D8308 CLI Guide

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, Internet Protocol (IP), and Telnet Protocol.

Content

CLI Management

The following description is the brief of the network connection.

-- Attach the RJ45 serial port on the switch's front panel which used to connect to the switch for telnet configuration

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

Baud rate	115200
Stop bits	1
Data bits	8
Parity	N
Flow control	none

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: **192.168.1.1**). The default uaser 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 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:
D8308#
```

1-2 Commands of CLI

The CLI is divided into serveral modes. If a user has enouth 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 belows:

Command Modes

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

Commandsreside in the corresponding modes could runonly 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 to in enable mode. The following table explains how to change from one mode to another.

Change Between Command Modes

MODE	ENTER MODE	LEAVE MODE
exec	--	--
config	Configure terminal	exit
config-interfcae	Interface <port-type> <port-type-list>	exit
config-vlan	Interface vlan <vlan_list>	exit

1-3 Global Commands of CLI

```
D8308# ?
       aps          Automatic Protection Switching
       clear        Clear
       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 the configuration 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
       iperf        network bandwidth measurement tool
       iperf3       network bandwidth measurement tool
       ipv6         IPv6 configuration commands
       link-oam     Link OAM configuration
       logout       Exit from EXEC mode
       more         Display file
       no           Delete trace hunt string
       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         Display statistics counters.
       ssh          ssh
       telnet       telnet
       terminal     Set terminal line parameters
       traceroute   Send IP Traceroute messages
       tsn          Time-Sensitive Networking
```

Exit

Exit from EXEC mode.

Syntax:

exit

Parameter:

None.

Example:

```
D8308(config)# exit
D8308#
```

Help

Description of the interactive help system.

Syntax:

help

Parameter:

None.

Example:

```
D8308# 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?'.)
D8308#
```

logout

Exit from EXEC mode.

Syntax:

logout

Parameter:

none

Example:

```
D8308# logout
Username:
```

APS of CLI

Automatic Protection Switching

Syntax:

aps <inst> clear

aps <inst> exercise

aps <inst> freeze

aps <inst> lockout

aps <inst> switch { force | manual { protect-to-working | working-to-protect } }

Parameter:

<1-10> APS instance number

clear Clear a switchover (FS, MS-to-W, MS-to-P), lockout (LO), exercise (EXER) request and a WTR condition

exercise Exercise an APS instance. Use 'aps <inst> clear' to clear the request.

freeze Freezes the state of the APS instance. While in this mode, additional near-end commands, condition changes, and received APS information are ignored. Use 'no aps <inst> freeze' to get out of this mode.

lockout Lockout APS instance of protection. Use 'aps <inst> clear' to clear the request.

switch Request a switchover from the working path to the protection path or vice versa. Use 'aps <inst> clear' to clear the request.

force Causes a switchover if no lockout is in effect

manual Causes a switchover if the signal is good and no lockout is in effect

protect-to-working Causes a manual signal switchover from the protection path to the working path if the protection path signal has not failed

working-to-protect Causes a manual signal switchover from the working path to the protection path whether or not the working path signal is active or not

Example:

```
D8308# aps 1 ?
    clear      Clear a switchover (FS, MS-to-W, MS-to-P), lockout (LO),
               exercise (EXER) request and a WTR condition
    exercise   Exercise an APS instance. Use 'aps <inst> clear' to clear the
               request.
    freeze     Freezes the state of the APS instance. While in this mode,
               additional near-end commands, condition changes, and received
               APS information are ignored. Use 'no aps <inst> freeze' to get
               out of this mode.
    lockout    Lockout APS instance of protection. Use 'aps <inst> clear' to
               clear the request.
    switch     Request a switchover from the working path to the protection
               path or vice versa. Use 'aps <inst> clear' to clear the
               request.
```

CLEAR of CLI

Table : CLEAR Commands

Command	Function
access	Access management
access-list	Access list
aps	Automatic Protection Switching
cfm	Connectivity Fault Management (CFM)
dot1x	IEEE Standard for port-based Network Access Control
erps	Ethernet Ring Protection Switching
ip	IP protocol
ipv6	IPv6 configuration commands
known-host-keys	Clear the cache of known hosts SSH keys
lacp	Clear LACP statistics
link-oam	Clear Link OAM statistics
lldp	Clears LLDP statistics.
logging	System logging message
mac	MAC Address Table
mvr	Multicast VLAN Registration configuration
network-clock	Clear active WTR timer.
port-security	Port Security
ptp	Clear various PTP data
sflow	Statistics flow.
spanning-tree	STP Bridge
statistics	Clear statistics for one or more given interfac
tsn	clear TSN related flags

3-1 access

Access management

Syntax:

clear access management statistics

Parameter:

management Access management configuration.

statistics Statistics data.

Example:

```
D8308# clear access management statistics
D8308#
```

3-2 access-list

Access list.

Syntax:

Clear access-list ace statistics

Parameter:

ace Access list entry

statistics Traffic statistics

Example:

```
D8308# clear access-list ace statistics
D8308#
```

3-3 aps

Automatic Protection Switching

Syntax

clear aps [<inst_list>] statistics

Parameter

<range_list> The range of APS instances.

statistics Clear APS counters

| 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:

```
D8308# clear aps statistics | exclude 2
D8308#
```

3-4 cfm

Connectivity Fault Management (CFM)

Syntax

clear cfm meps [domain <md_name>] [service <ma_name>] [mep-id <mepid>] statistics

Parameter

meps Clear MEP statistics

domain Select domain to clear counters for

<kword1-15> Domain name to clear counters for

mep-id Select a MEP to clear counters for

service Select a service to clear counters for

statistics Clear statistics

Example:

```
D8308# clear cfm meps statistics
D8308#
```

3-5 dot1x

IEEE Standard for port-based Network Access Control

Syntax

clear dot1x statistics [interface (<port_type> [<v_port_type_list>])]

Parameter

statistics	Clears the statistics counters
interface	Interface
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

EXAMPLE

```
D8308# clear dot1x statistics interface 10GigabitEthernet 1/1
25GigabitEthernet 1/2
D8308#
```

3-6 erps

Ethernet Ring Protection Switching

Syntax

Clear erps [<inst_list>] statistics

Parameter

<1~64>	The range of ERPS instances.
statistics	Clear R-APS counters
|	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

```
D8308# clear erps statistics | begin line
D8308#
```

3-7 ip

IP protocol.

Syntax

clear ip acd

clear ip arp

clear ip dhcp detailed statistics { server | client | snooping | relay | helper | all } [interface (<port_type> [<in_port_list>])]

clear ip dhcp relay statistics

clear ip dhcp server binding <ip>

clear ip dhcp server binding type { automatic | manual | expired }

clear ip dhcp server statistics

clear ip dhcp snooping statistics [interface (<port_type> [<in_port_list>])]

clear ip igmp snooping [vlan <v_vlan_list>] statistics

clear ip ospf process

clear ip rip process

clear ip statistics

Parameter

acd	Address Conflict Detection
arp	Clear ARP cache
dhcp	Dynamic Host Configuration Protocol
igmp	Internet Group Management Protocol
ospf	Open Shortest Path First (OSPF)
rip	Routing Information Protocol (RIP)
statistics	Traffic 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
detailed	Detailed statistics
relay	DHCP relay agent configuration
server	Miscellaneous DHCP server information
snooping	DHCP snooping
all	Clear all DHCP related statistics
client	DHCP client
helper	DHCP normal L2 or L3 forward
relay	DHCP relay
server	DHCP server
interface	Select an interface to configure

*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
binding	Clear DHCP binding
statistics	DHCP server statistics
<ipv4_ucast>	IP address of the binding
type	Type of bindings to clear
automatic	Clear (expire) automatic bindings
expired	Clear (remove) expired bindings
manual	Clear (expire) manual bindings
snooping	Snooping IGMP
statistics	Running IGMP snooping counters
vlan	Search by VLAN
<vlan_list>	VLAN identifier (VID)
process	OSPF routing process

EXAMPLE

```
D8308# clear ip arp
D8308#
```

3-8 ipv6

IPv6 configuration commands.

Syntax

clear ipv6 dhcp relay statistics [interface vlan <vlan_id> [interface vlan <rel_vlan_id>]]

clear ipv6 dhcp snooping statistics [interface (<port_type> [<in_port_list>])]

clear ipv6 dhcp-client statistics [interface vlan <v_vlan_list>]

clear ipv6 mld snooping [vlan <v_vlan_list>] statistics

clear ipv6 neighbors

clear ipv6 ospf process

clear ipv6 statistics

Parameter

dhcp	Dynamic Host Configuration Protocol V6
dhcp-client	Manage DHCPv6 client service
mld	Multicasat Listener Discovery
neighbors	Ipv6 neighbors
ospf	Open Shortest Path First for IPv6 (OSPFv3)
statistics	Traffic statistics
relay	DHCPv6 relay agent
snooping	DHCPv6 snooping
statistics	Clearing statistics
interface	Select an interface to clear
vlan	VLAN to clear
<vlan _id>	ID of VLAN
<vlan_list>	VLAN identifier(s): VID
interface	Select an interface to configure
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port

<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
|	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
snooping	Snooping MLD
statistics	Running MLD snooping counters
vlan	Search by VLAN
<vlan_list>	VLAN identifier (VID)
process	OSPF6 routing process

EXAMPLE

```
D8308# clear ipv6 mld snooping vlan 3 statistics
D8308# clear ipv6 neighbors
D8308# Clear ipv6 statistics
```

3-9 known-host-keys

Clear the cache of known hosts SSH keys

Syntax

clear known-host-keys

Parameter

known-host-keys	Clear the cache of known hosts SSH keys

EXAMPLE

```
D8308# clear known-host-keys
D8308#
```

3-10 lacp

Clear LACP statistics

Syntax

Clear lacp statistics

Parameter

statistics Clear all LACP statistics

EXAMPLE

```
D8308# clear lacp statistics
D8308#
```

3-11 Link-oam

Clear Link OAM statistics

Syntax

Clear link-oam statistics [interface (<port_type> [<plist>])]

Parameter

statistics	Clear Rx/Tx counters
interface	Clear Link OAM statistic on a specific interface or all interfaces.
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types

<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

EXAMPLE

```
D8308# clear link-oam statistics interface 10GigabitEthernet 1/1-3
D8308#
```

3-12 lldp

Clear LLDP statistics.

Syntax

Clear lldp statistics { [interface (<port_type> [<plist>])] | global }

Parameter

statistics	Clear LLDP statistics
|	Output modifiers
global	Clear global counters
interface	Interface keyword
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
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

EXAMPLE

```
D8308# clear lldp statistics interface *
D8308#
```

3-13 logging

System logging message.

Syntax

clear logging [info] [warning] [error] [emerg] [alert] [crit] [notice] [debug]

clear logging flash

Parameter

alert Severity 1: Action must be taken immediately

crit Severity 2: Critical conditions

debug Severity 7: Debug-level messages

emerg Severity 0: System is unusable

error Severity 3: Error conditions

flash Clear all logging messages on Flash

info Severity 6: Informational messages

notice Severity 5: Normal but significant condition

warning Severity 4: Warning conditions

EXAMPLE

```
D8308# clear logging informational error warning
D8308#
```

3-14 mac

MAC Address Table.

Syntax

Clear mac address-table

Parameter

address-table Flush MAC Address table.

EXAMPLE

```
D8308# clear mac address-table
D8308#
```

3-15 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

statistics Running MVR protocol counters

<vlan_list> MVR multicast VLAN list

EXAMPLE

```
D8308# clear  mvr vlan 25 statistics
D8308#
```

3-16 network-clock

Clear active WTR timer

Syntax

clear network-clock clk-source <clk_list>

Parameter

clk-source clk-source - commands related to a specific clock source.

<1~2> Clock source number

EXAMPLE

```
D8308# clear network-clock clk-source 1
D8308#
```

3-17 port-security

Port security

Syntax

Clear port-security dynamic [{ address <mac> [vlan <vlan_on_mac>] } | { interface (<port_type> [<plist>]) [vlan <vlan_on_interface>] } | vlan <vlan>]

Clear port-security sticky { All | interface (<port_type> [<plist>]) }

Parameter

dynamic	Dynamic entries
address	Clear a specific (VLAN, MAC) tuple
interface	Port interface
vlan	Delete all MAC addresses on a given VLAN
<mac_addr>	MAC address to clear
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8

<port_type_list> Port list in 1/1-2

<vlan_id> VLAN on which to clear all MAC addresses

All clear all sticky mac at all ports

interface Choose port

EXAMPLE

```
D8308# clear port-security dynamic vlan 1
D8308#
```

3-18 ptp

Clear various PTP data

Syntax

clear ptp <0-3> servo

Parameter

<0-3> Clock instance [0-3]

servo Servo parameters

EXAMPLE

```
D8308# clear ptp 1 servo
D8308#
```

3-19 sflow

Statistics flow.

Syntax

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

Parameter

statistics sFlow statistics

receiver Clear statistics for receiver.

samplers	Clear statistics for samplers
interface	Clear statistics for a specific interface or interfaces
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

EXAMPLE

```
D8308# clear sflow statistics receiver
D8308#
```

3-20 spanning-tree

STP Bridge.

Syntax

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 statistic
interface	Choose port
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types

<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

EXAMPLE

```
D8308# clear spanning-tree detected-protocols interface *
D8308#
```

3-21 statistics

Clear statistics for one or more given interfaces.

Syntax

clear statistics [interface] (<port_type> [<v_port_type_list>])

Parameter

interface	Interface
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

EXAMPLE

```
D8308# clear statistics interface 25GigabitEthernet 1/2 10GigabitEthernet
1/1 *
D8308#
```

3-22 tsn

clear TSN related flags

Syntax

clear tsn flow meter [<index_list>] [mark-red]

clear tsn frer [<inst_list>] statistics

clear tsn stream filter [<index_list>] [statistics | stream-blocked-due-to-oversize-frame]

clear tsn stream gate [<index_list>] [gate-closed-due-to-octets-exceeded | gate-closed-due-to-invalid-rx]

Parameter

flow Clear flow-meter

frer Frame Replication and Elimination for Reliability (802.1CB)

stream Clear stream gate closed flags

meter Clear flow-meter

| Output modifiers

<0~1023> Id of flow meter

mark-red Clear stream-blocked-due-to-oversize-frame flag

begin Begin with the line that matches

exclude Exclude lines that match

include Include lines that match

<line> String to match output lines

<1~127> The range of FRER instances to clear statistics for

statistics Clear counters

filter Clear stream filter

gate Clear stream gate closed flags

<0~1023> Id of stream filter

statistics Clear statistics for stream filter

stream-blocked-due-to-oversize-frame Clear stream-blocked-due-to-oversize-frame flag

<0~1023> Id of stream gate

gate-closed-due-to-invalid-rx	Clear gate-closed-due-to-invalid-rx flag
gate-closed-due-to-octets-exceeded	Clear gate-closed-due-to-octets-exceeded flag

EXAMPLE

```
D8308# clear tsn stream gate gate-closed-due-to-octets-exceeded 1
D8308#
```

CONFIGURE Commands of CLI

Table : CONFIGURE Commands

Command	Function
aaa	Authentication, Authorization and Accounting
access	Access management
access-list	Access list
aggregation	Aggregation mode
aps	Automatic Protection Switching
banner	Define a banner
cfm	Connectivity Fault Management (CFM)
clock	Configure time-of-day clock
ddmi	DDMI Information
default	Set a command to its defaults
dms	Enable Advanced Master
do	To run exec commands in the configuration mode
dot1x	IEEE Standard for port-based Network Access Control
enable	Modify enable password parameters
end	Go back to EXEC mode
erps	Ethernet Ring Protection Switching
event	Trap event severity level
exit	Exit from current mode
green-ethernet	Green Ethernet (Power reduction)
gvrp	Enable GVRP feature
help	Description of the interactive help system
hostname	Set system's network name
interface	Select an interface to configure
ip	Interface Internet Protocol configuration commands
ipmc	IPv4/IPv6 multicast configuration
ipv6	IPv6 configuration commands
key	Authentication key management
lacp	LACP settings
line	Configure a terminal line
lldp	Link Layer Discover Protocol.

logging	System logging message
loop-protect	Loop protection configuration
mac	MAC table entries/configuration
monitor	Monitoring different system events
mvr	Multicast VLAN Registration configuration
mvrp	Enable MVRP feature globally
network-clock	network-clock
no	Negate a command or set its defaults
ntp	Configure NTP
port-security	Port Security
privilege	Command privilege parameters
prompt	Set prompt
ptp	Precision time Protocol (1588)
qos	Quality of Service
radius-server	Configure RADIUS
rmon	Remote Monitoring
router	Routing process
sflow	Statistics flow.
snmp-server	Set SNMP server's configurations
spanning-tree	Spanning Tree protocol
stream	VCL stream definition
svl	Shared VLAN Learning
switchport	Set VLAN switching mode characteristics
system	Set the SNMP server's configurations
tacacs-server	Configure TACACS+
tsn	TSN configuration
udld	Enable UDLD in the aggressive or normal mode and to the configurable message timer on all fiber-optic ports.
upnp	Set UPnP configuration
username	Establish User Name Authentication
vlan	VLAN commands
voice	Voice appliance attributes
web	Web

4-1 terminal

Configure from the terminal.

Syntax

configure terminal

Parameter

terminal Configure from the terminal

EXAMPLE

```
D8308# configure terminal
D8308 (config)#
```

4-1.1 aaa

Authentication, Authorization and Accounting.

SYNTAX

aaa accounting { console | telnet | ssh | http | https } tacacs { [commands <priv_lvl>] [exec] }*1

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

aaa authentication login { http } { { redirect | local | radius | tacacs } [{ redirect | local | radius | tacacs } [{ redirect | local | radius | tacacs } [{ redirect | local | radius | tacacs }]]] } [fallback]

aaa authorization { console | telnet | ssh } tacacs commands <priv_lvl> [config-commands] [fallback]

Parameter

authentication	Authentication
authorization	Authorization
accounting	Accounting
login	Login
http	Configure HTTP authentication
ssh	Configure SSH authentication
telnet	Configure Telnet authentication

console	Configure Console authentication
local	Use local database for authentication
radius	Use RADIUS for authentication
tacacs	Use TACACS+ for authentication
console	Configure Console command authorization
ssh	Configure SSH command authorization
telnet	Configure Telnet command authorization
tacacs	Use TACACS+ for authorization
commands	Enable command authorization
<0-15>	Command privilege level. Commands equal and above this level are authorized
config-commands	Include configuration commands
console	Configure Console command accounting
ssh	Configure SSH command accounting
telnet	Configure Telnet command accounting
tacacs	Use TACACS+ for accounting
commands	Enable command accounting
exec	Enable EXEC accounting
<0-15>	Command privilege level. Commands equal and above this level are accounted

EXAMPLE

```
D8308(config)# aaa authentication login http radius
D8308(config)#
```

4-1.2 access

Access management.

SYNTAX

access management

access management <access_id> <access_vid> <start_addr> [to <end_addr>] { [web] [snmp] [telnet] | all }

access management <access_id> <access_vid> <start_addr> [to <end_addr>] { [web] [snmp] [telnet] | all }

Parameter

management	Access management configuration
< 1-16>	ID of access management entry
<1..4095>	The VLAN ID for the access management entry
<ipv4_ucast>	Start IPv4 unicast address
<ipv6_ucast>	Start IPv6 unicast address
all	All services
snmp	SNMP service
telnet	TELNET/SSH service
to	End address of the range
web	Web service
<ipv4_ucast>	End IPv4 unicast address

EXAMPLE

```
D8308(config)# access management 10 3 192.168.1.1 all
D8308(config)#
```

4-1.3 access-list

Access list.

Table : configure – access-list Commands

Command	Function
ace	Access list entry
rate-limiter	Rate limiter

4-1.3.1 ace

Access list entry.

SYNTAX

access-list ace [update] <ace_id> [next { <ace_id_next> | last }] [ingress { interface { (<port_type> [<ingress_port_list>]) } | any }] [policy <policy> [policy-bitmask <policy_bitmask>]] [tag { tagged | untagged | any }] [vid { <vid> | any }] [tag-priority { <tag_priority> | 0-1 | 2-3 | 4-5 | 6-7 | 0-3 | 4-7 | any }] [dmac-type { unicast | multicast | broadcast | any }] [frame-type { any | etype [etype-value { <etype_value> | any }] [smac { <etype_smac> { <etype_smac_mask> } | any }] [dmac { <etype_dmac> { <etype_dmac_mask> } | any }] | arp [sip { <arp_sip> | any }] [dip { <arp_dip> | any }] [smac { <arp_smac> { <arp_smac_mask> } | any }] [arp-opcode { arp | rarp | other | any }] [arp-flag [arp-request { <arp_flag_request> | any }] [arp-smac { <arp_flag_smac> | any }] [arp-tmac { <arp_flag_tmac> | any }] [arp-len { <arp_flag_len> | any }] [arp-ip { <arp_flag_ip> | any }] [arp-ether { <arp_flag_ether> | any }]] | ipv4 [sip { <sipv4> | any }] [dip { <dipv4> | any }] [ip-protocol { <ipv4_protocol> | any }] [ip-flag [ip-ttl { <ip_flag_ttl> | any }] [ip-options { <ip_flag_options> | any }] [ip-fragment { <ip_flag_fragment> | any }]] | ipv4-icmp [sip { <sipv4_icmp> | any }] [dip { <dipv4_icmp> | any }] [icmp-type { <icmpv4_type> | any }] [icmp-code { <icmpv4_code> | any }] [ip-flag [ip-ttl { <ip_flag_icmp_ttl> | any }] [ip-options { <ip_flag_icmp_options> | any }] [ip-fragment { <ip_flag_icmp_fragment> | any }]] | ipv4-udp [sip { <sipv4_udp> | any }] [dip { <dipv4_udp> | any }] [sport { <sportv4_udp_start> [to <sportv4_udp_end>] | any }] [dport { <dportv4_udp_start> [to <dportv4_udp_end>] | any }] [ip-flag [ip-ttl { <ip_flag_udp_ttl> | any }] [ip-options { <ip_flag_udp_options> | any }] [ip-fragment { <ip_flag_udp_fragment> | any }]] | ipv4-tcp [sip { <sipv4_tcp> | any }] [dip { <dipv4_tcp> | any }] [sport { <sportv4_tcp_start> [to <sportv4_tcp_end>] | any }] [dport { <dportv4_tcp_start> [to <dportv4_tcp_end>] | any }] [ip-flag [ip-ttl { <ip_flag_tcp_ttl> | any }] [ip-options { <ip_flag_tcp_options> | any }] [ip-fragment { <ip_flag_tcp_fragment> | any }]] [tcp-flag [tcp-fin { <tcpv4_flag_fin> | any }] [tcp-syn { <tcpv4_flag_syn> | any }] [tcp-rst { <tcpv4_flag_rst> | any }] [tcp-psh { <tcpv4_flag_psh> | any }] [tcp-ack { <tcpv4_flag_ack> | any }] [tcp-urg { <tcpv4_flag_urg> | any }]] | ipv6 [next-header { <next_header> | any }] [sip { <sipv6> [sip-bitmask <sipv6_bitmask>] | any }] [hop-limit { <hop_limit> | any }] | ipv6-icmp [sip { <sipv6_icmp> [sip-bitmask <sipv6_bitmask_icmp>] | any }] [icmp-type { <icmpv6_type> | any }] [icmp-code { <icmpv6_code> | any }] [hop-limit { <hop_limit_icmp> | any }] | ipv6-udp [sip { <sipv6_udp> [sip-bitmask <sipv6_bitmask_udp>] | any }] [sport { <sportv6_udp_start> [to <sportv6_udp_end>] | any }] [dport { <dportv6_udp_start> [to <dportv6_udp_end>] | any }] [hop-limit { <hop_limit_udp> | any }] | ipv6-tcp [sip { <sipv6_tcp> [sip-bitmask <sipv6_bitmask_tcp>] | any }] [sport { <sportv6_tcp_start> [to <sportv6_tcp_end>] | any }] [dport { <dportv6_tcp_start> [to <dportv6_tcp_end>] | any }] [hop-limit { <hop_limit_tcp> | any }] [tcp-flag [tcp-fin { <tcpv6_flag_fin> | any }] [tcp-syn { <tcpv6_flag_syn> | any }] [tcp-rst { <tcpv6_flag_rst> | any }] [tcp-psh { <tcpv6_flag_psh> | any }] [tcp-ack { <tcpv6_flag_ack> | any }] [tcp-urg { <tcpv6_flag_urg> | any }]] }] [action { permit | deny | filter { interface (<port_type> [<fliter_port_list>]) } }] [rate-limiter { <rate_limiter_id> | disable }] [mirror [disable]] [logging [disable]] [shutdown [disable]] [redirect { interface { (<port_type> [<redirect_port_list>]) } | disable }]

Parameter

<1-512>	ACE ID
update	Update an existing ACE
action	Access list action
dmac-type	The type of destination MAC address
frame-type	Frame type
ingress	Ingress
logging	Logging frame information. Note: The logging feature only works when the packet length is less than 1518 (without VLAN tags) and the System Log memory size and logging rate is limited.
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. The shutdown feature only works when the packet length is less than 1518 (without VLAN tags).
tag	Tag
tag-priority	Tag priority
vid	VID field
deny	Deny
filter	Filter
permit	Permit
interface	Select an interface to configure
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port

<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
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 EtherType
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 TCP
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
arp-flag	ARP flag
arp-opcode	ARP/RARP opcode field
dip	Destination IP address field
sip	Source IP address field
smac	Source MAC address field
dmac	Destination MAC address field
dmac-type	The type of destination MAC address
etype-value	Ether type value

ip-flag	IP flag
ip-protocol	IPv4 protocol field
icmp-code	ICMP code field
icmp-type	ICMP type field
dport	TCP/UDP destination port field
sport	TCP/UDP source port field
tcp-flag	TCP flag
hop-limit	IPv6 hop limiter field
disable	Disable logging
<1-512>	The next ID
last	Place the current ACE to the end of access list
<0-127>	Policy ID
policy-bitmask	The bitmask for policy ID
<1-16>	Rate limiter ID
disable	Disable rate-limiter
disable	Disable
any	Don't-care tagged or untagged
tagged	Tagged
untagged	Untagged
0-1	The range of tag priority
0-3	The range of tag priority
2-3	The range of tag priority
4-5	The range of tag priority
4-7	The range of tag priority
6-7	The range of tag priority
<0-7>	The value of tag priority

any	Don't-care the value of tag priority field
<1-4095>	The value of VID field
any	Don't-care the value of VID field

EXAMPLE

```
D8308(config)# access-list ace 10 action deny
D8308(config)#
```

4-1.3.2 rate-limiter

Rate limiter

SYNTAX

access-list rate-limiter [<rate_limiter_list>] { 10pps <pps10_rate> | 25kbps <kpbs25_rate> }

Parameter

10pps	10 packets per second
25kbps	25k bits per second
<1~16>	Rate limiter ID
<0-500000>	Rate value
<0-400000>	Rate value

EXAMPLE

```
D8308(config)# aaccess-list rate-limiter 25kbps 0
D8308(config)#
```

4-1.4 aggregation

Aggregation mode.

SYNTAX

aggregation mode { [smac] [dmac] [ip] [port] }*1

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

```
D8308(config)# aggregation mode dmac
D8308(config)#
```

4-1.5 aps

Automatic Protection Switching

SYNTAX

aps <inst>

Parameter

<1-10> APS instance number

EXAMPLE

```
D8308(config)# aps 1
D8308(config-aps)#
```

4-1.6 banner

Define a banner

SYNTAX

banner [<LINE>]

banner (exec | login | motd) <LINE>

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

```
D8308(config)# banner exec LINE
Enter TEXT message.  End with the character 'L'.
L
D8308(config)#
```

4-1.7 cfm

Connectivity Fault Management (CFM)

SYNTAX

cfm domain <md_name>

cfm interface-status-tlv { disable | enable }

cfm organization-specific-tlv { disable | enable oui <oui> subtype <subtype> value <value> }

cfm port-status-tlv { disable | enable }

cfm sender-id-tlv { disable | chassis | management | chassis-management }

Parameter

domain Maintenance Domain (MD)

<kword1-15> Domain name

interface-status-tlv Include or exclude Interface Status TLV in CCM PDUs (may be overridden in domain and service)

disable Exclude Interface Status TLV from PDUs (default)

enable Include Interface Status TLV in PDUs

organization-specific-tlv Include or exclude Organization-Specific TLV in PDUs (may be overridden in domain and service)

disable	Exclude Organization-Specific TLV from PDUs (default)
enable	Include Organization-Specific TLV in PDUs
port-status-tlv	Include or exclude Port Status TLV in CCM PDUs (may be overridden in domain and service)
disable	Do not include Port Status TLV in PDUs (default)
enable	Include Port Status TLV in PDUs
sender-id-tlv	Default Sender ID TLV format to be used in PDUs (may be overridden in domain and service)
chassis	Enable Sender ID TLV and send Chassis ID (MAC Address)
chassis-management	Enable Sender ID TLV and send both Chassis ID (MAC Address) and Management Address (IPv4 Address)
disable	Exclude Sender ID TLV from PDUs (default)
management	Enable Sender ID TLV and send Management address (IPv4 Address)

EXAMPLE

```
D8308(config)# cfm sender-id-tlv management
D8308(config)#
```

4-1.8 clock

Configure time-of-day clock.

SYNTAX

clock set <icliDateWord> { <icliTimeWord24> }

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> [<subtype_var>]]

Parameter

summer-time	Configure summer (daylight savings) time
timezone	Configure time zone
<word16>	name of time zone in summer (the string '' is a special syntax that is reserved for null input)
date	Configure absolute summer time
recurring	Configure recurring summer time
<1-12>	Month to start
<1-31>	Date to start
<2000-2097>	Year to start
<hhmm>	Time to start (hh:mm)
<1-12>	Month to end
<1-31>	Date to end
<2000-2097>	Year to end
<hhmm>	Time to end (hh:mm)
<1-1439>	Offset to add in minutes
<1-5>	Week number to start
<1-7>	Weekday to start
<-23-23>	Hours offset from UTC
<0-59>	Minutes offset from UTC
<0-9>	Sub type of time zone

EXAMPLE

```
D8308(config)# clock clock timezone taipei 8
D8308(config)#
```

4-1.9 dms

DDMI Information

SYNTAX

ddmi service-mode { disabled | enabled [priority { high | mid | low | non }] }

Parameter

service-mode Advanced mode

disabled Advanced mode is disabled

enabled Advanced mode is enabled

EXAMPLE

```
D8308(config)# dms service-mode disabled
D8308(config)#
```

4-1.10 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

<1-16> Rate limiter ID

EXAMPLE

```
D8308(config)# default access-list rate-limiter 3
D8308(config)#
```

4-1.11 do

To run exec commands in the configuration mode.

SYNTAX

do <command>

Parameter

<line> Exec Command

EXAMPLE

```
D8308(config)# do clear statistics interface GigabitEthernet 1/1-1
D8308(config)#
```

4-1.12 dot1x

IEEE Standard for port-based Network Access Control.

SYNTAX

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_1000000>

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	The number of times a Request Identity EAPOL frame is sent without response before considering 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>	Guest VLAN ID used when 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.
<1-65535>	seconds

EXAMPLE

```
D8308(config)# dot1x authentication timer re-authenticate 1000
D8308(config)#
```

4-1.13 enable

Modify enable password parameters.

SYNTAX

enable password (level <1-15> <word32>) | (<word32>)

enable secret (0 | 5) (level <1-15> <word32>) | (<word32>)

Parameter

password	Assign the privileged level clear password
secret	Assign the privileged level secret
<word32>	The UNENCRYPTED (clear-text) 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

```
D8308(config)# enable password level 10 999
D8308(config)#
```

4-1.14 end

Go back to EXEC mode.

Syntax:

none

Example:

```
D8308 (config)# end
D8308#
```

4-1.15 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 | 10GigabitEthernet) <port_type_id> port1 interface (GigabitEthernet | 10GigabitEthernet) <port_type_id> [interconnect]

erps 1-64 mep port0 sf <1-3124> aps <1-3124> port1 sf <1-3124> aps <1-3124>

erps 1-64 revertive 1-12

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

erps 1-64 sub port0 interface (GigabitEthernet | 10GigabitEthernet) <port_type_id> (interconnect 1-64 [virtual-channel]) | port1 interface (GigabitEthernet | 10GigabitEthernet) <port_type_id> [virtual-channel]

erps 1-64 topology-change propagate

erps 1-64 version [1 | 2]

erps 1-64 vlan { (add | remove) <vlan_list> } | { [<vlan_list> | 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	Select an interface to configure
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
port1	ERPS Port 1 interface
interconnect	Major ring is interconnected
sf	Signal Fail
<1-3124>	Index of Port 0 SignalFail MEP

aps	Automatic Protection Switching
<1-3124>	Index of Port 0 APS MEP
port1	ERPS Port 1 interface
<1-3124>	Index of Port 1 SignalFail MEP
<1-3124>	Index of Port 1 APS MEP
1-12	Wait-to-restore time in minutes
neighbor	Neighbor role
owner	Owner role
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

```
D8308(config)# erps 1 rpl neighbor port0
D8308(config)#
```

4-1.16 event

Trap event severity level.

SYNTAX

event group { ACL | ACL-Log | Access-Mgmt | Auth-Failed | Cold-Start | Config-Info | Digital-Out | Firmware-Upgrade | Import-Export | LACP | Login | Logout | Mgmt-IP-Change | Module-Change | NAS | Password-Change | Port-Security | Spanning-Tree | Warm-Start | DMS | PoE-Auto-Check | NTP-Sync | SCP-Success |

SCP-Fail | PoE-PD-On | PoE-PD-Off | Over-Max-PoE-Power-Limitation | PoE-PD-Over-Current } { level <lvl> | syslog { enable | disable } | trap { enable | disable } | smtp { enable | disable } }

event group { DI-1-Abnormal | DI-1-Normal | Loop-Protect | Temperature | Voltage | Rapid-Ring-Break | Rapid-Ring-Error | MRP-Event } { level <lvl> | syslog { enable | disable } | trap { enable | disable } | smtp { enable | disable } | digital-out { enable | disable } }

Parameter

group	Trap Event group name
ACL	Group ID ACL
ACL-Log	Group ID ACL Log
Access-Mgmt	Group ID Access Management
Auth-Failed	Group ID Auth Fail
Cold-Start	Group ID Cold Start
Config-Info	Group ID Config Info
DI-1-Abnormal	Group ID DI 1 Abnormal
DI-1-Normal	Group ID DI 1 Normal
DMS	Group ID DMS
Digital-Out	Group ID Digital Out
Firmware-Upgrade	Group ID Firmware Upgrade
Import-Export	Group ID Import Export
dhcp	Group ID DHCP
dhcp-snooping	Group ID DHCP-SNOOPING
ip-source-guard	Group ID IP-SOURCE-GUARD
lacp	Group ID LACP
link-updown	Group ID LINK-UPDOWN
login	Group ID LOGIN
logout	Group ID LOGOUT
loop-protect	Group ID Loop Protect

mac-table	Group ID MAC-TABLE
maintenance	Group ID MAINTENANCE
mgmt-ip-change	Group ID MGMT-IP-CHANGE
NAS	Group ID NAS
NTP-Sync	Group ID NTP Sync
Over-Max-PoE-Power-Limitation	Group ID Over Max PoE Power Limitation
Password-Change	Group ID Password Change
PoE-Auto-Check	Group ID PoE Auto Check
PoE-PD-Off	Group ID PoE PD Off
PoE-PD-On	Group ID PoE PD On
PoE-PD-Over-Current	Group ID PoE PD Over Current
Port-Security	Group ID Port Security
Rapid-Ring-Break	Group ID Rapid Ring Break
Rapid-Ring-Error	Group ID Rapid Ring Error
SCP-Fail	Group ID SCP Fail
SCP-Success	Group ID SCP Success
spanning-tree	Group ID SPANNING-TREE
Temperature	Group ID Temperature
Voltage	Group ID Voltage
warm-start	Group ID WARM-START
level	event group level
smtp	smtp mode
syslog	syslog mode
trap	trap mode
<0-7>	<0> Emergency ,<1> Alert ,<2> Critical ,<3> Error ,<4> Warning ,<5> Notice ,<6> Informationl ,<7> Debug (0..7)

enable	syslog mode enable
disable	syslog mode disable
enable	trap mode enable
disable	trap mode disable
disable	smtp mode disable
enable	smtp mode enable
digital-out	digital-out mode

EXAMPLE

```
D8308(config) # event group lacp trap enable
D8308(config) #
```

4-1.17 exit

Exit from current mode

SYNTAX

none

Parameter

exit	Exit from current mode

EXAMPLE

```
D8308(config)# exit
D8308#
```

4-1.18 green-ethernet

Green ethernet (Power reduction).

SYNTAX

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

```
D8308(config)# green-ethernet eee optimize-for-power
D8308(config)#
```

4-1.19 gvrp

Enable GVRP feature.

SYNTAX

gvrp

gvrp max-vlans <maxvlans>

gvrp time { [join-time <join_time>] [leave-time <leave_time>] [leave-all-time <leave_all_time>] }*1

Parameter

max-vlans	Number of simultaneously VLANs that GVRP can control
time	Configure GARP protocol timer parameters. IEEE 802.1D-2004, clause 12.11.
<1-4094>	Maximum number of VLAN
join-time	Set GARP protocol parameter JoinTime.
leave-all-time	Set GARP protocol parameter LeaveAllTime.
leave-time	Set GARP protocol parameter LeaveTime.
<1-20>	join-time in units of centiseconds. Range is 1-20. Default is 20.
<1000-5000>	leave-all-time in units of centiseconds Range is 1000-5000. Default is 1000.
<60-300>	leave-time in units of centiseconds. Range is 60-300. Default is 60.

EXAMPLE

```
D8308(config)# gvrp max-vlans 333
D8308(config)# gvrp time join-time 13 leave-all-time 3000 leave-time 200
D8308(config)#
```

4-1.20 help

Description of the interactive help system.

SYNTAX

help

Parameter

none

EXAMPLE

```
D8308(config)# 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?'.)

