**  Include lines that match

**<LINE>**  String to match output lines

**EXAMPLE**

```
AW-IHT-1271# show lacp internal
Port  Mode    Key  Role   Timeout  Priority
----  -------  ----  ------  --------  -------
1     Disabled Auto Active Fast 32768
2     Disabled Auto Active Fast 32768
3     Disabled Auto Active Fast 32768
4     Disabled Auto Active Fast 32768
5     Disabled Auto Active Fast 32768
6     Disabled Auto Active Fast 32768
7     Disabled Auto Active Fast 32768
AW-IHT-1271#
```

**line**

TTY line information.

**SYNTAX**

```
show line [ alive ] [ | { begin | exclude | include } <LINE> ]
```

**Parameter**

**alive**  Display information about alive lines

**begin**  Begin with the line that matches

**exclude**  Exclude lines that match

**include**  Include lines that match

**<LINE>**  String to match output lines

**EXAMPLE**
**Link-oam**

Link OAM configuration

**SYNTAX**

show link-oam [ | | ( begin | exclude | include ) ]

show link-oam interface * [ | | <port_type_list> ]

show link-oam interface GigabitEthernet <port_type_list>

show link-oam link-monitor [ | | interface | statistics | status ]

**Parameter**

| | Output modifiers
| interface | Interface status and configuration
| link-monitor | Display link-monitor status parameters
**statistics**  Display statistics parameters

**status**  Display local and remote node status parameters

**begin**  Begin with the line that matches

**exclude**  Exclude lines that match

**include**  Include lines that match

**<line>**  String to match output lines

**<port_type_list>**  Port list for all port types

**EXAMPLE**

```
AW-IHT-1271# show link-oam interface * 1/10

<table>
<thead>
<tr>
<th>Interface</th>
<th>Control</th>
<th>Mode</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>GigabitEthernet 1/10</td>
<td>disabled</td>
<td>passive</td>
<td>non operational</td>
</tr>
</tbody>
</table>

AW-IHT-1271#```

**lldp**

Display LLDP neighbors information.

**SYNTAX**

```
show lldp med media-vlan-policy [ <0~31> ] [ | { begin | exclude | include } <LINE>]

show lldp med remote-device [ interface <port_type> <port_type_list> ] [ | { begin | exclude | include } <LINE>]

show lldp neighbors [ interface <port_type> <port_type_list> ] [ | { begin | exclude | include } <LINE>]

show lldp statistics [ interface <port_type> <port_type_list> ] [ | { begin | exclude | include } <LINE>]
```

**Parameter**
**med** Display LLDP-MED neighbors information.

**neighbors** Display LLDP neighbors information.

**statistics** Display LLDP statistics information.

**media-vlan-policy** Display media vlan policies.

**remote-device** Display remote device LLDP-MED neighbors information.

**<0~31>** List of policies.

**Interface**

**<port_type>** GigabitEthernet

* All Switches or All ports

**Gigabitethernet** 1 Gigabit Ethernet Port

**<port_type_list>** Port list in 1/1-12 for Gigabitethernet

| Output modifiers

begin Begin with the line that matches

exclude Exclude lines that match

include Include lines that match

**<LINE>** String to match output lines

**EXAMPLE**

```
AW-IHT-1271# show lldp med media-vlan-policy
No policies defined
AW-IHT-1271#
```

**logging**

Syslog.

**SYNTAX**

```
show logging <loggin_id : 1-4294967295> [ | begin | exclude | include ] <LINE>
```

```
show logging [ info ] [ warning ] [ error ] [ | begin | exclude | include ] <LINE>
```
Parameter

logging_id: 1-4294967295 Logging ID

error Error
info Information
warning Warning

<table>
<thead>
<tr>
<th>Output modifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>begin</td>
</tr>
<tr>
<td>exclude</td>
</tr>
<tr>
<td>include</td>
</tr>
<tr>
<td>&lt;LINE&gt;</td>
</tr>
</tbody>
</table>

EXAMPLE

AW-IHT-1271# show logging info
Switch logging host mode is disabled
Switch logging host address is null
Switch logging level is information

Number of entries:
Info  : 3
Warning: 158
Error  : 0
All    : 161

ID    Level   Time                       Message
----   ------   -------------------------  -------------------------------
1  Info    1970-01-01T00:00:00+00:00  Switch just made a cold boot.
2  Info    1970-01-01T00:03:00+00:00  Link up on port 1
161 Info  1970-01-01T02:25:55+00:00  Link down on port 1

AW-IHT-1271#
**loop-protect**

Loop protection configuration.

**SYNTAX**

```
show loop-protect [ interface <port_type> <port_type_list> ]
```

**Parameter**

- **interface** Interface status and configuration
- **<port_type>** GigabitEthernet
- ***** All Switches or All ports
- **GigabitEthernet** 1 Gigabit Ethernet Port
- **<port_type_list>** Port list in 1/1-12 for GigabitEthernet

**EXAMPLE**

```
AW-IHT-1271# show loop-protect

Loop Protection Configuration
--------------------------------------
Loop Protection : Enable
Transmission Time : 1 sec
Shutdown Time : 180 sec

GigabitEthernet 1/1
---------------------
Loop protect mode is enabled.
Actions are both of shutdown and log.
```
Transmit mode is enabled.
No loop.
The number of loops is 0.
Status is down.

GigabitEthernet 1/2
----------------------------------
Loop protect mode is enabled.
-- more --, next page: Space, continue: g, quit: ^C  No loop.

mac

Mac Address Table information.

SYNTAX

show mac address-table [ conf | static | aging-time | { { learning | count } [ interface <port_type> <port_type_list> ] [ address <mac_addr> [ vlan <vlan_id> ] ] | vlan <vlan_id> | interface <port_type> <port_type_list> ] [ [ { begin | exclude | include } <LINE> ]

Parameter

address-table       Mac Address Table
conf                User added static mac addresses
static              All static mac addresses
aging-time          Aging time
learning             Learn/disable/secure state
count               Total number of mac addresses
interface           Select an interface to configure
<port_type>         Gigabitethernet
*                    All switches or All ports
Gigabitethernet      1 Gigabit Ethernet Port
<port_type_list>    Port list in 1/1-12
address MAC address lookup


vlan VLAN lookup

<vlan_id> VLAN IDs 1-4095

vlan Addresses in this VLAN

<vlan_id> VLAN IDs 1-4095

interface Select an interface to configure

<port_type> igabitethernet

* All Switches or All ports

Gigabitethernet 1 Gigabit Ethernet Port

<port_type_list> Port list in 1/1-12 for Gigabitethernet

| Output modifiers

begin Begin with the line that matches

exclude Exclude lines that match

include Include lines that match

<LINE> String to match output lines

EXAMPLE

AW-IHT-1271# show mac address-table static
AW-IHT-1271#

mep

Maintenance Entity Point

SYNTAX

show mep [ | ( begin | exclude | include ) <line> ]

show mep <range_list>
show mep ( ais | aps | bfd | cc | client | dm | lb | lck | lm | lm-avail | lst | lt | peer | pm | rt | syslog | tlv | tst ) [ | | <range_list> | detail | lm-hli ]

show mep ( detail | lm-hli ) [ | | <range_list> | ais | aps | bfd | cc | client | dm | lb | lck | lm | lm-avail | lm-hli | lst | lt | peer | pm | rt | syslog | tlv | tst ]

**Parameter**

**alive** Display information about alive lines

**begin** Begin with the line that matches

**<range_list>** Output modifiers

**ais** Show AIS state

**aps** APS state

**bfd** show BFD state

**cc** Show CC state

**client** Show Client state

**detail** Show detailed state including configuration information.

**dm** Show DM state

**lb** Show LB state

**lck** Show LCK state

**lm** Show LM state

**lm-avail** show Availability state

**lm-hli** show LM HLI state

**lst** show LST state

**lt** Show LT state

**peer** Show peer mep state

**pm** Show PM state
**monitor**

Monitoring different system events

**SYNTAX**

```plaintext
show monitor

show monitor session [ <1> | all | remote ]
```

**Parameter**

- **session**: MIRROR session
- **<1>**: MIRROR session number
- **all**: Show all MIRROR sessions
- **remote**: Show only Remote MIRROR sessions
EXAMPLE

AW-IHT-1271# show monitor
Session 1
---------
Mode       : Disabled
Type       : Mirror
Source VLAN(s) : 
CPU Port   : 
AW-IHT-1271#

mvr
Multicast VLAN Registration configuration.

SYNTAX

show mvr [ vlan <vlan_list> | name <word16> ][ group-database [ interface <port_type> <port_type_list> ]
[ sfm-information ] ] [ detail ] [ | begin | exclude | include ] <LINE>]

Parameter

vlan       Search by VLAN
<vlan_list> MVR multicast VLAN list
name       Search by MVR name
<word16>   MVR multicast VLAN name
group-database Multicast group database from MVR
interface  Search by port
<port_type> * or Gigabitethernet
*          All Switches or All ports
Gigabitethernet 1 Gigabit Ethernet Port
<port_type_list> Port list in 1/1-12 for Gigabitethernet
sfm-information Including source filter multicast information from MVR
**detail**  
Detail information/statistics of MVR group database

|  | Output modifiers
| **begin** | Begin with the line that matches
| **exclude** | Exclude lines that match
| **include** | Include lines that match

**<LINE>**  
String to match output lines

**EXAMPLE**

```
AW-IHT-1271# show mvr vlan 10 detail

MVR is currently disabled, please enable MVR to start group registration.
% Invalid MVR IGMP VLAN 10.
% Invalid MVR MLD VLAN 10.

AW-IHT-1271#
```

**platform**  
Platform specific information

**SYNTAX**

```
show platform phy [ interface ( <port_type> [ <v_port_type_list> ] ) ] [ | {begin | exclude | include} <LINE> ]

show platform phy id [ interface ( <port_type> [ <v_port_type_list> ] ) ] [ | {begin | exclude | include} <LINE> ]

show platform phy instance [ | {begin | exclude | include} <LINE> ]

show platform phy status [ interface ( <port_type> [ <v_port_type_list> ] ) ] [ | {begin | exclude | include} <LINE> ]
```

**Parameter**

| **phy** | PHYs' information
| | Output modifiers
| **begin** | Begin with the line that matches
| **exclude** | Exclude lines that match
| **include** | Include lines that match
<LINE> String to match output lines

EXAMPLE

AW-IHT-1271# show platform phy

<table>
<thead>
<tr>
<th>Port</th>
<th>API Inst</th>
<th>WAN/LAN/1G Mode</th>
<th>Duplex</th>
<th>Speed</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Default</td>
<td>1G</td>
<td>-</td>
<td>-</td>
<td>,No</td>
</tr>
<tr>
<td>2</td>
<td>Default</td>
<td>1G</td>
<td>-</td>
<td>-</td>
<td>,No</td>
</tr>
<tr>
<td>3</td>
<td>Default</td>
<td>1G</td>
<td>-</td>
<td>-</td>
<td>,No</td>
</tr>
<tr>
<td>4</td>
<td>Default</td>
<td>1G</td>
<td>-</td>
<td>-</td>
<td>,Yes</td>
</tr>
<tr>
<td>5</td>
<td>Default</td>
<td>1G</td>
<td>-</td>
<td>-</td>
<td>,No</td>
</tr>
<tr>
<td>6</td>
<td>Default</td>
<td>1G</td>
<td>-</td>
<td>-</td>
<td>,No</td>
</tr>
<tr>
<td>7</td>
<td>Default</td>
<td>1G</td>
<td>-</td>
<td>-</td>
<td>,No</td>
</tr>
<tr>
<td>8</td>
<td>Default</td>
<td>1G</td>
<td>-</td>
<td>-</td>
<td>,No</td>
</tr>
<tr>
<td>9</td>
<td>Default</td>
<td>1G</td>
<td>-</td>
<td>-</td>
<td>,No</td>
</tr>
<tr>
<td>10</td>
<td>Default</td>
<td>1G</td>
<td>-</td>
<td>-</td>
<td>,No</td>
</tr>
<tr>
<td>11</td>
<td>Default</td>
<td>1G</td>
<td>-</td>
<td>-</td>
<td>,No</td>
</tr>
<tr>
<td>12</td>
<td>Default</td>
<td>1G</td>
<td>-</td>
<td>-</td>
<td>,No</td>
</tr>
</tbody>
</table>

poe

show poe.

SYNTAX

```
show poe auto-check [interface ( <port_type> [ <v_port_type_list> ] ) ]

show poe config [interface ( <port_type> [ <v_port_type_list> ] ) ]

show poe power-delay [interface ( <port_type> [ <v_port_type_list> ] ) ]

show poe schedule [interface ( <port_type> [ <v_port_type_list> ] ) ]

show poe status [interface ( <port_type> [ <v_port_type_list> ] ) ]
```

Parameter

```
interface
```

<table>
<thead>
<tr>
<th></th>
<th>Output modifiers</th>
</tr>
</thead>
</table>
**ntp**

show NTP.

**SYNTAX**

`show ntp status`

**Parameter**

status status

**EXAMPLE**

AW-IHT-1271# show poe status interface GigabitEthernet 1/1-2

<table>
<thead>
<tr>
<th>Interface</th>
<th>PD Class</th>
<th>Port Status</th>
<th>Pwr</th>
<th>Req Pwr</th>
<th>Alloc Power</th>
<th>Current</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>GigabitEthernet 1/1</td>
<td>0</td>
<td>PoE turned OFF - PoE disabled</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>0.0</td>
<td>Low</td>
</tr>
<tr>
<td>GigabitEthernet 1/2</td>
<td>0</td>
<td>PoE turned OFF - PoE disabled</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>0.0</td>
<td>Low</td>
</tr>
</tbody>
</table>

Total Power Request : 60.0 [W]
Total Power Alloctaed : 0.0 [W]
Total Power Used : 0.0 [W]
Total Current Used : 0 [mA]

AW-IHT-1271#
**port-security**

**SYNTAX**

```
show port-security port [ interface <port_type> <port_type_list> ] [ | { begin | exclude | include } <LINE>
show port-security switch [ interface <port_type> <port_type_list> ] [ | { begin | exclude | include } <LINE>
```

**Parameter**

- **port**  
  Show MAC Addresses learned by Port Security

- **switch**  
  Show Port Security status.

**Interface**

- **<port_type>**  
  GigabitEthernet

- **•**  
  All Switches or All ports

- **Gigabitethernet**  
  1 Gigabit Ethernet Port

- **<port_type_list>**  
  Port list in 1/1-12 for Gigabitethernet

- **|**  
  Output modifiers

- **begin**  
  Begin with the line that matches

- **exclude**  
  Exclude lines that match

- **include**  
  Include lines that match

- **<LINE>**  
  String to match output lines

---

```
AW-IHT-1271# show ntp status
NTP Mode : disabled
Idx   Server IP host address (a.b.c.d) or a host name string
--- -------------------------------------------------------------
1
2
3
4
5
AW-IHT-1271#
```
**privilege**

**SYNTAX**

```
show privilege  [ | {begin | exclude | include} <LINE>]
```

**Parameter**

- `|`  
  Output modifiers
- `begin`  
  Begin with the line that matches
- `exclude`  
  Exclude lines that match
- `include`  
  Include lines that match

**EXAMPLE**

```
AW-IHT-1271# show port-security port interface GigabitEthernet 1/2
GigabitEthernet 1/2
-------------------
MAC Address        VID  State  Added  Age/Hold Time
------------------- ---- ------ ----------- -------------
<none>
AW-IHT-1271#
```

```
AW-IHT-1271# show port
--------------
Security Port Interface GigabitEthernet 1/2
--------------
```

```
AW-IHT-1271# show port
--------------
MAC Address        VID  State  Added  Age/Hold Time
-------------- ---- ------ ----------- -------------
<none>
AW-IHT-1271#
```
**process**

**SYNTAX**

```
show process list

show process list [ | | detail ] ( begin | exclude | include ) <line>

show process list detail

show process load
```

**Parameter**

- **list**    list
- **load**    load
- **|**        Output modifiers
- **detail**  optionally show thread call stack
- **exclude** Exclude lines that match
- **include** Include lines that match
- **<line>**  String to match output lines

**EXAMPLE**

```
AW-IHT-1271# show process load
Load average(100ms, 1s, 10s):  9%,  2%,  2%
AW-IHT-1271#
```

**ptp**

Precision time Protocol (1588)

**SYNTAX**

```
show ptp <0-3> ( clk | current | default | filter ) | ( begin | exclude | include ) <line>
```
show ptp <0-3> [ foreign-master-record | port-ds | port-state ] [ | | ( interface ( * | GigabitEthernet ) |<port_type_list> ) ]
show ptp <0-3> [ ho | local-clock | master-table-unicast | parent | servo | servo-extended | slave | slave-cfg | slave-table-unicast | time-property | uni] | ( begin | exclude | include ) <line>

Parameter

<0-3> Show various PTP data
ext Show the 1PPS and External clock output configuration and vcxo frequency rate adjustment option.
system-time Show the PTP <> system time synchronization mode.
clk Show PTP slave clock options parameters.
current Show PTP current data set (IEEE1588 paragraph 8.2.2).
default Show PTP default data set (IEEE1588 paragraph 8.2.1).
filter Show PTP filter parameters.
foreign-master-record Show PTP port foreign masters.
ho Show PTP slave holdover parameters.
local-clock Show local clock current time
master-table-unicast Show PTP master list of connected unicast slaves.
parent Show PTP parent data set (IEEE1588 paragraph 8.2.3).
port-ds Show PTP port data set (IEEE1588 paragraph 8.2.5).
port-state Show PTP port state.
servo Show PTP servo parameters.
servo-extended Show PTP servo extended parameters.
slave Show PTP slave clock lock threshold parameters.
slave-cfg Show slave lock configuration
slave-table-unicast Show the Unicast slave table of the requested unicast masters
time-property Show PTP time properties data set (IEEE1588 paragraph 8.2.4).
uni
Show PTP slave unicast configuration parameters.

wireless
Show PTP port wireless parameters.

| Output modifiers

begin
Begin with the line that matches

exclude
Exclude lines that match

include
Include lines that match

<string>
String to match output lines

interface
Define interface list for the 'port' show commands. Default is show all interfaces.

* All switches or All ports

GigabitEthernet 1 Gigabit Ethernet Port

<port_type_list>
Port list for all port types

EXAMPLE

AW-IHT-1271# show ptp 3 master-table-unicast
ip_addr mac_addr port Ann Sync
--------------- --------------- ---- ---- ----
AW-IHT-1271#

pvlan

PVLAN status.

SYNTAX

show pvlan<range_list>

show pvlan isolation interface <port_type> <port_type_list>

Parameter

<range_list> PVLAN id to show configuration for

isolation show isolation configuration

<port_type> GigabitEthernet
* All Switches or All ports

**Gigabitethernet** 1 Gigabit Ethernet Port

<port_type_list> Port list in 1/1-12 for Gigabitethernet

| Output modifiers

**begin** Begin with the line that matches

**exclude** Exclude lines that match

**include** Include lines that match

<LINE> String to match output lines

**EXAMPLE**

```
AW-IHT-1271# show pvlan isolation interface GigabitEthernet 1/1-2
Port                              Isolation
-----------------------------------------
GigabitEthernet 1/1                Disabled
GigabitEthernet 1/2                Disabled
AW-IHT-1271#
```

**qos**

Quality of Service.

**SYNTAX**

