GEP-2851

28-Port Web Smart Gigabit POE Switch

CLI User Guide

HW: V1
CLI: V1.0_20180516

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.

Revision History

Release	Date	Revision
Initial Release	**2018/05/16**	**V1.0**

Content

Chapter 1 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:
GEP-2851#
```

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

```
GEP-2851# ?
    !              Comment
    clear          Reset functions
    configure      Enter configuration mode
    copy           Copy from source to destination
    delete         Delete one file in flash file system
    diagnostics    diagnostics
    dir            Directory of all files in flash file system
    exit           Exit from the CLI
    find-switch    Turn on and off all LED light 3 times in 15 seconds
    firmware       Firmware
    logout         Exit from EXEC mode
    more           Display file
    ping           Send ICMP echo messages
    reload         Reload system
    show           Show running system information
    ssl            Setup SSL certificate
    terminal       Set terminal line parameters
    traceroute     Trace the route to HOST
```

Exit

Exit from EXEC mode.

Syntax:

exit

Parameter:

None.

Example:

```
GEP-2851(config)# exit
GEP-2851#
```

logout

Exit from EXEC mode.

Syntax:

logout

Parameter:

none

Example:

```
GEP-2851# logout
Username:
```

Chapter 2 CLEAR of CLI

Table : CLEAR Commands

Command	Function
access-list	Access list
ip	Clear DHCP Relay statistics
lldp	Clear LLDP statistics for one or more given
logging	Syslog
mac	MAC Address Table
spanning-tree	Execute protocol migration check on interfaces
statistics	Clear statistics for one or more given interface

2-1 access-list

Access list.

Syntax:

Clear access-list ace statistics

Parameter:

ace Access list entry

statistics Traffic statistics

Example:

```
GEP-2851# clear access-list ace statistics
GEP-2851#
```

2-2 ip

Clear DHCP Relay statistics.

Syntax

clear ip dhcp relay statistics

Parameter

dhcp	Clear DHCP Relay statistics
relay	Clear DHCP Relay statistics
statistics	Clear DHCP Relay statistics

EXAMPLE

```
GEP-2851# clear  ip dhcp relay statistics
GEP-2851#
```

2-3 lldp

Clear LLDP statistics for one or more given interface.

Syntax

Clear lldp statistics { global | (interface [* | GigabitEthernet <port_list>]) }

Parameter

statistics	Clear LLDP statistics
global	Clear global counters
interface	Interface
GigabitEthernet	GigabitEthernet
*	All ports
<port_list>	Port List S/X-Y,Z (1/1-28)

EXAMPLE

```
GEP-2851# clear lldp statistics interface *
GEP-2851#
```

2-4 logging

Syslog.

Syntax

clear logging [info] [warning] [error]

Parameter

error	Error
info	Information
warning	Warning

EXAMPLE

```
GEP-2851# clear logging info error warning
GEP-2851#
```

2-5 mac

MAC Address Table.

Syntax

Clear mac address-table

Parameter

address-table	Flush MAC Address table.

EXAMPLE

```
GEP-2851# clear mac address-table
GEP-2851#
```

2-6 spanning-tree

Execute protocol migration check on interfaces.

Syntax

clear spanning-tree detected-protocols interface (* | GigabitEthernet <port_list>)

Parameter

detected-protocols	Clear spanning-tree detected protocols, i.e. mcheck.
interface	Interface
GigabitEthernet	GigabitEthernet
*	All ports
<port_type_list>	Port List S/X-Y,Z (1/1-28)

EXAMPLE

```
GEP-2851# clear spanning-tree detected-protocols interface *
GEP-2851#
```

2-7 statistics

Clear statistics for a given interface.

Syntax

clear statistics interface (* | GigabitEthernet <port_list>)

Parameter

interface	Interface
GigabitEthernet	GigabitEthernet
*	All switches or All ports
<port__list>	Port List S/X-Y,Z (1/1-28)

EXAMPLE

```
GEP-2851# clear statistics GigabitEthernet 1/1-28
GEP-2851#
```

Chapter 3 CONFIGURE Commands of CLI

Table : CONFIGURE Commands

Command	Function
terminal	Configure from the terminal
!	Comments
aaa	Authentication, Authorization and Accounting
access	Access management
access-list	Access list
aggregation	Aggregation mode
clock	Configure time-of-day clock
dms	DMS Mode
do	To run exec commands in config mode
dot1x	IEEE Standard for port-based Network Access Control
end	Go back to EXEC mode
event	Trap event level
exit	Exit from Configuration mode
interface	Select an interface to configure
ip	Internet Protocol
ipmc	IPv4/IPv6 multicast configuration
ipv6	IPv6 configuration commands
lacp	Lacp system configuration
lldp	LLDP configurations.
logging	Syslog

loop-protect	Loop protection configuration
mac	MAC table entries/configuration
monitor	Monitoring different system events
mvr	MVR multicast VLAN list
no	Negate a command or set its defaults
ntp	Configure NTP
poe	power over Ethernet
port-security	Enable/disable port security globally
Privilege	Privilege level
qos	Quality of Service
radius-server	Configure RADIUS
rmon	Remote Monitoring
snmp-server	Set SNMP server's configurations
spanning-tree	Spanning Tree protocol
system	Set the SNMP server's configurations
tacacs-server	Configure TACACS+
trap	Trap
upnp	Set UPnP's configurations
username	Establish User Name Authentication
vlan	VLAN commands
voice	Vlan for voice traffic

3-1 terminal

Configure from the terminal.

Syntax

configure terminal

Parameter

terminal Configure from the terminal

EXAMPLE

```
GEP-2851# configure terminal
GEP-2851(config)#
```

3-1.1 aaa

Authentication, Authorization and Accounting.

SYNTAX

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

aaa authentication service-port [ssh | telnet | http | https] <0-65535>

aaa authentication redirect

aaa authorization (ssh | telnet) tacacs commands <0-15> fallback

aaa authorization (ssh | telnet) tacacs commands <0-15> config-commands fallback

aaa accounting (ssh | telnet) tacacs

aaa accounting (ssh | telnet) tacacs commands <0-15> [exec]

Parameter

authentication	Authentication
authorization	Authorization
accounting	Accounting
login	Login
service-port	Service port
redirect	HTTP redirect HTTPS
ssh	Configure SSH
telnet	Configure Telnet

http	Configure HTTP
local	Use local database for authentication
radius	Use RADIUS for authentication
tacacs	Use TACACS+ for authentication
https	Configure HTTPS
<0-65535>	Service port (0..65535)
telnet	telnet
ssh	ssh
tacacs	Configure Telnet
commands	Cmd Lvl (0..15)
<0-15>	Cmd Lvl (0..15)
config-commands	config-commands
fallback	fallback
tacacs	Configure SSH
exec	config-commands

EXAMPLE

```
GEP-2851(config)# aaa authentication login http radius
GEP-2851(config)#
```

3-1.2 !

Comments

3-1.3 access

Access management.

SYNTAX

access management <1..16> <1..4095> A.B.C.D[/mask] { [web] [snmp] [telnet] | all }

access management <1..16> <1..4095> A.B.C.D[/mask] { [web] | [snmp] | [telnet] | [all] }

Parameter

management	Access management configuration
< 1-16>	ID of access management entry (1..16)
<1..4095>	VID of access management entry (1..4095)
A.B.C.D[/mask]	A valid IPv4 unicast address
all	All services
snmp	SNMP service
telnet	TELNET/SSH service
web	Web service

EXAMPLE

```
GEP-2851(config)# access management 10 3 192.168.1.1 all
GEP-2851(config)#
```

3-1.4 access-list

Access list.

Table : configure – access-list Commands

Command	Function
ace	Access list entry

3-1.4.1 ace

Access list entry.

SYNTAX

access-list ace <1-384> action [deny | permit | shutdown]

access-list ace <1-384> action { (deny | permit | shutdown) [ingress | mirror | metering | counter | frame-type] }

access-list ace <1-384> action { (deny | permit | shutdown) ingress [any | interface] [mirror | metering | counter | frame-type] }

access-list ace <1-384> action { (deny | permit | shutdown) ingress any mirror [disable | metering | counter | frame-type] }

access-list ace <1-384> action { (deny | permit | shutdown) ingress any metering [disable | <16-1000000>] [mirror | counter | frame-type] }

access-list ace <1-384> action { (deny | permit | shutdown) ingress any counter [disable | mirror | metering | frame-type] }

access-list ace <1-384> action { (deny | permit | shutdown) ingress any frame-type any [mirror | metering | counter] }

access-list ace <1-384> action { (deny | permit | shutdown) ingress any frame-type any mirror [disable | metering | counter] }

access-list ace <1-384> action { (deny | permit | shutdown) ingress any frame-type any metering [disable | <16-1000000>] [mirror | counter] }

access-list ace <1-384> action { (deny | permit | shutdown) ingress any frame-type any counter [disable | mirror | metering] }

access-list ace <1-384> action { (deny | permit | shutdown) ingress any frame-type etype [mirror | metering | counter | ctag | ctag-priority | ctag-vid | stag | stag-priority | stag-vid | dmac-type | dmac | smac | etype-value] }

access-list ace <1-384> action { (deny | permit | shutdown) ingress any frame-type ipv4 [mirror | metering | counter | dip | sip | ip-protocol | ip-flag | tos] }

access-list ace <1-384> action { (deny | permit | shutdown) ingress any frame-type ipv4-icmp [mirror | metering | counter | dip | sip | ip-flag | tos | icmp-code | icmp-type] }

access-list ace <1-384> action { (deny | permit | shutdown) ingress any frame-type ipv4-tcp [mirror | metering | counter | dip | sip | ip-flag | tos | dport | sport | tcp-flag] }

access-list ace <1-384> action { (deny | permit | shutdown) ingress any frame-type ipv4-udp [mirror | metering | counter | dip | sip | ip-flag | tos | dport | sport] }

access-list ace <1-384> ingress { any | interface [* | GigabitEthernet <port_list>] }

access-list ace <1-384> ingress any [action | mirror | metering | counter | frame-type]

access-list ace <1-384> ingress interface { * [<port_list> | action | mirror | metering | counter | frame-type] | GigabitEthernet <port_list> }

access-list ace <1-384> mirror disable

access-list ace <1-384> mirror [disable | action | ingress | metering | counter | frame-type]

access-list ace <1-384> metering [disable | <16-1000000000>]

access-list ace <1-384> metering { (disable | <16-1000000000>) [action | ingress | mirror | counter | frame-type] }

access-list ace <1-384> counter disable

access-list ace <1-384> counter [disable | action | ingress | mirror | metering | frame-type]

access-list ace <1-384> frame-type any

access-list ace <1-384> frame-type any [action | ingress | mirror | metering | counter]

access-list ace <1-384> frame-type etype [action | ingress | mirror | metering | counter | ctag | ctag-priority | ctag-vid | stag | stag-priority | stag-vid | dmac-type | dmac | smac | etype-value]

access-list ace <1-384> frame-type etype [ctag | stag] [any | tagged | untagged]

access-list ace <1-384> frame-type etype [ctag-priority | stag-priority] [any | 0-1 | 0-3 | 2-3 | 4-5 | 4-7 | 6-7 | <0-7>]

access-list ace <1-384> frame-type etype [ctag-vid | stag-vid] [any | <vlan_id>]

access-list ace <1-384> frame-type etype dmac-type [any | broadcast | multicast | unicast]

access-list ace <1-384> frame-type etype [dmac | smac] [any | <mac_addr>]

access-list ace <1-384> frame-type etype etype-value [any | <0x0000-0xFFFF>]

access-list ace <1-384> frame-type ipv4 [action | ingress | mirror | metering | counter | dip | sip | ip-protocol | ip-flag | tos]

access-list ace <1-384> frame-type ipv4-icmp [action | ingress | mirror | metering | counter | dip | sip | ip-flag | tos | icmp-code | icmp-type]

access-list ace <1-384> frame-type ipv4-tcp [action | ingress | mirror | metering | counter | dip | sip | ip-flag | tos | dport | sport | tcp-flag]

access-list ace <1-384> frame-type ipv4-udp [action | ingress | mirror | metering | counter | dip | sip | ip-flag | tos | dport | sport]

Parameter

<1-384>	ACE ID (1..384)
action	Access list action
ingress	Ingress Port

mirror	Mirror frame to destination mirror port
metering	Bandwidth limitation on the traffic flow
counter	Count the packet if the ACE rule is matched
frame-type	Frame type
deny	Deny
permit	Permit
shutdown	Shutdown the interface
any	Don't-care the ingress interface
interface	Select an interface to configure
*	All switches or All ports
GigabitEthernet	GigabitEthernet
<port_list>	Port list in (1/1-28)
disable	Disable metering
disable	Disable mirror
disable	Disable counter
<16-1000000000>	Metering bandwidth in Kbps (16..1000000000)
any	Don't-care the frame type
etype	Frame type of etype
ipv4	Frame type of IPv4
ipv4-icmp	Frame type of IPv4 ICMP
ipv4-tcp	Frame type of IPv4 TCP
ipv4-udp	Frame type of IPv4 UDP
dip	Destination IP address field
sip	Source IP address field
ip-protocol	IP protocol
ip-flag	IP flag

tos	IPv4 traffic class field
icmp-code	ICMP code field
icmp-type	ICMP type field
ctag	C-VLAN Tag
ctag-priority	C-VLAN Tag-priority
ctag-vid	C-VLAN ID field
stag	S-VLAN Tag
stag-priority	S-VLAN Tag-priority
stag-vid	S-VLAN ID field
dmac-type	The type of destination MAC address
dmac	Destination MAC address field
smac	Source MAC address field
etype-value	Ether type value
dport	TCP/UDP destination port field
sport	TCP/UDP source port field
cp-flag	TCP flag
any	Don't-care tagged or untagged
tagged	Tagged
untagged	Untagged
any	Don't-care the value of tag priority field
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 (0..7)
any	Don't-care the value of VID field
<vlan_id>	The value of VID field (1-4095)
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 value of destination MAC address field
<mac_addr>	The value of destination MAC address field
any	Don't-care the value of source MAC address field
<mac_addr>	The value of source MAC address field
any	Don't-care the value of etype field
<0x0000-0xFFFF>	The value of etype field

```
GEP-2851(config)# access-list ace 10 action deny
GEP-2851(config)#
```

3-1.5 aggregation

Aggregation mode.

SYNTAX

aggregation mode [dst-ip | dst-mac | src-dst-ip | src-dst-mac | src-ip | src-mac]

Parameter

mode	Traffic distribution mode
dst-ip	Destination IP address affects the distribution
dst-mac	Destination MAC affects the distribution
src-dst-ip	Source and Destination IP affect the distribution

src-dst-mac Source and Destination MAC affect the distribution

src-ip Source IP address affects the distribution

src-mac Source MAC affects the distribution

EXAMPLE