D8308(config)#
```

4-1.21 hostname

Set system's network name.

SYNTAX

hostname <hostname>

Parameter

<host_name> This system's network name.

EXAMPLE

```
D8308(config)# hostname abc
abc(config)#
```

4-1.22 interface

Select an interface to configure.

SYNTAX

interface (<port_type> [<plist>])

interface llag <llag_id>

interface vlan <vlist

Parameter

*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
llag	Local link aggregation interface configuration
vlan	VLAN interface configurations
<1-6>	ID of LLAG interface
<vlan_list>	List of VLAN interface numbers

EXAMPLE

```
D8308(config)# interface 10GigabitEthernet 1/1-8
D8308(config-if)#
D8308(config-if)#  interface vlan 3
D8308(config-if-vlan)#
D8308(config)# interface llag 1-5
D8308 (config-llag)#
```

4-1.23 ip

Interface Internet Protocol configuration commands.

SYNTAX

ip arp inspection

ip arp inspection entry interface (GigabitEthernet | 10GigabitEthernet) <port_type_id> <vlan_id> <mac_ucast> <ipv4_ucast>

ip arp inspection translate [interface (GigabitEthernet | 10GigabitEthernet) <port_type_id> <vlan_id> <mac_ucast> <ipv4_ucast>]

ip arp inspection vlan <vlan_list> [logging (all | deny | permit)]

ip dhcp excluded-address <ipv4_addr> [<ipv4_addr>]

ip dhcp pool <word32>

ip dhcp relay information [option]

ip dhcp relay information policy (drop | keep | replace)

ip dhcp server

ip dhcp snooping

ip dns proxy

ip domain name <domain_name> | dhcp [ipv4 | ipv6] [interface vlan <vlan_id>]

ip helper-address <ipv4_ucast>

ip http (secure-certificate [delete | generate | upload <url_file>]) | [secure-redirect | secure-server]

ip igmp host-proxy [leave-proxy]

ip igmp snooping [vlan <vlan_list>]

ip igmp ssm-range <ipv4_mcast>

ip igmp unknown-flooding

ip name-server <0-3> [<ipv4_ucast> | <ipv6_ucast> | dhcp (interface | ipv4 | ipv6) vlan <vlan_id> [ipv4 | ipv6]]

ip route <ipv4_addr> <ipv4_netmask> <ipv4_ucast> [<1-255>]

ip source binding interface (GigabitEthernet | 10GigabitEthernet) <port_type_id> <vlan_id> <ipv4_ucast> <mac_ucast>

ip ssh

ip verify source [translate]

Parameter

arp	Address Resolution Protocol
dhcp	Configure DHCP server parameters
dns	Domain Name System
domain	IP DNS Resolver
helper-address	DHCP helper server address
http	Hypertext Transfer Protocol
igmp	Internet Group Management Protocol
name-server	Domain Name System
route	Add IP route
routing	Enable routing for IPv4 and IPv6
source	source command
ssh	Secure Shell
verify	verify command
inspection	ARP inspection
entry	ARP inspection entry
translate	ARP inspection translate all entries

vlan	ARP inspection vlan setting
interface	Select an interface to configure
10GigabitEthernet	10 Gigabit Ethernet Ports
25GigabitEthernet	25 Gigabit Ethernet Ports
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
<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_list>	arp inspection vlan list
logging	ARP inspection vlan logging mode configuration
all	log all entries
deny	log denied entries
permit	log permitted entries
excluded-address	Prevent DHCP from assigning certain addresses
pool	Configure DHCP address pools
relay	DHCP relay agent configuration
server	Enable DHCP server
snooping	DHCP snooping
<ipv4_addr>	Low IP address
<ipv4_addr>	High IP address
<word32>	Pool name in 32 characters
Information	DHCP information option (Option 82)
option	DHCP option
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
proxy	DNS proxy service
name	Define the default domain name
<domain_name>	Default domain name
dhcp	Dynamic Host Configuration Protocol
Interface	Select an interface to configure
ipv4	DNS setting is derived from DHCPv4
ipv6	DNS setting is derived from DHCPv6; Default selection
<ipv4_ucast>	IP address of the DHCP relay server
secure-certificate	HTTPS certificate
secure-redirect	Secure HTTP web redirection
secure-server	Secure HTTP web server
delete	Delete the current certificate
generate	Generate a new self-signed RSA certificate
upload	Upload a certificate PEM file
<url_file>	Uniform Resource Locator. It is a specific character string that constitutes a reference to a resource. Syntax <protocol> ://[<username>[:<password>]@] <host>[:<port>][/<path>]/<file_name> If the following special characters: space !"#$%&'()*+,/:;<=>?@[\]^`{|}~ need to be contained in the input URL string, they should be percent-encoded. A valid file name is a text string drawn from alphabet (A-Za-z), digits (0-9), dot (.), hyphen (-), under score (_). The maximum length is 63 and hyphen must not be first character. The file name content that only contains '.' is not allowed.

host-proxy	IGMP proxy configuration
snooping	Snooping IGMP
ssm-range	IPv4 address range of Source Specific Multicast
unknown-flooding	Flooding unregistered IPv4 multicast traffic
leave-proxy	IGMP proxy for leave configuration
vlan	IGMP VLAN
<vlan_list>	VLAN identifier (VID)
<ipv4_mcast>	Valid IPv4 multicast address
<0-3>	Preference of DNS server. Default selection is 0
<ipv4_ucast>	A valid IPv4 unicast address
<ipv6_ucast>	A valid IPv6 unicast address
dhcp	Dynamic Host Configuration Protocol
<ipv4_addr>	Network
<ipv4_netmask>	Netmask
<ipv4_ucast>	Gateway
<1-255>	Distance value for this route
<mac_ucast>	Select a MAC address to configure
source	verify source
translate	IP verify source translate all entries

EXAMPLE

```
D8308(config)# ip arp inspection
D8308(config)#
```

4-1.24 ipmc

IPv4/IPv6 multicast configuration.

SYNTAX

ipmc profile

ipmc profile <profile_name>

ipmc range <entry_name> { <v_ipv4_mcast> [<v_ipv4_mcast_1>] | <v_ipv6_mcast> [<v_ipv6_mcast_1>] }

Parameter

profile	IPMC profile configuration
range	A range of IPv4/IPv6 multicast addresses for the profile
<word16>	Profile name in 16 characters
<word16>	Range entry name in 16 characters
<ipv4_mcast>	Valid IPv4 multicast address
<ipv6_mcast>	Valid IPv6 multicast address

EXAMPLE

```
D8308(config)# ipmc profile test
D8308(config-ipmc-profile)#
```

4-1.25 ipv6

IPv6 configuration commands.

SYNTAX

ipv6 dhcp snooping

ipv6 dhcp snooping nh-unknown { drop | allow }

ipv6 mld host-proxy [leave-proxy]

ipv6 mld snooping

ipv6 mld snooping vlan <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>] [distance <v_distance>]

ipv6 source binding interface <port_type> <port_type_id> [vlan <vlan_id>] <ipv6_ucast> <mac_ucast>

ipv6 verify source

ipv6 verify source translate

Parameter

dhcp	Dynamic Host Configuration Protocol V6
mld	Multicasat Listener Discovery
route	Configure static routes
source	source command
verify	verify command
snooping	Enables or disables the DHCPv6 snooping function.
nh-unknown	Control how packets with unknown IPv6 extension headers are treated.
allow	Allow packets with unknown IPv6 extension headers.
drop	Drop packets with unknown IPv6 extension headers.
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 (VID)
<ipv6_subnet>	IPv6 prefix x:x::y/z
<ipv6_mcast>	Valid IPv6 multicast address
binding	IP source binding
interface	interface command

10GigabitEthernet	10 Gigabit Ethernet Ports
25GigabitEthernet	25 Gigabit Ethernet Ports
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
source	Enables or disables the IPv6 Source Guard.
translate	translate command

EXAMPLE

```
D8308(config)# ipv6 mld host-proxy
D8308(config)# ipv6 mld snooping
D8308(config)#
```

4-1.26 key

Authentication key management

SYNTAX

key chain <keychain_name>

Parameter

chain Key-chain management

<word31>

EXAMPLE

```
D8308(config)# key chain word31
D8308(config)#
```

4-1.27 lacp

LACP settings.

SYNTAX

lacp system-priority <1-65535>

Parameter

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

EXAMPLE

```
D8308(config)# lacp system-priority 333
D8308(config)#
```

4-1.28 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
vty	Virtual terminal
0	Console Line number
<0~15>	List of vty numbers

EXAMPLE

```
D8308(config)# line  console 0
D8308(config-line)#
```

4-1.29 lldp

Link Layer Discover Protocol.

SYNTAX

lldp holdtime <val>

lldp med datum { wgs84 | nad83-navd88 | nad83-mllw }

lldp med fast <v_1_to_10>

lldp med location-tlv altitude { meters | floors } <v_word11>

lldp med location-tlv civic-addr { { country <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 } <v_line> }

lldp med location-tlv elin-addr <v_word25>

lldp med location-tlv latitude { north | south } <v_word8>

lldp med location-tlv longitude { west | east } <v_word9>

lldp med media-vlan-policy <policy_index> { voice | voice-signaling | guest-voice-signaling | guest-voice | softphone-voice | video-conferencing | streaming-video | video-signaling } { untagged | tagged <v_vlan_id> [l2-priority <v_0_to_7>] } [dscp <v_0_to_63>]

lldp reinit <val>

lldp timer <val>

lldp transmission-delay <val>

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. 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.
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	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
<1-10>	1-10 seconds.
altitude	Altitude parameter.
civic-addr	Civic address information and postal information. The total number of characters for the combined civic address information must not exceed 250 characters. Note: 1) A non empty civic address location will use 2 extra characters in addition to the civic address location text. 2) The 2 letter country code is not part of the 250 characters limitation.
elin-addr	Emergency Call Service ELIN identifier data format is defined to carry the ELIN identifier as used during emergency call setup to a traditional CAMA or ISDN trunk-based PSAP. This format consists of a numerical digit string, corresponding to the ELIN to be used for emergency calling. Emergency Location Identification Number, (e.g. E911 and others), such as defined by TIA or NENA.
latitude	Latitude parameter.
longitude	Longitude parameter.
floors	Specify the altitude in floor
meter	Specify the altitude in meters
<word11>	Altitude value. Valid range -2097151.9 to 2097151.9
additional-code	Additional code - Example: 1320300003.

additional-info	Additional location info - Example: South Wing.
apartment	Unit (Apartment, suite) - Example: Apt 42.
block	Neighborhood, 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.
district	City division, borough, city district, ward, chou (Japan).
floor	Floor - Example: 4.
house-no	House number - Example: 21.
house-no-suffix	House number suffix - Example: A, 1/2.
landmark	Landmark or vanity address - Example: Columbia University.
leading-street-direction	Leading street direction - Example: N.
name	Name (residence and office occupant) - Example: John Doe.
p-o-box	Post office box (P.O. BOX) - Example: 12345.
place-type	Place type - Example: Office.
postal-community-name	Postal community name - Example: Leonia.
room-number	Room number - Example: 450F.
state	National subdivisions (state, canton, region, province, prefecture).
street	Street - Example: Oxford Street.
street-suffix	Street suffix - Example: Ave, Platz.
trailing-street-suffix	Trailing street suffix - Example: SW.
zip-code	Postal/zip code - Example: 2791.
<line250>	Value for the corresponding selected civic address.
<dword25>	ELIN value

north	Setting latitude direction to north.
south	Setting latitude direction to south.
<word8>	Latitude degrees (0.0000-90.0000).
east	Setting longitude direction to east.
west	Setting longitude direction to west.
<word9>	Longitude degrees (0.0000-180.0000).
<0-31>	Policy id for the policy which is created.
guest-voice	Create a guest voice policy.
guest-voice-signaling	Create a guest voice signaling policy.
softphone-voice	Create a softphone voice policy.
streaming-video	Create a streaming video policy.
video-conferencing	Create a video conferencing policy.
video-signaling	Create a video signaling policy.
voice	Create a voice policy.
voice-signaling	Create a voice signaling policy.
tagged	The policy uses tagged frames.
untagged	The policy uses untagged frames.
<vlan_id>	The VLAN the policy uses tagged frames.
dscp	Differentiated Services Code Point. If not given then DSCP value is set to 0.
l2-priority	Layer 2 priority. If not given then L2 priority value is set to 0.
<0-63>	DSCP value 0-63.
<0-7>	Priority 0-7.
<1-10>	1-10 seconds.
<5-32768>	5-32768 seconds.
<1-8192>	1-8192 seconds.

EXAMPLE

```
D8308(config)# lldp holdtime 5
D8308(config)# lldp med fast 5
D8308(config)# lldp reinit 3
D8308(config)# lldp timer 555
D8308(config)# lldp transmission-delay 333
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
```

4-1.30 logging

System logging message.

SYNTAX

logging host { <ipv4_addr> | <domain_name> | <ipv6> }

logging on

logging port <port_no>

Parameter

host	host
level	Severity level
notification	notification
on	Enable Switch logging host mode
<domain_name>	A valid name consist of a sequence of domain labels separated by '.', each domain label starting and ending with an alphanumeric character and possibly also containing '-' characters. The length of a domain label must be 63 characters or less.
<ipv4_ucast>	The IPv4 address of the log server
error	Severity 3: Error conditions
informational	Severity 6: Informational messages
notice	Severity 5: Normal but significant condition

warning	Severity 4: Warning conditions
listen	listen
<kword127>	A name identifying the listen command
level	Severity level
<line255>	Identification of the notification source

EXAMPLE

```
D8308(config)# logging host 3 192.155.3.2
D8308(config)#
D8308(config)# logging on
D8308(config)#
```

4-1.31 loop-protect

Loop protection configuration.

SYNTAX

loop-protect

loop-protect shutdown-time <t>

loop-protect transmit-time <t>

Parameter

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

EXAMPLE

```
D8308(config)# loop-protect
D8308(config)# loop-protect shutdown-time 333
D8308(config)# loop-protect transmit-time 3
D8308(config)#
```

4-1.32 mac

MAC table entries/configuration.

SYNTAX

mac address-table aging-time <v_0_10_to_1000000>

mac address-table learning vlan <vlan_list>

mac address-table static <v_mac_addr> vlan <v_vlan_id> [interface (<port_type> [<v_port_type_list>])]

Parameter

address-table	MAC table entries/configuration
aging-time	Mac address aging time
learning	Mac Learning
static	Static MAC address
<0,10-1000000>	Aging time in seconds, 0 disables aging
vlan	VLAN
<vlan_list>	VLAN number list
<mac_addr>	48 bit MAC address: xx:xx:xx:xx:xx:xx
vlan	VLAN keyword
<vlan_id>	VLAN IDs 1-4095
interface	Select an interface to configure
10GigabitEthernet	10 Gigabit Ethernet Ports
25GigabitEthernet	25 Gigabit Ethernet Ports
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

EXAMPLE

```
D8308(config)# mac address-table aging-time 3333
D8308(config)#
```

4-1.33 monitor

Monitoring different system events.

SYNTAX

monitor session <session_number> [destination { interface (<port_type> [<di_list>]) | remote vlan <drvid> reflector-port <port_type> <rportid> } | source { interface (<port_type> [<si_list>]) [both | rx | tx] | remote vlan <srvid> | vlan <source_vlan_list> | cpu [both | rx | tx] }]

Parameter

session	Configure a MIRROR session
<1-5>	MIRROR session number
destination	MIRROR destination interface or VLAN
source	MIRROR source interface, VLAN
interface	MIRROR destination interface
remote	MIRROR destination Remote
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Ports
25GigabitEthernet	25 Gigabit Ethernet Ports
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
vlan	MIRROR destination Remote number
<vlan_id>	Remote MIRROR destination RMIRROR VLAN number
reflector-port	Remote MIRROR reflector interface
cpu	MIRROR source CPU
interface	MIRROR source interface
remote	MIRROR source Remote
vlan	MIRROR source VLAN

both	MIRROR source CPU receive both
rx	MIRROR source CPU receive Rx
tx	MIRROR source CPU receive Tx

EXAMPLE

```
D8308(config)# monitor session 1 source vlan 1
D8308(config)#
```

4-1.34 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> last-member-query-interval <ipmc_lmqi>

mvr name <mvr_name> mode { dynamic | compatible }

mvr name <mvr_name> { election | igmp-address <v_ipv4_ucast> }

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> last-member-query-interval <ipmc_lmqi>

mvr vlan <v_vlan_list> mode { dynamic | compatible }

mvr vlan <v_vlan_list> { election | igmp-address <v_ipv4_ucast> }

Parameter

name	MVR multicast name

vlan	MVR multicast VLAN
<word16>	MVR multicast VLAN name
channel	MVR channel configuration
election	Act as an IGMP Querier to join Querier-Election
frame	MVR control frame in TX
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
<word16>	Profile name in 16 characters
priority	Interface CoS priority
tagged	Tagged IGMP/MLD frames will be sent
<0-7>	CoS priority ranges from 0 to 7
<ipv4_ucast>	A valid IPv4 unicast address
<0-31744>	0 - 31744 tenths of seconds
compatible	Compatible MVR operation mode
dynamic	Dynamic MVR operation mode

EXAMPLE

```
D8308(config)# mvr vlan 10 mode dynamic
D8308(config)#
```

4-1.35 mvrp

Enable MVRP feature globally

SYNTAX

mvrp

mvrp managed vlan { all | none | [add | remove | except] <vlist> }

Parameter

managed Set list of MVRP-managed VLANs

vlan Set managed VLANs of MVRP

<vlan_list> VLAN IDs of the managed VLANs of MVRP

add Add VLANs to the current list

all All VLANs

except All VLANs except the following

none No VLANs

remove Remove VLANs from the current list

EXAMPLE

```
D8308(config)# mvrp managed vlan all
D8308(config)#
```

4-1.36 network-clock

network-clock

SYNTAX

network-clock clk-source <clk_list> nominate { clk-in | { ptp <ptp_inst> } | { interface <port_type> <port> } }

network-clock clk-source <clk_src> aneg-mode { master | slave | forced }

network-clock clk-source <clk_src> hold-timeout <v_3_to_18>

network-clock clk-source <clk_src> priority <prio>

network-clock clk-source <clk_src> ssm-overwrite { prc | ssua | ssub | eec2 | eec1 | dnu | prs | stu | st2 | tnc | st3e | smc | prov | dus }

network-clock input-source { 1544khz | 2048khz | 10mhz }

network-clock option { eec1 | eec2 }

network-clock output-source { 1544khz | 2048khz | 10mhz }

network-clock selector { { manual clk-source <v_uint> } | selected | nonrevertive | revertive | holdover |

freerun }

network-clock ssm-freerun { prc | ssua | ssub | eec1 | dnu | inv }

network-clock ssm-holdover { prc | ssua | ssub | eec1 | dnu | inv }

network-clock wait-to-restore <wtr_value>

Parameter

clk-source	clk-source - commands related to a specific clock source.
input-source	Sets the station clock input frequency
option	EEC options
output-source	Sets the station clock output frequency
selector	Selection mode of nominated clock sources
ssm-freerun	Free Running SSM overwrite
ssm-holdover	Hold Over SSM overwrite
wait-to-restore	WTR time (0-12 min) '0' is disable
<1~2>	Clock source number
aneg-mode	Sets the preferred negotiation
hold-timeout	The hold off timer value in 100 ms.Valid values are range 3-18 or 100 (test value).
nominate	Nominate a clk input to become a selectable clock source.
priority	Priority of nominated clock sources.
ssm-overwrite	Clock source SSM overwrite
forced	Activate forced slave negotiation
master	Activate prefer master negotiation
slave	Activate prefer slave negotiation
<3-18,100>	Value in 100ms. E.g 9 gives a hold timeout of 900 ms.
clk-in	Nominate the station clock input as a source. The PCB104 SyncE module supports 10 MHz station clock input

interface	
ptp	Nominate an ethernet interface as a source
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_id>	Port ID in 1/1-8
<port_type_id>	Port ID in 1/1-2
<0-1>	Clock source priority
dnu	dnu
eec1	eec1
inv	inv
prc	prc
ssua	ssua
ssub	ssub
10mhz	Station clock set to 10 MHz
1544khz	Station clock set to 1544 kHZ
2048khz	Station clock set to 2048 kHZ
eec1	EEC1: DPLL bandwidth = 3,5 Hz, pull-in range = +/-12 ppm
eec2	EEC2: DPLL bandwidth = 0,1 Hz, pull-in range = +/-12 ppm
10mhz	Station clock set to 10 MHz
1544khz	Station clock set to 1544 kHZ
2048khz	Station clock set to 2048 kHZ
freerun	Selector is forced in free run
holdover	Selector is forced in holdover
manual	Selector is manually set to the chosen clock source
nonrevertive	Selector is automatically selecting the best clock source - non revertively

revertive	Selector is automatically selecting the best clock source - revertively
selected	Selector is manually set to the pt. selected clocfk source (not possible in unlocked mode)
<0-12>	wait-to-restore value in min

EXAMPLE

```
D8308(config)# network-clock wait-to-restore 1
D8308 (config)#
```

4-1.37 no

no.

Table : configure – no Commands

Command	Function
aaa	Authentication, Authorization and Accounting
access	Access management
access-list	Access list
aggregation	Aggregation mode
aps	Delete a particular or all APS instances
banner	Define a banner
cfm	Connectivity Fault Management (CFM)
clock	Configure time-of-day clock
ddmi	DDMI Information
dot1x	IEEE Standard for port-based Network Access Control
enable	Modify enable password parameters
erps	Delete a particular or all ERPS instances
green-ethernet	Green Ethernet (Power reduction)
gvrp	Enable GVRP feature
hostname	Set system's network name
interface	Select an interface to configure
ip	Interface Internet Protocol configuration commands
ipmc	IPv4/IPv6 multicast configuration
ipv6	IPv6 configuration commands

key	
lacp	LACP settings
lldp	Link Layer Discover Protocol.
logging	System logging message
loop-protect	Loop protection configuration
mac	MAC table entries/configuration
monitor	Monitoring different system events
mvr	Multicast VLAN Registration configuration
mvrp	
network-clock	network-clock
ntp	Configure NTP
port-security	Port Security
privilege	Command privilege parameters
prompt	Default the prompt to hostname
ptp	Precision time Protocol (1588)
qos	Quality of Service
radius-server	Configure RADIUS
rmon	Remote Monitoring
router	router
sflow	Statistics flow.
snmp-server	Set SNMP server's configurations
spanning-tree	STP Bridge
stream	
svl	Unmap Shared VLAN Learning for a range or all FIDs
switchport	VLAN
system	Set the SNMP server's configurations
tacacs-server	Configure TACACS+
tsn	Time-Sensitive Networking
udld	Disable UDLD configurations on all fiber-optic ports.
upnp	Set UPnP configuration
username	Establish User Name Authentication
vlan	VLAN commands
voice	Voice appliance attributes
web	Web

4-1.36.1 aaa

Authentication, Authorization and Accounting.

SYNTAX

no aaa accounting (console | ssh | telnet)

no aaa authentication login (console | http | ssh | telnet)

no aaa authorization (console | ssh | telnet)

Parameter

authentication	Authentication
authorization	Authorization
accounting	
console	
ssh	
telnet	
login	Login
console	Disable Console authentication
http	Disable HTTP authentication
ssh	Disable SSH authentication
telnet	Disable Telnet authentication
console	Disable Console authorization
ssh	Disable SSH authorization
telnet	Disable Telnet authorization

EXAMPLE

```
D8308(config)# no aaa authentication  login ssh
D8308(config)#
```

4-1.36.2 access

Access management.

SYNTAX

no access management [<1~16>]

Parameter

management	Access management configuration
<1~16>	ID of access management entry

EXAMPLE

```
D8308(config)# no access management
D8308(config)#
```

4-1.36.3 access-list

Access list.

SYNTAX

no access-list (ace <1~512>) | (rate-limiter [<1~16>])

Parameter

ace	Access list entry
rate-limiter	Rate limiter
<1~512>	ACE ID
<1~16>	Rate limiter ID

EXAMPLE

```
D8308(config)# no access-list ace 1
D8308(config)#
```

4-1.36.4 aggregation

Aggregation mode.

SYNTAX

no aggregation mode

Parameter

mode	Traffic distribution mode

EXAMPLE

```
D8308(config)# no aggregation mode
D8308(config)#
```

4-1.36.5 aps

Automatic Protection Switching

SYNTAX

no aps <inst>

Parameter

<1-14>	APS instance number

EXAMPLE

```
D8308(config)# no aps 1
D8308(config-aps)#
```

4-1.36.6 banner

Define a banner

SYNTAX

no banner [motd | login | exec]

Parameter

exec	Set EXEC process creation banner
login	Set login banner
motd	Set Message of the Day banner

EXAMPLE

```
D8308(config)# no banner login
D8308(config)#
```

4-1.36.7 cfm

Connectivity Fault Management (CFM)

SYNTAX

no cfm domain { <md_name> | all }

Parameter

domain	Maintenance Domain (MD)
<kword1-15>	Domain name
interface-status-tlv	Include or exclude Interface Status TLV in CCM PDUs (may be overridden in domain and service)
disable	Exclude Interface Status TLV from PDUs (default)
enable	Include Interface Status TLV in PDUs
organization-specific-tlv	Include or exclude Organization-Specific TLV in PDUs (may be overridden in domain and service)
disable	Exclude Organization-Specific TLV from PDUs (default)
enable	Include Organization-Specific TLV in PDUs
port-status-tlv	Include or exclude Port Status TLV in CCM PDUs (may be overridden in domain and service)
disable	Do not include Port Status TLV in PDUs (default)
enable	Include Port Status TLV in PDUs
sender-id-tlv	Default Sender ID TLV format to be used in PDUs (may be overridden in domain and service)
chassis	Enable Sender ID TLV and send Chassis ID (MAC Address)
chassis-management	Enable Sender ID TLV and send both Chassis ID (MAC Address)

and Management Address (IPv4 Address)

disable Exclude Sender ID TLV from PDUs (default)

management Enable Sender ID TLV and send Management address (IPv4 Address)

EXAMPLE

```
D8308(config)# no cfm sender-id-tlv management
D8308(config)#
```

4-1.36.8 clock

Configure time-of-day clock.

SYNTAX

no clock summer-time

no clock timezone

Parameter

summer-time Configure summer (daylight savings) time

timezone Configure time zone

<word16> name of time zone in summer (the string '' is a special syntax that is reserved for null input)

date Configure absolute summer time

recurring Configure recurring summer time

<1-12> Month to start

<1-31> Date to start

<2000-2097> Year to start

<hhmm> Time to start (hh:mm)

<1-12> Month to end

<1-31> Date to end

<2000-2097>	Year to end
<hhmm>	Time to end (hh:mm)
<1-1439>	Offset to add in minutes
<1-5>	Week number to start
<1-7>	Weekday to start
<-23-23>	Hours offset from UTC
<0-59>	Minutes offset from UTC
<0-9>	Sub type of time zone

EXAMPLE

```
D8308(config)# no clock summer-time
D8308(config)#
```

4-1.36.9 ddmi

DDMI Information

SYNTAX

no ddmi

Parameter

ddmi DDMI Information

EXAMPLE

```
D8308(config)# no ddmi
D8308(config)#
```

4-1.36.10 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] }*1

no dot1x guest-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

authentication	Authentication
feature	Globally enables/disables a dot1x feature functionality
guest-vlan	Guest VLAN
max-reauth-req	The number of time a Request Identity EAPOL frame is sent without response before considering entering the Guest VLAN
re-authentication	Set Re-authentication state
system-auth-control	Set the global NAS state
timeout	timeout
timer	timer
re-authenticate	The period between re-authentication attempts in 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.
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.
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

```
D8308(config)# no dot1x authentication timer re-authenticate
D8308(config)# no dot1x guest-vlan supplicant
D8308(config)# no dot1x max-reauth-req
D8308(config)# no dot1x re-authentication
D8308(config)# no dot1x system-auth-control
D8308(config)# no dot1x timeout tx-period
D8308(config)#
```

4-1.36.11 enable

Modify enable password parameters

SYNTAX

no enable password [level <1-15>]

no enable secret [0 | 5 { level <1-15> }]

Parameter

password	Assign the privileged level clear password
secret	Assign the privileged level secret

0	Specifies an UNENCRYPTED password will follow
5	Specifies an ENCRYPTED password will follow
level	Set exec level password
<1-15>	Level number

EXAMPLE

```
D8308(config)# no enable secret level 15
D8308(config)# no enable password level 15
D8308(config)#
```

4-1.36.12 erps

Ethernet Ring Protection Switching.

SYNTAX

no erps { <inst> | all }

Parameter

<1-64>	Delete a particular ERPS instance
all	Delete all ERPS instances

EXAMPLE

```
D8308(config)# no erps 1
D8308(config)#
```

4-1.36.13 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

```
D8308(config)# no green-ethernet eee optimize-for-power
D8308(config)#
```

4-1.36.14 gvrp

Enable GVRP feature

SYNTAX

no gvrp

no gvrp max-vlans <maxvlans>

no gvrp time { [join-time <join_time>] [leave-time <leave_time>] [leave-all-time <leave_all_time>] }*1

Parameter

max-vlans	Number of simultaniously 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
<1-20>	join-time in units of centiseconds. Range is 1-20. Default is 20.
<1000-5000>	leave-all-time in units of centiseconds Range is 1000-5000. Default is 1000.
<60-300>	leave-time in units of centiseconds. Range is 60-300. Default is 60.

EXAMPLE

```
D8308(config)#no gvrp max-vlans 1
D8308(config)#
```

4-1.36.15 hostname

Set system's network name

SYNTAX

no hostname

Parameter

none

EXAMPLE

```
D8308(config)# no hostname
D8308(config)#
```

4-1.36.16 interface

Select an interface to configure.

SYNTAX

no interface llag <llag_id>

no interface vlan <vlist>

Parameter

llag	Local link aggregation interface configuration
vlan	VLAN interface configurations
<1-5>	ID of LLAG interface
<vlan_list>	List of VLAN interface numbers

EXAMPLE

```
D8308(config)# no interface vlan 10
D8308(config)#
```

4-1.36.17 ip

Interface Internet Protocol configuration commands

SYNTAX

no ip arp inspection

no ip arp inspection entry interface (GigabitEthernet | 10GigabitEthernet) <port_type_id> <vlan_id> <mac_ucast> <ipv4_ucast>

no ip arp inspection vlan <vlan_list> [logging]

no ip dhcp excluded-address <ipv4_addr> [<ipv4_addr>]

no ip dhcp pool <word32>

no ip dhcp relay information [option | policy]

no ip dhcp [server | snooping]

no ip dns proxy

no ip domain name

no ip helper-address

no ip http (secure-redirect | secure-server)

no ip igmp host-proxy [leave-proxy]

no ip igmp snooping [vlan <vlan_list>]

no ip igmp (ssm-range | unknown-flooding)

no ip name-server [<0-3>]

no ip route <ipv4_addr> <ipv4_netmask> <ipv4_ucast>

no ip routing

no ip source binding interface (GigabitEthernet | 10GigabitEthernet) <port_type_id> <vlan_id> <ipv4_ucast> <mac_ucast>

no ip ssh

no ip verify source

Parameter

arp	Address Resolution Protocol
dhcp	Configure DHCP server parameters
dns	Domain Name System

domain	IP DNS Resolver
helper-address	DHCP relay server
http	Hypertext Transfer Protocol
igmp	Internet Group Management Protocol
name-server	Domain Name System
route	Add IP route
routing	Disable routing for IPv4 and IPv6
source	source command
ssh	Secure Shell
verify	verify command
inspection	ARP inspection
entry	ARP inspection entry
vlan	ARP inspection vlan setting
interface	Select an interface to configure
10GigabitEthernet	10 Gigabit Ethernet Ports
25GigabitEthernet	25 Gigabit Ethernet Ports
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
<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_list>	arp inspection vlan list
logging	ARP inspection vlan logging mode configuration
excluded-address	Prevent DHCP from assigning certain addresses
pool	Configure DHCP address pools
relay	DHCP relay agent configuration

server	Enable DHCP server
snooping	DHCP snooping
<ipv4_addr>	Low IP address
<ipv4_addr>	High IP address
<word32>	Pool name in 32 characters
Information	DHCP information option (Option 82)
option	DHCP option
policy	Policy for handling the receiving DHCP packet already include the information option
proxy	DNS proxy service
name	Define the default domain name
secure-redirect	Secure HTTP web redirection
secure-server	Secure HTTP web server
host-proxy	IGMP proxy configuration
snooping	Snooping IGMP
ssm-range	IPv4 address range of Source Specific Multicast
unknown-flooding	Flooding unregistered IPv4 multicast traffic
leave-proxy	IGMP proxy for leave configuration
vlan	IGMP VLAN
<vlan_list>	VLAN identifier (VID)
<0-3>	Preference of DNS server. Default selection is 0
<ipv4_addr>	Network
<ipv4_netmask>	Netmask
<ipv4_ucast>	Gateway
binding	IP source binding
<mac_ucast>	Select a MAC address to configure
source	verify source

EXAMPLE

```
D8308(config)# no ip ssh
D8308(config)#
```

4-1.36.18 ipmc

IPv4/IPv6 multicast configuration.

SYNTAX

no ipmc profile

no ipmc profile <profile_name>

no ipmc range <entry_name>

Parameter

profile	IPMC profile configuration
range	A range of IPv4/IPv6 multicast addresses for the profile
<word16>	Profile name in 16 characters
<word16>	Range entry name in 16 characters

EXAMPLE

```
D8308(config)# no ipmc profile aa
D8308(config)#
```

4-1.36.19 ipv6

IPv6 configuration commands.

SYNTAX

no ipv6 dhcp snooping

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 <v_ipv6_subnet> <v_ipv6_ucast> [interface vlan <v_vlan_id>] [distance <v_distance>]

no ipv6 source binding interface <port_type> <port_type_id> [vlan <vlan_id>] <ipv6_ucast> <mac_ucast>

no ipv6 verify source

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 (VID)
<ipv6_subnet>	IPv6 prefix x:x::y/z
binding	IP source binding
interface	interface command
10GigabitEthernet	10 Gigabit Ethernet Ports
25GigabitEthernet	25 Gigabit Ethernet Ports
<port_type_id>	Port list in 1/1-8
<port_type_id>	Port list in 1/1-2

EXAMPLE

```
D8308(config)# no ipv6 mld snooping
D8308(config)#
```

4-1.36.20 key

SYNTAX

no key chain <key_chain_name>

Parameter

chain

<word1-31>

EXAMPLE

```
D8308(config)# no key chain 1
D8308(config)#
```

4-1.36.21 lacp

LACP settings

SYNTAX

no lacp system-priority <v_1_to_65535>

Parameter

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

EXAMPLE

```
D8308(config)# no lacp system-priority 1
D8308(config)#
```

4-1.36.22 lldp

Link Layer Discover Protocol.

SYNTAX

no lldp holdtime

no lldp med datum

no lldp med fast

no lldp med location-tlv altitude

no lldp med location-tlv civic-addr [additional-code | additional-info | apartment | block | building | city | country | county | district | floor | house-no | house-no-suffix | landmark | leading-street-direction | name | p-o-box | plase-type | postal-community-name | room-number | state | street | street-suffix | trailing-street-suffix | zip-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).
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	Delete a policy.
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.
<0~31>	Policy to delete.
additional-code	Additional code - Example: 1320300003.
additional-info	Additional location info - Example: South Wing.
apartment	Unit (Apartment, suite) - Example: Apt 42.
block	Neighborhood, 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.
district	City division, borough, city district, ward, chou (Japan).
floor	Floor - Example: 4.
house-no	House number - Example: 21.
house-no-suffix	House number suffix - Example: A, 1/2.
landmark	Landmark or vanity address - Example: Columbia University.
leading-street-direction	Leading street direction - Example: N.
name	Name (residence and office occupant) - Example: John Doe.
p-o-box	Post office box (P.O. BOX) - Example: 12345.
place-type	Place type - Example: Office.

postal-community-name Postal community name - Example: Leonia.

room-number Room number - Example: 450F.

state National subdivisions (state, canton, region, province, prefecture).

street Street - Example: Oxford Street.

street-suffix Street suffix - Example: Ave, Platz.

trailing-street-suffix Trailing street suffix - Example: SW.

zip-code Postal/zip code - Example: 2791.

EXAMPLE

```
D8308(config)# no lldp holdtime
D8308(config)# no lldp med location-tlv civic-addr floor
D8308(config)# no lldp reinit
D8308(config)# no lldp timer
D8308(config)# no lldp transmission-delay
D8308(config)#
```

4-1.36.23 logging

System logging message

SYNTAX

no logging host

no logging on

Parameter

host host

on Enable Switch logging host mode

EXAMPLE

```
D8308(config)# no logging host 3
D8308(config)# no logging on
D8308(config)#
```

4-1.36.24 loop-protect

Loop protection configuration.

SYNTAX

no loop-protect [shutdown-time | transmit-time]

Parameter

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

EXAMPLE

```
D8308(config)# no loop-protect shutdown-time
D8308(config)# no loop-protect transmit-time
D8308(config)#
```

4-1.36.25 mac

MAC table entries/configuration.

SYNTAX

no mac address-table aging-time

no mac address-table aging-time <v_0_10_to_1000000>

no mac address-table learning vlan <vlan_list>

no mac address-table static <v_mac_addr> vlan <v_vlan_id> [interface (<port_type> [<v_port_type_list>])]

Parameter

address-table	Mac table entries/configuration
aging-time	Mac address aging time
learning	Mac Learning
static	Static MAC address
<0,10-1000000>	Aging time in seconds, 0 disables aging
vlan	VLAN

<vlan_list>	
<mac_addr>	48 bit MAC address: xx:xx:xx:xx:xx:xx
vlan	VLAN keyword
<vlan_id>	VLAN IDs 1-4095
interface	Select an interface to configure
*****	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Ports
25GigabitEthernet	25 Gigabit Ethernet Ports
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

EXAMPLE