```
show qos [ { interface [ <port_type> <port_type_list> ] } | wred | { maps [ dscp-cos ] [ dscp-ingress-translation ] [ dscp-classify ] [ cos-dscp ] [ dscp-egress-translation ] } | storm | { qce [ <Qce : 1-256> ] } ] [ { begin | exclude | include } <LINE>]
```

**Parameter**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>interface</td>
<td>Interface</td>
</tr>
<tr>
<td>&lt;port_type&gt;</td>
<td>GigabitEthernet</td>
</tr>
<tr>
<td>*</td>
<td>All switches or All ports</td>
</tr>
<tr>
<td>Gigabitethernet</td>
<td>1 Gigabit Ethernet Port</td>
</tr>
</tbody>
</table>
Port list in 1/1-12 for Gigabitethernet

Global QoS Maps/Tables

QoS Control Entry

Storm policer

Weighted Random Early Discard

Map for cos to dscp

Map for dscp classify enable

Map for dscp to cos

Map for dscp egress translation

Map for dscp ingress translation

QCE ID

Output modifiers

Begin with the line that matches

Exclude lines that match

Include lines that match

String to match output lines

EXAMPLE

AW-IHT-1271# show qos storm
qos storm:
==========
Unicast : disabled            1
Multicast: disabled            1
Broadcast: disabled            1
AW-IHT-1271#

radius-server

RADIUS configuration.
SYNTAX

show radius-server [statistics] [ | {begin | exclude | include} <LINE>]

Parameter

statistics | RADIUS statistics

| Output modifiers

begin | Begin with the line that matches

exclude | Exclude lines that match

include | Include lines that match

<LINE> | String to match output lines

EXAMPLE

AW-IHT-1271# show radius-server
Global RADIUS Server Timeout : 5 seconds
Global RADIUS Server Retransmit : 3 times
Global RADIUS Server Deadtime  : 0 minutes
Global RADIUS Server Key       :
Global RADIUS Server Attribute 4 :
Global RADIUS Server Attribute 95 :
Global RADIUS Server Attribute 32 :
No hosts configured!
AW-IHT-1271#

rapid-ring

Display Rapid Ring configurations

SYNTAX

show rapid-ring

show rapid-ring (begin | exclude | include) <line>

Parameter

| Output modifiers

begin | Begin with the line that matches
**exclude**
Exclude lines that match

**include**
Include lines that match

**<LINE>**
String to match output lines

**EXAMPLE**

AW-IHT-1271# show rapid-ring
Entry Index : 1
Rapid Ring Role : Disabled
Rapid Ring Port 1 : 1
Rapid Ring Port 2 : 1
Rapid Ring Port 1 State : Discarding
Rapid Ring Port 2 State : Discarding

Entry Index : 2
Rapid Ring Role : Disabled
Rapid Ring Port 1 : 1
Rapid Ring Port 2 : 1
Rapid Ring Port 1 State : Forwarding
Rapid Ring Port 2 State : Forwarding

Ring-to-Ring Role : Disabled
Ring-to-Ring Port : 1
Ring-to-Ring Port State : Forwarding
AW-IHT-1271#

**rmon**

RMON statistics.

**SYNTAX**

```bash
show rmon alarm \[ <1~65535> \] \[ \| \{ begin | exclude | include \} <LINE> \]
show rmon event \[ <1~65535> \] \[ \| \{ begin | exclude | include \} <LINE> \]
show rmon history \[ <1~65535> \] \[ \| \{ begin | exclude | include \} <LINE> \]
show rmon statistics \[ <1~65535> \] \[ \| \{ begin | exclude | include \} <LINE> \]
```
Parameter

alarm    Display the RMON alarm table
event    Display the RMON event table
history  Display the RMON history table
statistics Display the RMON statistics table

<1~65535> Alarm/Event/History/Statistics entry list

| Output modifiers
begin    Begin with the line that matches
exclude  Exclude lines that match
include  Include lines that match

<LINES> String to match output lines

EXAMPLE

AW-IHT-1271# show rmon alarm
AW-IHT-1271#

running-config

Show running system information.

SYNTAX

show running-config [ all-defaults ] [ | (begin | exclude | include ) <LINE>

show running-config feature <CWORD> [ all-defaults ] [ | (begin | exclude | include ) <LINE>

show running-config interface <port_type> <port_type_list> [ all-defaults ] [ | (begin | exclude | include ) <LINE>

show running-config interface vlan <vlan_list> [ all-defaults ] [ | (begin | exclude | include ) <LINE>

show running-config line { console | vty } <range_list> [ all-defaults ] [ | (begin | exclude | include ) <LINE>

show running-config vlan <vlan_list> [ all-defaults ] [ | (begin | exclude | include ) <LINE>

Parameter

all-defaults Include most/all default values
**feature**
Show configuration for specific feature

**interface**
Show specific interface(s)

**line**
Show line settings

**vlan**
VLAN

**CWORD**

**<port_type>**
GigabitEthernet

**•**
All switches or All ports

**Gigabitethernet**
1 Gigabit Ethernet Port

**<port_type_list>**
Port list in 1/1-12 for Gigabitethernet

**<vlan_list>**
List of VLAN numbers

**console**
Console

**vty**
VTY

**<range_list>**
List of console/VTYs

| Output modifiers
begin Begin with the line that matches
exclude Exclude lines that match
include Include lines that match
<String> String to match output lines

EXAMPLE

AW-IHT-1271# show running-config interface vlan 3
Building configuration...
end
AW-IHT-1271#

sflow

Statistics flow.

SYNTAX

show sflow [ statistics { receiver | samplers [[<range_list>] <port_type> <port_type_list>] } ] [ | { begin | exclude | include }] <LINE>

Parameter

statistics sFlow statistics.
receiver Show statistics for receiver.
samplers Show statistics for samplers.
<range_list> runtime, see sflow_icli_functions.c
<port_type> GigabitEthernet
* All switches or All ports
Gigabitethernet 1 Gigabit Ethernet Port
<port_type_list> Port list in 1/1-12 for Gigabitethernet
| Output modifiers
begin Begin with the line that matches
exclude Exclude lines that match
**include**

Include lines that match

**<LINE>**

String to match output lines

**EXAMPLE**

AW-IHT-1271# show sflow

Agent Configuration:

Agent Address: 127.0.0.1

Receiver Configuration:

Owner : <none>
Receiver : 0.0.0.0
UDP Port : 6343
Max. Datagram: 1400 bytes
Time left : 0 seconds

No enabled collectors (receivers). Skipping displaying per-port info.

AW-IHT-1271#

**smtp**

Show email information

**SYNTAX**

show smtp

**EXAMPLE**
**snmp**

Display SNMP configurations.

**SYNTAX**

```bash
show snmp

show snmp access [ <GroupName : word32> { v1 | v2c | v3 | any } { auth | noauth | priv } ] [ | (begin | exclude | include ) ] <LINE>

show snmp community v3 [ <Community : word127> ] [ | (begin | exclude | include ) ] <LINE>

show snmp host [ <ConfName : word32> ] [ system ] [ switch ] [ interface ] [ aaa ] [ | (begin | exclude | include ) ] <LINE>

show snmp security-to-group [ { v1 | v2c | v3 } <SecurityName : word32> ] [ | (begin | exclude | include ) ] <LINE>

show snmp user [ <UserName : word32> <EngineId : word10-32> ] [ | (begin | exclude | include ) ] <LINE>

show snmp view [ <ViewName : word32> <OidSubtree : word255> ] [ | (begin | exclude | include ) ] <LINE>
```

**Parameter**

- `access` access configuration
- `<GroupName : word32>` Group name
- `v1` v1 security model
<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>v2c</td>
<td>v2c security model</td>
</tr>
<tr>
<td>v3</td>
<td>v3 security model</td>
</tr>
<tr>
<td>any</td>
<td>any security model</td>
</tr>
<tr>
<td>auth</td>
<td>authNoPriv Security Level</td>
</tr>
<tr>
<td>noauth</td>
<td>noAuthNoPriv Security Level</td>
</tr>
<tr>
<td>priv</td>
<td>authPriv Security Level</td>
</tr>
<tr>
<td>community</td>
<td>Community</td>
</tr>
<tr>
<td>v3</td>
<td>SNMPv3</td>
</tr>
<tr>
<td>&lt;Community : word127&gt;</td>
<td>Specify community name</td>
</tr>
<tr>
<td>host</td>
<td>Set SNMP host's configurations</td>
</tr>
<tr>
<td>&lt;ConfName : word32&gt;</td>
<td>Name of the host configuration</td>
</tr>
<tr>
<td>system</td>
<td>System event group</td>
</tr>
<tr>
<td>switch</td>
<td>Switch event group</td>
</tr>
<tr>
<td>interface</td>
<td>Interface event group</td>
</tr>
<tr>
<td>aaa</td>
<td>AAA event group</td>
</tr>
<tr>
<td>security-to-group</td>
<td>security-to-group configuration</td>
</tr>
<tr>
<td>&lt;SecurityName : word32&gt;</td>
<td>security group name</td>
</tr>
<tr>
<td>user</td>
<td>User</td>
</tr>
<tr>
<td>&lt;UserName : word32&gt;</td>
<td>Security user name</td>
</tr>
<tr>
<td>&lt;EngineId : word10-32&gt;</td>
<td>Security Engine ID</td>
</tr>
<tr>
<td>view</td>
<td>MIB view configuration</td>
</tr>
<tr>
<td>&lt;ViewName : word32&gt;</td>
<td>MIB view name</td>
</tr>
<tr>
<td>&lt;OidSubtree : word255&gt;</td>
<td>MIB view OID</td>
</tr>
<tr>
<td>begin</td>
<td>Begin with the line that matches</td>
</tr>
<tr>
<td>exclude</td>
<td>Exclude lines that match</td>
</tr>
</tbody>
</table>
include Include lines that match

<LINE> String to match output lines

EXAMPLE

AW-IHT-1271# show snmp

SNMP Configuration
SNMP Mode : enabled
SNMP Version : 2c
Read Community : public
Write Community : private
Trap Mode : disabled
Trap Version : 1

SNMPv3 Communities Table:
Community : public
Source IP : 0.0.0.0
Source Mask : 0.0.0.0

Community : private
Source IP : 0.0.0.0
Source Mask : 0.0.0.0

SNMPv3 Users Table:
User Name : default_user
Engine ID : 800007e5017f000001

-- more --, next page: Space, continue: g, quit: ^C

spanning-tree
STP Bridge.

SYNTAX

show spanning-tree [ summary | active | { interface <port_type> <port_type_list> } | { detailed [ interface}
Parameter

| summary | STP summary |
| active | STP active interfaces |
| interface | Choose port |
| <port_type> | Gigabitethernet |
| * | All switches or All ports |
| Gigabitethernet | 1 Gigabit Ethernet Port |
| <port_type_list> | Port list in 1/1-12 for Gigabitethernet |
| detailed | STP statistics |
| interface | List of port type and port ID, ex, 1/1-12 |
| mst | Configuration |
| configuration | STP bridge instance no (0-7, CIST=0, MST2=1...) |
| <0-7> | Choose port |
| <port_type> | GigabitEthernet |
| * | All Switches or All ports |
| Gigabitethernet | 1 Gigabit Ethernet Port |
| <port_type_list> | Port list in 1/1-12 for Gigabitethernet |
| | Output modifiers |
| begin | Begin with the line that matches |
| exclude | Exclude lines that match |
| include | Include lines that match |
| <LINE> | String to match output lines |

EXAMPLE
AW-IHT-1271# show snmp

SNMP Configuration
SNMP Mode : enabled
SNMP Version : 2c
Read Community : public
Write Community : private
Trap Mode : disabled
Trap Version : 1

SNMPv3 Communities Table:
Community : public
Source IP : 0.0.0.0
Source Mask : 0.0.0.0

Community : private
Source IP : 0.0.0.0
Source Mask : 0.0.0.0

SNMPv3 Users Table:
User Name : default_user
Engine ID : 800007e5017f000001

AW-IHT-1271# show spanning-tree ?
 | Output modifiers
 active STP active interfaces
detailed STP statistics
interface Choose port
mst Configuration
summary STP summary
<cr>

AW-IHT-1271# show spanning-tree
CIST Bridge STP Status
Bridge ID : 32768.00-40-C7-01-02-03
Root ID : 32768.00-40-C7-01-02-03
Root Port : -
**switchalert-management**

Show SwitchAlert Management information

**SYNTAX**

```
show switchalert-management [ cloud-config | mobile-device-list | port-name-service ]
```

**Parameter**

- `cloud-config` Show SwitchAlert Management configuration
- `mobile-device-list` Show Registered Mobile Device List
- `port-name-service` Show Port Name Service configuration

**EXAMPLE**

```
AW-IHT-1271# show switchalert-management cloud-config
SwitchAlert Mode : disabled
Server Address    : ipush.cloudapp.net
Server State      : 

AW-IHT-1271#
```

**switchport**

Display switching mode characteristics.

**SYNTAX**

```
show switchport forbidden [ { vlan <vlan_id> } | { name <word> } ] [ | { begin | exclude | include } <LINE>]
```

**Parameter**

- `forbidden` Lookup VLAN Forbidden port entry.
- `name` name - Show forbidden access for specific VLAN name.
- `vlan` vid - Show forbidden access for specific VLAN id.
- `<vlan_id>` VLAN id
- `<word>` VLAN name
Output modifiers

begin  Begin with the line that matches
exclude Exclude lines that match
include Include lines that match

Example

```
AW-IHT-1271# show switchport forbidden
Forbidden VLAN table is empty
AW-IHT-1271#
```

**tacacs-server**

TACACS+ configuration.

**Syntax**

```
show tacacs-server [ | {begin | exclude | include} <LINE>
```

**Parameter**

| | Output modifiers
begin  Begin with the line that matches
exclude Exclude lines that match
include Include lines that match

**Example**

```
AW-IHT-1271# show tacacs-server
Global TACACS+ Server Timeout : 5 seconds
Global TACACS+ Server Deadtime : 0 minutes
Global TACACS+ Server Key :
No hosts configured!
AW-IHT-1271#
```
show system information.

**SYNTAX**

show system

**Parameter**

None

**EXAMPLE**

```plaintext
AW-IHT-1271# show system
Model Name : 
System Description : 
Location : 
Contact : 
System Name : 
System Date : 2011-01-01T07:54:13+00:00
System Uptime : 07:54:14
Bootloader Version : v1.15f
Firmware Version : v7.10.1049 2017-04-11
Hardware Version : v1.01
Mechanical Version : 
Serial Number : 
MAC Address : 00-00-8c-78-91-23
Memory : Total=52065 KBytes, Free=32998 KBytes,
Max=31857 KBytes
FLASH : 0x40000000-0x41ffffff, 512 x 0x10000 blocks
Powers status : Normal
Powers : PWR_1.0V:0.98V; PWR_3.3V:3.29V;
PWR_2.5V:2.57V; PWR_1.8V:1.87V
Temperature status : Normal
Temperature 1 : 46(C) ; 114(F)
Temperature 2 : 46(C) ; 114(F)
AW-IHT-1271#
```
terminal

Display terminal configuration parameters.

SYNTAX

```
show terminal [ [begin | exclude | include ] <LINE>
```

Parameter

- Output modifiers
  - begin: Begin with the line that matches
  - exclude: Exclude lines that match
  - include: Include lines that match

- <LINE>: String to match output lines

EXAMPLE

```
AW-IHT-1271# show terminal
Line is con 0.
 * You are at this line now.
 Alive from Console.
 Default privileged level is 2.
 Command line editing is enabled
 Display EXEC banner is enabled.
 Display Day banner is enabled.
 Terminal width is 80.
   length is 24.
   history size is 32.
   exec-timeout is 10 min 0 second.

Current session privilege is 15.
Elapsed time is 0 day 0 hour 29 min 24 sec.
Idle time is 0 day 0 hour 0 min 0 sec.

AW-IHT-1271#
```
**udld**

Unidirectional Link Detection (UDLD) configurations, statistics and status

**SYNTAX**

```
show udld
show udld | [ begin | exclude | include ] <line>
show udld interface [ * | GigabitEthernet <port_type_list> ]
```

**Parameter**

- **Interface**: Choose port
- **begin**: Begin with the line that matches
- **exclude**: Exclude lines that match
- **include**: Include lines that match
- **<line>**: String to match output lines
- *****: All switches or All ports
- **GigabitEthernet**: 1 Gigabit Ethernet Port
- **<port_type_list>**: Port list for all port types

**EXAMPLE**

```
AW-IHT-1271# show udld interface GigabitEthernet 1/1-3

GigabitEthernet 1/1
-----------------------------------------------------------------
UDLD Mode : Disable
Admin State : Disable
Message Time Interval(Sec): 7
Device ID(local) : 00-00-8C-78-91-23
Device Name(local) : AW-IHT-1271
Bidirectional state : Indeterminant

No neighbor cache information stored
```

---

No neighbor cache information stored
upnp

Display UPnP configurations.

SYNTAX

show upnp [ | {begin | exclude | include } <LINE>

Parameter

| Output modifiers

| begin Begin with the line that matches

| exclude Exclude lines that match
**include**  Include lines that match

**<LINE>**  String to match output lines

**EXAMPLE**

```
AW-IHT-1271# show upnp
UPnP Mode               : Disabled
UPnP TTL                : 4
UPnP Advertising Duration : 100
AW-IHT-1271#
```

**user-privilege**

Users privilege configuration

**SYNTAX**

```
show user-privilege
```

**EXAMPLE**

```
AW-IHT-1271# show user-privilege
username admin privilege 15 password none
AW-IHT-1271#
```

**users**

Display information about terminal lines.

**SYNTAX**

```
show users myself  [ | {begin | exclude | include} <LINE>]
```

**Parameter**

```
myself  Display information about mine

|  Output modifiers

begin  Begin with the line that matches
```
exclude Exclude lines that match
include Include lines that match
\(<\text{LINE}>\) String to match output lines

**EXAMPLE**

```
AW-IHT-1271# show user myself
Line is vty 0.
  * You are at this line now.
  Connection is from 192.168.10.119:4123 by Telnet.
  User name is admin.
  Privilege is 15.
  Elapsed time is 0 day 1 hour 33 min 27 sec.
  Idle time is 0 day 0 hour 0 min 0 sec.
```

**version**

System hardware and software status.

**SYNTAX**