```
GEP-2851(config)# aggregation mode dst-ip
GEP-2851(config)#
```

3-1.6 clock

Configure time-of-day clock.

SYNTAX

clock set date date

clock timezone { [acronym <word16>] | [clock_offset <-12:00-12:00>] }

clock summer-time mode_type <1-12> <1-5> <1-7> <0-23> <1-12> <1-5> <1-7> <0-23> <1-1440>

Parameter

set	set clock
summer-time	Configure summer (daylight savings) time
timezone	Configure time zone
date	yyyy/mm/dd
date	hh:mm:ss
acronym	name of time zone
clock_offset	Offset from UTC
word16	name of time zone. (word16)
<-12 :00-12 :00>	Hours offset from UTC.
mode_type	Enable or Disable time zone in summer. (disable/enable)
<1-12>	Month to start. (1..12)

<1-5>	Week number to start. (1..5)
<1-7>	Weekday to start. (1..7)
<0-23>	Hour to start. (0..23)
<1-12>	Month to end. (1..12)
<1-5>	Week number to end. (1..5)
<1-7>	Weekday to end. (1..7)
<0-23>	Hour to end. (0..23)
<1-1440>	Offset to add in minutes. (1..1440)

EXAMPLE

```
GEP-2851(config)# clock set 2014/11/04 10:22:03
2014-11-04T10:22:03+00:00
GEP-2851(config)# do show clock
System Time     : 2014-11-04T10:22:48+00:00
```

3-1.7 dms

DMS mode.

SYNTAX

dms mode

dms mode [high-priority | enabled | disabled]

Parameter

mode	DMS mode
high-priority	High Priority
enabled	Enabled
disabled	Disabled

EXAMPLE

```
GEP-2851(config)# dms mode disabled
GEP-2851(config)#
```

3-1.8 do

To run exec commands in config mode.

SYNTAX

do < LINE >{[< LINE >]}

do clear access-list ace statistics

do clear ip dhcp relay statistics

do clear lldp statistics { global | [interface (GigabitEthernet <port_list> | *)] }

do clear logging [error | info | warning]

do clear spanning-tree detected-protocols interface (GigabitEthernet <port_list> | *)

do clear statistics interface (GigabitEthernet <port_list> | * <port_list>)

Parameter

Clear	Reset functions
configure	Enter configuration mode
copy	Copy from source to destination
delete	Delete one file in flash file system
diagnostics	diagnostics
dir	Directory of all files in flash file system
find-switch	Turn on and off all LED light 3 times in 15 seconds
firmware	firmware
logout	Exit from EXEC mode
more	Display file
ping	Send ICMP echo messages

reload	Reload system
show	Show running system information
ssl	Setup SSL certificate
terminal	Set terminal line parameters
traceroute	Trace the route to HOST
access-list	Access list
ip	Clear DHCP Relay statistics
lldp	Clear LLDP statistics for one or more given interface
logging	Syslog
mac	MAC Address Table
spanning-tree	Execute protocol migration check on interfaces
statistics	Clear statistics for one or more given interface
ace	Access list entry
statistics	Traffic statistics
dhcp	Clear DHCP Relay statistics
relay	Clear DHCP Relay statistics
statistics	Clear DHCP Relay statistics
statistics	Clear LLDP statistics
global	Clear global counters
interface	Interface
GigabitEthernet	GigabitEthernet
*	All ports
<port_list>	Port List S/X-Y,Z (1/1-28)
Error	Error
info	Information
warning	Warning

address-table	Flush MAC Address table
detected-protocols	Clear spanning-tree detected protocols, i.e. mcheck.
interface	Interface
*	All switches or All ports

EXAMPLE

```
GEP-2851(config)# do clear statistics interface GigabitEthernet 1/1-28
GEP-2851(config)#
```

3-1.9 dot1x

IEEE Standard for port-based Network Access Control.

SYNTAX

dot1x authentication timer re-authenticate <1-3600>

dot1x feature guest-vlan

dot1x guest-vlan [<1-4095> | supplicant]

dot1x max-reauth-req <1-255>

dot1x re-authentication

dot1x system-auth-control

dot1x timeout tx-period <1-65535>

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
re-authenticate	The period between re-authentication attempts in seconds
<1-3600>	seconds (1..3600)
guest-vlan	Globally enables/disables state of guest-vlan
<1-4095>	Guest VLAN ID used when entering the Guest VLAN (1..4095)
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
<1-255>	number of times (1..255)
tx-period	the time between EAPOL retransmissions.
<1-65535>	seconds (1..65535)

EXAMPLE

```
GEP-2851(config)# dot1x authentication timer re-authenticate 1000
GEP-2851(config)# dot1x feature guest-vlan
GEP-2851(config)# dot1x guest-vlan 33
GEP-2851(config)# dot1x max-reauth-req 3
GEP-2851(config)# dot1x re-authentication
GEP-2851(config)# dot1x system-auth-control
GEP-2851(config)# dot1x timeout tx-period 3000
```

3-1.10 end

Go back to EXEC mode.

Syntax:

end

Example:

```
GEP-2851(config)# end
GEP-2851#
```

3-1.11 event

Trap event level.

SYNTAX

event group [aclaccess-mgmt | arp-inspection | auth-failed | bsc-protection | cold-start | dhcp | dhcp-snooping | ip-source-guard | lacp | link-updown | login | logout | loop-protection | mac-table | maintenance | mgmt-ip-change | nas | port | port-security | rmon | sfp | spanning-tree | system | user | warm-start **]** { [level < 0-7 >] | { syslog [enable | disable] } | { trap [enable | disable] } }

event group [acl | aclaccess-mgmt | arp-inspection | auth-failed | bsc-protection | cold-start | dhcp | dhcp-snooping | ip-source-guard | lacp | link-updown | login | logout | loop-protection | mac-table | maintenance | mgmt-ip-change | nas | port | port-security | rmon | sfp | spanning-tree | system | user | warm-start **]** [level | syslog | trap]

event group [acl | aclaccess-mgmt | arp-inspection | auth-failed | bsc-protection | cold-start | dhcp | dhcp-snooping | ip-source-guard | lacp | link-updown | login | logout | loop-protection | mac-table | maintenance | mgmt-ip-change | nas | port | port-security | rmon | sfp | spanning-tree | system | user | warm-start **]** [level | syslog | trap] < 0-7 > { syslog [enable | disable] [trap] } | { trap [enable | disable] [syslog] }

Parameter

group	Trap Event group name
acl	Group ID ACL
access-mgmt	Group ID ACCESS-MGMT
arp-inspection	Group ID ARP-INSPECTION
auth-failed	Group ID AUTH-FAILED
bsc-protection	Group ID BCS-PROTECTION
cold-start	Group ID COLD-START
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-protection	Group ID LOOP-PROTECTION
mac-table	Group ID MAC-TABLE
maintenance	Group ID MAINTENANCE
mgmt-ip-change	Group ID MGMT-IP-CHANGE
nas	Group ID NAS
port	Group ID PORT
port-security	Group ID PORT-SECURITY
rmon	Group ID RMON
sfp	Group ID SFP
spanning-tree	Group ID SPANNING-TREE
system	Group ID SYSTEM
user	Group ID USER
warm-start	Group ID WARM-START
level	event group level
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

EXAMPLE

```
GEP-2851(config)# event group lacp trap enable
GEP-2851(config)#
```

3-1.12 interface

Select an interface to configure.

SYNTAX

interface vlan <vlan_list>

interface vlan <vlan_list> end

interface vlan <vlan_list> exit

interface vlan <vlan_list> ip (address | dhcp | igmp) <ipv4_addr> <ipv4_netmask>

interface vlan <vlan_list> ip address dhcp

interface vlan <vlan_list> ip address dhcp fallback <ipv4_addr> <ipv4_netmask>

interface vlan <vlan_list> ip address dhcp fallback <ipv4_addr> <ipv4_netmask> timeout

interface vlan <vlan_list> ip address dhcp fallback <ipv4_addr> <ipv4_netmask> timeout <0-4294967295>

interface GigabitEthernet <port_list>

Parameter

vlan	VLAN interface configurations
GigabitEthernet	1 Gigabit Ethernet Port
<vlan_list>	List of VLAN interface numbers, 1~4094 (1-4095)
!	Comments
end	Go back to EXEC mode
exit	Exit from current mode

ip	Interface Internet Protocol config commands
ipv6	Interface IPv6 config commands
no	Negate a command or set its defaults
Address	Address configuraton
dhcp	Dynamic Host Configuration Protocol
igmp	ip mode
<ipv4_addr>	IP address (X.X.X.X)
dhcp	Enable DHCP client
<ipv4_netmask>	IP netmask (X.X.X.X)
fallback	DHCP fallback settings
timeout	DHCP fallback timeout
<0-4294967295>	DHCP fallback timeout in seconds (0..4294967295)
address	Address configuraton
mld	ipv6 mode
<port_list>	Port List S/X-Y,Z (1/1-28)

EXAMPLE

```
GEP-2851(config)# interface GigabitEthernet 1/1-28
GEP-2851(config-if)#
GEP-2851(config-if)#  interface vlan 3
GEP-2851(config-if-vlan)#
```

3-1.13 ip

Internet Protocol.

SYNTAX

ip arp inspection

ip arp inspection entry interface [* | GigabitEthernet <port_id>] <vlan_id> <mac_ucast> <ipv4_ucast>

ip arp inspection vlan <vlan_list>

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

ip dhcp pool <vlan_id>

ip dhcp relay

ip dhcp relay information option

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

ip dhcp snooping

ip helper-address <ipv4_ucast>

ip igmp snooping

ip igmp host-proxy

ip igmp ssm-range <ipv4_mcast> <4-32>

ip igmp unknown-flooding

ip name-server { <ipv4_ucast> | [dhcp interface vlan <vlan_id>] }

ip route <ipv4_addr> <ipv4_netmask> <ipv4_ucast>

ip source binding interface [* | GigabitEthernet <port_id>] <ipv4_ucast> <mac_ucast>

ip verify source

Parameter

arp	Address Resolution Protocol
dhcp	Dynamic Host Configuration Protocol
helper-address	DHCP helper server address
igmp	Internet Group Management Protocol
name-server	Domain Name System
route	Add IP route
source	source command
verify	verify command
inspection	ARP inspection

entry	arp inspection entry
vlan	arp inspection vlan setting
interface	Select an interface to configure
*	All switches or All ports
GigabitEthernet	GigabitEthernet
<port_id>	Port ID in (1/1-28)
<vlan_id>	Select a VLAN id to configure (1-4095)
<mac_ucast>	Select a MAC address to configure
<ipv4_ucast>	Select an IP Address to configure (X.X.X.X)
<vlan_list>	arp inspection vlan list (1-4095)
logging	ARP inspection vlan logging mode config
all	log all entries
deny	log denied entries
permit	log permitted entries
pool	DHCP server pool
relay	DHCP relay
snooping	DHCP snooping
<vlan_id>	VLAN id of DHCP server pool (1-4095)
information	DHCP information option <Option 82>
option	DHCP option 82
policy	Policy for handling the receiving DHCP packet already include the information option
drop	Drop the package
keep	Keep the original relay information
replace	Replace the original relay information
<ipv4_ucast>	IP Address (X.X.X.X)
snooping	Snooping IGMP

host-proxy	IGMP proxy configuration
unknown-flooding	Flooding unregistered IPv4 multicast traffic
ssm-range	IPv4 address range of Source Specific Multicast
<ipv4_mcast>	Valid IPv4 multicast address (X.X.X.X)
<4-32>	Prefix length ranges from 4 to 32
<ipv4_ucast>	A valid IPv4 unicast address (X.X.X.X)
dhcp	Dynamic Host Configuration Protocol
interface	Select an interface to configure
vlan	VLAN Interface
<vlan_id>	VLAN identifier(s): VID (1-4095)
<ipv4_addr>	Network (X.X.X.X)
<ipv4_netmask>	Netmask (X.X.X.X)
<ipv4_ucast>	Gateway (X.X.X.X)
binding	ip source binding
interface	ip source binding entry interface config
<ipv4_ucast>	Select an unicast IP address to configure (X.X.X.X)
<mac_ucast>	Select an unicast MAC address to configure
source	verify source

EXAMPLE

```
GEP-2851(config)# ip arp inspection
GEP-2851(config)# ip dhcp relay
GEP-2851(config)# ip helper-address 192.168.1.1
GEP-2851(config)# ip name-server 192.168.1.6
GEP-2851(config)# ip route 192.168.1.1 255.255.255.0 192.168.1.100
GEP-2851(config)# ip verify source
IP Source Guard:
       Translate 0 dynamic entries into static entries.
```

3-1.14 ipmc

IPv4/IPv6 multicast configuration.

SYNTAX

ipmc profile word16

ipmc range word16 [<ipv4_mcast> | <ipv6_mcast>]

ipmc mode

Parameter

profile	Ipmc profile provides the rules for specific group addresses.
range	A range of IPv4/IPv6 multicast addresses for the profile
mode	IPMC profile mode
word16	Profile name in 16 char's (word16)
word16	Range entry name in 16 char's (word16)
<ipv4_mcast>	Valid IPv4 multicast address
<ipv6_mcast>	Valid IPv6 multicast address

EXAMPLE

```
GEP-2851(config)# ipmc profile test
GEP-2851(config-ipmc-profile)#
```

3-1.15 ipv6

IPv6 configuration commands.

SYNTAX

ipv6 mld host-proxy

ipv6 mld snooping

ipv6 mld ssm-range <ipv6_mcast> Unsigned integer

ipv6 mld unknown-flooding

Parameter

mld	Multicasat Listener Discovery
host-proxy	MLD proxy configuration
snooping	Snooping MLD
ssm-range	IPv6 address range of Source Specific Multicast
unknown-flooding	Flooding unregistered IPv6 multicast traffic
<ipv6_mcast>	Valid IPv6 multicast address (X:X:X:X:X:X:X:X)
Unsigned integer	Prefix length ranges from 4 to 32

EXAMPLE

```
GEP-2851(config)# ipv6 mld host-proxy
GEP-2851(config)# ipv6 mld snooping
GEP-2851(config)#
```

3-1.16 lacp

Lacp system configuration.

SYNTAX

lacp system-priority <1-65535>

Parameter

system-priority	System priority
<1-65535>	Aggregation group number (1..65535)

EXAMPLE