```
D8308(config)# no mac address-table aging-time
D8308(config)#
```

4-1.36.26 monitor

Monitoring different system events.

SYNTAX

no monitor session <session_number> [destination { interface (<port_type> [<di_list>]) | remote } | source { interface (<port_type> [<si_list>]) [both | rx | tx] | remote | vlan <source_vlan_list> | cpu [both | rx | tx] }]

Parameter

session	Configure a MIRROR session
<1-5>	MIRROR session number
destination	MIRROR destination interface or VLAN

source	MIRROR source interface, VLAN
interface	MIRROR destination interface
remote	MIRROR destination Remote
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Ports
25GigabitEthernet	25 Gigabit Ethernet Ports
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
vlan	MIRROR destination Remote number
<vlan_id>	Remote MIRROR destination RMIRROR VLAN number
reflector-port	Remote MIRROR reflector interface
cpu	MIRROR source CPU
interface	MIRROR source interface
remote	MIRROR source Remote
vlan	MIRROR source VLAN
both	MIRROR source CPU receive both
rx	MIRROR source CPU receive Rx
tx	MIRROR source CPU receive Tx

EXAMPLE

```
D8308(config)# no monitor session 1 source vlan 1
D8308(config)#
```

4-1.36.27 mvr

Multicast VLAN Registration configuration.

SYNTAX

no mvr

no mvr name <mvr_name> channel

no mvr name <mvr_name> frame priority

no mvr name <mvr_name> frame tagged

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

no mvr name <mvr_name> mode

no mvr name <mvr_name> { election | igmp-address }

no mvr vlan <v_vlan_list>

no mvr vlan <v_vlan_list> channel

no mvr vlan <v_vlan_list> frame priority

no mvr vlan <v_vlan_list> frame tagged

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

no mvr vlan <v_vlan_list> mode

no mvr vlan <v_vlan_list> { election | igmp-address }

Parameter

name	MVR multicast name
vlan	MVR multicast VLAN
<word16>	MVR multicast VLAN name
channel	MVR channel configuration
election	Act as an IGMP Querier to join Querier-Election
frame	MVR control frame in TX
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

<word16>	Profile name in 16 characters
priority	Interface CoS priority
tagged	Tagged IGMP/MLD frames will be sent
<0-7>	CoS priority ranges from 0 to 7
<ipv4_ucast>	A valid IPv4 unicast address
<0-31744>	0 - 31744 tenths of seconds
compatible	Compatible MVR operation mode
dynamic	Dynamic MVR operation mode

EXAMPLE

```
D8308(config)# no mvr vlan 10 mode dynamic
D8308(config)#
```

4-1.36.28 mvrp

none

SYNTAX

no mvrp

EXAMPLE

```
D8308(config)# no mvrp
D8308(config)#
```

4-1.36.29 network-clock

network-clock

SYNTAX

no network-clock clk-source <clk_list> nominate

no network-clock clk-source <clk_src> aneg-mode

no network-clock clk-source <clk_src> hold-timeout

no network-clock clk-source <clk_src> priority

no network-clock clk-source <clk_src> ssm-overwrite

no network-clock input-source

no network-clock option

no network-clock output-source

no network-clock selector

no network-clock ssm-freerun

no network-clock ssm-holdover

no network-clock wait-to-restore

Parameter

clk-source	clk-source - commands related to a specific clock source.
input-source	Sets the station clock input frequency
option	EEC options
output-source	Sets the station clock output frequency
selector	Selection mode of nominated clock sources
ssm-freerun	Free Running SSM overwrite
ssm-holdover	Hold Over SSM overwrite
wait-to-restore	WTR time (0-12 min) '0' is disable
<1~2>	Clock source number
aneg-mode	Sets the preferred negotiation.
hold-timeout	The hold off timer value in 100 ms.Valid values are range 3-18 or 100 (test value).
nominate	Nominate a clk input to become a selectable clock source.
priority	Priority of nominated clock sources.

ssm-overwrite Clock source SSM overwrite

EXAMPLE

```
D8308(config)# no network-clock wait-to-restore 1
D8308(config)#
```

4-1.36.30 ntp

Configure NTP.

SYNTAX

no ntp

no ntp automatic

no ntp interval <interval>

no ntp server <index_var>

Parameter

automatic Configure Automatic

interval Configure NTP Time-Sync Interval

server Configure NTP server

<1-5> index number

<5,10,15,30,60,120>

EXAMPLE

```
D8308(config)# no ntp server 2
D8308(config)#
```

4-1.36.31 port-security

Port Security

SYNTAX

no port-security (aging | hold) [time]

Parameter

aging	Enable/disable port security aging.
hold	Configure hold options
time	Time in seconds between check for activity on learned MAC addresses.
time	Violating MAC addresses are held non-forwarding for 300 seconds

EXAMPLE

```
D8308(config)# no port-security hold
D8308(config)#
```

4-1.36.32 Privilege

Command privilege parameters

SYNTAX

no privilege <cword> level <0-15> <line128> [<line128>]

Parameter

<cword>	Valid words are 'config-vlan' 'configure' 'dhcp-pool' 'exec' 'if-vlan' 'interface' 'ipmc-profile' 'json-noti-host' 'line' 'llag' 'qos-map-egress' 'qos-map-ingress' 'router-if' '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

```
D8308(config)# no privilege config-vlan level 1
D8308(config)#
```

4-1.36.33 prompt

Default the prompt to hostname

SYNTAX

no prompt

Parameter

none

EXAMPLE

```
D8308(config)# no prompt
D8308(config)#
```

4-1.36.34 ptp

Precision time Protocol (1588)

SYNTAX

no ptp

no ptp <0-3> [afi–announce | afi-sync | clk | domain | localpriority | log | path-trace-enable | priority1 | priority2 | servo displaystates | uni <0-4>]

no ptp <0-3> mode [bcfrontend | boundary | e2etransparent | master | p2ptransparent | slave]

no ptp <0-3> virtual-port [accuracy | class | local-priority | priority1 | priority2 | variance]

no ptp <0-3> virtual-port io-pin [| (begin | exclude | include) <line>] <line>

no ptp [ext | ho-spec | system-time]

no ptp io-pin <0-3>

Parameter

<0-3>	Instance number: 0-3
ext	Set the External clock output configuration and VCXO frequency rate adjustment option to default values
ho-spec	Clear the Holdover specification for G8275 PTP clocks
io-pin	Clear input/output pin configuration (i.e disable the pin)
system-time	Disable synchronization between PTP and System time
afi-announce	Disable PTP Announce automatic frame injection
afi-sync	Disable PTP Sync automatic frame injection
clk	Set PTP slave clock options to free running
domain	Default Clock domain
localpriority	Default Clock local priority
log	Disable the PTP debug logging
mode	Delete PTP clock instance
path-trace-enable	Disable path trace option (i.e. no Path Trace added to Announce messages)
priority1	Default Clock priority 1
priority2	Default Clock priority 2
servo	Set Servo parameters
uni	Clear a Unicast Slave configuration entry
virtual-port	virtual por
bcfrontend	Delete if Boundary clock front end
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
displaystates	Enable logging of servo parameters on the console
<0-4>	[0..4] Index in the slave table
accuracy	accuracy for PTP clocks virtual port
class	class for PTP clocks
io-pin	io-pin
local-priority	local-priority for PTP clocks virtual port
priority1	priority1 for PTP clocks virtual port
priority2	priority2 for PTP clocks virtual port
variance	variance for PTP clocks virtual port
|	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
<0-3>	Pin number

EXAMPLE

```
D8308(config)# no ptp system-time
D8308(config)#
```

4-1.36.35 qos

Quality of Service.

SYNTAX

no qos fmi <0-4294967295> [mark-red | mark-red-enable]

no qos map cos-dscp <0~7> dpl <0~3>

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 map egress <0~511>

no qos map ingress <0~255>

no qos qce <1~256>

no qos sfi <0-4294967295> [block-oversize | block-oversize-enable]

no qos sgi <0-4294967295> [close-invalid-rx | close-invalid-rx-enable | gate-enabled]

no qos storm [broadcast | multicast | unicast]

no qos wred group <1~3> queue <0~7> dpl <1~3>

Parameter

fmi	SFP Flow Meter Instance
map	Global QoS Map/Table
qce	QoS Control Entry
sfi	PSFP Stream Filter Instance
sgi	PSFP Stream Gate Instance
storm	Storm policer
wred	Weighted Random Early Discard
<0-4294967295>	Flow Meter Instance ID
mark-red	Configure Flow Meter Mark All Frames Red
mark-red-enable	Configure Flow Meter Mark All Frames Red Enable
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

egress	Map for egress configuration
ingress	Map for ingress configuration
<0~7>	Specific class of service or range
dpl	Specify drop precedence level
<0~3>	Specific drop precedence level or range
<0~63>	Specific DSCP or range
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)

ef	Expedited Forwarding PHB(DSCP 46)
va	Voice Admit PHB(DSCP 44)
<0~511>	Map ID
<0~255>	Map ID
<1~256>	QCE ID
<0-4294967295>	Stream Filter Instance ID
block-oversize	Configure Stream Blocked Due To Oversize Frame
block-oversize-enable	Configure Stream Blocked Due To Oversize Frame
<0-4294967295>	Stream Gate Instance ID
close-invalid-rx	Configure Gate Closed Due To Invalid Rx
close-invalid-rx-enable	Configure Gate Closed Due To Invalid Rx Enable
gate-enabled	Configure Stream Gate Instance
broadcast	Police broadcast frames
multicast	Police multicast frames
unicast	Police unicast frames
group	Specify group
<1~3>	Specific group or range
queue	Specify queue
<0~7>	Specific queue or range
dpl	Specify DPL
<1~3>	Specific DPL or range

EXAMPLE

```
D8308(config)# no qos map cos-queue 3
D8308(config)#
```

4-1.36.36 radius-server

Configure RADIUS.

SYNTAX

no radius-server attribute [32 | 4 | 95]

no radius-server deadtime

no radius-server host <word1-255> **|** [acct-port <0-65535>] [auth-port <0-65535>]

no radius-server [key | retransmit **|** timeout]

Parameter

attribute	NAS 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
32	attribute number 32 = NAS-Identifier
4	attribute number 4 = NAS-IP-Address
95	attribute number 95 = NAS-IPv6-Address
<word1-255>	Hostname or IPv4/IPv6 address
acct-port	UDP port for RADIUS accounting server
auth-port	UDP port for RADIUS authentication server
<0-65535>	UDP port number

EXAMPLE

```
D8308(config)# no radius-server attribute 4
D8308(config)# no radius-server deadtime
D8308(config)# no radius-server key
D8308(config)# no radius-server retransmit
D8308(config)#
```

4-1.36.37 rmon

Remote Monitoring.

SYNTAX

no rmon (alarm | event) <1-65535>

Parameter

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

EXAMPLE

```
D8308(config)# no rmon alarm 1000
D8308(config)#
```

4-1.36.38 router

router

SYNTAX

no router ospf

no router ospf6

no router rip

Parameter

access-list	Router access list
<word1-31>	The name of the access list

deny	Deny the access right for the following IPv4 network domain
permit	Permit the access right for the following IPv4 network domain
<ipv4_addr>	The IPv4 address for the access list entry
any	Any IPv4 address
ospf	Open Shortest Path First (OSPF)
ospf6	Open Shortest Path First for IPv6 (OSPFv3)
rip	Routing Information Protocol (RIP)

EXAMPLE

```
D8308(config)# no router rip
D8308(config)#
```

4-1.36.39 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

```
D8308(config)# no sflow agent-ip
D8308(config)# no sflow collector-address
D8308(config)# no sflow collector-port
D8308(config)# no sflow max-datagram-size
D8308(config)# no sflow timeout
D8308(config)#
```

4-1.36.40 snmp-server

Set SNMP server's configurations.

SYNTAX

no snmp-server access <word32> model [v1 | v2c | v3 | any] level [auth | noauth | priv]

no snmp-server community <word32> [(ip-range <ipv4_addr> <ipv4_netmask>) | (ipv6-range <ipv6_subnet>)]

no snmp-server [contact | location]

no snmp-server engine-id local

no snmp-server host <word32>

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

no snmp-server trap <cword> [<word255> (exclude | include)] | [id <0-127>]

no snmp-server user <word32> engine-id <word10-64>

no snmp-server view <word32> <word255>

Parameter

access	access configuration

community	Delete a SNMP community
contact	Clear the SNMP server's contact string
engine-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	Trap source configuration
user	user who can access SNMP server
view	MIB view configuration
<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
<word32>	Security name
ip-range	Use IPv4 range
ipv6-range	Use IPv6 range
<ipv4_addr>	IPv4 address
<ipv4_netmask>	IPv4 netmask
<ipv6_subnet>	IPv6 subnet
local	Set SNMP local engine ID

model	security model
v1	v1 security model
v2c	v2c security model
v3	v3 security model
name	security user
<word32>	security user name
<cword>	Valid words are 'authenticationFailure' 'coldStart' 'entConfigChange' 'fallingAlarm' 'linkDown' 'linkUp' 'lldpRemTablesChange' 'newRoot' 'risingAlarm' 'topologyChange' 'warmStart'
<word255>	OID to use as index filter
id	Use specific filter ID
exclude	Exclude filter type
include	Include filter type
<0-127>	Trap source filter ID
<word32>	name of user
engine-id	engine ID
<word10-64>	engine ID octet string
<word32>	MIB view name
<word255>	MIB view OID

EXAMPLE

```
D8308(config)# no snmp-server engine-id local

D8308(config)#
```

4-1.36.41 spanning-tree

STP Bridge

SYNTAX

no spanning-tree edge (bpdu-filter | bpdu-guard)

no spanning-tree mode

no spanning-tree mst <0-7> [priority | vlan]

no spanning-tree mst forward-time

no spanning-tree mst hello-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-conut

Parameter

edge	Edge ports
mode	STP protocol mode
mst	STP bridge instance
recovery	The error recovery timeout
transmit	BPDUs to transmit
bpdu-filter	Enable BPDU filter (stop BPDU tx/rx)
bpdu-guard	Enable BPDU guard
<0-7>	instance (CIST=0, MSTI1=1...)
forward-time	Delay between port states
hello-time	MSTP bridge hello time
max-age	Max bridge age before timeout
max-hops	MSTP bridge max hop count

name	Bridge name keyword
priority	Priority of the instance
vlan	VLAN keyword
interval	Interval
hold-count	Max number of transmit BPDUs per sec

EXAMPLE

```
D8308(config)# no spanning-tree mode
D8308(config)# no spanning-tree mst max-age
D8308(config)#
```

4-1.36.42 stream

SYNTAX

no stream <id>

Parameter

<uint>

EXAMPLE

```
D8308(config)# no stream
D8308(config)#
```

4-1.36.43 svl

Unmap Shared VLAN Learning for a range or all FIDs

SYNTAX

no svl fid [<1~4095> | all]

Parameter

fid	Filter ID keyword
<1~4095>	List of filter IDs to default

all Default all Filter IDs

EXAMPLE

```
D8308(config)# no svl fid all
D8308(config)#
```

4-1.36.44 switchport

VLAN

SYNTAX

no switchport vlan mapping <1-53> [<vlan_list>] | (both | egress | ingress) <vlan_id>

Parameter

vlan VLAN translation entry configuration.

mapping Group id

<1-53> VLAN ID List (deprecated)

<vlan_list> VLAN ID List (deprecated)

both Bi-directional Translation

egress Egress-only Translation

ingress Ingress-only Translation

<vlan_id> VLAN ID

EXAMPLE

```
D8308(config)# no switchport mapping 1 both 1
D8308(config)#
```

4-1.36.45 system

Set the SNMP server's configurations.

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

```
D8308(config)# no system reboot
D8308(config)#
```

4-1.36.46 tacacs-server

Configure TACACS+.

SYNTAX

no tacacs-server deadtime

no tacacs-server host <word1-255> [port <0-65535>]

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
key	Set TACACS+ encryption key
timeout	Time to wait for a TACACS+ server to reply
<word1-255>	Hostname or IPv4/IPv6 address
port	TCP port for TACACS+ server

<0-65535> TCP port number

EXAMPLE

```
D8308(config)# no tacacs-server deadtime
D8308(config)# no tacacs-server key
D8308(config)# no tacacs-server timeout
D8308(config)#
```

4-1.36.47 tsn

Time-Sensitive Networking

SYNTAX

no tsn flow meter <inst>

no tsn frer { <inst> | all }

no tsn ptp-check procedure

no tsn ptp-check ptp-port

no tsn ptp-check timeout

no tsn stream filter <inst>

no tsn stream gate <inst>

no tsn tas always-guard-band

Parameter

flow Delete a flow meter

meter Delete a flow meter

<uint> The flow meter instance to be deleted

frer Frame Replication and Elimination for Reliability (802.1CB)

<1-127> Delete a particular FRER instance

all Delete all FRER instances

ptp-check Specify how to ensure that TSN functions start with a coordinated PTP time

procedure Set ptp-check procedure to default, which is wait

ptp-port Set the PTP port to use for sensing PTP status to default

timeout Set ptp-check timeout to default

stream Delete a stream filter

filter Delete a stream filter

<uint> The stream filter instance to be deleted

gate Delete a stream gate

<uint> The stream gate instance to be deleted

tas Time Aware Shaping

always-guard-band Guard band is implemented for any queue to scheduled queues transition.

EXAMPLE

```
D8308(config)# no tsn tas always-guard-band
D8308(config)#
```

4-1.36.48 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

```
D8308(config)# no udld enable
% Only fiber ports are allowed, port_no: 1
% Only fiber ports are allowed, port_no: 2
% Only fiber ports are allowed, port_no: 3
% Only fiber ports are allowed, port_no: 4
,
,
,
,
,
,
% Only fiber ports are allowed, port_no: x
```

4-1.36.49 upnp

Set UPnP's configurations.

SYNTAX

no upnp

no upnp advertising-duration

no upnp interface-vlan

no upnp static interface vlan

Parameter

advertising-duration	Set advertising duration
ip-addressing-mode	Set IP addressing mode
static	Set static VLAN interface ID
interface	Select an interface to configure
vlan	VLAN Interface

EXAMPLE

```
D8308(config)# no upnp advertising-duration
D8308(config)#
```

4-1.36.50 username

Establish User Name Authentication.

SYNTAX

no username <username>

Parameter

word31	User name allows letters, numbers and underscores

EXAMPLE

```
D8308(config)# username aaa
D8308(config)#
```

4-1.36.51 vlan

Vlan commands.

SYNTAX

no vlan <vlan_list>

no vlan ethertype s-custom-port

no vlan protocol eth2 <0x600-0xffff> [group <word16>]

no vlan protocol eth2 arp [group <word16>]

no vlan protocol eth2 (at | ip | ipx) [group]

no vlan protocol llc <0x0-0xff> <0x0-0xff> [group <word16>]

no vlan protocol snap <0x0-0xffffff> <0x0-0xffff> [group <word16>]

no vlan protocol snap (rfc-1042 | snap-8021h) <0x0-0xff> [group <word16>]

Parameter

<vlan_list>	ISL VLAN IDs
ethertype	Ethertype for Custom S-ports
protocol	Protocol-based VLAN commands
s-custom-port	Custom S-ports configuration
eth2	Ethernet protocol based VLAN status
llc	LLC-based VLAN group
snap	SNAP-based VLAN group
eth2	Ethernet-based VLAN commands
llc	LLC-based VLAN group
snap	SNAP-based VLAN group
<0x600-0xffff>	Ether Type (Range: 0x600 - 0xFFFF)
arp	Ether Type is ARP
at	Ether Type is AppleTalk
ip	Ether Type is IP
ipx	Ether Type is IPX
<0x0-0xff>	DSAP (Range: 0x00 - 0xFF)
<0x0-0xffffff>	SNAP OUI (Range 0x000000 - 0XFFFFFF)
rfc-1042	SNAP OUI is rfc-1042
snap-8021h	SNAP OUI is 8021h
group	Protocol-based VLAN group commands (deprecated since mapping is unique)
<word16>	Group Name (Range: 1 - 16 characters) (deprecated since mapping is unique)
<0x0-0xff>	SSAP (Range: 0x00 - 0xFF)
<0x0-0xffff>	PID (Range: 0x0 - 0xFFFF)

EXAMPLE

```
D8308(config)# no vlan 3
D8308(config)#
```

4-1.36.52 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
vid	Set VLAN ID
<oui>	Traffic class value

EXAMPLE

```
D8308(config)# no voice vlan vid 3
D8308(config)#
```

4-1.36.53 web

web

SYNTAX

no web privilege group <cword> level

Parameter

privilege	Web privilege
group	Web privilege group
<CWORD>	Valid words are 'Aggregation' 'Alarm' 'DDMI' 'DHCP' 'DHCPv6_Client' 'Debug' 'Diagnostics' 'EPS' 'ERPS' 'ETH_LINK_OAM' 'FRR' 'Firmware' 'Green_Ethernet' 'IP' 'IPMC_Snooping' 'LACP' 'LLDP' 'Loop_Protect' 'MAC_Table' 'MEP' 'MRP' 'MVR' 'Miscellaneous' 'NTP' 'POE' 'PTP' 'Ports' 'Private_VLANs' 'QoS' 'RMirror' 'Security(access)' 'Security(network)' 'Spanning_Tree' 'System' 'UDLD' 'UPnP' 'VCL' 'VLAN_Translation' 'VLANs' 'Voice_VLAN' 'XXRP' 'sFlow' 'uFDMA_AIL' 'uFDMA_CIL'
level	Web privilege group level

EXAMPLE

```
D8308(config)# no web privilege group LACP level
D8308(config)#
```

4-1.38 ntp

Configure NTP.

SYNTAX

ntp

ntp automatic

ntp interval <interval>

ntp server <index_var> ip-address { <ipv4_var> | <ipv6_var> | <name_var> }

Parameter

automatic	Configure Automatic
interval	Configure NTP Time-Sync Interval
server	Configure NTP server
<1-5>	index number
<5,10,15,30,60,120>	
ip-address	ip address
<domain_name>	Domain name
<ipv4_ucast>	IPv4 address
<ipv6_ucast>	IPv6 address

EXAMPLE

```
D8308(config)# ntp server 3 ip-address 192.168.1.1
D8308(config)#
```

4-1.39 port-security

This command is obsolete.

SYNTAX

port-security

port-security aging

port-security aging time <aging_time>

port-security hold time <hold_time>

Parameter

aging	Enable/disable port security aging.

hold	Configure hold options
time	Time in seconds between check for activity on learned MAC addresses.
<10-10000000>	Hold time in seconds
time	Violating MAC addresses are held non-forwarding for this amount of seconds

EXAMPLE

```
D8308(config)# port-security
D8308(config)#
```

4-1.40 privilege

Command privilege parameters.

SYNTAX

privilege <cword> level <0-15> <line128>

Parameter

<cword>	Valid words are 'config-vlan' 'configure' 'dhcp-pool' 'exec' 'if-vlan' 'interface' 'ipmc-profile' 'json-noti-host' 'line' 'llag' 'qos-map-egress' 'qos-map-ingress' 'router-if' '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

```
D8308(config)# privilege configure level 1 test
D8308(config)#
```

4-1.41 prompt

Set prompt.

SYNTAX

prompt <word32>

Parameter

<word32>	Up to 32 chars of prompt. Precede prompt variables with a percent sign (%). Prompt variables: %h = hostname, %% = percent sign, %s = space, %t = tab, %D = date, %T = time, %Z = date and time (like '%DT%T' but ensures atomicity in case of %T rollover)

EXAMPLE

```
D8308(config)# prompt %h
D8308(config)#
```

4-1.42 ptp

Precision time Protocol (1588).

SYNTAX

ptp

ptp <clockinst> afi-announce

ptp <clockinst> afi-sync

ptp <clockinst> clk sync <threshold> ap <ap>

ptp <clockinst> domain <domain>

ptp <clockinst> filter [delay <delay>] [period <period>] [dist <dist>]

ptp <clockinst> filter-type { aci-bc-full-on-path-freq | aci-basic-phase | aci-basic-phase-low | basic }

ptp <clockinst> ho [filter <ho_filter>] [adj-threshold <adj_threshold>]

ptp <clockinst> localpriority <localpriority>

ptp <clockinst> log <debug_mode> [log-to-file] [control] [max-time <max_time>]

ptp <clockinst> log delete

ptp <clockinst> mode { boundary | e2etransparent | p2ptransparent | master | slave | bcfrontend } [onestep | twostep] [ethernet | ethernet-mixed | ip4multi | ip4mixed | ip4unicast | oam | onepps | ip6mixed | ethip4ip6-combo] [oneway | twoway] [id <v_clock_id>] [vid <vid> [<prio>]] [mep <mep_id>] [profile { ieee1588 | g8265.1 | g8275.1 | 802.1as }] [clock-domain <clock_domain>] [dscp <dscp_id>]

ptp <clockinst> path-trace-enable

Parameter

<0-3>	Clock instance [0-3]
ext	Update and External clock output configuration and
ho-spec	Set the Holdover specification for G8275 PTP clocks
io-pin	Set or show input/output configuration
system-time	Enable synchronization between PTP time and system time
tc-internal	0 = MODE_30BIT, 1 = MODE_32BIT, 2 = MODE_44BIT, 3 = MODE_48BIT
afi-announce	Enable PTP Announce automatic frame injection
afi-sync	Enable PTP Sync automatic frame injection
clk	Set PTP slave clock options
domain	Clock domain for PTP
filter	Set filter parameters of Basic servo
filter-type	Set the filter-type used by PTP
localpriority	Local priority for G8275.1 BMC algorithm (1 is highest priority)
log	Set the PTP debug mode
mode	Enable a PTP instance
path-trace-enable	Enable path trace option (i.e. Add Path Trace to Announce messages)
priority1	Clock priority 1 for PTP BMC algorithm (0 is highest priority)
priority2	Clock priority 2 for PTP BMC algorithm (0 is highest priority)
servo	Set Servo parameters

slave-cfg	Set PTP clock Slave Configuration
time-property	Set time properties
uni	Set a Unicast Slave configuration entry
virtual-port	virtual port
sync	Set PTP slave clock options to 'clock is SyncE locked'
<1-1000>	[1..1000] Threshold in ns for offset from master defines when the offset increment/decrement mode is entered
ap	Set the adjustment factor
<1-40>	[1..40] The offset increment/decrement adjustment factor
<0-127>	PTP domain: range = 0-127
delay	Set delay filter parameter of Basic servo
dist	Set offset filter dist parameter
period	Set offset filter period parameter of Basic servo
<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.
<0-10>	Distance between servo update n number of measurement periods, valid range: 0-10, 0 => 0,1 Hz lowpass filtering, 1 => averaging over period, >1 => 'min' offset filtering.
<1-10000>	Measurement period in number of sync events, valid range: 1-10000
aci-basic-phase	aci-basic-phase
aci-basic-phase-low	aci-basic-phase-low
aci-bc-full-on-path-freq	aci-bc-full-on-path-freq
adj-threshold	Set adjustment threshold

filter	Set stabilization period
<1-3000>	[1..3000] max frequency adjustment change within the holdover stabilization period (in units of 0.1 ppb)
<10-86400>	[10..86400] Holdover filter and stabilization period
<1-255>	PTP clock priority1: range = 1-255
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<line>	String to match output lines
<1-8>	1-8 Debug log mode, 1 => log offset from master, 2 => log sync packets, 3 => log Delay_req, 4 => log both, 5-8 modes are similar to 1-4 modes with addition of sub nano second logging
delete	Deletes the log
control	Keep on controlling the clock while logging packet contents.
log-to-file	Direct log output to a file instead of console (Use http://<IP address of target>/logs/ptp_log_<0-3>.tpk to fetch the log afterwards).
max-time	Set the max time that the log is running, default is 10.000 sec.
<0-10000>	Max log time, unit is seconds.
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

clock-domain	Define clock domain used by this instance. Instances with different clock domain can have different time.
dscp	Define DSCP field used in IPv4 encapsulation
ethernet	Ethernet protocol encapsulation
ethernet-mixed	Ethernet protocol encapsulation using mix of unicast and multicast
ethip4ip6-combo	Encapsulation can be any one of Ethernet or IPv4 or IPv6 encapsulations
id	define PTP clock instance identifier
ip4mixed	IPv4 mixed multicast/unicast protocol encapsulation
ip4multi	IPv4 multicast protocol encapsulation
ip4unicast	IPv4 unicast protocol encapsulation
ip6mixed	IPv6 mixed multicast/unicast protocol encapsulation
mep	Define MEP id used in OAM based PTP
oam	OAM encapsulation (only used in Serval based Distributed TC)
onepps	1PPS master slave synchronization (only used with Gen2 1588 PHYs)
onestep	One-step mode
oneway	One-way slave mode (no Delay Request)
profile	Indication that clock has an associated profile
twostep	Two-step mode
twoway	Two-way slave mode
vid	define VLAN ID
<0-3>	Clock domain used. The Clock domain may be hardware or software based. Jaguar2 has 3 hardware clock domains, other switches have 1

	hardware clock domain.
<0-63>	DSCP field value used in IPv4 encapsulation
<clock_id>	PTP clock instance identifier (8 bytes)
<1-100>	MEP instance number used if the OAM protocol option is used
	(only relevant on Serval)
802.1as	802.1AS profile
g8265.1	G8265.1 profile
g8275.1	G8275.1 profile
ieee1588	IEEE 1588 profile
<vlan_id>	VLAN id
<0-255>	PTP clock priority1: range = 0-255
ad	Set 'D' parameter in the Basic servo
ai	Set 'I' parameter in the Basic servo
ap	Set 'P' parameter in the Basic servo
displaystates	Enable logging of servo parameters on the console
gain	Set Basic servo gain parameter.
<1-10000>	[1..10000] 'D' component in PID servo regulator
<1-10000>	[1..10000] 'I' component in PID servo regulator.
<1-10000>	[1..10000] 'P' component in PID servo regulator.
<1-10000>	[1..10000] gain component in PID servo regulator
offset-fail	set the offset fail threshold
offset-ok	set the offset ok threshold
stable-offset	set the stable offset threshold
<0-1000000>	offset fail threshold in ns
<0-1000000>	offset ok threshold in ns
<0-1000000>	stable offset threshold in ns

freq-traceable	frequency is traceable
leap-59	leap59 in current day
leap-61	leap61 in current day
leap-pending	command includes a pending leap event
ptptimescale	timing is a PTP time scale
time-source	set time source
time-traceable	timing is traceable
utc-offset	set UTC offset
valid	UTC offset is valid
<word10>	date of pending leap
leap-59	pending leap is of type leap-59
leap-61	pending leap is of type leap-61
<0-255>	time source: range 0-255
<-32768-32767>	UTC offset value
<0-4>	[0..4] Index in the slave table
<ipv4_ucast>	IPv4 address of requested master clock
duration	Set the Duration parameter
<10-1000>	Duration [10..1000]. Number of seconds for which the Announce/Sync messages are requested
accuracy	PTP accuracy
<0-255>	PTP accuracy [0-255]
<0-255>	PTP class [0-255]
<0-3>	PTP assigned input/output pin [0-3]
<0-255>	Local priority [0-255]
<128>	Priority1 [128]
<0-255>	Priority1 [0-255]

<0-65535>	PTP variance [0-65535]
class	PTP Class
io-pin	io-pin
local-priority	local priority
priority1	priority1
priority2	priority2
variance	PTP variance
auto	AUTO Select clock control, based on PTP profile and available hardware resources
ext	Enable external clock frequency output
input	Enable 1PPS input
ltc	Select Local Time Counter (LTC) frequency control
out-in	Enable 1PPS output and input (Jaguar1 only)
output	Enable 1PPS output
<1-25000000>	[1..25.000.000] External Clock output frequency in Hz
cat1	Define cat1 time
cat2	Define cat2 time
cat3	Define cat3 time
<0-999999999>	cat1 time in sec
baudrate	Baud Rate
calib	RS422 clock in calibration mode
main-auto	RS422 clock in main-auto mode (1PPS out, save time at L/S input)
main-man	RS422 clock in main-man mode (1PPS out, send configured PPS delay to sub module)
sub	RS422 clock in sub mode (save time and load new time at L/S

input)

<9600,19200,38400,115200>	Baud Rate 9600,19200,38400,115200
flowctrl	Flow Control
parity	Parity
stopbits	Stop Bits
wordlength	Word Length
none	None
rtscts	RTS CTS
pim	Use PIM protocol to transfer 1PPS information over a switch port
pps-delay	Set the 1PPS latency (used in main-man mode)
ser	Use Serial interface to transfer 1PPS information
<0-999999999>	The configured 1PPS latency (used in main-man mode)
proto	Specify the message format to use over the serial connection
polyt	Use the POLYT message format
rmc	Use the NMEA RMC message format
zda	Use the NMEA ZDA message format
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>	0 = MODE_30BIT, 1 = MODE_32BIT, 2 = MODE_44BIT, 3 = MODE_48BIT

EXAMPLE

```
D8308(config)# ptp system-time  get
D8308(config)#
```

4-1.43 qos

Quality of Service.

SYNTAX

qos map cos-dscp <0-7> dpl <0-3> dscp [<0-63> | af11 | af12 | af13 | af21 |af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | be | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va]

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]

qos map egress <0-511>

qos map ingress <0-255>

qos qce <1-256> [action] cos (<0-7> | default) [dmac | dpl | dscp | frame-type | ingress-mep | inner-tag | interface | last | next | pcp-dei | policy | smac | tag]

qos qce <1-256> [action] dpl (<0-3> | default) [cos | dmac | dscp | frame-type | ingress-mep | inner-tag | interface | last | next | pcp-dei | policy | smac | tag]

qos qce <1-256> [action] dscp [<0-63> | af11 | af12 | af13 | af21 |af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | be | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va]

qos qce <1-256> [action] ingress-map (<0-255> | default) [cos | dmac | dpl | dscp | frame-type | inner-tag | interface | last | next | pcp-dei | policy | smac | tag]

qos qce <1-256> [action] pcp-dei ((<0-7> <0-1>) | default) [cos | dmac | dscp | frame-type | ingress-mep | inner-tag | interface | last | next | policy | smac | tag]

qos qce <1-256> [action] policy (<0-127> | default) [cos | dmac | dpl | dscp | frame-type | ingress-mep | inner-tag | interface | last | next | pcp-dei | smac | tag]

qos qce <1-256> dmac (<mac_addr> | any | broadcast | multicast | unicast) [action | frame-type | inner-tag | interface | last | next | smac | tag]

qos qce <1-256> frame-type (any | etype | ipv4 | ipv6 | llc | snap) [action | dmac | frame-type | inner-tag | interface | last | next | smac | tag | vid]

qos qce <1-256> inner-tag (dei (<0-1> | any) | pcp (<pcp> | any) | type (any | c-tagged | s-tagged | tagged | untagged) | vid (<vcap_vr> | any)) [action | dmac | frame-type | inner-tag | interface | last | next | pcp | smac | tag | vid]

qos qce <1-256> interface { ***** [<port_type_list> | action | dmac | frame-type | inner-tag | last | next | smac | tag] } **|** { **(** GigabitEthernet | 10GigabitEthernet) <port_type_list> [* | GigabitEthernet | 10GigabitEthernet

action | dmac | frame-type | inner-tag | last | next | smac | tag]

qos qce <1-256> next <1-256> [action | dmac | frame-type | inner-tag | interface | smac | tag | vid]

qos qce <1-256> smac (<mac_addr> | any)) [action | dmac | frame-type | inner-tag | interface | last | next | tag]

qos qce <1-256> tag (dei (<0-1> | any) | pcp (<pcp> | any) | type (any | c-tagged | s-tagged | tagged | untagged) | vid (<vcap_vr> | any)) [action | dmac | frame-type | inner-tag | interface | last | next | pcp | smac | tag | vid]

qos qce refresh

qos qce update <1-256> [action | dmac | frame-type | inner-tag | interface | last | next | smac | tag]

qos storm (broadcast | multicast | unicast) <-13128147> [fps | kbps | kfps | mbps]

qos wred group <1-3> queue <0-7> dpl <1-3> min-fl <0-100> [fill-level]

Parameter

map	Global QoS Map/Table
qce	QoS Control Entry
storm	Storm policer
wred	Weighted Random Early Discard
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
egress	Map for egress configuration
ingress	Map for ingress configuration
<0~7>	Specific class of service or range
dpl	Specify drop precedence level
<0~3>	Specific drop precedence level or range
dscp	Specify 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)
ef	Expedited Forwarding PHB(DSCP 46)
va	Voice Admit PHB(DSCP 44)
<0-511>	Map ID
<0-255>	Map ID
<1-256>	QCE ID

refresh	Refresh QCE tables in hardware
update	Update an existing QCE
action	Setup action
dmac	Setup matched DMAC
frame-type	Setup matched frame type
inner-tag	Setup inner tag options
interface	Interfaces
last	Place QCE at the end
next	Place QCE before the next QCE ID
smac	Setup matched SMAC
tag	Setup tag options
cos	Setup class of service action
dpl	Setup drop precedence level action
dscp	Setup DSCP action
ingress-map	Setup ingress map action
pcp-dei	Setup PCP and DEI action
policy	Setup ACL policy action
<mac_addr>	Matched DMAC (XX-XX-XX-XX-XX-XX)
any	Match any DMAC
broadcast	Match broadcast DMAC
multicast	Match multicast DMAC
unicast	Match unicast DMAC
<0-7>	Assign class of service
default	Keep existing class of service
<0-3>	Assign drop precedence level
default	Keep existing drop precedence level

<0-255>	Assign ingress map id
default	Keep existing ingress map
<0-7>	Assign PCP
default	Keep existing PCP and DEI
<0-1>	Assign DEI
<0-127>	Assign ACL policy
default	Keep existing ACL policy
<mac_addr>	Matched DMAC (XX-XX-XX-XX-XX-XX)
any	Match any DMAC
broadcast	Match broadcast DMAC
multicast	Match multicast DMAC
unicast	Match unicast DMAC
any	Match any frame type
etype	Match EtherType frames
ipv4	Match IPv4 frames
ipv6	Match IPv6 frames
llc	Match LLC frames
snap	Match SNAP frames
dei	Setup matched DEI
pcp	Setup matched PCP
type	Setup matched tag type
vid	Setup matched VLAN ID
<0-1>	Matched DEI
any	Match any DEI
<pcp>	Matched PCP value/range
any	Match any PCP

any	Match tagged and untagged frames
c-tagged	Match C-tagged frames
s-tagged	Match S-tagged frames
untagged	Match untagged frames
<vcap_vr>	Matched VLAN ID value/range
any	Match any VLAN ID
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Ports
25GigabitEthernet	25 Gigabit Ethernet Ports
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
broadcast	Police broadcast frames
multicast	Police multicast frames
unicast	Police unicast frames
<1-13128147>	Policer rate (default fps). Internally rounded up to the nearest value supported by the storm policer. Supported rates are divisible by 10 fps or 25 kbps.
fps	Unit is frames per second (default)
kbps	Unit is kilobits per second
kfps	Unit is kiloframes per second
mbps	Unit is Megabits per second
group	Specify group
<1~3>	Specific group or range
queue	Specify queue
<0~7>	Specific queue or range

dpl	Specify DPL
<1~3>	Specific DPL or range
min-fl	Specify minimum fill level
<0-100>	Specific minimum fill level in percent
max	Specify maximum drop probability or fill level
<1-100>	Specific maximum drop probability or fill level in percent (default is drop probability)
fill-level	Specify fill level

EXAMPLE