```
show version [ | (begin exclude include) \(<\text{LINE}>\)
```

**Parameter**

<table>
<thead>
<tr>
<th></th>
<th>Output modifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>begin</td>
<td>Begin with the line that matches</td>
</tr>
<tr>
<td>exclude</td>
<td>Exclude lines that match</td>
</tr>
<tr>
<td>include</td>
<td>Include lines that match</td>
</tr>
<tr>
<td>(&lt;\text{LINE}&gt;)</td>
<td>String to match output lines</td>
</tr>
</tbody>
</table>

**EXAMPLE**
AW-IHT-1271# show version

<table>
<thead>
<tr>
<th>Component</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEMORY</td>
<td>Total=76031 KBytes, Free=57621 KBytes, Max=56469 KBytes</td>
</tr>
<tr>
<td>FLASH</td>
<td>0x40000000-0x41ffffff, 512 x 0x10000 blocks</td>
</tr>
<tr>
<td>MAC Address</td>
<td>80-34-57-13-03-bd</td>
</tr>
<tr>
<td>Previous Restart</td>
<td>Cold</td>
</tr>
<tr>
<td>System Contact</td>
<td></td>
</tr>
<tr>
<td>System Name</td>
<td></td>
</tr>
<tr>
<td>System Location</td>
<td></td>
</tr>
<tr>
<td>System Time</td>
<td>2016-09-30T14:52:34+00:00</td>
</tr>
<tr>
<td>System Uptime</td>
<td>01:43:12</td>
</tr>
</tbody>
</table>

Active Image
--------------
| Image        | managed                                                                |
| Version      | AW-IHT-1271 (standalone) v7.04.724                                    |
| Date         | 2016-08-18T10:11:49+08:00                                              |

Alternate Image
----------------
| Image        | managed.bk                                                             |
| Version      |                                                                        |
| Date         |                                                                        |

SID : 1
------------------
| Chipset ID     | VSC0                                                                   |
| Board Type     | AW-IHT-1271                                                           |
| Port Count     | 26                                                                     |
| Product        | Vitesse AW-IHT-1271 Switch                                            |
| Software Version | AW-IHT-1271 (standalone) v6.02                                      |
| Build Date     | 2016-09-30T13:35:25+08:00                                             |
vlan

VLAN status.

SYNTAX

show vlan [ id <vlan_list> | name <vword32> | brief ]

show vlan protocol [ eth2 { <0x600-0xffff> | arp | ip | ipx | at } ] [ snap { <0x0-0xffffff> | rfc_1042 | snap_8021h } <0x0-0xffff> ] [ llc <0x0-0xff> <0x0-0xff> ]

show vlan status [admin [interface] | all | combined | conflicts | gvrp | interface | mstp | mvr | nas | vcl | voice-vlan ] [<port_type ><port_type_list>]

Parameter

id VLAN status by VLAN id
<vlan_list> VLAN IDs 1-4095
name VLAN status by VLAN name
<vword32> A VLAN name
brief VLAN summary information
protocol Protocol-based VLAN status
eth2 Ethernet protocol based VLAN status
<0x600-0xffff> Ether Type(Range: 0x600 - 0xFFFF)
arpon Ether Type is ARP
ip Ether Type is IP
ipx Ether Type is IPX
at Ether Type is AppleTalk
snap SNAP-based VLAN status
<0x0-0xffffff> SNAP OUI (Range 0x000000 - 0xFFFFFFFF)
rfc_1042 SNAP OUI is rfc_1042
snap_8021h SNAP OUI is 8021h
<0x0-0xffff> PID (Range: 0x0 - 0xFFFF)
llc LLC-based VLAN status
<0x0-0xff> DSAP (Range: 0x00 - 0xFF)
<0x0-0xff> SSAP (Range: 0x00 - 0xFF)
admin Show the VLANs configured by administrator.
all Show all VLANs configured.
combined Show the VLANs configured by a combination.
conflicts Show VLANs configurations that has conflicts.
gvrp Show the VLANs configured by GVRP.
interface Show the VLANs configured for a specific interface(s).
mstp Show the VLANs configured by MSTP.
mvr Show the VLANs configured by MVR.
nas Show the VLANs configured by NAS.
vcl Show the VLANs configured by VCL.
voice-vlan Show the VLANs configured by Voice VLAN.
interface Show the VLANs configured for a specific interface(s).

<port_type > GigabitEthernet
Gigabitethernet 1 Gigabit Ethernet Port
<port_type_list> Port list in 1/1-12 for Gigabitethernet

EXAMPLE

AW-IHT-1271# show vlan
VLAN  Name          Interfaces
------ ----------------------------- --------
1      default          Gi 1/1-12

AW-IHT-1271#
**voice**

Voice appliance attributes.

**SYNTAX**

```
show voice vlan [ oui <oui> | interface <port_type> <port_type_list> ] [ | { begin | exclude | include } <LINE> ]
```

**Parameter**

- **vlan**  Vlan for voice traffic
- **oui**   OUI configuration
- `<oui>`   OUI value
- **interface**  Select an interface to configure
- `<port_type>`  * or Gigabitethernet
- `*`       All Switches or All ports
- **Gigabitethernet**  1 Gigabit Ethernet Port
- `<port_type_list>`  Port list in 1/1-12 for Gigabitethernet
- `|`       Output modifiers
- **begin**  Begin with the line that matches
- **exclude**  Exclude lines that match
- **include**  Include lines that match
- `<LINE>`  String to match output lines

**EXAMPLE**
AW-IHT-1271# show voice vlan
Switch voice vlan is disabled
Switch voice vlan ID is 1000
Switch voice vlan aging-time is 86400 seconds
Switch voice vlan traffic class is 7

Telephony OUI         Description
-----------------------
00-01-E3              Siemens AG phones
00-03-6B              Cisco phones
00-0F-E2              H3C phones
00-60-B9              Philips and NEC AG phones
00-D0-1E              Pingtel phones
00-E0-75              Polycom phones
00-E0-BB              3Com phones

Voice VLAN switchport is configured on following:

GigabitEthernet 1/1 :
---------------------
GigabitEthernet 1/1 switchport voice vlan mode is disabled
GigabitEthernet 1/1 switchport voice security is disabled
GigabitEthernet 1/1 switchport voice discovery protocol is oui

/* more */, next page: Space, continue: g, quit: ^C

**SYNTAX**

    show web privilege group [ <cword> ] level [ | {begin | exclude | include } <LINE>

**Parameter**

**privilege**
    Web privilege

**group**
    Web privilege group
Valid words are 'Aggregation' 'DHCP' 'Debug' 'Dhcp_Client' 'Diagnostics'
'IEEE' 'GARP' 'GVRP' 'Green_Ethernet' 'IP2' 'IPMC_Snooping' 'LACP' 'LLDP'
'Loop_PROtect' 'MAC_Table' 'MVR' 'Maintenance'
'Mirroring' 'NTP' 'POE' 'Ports' 'Private_VLANs' 'QoS'
'RPC' 'Security' 'Spanning_Tree' 'System' 'Timer'
'UPnP' 'VCL' 'VLANs' 'Voice_VLAN' 'XXRP' 'sFlow'
'sFlow'

level  Web privilege group level

| Output modifiers

begin  Begin with the line that matches

exclude  Exclude lines that match

include  Include lines that match

<LINE>  String to match output lines

EXAMPLE
AW-IHT-1271# show web privilege group level

<table>
<thead>
<tr>
<th>Group Name</th>
<th>Privilege Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CRO  CRW  SRO  SRW</td>
</tr>
<tr>
<td>ACTIVATE</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>Aggregation</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>cloud_management</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>Debug</td>
<td>15  15  15  15</td>
</tr>
<tr>
<td>DHCP</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>Dhcp_Client</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>Diagnostics</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>EEE</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>GARP</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>Green_Ethernet</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>GVRP</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>IP2</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>IPMC_Snooping</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>LACP</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>LLDP</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>Loop_Protect</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>MAC_Table</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>Maintenance</td>
<td>15  15  15  15</td>
</tr>
<tr>
<td>Mirroring</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>MVR</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>NTP</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>POE</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>Ports</td>
<td>5  10  1  10</td>
</tr>
<tr>
<td>Private_VLANs</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>QoS</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>RPC</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>Security</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>sFlow</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>Spanning_Tree</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>System</td>
<td>5  10  1  10</td>
</tr>
<tr>
<td>Timer</td>
<td>5  10  5  10</td>
</tr>
<tr>
<td>Trap_Event</td>
<td>5  10  5  10</td>
</tr>
</tbody>
</table>
TERMINAL of CLI

Set terminal line parameters

**Syntax**

```
terminal editing

terminal exec-timeout <0-1440> [ <0-3600> ]

terminal help

terminal history size <0-32>

terminal length <0 or 3-512>

terminal width <0 or 40-512>
```

**Parameter**

- **editing**: Enable command line editing
- **exec-timeout**: Set the EXEC timeout
- **help**: Description of the interactive help system
- **history**: Control the command history function
- **length**: Set number of lines on a screen
- **width**: Set width of the display terminal
- **<0-1440>**: Timeout in minutes
- **<0-3600>**: Timeout in seconds
- **size**: Set history buffer size
- **<0-32>**: Number of history commands, 0 means disable
- **<0 or 3-512>**: Number of lines on screen (0 for no pausing)
- **<0 or 40-512>**: Number of characters on a screen line (0 for unlimited width)

**EXAMPLE**
Help may be requested at any point in a command by entering a question mark '?'. If nothing matches, the help list will be empty and you must backup until entering a '?' shows the available options.

Two styles of help are provided:

1. Full help is available when you are ready to enter a command argument (e.g. 'show ?') and describes each possible argument.

2. Partial help is provided when an abbreviated argument is entered and you want to know what arguments match the input (e.g. 'show pr?').
Copy from source to destination

**SYNTAX**

```
traceroute ip <v_ip_addr> [ protocol { icmp | udp | tcp } ] [ wait <v_wait_time> ] [ ttl <v_max_ttl> ] [ nqueries <v_nqueries> ]
```

**Parameter**

- **ip**
  - IP
- **<word1-255>**
  - destination address
- **nqueries**
  - Specify number of probe packets
- **protocol**
  - Specify protocol including icmp, udp and tcp
- **ttl**
  - Specify max TTL
- **wait**
  - Specify wait time

**EXAMPLE**

```
AW-IHT-1271# traceroute ip 22 nqueries 3 protocol icmp ttl 3 wait 3
traceroute to 22 (0.0.0.22), 3 hops max, 140 byte packets
  1  *   *
  2  *   *
  3  *   *
AW-IHT-1271#
```
This chapter introduces the CLI privilege level and command modes.

- The privilege level determines whether or not the user could run the particular commands
- If the user could run the particular command, then the user has to run the command in the correct mode.

23.1 Privilege level

Every command has a privilege level (0-15). Users can run a command if the session’s privilege level is greater than or equal to the command’s privilege level. The session’s privilege level initially comes from the login account’s privilege level, though it is possible to change the session’s privilege level after logging in.

<table>
<thead>
<tr>
<th>PRIVILEGE LEVEL</th>
<th>TYPES OF COMMANDS AT THIS PRIVILEGE LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Display basic system information</td>
</tr>
<tr>
<td>13</td>
<td>Configure features except for login accounts, the authentication method sequence, multiple logins, and administrator and enable passwords.</td>
</tr>
<tr>
<td>15</td>
<td>Configure login accounts, the authentication method sequence, multiple logins, and administrator and enable passwords.</td>
</tr>
</tbody>
</table>

23.2 Command modes

The CLI is divided into several modes. If a user has enough privilege to run a particular command, the user has to run the command in the correct mode. The modes that are available depend on the session’s privilege level.

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>MODE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Command Summary

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>DESCRIPTION</th>
<th>P</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>show access management</td>
<td>Use the show access management user EXEC command without keywords to display the access management configuration, or use the statistics keyword to display statistics, or use the <code>&lt;AccessId&gt;</code> keyword to display the specific access management entry.</td>
<td>15</td>
<td>EXEC</td>
</tr>
<tr>
<td>clear access management statistics</td>
<td>Use the clear access management statistics privileged EXEC command to clear the statistics maintained by access management.</td>
<td>15</td>
<td>EXEC</td>
</tr>
<tr>
<td>access management</td>
<td>Use the access management global configuration command to enable the access management. Use the no form of this command to disable the access management.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>access management &lt;1-16&gt; &lt;1-4094&gt;</td>
<td>Use the access management <code>&lt;AccessId&gt;</code> global configuration command to set the access management entry for IPv4 address.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>access management &lt;1-16&gt; &lt;1-4094&gt;</td>
<td>Use the access management <code>&lt;AccessId&gt;</code> global configuration command to set the access management entry for IPv6 address.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>no access management &lt;1-16&gt;</td>
<td>Use the no access management <code>&lt;AccessIdList&gt;</code> global configuration command to delete the specific access management entry.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>access-list action { permit</td>
<td>deny }</td>
<td>Use the access-list action interface configuration command to configure access-list action. The access-list</td>
<td>15</td>
</tr>
<tr>
<td>Interface Configuration Command</td>
<td>Description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>access-list rate-limiter &lt;1-16&gt;</strong></td>
<td>Use the access-list rate-limiter interface configuration command to configure the access-list rate-limiter ID. The access-list interface configuration will affect the received frames if it doesn't match any ACE.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>no access-list rate-limiter</strong></td>
<td>Use the no access-list rate-limiter interface configuration command to disable the access-list rate-limiter. The access-list interface configuration will affect the received frames if it doesn't match any ACE.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>**access-list { redirect</td>
<td>port-copy } interface { &lt;port_type_id&gt;</td>
<td>&lt;port_type_list&gt; }**</td>
<td>Use the no access-list redirect interface configuration command to configure the access-list redirect interface.</td>
</tr>
<tr>
<td>**no access-list { redirect</td>
<td>port-copy }**</td>
<td>Use the no access-list redirect interface configuration command to disable the access-list redirect. The access-list interface configuration will affect the received frames if it doesn't match any ACE.</td>
<td></td>
</tr>
<tr>
<td><strong>access-list mirror</strong></td>
<td>Use the access-list mirror interface configuration command to enable access-list mirror. Use the no form of this command to disable access-list mirror. The access-list interface configuration will affect the received frames if it doesn't match any ACE.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>access-list logging</strong></td>
<td>Use the access-list logging interface configuration command to enable access-list logging. Use the no form of this command to disable access-list logging. The access-list interface configuration will affect the received frames if it doesn't match any ACE.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
<td>Interface Port List</td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td>access-list shutdown</td>
<td>Use the access-list shutdown interface configuration command to enable access-list shutdown. Use the no form of this command to disable access-list shutdown. The access-list interface configuration will affect the received frames if it doesn't match any ACE.</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>access-list evc-policer &lt;1-256&gt;</td>
<td>Use the access-list evc-policer interface configuration command to configure the access-list evc-policer ID. The access-list interface configuration will affect the received frames if it doesn't match any ACE.</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no access-list evc-policer</td>
<td>Use the no access-list evc-policer interface configuration command to configure the access-list evc-policer ID. The access-list interface configuration will affect the received frames if it doesn't match any ACE.</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>access-list policy &lt;0-255&gt;</td>
<td>Use the access-list policy interface configuration command to configure the access-list policy value. The access-list interface configuration will affect the received frames if it doesn't match any ACE.</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no access-list policy</td>
<td>Use the no access-list policy interface configuration command to restore the default access-list policy ID. The access-list interface configuration will affect the received frames if it doesn't match any ACE.</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>access-list port-state</td>
<td>Use the access-list port-state interface configuration command to enable access-list port state. Use the no form of this command to disable access-list port state.</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>access-list rate-limiter [ &lt;1-16&gt; ] { pps &lt;1,2,4,8,16,32,64,128,256,512&gt;} 100pps</td>
<td>Use the access-list rate-limiter global configuration command to configure the</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>1-32767&gt;</td>
<td>kpps</td>
<td>access-list rate-limiter.</td>
<td></td>
</tr>
<tr>
<td>1,2,4,8,16,32,64,128,256,512,1024&gt;</td>
<td>100kbps</td>
<td>Use the default access-list rate-limiter global configuration command to restore the default setting of access-list rate-limiter.</td>
<td></td>
</tr>
</tbody>
</table>

default access-list rate-limiter [ <1-16> ]

Use the default access-list rate-limiter global configuration command to set the access-list ace. The command without the update keyword will creates or overwrites an existing ACE, any unspecified parameter will be set to its default value. Use the update keyword to update an existing ACE and only specified parameter are modified. TheACE must ordered by an appropriate sequence, the received frame will only be hit on the first matched ACE. Use the next or last keyword to adjust the ACE's sequence order.