```
GEP-2851(config)# lacp system-priority 333
GEP-2851(config)#
```

3-1.17 lldp

LLDP configurations.

SYNTAX

lldp holdtime <2-10>

lldp med datum [wgs84 | nad83_navd88 | nad83_mllw]

lldp med fast <1-10>

lldp med location-tlv altitude [meters | floors] <-32767-32767>

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] [word50 | word2]

lldp med location-tlv elin-addr <phone_call_str>

lldp med location-tlv latitude [north | south] <0-90>

lldp med location-tlv longitude [west | east] <0-180>

lldp med media-vlan-policy <0-31> { voice | voice-signaling | guest-voice-signaling | guest-voice | softphone-voice | video-conferencing | streaming-video | video-signaling } { tagged <1-4095> | untagged } [l2-priority <0-7>] [dscp <0-63>]

lldp reinit <1-10>

lldp timer <5-32768>

lldp transmission-delay <1-8192>

Parameter

holdtime	Sets LLDP hold time
med	Media Endpoint Discovery.
reinit	Sets LLDP reinit time
timer	Sets LLDP TX interval
transmission-delay	Sets LLDP transmision-delay.

<2-10>	The neighbor switch will discarded the LLDP information after hold time multiplied with timer seconds (2..10)
datum	Datum type
fast	Number of times to repeat LLDP frame transmission at fast start
location-tlv	LLDP-MED Location Type Length Value parameter
media-vlan-policy	Use the media-vlan-policy to create a policy, which can be assigned to an interface
nad83_mllw	Mean lower low water datum 1983
nad83_navd88	North American vertical datum 1983
wgs84	World Geodetic System 1984
<1-10>	Fast start repeat count (1..10)
altitude	Altitude parameter
civic-addr	Civic address information and postal information
elin-addr	Emergency Location Identification Number
latitude	Latitude parameter
longitude	Longitude parameter
meter	Specify the altitude in meters
floors	Specify the altitude in floor
<-32767-32767>	Specify the altitude in floor (-32767..32767)
<-32767-32767>	Specify the altitude in meters (-32767..32767)
country	The two-letter ISO 3166 country code in capital ASCII letters
word2	Example: DK, DE or US (word2) (for **country**)
state	National subdivisions
word50	state, canton, region, province, prefecture (word50) (for **state**)
county	County, parish, gun (Japan), district

word50	County, parish, gun (Japan), district (word50) (for **county**)
city	City, township, shi (Japan) - Example: Copenhagen
word50	City, township, shi (Japan) - Example:Copenhagen (word50) (for **city**)
district	City division, borough, city district, ward, chou (Japan)
word50	City division, borough, city district, ward, chou (Japan) (word50) (for **district**)
block	Neighbourhood, block
word50	Neighborhood, block (word50) (for **block**)
street	Street
word50	Example: Poppelvej (word50) (for **street**)
leading-street-direction	Leading street direction
word50	Example: N (word50) (for **leading-street-direction**)
trailing-street-suffix	Trailing street suffix
word50	Example: SW (word50) (for **trailing-street-suffix**)
street-suffix	Street suffix – Example
word50	Example: Ave, Platz (word50) (for **street-suffix**)
house-no	House number
word50	Example: 21 (word50) (for **house-no**)
house-no-suffix	House number suffix
word50	Example: A, 1/2 (word50) (for **house-no-suffix**)
landmark	Landmark or vanity address
word50	Example: Columbia University (word50) (for **landmark**)
additional-info	Additional location info
word50	Example: South Wing (word50) (for **additional-info**)
name	Name (residence and office occupant)
word50	Example: Flemming Jahn (word50) (for **name**)
zip-code	Postal/zip code

word50	Example: 2791 (word50) (for **zip-code**)
building	Building (structure)
word50	Example: Low Library (word50) (for **building**)
apartment	Unit (Apartment, suite)
word50	Example: Apt 42 (word50) (for **apartment**)
floor	Floor
word50	Example: 4 (word50) (for **floor**)
room-number	Room number
word50	Example: 450F (word50) (for **room-number**)
place-type	Place type
word50	Example: Office (word50) (for **place-type**)
postal-community-name	Postal community name
word50	Example: Leonia. (word50) (for **postal-community-name**)
p-o-box	Post office box (P.O. BOX)
word50	Example: 12345 (word50) (for **p-o-box**)
additional-code	Additional code
word50	Example: 1320300003 (word50) (for **additional-code**)
<phone_call_str>	ELIN value
north	Setting latitude direction to north
south	Setting latitude direction to south
<0-90>	Setting latitude direction to south (0..90)
east	Setting longitude direction to east
west	Setting longitude direction to west
<0-180>	Setting longitude direction to east (0..180)
<0-31>	Policy id for the policy which is created.
voice	Create a voice policy.

voice-signaling	Create a voice signaling policy.
guest-voice-signaling	Create a guest voice signaling policy.
guest-voice	Create a guest voice policy.
softphone-voice	Create a softphone voice policy.
video-conferencing	Create a video conferencing policy.
streaming-video	Create a streaming video policy.
video-signaling	Create a video signaling policy.
tagged	The policy uses tagged frames.
untagged	The policy uses un-tagged frames
<1-4095>	The VLAN the policy uses tagged frames (1..4095)
l2-priority	Layer 2 priority
<0-7>	Priority 0-7 (0..7)
dscp	Differentiated Services Code Point
<0-63>	DSCP value 0-63 (0..63)
<1-10>	LLDP tx reinitialization delay in seconds (1..10)
<5-32768>	The time between each LLDP frame transmitted in seconds (5..32768)
<1-8192>	LLDP transmission delay (1..8192)

EXAMPLE

```
GEP-2851(config)# lldp holdtime 5
GEP-2851(config)# lldp med fast 5
GEP-2851(config)# lldp reinit 3
GEP-2851(config)# lldp timer 555
GEP-2851(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
```

3-1.18 logging

Syslog.

SYNTAX

logging host <1-6> { <ipv4_ucast> | <hostname> }

logging on

Parameter

host	host
on	Enable syslog server
<1-6>	host number (1..6)
<hostname>	Donain name of the log server
<ipv4_ucast>	IP address of the log server (X.X.X.X)

EXAMPLE

```
GEP-2851(config)# logging host 3 192.155.3.2
GEP-2851(config)#
GEP-2851(config)# logging on
GEP-2851(config)#
```

3-1.19 loop-protect

Loop protection configuration.

SYNTAX

loop-protect

loop-protect shutdown-time <10-604800>

loop-protect transmit-time <1-10>

Parameter

shutdown-time	Loop protection shutdown time interval

transmit-time	Loop protection transmit time interval
<10-604800>	Shutdown time in second (10..604800)
<1-10>	Transmit time in second (1..10)

EXAMPLE

```
GEP-2851(config)# loop-protect
GEP-2851 (config)# loop-protect shutdown-time 333
GEP-2851 (config)# loop-protect transmit-time 3
GEP-2851 (config)#
```

3-1.20 mac

MAC table entries/configuration.

SYNTAX

mac address-table aging-time <10-1000000>

mac address-table static <mac_addr> vlan <vlan_id> { (interface [* | GigabitEthernet <port_id>]) | block }

Parameter

address-table	MAC table entries/configuration
aging-time	Mac address aging time
static	Static MAC address
<10-1000000>	Aging time in seconds (10..1000000)
<mac_addr>	48 bit MAC address: xx:xx:xx:xx:xx:xx
vlan	VLAN keyword
<vlan_id>	VLAN IDs 1-4095 (1-4095)
block	Drop the packet which MAC Address and VLAN ID is match
interface	Select an interface to configure
*	All switches or All ports
Gigabitethernet	1 Gigabit Ethernet port

<port_id>	Port ID in (1/1-28)

EXAMPLE

```
GEP-2851 (config)# mac address-table aging-time 3333
GEP-2851 (config)#
```

3-1.21 monitor

Monitoring different system events.

SYNTAX

monitor session 1

monitor session 1 destination interface [* | GigabitEthernet] <port_id>

monitor session 1 source interface [* | GigabitEthernet] <port_list> [both | rx | tx]

monitor session 1 source interface [* | GigabitEthernet] [both | rx | tx]

Parameter

session	Configure a MIRROR session
<1>	MIRROR session number (1..1)
destination	MIRROR destination interface
source	MIRROR source interface
interface	MIRROR destination interface
*	All switches or All ports
GigabitEthernet	GigabitEthernet
<port_id>	Port ID in (1/1-28)
Interface	MIRROR source interface
<port_list>	Port List S/X-Y,Z (1/1-28)
both	Mirror both ingress and egress traffic.

rx Mirror ingress traffic.

tx Mirror egress traffic.

EXAMPLE

```
GEP-2851(config)# monitor session 1 destination interface GigabitEthernet 1/9
GEP-2851(config)# monitor session 1 source interface GigabitEthernet 1/5 both
GEP-2851(config)#
```

3-1.22 mvr

MVR multicast VLAN list

SYNTAX

mvr

mvr vlan <vlan_list> name word16

mvr vlan <vlan_list> channel word16

mvr vlan <vlan_list> frame priority <Priority : 0-7>

mvr vlan <vlan_list> frame tagged untagged/tagged

mvr vlan <vlan_list> igmp-address <ipv4_addr>

mvr vlan <vlan_list> last-member-query-interval <Range : 0-31744 tenths of seconds>

mvr vlan <vlan_list> mode [dynamic | compatible]

Parameter

vlan MVR multicast vlan list

<vlan_list> MVR multicast VLAN list (1-4095)

name MVR multicast name

frame MVR control frame in TX

mode MVR mode of operation

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

channel	MVR channel configuration
igmp-address	MVR address configuration used in IGMP
word16	Range entry name in 16 char's (word16)
word16	Profile name in 16 char's (word16)
priority	Interface CoS priority
tagged	Tagged IGMP/MLD frames will be sent
<Priority : 0-7>	Range : 0-7 (0..7)
untagged/tagged	tagged mode
<ipv4_addr>	A valid IPv4 unicast address (X.X.X.X)
<Range : 0-31744 tenths of seconds>	Last Member Query Interval in tenths of seconds (0..31744)
compatible	Compatible MVR operation mode
dynamic	Dynamic MVR operation mode MVR mode of operation

EXAMPLE

```
GEP-2851(config)# mvr vlan 10 mode dynamic
GEP-2851(config)#
```

3-1.23 no

Negate a command or set its defaults.

Table : configure – no Commands

Command	Function
aaa	Authentication, Authorization and Accounting
access	Access management
access-list	Access list
aggregation	Aggregation mode
clock	Configure time-of-day clock
dot1x	IEEE Standard for port-based Network Access Control
interface	Select an interface to configure
ip	Internet Protocol
ipmc	IPv4/IPv6 multicast configuration
ipv6	IPv6 configuration commands

lacp	LACP system configuration
lldp	LLDP configurations
logging	Syslog
loop-protect	Loop protection configuration
mac	MAC table entries/configuration
monitor	Monitoring different system events
mvr	Multicast VLAN Registration configuration
ntp	Configure NTP
poe	Power Over Ethernet
port-security	Enable/disable port security globally
Privilege	Privilege level
qos	Quality of Service
radius-server	Configure RADIUS
rmon	Remote Monitoring
snmp-server	Enable SNMP server
spanning-tree	Spanning Tree protocol
system	Set the SNMP server's configurations
tacacs-server	Configure TACACS+
trap	Trap
upnp	Set UPnP's configurations
username	Establish User Name Authentication
vlan	Vlan commands
voice	Voice appliance attributes

3-1.23.1 aaa

Authentication, Authorization and Accounting.

SYNTAX

no aaa authentication login [telnet | ssh | http]

no aaa authentication service-port [ssh | telnet | http | https]

no aaa authentication redirect

no aaa authorization [ssh | telnet]

no aaa accounting [ssh | telnet]

Parameter

authentication	Authentication
authorization	Authorization
accounting	Accounting
login	Login
service-port	Service port
redirect	HTTP redirect HTTPS
http	Configure HTTP
ssh	Configure SSH
telnet	Configure Telnet
https	Configure HTTPS
telnet	telnet
ssh	ssh

EXAMPLE

```
GEP-2851(config)# no aaa authentication  login ssh
GEP-2851(config)#
```

3-1.23.2 access

Access management.

SYNTAX

no access management <1~16>]

no access management

Parameter

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

EXAMPLE

```
GEP-2851(config)# no access management
GEP-2851(config)#
```

3-1.23.3 access-list

Access list.

SYNTAX

no access-list ace <1~384>

Parameter

ace	Access list entry
<1-384>	ACE ID (1-384)

EXAMPLE

```
GEP-2851(config)# access-list ace 1
GEP-2851(config)#
```

3-1.23.4 aggregation

Aggregation mode.

SYNTAX

no aggregation mode

Parameter

mode	Traffic distribution mode

EXAMPLE

```
GEP-2851(config)# no aggregation mode
GEP-2851(config)#
```

3-1.23.5 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

EXAMPLE

```
GEP-2851(config)# no clock summer-time
GEP-2851(config)# no clock timezone
GEP-2851(config)#
```

3-1.23.6 dot1x

IEEE Standard for port-based Network Access Control.

SYNTAX

no dot1x authentication timer re-authenticate

no dot1x feature guest-vlan

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 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
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
tx-period	The time between EAPOL retransmissions

EXAMPLE

```
GEP-2851(config)# no dot1x authentication timer re-authenticate
GEP-2851(config)# no dot1x guest-vlan supplicant
GEP-2851(config)# no dot1x max-reauth-req
GEP-2851(config)# no dot1x re-authentication
GEP-2851(config)# no dot1x system-auth-control
GEP-2851(config)# no dot1x timeout tx-period
GEP-2851(config)#
```

3-1.23.7 interface

Select an interface to configure.

SYNTAX

no interface vlan <vlan_list>

Parameter

vlan	Vlan interface configurations
<vlan_list>	List of VLAN interface numbers, 1~4094 (1-4095)

EXAMPLE

```
GEP-2851(config)# no interface vlan 10
GEP-2851(config)#
```

3-1.23.8 Ip

Internet Protocol.

SYNTAX

no ip arp inspection

no ip arp inspection entry interface { * | [Gigabitethernet <port_id>] } <vlan_id> <mac_ucast> <ipv4_ucast>

no ip arp inspection vlan <vlan_list> logging

no dhcp pool <vlan_id>

no ip dhcp relay information [option | policy]

no ip dhcp relay

no ip dhcp snooping

no ip helper-address

no ip igmp host-proxy

no ip igmp snooping

no ip igmp unknown-flooding

no ip name-server

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

no ip source binding interface { [* | Gigabitethernet] <port_id> <ipv4_ucast> <mac_ucast> }

no ip verify source

Parameter

arp	Address Resolution Protocol
dhcp	Dynamic Host Configuration Protocol
helper-address	DHCP helper server address

igmp	set igmp
name-server	Domain Name System
route	Add IP route
source	source command
verify	verify command
inspection	ARP inspection
entry	arp inspection entry
vlan	arp inspection vlan setting
interface	Select an interface to configure
GigabitEthernet	GigabitEthernetPort
*	All switches or All ports
<port_id>	Port ID in (1/1-28)
<vlan_id>	Select a VLAN id to configure (1-4095)
<mac_ucast>	Select a MAC address to configure
<ipv4_ucast>	Select an IP Address to configure (X.X.X.X)
<vlan_list>	arp inspection vlan list (1-4095)
logging	ARP inspection vlan logging mode config
pool	DHCP server pool
relay	DHCP relay
snooping	DHCP snooping
<vlan_id>	VLAN id of DHCP server pool (1-4095)
information	DHCP information option(Option 82)
option	DHCP option 82
policy	Policy for handling the receiving DHCP packet already include the information option
host-proxy	IGMP proxy configuration
snooping	Snooping IGMP

unknown-flooding Flooding unregistered IPv4 multicast traffic

<ipv4_addr> Network (X.X.X.X)

<ipv4_netmask> Netmask (X.X.X.X)

<ipv4_ucast> Gateway (X.X.X.X)

binding ip source binding

interface ip source binding entry interface config

<ipv4_ucast> Select an unicast IP address to configure (X.X.X.X)

<mac_ucast> Select an unicast MAC address to configure

source verify source

EXAMPLE

```
GEP-2851(config)# no ip arp inspection vlan 3 logging
GEP-2851(config)# no ip helper-address
GEP-2851(config)# no ip igmp snooping
GEP-2851(config)# no ip name-server
GEP-2851(config)# no ip verify source
GEP-2851(config)#
```

3-1.23.9 ipmc

IPv4/IPv6 multicast configuration.

SYNTAX

no mode

no ipmc profile word16

no ipmc range word16

Parameter

profile IPMC profile configuration

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

mode IPMC profile mode

word16 Range entry name in 16 char's (word16)

word16 Profile name in 16 char's (word16)

EXAMPLE