```
D8308(config)# qos wred group 1 queue 0 dpl 1 min-fl 0 max 1 fill-level
D8308(config)#
```

4-1.44 radius-server

Configure RADIUS.

SYNTAX

radius-server attribute 32 <line1-253>

radius-server attribute 4 <ipv4_ucast>

radius-server attribute 95 <ipv6_ucast>

radius-server deadtime <1-1440>

radius-server host <word1-255> [auth-port <0-65535>] [acct-port <0-65535>] [timeout <1-1000>] [retransmit <Retries :1-1000>]

radius-server host <word1-255> key [<line1-63> | (encrypted <word96-224>) | unencrypted]

radius-server key [<line1-63> | (encrypted <word96-224>) | unencrypted]

radius-server retransmit <1-1000>

radius-server timeout <1-1000>

Parameter

attribute	NAS attributes
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
32	attribute number 32 = NAS-Identifier
4	attribute number 4 = NAS-IP-Address
95	attribute number 95 = NAS-IPv6-Address
<line1-253>	NAS-Identifier
<ipv4_ucast>	NAS-IP-Address
<ipv6_ucast>	<NAS-IPv6-Address>
<1-1440>	Time in minutes
<word1-255>	Hostname or IPv4/IPv6 address
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)
<0-65535>	UDP port number or 0 to disable authentication
<1-1000>	Number of retries for a transaction
<1-1000>	Wait time in seconds
<line1-63>	The UNENCRYPTED (Plain Text) secret key. Notice that you

	have no chance to get the Plain Text secret key after this command. The system will always display the ENCRYPTED password.
encrypted	Specifies an ENCRYPTED secret key will follow
unencrypted	Specifies an UNENCRYPTED secret key will follow
<word96-224>	The ENCRYPTED (hidden) secret key. Notice the ENCRYPTED secret key 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

```
D8308(config)# radius-server host device key 12
D8308(config)#
```

4-1.45 rmon

Remote Monitoring.

SYNTAX

rmon alarm <id> { ifInOctets | ifInUcastPkts | ifInNUcastPkts | ifInDiscards | ifInErrors | ifInUnknownProtos | ifOutOctets | ifOutUcastPkts | ifOutNUcastPkts | ifOutDiscards | ifOutErrors | ifOutQLen } <ifIndex> <interval> { absolute | delta } rising-threshold <rising_threshold> <rising_event_id> falling-threshold <falling_threshold> <falling_event_id> { [rising | falling | both] }

rmon event <id> [log] [trap [<word127>]] { [description <description>] }

Parameter

alarm	Configure an RMON alarm
event	Configure an RMON event
<1-65535>	Alarm entry ID
ifInDiscards	The number of inbound packets that are discarded even the packets are normal

ifInErrors	The number of inbound packets that contained errors preventing them from being deliverable to a higher-layer protocol
ifInNUcastPkts	The number of broadcast and multicast packets delivered to a higher-layer protocol
ifInOctets	The total number of octets received on the interface, including framing characters
ifInUcastPkts	The number of unicast packets delivered to a higher-layer protocol
ifInUnknownProtos	The number of the inbound packets that were discarded because of the unknown or unsupported protocol
ifOutDiscards	The number of outbound packets that are discarded event the packets is normal
ifOutErrors	The The number of outbound packets that could not be transmitted because of errors
ifOutNUcastPkts	The number of broadcast and multicast packets that request to transmit
ifOutOctets	The number of octets transmitted out of the interface, including framing characters
ifOutUcastPkts	The number of unicast packets that request to transmit
<uint>	Interface index
<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
<0-65535>	Event to fire on falling threshold crossing
both	Trigger alarm when the first value is larger than the rising threshold or less than the falling threshold (default)
falling	Trigger alarm when the first value is less than the falling threshold

rising	Trigger alarm when the first value is larger than the rising threshold
<1-65535>	Event entry ID
description	Specify a description of the event
log	Generate RMON log when the event fires
trap	Generate SNMP trap when the event fires
<line127>	Event description
<word127>	OBSOLETE: SNMP community string

EXAMPLE

```
D8308(config)# rmon alarm 10000 ifInErrors 6 9999 absolute rising-threshold 0
falling-threshold 0 both
D8308(config)#
```

4-1.46 router

SYNTAX

router access-list <access_list_name> { permit | deny } { any | <ipv4_addr> <ipv4_netmask> }

router ospf

router ospf6

router rip

Parameter

access-list	Router access list
<word1-31>	The name of the access list
deny	Deny the access right for the following IPv4 network domain
<ipv4_addr>	The IPv4 address for the access list entry
any	Any IPv4 address
permit	Permit the access right for the following IPv4 network domain
ospf	Open Shortest Path First (OSPF)

ospf6	Open Shortest Path First for IPv6 (OSPFv3)
rip	Routing Information Protocol (RIP)

EXAMPLE

```
D8308(config)# router rip
D8308(config)#
```

4-1.47 sflow

Statistics flow.

SYNTAX

sflow agent-ip { ipv4 <v_ipv4_addr> | ipv6 <v_ipv6_addr> }

sflow collector-address [<ipv4_var> | <ipv6_var> | <domain_name>]

sflow collector-port <collector_port>

sflow max-datagram-size <datagram_size>

sflow timeout <timeout>

Parameter

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

Ipv4

Ipv6

<ipv4_addr>

<ipv6_addr>

<domain_name>	Domain name identifying the collector receiver
<ipv4_addr>	IPv4 address identifying the collector receiver
<ipv6_ucast>	IPv6 address identifying the collector receiver
<1-65535>	Port Number
<200-1468>	Bytes
<0-2147483647>	Number of seconds

EXAMPLE

```
D8308(config)# sflow agent-ip ipv4 192.168.1.2
D8308(config)# sflow collector-port 3
D8308(config)# sflow max-datagram-size 333
D8308(config)# sflow timeout 3333
D8308(config)#
```

4-1.48 snmp-server

Set SNMP server's configurations.

SYNTAX

snmp-server

Table : configure –snmp-server Commands

Command	Function
access	access configuration
community	Set the SNMP community
contact	Set the SNMP server's contact string
engine-id	Set SNMP engine ID
host	Set SNMP host's configurations
location	Set the SNMP server's location string

security-to-group	security-to-group configuration
user	Set the SNMPv3 user's configurations
view	MIB view configuration

4-1.49.1 access

access configuration.

SYNTAX

snmp-server access <word32> model [v1 | v2c | v3 | any] level [auth | noauth | priv]

snmp-server access <word32> model [v1 | v2c | v3 | any] level [auth | noauth | priv] [read | write] <word32>

Parameter

<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
<word32>	read view name
<word32>	write view name

EXAMPLE

```
D8308(config)# snmp-server access text model v2c level noauth write
text
D8308(config)#
```

4-1.49.2 community

Set the SNMP community.

SYNTAX

snmp-server community <word32> <word32>

snmp-server community <word32> encrypted <word96-160>

snmp-server community <word32> ip-range <ipv4_addr> <ipv4_netmask>

snmp-server community <word32> ipv6-range <ipv6_subnet>

Parameter

<word32>	Security name
encrypted	Use encrypted community secret
ip-range	Use IPv4 range
ipv6-range	Use IPv6 range
<word96-160>	Encrypted community secret
<ipv4_addr>	IPv4 address
<ipv4_netmask>	IPv4 netmask
<ipv6_subnet>	IPv6 subnet

EXAMPLE

```
D8308(config)# snmp-server community a a
D8308(config)#
```

4-1.49.3 contact

Set the SNMP server's contact string.

SYNTAX

snmp-server contact <line255>

Parameter

<line255> contact string

EXAMPLE

```
D8308(config)# snmp-server contact aa
D8308(config)#
```

4-1.49.4 engine-id

Set SNMP engine ID.

SYNTAX

snmp-server engine-id local <word10-64>

Parameter

local Set SNMP local engine ID

<word10-64> local engine ID

EXAMPLE

```
D8308(config)# snmp-server engine-id local 1234567890
D8308(config)#
```

4-1.49.5 host

Set SNMP host's configurations.

SYNTAX

snmp-server host <word32>

Parameter

<word32> Name of the host configuration

EXAMPLE

```
D8308(config)# snmp-server host aa
D8308(config-snmps-host)#
```

4-1.49.6 security-to-group

security-to-group configuration.

SYNTAX

snmp-server security-to-group model [v1 | v2c | v3] name <word32> group <word32>

Parameter

model	security model
v1	v1 security model
v2c	v2c security model
v3	v3 security model
name	security user
<word32>	security user name
group	security group
<word32>	security group name

EXAMPLE

```
D8308(config)# snmp-server security-to-group model v2c name text
group text
D8308(config)#
```

4-1.49.7 user

Set the SNMPv3 user's configurations.

SYNTAX

snmp-server user <word32> engine-id <word10-64>

snmp-server user <word32> engine-id <word10-64> md5 <word8-32>

snmp-server user <word32> engine-id <word10-64> md5 <word8-32> priv [aes | des]

snmp-server user <word32> engine-id <word10-64> md5 encrypted <word16-64>

snmp-server user <word32> engine-id <word10-64> md5 encrypted <word16-64> priv [aes | des]

Parameter

<word32>	Security user name (word32)
engine-id	engine ID
<word10-64>	Engine ID octet string
md5	Set MD5 protocol
sha	Set SHA protocol
<word8-32>	MD5 unencrypted password
encrypted	Specifies an ENCRYPTED password will follow
aes	Set AES protocol
des	Set DES protocol
<word16-64>	MD5 encrypted password

EXAMPLE

```
D8308(config)# snmp-server user A engine-id 123456789876 md5
encrypted 1222222222213123213123 priv aes
D8308(config)#
```

4-1.49.8 view

MIB view configuration.

SYNTAX

snmp-server view <word32> < word255> [include | exclude]

Parameter

<word32>	MIB view name
<word255>	MIB view OID

include	Included type from the view
exclude	Excluded type from the view

EXAMPLE

```
D8308(config)# snmp-server view text .1 include
D8308(config)#
```

4-1.49 spanning-tree

Spanning Tree protocol.

Table : configure –spanning-tree Commands

Command	Function
aggregation	Aggregation mode
edge	Edge ports
mode	STP protocol mode
mst	STP bridge instance
recovery	The error recovery timeout
transmit	BPDUs to transmit

4-1.49.1 aggregation

Aggregation mode.

SYNTAX

spanning-tree aggregation

EXAMPLE

```
D8308(config)# spanning-tree aggregation
D8308 (config-stp-aggr) #
```

4-1. 49.2 edge

Edge ports.

SYNTAX

spanning-tree edge [bpdu-filter | bpdu-guard]

Parameter

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

bpdu-guard Enable BPDU guard

EXAMPLE

```
D8308(config)# spanning-tree edge bpdu-guard
D8308(config)#
```

4-1.49.3 mode

STP protocol mod.

SYNTAX

spanning-tree mode [stp | rstp | mstp]

Parameter

mstp Multiple Spanning Tree (802.1s)

rstp Rabid Spanning Tree (802.1w)

stp 802.1D Spanning Tree

EXAMPLE

```
D8308(config)# spanning-tree mode stp
D8308(config)#
```

4-1.49.4 mst

STP bridge instance.

SYNTAX

spanning-tree <instance> priority <prio>

spanning-tree mst <instance> vlan <v_vlan_list>

spanning-tree mst forward-time <fwdtime>

spanning-tree mst hello-time <hellotime>

spanning-tree mst max-age <maxage> [forward-time <fwdtime>]

spanning-tree mst max-hops <maxhops>

spanning-tree mst name <name> revision <v_0_to_65535>

Parameter

<0-7>	instance (CIST=0, MSTI1=1...)
forward-time	Delay between port states
hello-time	MSTP bridge hello time
max-age	Max bridge age before timeout
max-hops	MSTP bridge max hop count
name	Name keyword
priority	Priority of the instance
vlan	VLAN keyword
<0-61440>	Represents the STP bridge priority. Supported values are 0/4096/8192/12288/16384/20480/24576/28672/32768/36864/40960 /45056/49152/53248/57344/61440 i.e divisible by 4096. Default value is 32768
<vlan_list>	Range of VLANs
<4-30>	Range in seconds
<1-10>	Hello BPDU timer value
<6-40>	Range in seconds
forward-time	
<4-30>	
<6-40>	Hop count range
<word32>	Name of the bridge
revision	Revision keyword
<0-65535>	Revision number

EXAMPLE

```
D8308(config)# spanning-tree mst name a revision 4
D8308(config)#
```

4-1.49.5 recovery

The error recovery timeout.

SYNTAX

spanning-tree recovery interval <30-86400>

Parameter

interval	The interval
<30-86400>	Range in seconds

EXAMPLE

```
D8308(config)# spanning-tree recovery interval 33
D8308(config)#
```

4-1.49.6 transmit

BPDUs to transmit.

SYNTAX

spanning-tree hold-count <1-10>

Parameter

hold-count	Max number of transmit BPDUs per sec
<1-10>	1-10 per sec, 6 is default

EXAMPLE

```
D8308(config)# spanning-tree transmit hold-count 3
D8308(config)#
```

4-1.50 stream

VCL stream definition

SYNTAX

stream <inst>

Parameter

<1-127> Stream instance name

EXAMPLE

```
D8308(config)# stream 1
D8308(config)#
```

4-1.51 svl

Shared VLAN Learning.

SYNTAX

svl fid <1-4095> vlan <vlan_list>

Parameter

fid Filter ID keyword

<1-4095> Filter ID

vlan VLAN keyword

<vlan_list> VLAN List

EXAMPLE

```
D8308(config)# svl fid 1 vlan 3
D8308(config)#
```

4-1.52 switchport

Set VLAN switching mode characteristics.

SYNTAX

Switchport vlan mapping <gid> <vlan_list> <tvid>

switchport vlan mapping <gid> { both | ingress | egress } <vid> <tvid>

Parameter

vlan	VLAN
mapping	VLAN translation entry configuration
<1-10>	Group id
<vlan_list>	VLAN ID List (deprecated)
both	Bi-directional Translation
egress	Egress-only Translation
ingress	Ingress-only Translation
<vlan_id>	Translated VLAN ID
<vlan_id>	VLAN ID

EXAMPLE

```
D8308(config)# switchport vlan mapping 3 3 3
%% Failed to add VLAN Translation mapping.
% (VLAN Translation Error - The provided Translation VLAN ID is
the same as the VLAN ID - makes no sense to translate a VLAN to
itself)
D8308(config)#
```

4-1.53 system

Set the SNMP server's configurations.

SYNTAX

system contact <v_line128>

system description <sys_desc>

system location <v_line128>

system name <v_line128>

system reboot mode { enable | disable }

system reboot { [Sun <hour_v00_0_to_23> <min_v00_0_to_55>] [Mon <hour_v10_0_to_23> <min_v10_0_to_55>] [Tue <hour_v20_0_to_23> <min_v20_0_to_55>] [Wed <hour_v30_0_to_23> <min_v30_0_to_55>] [Thr <hour_v40_0_to_23> <min_v40_0_to_55>] [Fri <hour_v50_0_to_23> <min_v50_0_to_55>] [Sat <hour_v60_0_to_23> <min_v60_0_to_55>] }

Parameter

contact	Set the SNMP server's contact string
description	Configure System Description
di	Set the Switch DI input configurations
do	Set the Switch DO output configurations
location	Set the SNMP server's location string
name	Set the SNMP server's system model name string
reboot	Set the Switch Reboot configurations
<line128>	contact string
<line128>	System Description string
high	Set High is Normal mode
low	Set low is Normal mode
close	Set close is Normal mode
open	Set open is Normal mode
relay	Set the Switch DO relay configurations
close	Set off for DO to close state
open	Set on for DO to open state
<line128>	location string
<line128>	name string
Fri	Configure Switch Reboot scheduling on Friday
Mon	Configure Switch Reboot scheduling on Monday

Sat	Configure Switch Reboot scheduling on Saturday
Sun	Configure Switch Reboot scheduling on Sunday
Thr	Configure Switch Reboot scheduling on Thursday
Tue	Configure Switch Reboot scheduling on Tuesday
Wed	Configure Switch Reboot scheduling on Wednesday
mode	Switch reboot mode
<0-23>	start hour
<0-55>	start miniute, value must be multiples of 5
disable	Disable Switch Reboot
enable	Enable Switch Reboot

EXAMPLE

```
D8308(config)# system contact 222
D8308(config)# system location 333
D8308(config)# system name GE
D8308(config)#
```

4-1.54 tacacs-server

Configure TACACS+.

SYNTAX

tacacs-server deadtime <minutes>

tacacs-server host <host_name> [port <port>] [timeout <seconds>] [key { [unencrypted] <unencrypted_key> | encrypted <encrypted_key> }]

tacacs-server key { [unencrypted] <unencrypted_key> | encrypted <encrypted_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
<1-1440>	Time in minutes
<word1-255>	Hostname or IPv4/IPv6 address
key	Server specific key (overrides default)
port	TCP port for TACACS+ server
timeout	Time to wait for this TACACS+ server to reply (overrides default)
<line1-63>	The UNENCRYPTED (Plain Text) secret key. Notice that you have no chance to get the Plain Text secret key after this command. The system will always display the ENCRYPTED password.
encrypted	Specifies an ENCRYPTED secret key will follow
unencrypted	Specifies an UNENCRYPTED secret key will follow
<word96-224>	The ENCRYPTED (hidden) secret key. Notice the ENCRYPTED secret key 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
<0-65535>	TCP port number
<1-1000>	Wait time in seconds

EXAMPLE

```
D8308(config)# tacacs-server deadtime 300
D8308(config)# tacacs-server key 33
D8308(config)# tacacs-server timeout 300
D8308(config)#
```

4-1.55 tsn

TSN configuration

SYNTAX

tsn flow meter <inst>

tsn frer <inst>

tsn ptp-check procedure { none | ptp | wait }

tsn ptp-check ptp-port <ptp_port_val>

tsn ptp-check timeout <time_val>

tsn stream filter <inst>

tsn stream gate <inst>

tsn tas always-guard-band

Parameter

flow	Flow Meter
meter	Flow Meter
<0-1023>	Flow meter instance number
frer	Frame Replication and Elimination for Reliability (802.1CB)
<1-127>	FRER instance number
ptp-check	Specify how to ensure that TSN functions start with a coordinated PTP time
procedure	Chose procedure to start with a coordinated PTP time
none	Procedure: Start TSN functions immediately without any delay
ptp	Procedure: Monitor the status of PTP time. Start if it is Locking or Locked. If Locking or Locked is not achieved within wait time, then start anyway
wait	Procedure: Wait timeout number of seconds before starting TSN functions
ptp-port	The PTP port to use for sensing PTP status
timeout	Set ptp-check timeout in seconds
<10-200>	

stream Stream Filter

filter Stream Filter

<0-1023> Stream Filter instance number

gate Stream Gate

<0-1022> Stream Gate instance number

tas Time Aware Shaping

always-guard-band Guard band is implemented for any queue to scheduled queues transition.

EXAMPLE

```
D8308(config)# tsn stream gate 0
D8308 (config)#
```

4-1.56 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 <v_interval> }

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).

EXAMPLE

```
D8308(config)# udld aggressive
% Only fiber ports are allowed, port_no: 1
% Only fiber ports are allowed, port_no: 2
% Only fiber ports are allowed, port_no: 3
% Only fiber ports are allowed, port_no: 4
.
.
.
.
.
% Only fiber ports are allowed, port_no: 45
% Only fiber ports are allowed, port_no: 46
% Only fiber ports are allowed, port_no: 47
% Only fiber ports are allowed, port_no: 48
D8308(config)#
```

4-1.57 upnp

Set UPnP's configurations.

SYNTAX

upnp

upnp advertising-duration <v_66_to_86400>

upnp ip-addressing-mode [dynamic | static]

upnp static interface vlan <v_vlan_id>

Parameter

advertising-duration	Set advertising duration
ip-addressing-mode	Set IP addressing mode
static	Set static VLAN interface ID
<100-86400>	advertising duration
dynamic	Dynamic IP addressing mode
static	Static IP addressing mode
interface	Select an interface to configure
vlan	VLAN Interface
<vlan_id>	VLAN identifier (VID)

EXAMPLE

```
D8308(config)# upnp advertising-duration 188
D8308(config)# upnp static interface vlan 33
D8308(config)#
```

4-1.58 username

Establish User Name Authentication.

SYNTAX

username { <input_username> } privilege <priv> password { unencrypted <unencry_password> | encrypted <encry_password> | none }

Parameter

<word31>	User name allows letters, numbers and underscores
privilege	Set user privilege level
<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 UNENCRYPTED password will follow

<word128>	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.
<line31>	The UNENCRYPTED (Plain Text) user password. Any printable characters including space is accepted. Notice that you have no chance to get the Plain Text password after this command. The system will always display the ENCRYPTED password

EXAMPLE

```
D8308(config)# username alan privilege 15 password none
D8308(config)# (config)#
```

4-1.59 vlan

VLAN commands.

SYNTAX

vlan <vlan_list>

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

vlan protocol eth2 [<0x600-0xffff> | arp | at | ip | ipx] group <word16>

vlan protocol llc <0x0-0xff> <0x0-0xff> group <word16>

vlan protocol snap [<0x0-0xffffff> | rfc-1042 | snap-8021h] <0x0-0xffff> group <word16>

Parameter

<vlan_list>	ISL VLAN IDs
ethertype	Ethertype for Custom S-ports
protocol	Protocol-based VLAN commands
s-custom-port	Custom S-ports configuration

<0x0600-0xffff>	EtherType (Range: 0x0600-0xffff)
eth2	Ethernet-based VLAN commands
llc	LLC-based VLAN group
snap	SNAP-based VLAN group
<0x600-0xffff>	Ether Type (Range: 0x600 - 0xFFFF)
arp	Ether Type is ARP
at	Ether Type is AppleTalk
ip	Ether Type is IP
ipx	Ether Type is IPX
group	Protocol-based VLAN group commands
<word16>	Group Name (Range: 1 - 16 characters)
<0x0-0xff>	DSAP (Range: 0x00 - 0xFF)
<0x0-0xff>	SSAP (Range: 0x00 - 0xFF)
<0x0-0xffffff>	SNAP OUI (Range 0x000000 - 0XFFFFFF)
rfc-1042	SNAP OUI is rfc-1042
snap-8021h	SNAP OUI is 8021h
<0x0-0xffff>	PID (Range: 0x0 - 0xFFFF)

EXAMPLE

```
D8308(config)# vlan ethertype s-custom-port 0x1111
D8308(config)# vlan protocol eth2 0x6000 group aa
D8308(config)#
```

4-1.60 voice

Voice appliance attributes.

SYNTAX

voice vlan

voice vlan aging-time < 10-10000000>

voice vlan vid class <0-7>

voice vlan oui <oui>

voice vlan oui <oui> description <line32>

voice vlan vid <vlan_id>

Parameter

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

EXAMPLE

```
D8308(config)# voice vlan aging-time 3333
D8308(config)# voice vlan class 7
D8308(config)# voice vlan vid 3333
D8308(config)#
```

4-1.61 web

Web.

SYNTAX

web privilege group <group_name> level { [cro <configRoPriv>] [crw <configRwPriv>] }*1

Parameter

privilege	Web privilege
group	Web privilege group
<cword>	Valid words are 'Aggregation' 'Alarm' 'DDMI' 'DHCP'
	'DHCPv6_Client' 'Debug' 'Diagnostics' 'EPS' 'ERPS'
	'ETH_LINK_OAM' 'FRR' 'Firmware' 'Green_Ethernet' 'IP'
	'IPMC_Snooping' 'LACP' 'LLDP' 'Loop_Protect' 'MAC_Table' 'MEP'
	'MRP' 'MVR' 'Miscellaneous' 'NTP' 'POE' 'PTP' 'Ports'
	'Private_VLANs' 'QoS' 'RMirror' 'Security(access)'
	'Security(network)' 'Spanning_Tree' 'System' 'UDLD' 'UPnP' 'VCL'
	'VLAN_Translation' 'VLANs' 'Voice_VLAN' 'XXRP' 'sFlow'
	'uFDMA_AIL' 'uFDMA_CIL'
level	Web privilege group level
cro	Configuration Read-only level
crw	Configuration Read-write level
<0-15>	level

EXAMPLE

```
D8308(config)# web privilege group DDMI level configRoPriv 3
D8308(config)#
```

COPY Commands of CLI

Copy from source to destination.

SYNTAX

copy { startup-config | running-config | <source_path> } { startup-config | running-config | <destination_path> } [syntax-check] [{ merge | replace }]

Parameter

running-config	Current running configuration
startup-config	Startup configuration
<url_file>	File in FLASH or on TFTP server. Syntax: <flash:filename | tftp://server/path-and-filename>. A valid file name is a text string drawn from alphabet (A-Za-z), digits (0-9), dot (.), hyphen (-), under score (_). The maximum length is 63 and hyphen must not be first character. The file name content that only contains '.' is not allowed.
|	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

```
D8308# copy startup-config  running-config
D8308#
```

DELETE Commands of CLI

Delete one file in flash: file system.

SYNTAX

delete <path>

Parameter

<url_file>	File in FLASH. Syntax: <flash:filename>. A valid file name is a text string drawn from alphabet (A-Za-z), digits (0-9), dot (.), hyphen (-), under score (_). The maximum length is 63 and hyphen must not be first character. The file name content that only contains '.' is not allowed.

EXAMPLE

```
D8308# delete text
D8308#
```

DIR Commands of CLI

Directory of all files in flash: file system.

SYNTAX

dir

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

```
D8308# dir
Directory of flash:
   r- 2018-07-13 09:27:54     650 default-config
   rw 1970-01-01 00:30:38   10466 startup-config
2 files, 11116 bytes total.

Flash size: 3284992 bytes (3.1 MiB)
Flash free: 3239936 bytes (3.1 MiB)
#
```

DISABLE Commands of CLI

Turn off privileged commands.

SYNTAX

disable [<new_priv>]

Parameter

<0-15> Privilege level

EXAMPLE

```
D8308# disable 1
D8308#
```

DO Commands of CLI

To run exec commands in the configuration mode.

SYNTAX

do <command>

Parameter

<line> Exec Command

EXAMPLE

```
D8308# do show clock
System Time     : 2011-01-01T00:03:44+00:00
D8308#
```

DOT1X Commands of CLI

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
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

EXAMPLE

```
D8308# dot1x initialize interface 10GigabitEthernet 1/1-8
D8308#
```

ENABLE Commands of CLI

Turn on privileged commands.

Syntax

Enable [<new_priv>]

Parameter

<0-15> Choose privileged level

EXAMPLE

```
D8308# enable 10
D8308#
```

ERPS Commands of CLI

Ethernet Ring Protection Switching.

Syntax

erps <inst> clear

erps <inst> switch { force | manual } { port0-to-port1 | port1-to-port0 }

Parameter

<1-64> ERPS instance number

command Administrative Command

clear Clear a switchover (FS or MS) request and a WTB/WTR condition and force reversion even if not revertive

switch Request a switchover from port0 to port1 or vice versa. Use 'erps <inst> clear' to clear the request.

force Force command

manual Manual command

port0-to-port1 Blocks port0 and unblocks port1

port1-to-port0 Blocks port1 and unblocks port0

EXAMPLE

```
D8308# erps 4 command clear port1
D8308#
```

FIRMWARE of CLI

Firmware upgrade/swap.

Syntax

firmware swap

firmware upgrade <url_file>

Parameter

swap	Swap between Active and Alternate firmware image
upgrade	upgrade
<url_file>	Uniform Resource Locator. It is a specific character string that constitutes a reference to a resource. Syntax: <protocol>://[<username>[:<password>]@]<host>[:<port>][/<path>]/<file_name> If the following special characters: space !"#$%&'()*+,/:;<=>?@[\]^`{|}~ need to be contained in the input URL string, they should be percent-encoded. A valid file name is a text string drawn from alphabet (A-Za-z), digits (0-9), dot (.), hyphen (-), under score (_). The maximum length is 63 and hyphen must not be first character. The file name content that only contains '.' is not allowed.

EXAMPLE

```
D8308# firmware upgrade tftp://192.168.1.1/running-config
Programming image...
D8308#
```

IP Commands of CLI

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

```
D8308# ip dhcp retry interface vlan 1
D8308#
```

iperf Commands of CLI

Network bandwidth measurement tool

SYNTAX

iperf host <v_host> [port <v_port>] [time <v_time>] [interval <v_interval>] [ttl <v_ttl>]

Parameter

host	host address
<word1-255>	host address
interval	seconds between periodic bandwidth reports
port	server port
time	time in seconds to transmit for
ttl	time-to-live, for multicast
<1-60>	seconds between periodic bandwidth reports
<1-65535>	server port (default 5001)
<1-60>	time in seconds to transmit for (default 10 secs)
<1-255>	time-to-live, for multicast (default 1)

EXAMPLE

```
D8308# iperf host xxx.xxx.xxx.xxx
D8308#
```

iperf3 Commands of CLI

Network bandwidth measurement tool

SYNTAX

iperf host <v_host> [port <v_port>] [time <v_time>] [interval <v_interval>]

Parameter

host	host address
<word1-255>	host address
interval	seconds between periodic bandwidth reports
port	server port
time	time in seconds to transmit for
<1-60>	seconds between periodic bandwidth reports
<1-65535>	server port (default 5001)
<1-60>	time in seconds to transmit for (default 10 secs)

EXAMPLE

```
D8308# iperf host xxx.xxx.xxx.xxx
D8308#
```

IPV6 Commands of CLI

IPv6 configuration commands.

SYNTAX

ipv6 dhcp-client restart [interface vlan <v_vlan_list>]

Parameter

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

EXAMPLE

```
D8308# ipv6 dhcp-client restart interface vlan 3
D8308#
```

Link-oam

Link OAM configuration.

SYNTAX

link-oam remote-loopback [Start | stop] interface *

link-oam remote-loopback [Start | stop] interface * <port_type_list>

link-oam remote-loopback [Start | stop] interface (GigabitEthernet | 10GigabitEthernet) <port_type_list>

Parameter

remote-loopback	Configure remote loopback on interface
start	Start remote loopback test on interface
stop	Stop remote loopback test on interface
interface	Start/Stop remote loopback test on a specific interface or interfaces
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

EXAMPLE

```
D8308# link-oam remote-loopback start interface 10GigabitEthernet
1/1-4
D8308#
```

MORE of CLI

Display file.

SYNTAX

more <path> [save-host-key] [ftp-active]

Parameter

<url_file>	File in FLASH or on TFTP server. Syntax: <flash:filename | tftp://server/path-and-filename>. A valid file name is a text string drawn from alphabet (A-Za-z), digits (0-9), dot (.), hyphen (-), under score (_). The maximum length is 63 and hyphen must not be first character. The file name content that only contains '.' is not allowed
|	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

```
D8308# # more tftp://192.168.1.1/ddd | begin a
% Loading /ddd from TFTP server 192.168.1.1
```

NO Commands of CLI

Delete trace hunt string.

Syntax

no aps <inst> freeze

no debug gdbserver

no debug interrupt monitor [source <intr_name>]

no debug kr-options

no debug ptp ms-pdv log-level

no debug trace hunt

no port-security shutdown [interface (<port_type> [<v_port_type_list>])]

no ptp <clockinst> wireless mode interface (<port_type> [<v_port_type_list>])

no terminal editing

no terminal exec-timeout

no terminal history size

no terminal length

no terminal width

Parameter

aps	Automatic Protection Switching
debug	Debugging functions
port-security	Port Security
ptp	Misc non persistent 1588 settings
terminal	Set terminal line parameters
<1-10>	APS instance number
freeze	Freezes the state of the APS instance. While in this mode, additional near-end commands, condition changes, and received APS

	information are ignored. Use 'no aps <inst> freeze' to get out of this mode.
gdbserver	Stop the GDB server
interrupt	Application-handled interrupt source
kr-options	Debug command to enable options in "speed kr <options>" interface command.
ptp	Precision time Protocol (1588)
trace	Delete trace h
suppress	suppress
<kword127>	alarm name
|	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
ipv6	IPv6 configuration commands
monitor	Print a line on the console everytime the corresponding source interrupt fires
source	Select a particular source interrupt to monitor
<cword>	Valid words are 'AMS' 'CLK_ADJ' 'CLK_TSTAMP' 'EGR_ENGINE_ERR' 'EGR_FIFO_OVERFLOW' 'EGR_RW_FCS_ERR' 'EGR_TIMESTAMP_CAPTURED' 'EXT_1_SYNC' 'EXT_SYNC' 'FLNK' 'INGR_ENGINE_ERR' 'INGR_RW_FCS_ERR' 'INGR_RW_PREAM_ERR' 'LOS' 'PTP_PIN_0' 'PTP_PIN_1' 'PTP_PIN_2' 'PTP_PIN_3' 'PUSH_BUTTON' 'SYNC' 'VOE'
nd	IPv6 Neighbor Discovery debugging
ms-pdv	the configuration of the MS-PDV.
log level	log level.

hunt	Delete trace hunt string
shutdown	Reopen one or more ports whose limit is exceeded and shut down.
interface	Interface
wireless	Enable wireless mode for one or more interfaces
mode	Enable wireless mode for an interface
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
<0-3>	Clock instance [0-3]
wireless	Enable wireless mode for one or more interfaces.
mode	Enable wireless mode for an interface.
editing	Enable command line editing
exec-timeout	Set the EXEC timeout
history	Control the command history function
length	Set number of lines on a screen
width	Set width of the display terminal
size	Set history buffer size

EXAMPLE

```
D8308# no ptp 3 wireless m interface GigabitEthernet 1/1
Wireless mode not available for ptp instance 3, port 1
Wireless mode requires a two-step or Oam based BC
#
```

PING of CLI

Send ICMP echo messages.

Syntax

ping [ip] { <domain_name> | <ip_addr> } [ttl <ttl_value>] [repeat <count>] [{ saddr <src_addr> | sif { <port_type> <src_if> | vlan <vlan_id> } }] [size <size>] [data <data_value>] [{ verbose | quiet }]

ping ipv6 { <domain_name> | <ip_addr> } [repeat <count>] [saddr <src_addr>] [sif { <port_type> <src_if> | vlan <vlan_id> }] [size <size>] [data <data_value>] [{ verbose | quiet }]

Parameter

ip	ICMPv4 Echo Request
ipv6	ICMPv6 Echo Request
<domain_name>	Destination hostname or FQDN
<ipv4_addr>	Destination IPv4 address
data	Specify payload data byte value
quiet	Set quiet output
repeat	Specify repeat count
saddr	Send from interface with source address
sif	Send from specified interface
size	Specify datagram size
ttl	Set IPv4 Time-To-Live (TTL)
verbose	Set verbose output
<0-255>	Payload data: 0-255; Default is 0
<1-60>	Packets: 1-60; Default is 5
<ipv4_addr>	Source Address of interface
<2-1452>	Size (bytes): 2-1452; Default is 56 (excluding MAC, IP and ICMP headers)
<1-255>	IPv4 TTL: 1-255; Default is 64
vlan	Send from VLAN interface with source address

10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
<vlan_id>	Source VLAN interface
<ipv6_addr>	Destination IPv6 address

EXAMPLE

```
D8308# ping ip 192.168.1.1 repeat 3 size 3
PING 192.168.1.1 (192.168.1.1): 3 data bytes
11 bytes from 192.168.1.1: seq=0 ttl=64
11 bytes from 192.168.1.1: seq=1 ttl=64
11 bytes from 192.168.1.1: seq=2 ttl=64

--- 192.168.1.1 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
D8308#
```

PLATFORM Commands of CLI

Platform configuration

SYNTAX

platform debug (allow | deny)

Parameter

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

EXAMPLE