```
access-list ace [update] <1-256> [next [ <1-256> | last ] ] [ingress / switch_id / switchport [ <1-53> | <1-53> ] | interface [ <port_type_id> | <port_type_list> ] ] [ policy [ <0-255> | policy-bitmask <0x0-0xFF> ] ] [ tag [ tagged | untagged | any ] ] [ vid [ <1-4095> | any ] ] [ tag-priority [ <0-7> | 0-1 | 2-3 | 4-5 | 6-7 | 0-3 | 4-7 | any ] ] [ dmac-type ( unicast | multicast | broadcast | any ) ] [ frametype [ any ] etype [ etype-value [ <0x0-0x7f> | 0x801-0x805 | 0x807-0x86dc | 0x86de-0xffff ] ] [ smac [ <mac_addr> | any ] ] [ dmac [ <mac_addr> | any ] ] [ arp [ sip [ <ipv4_subnet> | any ] ] [ dip [ <ipv4_subnet> | any ] ] [ smac [ <mac_addr> | any ] ] [ dmac [ <mac_addr> | any ] ] [arp-oprcode [arp|arp|other|any]] [arp-flag [arp-request [ <0-1> | any ] ] [arp-smac [ <0-1> | any ] ] [arp-tmac [ <0-1> | any ] ] [arp-len [ <0-1> | any ] ] [arp-ip [ <0-1> | any ] ] [arp-ether [ <0-1> | any ] ] [ipv4 [ sip [ <ipv4_subnet> | any ] ] [ dip [ <ipv4_subnet> | any ] ] [ip-protocol [ <0-2-5-7-16-18-255> | any ] ] [ip-flag [ip-ttl [ <0-1> | any ] ] [ip-options [ <0-1> | any ] ] [ip-fragment [ <0-1> | any ] ] ] [ipv4-icmp [ sip [ <ipv4_subnet> | any ] ] [ dip [ <ipv4_subnet> | any ] ] [icmp-type [ <0-255> | any ] ] [icmp-code [ <0-255> | any ] ] [ip-flag [ip-ttl [ <0-1> | any ] ] [ip-options [ <0-1> | any ] ] [ip-fragment [ <0-1> | any ] ] ] [ipv4-udp [ sip [ <ipv4_subnet> | any ] ] [ dip [ <ipv4_subnet> | any ] ] [sport [ <0-65535> | any ] ] [dport [ <0-65535> | any ] ] [ip-flags [ <0-1> | any ] ] [ip-options [ <0-1> | any ] ] ] [ipv4-icmp [ sip [ <ipv4_subnet> | any ] ] [ dip [ <ipv4_subnet> | any ] ] [tep-type [ any ] ] [tep-code [ any ] ] [tep-data [ any ] ] ] [ipv4-udp [ sip [ <ipv4_subnet> | any ] ] [ dip [ <ipv4_subnet> | any ] ] [sport [ <0-65535> | any ] ] [dport [ <0-65535> | any ] ] [ip-flags [ <0-1> | any ] ] [ip-options [ <0-1> | any ] ] ]
```

<p>| 15 | GLOBAL_CONFIG |
| 15 | GLOBAL_CONFIG |</p>
<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>no access-list ace &lt;1~256&gt;</td>
<td>Use the no access-list ace global configuration command to delete the access-list ace.</td>
</tr>
<tr>
<td>show access-list [ interface [ &lt;port_type_list&gt; ] ] [ rate-limiter [ &lt;1<del>16&gt; ] ] [ ace statistics [ &lt;1</del>256&gt; ] ]</td>
<td>Use the show access-list privilege EXEC command without keywords to display the access-list configuration, or particularly the show access-list</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>clear access-list ace statistics</td>
<td>Use the clear access-list ace statistics privileged EXEC command to clear the statistics maintained by access-list, including access-list interface statistics and ACE's statistics.</td>
</tr>
<tr>
<td>show access-list ace-status [ static ] [ link-oam ] [ loop-protect ] [ dhcp ] [ ptp ] [ upnp ] [ arp-inspection ] [ mep ] [ ipmc ] [ ip-source-guard ] [ ip-mgmt ] [ conflicts ] [ switch &lt;switch_list&gt; ]</td>
<td>Use the show access-list ace-status privilege EXEC command without keywords to display the access-list ace status for all access-list users, or particularly the access-list user for the access-list ace status. Use conflicts keyword to display the access-list ace that doesn't apply on on the hardware. In other word, it means the specific ACE is not applied to the hardware due to hardware limitations.</td>
</tr>
<tr>
<td>show aggregation [ mode ]</td>
<td>Use the show aggregation mode EXEC command to display the mode of aggregation.</td>
</tr>
<tr>
<td>aggregation mode [ [ smac ] [ dmac ] [ ip ] [ port ] ]</td>
<td>Use the aggregation mode GLOBAL_CONFIG command to enable or disable aggregation for the specified mode.</td>
</tr>
<tr>
<td>no aggregation mode</td>
<td>Use the no aggregation mode GLOBAL_CONFIG command to disable aggregation mode.</td>
</tr>
<tr>
<td>aggregation group &lt;uint&gt;</td>
<td>Use the aggregation group INTERFACE_PORT_LIST command to set the aggregation group.</td>
</tr>
<tr>
<td>no aggregation group</td>
<td>Use the no aggregation group INTERFACE_PORT_LIST command to remove the aggregation group.</td>
</tr>
<tr>
<td>ip arp inspection</td>
<td>Use the ip arp inspection GLOBAL_CONFIG command to globally enable ARP inspection. Use the no form of this command to globally disable ARP inspection.</td>
</tr>
<tr>
<td>ip arp inspection vlan &lt;vlan_list&gt;</td>
<td>Use the ip arp inspection VLAN GLOBAL_CONFIG command to globally enable ARP inspection. Use the no form of this command to globally disable ARP inspection.</td>
</tr>
<tr>
<td>ip arp inspection vlan &lt;vlan_list&gt; logging { deny }</td>
<td>Use the ip arp inspection VLAN GLOBAL_CONFIG command with logging option to log deny ARP inspection packets.</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>permit</td>
<td>all</td>
</tr>
<tr>
<td>no ip arp inspection vlan &lt;vlan_list&gt; logging</td>
<td></td>
</tr>
<tr>
<td>ip arp inspection entry interface &lt;port_type_id&gt; &lt;vlan_id&gt; &lt;mac_uCAST&gt; &lt;ipv4_uCAST&gt;</td>
<td></td>
</tr>
<tr>
<td>arp_inspection_translate</td>
<td>Use the ip arp inspection trust interface configuration command to configure a port as trusted for ARP inspection purposes. Use the no form of this command to configure a port as untrusted.</td>
</tr>
<tr>
<td>arp_inspection_port_mode</td>
<td>Use the ip arp inspection tcp interface configuration command to configure a port as trusted for ARP inspection purposes. Use the no form of this command to configure a port as untrusted.</td>
</tr>
<tr>
<td>arp_inspection_port_check_vlan</td>
<td>Use the ip arp inspection check-vlan interface configuration command to configure a port as VLAN mode for ARP inspection purposes. Use the no form of this command to configure a port as default.</td>
</tr>
<tr>
<td>ip arp inspection logging { deny</td>
<td>permit</td>
</tr>
<tr>
<td>no ip arp inspection logging</td>
<td>Use the no ip arp inspection logging interface configuration command to configure a port as default logging mode for ARP inspection purposes.</td>
</tr>
<tr>
<td>show ip arp inspection [ interface &lt;port_type_list&gt;</td>
<td>vlan &lt;vlan_list&gt; ]</td>
</tr>
<tr>
<td>show ip arp inspection entry [ dhcp-snooping</td>
<td>static ] [ interface &lt;port_type_list&gt; ]</td>
</tr>
<tr>
<td>aaa authentication login { console</td>
<td>telnet</td>
</tr>
<tr>
<td>no aaa authentication login { console</td>
<td>telnet</td>
</tr>
<tr>
<td>radius-server timeout &lt;1-1000&gt;</td>
<td>Use the radius-server timeout command to configure the global RADIUS timeout.</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>no radius-server timeout</td>
<td>Use the no radius-server timeout command to reset the global RADIUS timeout value to default.</td>
</tr>
<tr>
<td>radius-server retransmit &lt;1-1000&gt;</td>
<td>Use the radius-server retransmit command to configure the global RADIUS retransmit value.</td>
</tr>
<tr>
<td>no radius-server retransmit</td>
<td>Use the no radius-server retransmit command to reset the global RADIUS retransmit value to default.</td>
</tr>
<tr>
<td>radius-server deadtime &lt;1-1440&gt;</td>
<td>Use the radius-server deadtime command to configure the global RADIUS deadtime value.</td>
</tr>
<tr>
<td>no radius-server deadtime</td>
<td>Use the no radius-server deadtime command to reset the global RADIUS deadtime value to default.</td>
</tr>
<tr>
<td>radius-server key &lt;line1-63&gt;</td>
<td>Use the radius-server key command to configure the global RADIUS key.</td>
</tr>
<tr>
<td>no radius-server key</td>
<td>Use the no radius-server key command to remove the global RADIUS key.</td>
</tr>
<tr>
<td>radius-server attribute 4 &lt;ipv4_ucast&gt;</td>
<td>Use the radius-server attribute 4 command to configure the global RADIUS attribute value.</td>
</tr>
<tr>
<td>no radius-server attribute 4</td>
<td>Use the no radius-server attribute 4 command to remove the global RADIUS attribute value.</td>
</tr>
<tr>
<td>radius-server attribute 95 &lt;ipv6_ucast&gt;</td>
<td>Use the radius-server attribute 95 command to configure the global RADIUS attribute value.</td>
</tr>
<tr>
<td>no radius-server attribute 95</td>
<td>Use the no radius-server attribute 95 command to remove the global RADIUS attribute value.</td>
</tr>
<tr>
<td>radius-server attribute 32 &lt;line1-253&gt;</td>
<td>Use the radius-server attribute 32 command to configure the global RADIUS attribute value.</td>
</tr>
<tr>
<td>no radius-server attribute 32</td>
<td>Use the no radius-server attribute 32 command to remove the global RADIUS attribute value.</td>
</tr>
<tr>
<td>radius-server host &lt;word1-255&gt; [ auth-port 0-65535 ] [ acct-port 0-65535 ] [ timeout 1-1000 ] [ retransmit 1-1000 ] [ key &lt;line1-63&gt; ]</td>
<td>Use the radius-server host command to add a new RADIUS host.</td>
</tr>
<tr>
<td>no radius-server host &lt;word1-255&gt; [ auth-port 0-65535 ] [ acct-port 0-65535 ]</td>
<td>Use the no radius-server host command to delete an existing RADIUS host.</td>
</tr>
<tr>
<td>tacacs-server timeout &lt;1-1000&gt;</td>
<td>Use the tacacs-server timeout command to configure the global TACACS+ timeout value.</td>
</tr>
<tr>
<td>no tacacs-server timeout</td>
<td>Use the no tacacs-server timeout command to reset the global TACACS+ timeout value to default.</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>tacacs-server deadtime &lt;1-1440&gt;</td>
<td>Use the tacacs-server deadtime command to configure the global TACACS+ deadtime value.</td>
</tr>
<tr>
<td>no tacacs-server deadtime</td>
<td>Use the no tacacs-server deadtime command to reset the global TACACS+ deadtime value to default.</td>
</tr>
<tr>
<td>tacacs-server key &lt;line1-63&gt;</td>
<td>Use the tacacs-server key command to configure the global TACACS+ key.</td>
</tr>
<tr>
<td>no tacacs-server key</td>
<td>Use the no tacacs-server key command to remove the global TACACS+ key.</td>
</tr>
<tr>
<td>tacacs-server host &lt;word1-255&gt; [ port &lt;0-65535&gt; ] [ timeout &lt;1-1000&gt; ] [ key &lt;line1-63&gt; ]</td>
<td>Use the tacacs-server host command to add a new TACACS+ host.</td>
</tr>
<tr>
<td>no tacacs-server host &lt;word1-255&gt; [ port &lt;0-65535&gt; ]</td>
<td>Use the no tacacs-server host command to delete an existing TACACS+ host.</td>
</tr>
<tr>
<td>show aaa</td>
<td>Use the show aaa command to view the currently active authentication login methods.</td>
</tr>
<tr>
<td>show radius-server [ statistics ]</td>
<td>Use the show radius-server command to view the current RADIUS configuration and statistics.</td>
</tr>
<tr>
<td>show tacacs-server</td>
<td>Use the show tacacs-server command to view the current TACACS+ configuration.</td>
</tr>
<tr>
<td>debug auth { console</td>
<td>telnet</td>
</tr>
<tr>
<td>clock summer-time &lt;word16&gt; recurring [&lt;1-5&gt; &lt;1-7&gt; &lt;1-12&gt; &lt;hhmm&gt; &lt;1-5&gt; &lt;1-7&gt; &lt;1-12&gt; &lt;hhmm&gt; [1-1440&gt;]]</td>
<td>debug EXEC</td>
</tr>
<tr>
<td>clock summer-time &lt;word16&gt; date [&lt;1-12&gt; &lt;1-31&gt; &lt;2000-2097&gt; &lt;hhmm&gt; &lt;1-12&gt; &lt;1-31&gt; &lt;2000-2097&gt; &lt;hhmm&gt; [1-1440&gt;]]</td>
<td>debug EXEC</td>
</tr>
<tr>
<td>no clock summer-time</td>
<td></td>
</tr>
<tr>
<td>clock timezone &lt;word16&gt; &lt;-23-23&gt; [0-0-99]</td>
<td></td>
</tr>
<tr>
<td>no clock timezone</td>
<td></td>
</tr>
<tr>
<td>show clock detail</td>
<td></td>
</tr>
<tr>
<td>clock summer-time &lt;word16&gt; recurring [&lt;1-5&gt; &lt;1-7&gt; &lt;1-12&gt; &lt;hhmm&gt; &lt;1-5&gt; &lt;1-7&gt; &lt;1-12&gt; &lt;hhmm&gt; [1-1440&gt;]]</td>
<td></td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>`clock summer-time &lt;word16&gt; date [&lt;1-12&gt;</td>
<td>Sets the summer-time date format.</td>
</tr>
<tr>
<td>&lt;1-31&gt;] &lt;2000-2097&gt; <a href="">hh:mm</a> &lt;1-12&gt; &lt;1-31&gt; ]</td>
<td></td>
</tr>
<tr>
<td>`clock timezone &lt;word16&gt; [&lt;23-23&gt;] [0-59&gt;]</td>
<td>Sets the timezone format.</td>
</tr>
<tr>
<td><code>no clock summer-time</code></td>
<td>Removes the summer-time feature.</td>
</tr>
<tr>
<td><code>no clock timezone</code></td>
<td>Removes the timezone feature.</td>
</tr>
<tr>
<td><code>show clock detail</code></td>
<td>Displays the current clock details.</td>
</tr>
<tr>
<td>`show ip dhcp detailed statistics { server</td>
<td>Displays detailed statistics for DHCP.</td>
</tr>
<tr>
<td></td>
<td>client</td>
</tr>
<tr>
<td>`clear ip dhcp detailed statistics { server</td>
<td>Clears DHCP detailed statistics.</td>
</tr>
<tr>
<td></td>
<td>client</td>
</tr>
<tr>
<td><code>clear ip dhcp relay statistics</code></td>
<td>Clears DHCP relay statistics.</td>
</tr>
<tr>
<td><code>show ip dhcp relay [ statistics ]</code></td>
<td>Displays DHCP relay configuration and statistics.</td>
</tr>
<tr>
<td><code>ip dhcp relay</code></td>
<td>Enables DHCP relay.</td>
</tr>
</tbody>
</table>

Use the `show ip dhcp relay [ statistics ]` user EXEC command without keywords to display the DHCP relay configuration, or use the statistics keyword to display statistics.

Use the `ip dhcp relay` global configuration command to enable the DHCP relay server. Use the no form of this command to disable the DHCP relay server.
<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>ip helper-address &lt;ipv4_ustcast&gt;</code></td>
<td>Use the <code>ip helper-address</code> global configuration command to configure the host address of DHCP relay server.</td>
</tr>
<tr>
<td><code>no ip helper-address</code></td>
<td>Use the <code>no ip helper-address</code> global configuration command to clear the host address of DHCP relay server.</td>
</tr>
<tr>
<td><code>ip dhcp relay information option</code></td>
<td>Use the <code>ip dhcp relay information option</code> global configuration command to enable the DHCP relay information option. Use the <code>no</code> form of this command to disable the DHCP relay information option. The option 82 circuit ID format as &quot;[vlan_id][module_id][port_no]&quot;. The first four characters represent the VLAN ID, the fifth and sixth characters are the module ID(in standalone device it always equal 0), and the last two characters are the port number. For example, &quot;00030108&quot; means the DHCP message receive form VLAN ID 3, switch ID 1, port No 8. And the option 82 remote ID value is equal the switch MAC address.</td>
</tr>
<tr>
<td>`ip dhcp relay information policy { drop</td>
<td>keep</td>
</tr>
<tr>
<td><code>no ip dhcp relay information policy</code></td>
<td>Use the <code>no ip dhcp relay information policy</code> global configuration command to restore the default DHCP relay information policy.</td>
</tr>
<tr>
<td><code>show ip dhcp pool [&lt;word32&gt;]</code></td>
<td>Use the <code>show ip dhcp pool</code> command to display DHCP pool information.</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>show ip dhcp pool counter</td>
<td>Displays the DHCP pool counter</td>
</tr>
<tr>
<td>show ip dhcp excluded-address</td>
<td>Displays the excluded addresses for DHCP pool</td>
</tr>
<tr>
<td>show ip dhcp server binding state allocated</td>
<td>Displays the DHCP server binding state</td>
</tr>
<tr>
<td>show ip dhcp server binding state committed</td>
<td>Displays the DHCP server binding state</td>
</tr>
<tr>
<td>show ip dhcp server binding state expired</td>
<td>Displays the DHCP server binding state</td>
</tr>
<tr>
<td>show ip dhcp server binding &lt;ipv4_ucast&gt;</td>
<td>Displays the DHCP server binding</td>
</tr>
<tr>
<td>show ip dhcp server</td>
<td>Displays the DHCP server</td>
</tr>
<tr>
<td>show ip dhcp server statistics</td>
<td>Displays the DHCP server statistics</td>
</tr>
<tr>
<td>show ip dhcp server declined-ip</td>
<td>Displays the DHCP server declined-ip</td>
</tr>
<tr>
<td>clear ip dhcp server binding &lt;ipv4_ucast&gt;</td>
<td>Clears the DHCP server binding</td>
</tr>
<tr>
<td>clear ip dhcp server binding { automatic</td>
<td>Clears the DHCP server binding</td>
</tr>
<tr>
<td>manual</td>
<td>expired }</td>
</tr>
<tr>
<td>clear ip dhcp server statistics</td>
<td>Clears the DHCP server statistics</td>
</tr>
<tr>
<td>ip dhcp server</td>
<td>Displays the DHCP server</td>
</tr>
<tr>
<td>ip dhcp excluded-address &lt;ipv4_addr&gt;</td>
<td>Displays the excluded addresses for DHCP pool</td>
</tr>
<tr>
<td>no ip dhcp pool &lt;word32&gt;</td>
<td>Removes the DHCP pool</td>
</tr>
<tr>
<td>ip dhcp server</td>
<td>Displays the DHCP server</td>
</tr>
<tr>
<td>network &lt;ipv4_addr&gt; &lt;ipv4_netmask&gt;</td>
<td>Displays the DHCP network</td>
</tr>
<tr>
<td>no network</td>
<td>Removes the DHCP network</td>
</tr>
<tr>
<td>broadcast &lt;ipv4_addr&gt;</td>
<td>Displays the broadcast</td>
</tr>
<tr>
<td>no broadcast</td>
<td>Removes the broadcast</td>
</tr>
<tr>
<td>default-router &lt;ipv4_ucast&gt; [ipv4_ucast]</td>
<td>Displays the default-router</td>
</tr>
<tr>
<td>no default-router</td>
<td>Removes the default-router</td>
</tr>
<tr>
<td>lease { &lt;0-365&gt; [ &lt;0-23&gt; [ &lt;uint&gt; ] ]</td>
<td>infinite }</td>
</tr>
<tr>
<td>no lease</td>
<td>Removes the lease</td>
</tr>
<tr>
<td>domain-name &lt;word128&gt;</td>
<td>Displays the domain-name</td>
</tr>
<tr>
<td>no domain-name</td>
<td>Removes the domain-name</td>
</tr>
<tr>
<td>dns-server &lt;ipv4_ucast&gt; [ipv4_ucast&gt;</td>
<td>Displays the DNS server</td>
</tr>
<tr>
<td>no dns-server</td>
<td>Removes the DNS server</td>
</tr>
<tr>
<td>ntp-server &lt;ipv4_ucast&gt; [ipv4_ucast&gt;</td>
<td>Displays the NTP server</td>
</tr>
<tr>
<td>no ntp-server</td>
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<td><code>[ipv4_uCAST&gt; [ipv4_uCAST&gt;]]</code></td>
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<tr>
<td>no netbios-name-server</td>
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<td>h-node</td>
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<tr>
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<td>13 DHCP_POOL</td>
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<td>mac-address &lt;mac_addr&gt; }</td>
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<tr>
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<td>debug EXEC</td>
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<tr>
<td>show ip dhcp snooping [ interface &lt;port_type_list&gt; ]</td>
<td>Use the show ip dhcp snooping user EXEC command to display the DHCP snooping configuration.</td>
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<tr>
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<td>Use the show ip dhcp snooping user EXEC command without keywords to display the DHCP snooping configuration, or particularly the ip dhcp snooping statistics for the interface, or use the statistics keyword to display statistics.</td>
</tr>
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<tr>
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<td>EXEC</td>
</tr>
<tr>
<td>ip name-server { &lt;ipv4_ucast&gt;</td>
<td>dhcp [ interface vlan &lt;vlan_id&gt; ] }</td>
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<tr>
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<td>EXEC</td>
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<tr>
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<td>Use firmware upgrade to load new firmware image to the switch.</td>
<td>EXEC</td>
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<td>EXEC</td>
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<tr>
<td>show green-ethernet fan</td>
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<tr>
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<tr>
<td>no green-ethernet fan temp-on</td>
<td>Sets temperature at which to turn fan on</td>
<td>GLOBAL_CONFIG</td>
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<tr>
<td><code>green-ethernet fan temp-max </code>&lt;127-127&gt;`</td>
<td>Sets temperature where the fan must be running at full speed.</td>
<td></td>
</tr>
<tr>
<td><code>no green-ethernet fan temp-max</code></td>
<td>Sets temperature at which the fan shall be running at full speed to default.</td>
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<tr>
<td><code>green-ethernet led interval &lt;0~24&gt; intensity </code>&lt;0-100&gt;`</td>
<td>Use green-ethernet led interval to configure the LED intensity at specific interval of the day.</td>
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<tr>
<td><code>no green-ethernet led interval </code>&lt;0~24&gt;`</td>
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<tr>
<td><code>green-ethernet led on-event { [link-change </code>&lt;0-65535&gt;<code> ] [error ] }</code></td>
<td>Use green-ethernet led on-event to configure when to turn LEDs intensity to 100%.</td>
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</tr>
<tr>
<td><code>no green-ethernet led on-event [link-change ] [error ]</code></td>
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<tr>
<td><code>show green-ethernet eee [interface </code>&lt;port_type_list&gt;<code>]</code></td>
<td>Shows Green Ethernet EEE status.</td>
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<tr>
<td><code>show green-ethernet short-reach [interface </code>&lt;port_type_list&gt;<code>]</code></td>
<td>Shows Green Ethernet short-reach status.</td>
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<tr>
<td><code>show green-ethernet energy-detect [interface </code>&lt;port_type_list&gt;<code>]</code></td>