```
GEP-2851(config)# no ipmc profile aa
GEP-2851(config)#
```

3-1.23.10 ipv6

IPv6 configuration commands.

SYNTAX

no ipv6 mld host-proxy

no ipv6 mld snooping

no ipv6 mld unknown-flooding

Parameter

mld	Multicasat Listener Discovery
host-proxy	MLD proxy configuration
snooping	Snooping MLD
unknown-flooding	Flooding unregistered IPv6 multicast traffic

EXAMPLE

```
GEP-2851(config)# no ipv6 mld snooping
GEP-2851(config)#
```

3-1.23.11 lacp

Lacp system configuration.

SYNTAX

no lacp system-priority

Parameter

system-priority System priority

EXAMPLE

```
GEP-2851(config)# no lacp system-priority
GEP-2851(config)#
```

3-1.23.12 lldp

LLDP configurations.

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 [country | state | county | city | district | block | street | leading-street-direction | trailing-street-suffix | street-suffix | house-no | house-no-suffix | landmark | additional-info | name | zip-code | building | apartment | floor | room-number | place-type | postal-community-name | p-o-box | additional-code]

no lldp med location-tlv elin-addr

no lldp med location-tlv latitude

no lldp med location-tlv longitude

no lldp med media-vlan-policy <0~31>

no lldp reinit

no lldp timer

no lldp transmission-delay

Parameter

holdtime LLDP hold time

med Media Endpoint Discovery

reinit	LLDP reinit time
timer	LLDP TX interval
transmission-delay	LLDP transmision-delay
datum	datum typa
fast	Number of times to repeat LLDP frame transmission at fast start
location-tlv	LLDP-MED Location Type Length Value parameter
media-vlan-policy	Use the media-vlan-policy to create a policy, which can be assigned to an interface
altitude	Altitude parameter
latitude	Latitude parameter
longitude	Longitude parameter
elin-addr	Emergency Location Identification Number
civic-addr	Civic address information and postal information
country	The two-letter ISO 3166 country code in capital ASCII letters
state	National subdivisions
county	County, parish, gun (Japan), district
city	City, township, shi (Japan) - Example: Copenhagen
district	City division, borough, city district, ward, chou (Japan)
block	Neighbourhood, block
street	Street
leading-street-direction	Leading street direction
trailing-street-suffix	Trailing street suffix
street-suffix	Street suffix
house-no	House number
house-no-suffix	House number suffix

landmark	Landmark or vanity address
additional-info	Additional location info
name	Name (residence and office occupant)
zip-code	Postal/zip code
building	Building (structure)
apartment	Unit (Apartment, suite)
floor	Floor
room-number	Room number
place-type	Place type
postal-community-name	Postal community name
p-o-box	Post office box (P.O. BOX)
additional-code	Additional code
<0~31>	Policy id for the policy which is created (0..31)

EXAMPLE

```
GEP-2851(config)# no lldp holdtime
GEP-2851(config)# no lldp med location-tlv civic-addr floor
GEP-2851(config)# no lldp reinit
GEP-2851(config)# no lldp timer
GEP-2851(config)# no lldp transmission-delay
GEP-2851(config)#
```

3-1.23.13 logging

Syslog.

SYNTAX

no logging host <1-6>

no logging on

Parameter

host host

on Enable syslog server

<1-6> host number (1..6)

EXAMPLE

```
GEP-2851(config)# no logging host 3
GEP-2851(config)# no logging on
GEP-2851(config)#
```

3-1.23.14 loop-protect

Loop protection configuration.

SYNTAX

no loop-protect

no loop-protect shutdown-time

no loop-protect transmit-time

Parameter

shutdown-time Loop protection shutdown time interval

transmit-time Loop protection transmit time interval

EXAMPLE

```
GEP-2851(config)# no loop-protect shutdown-time
GEP-2851(config)# no loop-protect transmit-time
GEP-2851(config)#
```

3-1.23.15 mac

MAC table entries/configuration.

SYNTAX

no mac address-table aging-time

no mac address-table static <mac_addr> vlan <vlan_id>

no mac address-table static <mac_addr>

Parameter

address-table	Mac table entries configuration/table
aging-time	Mac address aging time
static	Static MAC address
<mac_addr>	48 bit MAC address: xx:xx:xx:xx:xx:xx
vlan	VLAN keyword
<vlan_id>	VLAN IDs 1-4095 (1-4095)

EXAMPLE

```
GEP-2851(config)# no mac address-table aging-time
GEP-2851(config)# no mac address-table static <mac_addr>
GEP-2851(config)#
```

3-1.23.16 monitor

Monitoring different system events.

SYNTAX

no monitor session <1>

no monitor session <1> destination

no monitor session <1> source interface [* | Gigabitethernet] <port_list> [both | rx | tx]

Parameter

session	Configure a MIRROR session
<1>	MIRROR session number (1..1)
destination	MIRROR destination interface
source	MIRROR source interface

interface	Mirror source Interface
*	All switches or All ports
Gigabitethernet	GigabitEthernet
<port_list>	Port List S/X-Y,Z (1/1-28)
both	Mirror both ingress and egress traffic.
rx	Mirror ingress traffic.
tx	Mirror egress traffic.

EXAMPLE

```
GEP-2851(config)# no monitor session 1 destination
GEP-2851(config)# no monitor session 1 source interface GigabitEthernet
1/5 both
GEP-2851(config)#
```

3-1.23.17 mvr

Multicast VLAN Registration configuration.

SYNTAX

no mvr

EXAMPLE

```
GEP-2851(config)# no mvr
GEP-2851(config)#
```

3-1.23.18 ntp

Configure NTP.

SYNTAX

no ntp

no ntp server <1-6>

no ntp interval

Parameter

server Configure NTP server

interval Configure NTP interval

<1-6> index number (1..6)

EXAMPLE

```
GEP-2851(config)# no ntp server 2
GEP-2851(config)#
```

3-1.23.19 port-security

Enable/disable port security globally.

SYNTAX

no port-security

EXAMPLE

```
GEP-2851(config)# no port-security
GEP-2851(config)#
```

3-1.23.20 Privilege

Privilege level

SYNTAX

no privilege group [access-mgmt | arp-inspection | auth-method | dhcp-relay | dhcp-snooping | diagnostic | dot1x | eee | event | forward-failure | ip | ipmc | ip-source-guard | lacp | lldp | loop-protection | mac-table | mirror | mvr | poe | port | port-security | qos | radius | snmp | stp | system | upnp | vlan] level

no privilege group level

Parameter

group Privilege group name

<group> Privilege group name (access-mgmt / arp-inspection / auth-method / dhcp-relay /

dhcp-snooping / diagnostic / dot1x / eee / event / forward-failure / ip / ipmc / ip-source-guard / lacp / lldp / loop-protection / mac-table / mirror / mvr / poe / port / port-security / qos / radius / snmp / stp / system / upnp / vlan)

level Privilege group level

EXAMPLE

```
GEP-2851(config)# no privilege group access-mgmt level
GEP-2851(config)#
```

3-1.23.21 Qos

Quality of Service.

SYNTAX

no qos map cos-queue

no qos map cos-queue <0-7>

no qos map dscp-queue

no qos map dscp-queue <0-63>

no qos map precedence-queue

no qos map precedence-queue <0-7>

no qos map queue-cos

no qos map queue-cos <0-7>

no qos map queue-dscp

no qos map queue-dscp <0-7>

no qos map queue-precedence

no qos map queue-precedence <0-7>

no qos trust

Parameter

map	QoS Global Map/Table
trust	Restore global trust mode to default value
cos-queue	Map for CoS to queue
dscp-queue	Map for DSCP to queue
precedence-queue	Map for IP Precedence to queue
queue-cos	Map for queue to CoS
queue-dscp	Map for queue to DSCP
queue-precedence	Map for queue to IP Precedence
<0-7>	Specify class of service (0..7)
<0-63>	Specify DSCP (0..63)
<0-7>	Specify IP Precedence (0..7)
<0-7>	The queue number for mapping to a specific CoS value (0..7)
<0-7>	The queue number for maaping to a specific DSCP value (0..7)
<0-7>	The queue number for mapping to a specific IP Precedence value (0..7)

EXAMPLE

```
GEP-2851(config)# no qos map cos-queue 3
GEP-2851(config)#
```

3-1.23.22 radius-server

Configure RADIUS.

SYNTAX

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

no radius-server deadtime

no radius-server host word255

no radius-server host word255 [acct-port <AcctPort : 0-65535>]

no radius-server host word255 [auth-port <AuthPort : 0-65535>]

no radius-server host word255 [auth-port <AuthPort : 0-65535>] [acct-port <AcctPort : 0-65535>]

no radius-server key

no radius-server retransmit

no radius-server timeout

Parameter

attribute

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

32

4

95

word255	Hostname or IP address (word255)
acct-port	UDP port for RADIUS accounting server
auth-port	UDP port for RADIUS authentication server
<AcctPort : 0-65535>	UDP port number (0..65535)
<AuthPort : 0-65535>	UDP port number (0..65535)

EXAMPLE

```
GEP-2851(config)# no radius-server attribute 4
GEP-2851(config)# no radius-server deadtime
GEP-2851(config)# no radius-server key
GEP-2851(config)# no radius-server retransmit
GEP-2851(config)# no radius-server timeout
GEP-2851(config)# no radius-server host aa auth-port 3 acct-port 3
GEP-2851(config)#
```

3-1.23.23 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)
<1-65535>	Event entry ID (1..65535)

EXAMPLE

```
GEP-2851(config)# no rmon alarm 1000
GEP-2851(config)#
```

3-1.23.24 snmp-server

Set SNMP server's configurations.

SYNTAX

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

no snmp-server community { v2c | write-mode | [v3 <Community : word127>] }

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

no snmp-server user <Username : word32>

no snmp-server view <Viewname : word32> <Oidsubtree : word128>

Parameter

access	access configuration
community	Set the SNMP community
security-to-group	security-to-group configuration
user	Set the SNMPv3 user's configurations
view	MIB view configuration
<Groupname : word32>	group name (word32)
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
write-mode	SNMPv2c write mode
v2c	SNMPv2c
v3	SNMPv3
<Community : word32>	Specify community name (word32)
model	security model
v1	v1 security model
v2c	v2c security model

v3	v3 security model
name	security user
<SecurityName : word32>	security user name (word32)
<Username : word32>	Security user name (word32)
<Viewname : word32>	MIB view name (word32)
<Oidsubtree : word128>	MIB view OID (word128)

EXAMPLE

```
GEP-2851(config)# no snmp-server access 333 model any level auth
GEP-2851(config)# no snmp-server community v2c
GEP-2851(config)# no snmp-server security-to-group model v2c name 132
GEP-2851(config)# no snmp-server View aa a
GEP-2851(config)#
```

3-1.23.25 spanning-tree

Spanning Tree protocol.

SYNTAX

no spanning-tree

no spanning-tree mode

no spanning-tree mst <0-4094> [priority | vlan]

no spanning-tree mst forward-time

no spanning-tree mst max-age

no spanning-tree mst max-hops

no spanning-tree mst name

Parameter

mode	STP protocol mode
mst	STP bridge instance

<0-4094>	MST instance ID , 0 is for CIST (0..4094)
forward-time	Delay between port states
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

EXAMPLE

```
GEP-2851(config)# no spanning-tree mode
GEP-2851(config)# no spanning-tree mst max-age
GEP-2851(config)#
```

3-1.23.26 system

Set the SNMP server's configurations.

SYNTAX

no system name

no system contact

no system location

Parameter

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

EXAMPLE

```
GEP-2851(config)# no system name
GEP-2851(config)# no system contact
GEP-2851(config)# no system location
GEP-2851(config)#
```

3-1.23.27 tacacs-server

Configure TACACS+.

SYNTAX

no tacacs-server deadtime

no tacacs-server host word255

no tacacs-server host word255 port <AcctPort : 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
word255	Hostname or IP address (word255)
port	UDP port for TACACS+ accounting server
<AcctPort : 0-65535>	UDP port number (0..65535)

EXAMPLE

```
GEP-2851(config)# no tacacs-server deadtime
GEP-2851(config)# no tacacs-server host 192.168.1.1 port 10000
GEP-2851(config)# no tacacs-server key
GEP-2851(config)# no tacacs-server timeout
GEP-2851(config)#
```

3-1.23.28 upnp

Set UPnP's configurations.

SYNTAX

no upnp

no upnp advertising-duration

no upnp interface-vlan

no upnp ttl

Parameter

advertising-duration	Set advertising duration
interface-vlan	Set ip-interface vlan
ttl	Set TTL value

EXAMPLE

```
GEP-2851(config)# no upnp advertising-duration
GEP-2851(config)# no upnp interface-vlan
GEP-2851(config)# no upnp ttl
GEP-2851(config)#
```

3-1.23.29 username

Establish User Name Authentication.

SYNTAX

no username word31

Parameter

word31	User name allows letters, numbers and underscores (word31)

EXAMPLE

```
GEP-2851(config)# username aaa
GEP-2851(config)#
```

3-1.23.30 vlan

Vlan commands.

SYNTAX

no vlan ethertype s-custom-port

no vlan <vlan_list>

no vlan ip-subnet <ipv4_addr> <ipv4_netmask> vlan <vlan_id>

no vlan mac <mac_ucast> vlan <vlan_id>

no vlan protocol eth2 <ethernet value> group word16

no vlan protocol llc <dsap value > <ssap vlaue> group word16

no vlan protocol snap <snap oui> <pid value> group word16

Parameter

<vlan_list>	List of VLAN interface numbers, 1~4094 (1-4095)
ethertype	Ether type for Custom S-ports
ip-subnet	IP subnet based VLAN configuration
mac	MAC-based VLAN commands
protocol	Protocol-based VLAN commands
s-custom-port	Custom S-ports configuration
<ipv4_addr>	The specific ip-subnet to set. (X.X.X.X)
<ipv4_netmask>	Source IP address (X.X.X.X)
vlan	vlan keyword
<vlan_id>	VLAN ID required for the group to VLAN mapping. (1-4095)
<mac_ucast>	48 bit unicast MAC address: xx:xx:xx:xx:xx:xx
eth2	Ethernet protocol based VLAN status
llc	LLC-based VLAN group
snap	SNAP-based VLAN group
<ethernet vlaue>	Ether Type(Range: 0x600 - 0xFFFF)
group	Protocol-based VLAN group commands
word16>	Group Name (Range: 1 - 16 characters) (word16)
<dsap value>	DSAP(Range: 0x00 - 0xFF)

<ssap value> SSAP(Range: 0x00 - 0xFF)

<snap oui> SNAP OUI (must be 0x000000)

<pid oui> PID (Range: 0x0000 - 0xFFFFFF)

EXAMPLE

```
GEP-2851(config)# no vlan 3
GEP-2851(config)# no vlan ethertype s-custom-port
GEP-2851(config)#
```

3-1.23.31 voice

Vlan for voice traffic.

SYNTAX

no voice vlan

no voice vlan aging-time

no voice vlan class

no voice vlan oui <oui>

no voice vlan vid <vlan_id>

Parameter

vlan voice_vlan_mode help

oui OUI configuration

vid Set VLAN ID

<oui> OUI configuration

<vlan_id> VLAN IDs 1-4095 (1-4095)

EXAMPLE