```
D8308# platform debug deny
D8308#
```

PTP Commands of CLI

Platform configuration

SYNTAX

ptp <clockinst> local-clock { update | ratio <ratio> }

ptp <clockinst> wireless delay <base_delay> [<incr_delay>] interface (<port_type> [<v_port_type_list>])

ptp <clockinst> wireless mode interface (<port_type> [<v_port_type_list>])

ptp <clockinst> wireless pre-notification interface (<port_type> [<v_port_type_list>])

ptp cal 1pps <cable_latency>

ptp cal p2p <port_type> <ref_port> <port_type> <other_port> <cable_latency>

ptp cal port <port_type> <v_port_type_id> [mode { 10m-cu | 100m-cu | 1g-cu | 1g | 2g5 | 5g | 10g | all }] reset

ptp cal port <port_type> <v_port_type_id> offset <pps_offset> cable-latency <cable_latency>

ptp cal port <port_type> <v_port_type_id> start

ptp cal t-plane <port_type> <v_port_type_id> { ext | int

Parameter

<0-3>	PTP Clock instance [0-3]
cal	Calibrate
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 OS system clock
<-10000000-10000000>	Ratio in units of 0,1 PPB, (ratio > 0 => faster clock, ratio < 0 => slower clock)
delay	delay
mode	Enable wireless mode for an interface.
pre-notification	Issue a pre notification that the wireless modem is going to change

<0-1000000000>	Base wireless transmission delay (in picoseconds)
<0-1000000>	Incremental wireless transmission delay pr. byte (in picoseconds)
interface	Interface parameter
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
interface	Interface
interface	switch interface
1pps	1PPS inpu
p2p	port to port timing variation
port	port
t-plane	the timing plane
<-100000-100000>	Latency of the cable used for calibration
<port_type_id>	Port ID in 1/1-8
<port_type_id>	Port ID in 1/1-2
mode	
reset	
start	
100m-cu	
10g	
10m-cu	
1g	

1g-cu

2g5

5g

All

cable-latency

ext	Specifies that external loopback is to be used
int	Specifies that internal loopback is to be used

EXAMPLE

```
D8308# ptp cal port GigabitEthernet 1/1 start
Starting calibration of port: 1 using external reference.
Port link status is 'down' - cannot calibrate.
D8308#
```

RELOAD of CLI

Reload system.

Syntax

reload { warm | defaults [keep-ip] }

Parameter

defaults Reload defaults without rebooting.

warm Reload warm (CPU restart only).

keep-ip Attepmt to keep VLAN1 IP setup

EXAMPLE

```
D8308# reload defaults keep-ip
D8308#
```

SEND of CLI

Send a message to other tty lines

Syntax

send { * | <0-16> | console 0 | vty <0~15> } <line128>

Parameter

*	All tty lines
<0~16>	Send a message to multiple lines
console	Primary terminal line
vty	Virtual terminal
0	Send a message to a specific line
<0~15>	Send a message to multiple lines
<lINE128>	yMessage to be sent to lines, in 128 char's

EXAMPLE

```
D8308# send * aaa


----------------------------------------
*** Message from line 0:


----------------------------------------
D8308#
```

SHOW of CLI

Show.

Table : SHOW Commands

Command	Function
aaa	Authentication, Authorization and Accounting methods
access	Access management
access-list	Access list
aggregation	Aggregation port configuration
aps	Automatic Protection Switching
cfm	Connectivity Fault Management (CFM)
clock	Configure time-of-day clock
ddmi	DDMI configuration
dot1x	IEEE Standard for port-based Network Access Control
erps	Ethernet Ring Protection Switching
event	Show trap event configuration
green-ethernet	Green Ethernet (Power reduction)
history	Display the session command history
interface	Interface.
ip	Interface Internet Protocol configuration commands
ipmc	IPv4/IPv6 multicast configuration
ipv6	IPv6 configuration commands
lacp	LACP configuration/status
licenses	Show license information
line	TTY line information
link-oam	Link OAM configuration
lldp	Link Layer Discover Protocol.
logging	System logging message
loop-protect	Loop protection configuration
mac	Mac Address Table information
monitor	Monitoring different system events
mrp	MRP status
mvr	Multicast VLAN Registration configuration
network-clock	Show selector state.
ntp	Configure NTP

platform	Platform configuration
port-security	Show Port Security overview status.
privilege	Display command privilege
process	process
ptp	Precision time Protocol (1588)
pvlan	PVLAN configuration
qos	Quality of Service
radius-server	RADIUS configuration
rmon	RMON statistics
running-config	Show running system information
sflow	Statistics flow.
snmp	Set SNMP server's configurations
spanning-tree	STP Bridge
stream	
svl	Shared VLAN Learning configuration
switchport	Display switching mode characteristics
system	system
tacacs-server	TACACS+ configuration
tech-support	Tech support information
terminal	Display terminal configuration parameters
tsn	Time Sensitive Network (TSN)
udld	Unidirectional Link Detection (UDLD) configurations, statistics and status
upnp	Display UPnP configuration
user-privilege	Users privilege configuration
users	Display information about terminal lines
version	System hardware and software status
vlan	VLAN status
voice	Voice appliance attributes
watchdog	show watchdog mode
web	Web

26-1 aaa

Authentication, Authorization and Accounting methods.

SYNTAX

show aaa

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

```
D8308# show aaa
Authentication :
  console : local
  telnet  : local
  ssh     : local
  http    : local
Authorization :
  console : no, commands disabled
  telnet  : no, commands disabled
  ssh     : no, commands disabled
Accounting :
  console : no, commands disabled, exec disabled
  telnet  : no, commands disabled, exec disabled
  ssh     : no, commands disabled, exec disabled
D8308#
```

26-2 access

Access management.

SYNTAX

show access management

show access management <1~16>

show access management <1~16> | [begin | exclude | include] <line>

show access management | [begin | exclude | include] <line>

show access management statistics

show access management statistics | [begin | exclude | include] <line>

Parameter

management	Access management configuration
<1~16>	ID of access management entry list (1-16)
|	Output modifiers
statistics	Statistics data
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<line>	String to match output lines

EXAMPLE

```
D8308# show access management 3
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
--- ---  ------------------------------ ------------------------------ - - -
D8308#
```

26-3 access-list

Access list.

SYNTAX

show access-list [interface [(<port_type> [<v_port_type_list>])]] [rate-limiter [<rate_limiter_list>]] [ace statistics [<ace_list>]]

show access-list ace-status [static] [link-oam] [loop-protect] [dhcp] [dhcp6-snooping] [ptp] [upnp] [arp-inspection] [cfm] [aps] [erps] [ipmc] [ip-source-guard] [ipv6-source-guard] [ip] [dms] [conflicts]

Parameter

|	Output modifiers
ace	Access list entry
ace-status	The local ACEs status
interface	Select an interface to configure
rate-limiter	Rate limiter
statistics	Traffic statistics
<1~512>	ACE ID
arp-inspection	The ACEs that are configured by ARP Inspection module
conflicts	The ACEs that did not get applied to the hardware due to hardware limitations
dhcp	The ACEs that are configured by DHCP module
ip	The ACEs that are configured by IP module
ip-source-guard	The ACEs that are configured by IP Source Guard module
ipmc	The ACEs that are configured by IPMC module
link-oam	The ACEs that are configured by Link OAM module
loop-protect	The ACEs that are configured by Loop Protect module
mep	The ACEs that are configured by MEP module
ptp	The ACEs that are configured by PTP module
static	The ACEs that are configured by users manually
upnp	The ACEs that are configured by UPnP module

*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
<1~16>	Rate limiter ID

EXAMPLE

```
D8308# show access-list statistics ace 3

Switch access-list ace number: 0
D8308#
```

26-4 aggregation

Aggregation port configuration.

SYNTAX

show aggregation

show aggregation | [begin | exclude | include] <line>

show aggregation mode

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

```
D8308# show aggregation mode
Aggregation Mode:

SMAC  : Enabled
DMAC  : Disabled
IP    : Enabled
Port  : Enabled
D8308#
```

26-5 aps

Automatic Protection Switching

SYNTAX

show aps [<inst_list>] { [statistics] | [details] }

Parameter

|	Output modifiers
begin	Begin with the line that matches
<line>	String to match output lines
exclude	Exclude lines that match
include	Include lines that match
<range_list>	The range of APS instances.
details	Show detailed status
statistics	Show APS PDU Rx and Tx counters

EXAMPLE

```
D8308# show aps | begin 5 5
D8308#
```

26-6 cfm

Connectivity Fault Management (CFM)

SYNTAX

show cfm domains [domain <md_name>] [details]

show cfm errors

show cfm meps [domain <md_name>] [service <ma_name>] [mep-id <mepid>] [details]

show cfm services [domain <md_name>] [service <ma_name>] [details]

Parameter

domains	Show CFM Domains
|	Output modifiers
<line>	String to match output lines
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
details	Show details of the domain(s)
domain	Show particular domain, only
<kword1-15>	Show particular domain, only
errors	Show errors
meps	Show MEPs
details	Show detailed information
domain	Select domain to show info for
mep-id	Select a MEP to show info for
<1-8191>	Particular MEP-ID to show info for
service	Select a service to show info for
services	Show CFM Services

EXAMPLE

```
D8308# show cfm meps mep-id 1 domain
D8308#
```

26-7 clock

Configure time-of-day clock.

SYNTAX

show clock

show clock detail

Parameter

detail Display detailed information

EXAMPLE

```
D8308# show clock
System Time : 2017-01-01 01:30:50

D8308#
```

26-8 ddmi

DDMI configuration

SYNTAX

show ddmi

Parameter

ddmi DDMI configuration

EXAMPLE

```
D8308# show ddmi
D8308#
```

26-9 dot1x

IEEE Standard for port-based Network Access Control.

SYNTAX

show dot1x details [interface (<port_type> [<plist>])]

show dot1x statistics { eapol | radius | all } [interface (<port_type> [<v_port_type_list>])]

show dot1x status [interface (<port_type> [<v_port_type_list>])] [brief]

Parameter

statistics	Shows statistics for either EAPoL or RADIUS
status	Shows dot1x status, such as admin state, port state and last source
|	Output modifiers
brief	Show status in a brief format (deprecated)
interface	Interface
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
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
all	Show all dot1x statistics

eapol Show EAPOL statistics

radius Show Backend Server statistics

EXAMPLE

```
D8308# show dot1x statistics radius
                    Rx Access   Rx Other    Rx Auth.    Rx Auth.    Tx         MAC
Interface            Challenges  Requests    Successes   Failures    Responses
Address
--------------------  ----------  ----------  ----------  ----------  ----------  --
-----
Gi               1/1    0          0          0          0          0          -
Gi               1/2    0          0          0          0          0          -
Gi               1/3    0          0          0          0          0          -
Gi               1/4    0          0          0          0          0          -
Gi               1/5    0          0          0          0          0          -
.
.
.
.
Gi               1/N   0          0          0          0          0          -
D8308#
```

26-10 erps

Ethernet Ring Protection Switching

SYNTAX SYNTAX

show erps [<inst_list>] [statistics] [details]

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

<1~64> List of ERPS instances to show

details Show detailed status or statistics

statistics Show statistics

EXAMPLE

```
D8308# show erps statistics 1
D8308#
```

26-11 event

Show trap event configuration

SYNTAX

show event

EXAMPLE

```
IPGS=2732X-AD# show event
show event
Group Name      Severity Level    Syslog Mode   Trap Mode     SMTP Mode     Digital Out
------------------------------  ----------------  ------------  ------------  -------
-----  ------------
AC-Power              Information      enable       disable      disable      N/A
ACL                   Information      enable       disable      disable      N/A
ACL-Log               Information      enable       disable      disable      N/A
Access-Mgmt           Information      enable       disable      disable      N/A
Auth-Failed           Warning          enable       disable      disable      N/A
Battery-Power         Information      enable       disable      disable      N/A
Cold-Start            Warning          enable       disable      disable      N/A
Config-Info           Information      enable       disable      disable      N/A
DI-1-Abnormal         Information      enable       disable      disable      disable
DI-1-Normal           Information      enable       disable      disable      disable
```

```
IPGS=2732X-AD# show event
show event
Group Name            Severity Level    Syslog Mode   Trap Mode     SMTP Mode     Digital Out
------------------------------  ----------------  ------------  ------------  ------------
------------
DMS                           Information      enable       disable      disable      N/A
Digital-Out                    Information      enable       disable      disable      N/A
FAN                           Information      enable       disable      disable      N/A
Firmware-Upgrade               Information      enable       disable      disable      N/A
Import-Export                  Information      enable       disable      disable      N/A
LACP                          Information      enable       disable      disable      N/A
Link-Status                    Warning          enable       disable      disable      disable
Login                         Information      enable       disable      disable      N/A
Logout                        Information      enable       disable      disable      N/A
Loop-Protect                   Information      enable       disable      disable      disable
Mgmt-IP-Change                 Information      enable       disable      disable      N/A
Module-Change                  Warning          enable       disable      disable      N/A
NAS                           Information      enable       disable      disable      N/A
NTP-Sync                      Warning          enable       disable      disable      N/A
Password-Change                Information      enable       disable      disable      N/A
Poe_Auto_Power_Reset           Warning          enable       disable      disable      N/A
Port-Security                  Information      enable       disable      disable      N/A
Spanning-Tree                  Information      enable       disable      disable      N/A
Temperature                    Information      enable       disable      disable      disable
Voltage                       Information      enable       disable      disable      disable
```

26-12 green-ethernet

Green ethernet (Power reduction)

SYNTAX SYNTAX

show [interface (<port_type> [<port_list>])]

show green-ethernet eee [interface (<port_type> [<port_list>])]

show green-ethernet energy-detect [interface (<port_type> [<port_list>])]

show green-ethernet short-reach [interface (<port_type> [<port_list>])]

Parameter

|	Output modifiers
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
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
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

EXAMPLE

```
D8308# show green-ethernet eee
Interface             Lnk  EEE Capable  EEE Enabled  LP EEE Capable   EEE In Power Save
----------------------  ---  -----------  -----------  ---------------  ---------------
--
GigabitEthernet 1/1     No   Yes          No           No               No
GigabitEthernet 1/2     No   Yes          No           No               No
GigabitEthernet 1/3     No   Yes          No           No               No
GigabitEthernet 1/4     No   Yes          No           No               No
......
10GigabitEthernet 1/1   No   No           N/A          N/A              N/A
10GigabitEthernet 1/2   No   No           N/A          N/A              N/A
10GigabitEthernet 1/3   No   No           N/A          N/A              N/A
10GigabitEthernet 1/4   No   No           N/A          N/A              N/A
D8308#
```

26-13 history

Display the session command history.

SYNTAX

show history

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

```
D8308# show history
  show green-ethernet eee
  show history
D8308#
```

26-14 interface

Interface.

SYNTAX

show interface (<port_type> [<in_port_list>]) switchport [access | trunk | hybrid]

show interface (<port_type> [<plist>]) description

show interface (<port_type> [<plist>]) transceiver

show interface (<port_type> [<v_port_type_list>]) CableDiag

show interface (<port_type> [<v_port_type_list>]) capabilities

show interface (<port_type> [<v_port_type_list>]) statistics [{ packets | bytes | errors | discards | filtered | { priority [<priority_v_0_to_7>] } }] [{ up | down }]

show interface (<port_type> [<v_port_type_list>]) status

show interface vlan [<vlist>]

Parameter

vlan	VLAN status
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
capabilities	Display capabilities
description	Description of interface
statistics	Display statistics counters
status	Display status
switchport	Show interface switchport information

transceiver	Show interface transceiver
veriphy	Display the latest cable diagnostic results
|	Output modifiers
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	Show priority statistics
up	Show ports which are up
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<line>	String to match output lines
access	Show access ports status
hybrid	Show hybrid ports status
trunk	Show trunk ports status
<vlan_list>	VLAN list

EXAMPLE

```
D8308 # show interface GigabitEthernet 1/1-4 capabilities


GigabitEthernet 1/1 Capabilities:
  Speed cap:           10,100,1000,auto
  Duplex cap:          half,full,auto
  Trunk encap. type:    802.1Q
  Trunk mode:          access,hybrid,trunk
  Channel:            yes
  Broadcast suppression: no
  Flowcontrol:         yes
  Fast Start:          no
  QoS scheduling:       tx-(8q)
  CoS rewrite:         yes
  ToS rewrite:         yes
  UDLD:               no
  Inline power:        yes
  RMirror:            yes
  PortSecure:          yes
  Dot1x:              yes
GigabitEthernet 1/2 Capabilities:
  Speed cap:           10,100,1000,auto
  Duplex cap:          half,full,auto
  Trunk encap. type:    802.1Q
  Trunk mode:          access,hybrid,trunk
  Channel:            yes
  Broadcast suppression: no
  Flowcontrol:         yes
  Fast Start:          no
  QoS scheduling:       tx-(8q)
  CoS rewrite:         yes
  ToS rewrite:         yes
  UDLD:               no
  Inline power:        yes
  RMirror:            yes
  PortSecure:          yes
  Dot1x:              yes
D8308#
```

26-15 ip

Interface Internet Protocol configuration commands.

SYNTAX

show ip acd

show ip arp

show ip arp inspection [interface (<port_type> [<in_port_type_list>]) | vlan <in_vlan_list>]

show ip arp inspection entry [dhcp-snooping | static] [interface (<port_type> [<in_port_type_list>])]

show ip dhcp detailed statistics { server | client | snooping | relay | normal-forward | combined } [interface (<port_type> [<in_port_list>])]

show ip dhcp relay [statistics]

show ip dhcp server binding <ip>

show ip dhcp server binding [state { allocated | committed | expired }] [type { automatic | manual | expired }]

show ip dhcp server declined-ip

show ip dhcp server declined-ip <declined_ip>

show ip dhcp server statistics

show ip dhcp snooping [interface (<port_type> [<in_port_list>])]

show ip dhcp snooping table

show ip dhcp vlan [<vid>]

show ip domain

show ip http

show ip igmp snooping [vlan <v_vlan_list>] [group-database [interface (<port_type> [<v_port_type_list>])] [sfm-information]] [detail]

show ip igmp snooping mrouter [detail]

show ip interface [brief]

show ip link-local interface

show ip name-server

show ip neighbor

show ip ospf

show ip ospf database [{ router | network | summary | asbr-summary | external | nssa-external } [link-state-id <link_state_id>]] [adv-router <adv_router_id> | self-originate]

show ip ospf interface [vlan <vlan_list> | vlink <vlink_list>]

show ip ospf neighbor [detail]

show ip ospf route

show ip rip [database]

show ip route

show ip source binding [dhcp-snooping | static] [interface (<port_type> [<in_port_type_list>])]

show ip ssh

show ip ssh key

show ip statistics [system]

show ip telnet

show ip verify source [interface (<port_type> [<in_port_type_list>])]

Parameter

acd	Address Conflict Detection
arp	Address Resolution Protocol
dhcp	Dynamic Host Configuration Protocol
domain	Default domain name
http	Hypertext Transfer Protocol
igmp	Internet Group Management Protocol
interface	IP interface status and configuration
name-server	Domain Name System
route	Display the current ip routing table
source	source command

ssh	Secure Shell
statistics	Traffic statistics
verify	verify command
inspection	ARP inspection
entry	arp inspection entries
interface	ARP inspection entry interface configuration
vlan	VLAN configuration
dhcp-snooping	learn from dhcp snooping
static	setting from static entries
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
<vlan_list>	Select a VLAN id to configure
detailed	DHCP server
excluded-address	Excluded IP database
pool	DHCP pools information
relay	DHCP relay agent configuration
server	DHCP server information
snooping	DHCP snooping
statistics	Traffic statistics
client	DHCP client
combined	Show all DHCP related statistics
normal-forward	DHCP normal L2 or L3 forward

relay	DHCP relay
server	DHCP server
snooping	DHCP snooping
interface	Select an interface to configure
|	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
<word32>	Pool name in 32 characters
statistics	Traffic statistics
binding	DHCP address bindings
declined-ip	Declined IP address
statistics	DHCP server statistics
<ipv4_ucast>	IP address in dotted-decimal notation
state	State of binding
type	Type of binding
allocated	Allocated state
committed	Committed state
expired	Expired state
type	Type of binding
automatic	Automatic binding
expired	Expired binding that is aged out
manual	Manual binding for a specific host
detail	Detail running information/statistics of IGMP snooping
group-database	Multicast group database from IGMP

mrouter	Multicast router port status in IGMP
vlan	Search by VLAN
sfm-information	Including source filter multicast information from IGMP
<vlan_list>	VLAN identifier (VID)
vlan	VLAN interface
brief	Brief IP interface status
neighbor	Neighbor list
<vlan_list>	List of VLAN ID, e.g. 1,3-5,7
source	verify source
system	system

EXAMPLE

```
D8308# show ip interface brief
Interface       Address            Method       Status
--------------- ------------------- ------------- ------
VLAN1           192.168.1.1/24      Manual       UP
D8308#
```

26-16 ipmc

IPv4/IPv6 multicast configuration

SYNTAX

show ipmc profile [<profile_name>] [detail]

show ipmc range [<entry_name>]

Parameter

profile	IPMC profile configuration
range	A range of IPv4/IPv6 multicast addresses for the profile
<word16>	Profile name in 16 characters
detail	Detail information of a profile

<word16>	Range entry name in 16 characters
|	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

```
D8308# show ipmc range
D8308#
```

26-17 ipv6

IPv6 configuration commands.

SYNTAX

show ipv6 dhcp relay [interface vlan <v_vlan_id>]

show ipv6 dhcp relay statistics [interface vlan <vlan_id>]

show ipv6 dhcp snooping [interface (<port_type> [<in_port_list>])]

show ipv6 dhcp snooping statistics [interface (<port_type> [<in_port_list>])] [zero-suppress]

show ipv6 dhcp snooping table [all]

show ipv6 dhcp-client [interface vlan <v_vlan_list>]

show ipv6 interface [brief]

show ipv6 mld snooping [vlan <v_vlan_list>] [group-database [interface (<port_type> [<v_port_type_list>])] [sfm-information]] [detail]

show ipv6 mld snooping mrouter [detail]

show ipv6 neighbor

show ipv6 ospf

show ipv6 ospf database [{ router | network | inter-prefix | inter-router | external | link | intra-prefix } [link-state-id <link_state_id>]] [adv-router <adv_router_id> | self-originate]

show ipv6 ospf interface [vlan <vlan_list>]

show ipv6 ospf neighbor [detail]

show ipv6 ospf route

show ipv6 route

show ipv6 source binding [dhcpv6-snooping | static] [interface (<port_type> [<port_list>])]

show ipv6 statistics [system] [interface vlan <vlan_list>]

show ipv6 verify source [interface (<port_type> [<port_list>])]

Parameter

dhcp-client	Manage DHCPv6 client service
interface	IPv6 configuration commands
mld	IPv6 configuration commands
neighbor	IPv6 neighbors
route	IPv6 routes
statistics	Traffic statistics
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
snooping	Snooping MLD
detail	Detail running information/statistics of MLD snooping
group-database	Multicast group database from MLD
mrouter	Multicast router port status in MLD
vlan	Search by VLAN
sfm-information	Including source filter multicast information from MLD
system	IPv6 system traffic

EXAMPLE

```
D8308# show ipv6 mld snooping detail

MLD Snooping is enabled to start snooping MLD control plane.
Multicast streams destined to unregistered MLD groups will be
flooding.D8308#
```

26-18 lacp

LACP configuration/status

SYNTAX

show lacp [internal | statistics | system-id | neighbour] [| {begin | exclude | include } <line>]

show lacp [internal | statistics | system-id | neighbour] detail

Parameter

internal	Internal LACP configuration
neighbour	Neighbour LACP status
statistics	Internal LACP statistics
system-id	LACP system id
|	Output modifiers
details	LACP state
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<line>	String to match output lines

EXAMPLE

```
D8308# 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
D8308#
```

26-19 license

Display license information.

SYNTAX

show license

show license | {begin | exclude | include } <line>

show license { [component <uint>] | description | [mtd <word>] [section <uint>] }

Parameter

|	Output modifiers
component	component key word - Select a specific component to show
description	description keyword - Shows the licenses description, else only an overview is shown.
mtd	MTD keyword - Select a specific MTD (file) to show
section	section key word - Select a specific section to show
|	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

<uint> Component ID to show

<word> Name of MTD (file) to show

EXAMPLE

```
D8308 # show licenses
Image Name   SectionID    ComponentID  Component Name          Version                 Type
Url
-----------  -----------  -----------  ----------------------  ----------------------  ---------
---------------  --------------------------------------
RedBoot      No licenses found
linux        0            0            libstdc++               6.3.0                   GPLv3 (with
exception)    http://ftpmirror.gnu.org/gcc/gcc-6.3.0/gcc-6.3.0.tar.bz2
linux        0            1            uclibc                  1.0.22                  LGPLv2.1+
http://downloads.uclibc-ng.org/releases/1.0.22/uClibc-ng-1.0.22.tar.xz
linux        0            2            linux-headers           4.9.13                   GPLv2
https://cdn.kernel.org/pub/linux/kernel/v4.x/linux-4.9.13.tar.xz
linux        0            3            mscc-linux              835a2802137cfe955a2fa48a9e67cb111058021a
GPLv2
linux        0            4            mbedtls                 2.4.0                   Apache-2.0
https://tls.mbed.org/code/releases/mbedtls-2.4.0-apache.tgz
D8308 #
```

26-20 line

TTY line information.

SYNTAX

show line

show line | {begin | exclude | include } <line>]

show line [alive]

Parameter

|	Output modifiers
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

```
D8308# show line alive
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 2 hour 19 min 54 sec.
   Idle time is 0 day 0 hour 0 min 0 sec.

D8308 #
```

26-21 link-oam

Link OAM configuration.

SYNTAX

show link-oam { [status] [link-monitor] [statistics] } [interface (<port_type> [<plist>])]

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
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

EXAMPLE

```
D8308# # show link-oam interface GigabitEthernet 1/1-4

   Interface           Control    Mode       Status
--------------------    ---------  -------   -----------
GigabitEthernet    1/1    disabled  passive   non operational


GigabitEthernet    1/2    disabled  passive   non operational
D8308#
```

26-22 lldp

Link Layer Discover Protocol.

SYNTAX

show lldp eee [interface (<port_type> [<v_port_type_list>])]

show lldp med media-vlan-policy [<v_0_to_31>]

show lldp med remote-device [interface (<port_type> [<port_list>])]

show lldp neighbors [interface (<port_type> [<v_port_type_list>])]

show lldp preempt [interface (<port_type> [<v_port_type_list>])]

show lldp statistics [interface (<port_type> [<v_port_type_list>])]

Parameter

eee	Display LLDP local and neighbor EEE information
med	Display LLDP-MED neighbors information
neighbors	Display LLDP neighbors information
preempt	Display LLDP local and neighbor Preempt information.
statistics	Display LLDP statistics 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
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

media-vlan-policy	Display media vlan policies
remote-device	Display remote device LLDP-MED neighbors information
<0~31>	List of policies
interface	Interface to display

EXAMPLE

```
D8308# show lldp eee interface GigabitEthernet 1/1-4
No LLDP entries found
#D8308#
```

26-23 logging

System logging message.

SYNTAX

show logging

show logging [<1-4294967295> | error | informational | notice | warning]

show logging <1-4294967295> [exclude | include] <line>

show logging <1-4294967295> switch <switch_list>

show logging | {begin | exclude | include } <line>

Parameter

<1-4294967295>	Logging ID
|	Output modifiers
error	Severity 3: Error conditions
informational	Severity 6: Informational messages
notice	Severity 5: Normal but significant condition
warning	Severity 4: Warning conditions
exclude	Exclude lines that match

include	Include lines that match
switch	Switch
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<line>	String to match output lines
<switch_list>	Switch ID list in 1

EXAMPLE

```
D8308# show logging informational
Switch logging host mode is disabled
Switch logging host address is null
Switch logging level is informational

Number of entries on Switch 1:
Error       : 0
Warning     : 0
Notice      : 55
Informational: 1
All         : 56

ID         Level         Time & Message
----------  -------------  --------------
        1  Informational  1970-01-01T00:00:45+00:00
                        SYS-BOOTING: Switch just made a cold boot.

D8308#
```

26-24 loop-protect

Loop protection configuration.

SYNTAX

show loop-protect

show loop-protect interface [* | (GigabitEthernet | 10GigabitEthernet) <port_type_list>]

Parameter

interface	Interface status and configuration
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

EXAMPLE

```
D8308# show loop-protect interface GigabitEthernet 1/3

Loop Protection Configuration
=====================================
Loop Protection   : Disable
Transmission Time : 5 sec
Shutdown Time     : 180 sec

GigabitEthernet 1/3
------------------------------
    Loop protect mode is enabled.
    Action is shutdown.
    Transmit mode is enabled.
    No loop.
    The number of loops is 0.
    Status is down.
D8308#
```

26-25 mac

Mac Address Table information.

SYNTAX

show mac address-table [conf | static | aging-time | { { learning | count } [interface (<port_type> [<v_port_type_list>]) | vlan <v_vlan_id_2>] } | { address <v_mac_addr> [vlan <v_vlan_id>] } | vlan <v_vlan_id_1> | interface (<port_type> [<v_port_type_list_1>])]

Parameter

address-table	Mac Address Table
|	Output modifiers
address	MAC address lookup
aging-time	Aging time
conf	User added static mac addresses
count	Total number of mac addresses
interface	Select an interface to configure
learning	Learn/disable/secure state
static	All static mac addresses
vlan	Addresses in this VLAN
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<line>	String to match output lines
<mac_ucast>	48 bit MAC address: xx:xx:xx:xx:xx:xx
vlan	VLAN lookup
<vlan_id>	VLAN IDs 1-4095
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types

<port_type_list> Port list in 1/1-8

<port_type_list> Port list in 1/1-2

EXAMPLE

```
D8308# show mac address-table count interface GigabitEthernet 1/4
Port Dynamic addresses
GigabitEthernet 1/4             0

Total learned dynamic addresses for the switch: 0
Total static addresses in table: 1
D8308#
```

26-26 monitor

Monitoring different system events

SYNTAX

show monitor

show monitor session [<1-5> | all | remote]

Parameter

session MIRROR session

<1-5> MIRROR session number

all Show all MIRROR sessions

remote Show only Remote MIRROR sessions

EXAMPLE

```
D8308# show monitor session remote

Session 1
---------
Mode                    : Disabled
Type                    : Mirror
Source VLAN(s)           :
CPU Port                :

Session 2
---------
Mode                    : Disabled
Type                    : Mirror
Source VLAN(s)           :
CPU Port                :

Session 3
---------
Mode                    : Disabled
Type                    : Mirror
Source VLAN(s)           :
CPU Port                :

Session 4
---------
Mode                    : Disabled
Type                    : Mirror
Source VLAN(s)           :
CPU Port                :

Session 5
---------
Mode                    : Disabled
Type                    : Mirror
Source VLAN(s)           :
CPU Port                :
D8308#
```

26-27 mrp

MRP status

SYNTAX

show mrp status [interface (<port_type> [<plist>])] [all | mvrp]

Parameter

status	Show a collection of MRP statistics for each interface
all	Show MRP statistics for all MRP Applications
Interface	Show a collection of MRP statistics for a specific interface(s)
mvrp	Show MRP statistics for the MVRP Application
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

EXAMPLE

```
D8308# show mrp status interface GigabitEthernet 1/1-4
GigabitEthernet 1/1 :
---------------------
MRP Appl  FailedRegistrations  LastPduOrigin
--------  -------------------  -------------
MVRP      0                    00-00-00-00-00-00

GigabitEthernet 1/2 :
---------------------
MRP Appl  FailedRegistrations  LastPduOrigin
--------  -------------------  -------------
MVRP      0                    00-00-00-00-00-00

D8308#
```

26-28 mvr

Multicast VLAN Registration configuration.

SYNTAX

show mvr [vlan <v_vlan_list> | name <mvr_name>] [group-database [interface (<port_type> [<v_port_type_list>])] [sfm-information]] [detail]

Parameter

|	Output modifiers
detail	Detail information/statistics of MVR group database
group-database	Multicast group database from MVR
name	Search by MVR name
vlan	Search by VLAN
sfm-information	Including source filter multicast information from MVR
begin	Begin with the line that matches
exclude	Exclude lines that match

include	Include lines that match
<line>	String to match output lines
interface	Search by port
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
<word16>	MVR multicast VLAN name
<vlan_list>	MVR multicast VLAN list

EXAMPLE

```
D8308# show mvr vlan 11

MVR is currently disabled, please enable MVR to start group
registration.
% Invalid MVR IGMP VLAN 11.

% Invalid MVR MLD VLAN 11.
D8308#
```

26-29 network-clock

Show selector state

SYNTAX

show network-clock

show network-clock clock-selection-config

show network-clock port-config

show network-clock port-status

show network-clock ptp-ports

show network-clock source-nomination-config

show network-clock station-clock-config

show network-clock synchronization

Parameter

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

clock-selection-config

port-config

port-status

ptp-ports

source-nomination-config

station-clock-config

synchronization

EXAMPLE

```
D8308# show network-clock synchronization | begin 1
    1   False
    2   False
    3   False
    4   False
    5   False
    6   False
    7   False
    8   False
    9   False
   10   False
   11   False
   12   False
   13   False
   14   False
D8308#
```

26-30 ntp

Configure NTP.

SYNTAX

show ntp status

Parameter

status	status

EXAMPLE

```
D8308# 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
D8308#
```

26-31 platform

Platform configuration

SYNTAX

show platform debug

show platform phy [interface (<port_type> [<v_port_type_list>])]

show platform phy id [interface (<port_type> [<v_port_type_list>])]

show platform phy instance

Parameter

debug	Debug command setting
phy	PHYs' information
|	Output modifiers
id	PHY ID
instance	PHY Instance Information
interface	Interface
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
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

EXAMPLE

```
D8308# show platform phy interface GigabitEthernet 1/1
Port   API Inst   WAN/LAN/1G Mode      Duplex     Speed     Link
----   ---------  ---------  ----      ------     -----     ----
1      Default    1G         ANEG      FDX        1G        No
D8308#
```

26-32 port-security

Show Port Security overview status.

SYNTAX

show port-security [interface (<port_type> [<plist>])]

show port-security address [interface (<port_type> [<plist>])]

Parameter

|	Output modifiers
address	Show MAC Addresses learned by Port Security
interface	Port interface
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
10GigabitEthernet	10Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

EXAMPLE

```
D8308# show port-security interface GigabitEthernet 1/4
Users:
  P = Port Security (Admin)
  8 = 802.1X
  V = Voice VLAN

Interface  Users Limit Current Violating Violation Mode State
---------- ----- ----- ------- --------- -------------- -------------
Gi 1/4     ---     N/A       0       N/A Disabled       No users

Aging disabled
Hold time: 300 seconds
D8308#
```

26-33 privilege

Display command 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
<line>	String to match output lines

EXAMPLE

```
D8308# show privilege
D8308#
```

26-34 process

process

SYNTAX

show process list [detail]

show process load

Parameter

list	list
load	load
|	Output modifiers
detail	optionally show thread call stack
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<line>	String to match output lines

EXAMPLE

```
D8308# show process load
1.65 1.62 1.63 1/169 183
D8308#
```

26-35 ptp

Precision time Protocol (1588).

SYNTAX

show ptp <clockinst> filter-type

show ptp <clockinst> local-clock

show ptp <clockinst> slave-cfg

show ptp <clockinst> slave-table-unicast

show ptp <clockinst> virtual-port

show ptp <clockinst> { default | current | parent | time-property | filter | servo | clk | ho | uni | master-table-unicast | slave | { { port-state | port-statistics | port-ds | wireless | foreign-master-record } [interface (<port_type> [<v_port_type_list>])] } | log-mode }

show ptp cal

show ptp cmlds default-ds

show ptp cmlds { port-state | port-ds | port-statistics } interface (<port_type> [<v_port_type_list>])

show ptp ext

show ptp ms-pdv all-apr-statistics cgu <cgu_id>

show ptp ms-pdv apr cgu <cgu_id>

show ptp ms-pdv cgu <cgu_id> server <server_id> status

show ptp ms-pdv cur-path-delays cgu <cgu_id>

show ptp ms-pdv path-statistics cgu <cgu_id>

show ptp ms-pdv psl-fcl-config cgu <cgu_id>

show ptp rs422

show ptp rs422 baudrate

show ptp servo mode-ref

show ptp servo source

show ptp system-time

Parameter

<0-3>	Show various PTP data
|	Output modifiers
cal	Show the PTP calibration.
ext	Show External clock output configuration and VCXO frequency rate adjustment option.
ms-pdv	Show the configuration of the MS-PDV.
rs422	This command shows the configuration of the alternative clock, that is connected to the RS422 connector.
servo	servo
system-time	Show the PTP <-> system time synchronization mode.
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<line>	String to match output lines
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.
filter-type	Show PTP filter type
foreign-master-record	Show PTP port foreign masters.
ho	Show PTP slave holdover parameters.
local-clock	Show local clock current time
log-mode	Show PTP log mode.
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.
port-statistics	Show PTP port statistics.
servo	Show PTP servo 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.
virtual-port	Show the configuration of a PTP clocks virtual port
wireless	Show PTP port wireless parameters.
interface	Define interface list for the 'port' show commands. Default is show all interfaces
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
default-ds	CMLDS Default data structure
port-ds	CMLDS Port Configuration data structure
port-state	CMLDS Port Status
port-statistics	CMLDS Port Statistics
all-apr-statistics	all-apr-statistics
apr	the MS-PDV APR

cgu	cgu id
cur-path-delays	cur path-delays
path-statistics	path-statistics
psl-fcl-config	psl-fcl-config
<0-3>	cgu id <0-3>
baudrate	This command shows baud rate that has been configured for the RS422 port
mode-ref	servo mode-ref
source	servo source

EXAMPLE

```
D8308# show ptp ext
PTP External One PPS mode: Disable, Clock output enabled: False,
frequency : 1, Preferred adj method: Auto
D8308#
```

26-36 pvlan

PVLAN configuration.

SYNTAX

show pvlan [<pvlan_list>]

show pvlan isolation [interface (<port_type> [<plist>])]

Parameter

<range_list>	PVLAN ID to show configuration for
isolation	show isolation configuration
interface	List of port type and port ID, ex, Fast 1/1 Gigabit 2/3-5 Gigabit 3/2-4 10 Gigabit 4/6
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port

25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

EXAMPLE