<td>Shows Green Ethernet energy-detect status.</td>
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<tr>
<td><code>show green-ethernet [interface </code>&lt;port_type_list&gt;<code>]</code></td>
<td>Shows Green Ethernet status.</td>
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<tr>
<td><code>green-ethernet eee</code></td>
<td>Sets EEE mode.</td>
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<tr>
<td><code>green-ethernet eee urgent-queues </code>&lt;range_list&gt;`</td>
<td>Sets EEE urgent queues.</td>
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<tr>
<td><code>green-ethernet eee optimize-for-power</code></td>
<td>Sets if EEE should be optimized for least traffic latency or least power consumption</td>
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<tr>
<td><code>green-ethernet energy-detect</code></td>
<td>Enables energy-detect power savings.</td>
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<tr>
<td><code>green-ethernet short-reach</code></td>
<td>Enables short-reach power savings.</td>
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<tr>
<td><code>show ip http server secure status</code></td>
<td>Use the show ip http server secure status privileged EXEC command to display the secure HTTP web server status.</td>
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<tr>
<td><code>ip http secure-server</code></td>
<td>Use the ip http secure-server global configuration command to enable the secure HTTP web server. Use the no form of this command to disable the secure HTTP web server.</td>
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</tr>
<tr>
<td><code>ip http secure-redirect</code></td>
<td>Use the http secure-redirect global configuration command to enable the redirection of secure HTTP traffic. Use the no form of this command to disable the redirection of secure HTTP traffic.</td>
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</table>
configuration command to enable the secure HTTP web redirection. When the secure HTTP web server is enabled, the feature automatic redirect the none secure HTTP web connection to the secure HTTP web connection. Use the no form of this command to disable the secure HTTP web redirection.

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<th>Line</th>
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<td>reload { { cold [ warm ] [ sid &lt;1-16&gt; ] }</td>
<td>Reload system, either cold (reboot) or restore defaults without reboot.</td>
<td>EXEC</td>
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<tr>
<td>show running-config [ all-defaults ]</td>
<td>Show running configuration details.</td>
<td>EXEC</td>
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<tr>
<td>show running-config feature &lt;cword&gt; [</td>
<td>Show running configuration details for a specific feature.</td>
<td>EXEC</td>
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<tr>
<td>all-defaults ]</td>
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<tr>
<td>show running-config interface &lt;port_type_list&gt;</td>
<td>Show running configuration details for a specific interface.</td>
<td>EXEC</td>
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<tr>
<td>all-defaults ]</td>
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<tr>
<td>show running-config interface vlan &lt;vlan_list&gt;</td>
<td>Show running configuration details for a specific VLAN.</td>
<td>EXEC</td>
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<tr>
<td>all-defaults ]</td>
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<tr>
<td>show running-config vlan &lt;vlan_list&gt; [</td>
<td>Show running configuration details for a specific VLAN.</td>
<td>EXEC</td>
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<tr>
<td>all-defaults ]</td>
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<tr>
<td>show running-config line { console</td>
<td>vty } &lt;range_list&gt; [ all-defaults ]</td>
<td>Show running configuration details for a specific line.</td>
<td>EXEC</td>
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<td>running-config</td>
<td>&lt;word&gt; [ startup-config</td>
<td>running-config</td>
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<tr>
<td>&lt;word&gt; [ syntax-check ]</td>
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<td>dir</td>
<td>Display the directory contents.</td>
<td>EXEC</td>
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<tr>
<td>more &lt;word&gt;</td>
<td>Show the contents of a file.</td>
<td>EXEC</td>
<td>15</td>
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<tr>
<td>delete &lt;word&gt;</td>
<td>Delete a file or directory.</td>
<td>EXEC</td>
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<td>debug icfg wipe-flash-fs-conf-block</td>
<td>Debug icfg wipe-flash-fs-conf-block</td>
<td>DEBUG</td>
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<tr>
<td>debug icfg wipe-specific-block [local</td>
<td>global] &lt;uint&gt;</td>
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<tr>
<td>debug icfg silent-upgrade status</td>
<td>Disable silent upgrade status</td>
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<td>debug icfg dir</td>
<td>Display the directory contents.</td>
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<td>debug icfg error-trace &lt;line&gt;</td>
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<td>ip routing</td>
<td>Enable routing for IPv4 and IPv6</td>
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<tr>
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<td>IP address configuration</td>
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<tr>
<td>dhcp fallback &lt;ipv4_addr&gt; &lt;ipv4_netmask&gt; [</td>
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<tr>
<td>timeout &lt;uint&gt;)]</td>
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<tr>
<td>ip dhcp retry interface vlan &lt;vlan_id&gt;</td>
<td>Restart the dhcp client</td>
<td>EXEC</td>
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<td>0</td>
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<tr>
<td>clear ip statistics [ system ] [ interface vlan &lt;vlan_list&gt;] [ icmp ] icmp-msg &lt;0-255&gt;</td>
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<td>show ip statistics [ system ] [ interface vlan &lt;vlan_list&gt;] [ icmp ] icmp-msg &lt;0-255&gt;</td>
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<td>debug ip lpm stat ip &lt;vlan_list&gt;</td>
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<td>debug ip vlan ipv6 created &lt;vlan_list&gt;</td>
<td>debug</td>
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<td>no ip igmp ssm-range</td>
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<td>no ip igmp snooping vlan [&lt;vlan_list&gt;]</td>
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<tr>
<td>no ip igmp snooping robustness-variable</td>
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</tr>
<tr>
<td>no ip igmp snooping query-max-response-time</td>
<td>15 INTERFACE_VLAN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ip igmp snooping last-member-query-interval &lt;0-31744&gt;</td>
<td>15 INTERFACE_VLAN</td>
<td></td>
<td></td>
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<tr>
<td>no ip igmp snooping last-member-query-interval</td>
<td>15 INTERFACE_VLAN</td>
<td></td>
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<tr>
<td>ip igmp snooping unsolicited-report-interval &lt;0-31744&gt;</td>
<td>15 INTERFACE_VLAN</td>
<td></td>
<td></td>
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<tr>
<td>no ip igmp snooping unsolicited-report-interval</td>
<td>15 INTERFACE_VLAN</td>
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<tr>
<td>ip igmp snooping immediate-leave</td>
<td>15 INTERFACE_VLAN</td>
<td></td>
<td></td>
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<tr>
<td>ip igmp snooping mrouter</td>
<td>15 INTERFACE_PORT_LIST</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ip igmp snooping max-groups &lt;1-10&gt;</td>
<td>15 INTERFACE_PORT_LIST</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no ip igmp snooping max-groups</td>
<td>15 INTERFACE_PORT_LIST</td>
<td></td>
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</tr>
<tr>
<td>ip igmp snooping filter &lt;word16&gt;</td>
<td>15 INTERFACE_PORT_LIST</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no ip igmp snooping filter</td>
<td>15 INTERFACE_PORT_LIST</td>
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<td></td>
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<tr>
<td>ipv6 mld snooping</td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
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<tr>
<td>Command</td>
<td>Module</td>
<td></td>
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<td>----------------------------------------------</td>
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<tr>
<td>ipv6 mld unknown-flooding</td>
<td>GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ipv6 mld host-proxy [ leave-proxy ]</td>
<td>GLOBAL_CONFIG</td>
<td></td>
<td></td>
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<tr>
<td>ipv6 mld ssm-range &lt;ipv6_mcast&gt; &lt;8-128&gt;</td>
<td>GLOBAL_CONFIG</td>
<td></td>
<td></td>
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<tr>
<td>no ipv6 mld ssm-range</td>
<td>GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ipv6 mld snooping vlan &lt;vlan_list&gt;</td>
<td>GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no ipv6 mld snooping vlan [ &lt;vlan_list&gt; ]</td>
<td>GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ipv6 mld snooping immediate-leave</td>
<td>INTERFACE_PORT_LIST</td>
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<tr>
<td>ipv6 mld snooping mrouter</td>
<td>INTERFACE_PORT_LIST</td>
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<tr>
<td>ipv6 mld snooping max-groups &lt;1-10&gt;</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
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<tr>
<td>no ipv6 mld snooping max-groups</td>
<td>INTERFACE_PORT_LIST</td>
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<tr>
<td>ipv6 mld snooping filter &lt;word16&gt;</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
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</tr>
<tr>
<td>no ipv6 mld snooping filter</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
<td></td>
</tr>
<tr>
<td>show ipv6 mld snooping mrouter [ detail ]</td>
<td>EXEC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>clear ipv6 mld snooping [ vlan &lt;vlan_list&gt; ]</td>
<td>EXEC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>statistics</td>
<td>EXEC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>show ipv6 mld snooping [ vlan &lt;vlan_list&gt; ]</td>
<td>INTERFACE_VLAN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[ group-database [ interface &lt;port_type_list&gt; ] ] [ detail ]</td>
<td>INTERFACE_VLAN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ipv6 mld snooping</td>
<td>INTERFACE_VLAN</td>
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<tr>
<td>ipv6 mld snooping querier election</td>
<td>INTERFACE_VLAN</td>
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<td></td>
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<tr>
<td>ipv6 mld snooping compatibility { auto</td>
<td>v1</td>
<td>v2 }</td>
<td>INTERFACE_VLAN</td>
</tr>
<tr>
<td>no ipv6 mld snooping compatibility</td>
<td>INTERFACE_VLAN</td>
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<td>ipv6 mld snooping priority &lt;0-7&gt;</td>
<td>INTERFACE_VLAN</td>
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<td></td>
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<tr>
<td>no ipv6 mld snooping priority</td>
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<td></td>
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<tr>
<td>ipv6 mld snooping robustness-variable &lt;1-255&gt;</td>
<td>INTERFACE_VLAN</td>
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<td></td>
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<tr>
<td>no ipv6 mld snooping robustness-variable</td>
<td>INTERFACE_VLAN</td>
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<tr>
<td>ipv6 mld snooping query-interval &lt;1-31744&gt;</td>
<td>INTERFACE_VLAN</td>
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<td></td>
</tr>
<tr>
<td>no ipv6 mld snooping query-interval</td>
<td>INTERFACE_VLAN</td>
<td></td>
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<td>ipv6 mld snooping query-max-response-time &lt;0-31744&gt;</td>
<td>INTERFACE_VLAN</td>
<td></td>
<td></td>
</tr>
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<td>no ipv6 mld snooping query-max-response-time</td>
<td>INTERFACE_VLAN</td>
<td></td>
<td></td>
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<tr>
<td>ipv6 mld snooping last-member-query-interval &lt;0-31744&gt;</td>
<td>INTERFACE_VLAN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no ipv6 mld snooping last-member-query-interval</td>
<td>INTERFACE_VLAN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ipv6 mld snooping unsolicited-report-interval &lt;0-31744&gt;</td>
<td>INTERFACE_VLAN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no ipv6 mld snooping unsolicited-report-interval</td>
<td>INTERFACE_VLAN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Command</td>
<td>Mode</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>---------------</td>
<td>-----------------------------------------------------------------------------</td>
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<tr>
<td>ip verify source</td>
<td>GLOBAL_CONFIG</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>ip verify source &lt;interface &lt;port_type_list&gt;</td>
<td>INTERFACE_PORT_LIST</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>ip verify source limit &lt;0-2&gt;</td>
<td>INTERFACE_PORT_LIST</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>no ip verify source limit</td>
<td>INTERFACE_PORT_LIST</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>ip verify source translate</td>
<td>GLOBAL_CONFIG</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>show ip verify source [interface &lt;port_type_list&gt;]</td>
<td>EXEC</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>show ip source binding [ dhcp-snooping</td>
<td>static ] [interface &lt;port_type_list&gt;]</td>
<td>EXEC</td>
<td>13</td>
</tr>
<tr>
<td>ip source binding interface &lt;port_type_id&gt; &lt;vlan_id&gt; &lt;ipv4_ucast&gt; &lt;mac_ucast&gt;</td>
<td>GLOBAL_CONFIG</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>ip source binding interface &lt;port_type_id&gt; &lt;vlan_id&gt; &lt;ipv4_ucast&gt; &lt;ipv4_netmask&gt;</td>
<td>GLOBAL_CONFIG</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>show lacp { internal</td>
<td>statistics</td>
<td>system-id</td>
<td>neighbour }</td>
</tr>
<tr>
<td>clear lacp statistics</td>
<td>EXEC</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>lacp system-priority &lt;1-65535&gt;</td>
<td>GLOBAL_CONFIG</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>lacp</td>
<td>INTERFACE_PORT_LIST</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>lacp key &lt;1-65535&gt;</td>
<td>auto</td>
<td>INTERFACE_PORT_LIST</td>
<td>15</td>
</tr>
<tr>
<td>lacp role { active</td>
<td>passive }</td>
<td>INTERFACE_PORT_LIST</td>
<td>15</td>
</tr>
<tr>
<td>lacp timeout { fast</td>
<td>slow }</td>
<td>INTERFACE_PORT_LIST</td>
<td>15</td>
</tr>
<tr>
<td>lacp port-priority &lt;1-65535&gt;</td>
<td>INTERFACE_PORT_LIST</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>lldp holdtime &lt;2-10&gt;</td>
<td>GLOBAL_CONFIG</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>no lldp holdtime</td>
<td>GLOBAL_CONFIG</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>lldp timer &lt;5-32768&gt;</td>
<td>GLOBAL_CONFIG</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>no lldp timer</td>
<td>GLOBAL_CONFIG</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>lldp reinit &lt;1-10&gt;</td>
<td>GLOBAL_CONFIG</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>no lldp reinit</td>
<td>GLOBAL_CONFIG</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>lldp tlv-select {management-address</td>
<td>port-description</td>
<td>system-capabilities</td>
<td>system-description</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
<td>Default</td>
<td>Mode</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>---------</td>
<td>---------------</td>
</tr>
<tr>
<td>lldp transmit</td>
<td>Sets if switch shall transmit LLDP frames.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>lldp receive</td>
<td>Sets if switch shall update LLDP entry table with incoming LLDP information.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>show lldp neighbors [ interface &lt;port_type_list&gt; ]</td>
<td>Shows the LLDP neighbors information.</td>
<td>0</td>
<td>EXEC</td>
</tr>
<tr>
<td>show lldp statistics [ interface &lt;port_type_list&gt; ]</td>
<td>Shows the LLDP statistics information.</td>
<td>0</td>
<td>EXEC</td>
</tr>
<tr>
<td>clear lldp statistics</td>
<td>Clears the LLDP statistics.</td>
<td>0</td>
<td>EXEC</td>
</tr>
<tr>
<td>lldp transmission-delay &lt;1-8192&gt;</td>
<td>Sets LLDP transmission-delay. LLDP transmission delay (the amount of time that the transmission of LLDP frames will delayed after LLDP configuration has changed) in seconds.)</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>no lldp transmission-delay</td>
<td></td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>lldp cdp-aware</td>
<td>Configures if the interface shall be CDP aware (CDP discovery information is added to the LLDP neighbor table)</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>show lldp med remote-device [ interface &lt;port_type_list&gt; ]</td>
<td>Show LLDP-MED neighbor device information.</td>
<td>0</td>
<td>EXEC</td>
</tr>
<tr>
<td>show lldp med media-vlan-policy {[0-31]}</td>
<td>Show media vlan policy(ies)</td>
<td>0</td>
<td>EXEC</td>
</tr>
<tr>
<td>lldp med location-tlv latitude { north</td>
<td>south } &lt;word8&gt;</td>
<td>Use the lldp med location-tlv latitude to configure the location latitude.</td>
<td>15</td>
</tr>
<tr>
<td>no lldp med location-tlv latitude</td>
<td>Use no lldp med location-tlv latitude to configure the latitude location to north 0 degrees.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>lldp med location-tlv longitude { west</td>
<td>east } &lt;word9&gt;</td>
<td>Use the lldp med location-tlv longitude to configure the location longitude.</td>
<td>15</td>
</tr>
<tr>
<td>no lldp med location-tlv longitude</td>
<td>Use no lldp med location-tlv longitude to configure the longitude location to north 0 degrees.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>lldp med location-tlv altitude { meters</td>
<td>floors } &lt;word11&gt;</td>
<td>Use the lldp med location-tlv altitude to configure the location altitude.</td>
<td>15</td>
</tr>
<tr>
<td>no lldp med location-tlv altitude</td>
<td>Use no lldp med location-tlv altitude to configure the location altitude to north 0 degrees.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>lldp med location-tlv civic-addr [ country</td>
<td>state</td>
<td>county</td>
<td>city</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
<td></td>
<td></td>
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<td>---------</td>
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<td></td>
</tr>
<tr>
<td><code>lldp med location-tlv elin-addr &lt;dword25&gt;</code></td>
<td>Use the <code>lldp med location-tlv elin-addr</code> to configure value for the Emergency Call Service.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>no lldp med location-tlv elin-addr</code></td>
<td>Use the <code>no lldp med location-tlv elin-addr</code> to configure value for the Emergency Call Service to default value.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>lldp med transmit-tlv [ capabilities ] [ location ] [ network-policy ]</code></td>
<td>Use the <code>lldp med transmit-tlv</code> to configure which TLVs to transmit to link partner.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>no lldp med transmit-tlv [ capabilities ] [ location ] [ network-policy ]</code></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>`lldp med datum { wgs84</td>
<td>nad83-navd88</td>
<td>nad83-mllw }`</td>
<td>Use the <code>lldp med datum</code> to configure the datum (geodetic system) to use.</td>
</tr>
<tr>
<td><code>no lldp med datum</code></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>lldp med fast &lt;1-10&gt;</code></td>
<td>Use the <code>lldp med fast</code> to configure the number of times the fast start LLDPDU are being sent during the activation of the fast start mechanism defined by LLDP-MED (1-10).</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>no lldp med fast</code></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>`lldp med media-vlan-policy &lt;0-31&gt; { voice</td>
<td>voice-signaling</td>
<td>guest-voice-signaling</td>
<td>guest-voice</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
<td></td>
<td></td>
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<tr>
<td>---------</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>no lldp med media-vlan-policy &lt;0-31&gt;</td>