```
GEP-2851(config)# no voice vlan vid 3
GEP-2851(config)#
```

3-1.24 poe

Configure poe.

SYNTAX

poe capacitor-detect

poe auto-check

poe profile id <1-16> (Mon | Tue | Wed | Thr | Fri | Sat | Sun | name) <0-23> <0-55> <0-23> <0-55>

Parameter

capacitor-detect	Enable capacitor detection
auto-check	Enable Ping Check
profile	poe scheduling profile
id	poe scheduling profile id, from 1 to 16
<1-16>	Profile id (1..16)
Mon	Monday
Tue	Tuesday
Wed	Wednesday
Thr	Thursday
Fri	Friday
Sat	Saturday
Sun	Sunday
name	name
<0-23>	Start hour (0..23)
<0-55>	Start miniute (0..55)
<0-23>	End hour (0..23)
<0-55>	End miniute (0..55)

EXAMPLE

```
GEP-2851(config)# poe capacitor-detect
GEP-2851(config)# poe auto-check
GEP-2851(config)# poe profile id 4 Mon 0 0 0 0
GEP-2851(config)#
```

3-1.25 ntp

Configure NTP.

SYNTAX

ntp

ntp interval <10-2880>

ntp server <1-6> ip-address <hostname>

ntp server <1-6> ip-address <ipv4_ucast>

Parameter

server	Configure NTP server
interval	Configure NTP interval
<1-6>	index number (1..6)
ip-address	ip address
<ipv4_ucast>	ipv4 address (x.x.x.x)
<hostname>	domain name
<10-2880>	interval val range from 10 to 2880 min. (10..2880)

EXAMPLE

```
GEP-2851(config)# ntp server 3 ip-address 192.168.1.1
GEP-2851(config)#
```

3-1.26 port-security

Enable/disable port security globally.

SYNTAX

port-security

EXAMPLE

```
GEP-2851(config)# port-security
GEP-2851(config)#
```

3-1.27 privilege

Command privilege parameters.

SYNTAX

privilege group <group> level ro <0-15> rw <0-15>

Parameter

group Privilege group name

<group> Privilege group name (access-mgmt / arp-inspection / auth-method / dhcp-relay / dhcp-snooping / diagnostic / dot1x / eee / event / forward-failure / ip / ipmc / ip-source-guard / lacp / lldp / loop-protection / mac-table / mirror / mvr / poe / port / port-security / qos / radius / snmp / stp / system / upnp / vlan)

level Privilege group level

ro Read-only level

<0-15> Privilege level (0..15)

rw Read-write level

EXAMPLE

```
GEP-2851(config)# privilege group access-mgmt level ro 3 rw 5
GEP-2851(config)#
```

3-1.28 qos

Quality of Service.

SYNTAX

qos map cos-dscp <0-7> to <0-7>

qos map dscp-queue <0-63> to <0-7>

qos map precedence-queue <0-7> to <0-7>

qos map queue-cos <0-7> to <0-7>

qos map queue-dscp <0-7> to <0-63>

qos map queue-precedence <0-7> to <0-7>

qos trust cos

qos trust cos-dscp

qos trust dscp

qos trust ip-precedence

Parameter

map	QoS Global Map/Table
trust	Global trust mode configuration
cos-queue	Map for CoS to queue
dscp-queue	Map for DSCP to queue
precedence-queue	Map for IP Precedence to queue
queue-cos	Map for queue to CoS
queue-dscp	Map for queue to DSCP
queue-precedence	Map for queue to IP Precedence
<0-7>	Specify class of service (0..7)
to	Specify the queue to which the CoS will be mapped
<0-7>	The queue number to which the following CoS values are mapped (0..7)

<0-63>	Specify DSCP (0..63)
to	Specify the queue to which the DSCP will be mapped
<0-7>	The queue number to which the following DSCP values are mapped (0..7)
<0-7>	Specify IP Precedence (0..7)
to	Specify the queue to which the IP Precedence will be mapped
<0-7>	The queue number to which the following IP Precedence values are mapped (0..7)
<0-7>	The queue number for mapping to a specific CoS value (0..7)
to	Specify the CoS to which the queue will be mapped
<0-7>	Specify class of service (0..7)
<0-7>	The queue number for maaping to a specific DSCP value (0..7)
to	Specify the DSCP to which the queue will be mapped
<0-63>	Specify DSCP (0..63)
<0-7>	The queue number for mapping to a specific IP Precedence value (0..7)
to	Specify the IP Precedence to which the queue will be mapped
<0-7>	Specify IP Precedence (0..7)
cos	Prioritize packet based on the CoS/802.1p field in the VLAN tag
cos-dscp	Uses the CoS mode for non-IP packet and DSCP mode for IP packet
dscp	Prioritize packet based on the DSCP field in the IP header
ip-precedence	Prioritize packet based on the ip precedence

EXAMPLE

```
GEP-2851(config)# qos map cos-queue 3 to 5
GEP-2851(config)#
```

3-1.29 radius-server

Configure RADIUS.

SYNTAX

radius-server attribute 32 word255

radius-server attribute 4 <ipv4_ucast>

radius-server attribute 95 <ipv6_addr>

radius-server deadtime <Minutes : 1-1440>

radius-server host word255 [auth-port <Authport : 0-65535>] [acct-port <Acctport : 0-65535>] [timeout <Seconds : 1-1000>] [retransmit <Retries :1-1000>] [key word63]

radius-server key word63

radius-server retransmit <Retries : 1-1000>

radius-server timeout <Seconds : 1-1000>

Parameter

Attribute

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

32

4

95

word255	(word255)
<ipv4_ucast>	(X.X.X.X)
<ipv6_addr>	(X:X:X:X:X:X:X:X)

<Minutes : 1-1440>	Time in minutes (1..1440)
word255	Hostname or IP address (word255)
acct-port	UDP port for RADIUS accounting server
auth-port	UDP port for RADIUS authentication server
key	Server specific key (overrides default)
retransmit	Specify the number of retries to active server (overrides default)
timeout	Time to wait for this RADIUS server to reply (overrides default)
<AuthPort : 0-65535>	UDP port number (0..65535)
<AcctPort : 0-65535>	UDP port number (0..65535)
<Seconds : 1-1000>	Wait time in seconds (1..1000)
<Retries : 1-1000>	Number of retries for a transaction (1..1000)
word63	The shared key (word63)

EXAMPLE

```
GEP-2851(config)# radius-server host device key 12
GEP-2851(config)#
```

3-1.30 rmon

Remote Monitoring.

SYNTAX

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

rmon event <1-65535> [log] [trap <word31>] { [description <word127>] }

Parameter

alarm	Configure an RMON alarm

event	Configure an RMON event
<1-65535>	Alarm entry ID (1..65535)
ifInOctets	The total number of octets received on the interface, including framing characters
ifInUcastPkts	The number of uni-cast packets delivered to a higher-layer protocol
ifInNUcastPkts	The number of broad-cast and multi-cast packets delivered to a higher-layer protocol
ifInDiscards	The number of inbound packets that are discarded even the packets are normal
ifInErrors	The number of inbound packets that contained errors preventing them from being deliverable to a higher-layer protocol
ifInUnknownProtos	The number of the inbound packets that were discarded because of the unknown or un-support protocol
ifOutOctets	The number of octets transmitted out of the interface , including framing characters
ifOutUcastPkts	The number of uni-cast packets that request to transmit
ifOutNUcastPkts	The number of broad-cast and multi-cast packets that request to transmit
ifOutDiscards	The number of outbound packets that are discarded event the packets is normal
ifOutErrors	The The number of outbound packets that could not be transmitted because of errors
<uint>	ifIndex(1..9)
<1-2147483647>	Sample interval(1.. 2147483647)
absolute	Test each sample directly
delta	Test delta between samples
rising-threshold	Configure the rising threshold
<-2147483648-2147483647>	rising threshold value(-2147483648..2147483647)
<0-65535>	Event to fire on rising threshold crossing(0..65535)
falling-threshold	Configure the falling threshold
<-2147483648-2147483647>	falling threshold value(-2147483648..2147483647)
rising	Trigger alarm when the first value is larger than the rising threshold
falling	Trigger alarm when the first value is less than the falling threshold

both	Trigger alarm when the first value is larger than the rising threshold or less than the falling threshold (default)
<1-65535>	Event entry ID (1..65535)
description	Specify a description of the event
log	Generate RMON log when the event fires
trap	Generate SNMP trap when the event fires
word127	Event description (word127)
word31	SNMP community string (word31)

EXAMPLE

```
GEP-2851(config)# rmon alarm 10000 ifInErrors 6 9999 absolute rising-threshold
0 falling-threshold 0 both
GEP-2851(config)#
```

3-1.31 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
security-to-group	security-to-group configuration
user	Set the SNMPv3 user's configurations
view	MIB view configuration

3-1.31.1 access

access configuration.

SYNTAX

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

Parameter

<GroupName : word32>	group name (word32)
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

EXAMPLE

```
GEP-2851(config)# snmp-server access text model v2c level noauth write
text
GEP-2851(config)#
```

3-1.31.2 community

Set the SNMP community.

SYNTAX

snmp-server community write-mode

snmp-server community v2c <Community : word32> [ro | rw]

snmp-server community v3 <Community : word32> <ipv4_ucast> <0-32>

Parameter

write-mode	SNMPv2c write mode
v3	SNMPv3

v2c	SNMPv2c
<Community : word32>	Specify community name (word32)
ro	Read only
rw	Read write
<ipv4_ucast>	IPv4 address (X.X.X.X)
<0-32>	IPv4 netmask (0..32)

EXAMPLE

```
GEP-2851(config)# snmp-server community v2c text ro
GEP-2851(config)#
```

3-1.31.3 security-to-group

security-to-group configuration.

SYNTAX

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

Parameter

model	security model
v1	v1 security model
v2c	v2c security model
v3	v3 security model
name	security user
<SecurityName : word32>	security group name (word32)
group	security use
<GroupName : word32>	group name (word32)

EXAMPLE

```
GEP-2851(config)# snmp-server security-to-group model v2c name text
group text
GEP-2851(config)#
```

3-1.31.4 user

Set the SNMPv3 user's configurations.

SYNTAX

snmp-server user <Username : word32>

snmp-server user <Username : word32> { [md5 <Md5Passwd : word8-32> | [sha <ShaPasswd : word8-40>] }

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

Parameter

<Username : word32>	Security user name (word32)
md5	Set MD5 protocol
sha	Set SHA protocol
<Md5Passwd : word8-32>	MD5 password (word8-32)
<ShaPasswd word8-40>	SHA password (word8-40)
priv	Set Privacy
des	Set DES protocol
aes	Set AES protocol
<word8-32>	Set AES protocol (word8-32)

EXAMPLE

```
GEP-2851(config)# snmp-server user text md5 12345678 priv aes 12345678
GEP-2851(config)#
```

3-1.31.5 view

MIB view configuration.

SYNTAX

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

Parameter

<ViewName : word32>	MIB view name (word32)
<OidSubtree : word255>	MIB view OID (word128)
include	Ixcluded type from the view
exclude	Excluded type from the view

EXAMPLE

```
GEP-2851(config)# snmp-server view text .1 include
GEP-2851(config)#
```

3-1.32 spanning-tree

Spanning Tree protocol.

Table : configure –spanning-tree Commands

Command	Function
mode	STP protocol mode
mst	STP bridge instance

3-1.32.1 mode

STP protocol mode.

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

```
GEP-2851(config)# spanning-tree mode stp
GEP-2851(config)#
```

3-1.32.2 mst

STP bridge instance.

SYNTAX

spanning-tree mst <0-4094> priority <0-61440>

spanning-tree mst <0-4094> vlan <vlan_list>

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

spanning-tree mst max-age < 6-40>

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

spanning-tree mst name <word32> revision <0-65535>

Parameter

<0-4094>	MST instance ID , 0 is for CIST (0..4094)
forward-time	Delay between port states
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>	Priority value (0..61440)
<vlan_list>	Range of VLANs (1-4095)
<4-30>	Range in seconds (4..30)

<6-40>	Range in seconds (6..40)
<6-40>	Hop count range (6..40)
<word32>	Name of the bridge (word32)
revision	Revision keyword
<0-65535>	Revision number (0..65535)

EXAMPLE

```
GEP-2851(config)# spanning-tree mst 7 vlan 10
GEP-2851(config)#
```

3-1.33 system

Set the SNMP server's configurations.

SYNTAX

system contact word128

system location word128

system name word128

Parameter

contact	Set the SNMP server's contact string
location	Set the SNMP server's location string
name	Set the SNMP server's system model name string
word128	name string (word128)
word128	contact string (word128)
word128	location string (word128)

EXAMPLE

```
GEP-2851(config)# system contact 222
GEP-2851(config)# system location 333
GEP-2851(config)# system name GE
GEP-2851(config)#
```

3-1.34 tacacs-server

Configure TACACS+.

SYNTAX

tacacs-server deadtime <Minutes : 1-1440>

tacacs-server host word255

tacacs-server host word255 [port <AcctPort : 0-65535>] [timeout <Seconds : 1-1000>] [key word63]

tacacs-server key word63

tacacs-server timeout <Seconds : 1-1000>

Parameter

deadtime	Time to stop using a TACACS+ server that doesn't respond
host	Specify a TACACS+ server
key	Set TACACS+ encryption key
timeout	Time to wait for a TACACS+ server to reply
<Minutes : 1-1440>	Time in minutes (0..1440)
word255	Hostname or IP address (word255)
port	UDP port for TACACS+ accounting server
timeout	Time to wait for this TACACS+ server to reply (overrides default)
key	Server specific key (overrides default)
<AcctPort : 0-65535>	TCP port number (0..65535)
<Seconds : 1-1000>	Wait time in seconds(0..1000)
word63	The shared key (word63)

EXAMPLE

```
GEP-2851(config)# tacacs-server deadtime 300
GEP-2851(config)# tacacs-server key 33
GEP-2851(config)# tacacs-server timeout 300
GEP-2851(config)#
```

3-1.35 trap

Trap.

SYNTAX

trap <1..6> v2c <ipv4_ucast> <0..7> word32

Parameter

<1..6>	ID of Trap entry (1..6)
v2c	v2c
<ipv4_ucast>	ipv4 address (X.X.X.X)
<0..7>	Trap severity (0..7)
word32	trap community (word32)

EXAMPLE

```
GEP-2851(config)# trap 3 v2c 192.168.1.1 2 test
GEP-2851(config)#
```

3-1.36 upnp

Set UPnP's configurations.

SYNTAX

upnp

upnp advertising-duration <advertising duration>

upnp interface-vlan <vlan_id>

upnp ttl <TTL value>

Parameter

advertising-duration	Set advertising duration
interface-vlan	Set ip-interface vlan
ttl	Set TTL value
<advertising duration>	value is 66..86400 (66..86400)
<vlan_id>	value is 1..4095 (1-4095)
<TTL value>	value is 1..255 (1..255)

EXAMPLE

```
GEP-2851(config)# upnp advertising-duration 88 GEP-2851
GEP-2851(config)# upnp ttl 25
GEP-2851(config)#
```

3-1.37 username

Establish User Name Authentication.

SYNTAX

username word31 privilege <privilegeLevel : 0-15> password encrypted word4-44

username word31 privilege <privilegeLevel : 0-15> password none

username word31 privilege <privilegeLevel : 0-15> password unencrypted word31

Parameter

word31	User name allows letters, numbers and underscores (word31)
privilege	Set user privilege level
<privilegeLevel : 0-15>	User privilege level (0..15)
password	Specify the password for the user
encrypted	Specifies an ENCRYPTED password will follow
none	NULL password
unencrypted	Specifies an UNENCRYPTED password will follow

word4-44	The ENCRYPTED (hidden) user password. Notice the ENCRYPTED password will be decoded by system internally. You cannot directly use it as same as the Plain Text and it is not human-readable text normally. (word4-44)
word31	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. (word31)

EXAMPLE