```
D8308# show pvlan isolation
Port                          Isolation
-------------------------------  ---------
GigabitEthernet 1/1             Disabled
GigabitEthernet 1/2             Disabled
GigabitEthernet 1/3             Disabled
GigabitEthernet 1/4             Disabled
GigabitEthernet 1/5             Disabled.
.
.
.
GigabitEthernet 1/N            Disabled
D8308#
```

26-37 qos

Quality of Service.

SYNTAX

show qos [{ interface [(<port_type> [<port>])] } | wred | { maps [dscp-cos] [dscp-ingress-translation] [dscp-classify] [cos-dscp] [dscp-egress-translation] [{ ingress [<ing_id>] }] [{ egress [<egr_id>] }] } | storm | { qce [<qce>] }]

Parameter

|	Output modifiers
interface	Interface
maps	QoS Maps/Tables
qce	QoS Control Entry

storm	Storm policer
wred	Weighted Random Early Discard
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
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
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
egress	Map for egress configuration
ingress	Map for ingress configuration
<1-256>	QCE ID

EXAMPLE

```
D8308# show qos maps cos-dscp
qos map cos-dscp:
=================
Cos  DSCP DP0   DSCP DP1   DSCP DP2   DSCP DP3
---  ---------  ---------  ---------  ---------
0    0  (BE)    0  (BE)    0  (BE)    0  (BE)
1    0  (BE)    0  (BE)    0  (BE)    0  (BE)
2    0  (BE)    0  (BE)    0  (BE)    0  (BE)
3    0  (BE)    0  (BE)    0  (BE)    0  (BE)
4    0  (BE)    0  (BE)    0  (BE)    0  (BE)
5    0  (BE)    0  (BE)    0  (BE)    0  (BE)
6    0  (BE)    0  (BE)    0  (BE)    0  (BE)
7    0  (BE)    0  (BE)    0  (BE)    0  (BE)
D8308#
```

26-38 radius-server

RADIUS configuration.

SYNTAX

show radius-server

show radius-server | [begin | exclude | include] <line>

show radius-server statistics

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
statistics	RADIUS statistics

EXAMPLE

```
D8308# radius-server statistics
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 servers configured!
D8308#
```

26-39 rmon

RMON statistics.

SYNTAX

show rmon alarm [<id_list>]

show rmon event [<id_list>]

show rmon history [<id_list>]

show rmon statistics [<id_list>]

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 entry list
<1-65535>	Event entry list
<1-65535>	History entry list
<1-65535>	Statistics entry list

EXAMPLE

```
D8308# show rmon statistics 5
D8308#
```

26-40 running-config

Show running system information.

SYNTAX

show running-config [all-defaults]

show running-config feature <feature_name> [all-defaults]

show running-config interface (<port_type> [<list>]) [all-defaults]

show running-config interface vlan <list> [all-defaults]

show running-config line { console | vty } <list> [all-defaults]

show running-config vlan { [<vlan_list>] } [all-defaults]

Parameter

|	Output modifiers
all-defaults	Include most/all default values
feature	Show configuration for specific feature
interface	Show specific interface or interfaces
line	Show line settings
vlan	VLAN
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<line>	String to match output lines
<cword>	Valid words are 'GVRP' 'MRP' 'MVRP' 'access' 'access-list' 'aggregation' 'alarm' 'arp-inspection' 'auth' 'clock' 'ddmi' 'dhcp' 'dhcp-snooping' 'dhcp6_client_interface' 'dhcp_server'

	'dns' 'dot1x' 'eps' 'erps' 'green-ethernet' 'http' 'icli' 'ip-igmp-snooping' 'ip-igmp-snooping-port' 'ip-igmp-snooping-vlan' 'ipmc-profile' 'ipmc-profile-range' 'ipv4' 'ipv6' 'ipv6-mld-snooping' 'ipv6-mld-snooping-port' 'ipv6-mld-snooping-vlan' 'json_rpc_notification' 'lacp' 'link-oam' 'lldp' 'logging' 'loop-protect' 'mac' 'mep' 'mstp' 'mvr' 'mvr-port' 'ntp' 'poe' 'port' 'port-security' 'ptp' 'pvlan' 'qos' 'rmon' 'snmp' 'source-guard' 'ssh' 'udld' 'upnp' 'user' 'vlan' 'voice-vlan' 'vtss-rmirror' 'web-privilege-group-level'
all-defaults	Include most/all default values
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
console	Console
vty	VTY
<range_list>	List of console/VTYs
<vlan_list>	List of VLAN numbers

EXAMPLE

```
D8308# show running-config vlan
Building configuration...
vlan 1
!
!
end
D8308#
```

26-41 sflow

Statistics flow

SYNTAX

show sflow

show sflow statistics { receiver | samplers [interface (<port_type> [<v_port_type_list>])] }

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
statistics	sFlow statistics.
receiver	Show statistics for receiver.
samplers	Show statistics for samplers.
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8

<port_type_list> Port list in 1/1-2

EXAMPLE

```
D8308# show sflow statistics samplers interface GigabitEthernet 1/1

Per-Port Statistics:
====================

Interface            Flow Samples    Counter Samples
---------------------- ---------------- ----------------
GigabitEthernet 1/1               0             0
D8308#
```

26-42 snmp

Set SNMP server's configurations.

SYNTAX

show snmp

show snmp access [<group_name> [{ v1 | v2c | v3 | any } [{ auth | noauth | priv }]]]

show snmp community [<community>]

show snmp host [<conf_name>]

show snmp info

show snmp mib context

show snmp mib ifmib ifIndex [port] [aggregation] [vlan]

show snmp security-to-group [{ v1 | v2c | v3 } [<security_name>]]

show snmp trap [<source_name>]

show snmp user [<username> [<engineID>]]

show snmp view [<view_name> [<oid_subtree>]]

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
access	access configuration
community	Community
host	Set SNMP host's configurations
mib	MIB (Management Information Base)
security-to-group	security-to-group configuration
trap	Set SNMP host's configurations
user	User
view	MIB view configuration
<word32>	Group name
v1	v1 security model
v2c	v2c security model
v3	v3 security model
any	any security model
auth	authNoPriv Security Level
noauth	noAuthNoPriv Security Level
priv	authPriv Security Level
<word32>	Specify community name
<word32>	Name of the host configuration
context	MIB context
ifmib	IF-MIB
ifIndex	The IfIndex that is defined in IF-MIB

aggregation	show aggregation information
port	show port information
vlan	show VLAN information
<word32>	Security user name
<cword>	Valid words are 'authenticationFailure' 'coldStart' 'entConfigChange' 'fallingAlarm' 'linkDown' 'linkUp' 'lldpRemTablesChange' 'newRoot' 'risingAlarm' 'topologyChange' 'warmStart'
<word10-64>	Security Engine ID
<word32>	MIB view name
<word255>	MIB view OID

EXAMPLE

```
D8308# show snmp view
View Name   : default_view
OID Subtree : .1
View Type   : included
D8308#
```

26-43 spanning-tree

STP Bridge.

SYNTAX

show spanning-tree [{ root-guard [interface (<port_type> [<v_port_type_list_r>])] } | summary | active | { interface (<port_type> [<v_port_type_list>]) } | { detailed [interface (<port_type> [<v_port_type_list_1>])] } | { mst [configuration | { <instance> [interface (<port_type> [<v_port_type_list_2>])] }] }]

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
active	STP active interfaces
detailed	STP statistics
interface	Choose port
mst	Multiple STP
summary	STP summary
interface	Choose port
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
<0-7>	STP bridge instance (CIST=0, MSTI1=1...)
configuration	Show MSTI to VLAN mapping

EXAMPLE

```
D8308# show spanning-tree summary
Protocol Version: MSTP
Hello Time      : 2
Max Age         : 20
Forward Delay   : 15
Tx Hold Count   : 6
Max Hop Count   : 20
BPDU Filtering  : Disabled
BPDU Guard      : Disabled
Error Recovery  : Disabled
CIST Bridge is active
D8308#
```

26-44 stream

SYNTAX

show stream [<index_list>] status

Parameter

<range_list>	Id of stream for which to show status
status	Show status for stream
|	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

```
D8308# show stream status | begin 1
D8308#
```

26-45 svl

Shared VLAN Learning configuration

SYNTAX

show svl | [begin | exclude | include] <line>

show svl fid

show svl fid <1~4095>

show svl vlan

show svl vlan <vlan_list>

Parameter

|	Output modifiers
fid	Show a given FID
vlan	Show a given VLAN ID
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<line>	String to match output lines
<1~4095>	List of FIDs to show
<vlan_list>	List of VIDs to show

EXAMPLE

```
D8308# show svl fid 1
FID   VLANs
----  ------------------------------
   1  1 (default)
D8308#
```

26-46 switchport

Display switching mode characteristics

SYNTAX

show switchport forbidden [{ vlan <vlan_list> } | { name <name> }]

Parameter

forbidden	Lookup VLAN Forbidden port entry
|	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
name	Forbidden VLANs by VLAN name
vlan	Forbidden VLAN by VLAN ID
<vword>	VLAN name
<vlan_list>	VLAN IDs

EXAMPLE

```
D8308# show switchport forbidden vlan 1
VLAN  Name                           Interfaces
----  -------------------------------  ----------
1     defaulty
D8308#
```

26-47 system

system.

SYNTAX

show system [cpu | led] status

Parameter

cpu CPU

led led

status Average load

status status

EXAMPLE

```
D8308# show system led status
System LED: green, solid, normal indication.
D8308#
```

26-48 tacacs-server

TACACS+ configuration.

SYNTAX

show tacacs-server

EXAMPLE

```
D8308# show tacacs-server
Global TACACS+ Server Timeout     : 5 seconds
Global TACACS+ Server Deadtime    : 0 minutes
Global TACACS+ Server Key         :
No servers configured!
D8308#
```

26-49 tech-support

SYNTAX

show tech-support

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 line

EXAMPLE

```
D8308# show tech-support | begin 1
====================================
System version
====================================
Linux (none) 5.4.45-svn1 #1 SMP Thu Jan 28 15:25:40 CST 2021 aarch64 GNU/Linux


====================================
System status
====================================
Mem: 160828K used, 1888356K free, 0K shrd, 10992K buff, 52884K cached
CPU:  50% usr   0% sys   0% nic  50% idle   0% io   0% irq   0% sirq
Load average: 1.00 1.00 1.00 2/145 294
  PID  PPID USER     STAT   VSZ %VSZ %CPU COMMAND
  145     1 root     S    2062m 103%  50% /usr/bin/switch_app
  210   145 root     S    81744   4%   0% /usr/sbin/zebra -f
/etc/quagga/zebra.conf -i /tmp/zebra.pid -P 0 -z /tmp/zebra.socket
  263   145 nobody   SN   19416   1%   0% hiawatha -d -c /tmp/hiawatha
  211   145 root     S     6524   0%   0% /usr/sbin/staticd -f /tmp/staticd.conf -
i /tmp/staticd.pid -P 0 -z /tmp/zebra.socket
  292   145 root     S     5052   0%   0% {dump-env.sh} /bin/sh /usr/bin/dump-
env.sh
```

26-50 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

```
D8308# 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 1 hour 33 min 36 sec.
   Idle time is 0 day 0 hour 0 min 0 sec.
D8308#
```

26-51 tsn

Time Sensitive Network (TSN)

SYNTAX

show tsn flow meter [<index_list>] status

show tsn frame-preemption status [interface (<port_type> [<port>])]

show tsn frer [<inst_list>] [statistics] [details]

show tsn stream filter [<index_list>] { statistics | status }

show tsn stream gate [<index_list>] status

show tsn tas status [interface (<port_type> [<port>])]

Parameter

flow	Flow meter status
meter	Flow meter status
<0~1023>	Id of flow meter
status	Stream filter statistics
status	Status of frame preemption
|	Output modifiers
interface	Interface
*****	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<line>	String to match output lines
frame-preemption	Frame preemption
frer	Frame Replication and Elimination for Reliability (802.1CB)
<1~127>	List of FRER instances to show
details	Show detailed status or statistics
statistics	Show statistics
stream	Stream status
filter	Stream filter statistics

<0~1023>	Id of stream filter
statistics	Stream filter statistics
status	Stream filter statistics
gate	Stream gate state
tas	Time Aware Shaping
status	Status of operational parameters

EXAMPLE

```
D8308# show tsn tas status   | ?
      begin          Begin with the line that matches
      exclude        Exclude lines that match
      include        Include lines that match
D8308# show tsn tas status   | begin ?
      <line>       String to match output lines
D8308# show tsn tas status   | begin 1
interface 10GigabitEthernet 1/1
  GateEnabled                : FALSE
  OperGateStates             : 0xff
  OperCycleTime              : 100 ms
  OperCycleTimeExtension: 256 nanoseconds
  OperBaseTime               : 0 seconds, 0 nanoseconds
  ConfigChangeTime           : 0 seconds, 0 nanoseconds
  TickGranularity          : 1 tenths of nanoseconds
  CurrentTime                : 1052 seconds, 861855016 nanoseconds
  ConfigPending              : FALSE
  ConfigChangeError          : 0
  SupportedListMax           : 256
  OperControlListLength : 0
interface 10GigabitEthernet 1/2
  GateEnabled                : FALSE
  OperGateStates             : 0xff
  OperCycleTime              : 100 ms
  OperCycleTimeExtension: 256 nanoseconds
  OperBaseTime               : 0 seconds, 0 nanoseconds
  ConfigChangeTime           : 0 seconds, 0 nanoseconds
  TickGranularity          : 1 tenths of nanoseconds
  CurrentTime                : 1052 seconds, 863334872 nanoseconds

D8308#
```

26-52 udld

Unidirectional Link Detection (UDLD) configurations, statistics and status.

SYNTAX

show udld [interface (<port_type> [<plist>])]

Parameter

|	Output modifiers
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
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port type
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

EXAMPLE

```
D8308# show udld interface GigabitEthernet 1/3

GigabitEthernet 1/3
---------------------------------------------------------------------
UDLD Mode               : Disable
Admin State             : Disable
Message Time Interval(Sec): 7
Device ID(local)         : 02-00-C1-A8-D2-E2
Device Name(local)       :
Bidirectional state      : Indeterminant

No neighbor cache information stored
---------------------------------------------------------------------
D8308#
```

26-53 upnp

Display UPnP configuration.

SYNTAX

show upnp

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

```
D8308# show upnp ?
    |      Output modifiers
    <cr>
# show upnp
UPnP Mode                   : disabled
UPnP TTL                    : 4
UPnP Advertising Duration     : 100
UPnP IP Addressing Mode       : dynamic
UPnP Static IP Interface ID   : 1
D8308#
```

26-54 user-privilege

Users privilege configuration

SYNTAX

show user-privilege

EXAMPLE

```
D8308# show user-privilege
username admin privilege 15 password encrypted
323304556fb07923a9adce8f73e3659b3a07d59c6abc2bd84634d8ae18a9abef2437ae
80ab7c2f42377e75ceaae6442be77a04a9ec8ab2b9401cf64606388516
D8308#
```

26-55 users

Display information about terminal lines

SYNTAX

show users

show users | [begin | exclude | include] <line>

show users myself

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
<line>	String to match output lines

EXAMPLE

```
D8308# show users myself
Line is con 0.
    * You are at this line now.
    Connection is from Console.
    User name is admin.
    Privilege is 15.
    Elapsed time is 0 day 1 hour 51 min 34 sec.
    Idle time is 0 day 0 hour 0 min 0 sec.
D8308#
```

26-56 version

System hardware and software status.

SYNTAX

show version

show version | [begin | exclude | include] <line>

show version brief

Parameter

brief

|	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

```
D8308# show version

MAC Address     : 02-00-c1-a8-d2-e2
Previous Restart : Cold

System Contact   :
System Name      :
System Location  :
System Time      : 1970-01-01T05:45:54+00:00
System Uptime    : 05:45:54



Bootloader
----------
Version         : version 1_5-38e0421
Date            : 18:42:33, May 24 2018

Active Image
------------
Version         :
Date            : 2018-07-13T17:27:19+08:00
Upload filename  : istax_sparxIV_90_48.mfi

Backup Image
------------
Version         :
Date            : 2018-06-20T18:14:46+08:00
Upload filename  : istax_sparxIV_90_48.mfi

------------------
SID : 1
------------------
Chipset ID      : VSC7449
Board Type      : SparX-IV_90_48
Port Count      : 53
Product         : Microsemi SMB500-48MP-740W Switch
Software Version : SMB500-48MP-740Wdev-build by sherry@akira-virtual-machine
2018-07-13T17:27:19+08:00 Config:istax_sparxIV_90_48
Profile:istax_sparxIV_90_48 SDK:2017.02-081-smb
Build Date      : 2018-07-13T17:27:19+08:00
Code Revision    : Enviroment variable 'CODE_REVISION' not set during compile
D8308#
```

26-57 vlan

VLAN status.

SYNTAX

show vlan [id <vlan_list> | name <name> | brief] [all]

show vlan ip-subnet [<ipv4>]

show vlan mac [address <mac_addr>]

show vlan membership [id <vlan_list> | name <name>] [admin | combined | gvrp | mvr | nas | rmirror | voice-vlan | mvrp | dms | mrp | forbidden]

show vlan protocol [eth2 { <etype> | arp | ip | ipx | at }] [snap { <oui> | rfc-1042 | snap-8021h } <pid>] [llc <dsap> <ssap>]

show vlan status [interface (<port_type> [<plist>])] [admin | all | combined | conflicts | erps | gvrp | mstp | mvr | nas | rmirror | vcl | voice-vlan]

Parameter

all	Show all VLANs (if left out only access VLANs are shown)
brief	VLAN summary information
id	VLAN status by VLAN id
ip-subnet	Show VCL IP Subnet entries
mac	Show VLAN MAC entries
name	VLAN status by VLAN name
protocol	Protocol-based VLAN status
status	Show the VLANs configured for each interface
<vlan_list>	VLAN IDs
<vword32>	VLAN name
<ipv4_subnet>	Specify a specific IP Subnet
<ipv4_addr>	Destination IPv4 address
address	Show a specific MAC entry

<mac_ucast>	The specific MAC entry to show
<vword32>	VLAN name
eth2	Ethernet protocol based VLAN status
llc	LLC-based VLAN group
snap	SNAP-based VLAN group
<0x600-0xffff>	Ether Type (Range: 0x600 - 0xFFFF)
arp	Ether Type is ARP
at	Ether Type is AppleTalk
ip	Ether Type is IP
ipx	Ether Type is IPX
<0x0-0xff>	DSAP (Range: 0x00 - 0xFF)
<0x0-0xff>	SSAP (Range: 0x00 - 0xFF)
<0x0-0xffffff>	SNAP OUI (Range 0x000000 - 0XFFFFFF)
rfc-1042	SNAP OUI is rfc-1042
snap-8021h	SNAP OUI is 8021h
<0x0-0xffff>	PID (Range: 0x0 - 0xFFFF)
admin	Show the VLANs configured by administrator.
all	Show VLANs configured VLANs for all VLAN users.
combined	Show the combined set of configured VLANs.
conflicts	Show VLAN configurations that have conflicts.
erps	Show the VLANs configured by ERPS.
gvrp	Show the VLANs configured by GVRP.
interface	Show the VLANs configured for a specific interface or interfaces.
mep	Show the VLANs configured by MEP.
mstp	Show the VLANs configured by MSTP.
mvr	Show the VLANs configured by MVR.

nas	Show the VLANs configured by NAS.
rmirror	Show the VLANs configured by Remote mirroring.
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 or interfaces
*	All switches or All ports
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2

EXAMPLE

```
D8308# show vlan status all interface GigabitEthernet 1/4
GigabitEthernet 1/4 :
---------------------
VLAN User   PortType      PVID  Frame Type    Ing Filter  Tx Tag           UVID  Conflicts
----------  ------------  ----  ------------  ----------  -----------------  ----  ------
---
Combined    C-Port        1     All           Enabled     None             1     No
Admin       C-Port        1     All           Enabled     None             1
NAS                                                                        No
GVRP                                                                       No
MVR                                                                        No
Voice VLAN                                                                  No
MSTP                                                                       No
ERPS                                                                       No
MEP                                                                        No
VCL                                                                        No
RMirror                                                                     No
D8308#
```

26-58 voice

Voice appliance attributes.

SYNTAX

show voice vlan [oui [<oui>] | interface (<port_type> [<port_list>])]

Parameter

vlan	VLAN for voice traffic
|	Output modifiers
interface	Select an interface to configure
oui	OUI configuration
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
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list for all port types
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
<oui>	OUI value

EXAMPLE

```
D8308#  show voice vlan interface GigabitEthernet 1/1

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

D8308#
```

26-59 web

web

SYNTAX

show web privilege group [<group_name>] level

Parameter

privilege	Web privilege
group	Web privilege group
<cword>	Valid words are 'Aggregation' 'Alarm' 'DDMI' 'DHCP' 'DHCPv6_Client' 'Debug' 'Diagnostics' 'EPS' 'ERPS' 'ETH_LINK_OAM' 'FRR' 'Firmware' 'Green_Ethernet' 'IP' 'IPMC_Snooping' 'LACP' 'LLDP' 'Loop_Protect' 'MAC_Table' 'MEP' 'MRP' 'MVR' 'Miscellaneous' 'NTP' 'POE' 'PTP' 'Ports' 'Private_VLANs' 'QoS' 'RMirror' 'Security(access)' 'Security(network)' 'Spanning_Tree' 'System' 'UDLD' 'UPnP' 'VCL' 'VLAN_Translation' 'VLANs' 'Voice_VLAN' 'XXRP' 'sFlow' 'uFDMA_AIL' 'uFDMA_CIL'
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

```
D8308# show web privilege group level
Group Name                    Privilege Level
                             CRO CRW SRO SRW
-------------------------------- --- --- --- ---
Aggregation                     5  10   5  10
Alarm                           5  10   5  10
DDMI                            5  10   5  10
Debug                          15  15  15  15
DHCP                            5  10   5  10
DHCPv6_Client                    5  10   5  10
Diagnostics                     5  10   5  10
EPS                            5  10   5  10
ERPS                           5  10   5  10
.
.
.
.
.
.
.
.
VLANs                           5  10   5  10
Voice_VLAN                       5  10   5  10
XXRP                           5  10   5  10
D8308#
```

TERMINAL of CLI

Set terminal line parameters.

Syntax

terminal [editing | help]

terminal exec-timeout <0-1440>

terminal exec-timeout <0-1440> <0-3600>

terminal history size <0-32>

terminal length <0,3-512>

terminal width <0,40-512>

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
<0,3-512>	Number of lines on screen (0 for no pausing)
<0,40-512>	Number of characters on a screen line (0 for unlimited width)

EXAMPLE

```
D8308# terminal exec-timeout 3
D8308#
```

TRACEROUTE of CLI

Copy from source to destination.

SYNTAX

traceroute ip { <domain_name> | <ip_addr> } [dscp <dscp>] [timeout <timeout>] [{ saddr <src_addr> | sif { <port_type> <src_if> | vlan <vlan_id> } }] [probes <probes>] [firstttl <firstttl>] [maxttl <maxttl>] [icmp] [numeric]

traceroute ipv6 { <domain_name> | <ip_addr> } [dscp <dscp>] [timeout <timeout>] [saddr <src_addr>] [sif { <port_type> <src_if> | vlan <vlan_id> }] [probes <probes>] [maxttl <maxttl>] [numeric]

Parameter

ip	Traceroute (IPv4)
ipv6	Traceroute (IPv6)
<domain_name>	Destination hostname or FQDN
<ipv4_addr>	Destination IPv4 address
dscp	Specify DSCP value (default 0)
firstttl	Specify first number of hops (starting TTL) (default 1)
icmp	Use ICMP instead of UDP
maxttl	Specify max number of hops (max TTL) (default 30)
numeric	Print numeric addresses
probes	Specify number of probes per hop (default 3)
saddr	Send from interface with source address
sif	Send from specified interface
timeout	Specify time to wait for a response in seconds (default 3)
<0-63>	DSCP value (decimal value, default 0)
<1-30>	First number of hops (default 1)
<1-255>	Max number of hops (default 30)
<1-60>	Number of probes per hop (default 3)

<ipv4_addr>	Source Address of interfac
10GigabitEthernet	10 Gigabit Ethernet Port
25GigabitEthernet	25 Gigabit Ethernet Port
<port_type_list>	Port list in 1/1-8
<port_type_list>	Port list in 1/1-2
vlan	Send from VLAN interface with source address
<vlan_id>	Source VLAN interface
<1-86400>	Time to wait for a response in seconds (default 3)
<ipv6_addr>	Destination IPv6 address
<ipv6_addr>	Source Address of interface

EXAMPLE