<td>Use the media-vlan-policy-list to assign policy to the interface.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lldp med media-vlan-list &lt;range_list&gt;</td>
<td>Loop protection configuration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>loop-protect</td>
<td>Loop protection transmit time interval</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no loop-protect transmit-time</td>
<td>Loop protection shutdown time interval</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no loop-protect shutdown-time</td>
<td>Loop protection configuration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>loop-protect action { [shutdown] [log] }</td>
<td>Enable learning on port</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no loop-protect action</td>
<td>Assign a static mac address to this port</td>
<td></td>
<td></td>
</tr>
<tr>
<td>loop-protect tx-mode</td>
<td>Set switch aging time, 0 to disable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>show loop-protect [ interface &lt;port_type_list&gt; ]</td>
<td>Sets monitor destination port.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>show mac address-table [ conf</td>
<td>static</td>
<td>aging-time</td>
<td>address &lt;mac_addr&gt; [ vlan &lt;vlan_id&gt; ]</td>
</tr>
<tr>
<td>clear mac address-table</td>
<td>Sets monitor source port(s).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mac address-table static &lt;mac_addr&gt; vlan &lt;vlan_id&gt; interface &lt;port_type_list&gt;</td>
<td>Debugging configuration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mac address-table aging-time &lt;0,10-1000000&gt;</td>
<td>Debugging configuration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no mac address-table aging-time</td>
<td>Debugging configuration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>monitor destination interface &lt;port_type_id&gt;</td>
<td>Debugging configuration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no monitor destination</td>
<td>Debugging configuration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>monitor source { [ interface &lt;port_type_list&gt; ]</td>
<td>[ cpu &lt;range_list&gt;] }</td>
<td>Debugging configuration</td>
<td></td>
</tr>
<tr>
<td>no monitor source { [ interface &lt;port_type_list&gt; ]</td>
<td>[ cpu &lt;range_list&gt;] }</td>
<td>Debugging configuration</td>
<td></td>
</tr>
<tr>
<td>debug chip [ { 0</td>
<td>1</td>
<td>all } ]</td>
<td>Debugging configuration</td>
</tr>
<tr>
<td>debug api [ interface &lt;port_type_list&gt; ] [ { ail</td>
<td>cil }</td>
<td>[ init</td>
<td>misc</td>
</tr>
<tr>
<td>debug suspend</td>
<td>Debugging configuration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>debug resume</td>
<td>Debugging configuration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>debug kr-conf [ cm1 &lt;-&gt;32-31&gt; ] [ c0 &lt;-&gt;32-31&gt; ] [ cp1 &lt;-&gt;32-31&gt; ] [ ampl &lt;300-1275&gt; ] [ ps25</td>
<td>ps35</td>
<td>ps55</td>
<td>ps70</td>
</tr>
<tr>
<td>show spanning-tree [ summary</td>
<td>active</td>
<td>{ interface &lt;port_type_list&gt; }</td>
<td>{ detailed [ interface &lt;port_type_list&gt; ] }</td>
</tr>
<tr>
<td>clear spanning-tree [ { statistics [ interface &lt;port_type_list&gt; ] }</td>
<td>{ detected-protocols [ interface &lt;port_type_list&gt; ] } ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>spanning-tree mode { stp</td>
<td>rstp</td>
<td>mstp }</td>
<td></td>
</tr>
<tr>
<td>no spanning-tree mode</td>
<td></td>
<td></td>
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<tr>
<td>spanning-tree transmit hold-count &lt;1-10&gt;</td>
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<tr>
<td>no spanning-tree transmit hold-count</td>
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<tr>
<td>spanning-tree mst max-hops &lt;6-40&gt;</td>
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<tr>
<td>no spanning-tree mst max-hops</td>
<td></td>
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<tr>
<td>spanning-tree mst max-age &lt;6-40&gt; [ forward-time &lt;4-30&gt; ]</td>
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<tr>
<td>no spanning-tree mst max-age</td>
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<tr>
<td>spanning-tree mst forward-time &lt;4-30&gt;</td>
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<tr>
<td>no spanning-tree mst forward-time</td>
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<tr>
<td>spanning-tree edge bpdu-filter</td>
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<tr>
<td>spanning-tree edge bpdu-guard</td>
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<tr>
<td>spanning-tree recovery interval &lt;30-86400&gt;</td>
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<tr>
<td>no spanning-tree recovery interval</td>
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<tr>
<td>spanning-tree mst &lt;0-7&gt; priority &lt;0-61440&gt;</td>
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<tr>
<td>no spanning-tree mst &lt;0-7&gt; priority</td>
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<tr>
<td>spanning-tree mst &lt;0-7&gt; vlan &lt;vlan_list&gt;</td>
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<tr>
<td>no spanning-tree mst &lt;0-7&gt; vlan</td>
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<tr>
<td>spanning-tree mst name &lt;word32&gt; revision &lt;0-65535&gt;</td>
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<tr>
<td>no spanning-tree mst name</td>
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<tr>
<td>spanning-tree</td>
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<tr>
<td>spanning-tree edge</td>
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<tr>
<td>spanning-tree auto-edge</td>
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<tr>
<td>spanning-tree link-type { point-to-point</td>
<td>shared }</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Command</td>
<td>Version</td>
<td>Command Type</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------</td>
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</tr>
<tr>
<td>no spanning-tree link-type</td>
<td></td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
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<tr>
<td>spanning-tree restricted-role</td>
<td></td>
<td>INTERFACE_PORT_LIST</td>
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<tr>
<td>spanning-tree restricted-tcn</td>
<td></td>
<td>INTERFACE_PORT_LIST</td>
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<tr>
<td>spanning-tree bpdu-guard</td>
<td></td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>spanning-tree mst &lt;0-7&gt; cost { &lt;1-200000000&gt;</td>
<td>auto }</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no spanning-tree mst &lt;0-7&gt; cost</td>
<td></td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>spanning-tree mst &lt;0-7&gt; port-priority &lt;0-240&gt;</td>
<td></td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no spanning-tree mst &lt;0-7&gt; port-priority</td>
<td></td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>spanning-tree</td>
<td></td>
<td>STP_AGGR</td>
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<tr>
<td>spanning-tree edge</td>
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<td>STP_AGGR</td>
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<tr>
<td>spanning-tree auto-edge</td>
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<td>STP_AGGR</td>
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<tr>
<td>spanning-tree link-type { point-to-point</td>
<td></td>
<td>STP_AGGR</td>
<td></td>
</tr>
<tr>
<td>shared</td>
<td>auto }</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
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<tr>
<td>no spanning-tree link-type</td>
<td></td>
<td>STP_AGGR</td>
<td></td>
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<tr>
<td>spanning-tree restricted-role</td>
<td></td>
<td>STP_AGGR</td>
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<tr>
<td>spanning-tree restricted-tcn</td>
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<td>STP_AGGR</td>
<td></td>
</tr>
<tr>
<td>spanning-tree bpdu-guard</td>
<td></td>
<td>STP_AGGR</td>
<td></td>
</tr>
<tr>
<td>spanning-tree mst &lt;0-7&gt; cost { &lt;1-200000000&gt;</td>
<td>auto }</td>
<td>STP_AGGR</td>
<td></td>
</tr>
<tr>
<td>no spanning-tree mst &lt;0-7&gt; cost</td>
<td></td>
<td>STP_AGGR</td>
<td></td>
</tr>
<tr>
<td>spanning-tree mst &lt;0-7&gt; port-priority &lt;0-240&gt;</td>
<td></td>
<td>STP_AGGR</td>
<td></td>
</tr>
<tr>
<td>no spanning-tree mst &lt;0-7&gt; port-priority</td>
<td></td>
<td>STP_AGGR</td>
<td></td>
</tr>
<tr>
<td>mvr vlan &lt;vlan_list&gt; type { source</td>
<td>receiver }</td>
<td></td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>mvr name &lt;word16&gt; type { source</td>
<td>receiver }</td>
<td></td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>no mvr vlan &lt;vlan_list&gt; type</td>
<td></td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no mvr name &lt;word16&gt; type</td>
<td></td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>mvr immediate-leave</td>
<td></td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>clear mvr [ vlan &lt;vlan_list&gt;</td>
<td>name &lt;word16&gt; ] statistics</td>
<td></td>
<td>EXEC</td>
</tr>
<tr>
<td>show mvr [ vlan &lt;vlan_list&gt;</td>
<td>name &lt;word16&gt; ] [ group-database [ interface &lt;port_type_list&gt; ] [ sfm-information ] ] [ detail ]</td>
<td></td>
<td>EXEC</td>
</tr>
<tr>
<td>mvr</td>
<td></td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>mvr vlan &lt;vlan_list&gt; [ name &lt;word16&gt; ]</td>
<td></td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>no mvr vlan &lt;vlan_list&gt;</td>
<td></td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>Command</td>
<td>Module</td>
<td></td>
<td></td>
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<tr>
<td>------------------------------------------------------------------------</td>
<td>------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>`mvr vlan &lt;vlan_list&gt; mode { dynamic</td>
<td>compatible }`</td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>`mvr name &lt;word16&gt; mode { dynamic</td>
<td>compatible }`</td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td><code>no mvr vlan &lt;vlan_list&gt; mode</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>no mvr name &lt;word16&gt; mode</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>mvr vlan &lt;vlan_list&gt; igmp-address &lt;ipv4_ucast&gt;</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>mvr name &lt;word16&gt; igmp-address &lt;ipv4_ucast&gt;</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>no mvr vlan &lt;vlan_list&gt; igmp-address</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>no mvr name &lt;word16&gt; igmp-address</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>mvr vlan &lt;vlan_list&gt; frame priority &lt;0-7&gt;</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>mvr name &lt;word16&gt; frame priority &lt;0-7&gt;</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>mvr name &lt;word16&gt; frame tagged</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>no mvr vlan &lt;vlan_list&gt; frame priority</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>no mvr name &lt;word16&gt; frame priority</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>mvr vlan &lt;vlan_list&gt; last-member-query-interval &lt;0-31744&gt;</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>mvr name &lt;word16&gt; last-member-query-interval &lt;0-31744&gt;</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>no mvr vlan &lt;vlan_list&gt; last-member-query-interval</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>no mvr name &lt;word16&gt; last-member-query-interval</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>mvr vlan &lt;vlan_list&gt; channel &lt;word16&gt;</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>no mvr vlan &lt;vlan_list&gt; channel</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>no mvr name &lt;word16&gt; channel</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>`show dot1x statistics [ eapol</td>
<td>radius</td>
<td>all] [ interface &lt;port_type_list&gt; ]`</td>
<td>0 EXEC</td>
</tr>
<tr>
<td><code>show dot1x status [ interface &lt;port_type_list&gt; ] [ brief]</code></td>
<td>0 EXEC</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>clear dot1x statistics [ interface &lt;port_type_list&gt; ]</code></td>
<td>15 EXEC</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>dot1x re-authentication</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>dot1x authentication timer re-authenticate &lt;1-3600&gt;</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>no dot1x authentication timer re-authenticate</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>dot1x timeout tx-period &lt;1-65536&gt;</code></td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
<td></td>
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<td></td>
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<tr>
<td>no dot1x timeout tx-period</td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dot1x authentication timer inactivity &lt;10-1000000&gt;</td>
<td>Time in seconds between check for activity on successfully authenticated MAC addresses. 15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no dot1x authentication timer inactivity</td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dot1x timeout quiet-period &lt;10-1000000&gt;</td>
<td>Time in seconds before a MAC-address that failed authentication gets a new authentication chance. 15 GLOBAL_CONFIG</td>
<td></td>
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<tr>
<td>no dot1x timeout quiet-period</td>
<td>15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dot1x re-authenticate</td>
<td>Refresh (restart) 802.1X authentication process. 15 INTERFACE_PORT_LIST</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dot1x initialize [ interface &lt;port_type_list&gt; ]</td>
<td>Force re-authentication immediately 15 EXEC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dot1x system-auth-control</td>
<td>Set the global NAS state 15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dot1x port-control { force-authorized</td>
<td>force-unauthorized</td>
<td>auto</td>
<td>single</td>
</tr>
<tr>
<td>no dot1x port-control</td>
<td>Sets the port security state. 15 INTERFACE_PORT_LIST</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dot1x guest-vlan</td>
<td>Enables/disables guest VLAN 15 INTERFACE_PORT_LIST</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dot1x max-reauth-req &lt;1-255&gt;</td>
<td>The number of times a Request Identity EAPOL frame is sent without response before considering entering the Guest VLAN 15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no dot1x max-reauth-req</td>
<td>The number of times a Request Identity EAPOL frame is sent without response before considering entering the Guest VLAN 15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dot1x guest-vlan &lt;1-4095&gt;</td>
<td>Guest VLAN ID used when entering the Guest VLAN. 15 GLOBAL_CONFIG</td>
<td></td>
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<tr>
<td>no dot1x guest-vlan</td>
<td>Guest VLAN ID used when entering the Guest VLAN. 15 GLOBAL_CONFIG</td>
<td></td>
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</tr>
<tr>
<td>dot1x guest-vlan supplicant</td>
<td>The switch remembers if an EAPOL frame has been received on the port for the life-time of the port. Once the switch considers whether to enter the Guest VLAN, it will first check if this option is enabled or disabled. If disabled (unchecked; default), the switch will only enter the Guest VLAN if an EAPOL 15 GLOBAL_CONFIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Command/Feature</td>
<td>Description</td>
<td>Module</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------------------------</td>
<td></td>
</tr>
<tr>
<td>dot1x radius-qos</td>
<td>Enables/disables per-port state of RADIUS-assigned QoS.</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>dot1x radius-vlan</td>
<td>Enables/disables per-port state of RADIUS-assigned VLAN.</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>dot1x feature { [ guest-vlan ] [ radius-qos ] [ radius-vlan ] }*1</td>
<td>Globally enables/disables a dot1x feature functionality</td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>show dot1x statistics { eapol</td>
<td>radius</td>
<td>all} [ interface &lt;port_type_list&gt; ]</td>
<td>Shows statistics for either eapol or radius.</td>
</tr>
<tr>
<td>ntp</td>
<td>Enable NTP</td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>ntp server &lt;1-5&gt; ip-address</td>
<td></td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>ntp server &lt;1-5&gt; ip-address</td>
<td></td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>no_ntp_server_ip_address</td>
<td></td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>show ntp status</td>
<td></td>
<td>EXEC</td>
<td></td>
</tr>
<tr>
<td>show platform phy { interface &lt;port_type_list&gt; }</td>
<td>Show PHY module's information for all or a given interface</td>
<td>EXEC</td>
<td></td>
</tr>
<tr>
<td>show platform phy id { interface &lt;port_type_list&gt; }</td>
<td>Platform PHY's IDs</td>
<td>EXEC</td>
<td></td>
</tr>
<tr>
<td>show platform phy instance</td>
<td></td>
<td>EXEC</td>
<td></td>
</tr>
<tr>
<td>show platform phy failover</td>
<td></td>
<td>EXEC</td>
<td></td>
</tr>
<tr>
<td>platform phy instance restart { cool</td>
<td>warm }</td>
<td></td>
<td>EXEC</td>
</tr>
<tr>
<td>platform phy instance default-activate</td>
<td></td>
<td>EXEC</td>
<td></td>
</tr>
<tr>
<td>show platform phy status {interface &lt;port_type_list&gt;}</td>
<td></td>
<td>EXEC</td>
<td></td>
</tr>
<tr>
<td>no platform phy instance</td>
<td></td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>platform phy failover</td>
<td></td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>debug phy read { &lt;0~31&gt; } [&lt;0-0xffff&gt;] [ addr-sort ]</td>
<td></td>
<td>debug</td>
<td></td>
</tr>
<tr>
<td>debug phy write { &lt;0~31&gt; } [&lt;0-0xffff] [ &lt;0-0xffff&gt; ]</td>
<td></td>
<td>debug</td>
<td></td>
</tr>
<tr>
<td>debug phy do-page-chk [enable</td>
<td>disable]</td>
<td></td>
<td>debug</td>
</tr>
<tr>
<td>debug phy force-pass-through-speed {1G</td>
<td>100M</td>
<td>10M}</td>
<td></td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
<td>Mode</td>
<td>Area</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------</td>
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</tr>
<tr>
<td>debug phy reset</td>
<td></td>
<td>debug</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>debug phy gpio &lt;0-13&gt; mode</td>
<td></td>
<td>debug</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>(output</td>
<td>input</td>
<td>alternative)</td>
<td></td>
</tr>
<tr>
<td>debug phy gpio &lt;0-13&gt; get</td>
<td></td>
<td>debug</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>show poe [ interface &lt;port_type_list&gt; ]</td>
<td>Use the show poe to show PoE status.</td>
<td>0</td>
<td>EXEC</td>
</tr>
<tr>
<td>poe mode { standard</td>
<td>plus }</td>
<td>Use poe mode to configure of PoE mode.</td>
<td>15</td>
</tr>
<tr>
<td>no poe mode</td>
<td>Use poe mode to configure of PoE mode.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>poe priority { low</td>
<td>high</td>
<td>critical }</td>
<td>Use poe priority to configure PoE priority.</td>
</tr>
<tr>
<td>no poe priority</td>
<td>Use poe priority to configure PoE priority.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>poe management mode { class-consumption</td>
<td>class-reserved-power</td>
<td>allocation-consumption</td>
<td>allocation-reserved-power</td>
</tr>
<tr>
<td>no poe management mode</td>
<td>Use poe power limit to configure the maximum allowed power for the interface when power management is in allocation mode.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>poe power limit { &lt;fword2.1&gt; }</td>
<td></td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>no poe power limit</td>
<td>Use poe power limit to configure the maximum allowed power for the interface when power management is in allocation mode.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>poe supply sid &lt;1~16&gt; &lt;1-2000&gt;</td>
<td>Use poe supply to specify the maximum power the power supply can deliver.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>no poe supply [sid &lt;1~16&gt;]</td>
<td></td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>poe schedule-mode</td>
<td>Configure PoE Schedule mode.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>no poe schedule-mode</td>
<td>disable PoE power management method.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>poe select-all &lt;range_list&gt;</td>
<td>Configure PoE Schedule mode.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>no poe schedule-all &lt;range_list&gt;</td>
<td>disable PoE power management method.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>poe delay-mode &lt;range_list&gt;</td>
<td>Configure PoE Power Delay mode.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>no poe delay-mode &lt;range_list&gt;</td>