```
GEP-2851(config)# username jefferson privilege 15 password
none
GEP-2851(config)# (config)#
```

3-1.38 vlan

VLAN commands.

SYNTAX

vlan <vlan_list>

vlan ethertype s-custom-port <ethernet value>

vlan protocol eth2 <ethernet value> group word16

vlan protocol llc <dsap value> <ssap value> group word16

vlan protocol snap <snap oui> <pid value> group word16

vlan ip-subnet <ipv4_addr> <ipv4_netmask> vlan <vlan_id>

vlan mac <mac_ucast> vlan <vlan_id>

Parameter

<vlan_list>	List of VLAN interface numbers, 1~4094 (1-4095)
ethertype	Ether type for Custom S-ports
protocol	Protocol-based VLAN status

ip-subnet	ip-subnet VLAN configuration.
mac	MAC-based VLAN commands
s-custom-port	Custom S-ports configuration
<ethernet value>	Ether Type(Range: 0x600 - 0xFFFF)
eth2	Ethernet-based VLAN commands
llc	LLC-based VLAN group
snap	SNAP-based VLAN group
group	Protocol-based VLAN group commands
<word16>	Group Name (Range: 1 - 16 characters) (word16)
<dsap value>	DSAP(Range: 0x00 - 0xFF)
<ssap value>	SSAP(Range: 0x00 - 0xFF)
<snap oui>	SNAP OUI(must be 0x000000)
<pid value>	PID(Range: 0x0000 - 0XFFFF)
<ipv4_addr>	Source IP address (X.X.X.X)
<ipv4_netmask>	Source IP address (X.X.X.X)
vlan	vlan keyword
<vlan_id>	VLAN ID required for the group to VLAN mapping (1-4095)
<mac_ucast>	48 bit unicast MAC address: xx:xx:xx:xx:xx:xx

EXAMPLE

```
GEP-2851(config)# vlan ethertype s-custom-port 0x1111
GEP-2851(config)# vlan protocol eth2 0x6000 group aa
GEP-2851(config)#
```

3-1.39 voice

Vlan for voice traffic.

SYNTAX

voice vlan oui <oui>

voice vlan oui <oui> description word32

voice vlan vid <vlan_id>

voice vlan vid <vlan_id> aging-time <AgingTime : 10-10000000>

voice vlan vid <vlan_id> aging-time <AgingTime : 10-10000000> class <class : 0-7>

Parameter

vlan	voice_vlan_mode help
vid	Set a entry VLAN ID
oui	OUI configuration
<vlan_id>	VLAN IDs 1-4095 (1-4095)
aging-time	Set a entry secure learning aging time
class	Set a entry traffic class
<AgingTime : 10-10000000>	Aging time, 10-10000000 seconds (10..10000000)
<0-7>	Traffic class value (0..7)
<oui>	OUI value
description	Set description for the OUI
word32	Description line (word32)

EXAMPLE

```
GEP-2851(config)# voice vlan aging-time 3333
GEP-2851(config)# voice vlan class 7
GEP-2851(config)# voice vlan vid 3333
GEP-2851(config)#
```

Chapter 4 COPY Commands of CLI

Copy from source to destination.

SYNTAX

copy running-config [startup-config | flash:filename | tftp://server/path-to-file]

copy startup-config [running-config | flash:filename | tftp://server/path-to-file]

copy flash:filename [startup-config | running-config | tftp://server/path-to-file]

copy tftp://server/path-to-file [startup-config | running-config | flash:filename]

Parameter

running-config	Current running configuration
startup-config	Startup configuration
flash:filename	File in FLASH
tftp://server/path-to-file	File on TFTP server

EXAMPLE

```
GEP-2851# copy startup-config  running-config
GEP-2851#
```

Chapter 5 DELETE Commands of CLI

Delete one file in flash file system.

SYNTAX

delete string

Parameter

String File in FLASH

EXAMPLE

```
GEP-2851# delete text
GEP-2851#
```

Chapter 6 Diagnostics of CLI

Diagnostics

SYNTAX

diagnostics cable interface { * | [GigabitEthernet <port_list>] }

Parameter

cable	cable
interface	Interface status and configuration
GigabitEthernet	GigabitEthernet
*	All ports
<port_list>	Port List S/X-Y,Z (1/1-28)

EXAMPLE

```
GEP-2851# diagnostics cable interface GigabitEthernet 1/6
Cable Diagnostics
====================================
GigabitEthernet 1/6
------------------------------
Pair A   : [Open]
Length A : 0.90 (m)
Pair B   : [Open]
Length B : 0.88 (m)
Pair C   : [Open]
Length C : 0.83 (m)
Pair D   : [Open]
Length D : 0.88 (m)
GEP-2851#
```

Chapter 7 DIR Commands of CLI

Directory of all files in flash: file system.

SYNTAX

dir

Parameter

none

EXAMPLE

```
GEP-2851# dir
startup-config
GEP-2851#
```

Chapter 8 FIND-SWITCH of CLI

Turn on and off all LED light 3 times in 15 seconds

Syntax

find-switch

Parameter

none

EXAMPLE

```
GEP-2851# find-switch
GEP-2851#
```

Chapter 9 FIRMWARE of CLI

Firmware.

Syntax

firmware swap

firmware upgrade <tftp://server/path-and-filename>

Parameter

swap	Swap between Active and Alternate firmware image
upgrade	upgrade
<tftp://server/path-and-filename>	TFTP Server IP address, path and file name for the server containing the new image

EXAMPLE

```
GEP-2851# firmware upgrade tftp://192.168.1.1/running-config
Programming image...
GEP-2851#
```

Chapter 10 More of CLI

Display file

SYNTAX

more String

Parameter

String File in FLASH

EXAMPLE

```
GEP-2851# copy running-config startup-config
GEP-2851# more startup-config
username admin privilege 15 password none
!
!
interface GigabitEthernet 1/1
!
interface GigabitEthernet 1/2
!
interface GigabitEthernet 1/3
!
interface GigabitEthernet 1/4
!
interface GigabitEthernet 1/5
!
interface GigabitEthernet 1/6
```

```
.
.
interface GigabitEthernet 1/N
!
!
interface vlan 1
 ip address 192.168.1.1 255.255.255.0
!
ip route 0.0.0.0 0.0.0.0 192.168.1.254
end
GEP-2851#
```

Chapter 11 PING of CLI

Send ICMP echo messages.

Syntax

ping ip <ipv4_addr>

ping ip <ipv4_addr> [repeat <Count : 1-60>] [size <Size : 2-1452>]

ping ipv6 <ipv6_addr>

ping ipv6 <ipv6_addr> [repeat <Count : 1-60>] [size <Size : 2-1452>]

Parameter

ip	IP (ICMP) echo
ipv6	IPv6 (ICMPv6) echo
<ipv4_addr>	ICMP destination address (X.X.X.X)
repeat	Specify repeat count
size	Specify datagram size
<Count : 1-60>	1-60; Default is 5 (1..60)
<Size : 2-1452>	2-1452; Default is 56 (excluding MAC, IP and ICMP headers) (2..1452)
<ipv6_addr>	ICMPv6 destination address (X:X:X:X:X:X:X:X)

EXAMPLE

```
GEP-2851# 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
GEP-2851#
```

Chapter 12 RELOAD of CLI

Reload system.

Syntax

reload cold

reload defaults

reload defaults keep-ip

Parameter

cold	Reload cold
defaults	Reload defaults without rebooting.
keep-ip	Attepmt to keep VLAN1 IP setup

EXAMPLE

```
GEP-2851# reload defaults keep-ip
GEP-2851#
```

Chapter 13 SHOW of CLI

Show running system information.

Table : SHOW Commands

Command	Function
aaa	Login methods
access	Access management configuration
access-list	Access list
aggregation	Aggregation configuration and Status
clock	Configure time-of-day clock
dms	show dms information
dot1x	IEEE Standard for port-based Network Access Control
event	Show trap event configuration
interface	Interface status and configuration
ip	Internet Protocol
ipv6	IPv6 configuration commands
lldp	show lldp configuraion
logging	Syslog
loop-protect	show Loop protection
mac	Mac Address Table information
mvr	Internet Protocol
ntp	Configure NTP
poe	Power over ethernet
port-security	show port security
privilege	Display privilege level configuration
pvlan	PVLAN status
qos	Quality of Service
radius-server	RADIUS configuration
rmon	RMON statistics
running-config	Current operating configuration
snmp	Display SNMP configurations
spanning-tree	Spanning Tree protocol
System	show system information

tacacs-server	TACACS+ configuration
trap	Trap configuration
upnp	show UPnP configurations
version	System software status
vlan	VLAN status
voice	show voice

13-1 aaa

Login methods.

SYNTAX

show aaa

EXAMPLE

```
GEP-2851# show aaa
Automatic Redirect : Disabled

 Client Method1 Method2 Method3 Service Port
------- ------- ------- ------- ------------
 telnet   local                    23
    ssh   local                    22
   http   local                    80
  https                           443

Authorization :
 Client Method Cmd Lvl Cfg Cmd Fallback
------- ------ ------- ------- --------
 telnet   none      0
    ssh   none      0
```

```
Accounting :
 Client Method Cmd Lvl Exec
------- ------ ------- ----
 telnet   none      0
    ssh   none      0


GEP-2851#
```

13-2 access

Access management configuration.

SYNTAX

show access management

show access management <1~16>

Parameter

management	Access management configuration
<1~16>	ID of access management entry list (1-16)

EXAMPLE

```
GEP-2851# show access management 3
Switch access management mode is : Disable
Idx VID  IP Address         HTTP/HTTPS SNMP TELNET/SSH
--- ---- -------------------- ---------- ---- ----------


GEP-2851#
```

13-3 access-list

Access list.

SYNTAX

show access-list ace

show access-list ace <1~384>

Parameter

ace	Access list entry
<1~384>	ACE ID (1-384)

EXAMPLE

```
GEP-2851# show access-list ace 3

Switch access-list ace number: 0
GEP-2851#
```

13-4 aggregation

Aggregation configuration and status.

SYNTAX

show aggregation aggregators

show aggregation lacp

show aggregation mode

show aggregation status

Parameter

aggregators	aggregator status
lacp	lacp local and neighbor info
mode	Traffic distribution mode
status	aggregation port status

EXAMPLE

```
GEP-2851# show aggregation mode
Aggregation Hash Mode : src-dst-mac
LACP System Priority : 32768

GEP-2851#
```

13-5 clock

Configure time-of-day clock.

SYNTAX

show clock

EXAMPLE

```
GEP-2851# show clock
System Time : 2017-01-01 01:30:50

GEP-2851#
```

13-6 dms

Show dms information.

SYNTAX

show dms

show dms upnp [1] [2] [100] [101]

show dms onvif

Parameter

upnp upnp information

onvif	onvif information
1	upnp information
2	upnp information
100	upnp information
101	upnp information

EXAMPLE

```
GEP-2851# show dms upnp 2 1 100 101
Cannot write to the running-config.
The error while request to the config daemon.
GEP-2851#
```

13-7 dot1x

IEEE Standard for port-based Network Access Control.

SYNTAX

show dot1x status

show dot1x status interface { * | [Gigbitethernet <port _list>] }

show dot1x statistics [eapol | radius | all] interface { * | [Gigbitethernet <port _list>] }

show dot1x statistics [eapol | radius | all]

Parameter

statistics	Shows statistics for either eapol or radius
Status	Shows dot1x status, such as admin state, port state and last source
interface	Interface
*	All Ports

Gigbitethernet 1 Gigabit Ethernet Port

<port _list> Port ID (1/1-28)

all Show all dot1x statistics

eapol Show EAPOL statistics

radius Show Backend Server statistics

EXAMPLE

```
GEP-2851# show dot1x statistics radius
                   Rx Access   Rx Other    Rx Auth.    Rx Auth.    Tx         MAC
Interface            Challenges  Requests    Successes   Failures    Responses
Address
--------------------  ----------  ----------  ----------  ----------  ----------
-------
GigabitEthernet 1/1    0          0          0          0          0          -
GigabitEthernet 1/2    0          0          0          0          0          -
GigabitEthernet 1/3    0          0          0          0          0          -
GigabitEthernet 1/4    0          0          0          0          0          -
GigabitEthernet 1/5    0          0          0          0          0          -
.
.
.
.
GigabitEthernet 1/N   0          0          0          0          0          -
GEP-2851#
```

13-8 event

Show trap event configuration.

SYNTAX

show event

EXAMPLE

```
GEP-2851# show event
Group Name                      Severity Level    Syslog Mode   Trap Mode
------------------------------- ----------------  ------------  ------------
ACCESS-MGMT                      Info             Enabled       Disabled
ACL                             Info             Enabled       Disabled
ARP-INSPECTION                   Warning          Enabled       Disabled
AUTH-FAILED                      Warning          Enabled       Disabled
BCS-PROTECTION                   Info             Enabled       Disabled
COLD-START                       Warning          Enabled       Disabled
DHCP                            Info             Enabled       Disabled
DHCP-SNOOPING                    Info             Enabled       Disabled
IP-SOURCE-GUARD                  Info             Enabled       Disabled
LACP                            Info             Enabled       Disabled
LINK-UPDOWN                      Warning          Enabled       Disabled
LOGIN                           Info             Enabled       Disabled
LOGOUT                          Info             Enabled       Disabled
LOOP-PROTECTION                  Info             Enabled       Disabled
MAC-TABLE                        Info             Enabled       Disabled
MAINTENANCE                      Info             Enabled       Disabled
MGMT-IP-CHANGE                   Info             Enabled       Disabled
NAS                             Info             Enabled       Disabled
PORT                            Info             Enabled       Disabled
PORT-SECURITY                    Info             Enabled       Disabled
RMON                            Info             Enabled       Disabled
SFP                             Info             Enabled       Disabled
SPANNING-TREE                    Info             Enabled       Disabled
SYSTEM                          Info             Enabled       Disabled
USER                            Info             Enabled       Disabled
WARM-START                       Warning          Enabled       Disabled


GEP-2851#
```

13-9 interface

Interface status and configuration.

SYNTAX

show interface vlan <vlan_list>

show interface vlan

show interface { * | [GigabitEthernet <port _list>] } green-ethernet

show interface { * | [GigabitEthernet <port _list>] } capabilities

show interface { * | [GigabitEthernet <port _list>] } statistics [bytes | discards | errors | packets] [up | down]

show interface { * | [GigabitEthernet <port _list>] } statistics [up | down] [bytes | discards | errors | packets]

show interface { * | [GigabitEthernet <port _list>] } status

Parameter

vlan	VLAN status
GigabitEthernet	GigabitEthernet
*	All switches or All ports
<vlan_list>	List of VLAN interface numbers (1-4095)
<port_list>	Port List S/X-Y,Z (1/1-28)
green-ethernet	Display green-ethernet
status	Display status
statistics	Display statistics
capabilities	Display interface capabilities
bytes	Show byte statistics
discards	Show discard statistics
errors	Show error statistics
packets	Show packet statistics
up	Show ports which are up
down	Show ports which are down

EXAMPLE