```
D8308# traceroute ip 192.168.1.1 probes 3
traceroute to 192.168.1.1 (192.168.1.1), 30 hops max, 38 byte
packets
 1  192.168.1.1 (192.168.1.1)  0.146 ms  0.149 ms  0.100 ms
D8308#
```

CLI COMMAND REFERENCEs

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.

29-1 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.

PRIVILEGE LEVEL	TYPES OF COMMANDS AT THIS PRIVILEGE LEVEL
0	Display basic system information
13	Configure features except for login accounts, the authentication method sequence, multiple logins, and administrator and enable passwords.
15	Configure login accounts, the authentication method sequence, multiple logins, and administrator and enable passwords.

29-2 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.

Command Summary

COMMAND	DESCRIPTION	P	M
show access management	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 <AccessId> keyword to display the specific access management entry.	15	EXEC
clear access management statistics	Use the clear access management statistics privileged EXEC command to clear the statistics maintained by access management.	15	EXEC
access management	Use the access management global configuration command to enable the access management. Use the no form of this command to disable the access management.	15	GLOBAL_CONFIG
access management <1-16> <1-4094> <ipv4_addr> [to <ipv4_addr>] { [web] [snmp] [telnet] | all }	Use the access management <AccessId> global configuration command to set the access management entry for IPv4 address.	15	GLOBAL_CONFIG
access management <1-16> <1-4094> <ipv6_addr> [to <ipv6_addr>] { [web] [snmp] [telnet] | all }	Use the access management <AccessId> global configuration command to set the access management entry for IPv6 address.	15	GLOBAL_CONFIG
no access management <1~16>	Use the no access management <AccessIdList> global configuration command to delete the specific access management entry.	15	GLOBAL_CONFIG
access-list action { permit | deny }	Use the access-list action interface configuration command to configure access-list action. The access-list	15	INTERFACE_PORT_LIST

	interface configuration will affect the received frames if it doesn't match any ACE.		
access-list rate-limiter <1-16>	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.	15	INTERFACE_PORT_LIST
no access-list rate-limiter	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.	15	INTERFACE_PORT_LIST
access-list { redirect | port-copy } interface { <port_type_id> | <port_type_list> }	Use the no access-list redirect interface configuration command to configure the access-list redirect interface.	15	INTERFACE_PORT_LIST
no access-list { redirect | port-copy }	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.	15	INTERFACE_PORT_LIST
access-list mirror	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.	15	INTERFACE_PORT_LIST
access-list logging	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.	15	INTERFACE_PORT_LIST

access-list shutdown	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.	15	INTERFACE_PORT_LIST
access-list evc-policer <1-256>	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.	15	INTERFACE_PORT_LIST
no access-list evc-policer	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.	15	INTERFACE_PORT_LIST
access-list policy <0-255>	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.	15	INTERFACE_PORT_LIST
no access-list policy	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.	15	INTERFACE_PORT_LIST
access-list port-state	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.	15	INTERFACE_PORT_LIST
access-list rate-limiter [<1~16>] { pps <1,2,4,8,16,32,64,128,256,512>| 100pps <1-	Use the access-list rate-limiter global configuration command to configure the	15	INTERFACE_PORT_LIST

32767> | kpps <1,2,4,8,16,32,64,128,256,512,1024> | 100kbps <0-10000> }	access-list rate-limiter.		
default access-list rate-limiter [<1~16>]	Use the default access-list rate-limiter global configuration command to restore the default setting of access-list rate-limiter.	15	GLOBAL_CONFIG
access-list ace [update] <1-256> [next {<1-256>|last}] [ingress {switch <switch_id>|switchport {<1-53>|<1~53>}|interface {<port_type_id>|<port_type_list>}|any}] [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 {<0x600-0x7ff,0x801-0x805,0x807-0x86dc,0x86de-0xffff>|any}] [smac {<mac_addr>|any}] [dmac {<mac_addr>|any}]| arp [sip {<ipv4_subnet>|any}] [dip {<ipv4_subnet>|any}] [smac {<mac_addr>|any}] [arp-opcode {arp|rarp|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> [to <0-65535>]|any}] [dport {<0-65535> [to <0-65535>]|any}] [ip-flag [ip-ttl {<0-1>|any}] [ip-options {<0-1>|any}] [ip-fragment {<0-1>|any}]]| ipv4-tcp [sip {<ipv4_subnet>|any}] [dip	Use the access-list ace global configuration command to set the access-list ace. The command without the update keywrod 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. The ACE 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.	15	GLOBAL_CONFIG

{<ipv4_subnet>|any}] [sport {<0-65535> [to <0-65535>]|any}] [dport {<0-65535> [to <0-65535>]|any}] [ip-flag [ip-ttl {<0-1>|any}] [ip-options {<0-1>|any}] [ip-fragment {<0-1>|any}]] [tcp-flag [tcp-fin {<0-1>|any}] [tcp-syn {<0-1>|any}] [tcp-rst {<0-1>|any}] [tcp-psh {<0-1>|any}] [tcp-ack {<0-1>|any}] [tcp-urg {<0-1>|any}]]| ipv6 [next-header {<0-5,7-16,18-57,59-255>|any}] [sip {<ipv6_addr> [sip-bitmask <uint>]|any}] [hop-limit {<0-1>|any}]| ipv6-icmp [sip {<ipv6_addr> [sip-bitmask <uint>]|any}] [icmp-type {<0-255>|any}] [icmp-code {<0-255>|any}] [hop-limit {<0-1>|any}]| ipv6-udp [sip {<ipv6_addr> [sip-bitmask <uint>]|any}] [sport {<0-65535> [to <0-65535>]|any}] [dport {<0-65535> [to <0-65535>]|any}] [hop-limit {<0-1>|any}]| ipv6-tcp [sip {<ipv6_addr> [sip-bitmask <uint>]|any}] [sport {<0-65535> [to <0-65535>]|any}] [dport {<0-65535> [to <0-65535>]|any}] [hop-limit {<0-1>|any}] [tcp-flag [tcp-fin {<0-1>|any}] [tcp-syn {<0-1>|any}] [tcp-rst {<0-1>|any}] [tcp-psh {<0-1>|any}] [tcp-ack {<0-1>|any}] [tcp-urg {<0-1>|any}]]}] [action {permit|deny|filter {switchport <1~53>|interface <port_type_list>}}] [rate-limiter {<1-16>|disable}] [evc-policer {<1-256>|disable}] [{redirect|port-copy} {switchport {<1-53>|<1~53>}|interface {<port_type_id>|<port_type_list>}|disable}] [mirror [disable]] [logging [disable]] [shutdown [disable]] [lookup [disable]]			
no access-list ace <1~256>	Use the no access-list ace global configuration command to delete the access-list ace.	15	GLOBAL_CONFIG
show access-list [interface [<port_type_list>]] [rate-limiter [<1~16>]] [ace statistics [<1~256>]]	Use the show access-list privilege EXEC command without keywords to display the access-list configuration, or particularly the show access-list interface for the access-list interface configuration, or use the rate-limiter	15	EXEC

	keyword to display access-list rate-limiter configuration, or use the ace keyword to display access-list ace configuration.		
clear access-list ace statistics	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.	15	EXEC
show access-list ace-status [static] [link-oam] [loop-protect] [dhcp] [ptp] [upnp] [arp-inspection] [mep] [ipmc] [ip-source-guard] [ip-mgmt] [conflicts] [switch <switch_list>]	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.	15	EXEC
show aggregation [mode]		15	EXEC
aggregation mode { [smac] [dmac] [ip] [port] }		15	GLOBAL_CONFIG
no aggregation mode		15	GLOBAL_CONFIG
aggregation group <uint>		15	INTERFACE_PORT_LIST
no aggregation group		15	INTERFACE_PORT_LIST
ip arp inspection	Use the ip arp inspection global configuration command to globally enable ARP inspection. Use the no form of this command to globally disable ARP inspection.	13	GLOBAL_CONFIG
ip arp inspection vlan <vlan_list>	Use the ip arp inspection global configuration command to globally enable ARP inspection. Use the no form of this command to globally disable ARP inspection.	13	GLOBAL_CONFIG
ip arp inspection vlan <vlan_list> logging { deny | permit | all }		13	GLOBAL_CONFIG
no ip arp inspection vlan <vlan_list> logging		13	GLOBAL_CONFIG

ip arp inspection entry interface <port_type_id> <vlan_id> <mac_ucast> <ipv4_ucast>		13	GLOBAL_CONFIG
arp_inspection_translate		13	GLOBAL_CONFIG
arp_inspection_port_mode	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.	13	INTERFACE_PORT_LIST
arp_inspection_port_check_vlan	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.	13	INTERFACE_PORT_LIST
ip arp inspection logging { deny | permit | all }	Use the ip arp inspection logging interface configuration command to configure a port as some logging mode for ARP inspection purposes. Use the no form of this command to configure a port as logging none.	13	INTERFACE_PORT_LIST
no ip arp inspection logging	Use the no ip arp inspection logging interface configuration command to configure a port as default logging mode for ARP inspection purposes.	13	INTERFACE_PORT_LIST
show ip arp inspection [interface <port_type_list> | vlan <vlan_list>]		0	EXEC
show ip arp inspection entry [dhcp-snooping | static] [interface <port_type_list>]		13	EXEC
aaa authentication login { telnet | ssh | http } { [local | radius | tacacs] ... }	Use the aaa authentication login command to configure the authentication methods.	15	GLOBAL_CONFIG
no aaa authentication login { telnet | ssh | http }		15	GLOBAL_CONFIG
radius-server timeout <1-1000>	Use the radius-server timeout command to configure the global RADIUS timeout value.	15	GLOBAL_CONFIG
no radius-server timeout	Use the no radius-server timeout command to reset the global RADIUS	15	GLOBAL_CONFIG

	timeout value to default.		
radius-server retransmit <1-1000>	Use the radius-server retransmit command to configure the global RADIUS retransmit value.	15	GLOBAL_CONFIG
no radius-server retransmit	Use the no radius-server retransmit command to reset the global RADIUS retransmit value to default.	15	GLOBAL_CONFIG
radius-server deadtime <1-1440>	Use the radius-server deadtime command to configure the global RADIUS deadtime value.	15	GLOBAL_CONFIG
no radius-server deadtime	Use the no radius-server deadtime command to reset the global RADIUS deadtime value to default.	15	GLOBAL_CONFIG
radius-server key <line1-63>	Use the radius-server key command to configure the global RADIUS key.	15	GLOBAL_CONFIG
no radius-server key	Use the no radius-server key command to remove the global RADIUS key.	15	GLOBAL_CONFIG
radius-server attribute 4 <ipv4_ucast>		15	GLOBAL_CONFIG
no radius-server attribute 4		15	GLOBAL_CONFIG
radius-server attribute 95 <ipv6_ucast>		15	GLOBAL_CONFIG
no radius-server attribute 95		15	GLOBAL_CONFIG
radius-server attribute 32 <line1-253>		15	GLOBAL_CONFIG
no radius-server attribute 32		15	GLOBAL_CONFIG
radius-server host <word1-255> [auth-port <0-65535>] [acct-port <0-65535>] [timeout <1-1000>] [retransmit <1-1000>] [key <line1-63>]	Use the radius-server host command to add a new RADIUS host.	15	GLOBAL_CONFIG
no radius-server host <word1-255> [auth-port <0-65535>] [acct-port <0-65535>]	Use the no radius-server host command to delete an existing RADIUS host.	15	GLOBAL_CONFIG
tacacs-server timeout <1-1000>	Use the tacacs-server timeout command to configure the global TACACS+ timeout value.	15	GLOBAL_CONFIG
no tacacs-server timeout	Use the no tacacs-server timeout command to reset the global TACACS+ timeout value to default.	15	GLOBAL_CONFIG
tacacs-server deadtime <1-1440>	Use the tacacs-server deadtime command to configure the global TACACS+ deadtime value.	15	GLOBAL_CONFIG
no tacacs-server deadtime	Use the no tacacs-server deadtime	15	GLOBAL_CONFIG

	command to reset the global TACACS+ deadtime value to default.		
tacacs-server key <line1-63>	Use the tacacs-server key command to configure the global TACACS+ key.	15	GLOBAL_CONFIG
no tacacs-server key	Use the no tacacs-server key command to remove the global TACACS+ key.	15	GLOBAL_CONFIG
tacacs-server host <word1-255> [port <0-65535>] [timeout <1-1000>] [key <line1-63>]	Use the tacacs-server host command to add a new TACACS+ host.	15	GLOBAL_CONFIG
no tacacs-server host <word1-255> [port <0-65535>]	Use the no tacacs-server host command to delete an existing TACACS+ host.	15	GLOBAL_CONFIG
show aaa	Use the show aaa command to view the currently active authentication login methods.	15	GLOBAL_CONFIG
show radius-server [statistics]	Use the show radius-server command to view the current RADIUS configuration and statistics.	15	EXEC
show tacacs-server	Use the show tacacs-server command to view the current TACACS+ configuration.	15	EXEC
debug auth { telnet | ssh | http } <word31> [<word31>]		debug	EXEC
clock summer-time <word16> recurring [<1-5> <1-7> <1-12> <hhmm> <1-5> <1-7> <1-12> <hhmm> [<1-1440>]]		13	GLOBAL_CONFIG
clock summer-time <word16> date [<1-12> <1-31> <2000-2097> <hhmm> <1-12> <1-31> <2000-2097> <hhmm> [<1-1440>]]		13	GLOBAL_CONFIG
no clock summer-time		13	GLOBAL_CONFIG
clock timezone <word16> <-23-23> [<0-59>]		13	GLOBAL_CONFIG
no clock timezone		13	GLOBAL_CONFIG
show clock detail		0	EXEC
clock summer-time <word16> recurring [<1-5> <1-7> <1-12> <hhmm> <1-5> <1-7> <1-12> <hhmm> [<1-1440>]]		13	GLOBAL_CONFIG
clock summer-time <word16> date [<1-12> <1-31> <2000-2097> <hhmm> <1-12> <1-31> <2000-2097> <hhmm> [<1-1440>]]		13	GLOBAL_CONFIG

no clock summer-time		13	GLOBAL_CONFIG
clock timezone <word16> <-23-23> [<0-59>]		13	GLOBAL_CONFIG
no clock timezone		13	GLOBAL_CONFIG
show clock detail		0	EXEC
show ip dhcp detailed statistics { server | client | snooping | relay | normal-forward | combined } [interface <port_type_list>]	Use the show ip dhcp detailed statistics user EXEC command to display statistics. Notice that the normal forward per-port TX statistics isn't increased if the incoming DHCP packet is done by L3 forwarding mechanism. Notice that the normal forward per-port TX statistics isn't increased if the incoming DHCP packet is done by L3 forwarding mechanism.	0	EXEC
clear ip dhcp detailed statistics { server | client | snooping | relay | helper | all } [interface <port_type_list>]	Use the clear ip dhcp detailed statistics privileged EXEC command to clear the statistics, or particularly the IP DHCP statistics for the interface. Notice that except for clear statistics on all interfaces, clear the statistics on specific port may not take effect on global statistics since it gathers the different layer overview.	15	EXEC
clear ip dhcp relay statistics	Use the clear ip dhcp relay statistics privileged EXEC command to clear the statistics maintained by IP DHCP realy.	15	EXEC
show ip dhcp relay [statistics]	Use the show ip dhcp relay user EXEC command without keywords to display the DHCP relay configuration, or use the statistics keyword to display statistics.	0	EXEC
ip dhcp relay	Use the ip dhcp relay global configuration command to enable the DHCP relay server. Use the no form of thiscommand to disable the DHCP relay server.	15	GLOBAL_CONFIG
ip helper-address <ipv4_ucast>	Use the ip helper-address global configuration command to configure the	15	GLOBAL_CONFIG

	host address of DHCP relay server.		
no ip helper-address	Use the no ip helper-address global configuration command to clear the host address of DHCP relay server.	15	GLOBAL_CONFIG
ip dhcp relay information option	Use the ip dhcp relay information option global configuration command to enable the DHCP relay information option. Use the no form of this command to disable the DHCP relay information option. The option 82 circuit ID format as "[vlan_id][module_id][port_no]". The first four characters represent the VLAN ID, the fifth and sixth characters are the module ID(in standalone device it always equal 0, in stackable device it means switch ID), and the last two characters are the port number. For example, "00030108" 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.	15	GLOBAL_CONFIG
ip dhcp relay information policy { drop | keep | replace }	Use the ip dhcp relay information policy global configuration command to configure the DHCP relay information policy. When DHCP relay information mode operation is enabled, if the agent receives a DHCP message that already contains relay agent information it will enforce the policy. The 'Replace' policy is invalid when relay information mode is disabled.	15	GLOBAL_CONFIG
no ip dhcp relay information policy	Use the ip dhcp relay information policy global configuration command to restore the default DHCP relay information policy.	15	GLOBAL_CONFIG
show ip dhcp pool [<word32>]		0	EXEC
show ip dhcp pool counter [<word32>]		debug	EXEC

show ip dhcp excluded-address		0	EXEC
show ip dhcp server binding [state {allocated | committed | expired}] [type {automatic | manual | expired}]		0	EXEC
show ip dhcp server binding <ipv4_ucast>		0	EXEC
show ip dhcp server		0	EXEC
show ip dhcp server statistics		0	EXEC
show ip dhcp server declined-ip		0	EXEC
show ip dhcp server declined-ip <ipv4_addr>		0	EXEC
clear ip dhcp server binding <ipv4_ucast>		13	EXEC
clear ip dhcp server binding { automatic | manual | expired }		13	EXEC
clear ip dhcp server statistics		13	EXEC
ip dhcp server		13	GLOBAL_CONFIG
ip dhcp excluded-address <ipv4_addr> [<ipv4_addr>]		13	GLOBAL_CONFIG
no ip dhcp pool <word32>		13	GLOBAL_CONFIG
ip dhcp server		13	INTERFACE_VLAN
network <ipv4_addr> <ipv4_netmask>		13	DHCP_POOL
no network		13	DHCP_POOL
broadcast <ipv4_addr>		13	DHCP_POOL
no broadcast		13	DHCP_POOL
default-router <ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast>]]]		13	DHCP_POOL
no default-router		13	DHCP_POOL
lease { <0-365> [<0-23> [<uint>]] | infinite }		13	DHCP_POOL
no lease		13	DHCP_POOL
domain-name <word128>		13	DHCP_POOL
no domain-name		13	DHCP_POOL
dns-server <ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast>]]]		13	DHCP_POOL
no dns-server		13	DHCP_POOL
ntp-server <ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast>]]]		13	DHCP_POOL
no ntp-server		13	DHCP_POOL
netbios-name-server <ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast>]]]		13	DHCP_POOL

no netbios-name-server		13	DHCP_POOL
netbios-node-type { b-node | h-node | m-node | p-node }		13	DHCP_POOL
no netbios-node-type		13	DHCP_POOL
netbios-scope <line128>		13	DHCP_POOL
no netbios-scope		13	DHCP_POOL
nis-domain-name <word128>		13	DHCP_POOL
no nis-domain-name		13	DHCP_POOL
nis-server <ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast>]]]		13	DHCP_POOL
no nis-server		13	DHCP_POOL
host <ipv4_ucast> <ipv4_netmask>		13	DHCP_POOL
no host		13	DHCP_POOL
client-identifier { fqdn <line128> | mac-address <mac_addr> }		13	DHCP_POOL
no client-identifier		13	DHCP_POOL
hardware-address <mac_ucast>		13	DHCP_POOL
no hardware-address		13	DHCP_POOL
client-name <word32>		13	DHCP_POOL
no client-name		13	DHCP_POOL
vendor class-identifier <string64> specific-info <hexval32>		13	DHCP_POOL
no vendor class-identifier <string64>		13	DHCP_POOL
debug dhcp server memsize		debug	EXEC
debug dhcp server declined add <ipv4_addr>		debug	EXEC
debug dhcp server declined delete <ipv4_addr>		debug	EXEC
show ip dhcp snooping [interface <port_type_list>]	Use the show ip dhcp snooping user EXEC command to display the DHCP snooping configuration.	0	EXEC
show ip dhcp snooping [statistics] [interface <port_type_list>]	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.	0	EXEC
clear ip dhcp snooping statistics [interface <port_type_list>]	Use the clear ip dhcp snooping statistics privileged EXEC command to	15	EXEC

	clear the statistics maintained by IP DHCP snooping, or particularly the IP DHCP snooping statistics for the interface.		
ip dhcp snooping	Use the ip dhcp snooping global configuration command to globally enable DHCP snooping. Use the no form of this command to globally disable DHCP snooping.	15	GLOBAL_CONFIG
dhcp_snooping_port_mode	Use the ip dhcp snooping trust interface configuration command to configure a port as trusted for DHCP snooping purposes. Use the no form of this command to configure a port as untrusted.	15	INTERFACE_PORT_LIST
show ip dhcp snooping table	Use the show ip dhcp snooping table user EXEC command to display the IP assigned information that is obtained from DHCP server except for local VLAN interface IP addresses.	15	EXEC
ip name-server { <ipv4_ucast> | dhcp [interface vlan <vlan_id>] }	Set the DNS server for resolving domain names	15	GLOBAL_CONFIG
no ip name-server	Stop resolving domain names by accessing DNS server	15	GLOBAL_CONFIG
show ip name-server	Display the active domain name server information	0	EXEC
ip dns proxy	Enable DNS proxy service	15	GLOBAL_CONFIG
show version	Use show version to display firmware information.	0	EXEC
firmware upgrade <word>	Use firmware upgrade to load new firmware image to the switch.	15	EXEC
firmware swap	Use firmware swap to swap the active and alternative firmware images.	15	EXEC
show green-ethernet fan	Shows Fan status (chip Temperature and fan speed).	15	GLOBAL_CONFIG
green-ethernet fan temp-on <-127-127>	Sets temperature at which to turn fan on to the lowest speed.	15	GLOBAL_CONFIG
no green-ethernet fan temp-on	Sets temperature at which to turn fan on	15	GLOBAL_CONFIG

	to the lowest speed to default.		
green-ethernet fan temp-max <-127-127>	Sets temperature where the fan must be running at full speed.	15	GLOBAL_CONFIG
no green-ethernet fan temp-max	Sets temperature at which the fan shall be running at full speed to default.	15	GLOBAL_CONFIG
green-ethernet led interval <0~24> intensity <0-100>	Use green-ethernet led interval to configure the LED intensity at specific interval of the day.	15	GLOBAL_CONFIG
no green-ethernet led interval <0~24>		15	GLOBAL_CONFIG
green-ethernet led on-event { [link-change <0-65535>] [error] }*1	Use green-ethernet led on-event to configure when to turn LEDs intensity to 100%%.	15	GLOBAL_CONFIG
no green-ethernet led on-event [link-change] [error]		15	GLOBAL_CONFIG
show green-ethernet eee [interface <port_type_list>]	Shows Green Ethernet EEE status.	15	EXEC
show green-ethernet short-reach [interface <port_type_list>]	Shows Green Ethernet short-reach status.	15	EXEC
show green-ethernet energy-detect [interface <port_type_list>]	Shows Green Ethernet energy-detect status.	15	EXEC
show green-ethernet [interface <port_type_list>]	Shows Green Ethernet status.	15	EXEC
green-ethernet eee	Sets EEE mode.	15	INTERFACE_PORT_LIST
green-ethernet eee urgent-queues [<range_list>]	Sets EEE urgeent queues.	15	INTERFACE_PORT_LIST
green-ethernet eee optimize-for-power	Sets if EEE should be optimized for least traffic latency or least power comsumption	15	GLOBAL_CONFIG
green-ethernet energy-detect	Enables energy-detect power savings.	15	INTERFACE_PORT_LIST
green-ethernet short-reach	Enables short-reach power savings.	15	INTERFACE_PORT_LIST
show ip http server secure status	Use the show ip http server secure status privileged EXEC command to display the secure HTTP web server status.	15	EXEC
ip http secure-server	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.	15	GLOBAL_CONFIG
ip http secure-redirect	Use the http secure-redirect global	15	GLOBAL_CONFIG

	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.		
reload { { { cold | warm } [sid <1-16>] } | { defaults [keep-ip] } }	Reload system, either cold (reboot) or restore defaults without reboot.	15	EXEC
show running-config [all-defaults]		15	EXEC
show running-config feature <cword> [all-defaults]		15	EXEC
show running-config interface <port_type_list> [all-defaults]		15	EXEC
show running-config interface vlan <vlan_list> [all-defaults]		15	EXEC
show running-config vlan <vlan_list> [all-defaults]		15	EXEC
show running-config line vty <range_list> [all-defaults]		15	EXEC
copy { startup-config | running-config | <word> } { startup-config | running-config | <word> } [syntax-check]		15	EXEC
dir		15	EXEC
more <word>		15	EXEC
delete <word>		debug	EXEC
debug icfg wipe-flash-fs-conf-block		debug	EXEC
debug icfg wipe-specific-block {local|global} <uint>		debug	EXEC
debug icfg silent-upgrade status		debug	EXEC
debug icfg dir		debug	EXEC
debug icfg error-trace <line>		debug	EXEC
ip routing	Enable routing for IPv4 and IPv6	15	GLOBAL_CONFIG
no ip routing	Disable routing for IPv4 and IPv6	15	GLOBAL_CONFIG
ip address {{<ipv4_addr> <ipv4_netmask>} | {dhcp [fallback <ipv4_addr> <ipv4_netmask> [timeout <uint>]]}}	IP address configuration	15	INTERFACE_VLAN
ip dhcp retry interface vlan <vlan_id>	Restart the dhcp client	15	EXEC

no ip address	IP address configuration	15	INTERFACE_VLAN
ip route <ipv4_addr> <ipv4_netmask> <ipv4_addr>	Add new IP route	15	GLOBAL_CONFIG
no ip route <ipv4_addr> <ipv4_netmask> <ipv4_addr>	Delete an existing IP route	15	GLOBAL_CONFIG
show interface vlan [<vlan_list>]	Vlan interface status	15	EXEC
show ip interface brief	Brief IP interface status	0	EXEC
show ip arp	Print ARP table	0	EXEC
clear ip arp	Clear ARP cache	0	EXEC
show ip route	Routing table status	0	EXEC
ping ip <word1-255> [repeat <1-60>] [size <2-1452>] [interval <0-30>]		0	EXEC
clear ip statistics [system] [interface vlan <vlan_list>] [icmp] [icmp-msg <0~255>]		0	EXEC
show ip statistics [system] [interface vlan <vlan_list>] [icmp] [icmp-msg <0~255>]		0	EXEC
debug ipstack log [ERR|NOERR] [WARNING|NOWARNING] [NOTICE|NONOTICE] [INFO|NOINFO] [DEBUG|NODEBUG] [MDEBUG|NOMDEBUG] [IOCTL|NOIOCTL] [INIT|NOINIT] [ADDR|NOADDR] [FAIL|NOFAIL] [EMERG|NOEMERG] [CRIT|NOCRIT]		debug	EXEC
debug ip kmem		debug	EXEC
debug ip route		debug	EXEC
debug ip sockets		debug	EXEC
debug ip lpm stat ip <vlan_list>		debug	EXEC
debug ip lpm stat ipv6 <vlan_list>		debug	EXEC
debug ip lpm stat clear <vlan_list>		debug	EXEC
debug ip lpm sticky clear		debug	EXEC
debug ip lpm usage		debug	EXEC
debug ip global interface table change		debug	EXEC
debug ip vlan ipv4 created <vlan_list>		debug	EXEC
debug ip vlan ipv4 changed <vlan_list>		debug	EXEC
debug ip vlan ipv6 created <vlan_list>		debug	EXEC
debug ip vlan ipv6 changed <vlan_list>		debug	EXEC
show ip igmp snooping mrouter [detail]		0	EXEC
clear ip igmp snooping [vlan <vlan_list>]		15	EXEC

statistics			
show ip igmp snooping [vlan <vlan_list>] [group-database [interface <port_type_list>] [sfm-information]] [detail]		0	EXEC
ip igmp snooping		15	GLOBAL_CONFIG
ip igmp unknown-flooding		15	GLOBAL_CONFIG
ip igmp host-proxy [leave-proxy]		15	GLOBAL_CONFIG
ip igmp ssm-range <ipv4_mcast> <4-32>		15	GLOBAL_CONFIG
no ip igmp ssm-range		15	GLOBAL_CONFIG
ip igmp snooping vlan <vlan_list>		15	GLOBAL_CONFIG
no ip igmp snooping vlan [<vlan_list>]		15	GLOBAL_CONFIG
ip igmp snooping		15	INTERFACE_VLAN
ip igmp snooping querier { election | address <ipv4_ucast> }		15	INTERFACE_VLAN
no ip igmp snooping querier { election | address }		15	INTERFACE_VLAN
ip igmp snooping compatibility { auto | v1 | v2 | v3 }		15	INTERFACE_VLAN
no ip igmp snooping compatibility		15	INTERFACE_VLAN
ip igmp snooping priority <0-7>		15	INTERFACE_VLAN
no ip igmp snooping priority		15	INTERFACE_VLAN
ip igmp snooping robustness-variable <1-255>		15	INTERFACE_VLAN
no ip igmp snooping robustness-variable		15	INTERFACE_VLAN
ip igmp snooping query-interval <1-31744>		15	INTERFACE_VLAN
no ip igmp snooping query-interval		15	INTERFACE_VLAN
ip igmp snooping query-max-response-time <0-31744>		15	INTERFACE_VLAN
no ip igmp snooping query-max-response-time		15	INTERFACE_VLAN
ip igmp snooping last-member-query-interval <0-31744>		15	INTERFACE_VLAN
no ip igmp snooping last-member-query-interval		15	INTERFACE_VLAN
ip igmp snooping unsolicited-report-interval <0-31744>		15	INTERFACE_VLAN
no ip igmp snooping unsolicited-report-interval		15	INTERFACE_VLAN
ip igmp snooping immediate-leave		15	INTERFACE_VLAN
ip igmp snooping mrouter		15	INTERFACE_PORT_LIST
ip igmp snooping max-groups <1-10>		15	INTERFACE_PORT_LIST
no ip igmp snooping max-groups		15	INTERFACE_PORT_LIST

ip igmp snooping filter <word16>		15	INTERFACE_PORT_LIST
no ip igmp snooping filter		15	INTERFACE_PORT_LIST
ipv6 mld snooping		15	GLOBAL_CONFIG
ipv6 mld unknown-flooding		15	GLOBAL_CONFIG
ipv6 mld host-proxy [leave-proxy]		15	GLOBAL_CONFIG
ipv6 mld ssm-range <ipv6_mcast> <8-128>		15	GLOBAL_CONFIG
no ipv6 mld ssm-range		15	GLOBAL_CONFIG
ipv6 mld snooping vlan <vlan_list>		15	GLOBAL_CONFIG
no ipv6 mld snooping vlan [<vlan_list>]		15	GLOBAL_CONFIG
ipv6 mld snooping immediate-leave		15	INTERFACE_PORT_LIST
ipv6 mld snooping mrouter		15	INTERFACE_PORT_LIST
ipv6 mld snooping max-groups <1-10>		15	INTERFACE_PORT_LIST
no ipv6 mld snooping max-groups		15	INTERFACE_PORT_LIST
ipv6 mld snooping filter <word16>		15	INTERFACE_PORT_LIST
no ipv6 mld snooping filter		15	INTERFACE_PORT_LIST
show ipv6 mld snooping mrouter [detail]		0	EXEC
clear ipv6 mld snooping [vlan <vlan_list>] statistics		15	EXEC
show ipv6 mld snooping [vlan <vlan_list>] [group-database [interface <port_type_list>] [sfm-information]] [detail]		0	EXEC
ipv6 mld snooping		15	INTERFACE_VLAN
ipv6 mld snooping querier election		15	INTERFACE_VLAN
ipv6 mld snooping compatibility { auto | v1 | v2 }		15	INTERFACE_VLAN
no ipv6 mld snooping compatibility		15	INTERFACE_VLAN
ipv6 mld snooping priority <0-7>		15	INTERFACE_VLAN
no ipv6 mld snooping priority		15	INTERFACE_VLAN
ipv6 mld snooping robustness-variable <1-255>		15	INTERFACE_VLAN
no ipv6 mld snooping robustness-variable		15	INTERFACE_VLAN
ipv6 mld snooping query-interval <1-31744>		15	INTERFACE_VLAN
no ipv6 mld snooping query-interval		15	INTERFACE_VLAN
ipv6 mld snooping query-max-response-time <0-31744>		15	INTERFACE_VLAN
no ipv6 mld snooping query-max-response-time		15	INTERFACE_VLAN
ipv6 mld snooping last-member-query-interval <0-31744>		15	INTERFACE_VLAN
no ipv6 mld snooping last-member-query-interval		15	INTERFACE_VLAN

ipv6 mld snooping unsolicited-report-interval <0-31744>		15	INTERFACE_VLAN
no ipv6 mld snooping unsolicited-report-interval		15	INTERFACE_VLAN
ip verify source		13	GLOBAL_CONFIG
i ip verify source		13	INTERFACE_PORT_LIST
ip verify source limit <0-2>		13	INTERFACE_PORT_LIST
no ip verify source limit		13	INTERFACE_PORT_LIST
ip verify source translate		13	GLOBAL_CONFIG
show ip verify source [interface <port_type_list>]		0	EXEC
show ip source binding [dhcp-snooping | static] [interface <port_type_list>]		13	EXEC
ip source binding interface <port_type_id> <vlan_id> <ipv4_ucast> <mac_ucast>		13	GLOBAL_CONFIG
ip source binding interface <port_type_id> <vlan_id> <ipv4_ucast> <ipv4_netmask>		13	GLOBAL_CONFIG
show lacp { internal | statistics | system-id | neighbour }	Show LACP configuration and status	15	EXEC
clear lacp statistics	Clear all LACP statistics	15	EXEC
lacp system-priority <1-65535>	Set the LACP system priority	15	GLOBAL_CONFIG
lacp	Enable LACP on an interface	15	INTERFACE_PORT_LIST
lacp key { <1-65535> | auto }	Set the LACP key	15	INTERFACE_PORT_LIST
lacp role { active | passive }	Set the LACP role, active or passive in transmitting BPDUs	15	INTERFACE_PORT_LIST
lacp timeout { fast | slow }	Set the LACP timeout, i.e. how fast to transmit BPDUs, once a sec or once each 30 sec.	15	INTERFACE_PORT_LIST
lacp port-priority <1-65535>	Set the lacp port priority,	15	INTERFACE_PORT_LIST
lldp holdtime <2-10>	Sets LLDP hold time (The neighbor switch will discarded the LLDP information after \"hold time\" multiplied with \"timer\" seconds)	15	GLOBAL_CONFIG
no lldp holdtime		15	GLOBAL_CONFIG
lldp timer <5-32768>	Sets LLDP TX interval (The time between each LLDP frame transmitted in seconds).	15	GLOBAL_CONFIG
no lldp timer		15	GLOBAL_CONFIG
lldp reinit <1-10>	Sets LLDP reinitialization delay.	15	GLOBAL_CONFIG
no lldp reinit	Sets LLDP reinitialization delay.	15	GLOBAL_CONFIG

lldp tlv-select {management-address | port-description | system-capabilities | system-description | system-name}	Enables/disables LLDP optional TLVs.	15	INTERFACE_PORT_LIST
lldp transmit	Sets if switch shall transmit LLDP frames.	15	INTERFACE_PORT_LIST
lldp receive	Sets if switch shall update LLDP entry table with incoming LLDP information.	15	INTERFACE_PORT_LIST
show lldp neighbors [interface <port_type_list>]	Shows the LLDP neighbors information.	0	EXEC
show lldp statistics [interface <port_type_list>]	Shows the LLDP statistics information.	0	EXEC
clear lldp statistics	Clears the LLDP statistics.	0	EXEC
lldp transmission-delay <1-8192>	Sets LLDP transmision-delay. LLDP transmission delay (the amount of time that the transmission of LLDP frames will delayed after LLDP configuration has changed) in seconds.)	15	GLOBAL_CONFIG
no lldp transmission-delay		15	GLOBAL_CONFIG
lldp cdp-aware	Configures if the interface shall be CDP aware (CDP discovery information is added to the LLDP neighbor table)	15	INTERFACE_PORT_LIST
show lldp med remote-device [interface <port_type_list>]	Show LLDP-MED neighbor device information.	0	EXEC
show lldp med media-vlan-policy [<0~31>]	Show media vlan policy(ies)	0	EXEC
lldp med location-tlv latitude { north | south } <word8>	Use the lldp med location-tlv latitude to configure the location latitude.	15	GLOBAL_CONFIG
no lldp med location-tlv latitude	Use no lldp med location-tlv latitude to configure the latitude location to north 0 degrees.	15	GLOBAL_CONFIG
lldp med location-tlv longitude { west | east } <word9>	Use the lldp med location-tlv longitude to configure the location longitude.	15	GLOBAL_CONFIG
no lldp med location-tlv longitude	Use no lldp med location-tlv longitude to configure the longitude location to north 0 degrees.	15	GLOBAL_CONFIG
lldp med location-tlv altitude { meters | floors } <word11>	Use the lldp med location-tlv altitude to configure the location altitude.	15	GLOBAL_CONFIG
no lldp med location-tlv altitude	Use the lldp med location-tlv altitude to configure the location altitude.	15	GLOBAL_CONFIG
lldp med location-tlv civic-addr { country | state | county | city | district | block | street | leading-	Use lldp med location-tlv civic-addr to configure the civic address.	15	GLOBAL_CONFIG

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>			
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 }		15	GLOBAL_CONFIG
lldp med location-tlv elin-addr <dword25>	Use the lldp med location-tlv elin-addr to configure value for the Emergency Call Service	15	GLOBAL_CONFIG
no lldp med location-tlv elin-addr	Use the no lldp med location-tlv elin-addr to configure value for the Emergency Call Service to default value.	15	GLOBAL_CONFIG
lldp med transmit-tlv [capabilities] [location] [network-policy]	Use the lldp med transmit-tlv to configure which TLVs to transmit to link partner.	15	INTERFACE_PORT_LIST
no lldp med transmit-tlv [capabilities] [location] [network-policy]		15	INTERFACE_PORT_LIST
lldp med datum { wgs84 | nad83-navd88 | nad83-mllw }	Use the lldp med datum to configure the datum (geodetic system) to use.	15	GLOBAL_CONFIG
no lldp med datum		15	GLOBAL_CONFIG
lldp med fast <1-10>	Use the lldp med fast 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).	15	GLOBAL_CONFIG
no lldp med fast		15	GLOBAL_CONFIG
lldp med media-vlan-policy <0-31> { voice | voice-signaling | guest-voice-signaling | guest-voice | softphone-voice | video-conferencing | streaming-	Use the media-vlan-policy to create a policy, which can be assigned to an interface.	15	GLOBAL_CONFIG

video | video-signaling } { tagged <vlan_id> | untagged } [l2-priority <0-7>] [dscp <0-63>]			
no lldp med media-vlan-policy <0~31>		15	GLOBAL_CONFIG
lldp med media-vlan policy-list <range_list>	Use the media-vlan policy-list to assign policy to the interface.	15	INTERFACE_PORT_LIST
loop-protect	Loop protection configuration	15	GLOBAL_CONFIG
loop-protect transmit-time <1-10>	Loop protection transmit time interval	15	GLOBAL_CONFIG
no loop-protect transmit-time		15	GLOBAL_CONFIG
loop-protect shutdown-time <0-604800>	Loop protection shutdown time interval	15	GLOBAL_CONFIG
no loop-protect shutdown-time		15	GLOBAL_CONFIG
loop-protect	Loop protection configuration	15	INTERFACE_PORT_LIST
loop-protect action { [shutdown] [log] }*1		15	INTERFACE_PORT_LIST
no loop-protect action		15	INTERFACE_PORT_LIST
loop-protect tx-mode		15	INTERFACE_PORT_LIST
show loop-protect [interface <port_type_list>]		13	EXEC
mac address-table learning [secure]	Enable learning on port	15	INTERFACE_PORT_LIST
show mac address-table [conf | static | aging-time | { { learning | count } [interface <port_type_list>] } | { address <mac_addr> [vlan <vlan_id>] } | vlan <vlan_id> | interface <port_type_list>]		0	EXEC
clear mac address-table		15	EXEC
mac address-table static <mac_addr> vlan <vlan_id> interface <port_type_list>	Assign a static mac address to this port	15	GLOBAL_CONFIG
mac address-table aging-time <0,10-1000000>	Set switch aging time, 0 to disable.	15	GLOBAL_CONFIG
no mac address-table aging-time	Default aging time.	15	GLOBAL_CONFIG
monitor destination interface <port_type_id>	Sets monitor destination port.	15	GLOBAL_CONFIG
no monitor destination	Sets monitor destination port.	15	GLOBAL_CONFIG
monitor source { { interface <port_type_list> } | { cpu [<range_list>] } } { both | rx | tx }	Sets monitor source port(s).	15	GLOBAL_CONFIG
no monitor source { { interface <port_type_list> } | { cpu [<range_list>] } }	Sets monitor source port(s).	15	GLOBAL_CONFIG
debug chip [{ 0 | 1 | all }]		debug	EXEC
debug api [interface <port_type_list>] [{ ail | cil }] [{ init | misc | port | counters | phy | vlan | pvlan | mac-table | acl | qos | aggr | stp | mirror | evc | erps | eps | packet | fdma | ts | pts | wm | ipmc | stack | cmef | mplscore | mplsoam | vxlat |		debug	EXEC

oam | sgpio | l3 | afi | macsec }] [full] [clear]			
debug suspend		debug	EXEC
debug resume		debug	EXEC
debug kr-conf [cm1 <-32-31>] [c0 <-32-31>] [cp1 <-32-31>] [ampl <300-1275>] [{ ps25 | ps35 | ps55 | ps70 | ps120 }] [en-ob | dis-ob] [ser-inv | ser-no-inv]		debug	INTERFACE_PORT_LIST
show spanning-tree [summary | active | { interface <port_type_list> } | { detailed [interface <port_type_list>] } | { mst [configuration | { <0-7> [interface <port_type_list>] }] }]		15	EXEC
clear spanning-tree { { statistics [interface <port_type_list>] } | { detected-protocols [interface <port_type_list>] } }		15	EXEC
spanning-tree mode { stp | rstp | mstp }		15	GLOBAL_CONFIG
no spanning-tree mode		15	GLOBAL_CONFIG
spanning-tree transmit hold-count <1-10>		15	GLOBAL_CONFIG
no spanning-tree transmit hold-count		15	GLOBAL_CONFIG
spanning-tree mst max-hops <6-40>		15	GLOBAL_CONFIG
no spanning-tree mst max-hops		15	GLOBAL_CONFIG
spanning-tree mst max-age <6-40> [forward-time <4-30>]		15	GLOBAL_CONFIG
no spanning-tree mst max-age		15	GLOBAL_CONFIG
spanning-tree mst forward-time <4-30>		15	GLOBAL_CONFIG
no spanning-tree mst forward-time		15	GLOBAL_CONFIG
spanning-tree edge bpdu-filter		15	GLOBAL_CONFIG
spanning-tree edge bpdu-guard		15	GLOBAL_CONFIG
spanning-tree recovery interval <30-86400>		15	GLOBAL_CONFIG
no spanning-tree recovery interval		15	GLOBAL_CONFIG
spanning-tree mst <0-7> priority <0-61440>		15	GLOBAL_CONFIG
no spanning-tree mst <0-7> priority		15	GLOBAL_CONFIG
spanning-tree mst <0-7> vlan <vlan_list>		15	GLOBAL_CONFIG
no spanning-tree mst <0-7> vlan		15	GLOBAL_CONFIG