<td></td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>poe delay-time &lt;range_list&gt; &lt;0-300&gt;</td>
<td>Configure PoE Power Delay time.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
<td>Line</td>
<td>Scope</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------</td>
<td>----------------</td>
</tr>
<tr>
<td>poe hour &lt;0-23&gt;</td>
<td>This command is used to set hour time per week to enable PoE.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>no poe hour &lt;0-23&gt;</td>
<td>This command is used to set hour time per week to disable PoE.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>poe Sun</td>
<td>This command is used to set hour time on Sunday to enable PoE.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>no poe Sun</td>
<td>This command is used to set hour time on Sunday to disable PoE.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>poe Mon</td>
<td>This command is used to set hour time on Monday to enable PoE.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>no poe Mon</td>
<td>This command is used to set hour time on Monday to disable PoE.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>poe Tue</td>
<td>This command is used to set hour time on Tuesday to enable PoE.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>no poe Tue</td>
<td>This command is used to set hour time on Tuesday to disable PoE.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>poe Wed</td>
<td>This command is used to set hour time on Wednesday to enable PoE.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>no poe Wed</td>
<td>This command is used to set hour time on Wednesday to disable PoE.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>poe Thr</td>
<td>This command is used to set hour time on Thursday to enable PoE.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>no poe Thr</td>
<td>This command is used to set hour time on Thursday to disable PoE.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>poe Fri</td>
<td>This command is used to set hour time on Friday to enable PoE.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>no poe Fri</td>
<td>This command is used to set hour time on Friday to disable PoE.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>poe Sat</td>
<td>This command is used to set hour time on Saturday to enable PoE.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>no poe Sat</td>
<td>This command is used to set hour time on Saturday to disable PoE.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>show interface &lt;port_type_list&gt; statistics</td>
<td>Shows the statistics for the interface.</td>
<td>0</td>
<td>EXEC</td>
</tr>
<tr>
<td></td>
<td>[[ packets</td>
<td>bytes</td>
<td>errors</td>
</tr>
<tr>
<td>show interface &lt;port_type_list&gt; veriphy</td>
<td>Run and display cable diagnostics.</td>
<td>0</td>
<td>EXEC</td>
</tr>
<tr>
<td>clear statistics [interface] &lt;port_type_list&gt;</td>
<td>Clears the statistics for the interface.</td>
<td>0</td>
<td>EXEC</td>
</tr>
<tr>
<td>show interface &lt;port_type_list&gt; capabilities</td>
<td></td>
<td>0</td>
<td>EXEC</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
<td>Level</td>
<td>Module</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------</td>
<td>-----------------</td>
</tr>
<tr>
<td>show interface &lt;port_type_list&gt; status</td>
<td>Display status for the interface.</td>
<td>0</td>
<td>EXEC</td>
</tr>
<tr>
<td>mtu &lt;VTSS_MAX_FRAME_LENGTH_STANDARD&gt;</td>
<td>Use mtu to specify maximum frame size (1518-9600 bytes).</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>no mtu</td>
<td>Use no mtu to set maximum frame size to default.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>shutdown</td>
<td>Use shutdown to shutdown the interface.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>speed {2500</td>
<td>1000</td>
<td>10</td>
<td>auto ([10] [100] [1000])}</td>
</tr>
<tr>
<td>no speed</td>
<td>Use &quot;no speed&quot; to configure interface to default speed.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>duplex { half</td>
<td>full</td>
<td>auto [ half</td>
<td>full ] }</td>
</tr>
<tr>
<td>no duplex</td>
<td>Use &quot;no duplex&quot; to set duplex to default.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>media-type { rj45</td>
<td>sfp</td>
<td>dual}</td>
<td>Use media-type to configure the interface media type.</td>
</tr>
<tr>
<td>no media-type</td>
<td>Use to configure the interface media-type type to default.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>flowcontrol { on</td>
<td>off }</td>
<td>Use flowcontrol to configure flow control for the interface.</td>
<td>15</td>
</tr>
<tr>
<td>no flowcontrol</td>
<td>Use no flowcontrol to set flow control to default.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>excessive-restart</td>
<td>Use excessive-restart to configure backoff algorithm in half duplex mode.</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>show web privilege group [ &lt;cword&gt; ] level</td>
<td></td>
<td>0</td>
<td>EXEC</td>
</tr>
<tr>
<td>web privilege group &lt;cword&gt; level [ [ cro &lt;0-15&gt; ] [ crw &lt;0-15&gt; ] [ sro &lt;0-15&gt; ] [ srw &lt;0-15&gt; ] ]*1</td>
<td></td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>no web privilege group [ &lt;cword&gt; ] level</td>
<td></td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>show port-security port [ interface &lt;port_type_list&gt; ]</td>
<td>Show MAC Addresses learned by Port Security</td>
<td>0</td>
<td>EXEC</td>
</tr>
<tr>
<td>show port-security switch [ interface &lt;port_type_list&gt; ]</td>
<td>Show Port Security status.</td>
<td>0</td>
<td>EXEC</td>
</tr>
<tr>
<td>no port-security shutdown [ interface &lt;port_type_list&gt; ]</td>
<td>Reopen one or more ports whose limit is exceeded and shut down.</td>
<td>15</td>
<td>EXEC</td>
</tr>
<tr>
<td>port-security</td>
<td>Enable/disable port security globally.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>Configuration Item</td>
<td>Description</td>
<td>Section</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td>port-security aging</td>
<td>Enable/disable port security aging.</td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>port-security aging time &lt;10-10000000&gt;</td>
<td>Time in seconds between check for activity on learned MAC addresses.</td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>no port-security aging time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>port-security</td>
<td>Enable/disable port security per interface.</td>
<td>INTERFACE.PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>port-security maximum [&lt;1-1024&gt;]</td>
<td>Maximum number of MAC addresses that can be learned on this set of interfaces.</td>
<td>INTERFACE.PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no port-security maximum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>port-security violation { protect</td>
<td>trap</td>
<td>trap-shutdown</td>
<td>shutdown }</td>
</tr>
<tr>
<td>no port-security violation</td>
<td>The action involved with exceeding the limit.</td>
<td>INTERFACE.PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>pvlan &lt;range_list&gt;</td>
<td>Use the pvlan add or remove command to add or remove a port from a PVLAN.</td>
<td>INTERFACE.PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>pvlan isolation</td>
<td>Use the pvlan isolation command to add the port into an isolation group.</td>
<td>INTERFACE.PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>show pvlan [&lt;range_list&gt;]</td>
<td>Use the show pvlan command to view the PVLAN configuration.</td>
<td>EXEC</td>
<td></td>
</tr>
<tr>
<td>show pvlan isolation [ interface &lt;port_type_list&gt;]</td>
<td>Use the show pvlan isolation command to view the PVLAN isolation configuration.</td>
<td>EXEC</td>
<td></td>
</tr>
<tr>
<td>show qos [( interface [ &lt;port_type_list&gt;] ] )</td>
<td>wred</td>
<td>[ maps [ dscp-cos ] [ dscp-ingress-translation ] [ dscp-classify ] [ cos-dscp ] [ dscp-egress-translation ] ]</td>
<td>EXEC</td>
</tr>
<tr>
<td>qos map dscp-cos { &lt;0~63&gt;</td>
<td>&lt;dscp&gt; } cos &lt;0-7&gt; dpl &lt;dpl&gt;</td>
<td></td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>no qos map dscp-cos { &lt;0~63&gt;</td>
<td>&lt;dscp&gt; }</td>
<td></td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>qos map dscp-ingress-translation { &lt;0~63&gt;</td>
<td>&lt;dscp&gt; } to { &lt;0~63&gt;</td>
<td>&lt;dscp&gt; }</td>
<td></td>
</tr>
<tr>
<td>no qos map dscp-ingress-translation { &lt;0~63&gt;</td>
<td>&lt;dscp&gt; }</td>
<td></td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>qos map dscp-classify { &lt;0~63&gt;</td>
<td>&lt;dscp&gt; }</td>
<td></td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>qos map cos-dscp &lt;0<del>7&gt; dpl &lt;0</del>1&gt; dscp { &lt;0~63&gt;</td>
<td>&lt;dscp&gt; }</td>
<td></td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>no qos map cos-dscp &lt;0-7&gt; dpl &lt;0-1&gt;</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>qos map dscp-egress-translation { &lt;0-63&gt;</td>
<td>&lt;dscp&gt; } &lt;0-1&gt; to { &lt;0-63&gt;</td>
<td>&lt;dscp&gt; }</td>
<td>15</td>
</tr>
<tr>
<td>no qos map dscp-egress-translation { &lt;0-63&gt;</td>
<td>&lt;dscp&gt; } &lt;0-1&gt;</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>qos wred queue &lt;0-5&gt; min-th &lt;0-100&gt; mdp-1 &lt;0-100&gt; mdp-2 &lt;0-100&gt; mdp-3 &lt;0-100&gt;</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>qos wred queue &lt;0-5&gt; min-fl &lt;0-100&gt; max &lt;1-100&gt; [ fill-level ]</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>no qos wred queue &lt;0-5&gt;</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>qos storm { unicast</td>
<td>multicast</td>
<td>broadcast } [{ &lt;1,2,4,8,16,32,64,128,256,512&gt; [ kfps ] }</td>
<td>1024 kfps ]</td>
</tr>
<tr>
<td>no qos storm { unicast</td>
<td>multicast</td>
<td>broadcast }</td>
<td>15</td>
</tr>
<tr>
<td>qos qce [ [ update ] ] &lt;uint&gt; [ [ next &lt;uint&gt; ]</td>
<td>last ] [ interface &lt;port_type_list&gt; ] [ smac { &lt;mac_addr&gt;</td>
<td>&lt;oui&gt;</td>
<td>any } ] [ dmac { &lt;mac_addr&gt;</td>
</tr>
<tr>
<td>Command</td>
<td>Line Number</td>
<td>Module</td>
<td></td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------------</td>
<td>-----------------------</td>
<td></td>
</tr>
<tr>
<td>no qos qce &lt;QCE_ID_START~QCE_ID_END&gt;</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>qos qce refresh</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>qos cos &lt;0-7&gt;</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no qos cos</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>qos dpl &lt;dpl&gt;</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no qos dpl</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>qos pcp &lt;0-7&gt;</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no qos pcp</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>qos dei &lt;0-1&gt;</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no qos dei</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>qos trust tag</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>qos trust dscp</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>qos map tag-cos pcp &lt;0-7&gt; dei &lt;0-1&gt; cos &lt;0-7&gt; dpl &lt;dpl&gt;</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no qos map tag-cos pcp &lt;0-7&gt; dei &lt;0-1&gt;</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>qos policer &lt;uint&gt; [ fps ] [ flowcontrol ]</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no qos policer</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>qos queue-policer queue &lt;0-7&gt; &lt;uint&gt;</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no qos queue-policer queue &lt;0-7&gt; &lt;uint&gt;</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no qos queue-policer queue &lt;0-7&gt;</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no qos wr &lt;1-100&gt; &lt;1-100&gt; &lt;1-100&gt; &lt;1-100&gt;</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no qos wr</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no qos shaper</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>qos queue-shaper queue &lt;0-7&gt; &lt;uint&gt; [ excess ]</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no qos queue-shaper queue &lt;0-7&gt;</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>qos tag-remark { pcp &lt;0-7&gt; dei &lt;0-1&gt;</td>
<td>mapped }</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>no qos tag-remark</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no qos map cos-tag cos &lt;0-7&gt; dpl &lt;0-1&gt; pcp &lt;0-7&gt; dei &lt;0-1&gt;</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>no qos map cos-tag cos &lt;0-7&gt; dpl &lt;0-1&gt;</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>qos dscp-translate</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>qos dscp-classify { zero</td>
<td>selected</td>
<td>any }</td>
<td>15</td>
</tr>
</tbody>
</table>
no qos dscp-classify
qos dscp-remark { rewrite | remap | remap-dp }
no qos dscp-remark
qos storm { unicast | broadcast | unknown }
<100-13200000> [ fps ]
no qos storm { unicast | broadcast | unknown }
qos qce { [ addr source | destination ] ] [ key [ double-tag normal | ip-addr | mac-ip-addr ] ] *1
no qos qce { [ addr ] [ key ] } *1
deb g qos shaper cir { <100-33000000> [ cbs <4096-258048> ] } { [ eir <100-33000000> [ ebs <4096-258048> ] ] }
no debug qos shaper
deb g qos queue-shaper queue <0-7> { cir <100-33000000> [ cbs <4096-258048> ] } { [ eir <100-33000000> [ ebs <4096-258048> ] ] [ excess ]}
no debug qos queue-shaper queue <0-7>
deb g show qos shapers
deb g qos cmef { [ enable | disable ] ]
sh ow rmon statistics [<1~65535>]
show rmon history [<1~65535>]
show rmon alarm [<1~65535>]
show rmon event [<1~65535>]
rmon alarm <1-65535> <word255>
<1-2147483647> {absolute | delta}
rising-threshold <2147483648-2147483647> [0-65535] falling-threshold <2147483648-2147483647> [0-65535] [[rising | falling | both]]
no rmon alarm <1-65535>
rmon event <1-65535> [log] [trap <word127>] [[description <line127>]]
no rmon event <1-65535>
rmon collection stats <1-65535>
no rmon collection stats <1-65535>
rmon collection history <1-65535> [buckets <1-65535>] [interval <1-3600>]
no rmon collection history <1-65535>
<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>no rmon collection history &lt;1-65535&gt;</td>
<td></td>
</tr>
<tr>
<td>show sflow statistics { receiver [ &lt;range_list&gt; ]</td>
<td>samplers [interface [&lt;range_list&gt;]] [port_type_list]] }</td>
</tr>
<tr>
<td>show sflow</td>
<td>Use show sflow to display the current sFlow configuration.</td>
</tr>
<tr>
<td>clear sflow statistics { receiver [&lt;range_list&gt;]</td>
<td>samplers [interface [&lt;range_list&gt;]] [port_type_list]] }</td>
</tr>
<tr>
<td>sflow agent-ip (ipv4 &lt;ipv4_addr&gt;</td>
<td>ipv6 &lt;ipv6_addr&gt;)</td>
</tr>
<tr>
<td>no sflow agent-ip</td>
<td>Sets the agent IP address used as agent-address in UDP datagrams to 127.0.0.1.</td>
</tr>
<tr>
<td>sflow timeout [receiver &lt;range_list&gt;] &lt;0-2147483647&gt;</td>
<td>Receiver timeout measured in seconds. The switch decrements the timeout once per second, and as long as it is non-zero, the receiver receives samples. Once the timeout reaches 0, the receiver and all its configuration is reset to defaults.</td>
</tr>
<tr>
<td>no sflow timeout [receiver &lt;range_list&gt;]</td>
<td>Receiver timeout measured in seconds. The switch decrements the timeout once per second, and as long as it is non-zero, the receiver receives samples. Once the timeout reaches 0, the receiver and all its configuration is reset to defaults.</td>
</tr>
<tr>
<td>sflow collector-address [receiver &lt;range_list&gt;] [word]</td>
<td>Collector address</td>
</tr>
<tr>
<td>no sflow collector-address [receiver &lt;range_list&gt;]</td>
<td></td>
</tr>
<tr>
<td>sflow collector-port [receiver &lt;range_list&gt;] &lt;1-65535&gt;</td>
<td>Collector UDP port. Valid range is 0-65536.</td>
</tr>
<tr>
<td>no sflow collector-port [receiver &lt;range_list&gt;]</td>
<td>Collector UDP port. Valid range is 0-65536.</td>
</tr>
<tr>
<td>sflow max-datagram-size [receiver &lt;range_list&gt;] &lt;200-1468&gt;</td>
<td>Maximum datagram size.</td>
</tr>
</tbody>
</table>
no sflow max-datagram-size [receiver <range_list>]

Maximum datagram size.

15  GLOBAL_CONFIG

sflow sampling-rate [sampler <range_list>]
[<1-4294967295>]

Specifies the statistical sampling rate. The sample rate is specified as N to sample 1/Nth of the packets n the monitored flows. There are no restrictions on the value, but the switch will adjust it to the closest possible sampling rate.

15  INTERFACE_PORT_LIST

sflow max-sampling-size [sampler <range_list>]
[<14-200>]

Specifies the maximum number of bytes to transmit per flow sample.

15  INTERFACE_PORT_LIST

no sflow max-sampling-size [sampler <range_list>]

Specifies the maximum number of bytes to transmit per flow sample.

15  INTERFACE_PORT_LIST

sflow counter-poll-interval [sampler <range_list>]
[<1-3600>]

The interval - in seconds - between counter poller samples.

15  INTERFACE_PORT_LIST

no sflow counter-poll-interval [range_list]

The interval - in seconds - between counter poller samples.

15  INTERFACE_PORT_LIST

sflow [<range_list>]

Enables/disables flow sampling on this port.

15  INTERFACE_PORT_LIST

show smtp

Email information

0  EXEC

smtp delete { server | username | sender | returnpath | mailaddress <1-6> }

Delete email server

15  GLOBAL_CONFIG

smtp mailaddress <1-6> <word47>

Set email server

15  GLOBAL_CONFIG

smtp returnpath <word47>

15  GLOBAL_CONFIG

smtp returnpath <word47>

15  GLOBAL_CONFIG

smtp sender <word47>

15  GLOBAL_CONFIG

smtp username <word31> <word31>

15  GLOBAL_CONFIG

smtp server <word47>

15  GLOBAL_CONFIG

smtp level <0-7>

15  GLOBAL_CONFIG

show snmp

15  EXEC

show snmp community v3 [ <word127> ]

15  EXEC

show snmp user [ <word32> <word10-32> ]

show snmp security-to-group [ { v1 | v2c | v3 } <word32> ]

show snmp access [ <word32> { v1 | v2c | v3 | any } { auth | noauth | priv } ]

show snmp view [ <word32> <word255> ]

snmp-server

Enable SNMP server.

13  GLOBAL_CONFIG
<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
<th>Line No.</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>snmp-server engine-id local &lt;word10-32&gt;</td>
<td>To specify SNMP server's engine ID.</td>
<td>13</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>no snmp-server engine-id local</td>
<td>To set SNMP server's engine ID to default value.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>snmp-server version { v1</td>
<td>v2c</td>
<td>v3 }</td>
<td>Set the SNMP server version to SNMPv1, SNMPv2c or SNMPv3.</td>
</tr>
<tr>
<td>no snmp-server version</td>
<td>Set SNMP server's version to default setting.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>snmp-server community v2c &lt;word127&gt; [ ro</td>
<td>rw ]</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>snmp-server community v3 &lt;word127&gt; [ &lt;ipv4_addr&gt;</td>
<td>&lt;ipv4_netmask&gt; ]</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>no snmp-server community v2c</td>
<td></td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>no snmp-server community v3 &lt;word127&gt;</td>
<td></td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>snmp-server user &lt;word32&gt; engine-id &lt;word10-32&gt;</td>
<td></td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>snmp-server security-to-group model { v1</td>
<td>v2c</td>
<td>v3 } name &lt;word32&gt; group &lt;word32&gt;</td>
<td></td>
</tr>
<tr>
<td>no snmp-server security-to-group model { v1</td>
<td>v2c</td>
<td>v3 } name &lt;word32&gt;</td>
<td></td>
</tr>
<tr>
<td>snmp-server access &lt;word32&gt; model { v1</td>
<td>v2c</td>
<td>v3</td>
<td>any } level { auth</td>
</tr>
<tr>
<td>no snmp-server access &lt;word32&gt; model { v1</td>
<td>v2c</td>
<td>v3</td>
<td>any } level { auth</td>
</tr>
<tr>
<td>snmp-server view &lt;word32&gt; &lt;word255&gt; { include</td>
<td>exclude }</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>no snmp-server view &lt;word32&gt; &lt;word255&gt;</td>
<td></td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>snmp-server contact &lt;line255&gt;</td>
<td>To specify the system contact string.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>no snmp-server contact</td>
<td>To clear the system contact string.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>snmp-server location &lt;line255&gt;</td>
<td>To specify the system location string.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>no snmp-server location</td>
<td>To specify the system location string.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>show snmp mib context</td>
<td>Use the show snmp mib context user EXEC command to display the supported MIbs</td>
<td>15</td>
<td>EXEC</td>
</tr>
<tr>
<td>show snmp mib ifmib ifIndex</td>
<td>Use the show snmp mib ifmib ifIndex</td>
<td>15</td>
<td>EXEC</td>
</tr>
</tbody>
</table>
show snmp mib redefine

<table>
<thead>
<tr>