```
GEP-2851# show interface GigabitEthernet 1/1-3 capabilities

GigabitEthernet 1/1 Capabilities:
SFP Type: None
SFP Vendor name:
SFP Vendor PN:
SFP Vendor revision:

GigabitEthernet 1/2 Capabilities:
SFP Type: None
SFP Vendor name:
SFP Vendor PN:
SFP Vendor revision:

GigabitEthernet 1/3 Capabilities:
SFP Type: None
SFP Vendor name:
SFP Vendor PN:
SFP Vendor revision:
GEP-2851#
```

13-10 ip

Internet Protocol.

SYNTAX

show ip arp

show ip arp inspection

show ip arp inspection entry { [dhcp-snooping interface] | [interface] | [static interface] } { * | [GigabitEthernet <port _list>] }

show ip arp inspection interface { * | [GigabitEthernet <port _list>] }

show ip arp inspection vlan <vlan_list>

show ip dhcp pool

show ip dhcp pool <vlan_id>

show ip dhcp relay

show ip dhcp relay statistics

show ip dhcp server

show ip dhcp server status

show ip dhcp snooping

show ip dhcp snooping table

show ip dhcp snooping interface { * | [GigabitEthernet <port _list>] }

show ip dhcp snooping statistics

show ip dhcp snooping statistics interface { * | [GigabitEthernet <port _list>] }

show ip igmp snooping

show ip igmp snooping [detail | group-database | mrouter | vlan]

show ip interface brief

show ip name-server

show ip route

show ip source binding

show ip source binding dhcp-snooping

show ip source binding dhcp-snooping interface { * | [GigabitEthernet <port _list>] }

show ip source binding interface { * | [GigabitEthernet <port _list>] }

show ip source binding static

show ip source binding static interface { * | [GigabitEthernet <port _list>] }

show ip verify source

show ip verify source interface { * | [GigabitEthernet <port _list>] }

Parameter

arp	Address Resolution Protocol
dhcp	Dynamic Host Configuration Protocol
igmp	Internet Protocol
interface	IP interface status and configuration
name-server	Domain Name System
route	Display the current ip routing table
source	source command
verify	verify command
inspection	ARP inspection
entry	arp inspection entries
interface	Select an interface to configure
vlan	VLAN configuration
dhcp-snooping	learn from dhcp snooping
static	setting from static entries
GigabitEthernet	GigabitEthernet
*	All switches or All ports
<port_list>	Port List S/X-Y,Z (1/1-28)
<vlan_list>	Select a VLAN id to configure (1-4095)
pool	DHCP server pool
relay	DHCP relay
server	DHCP server
snooping	DHCP snooping
<vlan_id>	VLAN id of DHCP server pool (1-4095)
statistics	DHCP option 82
status	DHCP server status

table	show ip dhcp snooping table
statistics	Display DHCP snooping statistics information
snooping	Snooping IGMP
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
brief	Brief IP interface status
binding	ip source binding
interface	ip verify source interface config
source	verify source

EXAMPLE

```
GEP-2851# show ip interface brief
Interface       Address            Method       Status
--------------- ------------------- ------------- ------
VLAN1           192.168.1.1/24      Manual       UP
GEP-2851#
```

13-11 ipv6

IPv6 configuration commands.

SYNTAX

show ipv6 mld snooping [vlan | group-database | detail | mrouter]

show ipv6 mld snooping

show ipv6 interface

show ipv6 interface vlan <vlan_list> brief

show ipv6 neighbor

show ipv6 neighbor interface vlan <vlan_list>

show ipv6 route

show ipv6 route interface vlan <vlan_list>

Parameter

mld	IPv6 configuration commands
interface	IPv6 configuration commands
neighbor	IPv6 neighbors
route	IPv6 routes
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
vlan	VLAN of IPv6 interface
<vlan_list>	IPv6 interface VLAN list (1-4095)
brief	Brief summary of IPv6 status and configuration
interface	Select an interface to configure

EXAMPLE

```
GEP-2851# show ipv6 mld snooping detail
MLD Snooping is disabled to stop snooping IGMP control plane.
Multicast streams destined to unregistered MLD groups will be flooding.
GEP-2851#
```

13-12 lldp

show lldp configuration.

SYNTAX

show lldp

show lldp interface { * | [GigabitEthernet <port _list>] }

show lldp med media-vlan-policy

show lldp med media-vlan-policy <policy_list>

show lldp med remote-device

show lldp med remote-device interface { * | [GigabitEthernet <port _list>] }

show lldp neighbors

show lldp neighbors interface { * | [GigabitEthernet <port _list>] }

show lldp statistics

show lldp statistics [interface <port_type> <port_type_list>] [| {begin | exclude | include } <LINE>]

Parameter

interface	Interface to display
med	Display LLDP-MED neighbors information
neighbors	Display LLDP neighbors information
statistics	Display LLDP statistics information
*	All Switches or All ports
Gigabitethernet	GigabitEthernet
<port_list>	Port List S/X-Y,Z (1/1-28)
media-vlan-policy	Display media vlan policies
remote-device	Display remote device LLDP-MED neighbors information
<policy_list>	e.g. 0,1,2, (0-31)
Interface	Interface to display

EXAMPLE

```
GEP-2851# show lldp interface GigabitEthernet 1/4
LLDP Configuration
=====================================
TX Interval : 30 sec
TX Hold : 4 sec
TX Delay : 2 sec
TX Reinit : 2 sec

GigabitEthernet 1/4
------------------------------
TX/RX Mode : Disabled
CDP Aware  : Disable
Port Descr : Enable
Sys Name : Enable
Sys Descr : Enable
Sys Capa : Enable
Mgmt Addr : Enable
GEP-2851#
```

13-13 logging

Syslog.

SYNTAX

show logging [<loggin_id : 1-4294967295> | alert | crit | debug | emerg | error | info | notice | warning]

show logging

Parameter

<logging_id: 1-4294967295>	Logging ID (1..4294967295)
alert	Alert
crit	Critical
debug	Debug

emerg	Emergency
error	Error
info	Information
notice	Notice
warning	Warning

EXAMPLE

```
GEP-2851# show logging info
Switch logging host mode is disable
Host address 1 :
Host address 2 :
Host address 3 :
Host address 4 :
Host address 5 :
Host address 6 :

Number of entries on Switch:
ID    Level    Time                Message
----  -------  ------------------  ----------------------------
3     Info     2017-01-01 00:01:16   LOGIN: Login passed for user 'admin'
4     Info     2017-01-01 00:15:21   LOGOUT: User 'admin' logout
5     Info     2017-01-01 00:15:35   LOGIN: Login passed for user 'admin'
6     Info     2017-01-01 00:25:38   LOGOUT: User 'admin' logout
7     Info     2017-01-01 01:02:02   LOGIN: Login passed for user 'admin'
8     Info     2017-01-01 01:12:03   LOGOUT: User 'admin' logout

GEP-2851#
```

13-14 loop-protect

show Loop protection.

SYNTAX

show loop-protect

show loop-protect interface { * | [GigabitEthernet <port _list>] }

Parameter

interface	Interface status and configuration
*	All Switches or All ports
Gigabitethernet	GigabitEthernet
<port_list>	Port List S/X-Y,Z (1/1-28)

EXAMPLE

```
GEP-2851# show loop-protect interface GigabitEthernet 1/3
Loop Protection Configuration
=====================================
Loop Protection   : Disable
Transmission Time : 5 sec
Shutdown Time     : 180 sec

GigabitEthernet 1/3
------------------------------
Mode : Enabled
Action : Shutdown
Transmit mode : Disabled
The number of loops : 0
loop : -
Status : Down

GEP-2851#
```

13-15 mac

Mac Address Table information.

SYNTAX

show mac address-table

show mac address-table address <mac_ucast>

show mac address-table address <mac_ucast> vlan <vlan_id>

show mac address-table [aging-time| conf |static]

show mac address-table count

show mac address-table count interface { * | [GigabitEthernet <port _list>] }

show mac address-table interface { * | [GigabitEthernet <port _list>] }

show mac address-table learning

show mac address-table learning interface { * | [GigabitEthernet <port _list>] }

show mac address-table vlan <vlan_id>

Parameter

address-table	Mac Address Table
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
<mac_ucast>	48 bit MAC address: xx:xx:xx:xx:xx:xx
vlan	VLAN lookup
<vlan_id>	VLAN IDs 1-4095 (1-4095)
*	All Switches or All ports
Gigabitethernet	GigabitEthernet
<port_list>	Port List S/X-Y,Z (1/1-28)

EXAMPLE

```
GEP-2851# show mac address-table count interface GigabitEthernet 1/4
Port                             Count
---------------------------------  -----
GigabitEthernet 1/4                0

Total addresses in table: 1
GEP-2851#
```

13-16 mvr

Internet Protocol.

SYNTAX

show mvr

show mvr detail

show mvr group-database

Parameter

detail	Detail running information/statistics of MVR
group-database	Multicast group database from MVR

EXAMPLE

```
GEP-2851# show mvr group-database
MVR is currently disabled, please enable MVR to start group registration.

MVR Group Database

Switch-1 MVR Group Count: 0
GEP-2851#
```

13-17 ntp

Configure NTP.

SYNTAX

show ntp status

Parameter

status status

EXAMPLE

```
GEP-2851# show ntp status
NTP Mode : Disable
Interval : 1440 min
Idx   Server IP host address (a.b.c.d) or a host name string
---   ----------------------------------------------------
1
2
3
4
5
6

GEP-2851#
```

13-18 poe

show poe.

SYNTAX

show poe auto-check

show poe config

show poe config interface { * | [GigabitEthernet <port _list>] }

show poe power-delay

show poe power-delay interface { * | [GigabitEthernet <port _list>] }

show poe profile

show poe profile id <1-16>

show poe status

show poe status interface { * | [GigabitEthernet <port _list>] }

Parameter

status	Display PoE (Power Over Ethernet) status for the switch
config	Display PoE (Power Over Ethernet) config for the switch
auto-check	Display PoE Auto Checking config for the switch
power-delay	Display PoE (Power Over Ethernet) Power Delay config for the switch
profile	poe scheduling profile
interface	Interface status and configuration
*	All Switches or All ports
Gigabitethernet	GigabitEthernet
<port_list>	Port List S/X-Y,Z (1/1-28)
id	show poe profile
<1-16>	Profile id (1..16)

EXAMPLE

```
GEP-2851# show poe status interface GigabitEthernet 1/1-2
                                                Power     Power   Current
Interface             PD Class  Port Status           Alloc [W] Used[W] Used[mA] Priority
----------------------  --------  ----------------------  --------- ------- --------
--------
GigabitEthernet 1/1           -  No PD detected              0.0     0.0       0 Low
GigabitEthernet 1/2           -  No PD detected              0.0     0.0       0 Low
Total                                                  0.0     0.0       0
GEP-2851#
```

13-19 port-security

show port security.

SYNTAX

show port-security switch interface { * | [GigabitEthernet <port _list>] }

Parameter

switch	Show Port Security status
interface	Interface status and configuration
*	All Switches or All ports
Gigabitethernet	GigabitEthernet
<port_list>	Port List S/X-Y,Z (1/1-28)

EXAMPLE

```
GEP-2851# show port-security switch interface GigabitEthernet 1/4
Interface             State        MAC Cnt
----------------------  -------------  -------
GigabitEthernet 1/4     Disabled      -


GEP-2851#
```

13-20 privilege

Display privilege level configuration

SYNTAX

show privilege group <group> level

show privilege group level

Parameter

group	Privilege group name

<group> Privilege group name (access-mgmt / arp-inspection / auth-method / dhcp-relay / dhcp-snooping / diagnostic / dot1x / eee / event / forward-failure / ip / ipmc / ip-source-guard / lacp / lldp / loop-protection / mac-table / mirror / mvr / poe / port / port-security / qos / radius / snmp / stp / system / upnp / vlan)

level Privilege group level

EXAMPLE

```
GEP-2851# show privilege group access-mgmt level
Group Name                    Read-only  Read-write
----------------------------  ---------  ----------
access-mgmt                           5         10

GEP-2851#
```

13-21 pvlan

PVLAN status.

SYNTAX

show pvlan

show pvlan <pvlan_list>

show pvlan isolation

show pvlan isolation interface { * | [GigabitEthernet <port _list>] }

Parameter

<pvlan_list> PVLAN ID to show configuration for (1-10)

isolation show isolation configuration

interface Show isolation configuration for specify interface

***** All Switches or All ports

Gigabitethernet GigabitEthernet

<port_list> Port List S/X-Y,Z (1/1-28)

EXAMPLE

```
GEP-2851# 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
GEP-2851#
```

13-22 qos

Quality of Service.

SYNTAX

show qos

show qos interface

show qos interface { * | [GigabitEthernet <port _list>] }

show qos map [cos-queue | dscp-queue | precedence-queue | queue-cos | queue-dscp | queue-precedence]

Parameter

interface QoS Interface status and configuration

map Display global QoS Maps/Tables

***** All Switches or All ports

Gigabitethernet GigabitEthernet

<port_list>	Port List S/X-Y,Z (1/1-28)
cos-queue	Map for CoS to queue
dscp-queue	Map for DSCP to queue
precedence-queue	Map for IP Precedence to queue
queue-cos	Map for queue to CoS
queue-dscp	Map for queue to DSCP
queue-precedence	Map for queue to IP Precedence

EXAMPLE

```
GEP-2851# show qos map queue-precedence

Queue to IP Precedence mappings
 Queue          0  1  2  3  4  5  6  7
---------------+------------------------
 IP Precedence   0  1  2  3  4  5  6  7

GEP-2851#
```

13-23 radius-server

RADIUS configuration.

SYNTAX

show radius-server

show radius-server statistics

Parameter

statistics	RADIUS statistics

EXAMPLE

```
GEP-2851# show 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 :
GEP-2851#
```

13-24 rmon

RMON statistics.

SYNTAX

show rmon history

show rmon history <1-65535>

show rmon statistics

show rmon statistics <1-65535>

show rmon alarm

show rmon alarm <1-65535>

show rmon event

show rmon event <1-65535>

Parameter

history	Display the RMON history table
statistics	Display the RMON statistics table
alarm	Display the RMON alarm table
event	Display the RMON event table
<1-65535>	History entry list (1..65535)

<1-65535> Statistics entry list (1..65535)

<1-65535> Alarm entry list (1..65535)

<1-65535> Event entry list (1..65535)

EXAMPLE

```
GEP-2851# show rmon statistics 5
GEP-2851#
```

13-25 running-config

Current operating configuration.

SYNTAX

show running-config

Parameter

CWORD Valid words are ‘GVRP’ 'access' 'access-list'

'dhcp' 'dhcp-snooping' 'dns' 'dot1x' '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'

‘lacp’ 'lldp' 'logging' 'loop-protect' 'mac' 'mep'

'monitor' 'mstp' 'mvr' 'mvr-port' 'ntp' ‘phy’ ‘poe’ 'port'

'port-security' 'pvlan' 'qos' 'rmon' ‘sflow’

'snmp' 'source-guard' 'ssh' ‘system’ 'upnp' 'user'

'vlan' 'voice-vlan'

EXAMPLE