spanning-tree mst name <word32> revision <0-65535>		15	GLOBAL_CONFIG
no spanning-tree mst name		15	GLOBAL_CONFIG
spanning-tree		15	INTERFACE_PORT_LIST

spanning-tree edge		15	INTERFACE_PORT_LIST
spanning-tree auto-edge		15	INTERFACE_PORT_LIST
spanning-tree link-type { point-to-point | shared | auto }		15	INTERFACE_PORT_LIST
no spanning-tree link-type		15	INTERFACE_PORT_LIST
spanning-tree restricted-role		15	INTERFACE_PORT_LIST
spanning-tree restricted-tcn		15	INTERFACE_PORT_LIST
spanning-tree bpdu-guard		15	INTERFACE_PORT_LIST
spanning-tree mst <0-7> cost { <1-200000000> | auto }		15	INTERFACE_PORT_LIST
no spanning-tree mst <0-7> cost		15	INTERFACE_PORT_LIST
spanning-tree mst <0-7> port-priority <0-240>		15	INTERFACE_PORT_LIST
no spanning-tree mst <0-7> port-priority		15	INTERFACE_PORT_LIST
spanning-tree		15	STP_AGGR
spanning-tree edge		15	STP_AGGR
spanning-tree auto-edge		15	STP_AGGR
spanning-tree link-type { point-to-point | shared | auto }		15	STP_AGGR
no spanning-tree link-type		15	STP_AGGR
spanning-tree restricted-role		15	STP_AGGR
spanning-tree restricted-tcn		15	STP_AGGR
spanning-tree bpdu-guard		15	STP_AGGR
spanning-tree mst <0-7> cost { <1-200000000> | auto }		15	STP_AGGR
no spanning-tree mst <0-7> cost		15	STP_AGGR
spanning-tree mst <0-7> port-priority <0-240>		15	STP_AGGR
no spanning-tree mst <0-7> port-priority		15	STP_AGGR
mvr vlan <vlan_list> type { source | receiver }		15	INTERFACE_PORT_LIST
mvr name <word16> type { source | receiver }		15	INTERFACE_PORT_LIST
no mvr vlan <vlan_list> type		15	INTERFACE_PORT_LIST
no mvr name <word16> type		15	INTERFACE_PORT_LIST
mvr immediate-leave		15	INTERFACE_PORT_LIST
clear mvr [vlan <vlan_list> | name <word16>] statistics		15	EXEC
show mvr [vlan <vlan_list> | name <word16>] [group-database [interface <port_type_list>] [sfm-information]] [detail]		0	EXEC

mvr		15	GLOBAL_CONFIG
mvr vlan <vlan_list> [name <word16>]		15	GLOBAL_CONFIG
no mvr vlan <vlan_list>		15	GLOBAL_CONFIG
mvr vlan <vlan_list> mode { dynamic | compatible }		15	GLOBAL_CONFIG
mvr name <word16> mode { dynamic | compatible }		15	GLOBAL_CONFIG
no mvr vlan <vlan_list> mode		15	GLOBAL_CONFIG
no mvr name <word16> mode		15	GLOBAL_CONFIG
mvr vlan <vlan_list> igmp-address <ipv4_ucast>		15	GLOBAL_CONFIG
mvr name <word16> igmp-address <ipv4_ucast>		15	GLOBAL_CONFIG
no mvr vlan <vlan_list> igmp-address		15	GLOBAL_CONFIG
no mvr name <word16> igmp-address		15	GLOBAL_CONFIG
mvr vlan <vlan_list> frame priority <0-7>		15	GLOBAL_CONFIG
mvr vlan <vlan_list> frame tagged		15	GLOBAL_CONFIG
mvr name <word16> frame priority <0-7>		15	GLOBAL_CONFIG
mvr name <word16> frame tagged		15	GLOBAL_CONFIG
no mvr vlan <vlan_list> frame priority		15	GLOBAL_CONFIG
no mvr name <word16> frame priority		15	GLOBAL_CONFIG
mvr vlan <vlan_list> last-member-query-interval <0-31744>		15	GLOBAL_CONFIG
mvr name <word16> last-member-query-interval <0-31744>		15	GLOBAL_CONFIG
no mvr vlan <vlan_list> last-member-query-interval		15	GLOBAL_CONFIG
no mvr name <word16> last-member-query-interval		15	GLOBAL_CONFIG
mvr vlan <vlan_list> channel <word16>		15	GLOBAL_CONFIG
no mvr vlan <vlan_list> channel		15	GLOBAL_CONFIG
no mvr name <word16> channel		15	GLOBAL_CONFIG
show dot1x statistics { eapol | radius | all} [interface <port_type_list>]	Shows statistics for either eapol or radius.	0	EXEC
show dot1x status [interface <port_type_list>] [brief]	Shows dot1x status, such as admin state, port state and last source.	0	EXEC
clear dot1x statistics [interface <port_type_list>]	Clears the statistics counters	15	EXEC
dot1x re-authentication	Set Re-authentication state	15	GLOBAL_CONFIG
dot1x authentication timer re-authenticate <1-	The period between re-authentication	15	GLOBAL_CONFIG

3600>	attempts in seconds		
no dot1x authentication timer re-authenticate		15	GLOBAL_CONFIG
dot1x timeout tx-period <1-65535>	the time between EAPOL retransmissions.	15	GLOBAL_CONFIG
no dot1x timeout tx-period		15	GLOBAL_CONFIG
dot1x authentication timer inactivity <10-1000000>	Time in seconds between check for activity on successfully authenticated MAC addresses.	15	GLOBAL_CONFIG
no dot1x authentication timer inactivity		15	GLOBAL_CONFIG
dot1x timeout quiet-period <10-1000000>	Time in seconds before a MAC-address that failed authentication gets a new authentication chance.	15	GLOBAL_CONFIG
no dot1x timeout quiet-period		15	GLOBAL_CONFIG
dot1x re-authenticate	Refresh (restart) 802.1X authentication process.	15	INTERFACE_PORT_LIST
dot1x initialize [interface <port_type_list>]	Force re-authentication immediately	15	EXEC
dot1x system-auth-control	Set the global NAS state	15	GLOBAL_CONFIG
dot1x port-control { force-authorized | force-unauthorized | auto | single | multi | mac-based }	Sets the port security state.	15	INTERFACE_PORT_LIST
no dot1x port-control	Sets the port security state.	15	INTERFACE_PORT_LIST
dot1x guest-vlan	Enables/disables guest VLAN	15	INTERFACE_PORT_LIST
dot1x max-reauth-req <1-255>	The number of times a Request Identity EAPOL frame is sent without response before considering entering the Guest VLAN	15	GLOBAL_CONFIG
no dot1x max-reauth-req	The number of times a Request Identity EAPOL frame is sent without response before considering entering the Guest VLAN	15	GLOBAL_CONFIG
dot1x guest-vlan <1-4095>	Guest VLAN ID used when entering the Guest VLAN.	15	GLOBAL_CONFIG
no dot1x guest-vlan	Guest VLAN ID used when entering the Guest VLAN.	15	GLOBAL_CONFIG
dot1x 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	15	GLOBAL_CONFIG

	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.		
dot1x radius-qos	Enables/disables per-port state of RADIUS-assigned QoS.	15	INTERFACE_PORT_LIST
dot1x radius-vlan	Enables/disables per-port state of RADIUS-assigned VLAN.	15	INTERFACE_PORT_LIST
dot1x feature { [guest-vlan] [radius-qos] [radius-vlan] }*1	Globally enables/disables a dot1x feature functionality	15	GLOBAL_CONFIG
show dot1x statistics { eapol | radius | all} [interface <port_type_list>]	Shows statistics for either eapol or radius.	0	EXEC
ntp	Enable NTP	13	GLOBAL_CONFIG
ntp server <1-5> ip-address {<ipv4_ucast>|<ipv6_ucast>|<hostname>}		13	GLOBAL_CONFIG
ntp server <1-5> ip-address {<ipv4_ucast>|<hostname>}		13	GLOBAL_CONFIG
no_ntp_server_ip_address		13	GLOBAL_CONFIG
show ntp status		13	EXEC
show platform phy [interface <port_type_list>]	Show PHY module's information for all or a given interface	15	EXEC
show platform phy id [interface <port_type_list>]	Platform PHY's IDs	15	EXEC
show platform phy instance		15	EXEC
show platform phy failover		15	EXEC
platform phy instance restart { cool | warm }		15	EXEC
platform phy instance default-activate		15	EXEC
show platform phy status [interface <port_type_list>]		15	EXEC
no platform phy instance		15	GLOBAL_CONFIG
platform phy failover		15	INTERFACE_PORT_LIST
debug phy read [<0~31>] [<0-0xffff>] [addr-sort]		debug	INTERFACE_PORT_LIST
debug phy write [<0~31>] <0-0xffff> [<0-0xffff>]		debug	INTERFACE_PORT_LIST

debug phy do-page-chk [enable|disable]		debug	EXEC
debug phy force-pass-through-speed {10G | 1G | 100M }		debug	INTERFACE_PORT_LIST
debug phy reset		debug	INTERFACE_PORT_LIST
debug phy gpio <0-13> mode {output|input|alternative}		debug	INTERFACE_PORT_LIST
debug phy gpio <0-13> get		debug	INTERFACE_PORT_LIST
show poe [interface <port_type_list>]	Use the show poe to show PoE status.	0	EXEC
poe mode { standard | plus }	Use poe mode to configure of PoE mode.	15	INTERFACE_PORT_LIST
no poe mode	Use poe mode to configure of PoE mode.	15	INTERFACE_PORT_LIST
poe priority { low | high | critical }	Use poe priority to configure PoE priority.	15	INTERFACE_PORT_LIST
no poe priority	Use poe priority to configure PoE priority.	15	INTERFACE_PORT_LIST
poe management mode { class-consumption | class-reserved-power | allocation-consumption | allocation-reserved-power | lldp-consumption | lldp-reserved-power }	Use management mode to configure PoE power management method.	15	GLOBAL_CONFIG
no poe management mode		15	GLOBAL_CONFIG
poe power limit { <fword2.1> }	Use poe power limit to configure the maximum allowed power for the interface when power management is in allocation mode.	15	INTERFACE_PORT_LIST
no poe power limit	Use poe power limit to configure the maximum allowed power for the interface when power management is in allocation mode.	15	INTERFACE_PORT_LIST
poe supply sid <1~16> <1-2000>	Use poe supply to specify the maximum power the power supply can deliver.	15	GLOBAL_CONFIG
no poe supply [sid <1~16>]		15	GLOBAL_CONFIG
poe schedule-mode	Configure PoE Schedule mode.	15	INTERFACE_PORT_LIST
no poe schedule-mode	disable PoE power management method.	15	INTERFACE_PORT_LIST
poe select-all <range_list>	Configure PoE Schedule mode.	15	GLOBAL_CONFIG
no poe schedule-all <range_list>	disable PoE power management method.	15	GLOBAL_CONFIG

poe delay-mode <range_list>	Configure PoE Power Delay mode.	15	GLOBAL_CONFIG
no poe delay-mode <range_list>		15	GLOBAL_CONFIG
poe delay-time <range_list> <0-300>	Configure PoE Power Delay time.	15	GLOBAL_CONFIG
poe hour <0-23>	This command is used to set hour time per week to enable PoE.	15	INTERFACE_PORT_LIST
no poe hour <0-23>	This command is used to set hour time per week to disable PoE.	15	INTERFACE_PORT_LIST
poe Sun	This command is used to set hour time on Sunday to enable PoE.	15	INTERFACE_PORT_LIST
no poe Sun	This command is used to set hour time on Sunday to disble PoE.	15	INTERFACE_PORT_LIST
poe Mon	This command is used to set hour time on Monday to enable PoE.	15	INTERFACE_PORT_LIST
no poe Mon	This command is used to set hour time on Monday to disable PoE.	15	INTERFACE_PORT_LIST
poe Tue	This command is used to set hour time on Tuesday to enable PoE.	15	INTERFACE_PORT_LIST
no poe Tue	This command is used to set hour time on Tuesday to disable PoE.	15	INTERFACE_PORT_LIST
poe Wed	This command is used to set hour time on Wednesday to enable PoE.	15	INTERFACE_PORT_LIST
no poe Wed	This command is used to set hour time on Wednesday to disable PoE.	15	INTERFACE_PORT_LIST
poe Thr	This command is used to set hour time on Thursday to enable PoE.	15	INTERFACE_PORT_LIST
no poe Thr	This command is used to set hour time on Thursday to enable PoE.	15	INTERFACE_PORT_LIST
poe Fri	This command is used to set hour time on Friday to enable PoE.	15	INTERFACE_PORT_LIST
no poe Fri	This command is used to set hour time on Friday to disable PoE.	15	INTERFACE_PORT_LIST
poe Sat	This command is used to set hour time on Saturday to enable PoE.	15	INTERFACE_PORT_LIST
no poe Sat	This command is used to set hour time on Saturday to disable PoE.	15	INTERFACE_PORT_LIST
show interface <port_type_list> statistics [{ packets | bytes | errors | discards | filtered | { priority [<0~7>] } }] [{ up | down }]	Shows the statistics for the interface.	0	EXEC

show interface <port_type_list> veriphy	Run and display cable diagnostics.	0	EXEC
clear statistics [interface] <port_type_list>	Clears the statistics for the interface.	0	EXEC
show interface <port_type_list> capabilities		0	EXEC
show interface <port_type_list> status	Display status for the interface.	0	EXEC
mtu <'VTSS_MAX_FRAME_LENGTH_STANDARD'-'VTSS_MAX_FRAME_LENGTH_MAX'>	Use mtu to specify maximum frame size (1518-9600 bytes).	15	INTERFACE_PORT_LIST
no mtu	Use no mtu to set maximum frame size to default.	15	INTERFACE_PORT_LIST
shutdown	Use shutdown to shutdown the interface.	15	INTERFACE_PORT_LIST
speed {2500 | 1000 | 100 | 10 | auto {[10] [100] [1000]} }	Configures interface speed. If you use 10, 100, or 1000 keywords with the auto keyword the port will only advertise the specified speeds.	15	INTERFACE_PORT_LIST
no speed	Use "no speed" to configure interface to default speed.	15	INTERFACE_PORT_LIST
duplex { half | full | auto [half | full] }	Use duplex to configure interface duplex mode.	15	INTERFACE_PORT_LIST
no duplex	Use "no duplex" to set duplex to default.	15	INTERFACE_PORT_LIST
media-type { rj45 | sfp | dual }	Use media-type to configure the interface media type.	15	INTERFACE_PORT_LIST
no media-type	Use to configure the interface media-type type to default.	15	INTERFACE_PORT_LIST
flowcontrol { on | off }	Use flowcontrol to configure flow control for the interface.	15	INTERFACE_PORT_LIST
no flowcontrol	Use no flowcontrol to set flow control to default.	15	INTERFACE_PORT_LIST
excessive-restart	Use excessive-restart to configure backoff algorithm in half duplex mode.	15	INTERFACE_PORT_LIST
show web privilege group [<cword>] level		0	EXEC
web privilege group <cword> level { [cro <0-15>] [crw <0-15>] [sro <0-15>] [srw <0-15>] }*1		15	GLOBAL_CONFIG
no web privilege group [<cword>] level		15	GLOBAL_CONFIG
show port-security port [interface <port_type_list>]	Show MAC Addresses learned by Port Security	0	EXEC
show port-security switch [interface <port_type_list>]	Show Port Security status.	0	EXEC

no port-security shutdown [interface <port_type_list>]	Reopen one or more ports whose limit is exceeded and shut down.	15	EXEC
port-security	Enable/disable port security globally.	15	GLOBAL_CONFIG
port-security aging	Enable/disable port security aging.	15	GLOBAL_CONFIG
port-security aging time <10-10000000>	Time in seconds between check for activity on learned MAC addresses.	15	GLOBAL_CONFIG
no port-security aging time		15	GLOBAL_CONFIG
port-security	Enable/disable port security per interface.	15	INTERFACE_PORT_LIST
port-security maximum [<1-1024>]	Maximum number of MAC addresses that can be learned on this set of interfaces.	15	INTERFACE_PORT_LIST
no port-security maximum		15	INTERFACE_PORT_LIST
port-security violation { protect | trap | trap-shutdown | shutdown }	The action involved with exceeding the limit.	15	INTERFACE_PORT_LIST
no port-security violation	The action involved with exceeding the limit.	15	INTERFACE_PORT_LIST
pvlan <range_list>	Use the pvlan add or remove command to add or remove a port from a PVLAN.	13	INTERFACE_PORT_LIST
pvlan isolation	Use the pvlan isolation command to add the port into an isolation group.	13	INTERFACE_PORT_LIST
show pvlan [<range_list>]	Use the show pvlan command to view the PVLAN configuration.	13	EXEC
show pvlan isolation [interface <port_type_list>]	Use the show pvlan isolation command to view the PVLAN isolation configuration.	13	EXEC
show qos [{ interface [<port_type_list>] } | wred | { maps [dscp-cos] [dscp-ingress-translation] [dscp-classify] [cos-dscp] [dscp-egress-translation] } | storm | { qce [<1-256>] }]		15	EXEC
qos map dscp-cos { <0~63> | <dscp> } cos <0-7> dpl <dpl>		15	GLOBAL_CONFIG
no qos map dscp-cos { <0~63> | <dscp> }		15	GLOBAL_CONFIG
qos map dscp-ingress-translation { <0~63> | <dscp> } to { <0-63> | <dscp> }		15	GLOBAL_CONFIG
no qos map dscp-ingress-translation { <0~63> | <dscp> }		15	GLOBAL_CONFIG
qos map dscp-classify { <0~63> | <dscp> }		15	GLOBAL_CONFIG

qos map cos-dscp <0~7> dpl <0~1> dscp { <0-63> | <dscp> }		15	GLOBAL_CONFIG
no qos map cos-dscp <0~7> dpl <0~1>		15	GLOBAL_CONFIG
qos map dscp-egress-translation { <0~63> | <dscp> } <0~1> to { <0-63> | <dscp> }		15	GLOBAL_CONFIG
no qos map dscp-egress-translation { <0~63> | <dscp> } <0~1>		15	GLOBAL_CONFIG
qos wred queue <0~5> min-th <0-100> mdp-1 <0-100> mdp-2 <0-100> mdp-3 <0-100>		15	GLOBAL_CONFIG
qos wred queue <0~5> min-fl <0-100> max <1-100> [fill-level]		15	GLOBAL_CONFIG
no qos wred queue <0~5>		15	GLOBAL_CONFIG
qos storm { unicast | multicast | broadcast } { { <1,2,4,8,16,32,64,128,256,512> [kfps] } | { 1024 kfps } }		15	GLOBAL_CONFIG
no qos storm { unicast | multicast | broadcast }		15	GLOBAL_CONFIG
qos qce { [update] } <uint> [{ next <uint> } | last] [interface <port_type_list>] [smac { <mac_addr> | <oui> | any }] [dmac { <mac_addr> | unicast | multicast | broadcast | any }] [tag { [type { untagged | tagged | c-tagged | s-tagged | any }] [vid { <vcap_vr> | any }] [pcp { <pcp> | any }] [dei { <0-1> | any }] }*1] [inner-tag { [type { untagged | tagged | c-tagged | s-tagged | any }] [vid { <vcap_vr> | any }] [pcp { <pcp> | any }] [dei { <0-1> | any }] }*1] [frame-type { 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 }] [dip { <ipv4_subnet> | any }] [dscp { <vcap_vr> | <dscp> | any }] [fragment { yes | no | any }] [sport { <vcap_vr> | any }] [dport { <vcap_vr> | any }] } | { ipv6 [proto { <0-255> | tcp | udp | any }] [sip { <ipv4_subnet> | any }] [dip { <ipv4_subnet> | any }] [dscp { <vcap_vr> | <dscp> | any }] [sport { <vcap_vr> |		15	GLOBAL_CONFIG

any }] [dport { <vcap_vr> | any }] } }] [action { [cos { <0-7> | default }] [dpl { <0-1> | default }] [pcp-dei { <0-7> <0-1> | default }] [dscp { <0-63> | <dscp> | default }] [policy { <uint> | default }] }*1]			
no qos qce <'QCE_ID_START'~'QCE_ID_END'>		15	GLOBAL_CONFIG
qos qce refresh		15	GLOBAL_CONFIG
qos cos <0-7>		15	GLOBAL_CONFIG
no qos cos		15	INTERFACE_PORT_LIST
qos dpl <dpl>		15	INTERFACE_PORT_LIST
no qos dpl		15	INTERFACE_PORT_LIST
qos pcp <0-7>		15	INTERFACE_PORT_LIST
no qos pcp		15	INTERFACE_PORT_LIST
qos dei <0-1>		15	INTERFACE_PORT_LIST
no qos dei		15	INTERFACE_PORT_LIST
qos trust tag		15	INTERFACE_PORT_LIST
qos trust dscp		15	INTERFACE_PORT_LIST
qos map tag-cos pcp <0~7> dei <0~1> cos <0-7> dpl <dpl>		15	INTERFACE_PORT_LIST
no qos map tag-cos pcp <0~7> dei <0~1>		15	INTERFACE_PORT_LIST
qos policer <uint> [fps] [flowcontrol]		15	INTERFACE_PORT_LIST
no qos policer		15	INTERFACE_PORT_LIST
qos queue-policer queue <0~7> <uint>		15	INTERFACE_PORT_LIST
qos queue-policer queue <0~7> <uint>		15	INTERFACE_PORT_LIST
no qos queue-policer queue <0~7>		15	INTERFACE_PORT_LIST
qos wrr <1-100> <1-100> <1-100> <1-100> <1-100> <1-100>		15	INTERFACE_PORT_LIST
no qos wrr		15	INTERFACE_PORT_LIST
qos shaper <uint>		15	INTERFACE_PORT_LIST
no qos shaper		15	INTERFACE_PORT_LIST
qos queue-shaper queue <0~7> <uint> [excess]		15	INTERFACE_PORT_LIST
no qos queue-shaper queue <0~7>		15	INTERFACE_PORT_LIST
qos tag-remark { pcp <0-7> dei <0-1> | mapped }		15	INTERFACE_PORT_LIST
no qos tag-remark		15	INTERFACE_PORT_LIST
qos map cos-tag cos <0~7> dpl <0~1> pcp <0-7> dei <0-1>		15	INTERFACE_PORT_LIST
no qos map cos-tag cos <0~7> dpl <0~1>		15	INTERFACE_PORT_LIST

qos dscp-translate		15	INTERFACE_PORT_LIST
qos dscp-classify { zero | selected | any }		15	INTERFACE_PORT_LIST
no qos dscp-classify		15	INTERFACE_PORT_LIST
qos dscp-remark { rewrite | remap | remap-dp }		15	INTERFACE_PORT_LIST
no qos dscp-remark		15	INTERFACE_PORT_LIST
qos storm { unicast | broadcast | unknown } <100-13200000> [fps]		15	INTERFACE_PORT_LIST
no qos storm { unicast | broadcast | unknown }		15	INTERFACE_PORT_LIST
qos qce { [addr { source | destination }] [key { double-tag | normal | ip-addr | mac-ip-addr }] }*1		15	INTERFACE_PORT_LIST
no qos qce { [addr] [key] }*1		15	INTERFACE_PORT_LIST
debug qos shaper cir { <100-3300000> [cbs <4096-258048>] } { [eir <100-3300000> [ebs <4096-258048>]] }		debug	INTERFACE_PORT_LIST
no debug qos shaper		debug	INTERFACE_PORT_LIST
debug qos queue-shaper queue <0~7> { cir <100-3300000> [cbs <4096-258048>] } { [eir <100-3300000> [ebs <4096-258048>]] } [excess]		debug	INTERFACE_PORT_LIST
no debug qos queue-shaper queue <0~7>		debug	INTERFACE_PORT_LIST
debug show qos shapers		debug	EXEC
debug qos cmef [{ enable | disable }]		debug	EXEC
show rmon statistics [<1~65535>]		15	EXEC
show rmon history [<1~65535>]		15	EXEC
show rmon alarm [<1~65535>]		15	EXEC
show rmon event [<1~65535>]		15	EXEC
rmon alarm <1-65535> <word255> <1-2147483647> {absolute | delta} rising-threshold <-2147483648-2147483647> [<0-65535>] falling-threshold <-2147483648-2147483647> [<0-65535>] {[rising | falling | both]}		15	GLOBAL_CONFIG
no rmon alarm <1-65535>		15	GLOBAL_CONFIG
rmon event <1-65535> [log] [trap <word127>] {[description <line127>]}		15	GLOBAL_CONFIG
no rmon event <1-65535>		15	GLOBAL_CONFIG
rmon collection stats <1-65535>		15	INTERFACE_PORT_LIST
no rmon collection stats <1-65535>		15	INTERFACE_PORT_LIST
rmon collection history <1-65535> [buckets <1-65535>] [interval <1-3600>]		15	INTERFACE_PORT_LIST

no rmon collection history <1-65535>		15	INTERFACE_PORT_LIST
show sflow statistics { receiver [<range_list>] | samplers [interface [<range_list>] <port_type_list>]}	Use sflow statistics to show statistics for either receiver or sample interface.	0	EXEC
show sflow	Use show sflow to display the current sFlow configuration.	0	EXEC
clear sflow statistics { receiver [<range_list>] | samplers [interface [<range_list>] <port_type_list>] }	Clearing statistics.	15	EXEC
sflow agent-ip {ipv4 <ipv4_addr> | ipv6 <ipv6_addr>}	The agent IP address used as agent-address in UDP datagrams. Defaults to IPv4 loopback address.	15	GLOBAL_CONFIG
no sflow agent-ip	Sets the agent IP address used as agent-address in UDP datagrams to 127.0.0.1.	15	GLOBAL_CONFIG
sflow timeout [receiver <range_list>] <0-2147483647>	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.	15	GLOBAL_CONFIG
no sflow timeout [receiver <range_list>]	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.	15	GLOBAL_CONFIG
sflow collector-address [receiver <range_list>] [<word>]	Collector address	15	GLOBAL_CONFIG
no sflow collector-address [receiver <range_list>]		15	GLOBAL_CONFIG
sflow collector-port [receiver <range_list>] <1-65535>	Collector UDP port. Valid range is 0-65536.	15	GLOBAL_CONFIG
no sflow collector-port [receiver <range_list>]	Collector UDP port. Valid range is 0-65536.	15	GLOBAL_CONFIG
sflow max-datagram-size [receiver <range_list>] <200-1468>	Maximum datagram size.	15	GLOBAL_CONFIG

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

snmp-server engine-id local <word10-32>	To specify SNMP server's engine ID.	13	GLOBAL_CONFIG
no snmp-server engined-id local	To set SNMP server's engine ID to default value.	15	GLOBAL_CONFIG
snmp-server version { v1 | v2c | v3 }	Set the SNMP server version to SNMPv1, SNMPv2c or SNMPv3.	15	GLOBAL_CONFIG
no snmp-server version	Set SNMP server's version to default setting.	15	GLOBAL_CONFIG
snmp-server community v2c <word127> [ro | rw]		15	GLOBAL_CONFIG
snmp-server community v3 <word127> [<ipv4_addr> <ipv4_netmask>]		15	GLOBAL_CONFIG
no snmp-server community v2c		15	GLOBAL_CONFIG
no snmp-server community v3 <word127>		15	GLOBAL_CONFIG
snmp-server user <word32> engine-id <word10-32> [{md5 <word8-32> | sha <word8-40> } [priv { des | aes } <word8-32>]]		15	GLOBAL_CONFIG
no snmp-server user <word32> engine-id <word10-32>		15	GLOBAL_CONFIG
snmp-server security-to-group model { v1 | v2c | v3 } name <word32> group <word32>		15	GLOBAL_CONFIG
no snmp-server security-to-group model { v1 | v2c | v3 } name <word32>		15	GLOBAL_CONFIG
snmp-server access <word32> model { v1 | v2c | v3 | any } level { auth | noauth | priv } [read <word255>] [write <word255>]		15	GLOBAL_CONFIG
no snmp-server access <word32> model { v1 | v2c | v3 | any } level { auth | noauth | priv }		15	GLOBAL_CONFIG
snmp-server view <word32> <word255> { include | exclude }		15	GLOBAL_CONFIG
no snmp-server view <word32> <word255>		15	GLOBAL_CONFIG
snmp-server contact <line255>	To specify the system contact string.	15	GLOBAL_CONFIG
no snmp-server contact	To clear the system contact string.	15	GLOBAL_CONFIG
snmp-server location <line255>	To specify the system location string.	15	GLOBAL_CONFIG
no snmp-server location	To specify the system location string.	15	GLOBAL_CONFIG
show snmp mib context	Use the show snmp mib context user EXEC command to display \ the supported MIBs in the switch.	15	EXEC
show snmp mib ifmib ifIndex	Use the show snmp mib ifmib ifIndex	15	EXEC

	user EXEC command to \ display the SNMP ifIndex(defined in IF-MIB) mapping \ information in the switch.		
show snmp mib redefine	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.	15	EXEC
snmp-server trap		15	GLOBAL_CONFIG
no snmp-server host <word32>		15	GLOBAL_CONFIG
shutdown		15	SNMPS_HOST
host { <ipv4_ucast> | <hostname> } [<1-65535>] [traps | informs]		15	SNMPS_HOST
host <ipv6_ucast> [<1-65535>] [traps | informs]		15	SNMPS_HOST
no host		15	SNMPS_HOST
version { v1 [<word127>] | v2 [<word127>] | v3 [probe | engineID <word10-32>] [<word32>] }		15	SNMPS_HOST
no version		15	SNMPS_HOST
informs retries <0-255> timeout <0-2147>		15	SNMPS_HOST
no informs		15	SNMPS_HOST
traps [aaa authentication] [system [coldstart] [warmstart]] [switch [stp] [rmon]]		15	SNMPS_HOST
no traps		15	SNMPS_HOST
snmp-server host <word32> traps [linkup] [linkdown] [lldp]		15	INTERFACE_PORT_LIST
no snmp-server host <word32> traps		15	INTERFACE_PORT_LIST
show snmp host [<word32>] [system] [switch] [interface] [aaa]		15	EXEC
switch stack re-elect	Config commands for the switches in the stack	13	EXEC
switch stack priority {local | <1-16>} <1-4>	Configure master election priority	13	GLOBAL_CONFIG
switch stack swap <1-16> <1-16>	Swap switch ID	13	GLOBAL_CONFIG
no switch stack <1-16>		13	GLOBAL_CONFIG
switch stack <1-16> mac <mac_ucast>	MAC address of the switch	13	GLOBAL_CONFIG
switch stack { enable | disable }	Enable/disable stacking	13	GLOBAL_CONFIG

switch stack interface <port_type_list>	Configure stacking interface	13	GLOBAL_CONFIG
show switch stack [details]	Show switch Detail information	0	EXEC
show switch stack debug	Show switch Debug information	debug	EXEC
show ip ssh	Use the show ip ssh privileged EXEC \ command to display the SSH status.	15	EXEC
ip ssh	Use the ip ssh global configuration command to \ enable the SSH. Use the no form of this \ command to disable the SSH.	15	GLOBAL_CONFIG
show network-clock	Show selector state.	0	EXEC
clear network-clock clk-source <range_list>	Clear active WTR timer.	15	EXEC
network-clock clk-source <range_list> nominate { clk-in | {interface <port_type_id>} }	Nominate a clk input to become a selectable clock source.	15	GLOBAL_CONFIG
no network-clock clk-source <range_list> nominate		15	GLOBAL_CONFIG
network-clock input-source { 1544khz | 2048khz | 10mhz }	Sets the station clock input frequency	15	GLOBAL_CONFIG
no network-clock input-source		15	GLOBAL_CONFIG
network-clock output-source { 1544khz | 2048khz | 10mhz }	Sets the station clock output frequency	15	GLOBAL_CONFIG
no network-clock output-source		15	GLOBAL_CONFIG
network-clock clk-source <range_list> aneg-mode { master | slave | forced}	Sets the preferred negotiation.	15	GLOBAL_CONFIG
no network-clock clk-source <range_list> aneg-mode		15	GLOBAL_CONFIG
network-clock clk-source <range_list> hold-timeout <3-18>	The hold off timer value in 100 ms.Valid values are range 3-18.	15	GLOBAL_CONFIG
no network-clock clk-source <range_list> hold-timeout		15	GLOBAL_CONFIG
network-clock selector { { manual clk-source <uint> } | selected | nonrevertive | revertive | holdover | freerun }	Selection mode of nominated clock sources	15	GLOBAL_CONFIG
no network-clock selector		15	GLOBAL_CONFIG
network-clock clk-source <range_list> priority <0-1>	Priority of nominated clock sources.	15	GLOBAL_CONFIG

no network-clock clk-source <range_list> priority		15	GLOBAL_CONFIG
network-clock wait-to-restore <0-12>	WTR time (0-12 min) '0' is disable	15	GLOBAL_CONFIG
no network-clock wait-to-restore		15	GLOBAL_CONFIG
network-clock ssm-holdover { prc | ssua | ssub | eec2 | eec1 | dnu | inv }	Hold Over SSM overwrite	15	GLOBAL_CONFIG
no network-clock ssm-holdover		15	GLOBAL_CONFIG
network-clock ssm-freerun { prc | ssua | ssub | eec2 | eec1 | dnu | inv }	Free Running SSM overwrite	15	GLOBAL_CONFIG
no network-clock ssm-freerun		15	GLOBAL_CONFIG
network-clock clk-source <range_list> ssm-overwrite { prc | ssua | ssub | eec2 | eec1 | dnu }	Clock source SSM overwrite	15	GLOBAL_CONFIG
no network-clock clk-source <range_list> ssm-overwrite		15	GLOBAL_CONFIG
network-clock option { eec1 | eec2 }	EEC options	15	GLOBAL_CONFIG
no network-clock option		15	GLOBAL_CONFIG
network-clock synchronization ssm	SSM enable/disable.	15	INTERFACE_PORT_LIST
show logging [info] [warning] [error] [switch <switch_list>]	Use the show logging privileged EXEC command without keywords to display the logging configuration, or particularly the logging message summary for the logging level.	15	EXEC
show logging <1-4294967295> [switch <switch_list>]	Use the show logging privileged EXEC command with logging ID to display the detail logging message. OC_CMD_DEFAULT =	15	EXEC
clear logging [info] [warning] [error] [switch <switch_list>]	Use the clear logging privileged EXEC command to clear the logging message.	15	EXEC
logging on	Use the logging on global configuration command to enable the logging server. Use the no form of this command to disable the logging server.	15	GLOBAL_CONFIG
logging host { <ipv4_ucast> | <hostname> }	Use the logging host global configuration command to configure the host address of logging server.	15	GLOBAL_CONFIG
no logging host	Use the no logging host global configuration command to clear the host address of logging server.	15	GLOBAL_CONFIG
logging level { info | warning | error }	Use the logging level global	15	GLOBAL_CONFIG

	configuration command to configure what level of message will send to logging server.		
show clock	Show running rmation	0	EXEC
show version	System hardware and software status	0	EXEC
password unencrypted <line31>	Use the password encrypted <password> global configuration command to configure administrator password with unencrypted password for the local switch access.	15	GLOBAL_CONFIG
password encrypted <word4-44>	Use the password encrypted <password> global configuration command to configure administrator password with encrypted password for the local switch access.	15	GLOBAL_CONFIG
password none	Use the password none global configuration command to remove the administrator password.	15	GLOBAL_CONFIG
show system	Show system information	0	EXEC
system contact <line255>	To specify the system contact string.	15	GLOBAL_CONFIG
no system contact	To clear the system contact string.	15	GLOBAL_CONFIG
system location <line255>	To specify the system location string.	15	GLOBAL_CONFIG
no system location	To specify the system location string.	15	GLOBAL_CONFIG
system name <line255>	To specify the system mode name string.	15	GLOBAL_CONFIG
no system name	To specify the system model name string.	15	GLOBAL_CONFIG
show thermal-protect [interface <port_type_list>]	Shows thermal protection status (chip temperature and port status).	15	EXEC
thermal-protect prio <0~3> temperature <0-255>	Thermal protection configuirations.	15	GLOBAL_CONFIG
no thermal-protect prio <0~3>	Sets temperature at which to turn ports with the corresponding priority off.	15	GLOBAL_CONFIG
thermal-protect port-prio <0-3>	Sets temperature at which to turn ports with the corresponding priority off.	15	INTERFACE_PORT_LIST
no thermal-protect port-prio	Sets temperature at which to turn ports with the corresponding priority off.	15	INTERFACE_PORT_LIST
show upnp		15	EXEC
upnp		15	GLOBAL_CONFIG

upnp ttl <1-255>		15	GLOBAL_CONFIG
no upnp ttl		15	GLOBAL_CONFIG
upnp advertising-duration <100-86400>		15	GLOBAL_CONFIG
no upnp advertising-duration		15	GLOBAL_CONFIG
username <word31> privilege <0-15> password unencrypted <line31>	Use the username <username> privilege <level> password encrypted <password> global configuration command to add a user with unencrypted password for the local switch access.	15	GLOBAL_CONFIG
username <word31> privilege <0-15> password encrypted <word4-44>	Use the username <username> privilege <level> password encrypted <password> global configuration command to add a user with encrypted password for the local switch access.	15	GLOBAL_CONFIG
username <word31> privilege <0-15> password none	Use the username <username> privilege <level> password none global configuration command to remove the password for specific username.	15	GLOBAL_CONFIG
no username <word31>	Use the no username <username> global configuration command to delete a local user.	15	GLOBAL_CONFIG
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>		13	GLOBAL_CONFIG
switchport vlan mac <mac_ucast> vlan <vlan_id>	Use the switchport vlan mac command to associate a MAC address to VLAN ID.	13	INTERFACE_PORT_LIST
switchport vlan protocol group <word16> vlan <vlan_id>	Use the no form of this command to remove the group to vlan mapping.	13	INTERFACE_PORT_LIST
show vlan protocol [eth2 {<0x600-0xffff>|arp|ip|ipx|at}] [snap {<0x0-0xffffff>|rfc-1042|snap-8021h} <0x0-0xffff>] [llc <0x0-0xff> <0x0-0xff>]	Use the switchport vlan protocol group command to add group to vlan mapping.	13	EXEC
show vlan mac [address <mac_ucast>]		13	EXEC
show vlan ip-subnet [id <1-128>]		13	EXEC
switchport vlan ip-subnet id <1-128>		13	INTERFACE_PORT_LIST

<ipv4_subnet> vlan <vlan_id>			
no switchport vlan ip-subnet id <1~128>		13	INTERFACE_PORT_LIST
debug vcl policy <uint>		debug	INTERFACE_PORT_LIST
no debug vcl policy		debug	GLOBAL_CONFIG
debug show vcl policy		debug	EXEC
switchport mode {access | trunk | hybrid}	Use the switchport mode command to define the type of the port.	13	INTERFACE_PORT_LIST
no switchport mode		13	INTERFACE_PORT_LIST
switchport access vlan <vlan_id>	Use the switchport access vlan command to configure a port to a VLAN. Valid VLAN IDs are 1 to 4095.	13	INTERFACE_PORT_LIST
no switchport access vlan		13	INTERFACE_PORT_LIST
switchport trunk native vlan <vlan_id>	Use the switchport native vlan command to configure a port VLAN ID for a trunk port.	13	INTERFACE_PORT_LIST
no switchport trunk native vlan	Set trunk mode characteristics of the interface	13	INTERFACE_PORT_LIST
switchport hybrid native vlan <vlan_id>	Use the switchport native vlan command to configure a port VLAN ID for a hybrid port.	13	INTERFACE_PORT_LIST
no switchport hybrid native vlan	Set hybrid mode characteristics of the interface	13	INTERFACE_PORT_LIST
switchport hybrid port-type { unaware | c-port | s-port | s-custom-port }	Set hybrid characteristics of the interface	13	INTERFACE_PORT_LIST
no switchport hybrid port-type	Set hybrid characteristics of the interface	13	INTERFACE_PORT_LIST
switchport hybrid ingress-filtering	Set hybrid characteristics of the interface	13	INTERFACE_PORT_LIST
switchport hybrid acceptable-frame-type { all | tagged | untagged }	Set hybrid characteristics of the interface	13	INTERFACE_PORT_LIST
no switchport hybrid acceptable-frame-type	Set hybrid characteristics of the interface	13	INTERFACE_PORT_LIST
switchport hybrid egress-tag {none | all [except-native]}	Set hybrid characteristics of the interface	13	INTERFACE_PORT_LIST
no switchport hybrid egress-tag	Set hybrid characteristics of the interface	13	INTERFACE_PORT_LIST
switchport trunk vlan tag native	Set trunk characteristics of the interface	13	INTERFACE_PORT_LIST

switchport trunk allowed vlan {all | none | [add | remove | except] <vlan_list>}	Set trunk mode characteristics of the interface	13	INTERFACE_PORT_LIST
no switchport trunk allowed vlan	Set trunk characteristics of the interface,	13	INTERFACE_PORT_LIST
switchport hybrid allowed vlan {all | none | [add | remove | except] <vlan_list>}	Set hybrid characteristics of the interface	13	INTERFACE_PORT_LIST
no switchport hybrid allowed vlan	Set hybrid characteristics of the interface	13	INTERFACE_PORT_LIST
vlan ethertype s-custom-port <0x0600-0xffff>		13	GLOBAL_CONFIG
no vlan {{ethertype s-custom-port} | <vlan_list>}		15	GLOBAL_CONFIG
show interface <port_type_list> switchport [access | trunk | hybrid]	Use the how interfaces command to display the administrative and operational status of all interfaces or a specified interface.	0	EXEC
show vlan [id <vlan_list> | name <vword32> | brief]	Use the show vlan command to view the VLAN configuration.	13	EXEC
show vlan status [interface <port_type_list>] [combined|admin|nas|mvr|voice-vlan|mstp|erps|vcl|evc|gvrp|all|conflicts]	Use the show VLAN status command to view the VLANs configured for each interface.	13	EXEC
name <vword32>	Use the name <vword32> command to configure VLAN name.	13	CONFIG_VLAN
no name	The no form of this command will restore the VLAN name to its default.	13	CONFIG_VLAN
switchport forbidden vlan {add|remove} <vlan_list>	Adds or removes forbidden VLANs from the current list of forbidden VLANs	15	INTERFACE_PORT_LIST
no switchport forbidden vlan	Allows for adding VLANs to an interface	15	INTERFACE_PORT_LIST
show switchport forbidden [{vlan <vlan_id>} | {name <word>}]	Lookup VLAN Forbidden port entry.	0	EXEC
voice vlan	Use the voice vlan global configuration command to enable voice vlan. Use the no form of this command to globally disable voice vlan.	15	GLOBAL_CONFIG
voice vlan vid <vlan_id>	Use the voice vlan vid global configuration command to configure voice vlan vid.	15	GLOBAL_CONFIG
no voice vlan vid	Use the no voice vlan vid global configuration command to restore the default voice vlan vid.	15	GLOBAL_CONFIG

voice vlan aging-time <10-10000000>	Use the voice vlan aging-time global configuration command to configure default voice vlan aging-time.	15	GLOBAL_CONFIG
no voice vlan aging-time	Use the no voice vlan aging-time global configuration command to restore the default voice vlan aging-time.	15	GLOBAL_CONFIG
voice vlan class { <0-7> | low | normal | medium | high }	Use the voice vlan class global configuration command to configure voice vlan class.	15	GLOBAL_CONFIG
no voice vlan class	Use the no voice vlan class global configuration command to restore the default voice vlan class.	15	GLOBAL_CONFIG
voice vlan oui <oui> [description <line32>]	Use the voice vlan oui global configuration command to set the oui entry for voice vlan.	15	GLOBAL_CONFIG
no voice vlan oui <oui>	Use the no voice vlan oui global configuration command to delete the oui entry.	15	GLOBAL_CONFIG
switchport voice vlan mode { auto | force | disable }	Use the switchport voice vlan mode interface configuration command to configure to switchport voice vlan mode.	15	INTERFACE_PORT_LIST
no switchport voice vlan mode	Use the no switchport voice vlan mode interface configuration command to restore the default switchport voice vlan mode.	15	INTERFACE_PORT_LIST
switchport voice vlan security	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.	15	INTERFACE_PORT_LIST
switchport voice vlan discovery-protocol {oui | lldp | both}	Use the switchport voice vlan discovery-protocol interface configuration command to configure to switchport voice vlan discovery-protocol.	15	INTERFACE_PORT_LIST
no switchport voice vlan discovery-protocol	Use the no switchport voice vlan discovery-protocol interface configuration command to restore the	15	INTERFACE_PORT_LIST

	default switchport voice vlan discovery-protocol.		
show voice vlan [oui <oui> | interface <port_type_list>]	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.	15	EXEC
debug gvrp protocol-state interface <port_type_list> vlan <vlan_list>		debug	EXEC
debug gvrp msti		debug	EXEC
debug gvrp statistic		debug	EXEC
gvrp		15	GLOBAL_CONFIG
gvrp time { [join-time <1-20>] [leave-time <60-300>] [leave-all-time <1000-5000>] }*1		15	GLOBAL_CONFIG
gvrp max-vlans <1-4095>		15	GLOBAL_CONFIG
gvrp		15	INTERFACE_PORT_LIST
gvrp join-request vlan <vlan_list>		15	INTERFACE_PORT_LIST
gvrp leave-request vlan <vlan_list>		15	INTERFACE_PORT_LIST