<th>User EXEC command to display the SNMP ifIndex (defined in IF-MIB) mapping information in the switch.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>show snmp mib redefine</strong> Use the show snmp mib redefine user EXEC command to display the redefined MIBs in the switch, that are different definitions from the standard MIBs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Command</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>snmp-server trap</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>no snmp-server host &lt;word32&gt;</td>
<td></td>
</tr>
<tr>
<td>shutdown</td>
<td>SNMPS_HOST</td>
</tr>
<tr>
<td>host { &lt;ipv4_ucast&gt;</td>
<td>&lt;hostname&gt; } [ 1-65535]</td>
</tr>
<tr>
<td>host &lt;ipv6_ucast&gt; [ 1-65535]</td>
<td>[ traps</td>
</tr>
<tr>
<td>no host</td>
<td>SNMPS_HOST</td>
</tr>
<tr>
<td>no version</td>
<td>SNMPS_HOST</td>
</tr>
<tr>
<td>informs retries &lt;0-255&gt; timeout &lt;0-2147&gt;</td>
<td>SNMPS_HOST</td>
</tr>
<tr>
<td>no informs</td>
<td>SNMPS_HOST</td>
</tr>
<tr>
<td>traps [ aaa authentication ] [ system [ coldstart ] [ warmstart ] ] [ switch [ stp ] [ mmon ] ]</td>
<td>SNMPS_HOST</td>
</tr>
<tr>
<td>no traps</td>
<td>SNMPS_HOST</td>
</tr>
<tr>
<td>snmp-server host &lt;word32&gt; traps [ linkup ] [ linkdown ] [ lldp ]</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>no snmp-server host &lt;word32&gt; traps</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>show snmp host [ &lt;word32&gt; ] [ system ] [ switch ] [ interface ] [ aaa ]</td>
<td>EXEC</td>
</tr>
<tr>
<td>show ip ssh</td>
<td>EXEC</td>
</tr>
<tr>
<td>ip ssh</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>Use the show ip ssh privileged EXEC command to display the SSH status.</td>
<td></td>
</tr>
<tr>
<td>Use the ip ssh global configuration command to enable the SSH. Use the no form of this</td>
<td></td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>show network-clock</td>
<td>Show selector state.</td>
</tr>
<tr>
<td>clear network-clock clk-source &lt;range_list&gt;</td>
<td>Clear active WTR timer.</td>
</tr>
<tr>
<td>network-clock clk-source &lt;range_list&gt; nominate [clk-in</td>
<td>(interface &lt;port_type_id&gt;) ]</td>
</tr>
<tr>
<td>no network-clock clk-source &lt;range_list&gt; nominate</td>
<td></td>
</tr>
<tr>
<td>network-clock input-source [1544kHz</td>
<td>2048kHz</td>
</tr>
<tr>
<td>no network-clock input-source</td>
<td></td>
</tr>
<tr>
<td>network-clock output-source [1544kHz</td>
<td>2048kHz</td>
</tr>
<tr>
<td>no network-clock output-source</td>
<td></td>
</tr>
<tr>
<td>network-clock clk-source &lt;range_list&gt; aneg-mode [master</td>
<td>slave</td>
</tr>
<tr>
<td>no network-clock clk-source &lt;range_list&gt; aneg-mode</td>
<td></td>
</tr>
<tr>
<td>network-clock clk-source &lt;range_list&gt; hold-timeout &lt;3-18&gt;</td>
<td>The hold off timer value in 100 ms. Valid values are range 3-18.</td>
</tr>
<tr>
<td>no network-clock clk-source &lt;range_list&gt; hold-timeout</td>
<td></td>
</tr>
<tr>
<td>network-clock selector [{manual clk-source &lt;uint&gt;</td>
<td>selected</td>
</tr>
<tr>
<td>no network-clock selector</td>
<td></td>
</tr>
<tr>
<td>network-clock clk-source &lt;range_list&gt; priority &lt;0-1&gt;</td>
<td>Priority of nominated clock sources.</td>
</tr>
<tr>
<td>no network-clock clk-source &lt;range_list&gt; priority</td>
<td></td>
</tr>
<tr>
<td>network-clock wait-to-restore &lt;0-12&gt;</td>
<td>WTR time (0-12 min) '0' is disable</td>
</tr>
<tr>
<td>no network-clock wait-to-restore</td>
<td></td>
</tr>
<tr>
<td>network-clock ssm-holdover [prc</td>
<td>ssua</td>
</tr>
<tr>
<td>no network-clock ssm-holdover</td>
<td></td>
</tr>
<tr>
<td>network-clock ssm-freerun [prc</td>
<td>ssua</td>
</tr>
<tr>
<td>no network-clock ssm-freerun</td>
<td></td>
</tr>
<tr>
<td>network-clock clk-source &lt;range_list&gt;</td>
<td>Clock source SSM overwrite</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>`ssm-overwrite { prc</td>
<td>ssua</td>
</tr>
<tr>
<td><code>no network-clock clk-source &lt;range_list&gt;</code></td>
<td>ssu option</td>
</tr>
<tr>
<td><code>ssm-overwrite</code></td>
<td>15 GLOBAL_CONFIG</td>
</tr>
<tr>
<td>`network-clock option { eec1</td>
<td>eec2 }`</td>
</tr>
<tr>
<td><code>no network-clock option</code></td>
<td>15 GLOBAL_CONFIG</td>
</tr>
<tr>
<td><code>network-clock synchronization ssm</code></td>
<td>SSM enable/disable.</td>
</tr>
<tr>
<td><code>show logging [ info ] [ warning ] [ error ] [ switch &lt;switch_list&gt; ]</code></td>
<td>Use the show logging privileged EXEC command without keywords to display the logging configuration, or particularly the logging message summary for the logging level.</td>
</tr>
<tr>
<td><code>show logging &lt;1-4294967295&gt; [ switch &lt;switch_list&gt; ]</code></td>
<td>Use the show logging privileged EXEC command with logging ID to display the detail logging message.</td>
</tr>
<tr>
<td><code>clear logging [ info ] [ warning ] [ error ] [ switch &lt;switch_list&gt; ]</code></td>
<td>Use the clear logging privileged EXEC command to clear the logging message.</td>
</tr>
<tr>
<td><code>logging on</code></td>
<td>Use the logging on global configuration command to enable the logging server. Use the no form of this command to disable the logging server.</td>
</tr>
<tr>
<td>`logging host { &lt;ipv4_ucast&gt;</td>
<td>&lt;hostname&gt; }`</td>
</tr>
<tr>
<td><code>no logging host</code></td>
<td>Use the no logging host global configuration command to clear the host address of logging server.</td>
</tr>
<tr>
<td>`logging level { info</td>
<td>warning</td>
</tr>
<tr>
<td><code>show clock</code></td>
<td>Show running system information</td>
</tr>
<tr>
<td><code>show version</code></td>
<td>System hardware and software status</td>
</tr>
<tr>
<td><code>password unencrypted &lt;line31&gt;</code></td>
<td>Use the password encrypted &lt;password&gt; global configuration command to configure administrator password with unencrypted password</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td><code>show system</code></td>
<td>Show system information</td>
</tr>
<tr>
<td><code>system contact &lt;line255&gt;</code></td>
<td>To specify the system contact string.</td>
</tr>
<tr>
<td><code>no system contact</code></td>
<td>To clear the system contact string.</td>
</tr>
<tr>
<td><code>system location &lt;line255&gt;</code></td>
<td>To specify the system location string.</td>
</tr>
<tr>
<td><code>no system location</code></td>
<td>To specify the system location string.</td>
</tr>
<tr>
<td><code>system name &lt;line255&gt;</code></td>
<td>To specify the system name string.</td>
</tr>
<tr>
<td><code>no system name</code></td>
<td>To specify the system model name string.</td>
</tr>
<tr>
<td><code>show thermal-protect [interface &lt;port_type_list&gt;]</code></td>
<td>Shows thermal protection status (chip temperature and port status).</td>
</tr>
<tr>
<td><code>thermal-protect prio &lt;0-3&gt; temperature &lt;0-255&gt;</code></td>
<td>Thermal protection configurations.</td>
</tr>
<tr>
<td><code>no thermal-protect prio &lt;0-3&gt;</code></td>
<td>Sets temperature at which to turn ports with the corresponding priority off.</td>
</tr>
<tr>
<td><code>thermal-protect port-prio &lt;0-3&gt;</code></td>
<td>Sets temperature at which to turn ports with the corresponding priority off.</td>
</tr>
<tr>
<td><code>no thermal-protect port-prio</code></td>
<td>Sets temperature at which to turn ports with the corresponding priority off.</td>
</tr>
<tr>
<td><code>show upnp</code></td>
<td></td>
</tr>
<tr>
<td><code>upnp</code></td>
<td></td>
</tr>
<tr>
<td><code>upnp ttl &lt;1-255&gt;</code></td>
<td></td>
</tr>
<tr>
<td><code>no upnp ttl</code></td>
<td></td>
</tr>
<tr>
<td><code>upnp advertising-duration &lt;100-86400&gt;</code></td>
<td></td>
</tr>
<tr>
<td><code>no upnp advertising-duration</code></td>
<td></td>
</tr>
<tr>
<td><code>username &lt;word31&gt; privilege &lt;0-15&gt; password unencrypted &lt;line31&gt;</code></td>
<td>Use the username &lt;username&gt; privilege &lt;level&gt; password encrypted &lt;password&gt; global configuration command to add a user with unencrypted password for the local switch access.</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>username &lt;word31&gt; privilege &lt;0-15&gt; password</td>
<td>Use the username &lt;username&gt; privilege &lt;level&gt; password encrypted global configuration command to add a user with encrypted password for the local switch access.</td>
</tr>
<tr>
<td>none</td>
<td>Use the username &lt;username&gt; privilege &lt;level&gt; password none global configuration command to remove the password for specific username.</td>
</tr>
<tr>
<td>no username &lt;word31&gt;</td>
<td>Use the no username &lt;username&gt; global configuration command to delete a local user.</td>
</tr>
<tr>
<td>vlan protocol {{eth2 {&lt;0x600-0xffff&gt;</td>
<td>arp</td>
</tr>
<tr>
<td></td>
<td>{snap {&lt;0x0-0xffffff&gt;-rfc-1042</td>
</tr>
<tr>
<td></td>
<td>[llc &lt;0x0-0xff&gt; &lt;0x0-0xff&gt;] group &lt;word16&gt;</td>
</tr>
<tr>
<td>switchport vlan protocol group &lt;word16&gt; vlan &lt;vlan_id&gt;</td>
<td>Use the no form of this command to remove the group to vlan mapping.</td>
</tr>
<tr>
<td>show vlan protocol [eth2 [0-0xffff]-arp</td>
<td>ip</td>
</tr>
<tr>
<td></td>
<td>{&lt;0x0-0xffffff&gt;-rfc-1042</td>
</tr>
<tr>
<td></td>
<td>[llc &lt;0x0-0xff&gt; &lt;0x0-0xff&gt;]</td>
</tr>
<tr>
<td>show vlan mac [address &lt;mac_ucast&gt;]</td>
<td>Use the switchport mode command to define the type of the port.</td>
</tr>
<tr>
<td>show vlan ip-subnet [id 1-128&gt;]</td>
<td>Use the switchport access vlan command to assign a VLAN ID to a port.</td>
</tr>
<tr>
<td>switchport vlan ip-subnet id &lt;1-128&gt;</td>
<td>Use the switchport mode command to define the type of the port.</td>
</tr>
<tr>
<td>&lt;ipv4_subnet&gt; vlan &lt;vlan_id&gt;</td>
<td>Use the no switchport mode command to remove the VLAN mapping.</td>
</tr>
<tr>
<td>debug vcl policy &lt;uint&gt;</td>
<td>Use the debug vcl policy command to enable or disable VCL.</td>
</tr>
<tr>
<td>no debug vcl policy</td>
<td>Use the no debug vcl policy command to disable VCL.</td>
</tr>
<tr>
<td>debug show vcl policy</td>
<td>Use the debug show vcl policy command to display VCL information.</td>
</tr>
<tr>
<td>switchport mode {access</td>
<td>trunk</td>
</tr>
<tr>
<td>no switchport mode</td>
<td>Use the no switchport mode command to remove the VLAN mapping.</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>no switchport access vlan</td>
<td>Valid VLAN IDs are 1 to 4095.</td>
</tr>
<tr>
<td>switchport trunk native vlan <code>&lt;vlan_id&gt;</code></td>
<td>Use the switchport native vlan command to configure a port VLAN ID for a trunk port.</td>
</tr>
<tr>
<td>no switchport trunk native vlan</td>
<td>Set trunk mode characteristics of the interface</td>
</tr>
<tr>
<td>switchport hybrid native vlan <code>&lt;vlan_id&gt;</code></td>
<td>Use the switchport native vlan command to configure a port VLAN ID for a hybrid port.</td>
</tr>
<tr>
<td>no switchport hybrid native vlan</td>
<td>Set hybrid mode characteristics of the interface</td>
</tr>
<tr>
<td>switchport hybrid port-type { unaware</td>
<td>c-port</td>
</tr>
<tr>
<td>no switchport hybrid port-type</td>
<td>Set hybrid characteristics of the interface</td>
</tr>
<tr>
<td>switchport hybrid ingress-filtering</td>
<td>Set hybrid characteristics of the interface</td>
</tr>
<tr>
<td>switchport hybrid acceptable-frame-type { all</td>
<td>tagged</td>
</tr>
<tr>
<td>no switchport hybrid acceptable-frame-type</td>
<td>Set hybrid characteristics of the interface</td>
</tr>
<tr>
<td>switchport hybrid egress-tag {none</td>
<td>all [except-native]}</td>
</tr>
<tr>
<td>no switchport hybrid egress-tag</td>
<td>Set hybrid characteristics of the interface</td>
</tr>
<tr>
<td>switchport trunk vlan tag native</td>
<td>Set trunk characteristics of the interface</td>
</tr>
<tr>
<td>switchport trunk allowed vlan {all</td>
<td>none</td>
</tr>
<tr>
<td>no switchport trunk allowed vlan</td>
<td>Set trunk characteristics of the interface</td>
</tr>
<tr>
<td>switchport hybrid allowed vlan {all</td>
<td>none</td>
</tr>
<tr>
<td>no switchport hybrid allowed vlan</td>
<td>Set hybrid characteristics of the interface</td>
</tr>
<tr>
<td>vlan ethertype s-custom-port <code>&lt;0x0600-0xffff&gt;</code></td>
<td></td>
</tr>
<tr>
<td>no vlan {ethertype s-custom-port</td>
<td><code>&lt;vlan_list&gt;</code>}</td>
</tr>
</tbody>
</table>

**GLOBAL_CONFIG**

- **no vlan**
- **vlan ethertype s-custom-port**
- **switchport hybrid allowed vlan**
- **switchport trunk allowed vlan**
- **switchport hybrid allowed vlan**
- **switchport trunk native vlan**
- **switchport hybrid native vlan**
- **switchport trunk native vlan**
- **switchport native vlan**
- **switchport hybrid port-type**
- **switchport trunk port**

### INTERFACE_PORT_LIST

- **interface 13**
- **interface 15**
<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
<th>Line</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>show interface &lt;port_type_list&gt; switchport [access</td>
<td>Use the show interfaces command to display the administrative and operational status of all interfaces or a specified interface.</td>
<td>0</td>
<td>EXEC</td>
</tr>
<tr>
<td>trunk</td>
<td>hybrid]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>show vlan [id &lt;vlan_list&gt;</td>
<td>name &lt;vword32&gt;</td>
<td>brief]</td>
<td>Use the show vlan command to view the VLAN configuration.</td>
</tr>
<tr>
<td>show vlan status [ interface &lt;port_type_list&gt; ] [combined</td>
<td>admin</td>
<td>nas</td>
<td>mvr</td>
</tr>
<tr>
<td>name &lt;vword32&gt;</td>
<td>Use the name &lt;vword32&gt; command to configure VLAN name.</td>
<td>13</td>
<td>CONFIG_VLAN</td>
</tr>
<tr>
<td>no name</td>
<td>The no form of this command will restore the VLAN name to its default.</td>
<td>13</td>
<td>CONFIG_VLAN</td>
</tr>
<tr>
<td>switchport forbidden vlan (add</td>
<td>remove) &lt;vlan_list&gt;</td>
<td>Adds or removes forbidden VLANs from the current list of forbidden VLANs</td>
<td>15</td>
</tr>
<tr>
<td>no switchport forbidden vlan</td>
<td>Allows for adding VLANs to an interface</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
</tr>
<tr>
<td>show switchport forbidden [{vlan &lt;vlan_id&gt;</td>
<td>[name &lt;word&gt;]}]</td>
<td>Lookup VLAN Forbidden port entry.</td>
<td>0</td>
</tr>
<tr>
<td>voice vlan</td>
<td>Use the voice vlan global configuration command to enable voice vlan. Use the no form of this command to globally disable voice vlan.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>voice vlan vid &lt;vlan_id&gt;</td>
<td>Use the voice vlan vid global configuration command to configure voice vlan vid.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>no voice vlan vid</td>
<td>Use the no voice vlan vid global configuration command to restore the default voice vlan vid.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>voice vlan aging-time &lt;10-10000000&gt;</td>
<td>Use the voice vlan aging-time global configuration command to configure default voice vlan aging-time.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>no voice vlan aging-time</td>
<td>Use the no voice vlan aging-time global configuration command to restore the default voice vlan aging-time.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>voice vlan class { &lt;0-7&gt;</td>
<td>low</td>
<td>normal</td>
<td>medium</td>
</tr>
<tr>
<td>no voice vlan class</td>
<td>Use the no voice vlan class global configuration command to configure voice vlan class.</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
<td>Location</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>voice vlan oui &lt;oui&gt; [description &lt;line32&gt;]</td>
<td>Use the voice vlan oui global configuration command to set the oui entry for voice vlan.</td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>no voice vlan oui &lt;oui&gt;</td>
<td>Use the no voice vlan oui global configuration command to delete the oui entry.</td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>switchport voice vlan mode { auto</td>
<td>force</td>
<td>disable }</td>
<td>Use the switchport voice vlan mode interface configuration command to configure to switchport voice vlan mode.</td>
</tr>
<tr>
<td>no switchport voice vlan mode</td>
<td>Use the no switchport voice vlan mode interface configuration command to restore the default switchport voice vlan mode.</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>switchport voice vlan security</td>
<td>Use the switchport voice vlan security interface configuration command to configure switchport voice vlan security mode. Use the no form of this command to globally disable switchport voice vlan security mode.</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>switchport voice vlan discovery-protocol {oui</td>
<td>lldp</td>
<td>both}</td>
<td>Use the switchport voice vlan discovery-protocol interface configuration command to configure to switchport voice vlan discovery-protocol.</td>
</tr>
<tr>
<td>no switchport voice vlan discovery-protocol</td>
<td>Use the no switchport voice vlan discovery-protocol interface configuration command to restore the default switchport voice vlan discovery-protocol.</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>show voice vlan [ oui &lt;oui&gt;</td>
<td>interface &lt;port_type_list&gt; ]</td>
<td>Use the show voice vlan privilege EXEC command without keywords to display the voice vlan configuration, or particularly switchport configuration for the interface, or use the oui keyword to display oui table.</td>
<td>EXEC</td>
</tr>
<tr>
<td>debug gvrp protocol-state interface &lt;port_type_list&gt; vlan &lt;vlan_list&gt;</td>
<td></td>
<td>debug EXEC</td>
<td></td>
</tr>
<tr>
<td>Command</td>
<td>Level</td>
<td>Mode</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>-------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td>debug gvrp msti</td>
<td></td>
<td>debug EXEC</td>
<td></td>
</tr>
<tr>
<td>debug gvrp statistic</td>
<td></td>
<td>debug EXEC</td>
<td></td>
</tr>
<tr>
<td>gvrp</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>gvrp time { [ join-time &lt;1-20&gt; ] [ leave-time &lt;60-300&gt; ] [ leave-all-time &lt;1000-5000&gt; ] }*1</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>gvrp max-vlans &lt;1-4095&gt;</td>
<td>15</td>
<td>GLOBAL_CONFIG</td>
<td></td>
</tr>
<tr>
<td>gvrp</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>gvrp join-request vlan &lt;vlan_list&gt;</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
<tr>
<td>gvrp leave-request vlan &lt;vlan_list&gt;</td>
<td>15</td>
<td>INTERFACE_PORT_LIST</td>
<td></td>
</tr>
</tbody>
</table>
VeriPHY keyword

Syntax

`veriphy`

`veriphy interface [ * | GigabitEthernet ] <port_type_list>`

Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>interface</td>
<td>Interface keyword</td>
</tr>
<tr>
<td>*</td>
<td>All switches or All ports</td>
</tr>
<tr>
<td>GigabitEthernet</td>
<td>1 Gigabit Ethernet Port</td>
</tr>
<tr>
<td><code>&lt;port_type_list&gt;</code></td>
<td>Port list for all port types</td>
</tr>
<tr>
<td><code>&lt;port_type_list&gt;</code></td>
<td>Port list in 1/1-12</td>
</tr>
</tbody>
</table>

EXAMPLE
AW-IHT-1271# veriphy
Starting VeriPHY - Please wait

<table>
<thead>
<tr>
<th>Interface</th>
<th>Pair A</th>
<th>Length</th>
<th>Pair B, Length</th>
<th>Pair C</th>
<th>Length</th>
<th>Pair D</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>GigabitEthernet 1/1</td>
<td>Open</td>
<td>0</td>
<td>Open</td>
<td>0</td>
<td>OK</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>GigabitEthernet 1/2</td>
<td>Open</td>
<td>0</td>
<td>Open</td>
<td>0</td>
<td>OK</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>GigabitEthernet 1/3</td>
<td>Open</td>
<td>0</td>
<td>Open</td>
<td>0</td>
<td>OK</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>GigabitEthernet 1/4</td>
<td>Open</td>
<td>0</td>
<td>Open</td>
<td>0</td>
<td>OK</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>GigabitEthernet 1/5</td>
<td>OK</td>
<td>0</td>
<td>OK</td>
<td>0</td>
<td>OK</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>GigabitEthernet 1/6</td>
<td>OK</td>
<td>0</td>
<td>OK</td>
<td>0</td>
<td>Open</td>
<td>0</td>
<td>OK</td>
</tr>
<tr>
<td>GigabitEthernet 1/7</td>
<td>Open</td>
<td>0</td>
<td>Open</td>
<td>0</td>
<td>OK</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>GigabitEthernet 1/8</td>
<td>Open</td>
<td>0</td>
<td>Open</td>
<td>0</td>
<td>Open</td>
<td>0</td>
<td>OK</td>
</tr>
<tr>
<td>GigabitEthernet 1/9</td>
<td>No test results</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GigabitEthernet 1/10</td>
<td>No test results</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GigabitEthernet 1/11</td>
<td>No test results</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GigabitEthernet 1/12</td>
<td>No test results</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AW-IHT-1271# veriphy interface GigabitEthernet 1/1
Starting VeriPHY - Please wait

<table>
<thead>
<tr>
<th>Interface</th>
<th>Pair A</th>
<th>Length</th>
<th>Pair B, Length</th>
<th>Pair C</th>
<th>Length</th>
<th>Pair D</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>GigabitEthernet 1/1</td>
<td>OK</td>
<td>0</td>
<td>OK</td>
<td>0</td>
<td>OK</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

AW-IHT-1271#