```
GEP-2851# show running-config
username admin privilege 15 password none
!
!
interface GigabitEthernet 1/1
!
interface GigabitEthernet 1/2
!
interface GigabitEthernet 1/3
!
interface GigabitEthernet 1/4
!
interface GigabitEthernet 1/5
!
interface GigabitEthernet 1/6
!
.
.
.
.
.
.
interface GigabitEthernet 1/N
!
!
interface vlan 1
 ip address 192.168.1.1 255.255.255.0
!
ip route 0.0.0.0 0.0.0.0 192.168.1.254
end
GEP-2851#
```

13-26 snmp

Display SNMP configurations.

SYNTAX

show snmp

show snmp access

show snmp access <GroupName : word32> [v1 | v2c | v3 | any] [auth | noauth | priv]

show snmp community v3

show snmp community v3 <Community : word32>

show snmp security-to-group [v1 | v2c | v3] <SecurityName : word32>

show snmp user

show snmp user <UserName : word32>

show snmp view

show snmp view <ViewName : word32> <OidSubtree : word128>

Parameter

access	access configuration
community	Community
security-to-group	security-to-group configuration
user	User
view	MIB view configuration
<GroupName : word32>	Group name (word32)
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
v3	SNMPv3

<Community : word32> Specify community name (word32)

<SecurityName : word32> security group name (word32)

<UserName : word32> Security user name (word32)

<ViewName : word32> MIB view name (word32)

<OidSubtree : word128> MIB view OID (word128)

EXAMPLE

```
GEP-2851# show snmp
SNMP Configuration
Read Community              : public
Write Community             : private
Write Mode                 : enabled

SNMPv3 Communities Table:

SNMPv3 Users Table:

SNMPv3 Groups Table:

SNMPv3 Accesses Table:

SNMPv3 Views Table:

GEP-2851#
```

13-27 spanning-tree

Spanning Tree protocol.

SYNTAX

show spanning-tree mst configuration

show spanning-tree mst <0-4094>

show spanning-tree mst <0-4094> port

show spanning-tree mst <0-4094> port configuration

Parameter

mst	STP bridge instance
<0-4094>	MST instance ID , 0 is for CIST (0..4094)
configuration	MST Region Info and MSTI VLAN map
port	MST port status
configuration	MST port configuration

EXAMPLE

```
GEP-2851# show spanning-tree mst configuration
Multiple Spanning Tree Protocol : Disable
Force Version : MSTP
Region Name : 00-40-C7-01-03-05
Revision Level : 0

MSTI 0 (CIST) : vlan 1-4094

GEP-2851#
```

13-28 system

show system information.

SYNTAX

show system

Parameter

None

EXAMPLE

```
GEP-2851# show system
Model Name          : GEP-2851
System Description : (N-4)-Port 1G Copper + 4-Port 1G SFP Web Smart Ethernet
PoE Switch
Hardware Version    : v1.01
Mechanical Version : v1.01
Firmware Version    : v1.00.844
MAC Address         : 00-40-C7-1F-00-7D
Serial Number       : C020316AR2900005
System Name         : GEP-2851
Location            :
Contact             :
System Date         : 2017-01-01 00:23:25 +0000
System Uptime       : 0 days, 0:23:40

GEP-2851#
```

13-29 tacacs-server

TACACS+ configuration.

SYNTAX

show tacacs-server

EXAMPLE

```
GEP-2851# show tacacs-server
Global TACACS+ Server Timeout      : 5 seconds
Global TACACS+ Server Deadtime     : 0 minutes
Global TACACS+ Server Key          :
GEP-2851#
```

13-30 trap

Trap configuration.

SYNTAX

show trap

Parameter

None

EXAMPLE

```
GEP-2851# show trap
                    Community             Severity
No Ver Server IP      Name                  Level
-- --- --------------- ---------------------- ---------
1
2
3
4
5
6


GEP-2851#
```

13-31 upnp

show UPnP configurations.

SYNTAX

show upnp

EXAMPLE

```
GEP-2851# show upnp
UPnP Mode                : Disabled
Interface VLAN           : 1
UPnP TTL                 : 4
UPnP Advertising Duration  : 100

GEP-2851#
```

13-32 version

System software status.

SYNTAX

show version

EXAMPLE

```
GEP-2851# show version
Active Image
------------
Partition       : secondary
Version         : v1.00.844
Date            : 2017-03-06 13:37:35 UTC

Alternate Image
------------
Partition       : primary
Version         : v0.91.422
Date            : 2016-11-18 13:45:16 UTC

GEP-2851#
```

13-33 vlan

VLAN status.

SYNTAX

show vlan

show vlan brief

show vlan id <vlan_list>

show vlan ip-subnet

show vlan ip-subnet address

show vlan ip-subnet address< ipv4_addr>

show vlan mac config

show vlan mac config address <mac_ucast>

show vlan mac status

show vlan mac status address <mac_ucast>

show vlan mapping

show vlan protocol

show vlan protocol { [eth2 <ethernet value>] | [llc <dsap value> <ssap value>] | [snap <snap oui> <pid value>] }

show vlan status

show vlan status [admin | all | combined | gvrp | mstp | mvr | nas | vcl | voice-vlan]

show vlan status [admin | all | combined | gvrp | mstp | mvr | nas | vcl | voice-vlan] interface { * | [GigabitEthernet <port _list>] }

show vlan status interface { * | [GigabitEthernet <port _list>] } [admin | all | combined | gvrp | mstp | mvr | nas | vcl | voice-vlan]

Parameter

brief	VLAN summary information
id	VLAN status by VLAN id
ip-subnet	Show VLAN ip-subnet entries
mac	Show VLAN MAC entries
mapping	Show VLAN Selective QinQ entries

protocol	Protocol-based VLAN status
status	Show the VLANs configured for each interface
<vlan_list>	VLAN ID to show configuration for (1-4095)
address	Show a specific ip-subnet entry
<ipv4_addr>	The specific ip-subnet to show. (X.X.X.X)
config	Show VLAN MAC config.
status	Show VLAN MAC status.
address	Show a specific MAC entry
<mac_ucast>	The specific MAC entry to show
eth2	Ethernet protocol based VLAN status
llc	LLC-based VLAN group
snap	SNAP-based VLAN group
<ethernet value>	Ether Type(Range: 0x600 - 0xFFFF)
<dsap value>	DSAP(Range: 0x00 - 0xFF)
<ssap value>	SSAP(Range: 0x00 - 0xFF)
<snap oui>	SNAP OUI(must be 0x000000)
<pid value>	PID(Range: 0x0000 - 0XFFFF)
admin	Show the VLANs configured by administrator
all	Show all VLANs configured
combined	Show the VLANs configured by a combination
gvrp	Show the VLANs configured by GVRP
interface	Show the VLANs configured for a specific interface
mstp	Show the VLANs configured by MSTP
mvr	Show the VLANs configured by MVR
nas	Show the VLANs configured by NAS
vcl	Show the VLANs configured by VCL

voice-vlan	Show the VLANs configured by Voice VLAN
*	All Switches or All ports
Gigabitethernet	GigabitEthernet
<port_list>	Port List S/X-Y,Z (1/1-28)

EXAMPLE

```
GEP-2851# show vlan status all interface GigabitEthernet 1/4
GigabitEthernet 1/4 :
---------------------
VLAN User  PortType      PVID  Frame Type    Ing Filter  Tx Tag
---------  ------------  ----  ------------  ----------  -----------------
Admin      C-Port        1     All           Enabled     None
NAS
GVRP
MVR
Voice VLAN
MSTP
DMS
VCL
Combined   C-Port        1     All           Enabled     None

GEP-2851#
```

13-34 voice

show voice.

SYNTAX

show voice vlan

Parameter

vlan	show voice vlan

EXAMPLE

```
GEP-2851# show voice vlan
no Switch voice setting

Voice VLAN switchport is configured on following:

GigabitEthernet 1/1 :
---------------------
GigabitEthernet 1/1 switchport voice vlan mode is forced
GigabitEthernet 1/1 switchport voice security is disabled
GigabitEthernet 1/1 switchport voice discovery protocol is oui

GigabitEthernet 1/2 :
---------------------
GigabitEthernet 1/2 switchport voice vlan mode is forced
GigabitEthernet 1/2 switchport voice security is disabled
GigabitEthernet 1/2 switchport voice discovery protocol is oui

GigabitEthernet 1/3 :
---------------------
GigabitEthernet 1/3 switchport voice vlan mode is forced
GigabitEthernet 1/3 switchport voice security is disabled
GigabitEthernet 1/3 switchport voice discovery protocol is oui

GigabitEthernet 1/4 :
---------------------
GigabitEthernet 1/4 switchport voice vlan mode is forced
GigabitEthernet 1/4 switchport voice security is disabled
GigabitEthernet 1/4 switchport voice discovery protocol is oui

GigabitEthernet 1/5 :
---------------------
GigabitEthernet 1/5 switchport voice vlan mode is forced
GigabitEthernet 1/5 switchport voice security is disabled
GigabitEthernet 1/5 switchport voice discovery protocol is oui
```

```
GigabitEthernet 1/6 :
---------------------
GigabitEthernet 1/6 switchport voice vlan mode is forced
GigabitEthernet 1/6 switchport voice security is disabled
GigabitEthernet 1/6 switchport voice discovery protocol is oui
.
.
.
.
.
.
.
.
GigabitEthernet 1/N :
---------------------
GigabitEthernet 1/N switchport voice vlan mode is forced
GigabitEthernet 1/N switchport voice security is disabled
GigabitEthernet 1/N switchport voice discovery protocol is oui


GEP-2851#
```

Chapter 14 SSL of CLI

Setup SSL certificate..

Syntax

ssl

EXAMPLE

```
GEP-2851# ssl
Generating a 2048 bit RSA private key
.....................................................................
.....................................................+++
.....................................................+++
writing new private key to '/mnt/custfs/ssl/lighttpd.pem'
-----
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
-----
Country Name (2 letter code) [AU]:
```

Chapter 15 TERMINAL of CLI

Set terminal line parameters.

Syntax

terminal exec-timeout <0-1440>

Parameter

exec-timeout	Set the EXEC timeout
<0-1440>	Timeout in minutes

EXAMPLE

```
GEP-2851# terminal exec-timeout 3
GEP-2851#
```

Chapter 16 TRACEROUTE of CLI

Copy from source to destination.

SYNTAX

traceroute ip <ipv4_addr>

traceroute ip <ipv4_addr> { protocol [icmp | udp] } [wait <1-60>] [ttl <1-255>] [nqueries <1-10>]

traceroute ipv6 <ipv6_addr>

traceroute ipv6 <ipv6_addr> { protocol [icmp | udp] } [wait <1-60>] [ttl <1-255>] [nqueries <1-10>]

Parameter

ip	Internet protocol version 4
ipv6	Internet protocol version 6
<ipv4_addr>	IP destination address (X.X.X.X)
protocol	IP Protocol
wait	Set the number of seconds to wait for response to a probe
ttl	Set the max number of hops
nqueries	Set the number of probes per each hop
Icmp	Use ICMP ECHO for tracerouting (default)
udp	Use UDP Port for tracerouting
tcp	Use TCP Sync for tracerouting (default)
<1-60>	Time in seconds to wait for a response. Default is 3s. (1..60)
<1-255>	Max time-to-live. Default is 30. (1..255)
<1-10>	Max time-to-live. Default is 3. (1..10)
<ipv6_addr>	IPv6 destination address (X:X:X:X:X:X:X:X)

EXAMPLE

```
GEP-2851# traceroute ip 192.168.1.1 protocol icmp wait 3 ttl 5 nqueries
6
traceroute to 192.168.1.1 (192.168.1.1), 5 hops max, 38 byte packets
 1  192.168.1.1 (192.168.1.1)  10.000 ms  0.000 ms  0.000 ms  0.000 ms
0.000 ms  0.000 ms
GEP-2851#
```

Chapter 17 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.

17-1 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.

17-2 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	MODE

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 interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST
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	15	INTERFACE_PORT_LIST

	this command to disable access-list mirror. The access-list interface configuration will affect the received frames if it doesn't match any ACE.		
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	15	INTERFACE_PORT_LIST

	default access-list policy ID. The access-list interface configuration will affect the received frames if it doesn't match any ACE.		
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 <1-32767> | kpps <1,2,4,8,16,32,64,128,256,512,1024> | 100kbps <0-10000> }	Use the access-list rate-limiter global configuration command to configure the access-list rate-limiter.	15	INTERFACE_PORT_LIST
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	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

[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 {<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 keyword to display access-list rate-limiter configuration, or use the ace keyword to display access-list ace configuration.	15	EXEC
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 timeout value to default.	15	GLOBAL_CONFIG
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	Use the radius-server host command to add a new RADIUS host.	15	GLOBAL_CONFIG

<1-1000>] [retransmit <1-1000>] [key <line1-63>]			
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 command to reset the global TACACS+ deadtime value to default.	15	GLOBAL_CONFIG
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	15	EXEC

	statistics maintained by IP DHCP realy.		
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 host address of DHCP relay server.	15	GLOBAL_CONFIG
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	15	GLOBAL_CONFIG

	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.		
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 clear the statistics maintained by IP DHCP snooping, or particularly the IP DHCP snooping statistics for the interface.	15	EXEC
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 to the lowest speed to default.	15	GLOBAL_CONFIG
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 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.	15	GLOBAL_CONFIG
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>] statistics		15	EXEC
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	15	GLOBAL_CONFIG

	0 degrees.		
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-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>	Use lldp med location-tlv civic-addr to configure the civic address.	15	GLOBAL_CONFIG
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	15	GLOBAL_CONFIG

	are being sent during the activation of the fast start mechanism defined by LLDP-MED (1-10).		
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-video | video-signaling } { tagged <vlan_id> | untagged } [l2-priority <0-7>] [dscp <0-63>]	Use the media-vlan-policy to create a policy, which can be assigned to an interface.	15	GLOBAL_CONFIG
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> } |	Sets monitor source port(s).	15	GLOBAL_CONFIG

{ cpu [<range_list>] } }			
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 | oam | sgpio | l3 | afi | macsec }] [full] [clear]		debug	EXEC
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 <1-3600>	The period between re-authentication attempts in seconds	15	GLOBAL_CONFIG
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	15	GLOBAL_CONFIG

	Guest VLAN.		
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 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.	15	GLOBAL_CONFIG
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		15	EXEC

<port_type_list>]			
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 {1G | 100M | 10M}		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	15	INTERFACE_PORT_LIST

	on Saturday to enable PoE.		
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>]		15	GLOBAL_CONFIG

[crw <0-15>] [sro <0-15>] [srw <0-15>] }*1			
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>		15	GLOBAL_CONFIG

dpl <dpl>			
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		15	GLOBAL_CONFIG

{ <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> | 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>]	Collector address	15	GLOBAL_CONFIG

[<word>]			
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 user EXEC command to \ display the SNMP ifIndex(defined in IF-MIB) mapping \ information in the switch.	15	EXEC
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]		15	EXEC

[interface] [aaa]			
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.	15	GLOBAL_CONFIG

	Use the no form of this command to disable the logging server.		
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 configuration command to configure what level of message will send to logging server.	15	GLOBAL_CONFIG
show clock	Show running system information	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> <ipv4_subnet> vlan <vlan_id>		13	INTERFACE_PORT_LIST
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 |	Set hybrid characteristics of the	13	INTERFACE_PORT_LIST

tagged | untagged }	interface		
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	15	GLOBAL_CONFIG

	no form of this command to globally disable voice vlan.		
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	15	INTERFACE_PORT_LIST

	security mode.		
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 default switchport voice vlan discovery-protocol.	15	INTERFACE_PORT_LIST
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