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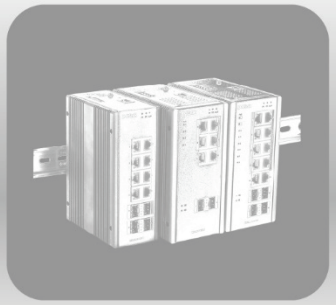

CLI Reference Guide

Product Model : DIS-300G Series
Industrial Gigabit Ethernet Switch
Release 1.10

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1. Scope

1 Scope

1.1 Scope

This user guide describes the commands and parameters of the Command Line Interface (CLI) as implemented in the current version of industrial managed switch series software. These commands are used to set-up, administer and maintain the system.

1.2 Audience

The guide is intended for Operating personnel (sometimes called craft persons).

1.3 Pre-required Knowledge

The reader must be familiar with the:

- Basic operations of industrial managed switch series (see User Guide).
- Security and activity monitoring constraints that limit how a command is implemented.

1.4 Access to Hardware Interface

Access to the hardware interface is by a terminal (or computer with terminal emulation software). Requirements for the terminal are:

- RS-232 ASCII port
- Selectable transmission baud rate
- Full alphanumeric capability
- Selectable odd/even or no parity check

1.5 Related Documents

You may want to refer to the following related documents:

- Quick Installation Guide
- User Guide
- Web Configuration Tool Guide

2. Operator Interface

Operator Interface

1.6 Introduction

Access to the Switch is protected by a logon security system. You can log on to the switch with the user name and password. After three failed logon attempts, the system refuses further attempts.

After you log on, the system monitors the interface for periods of inactivity. If the interface is inactive for too long, you are automatically logged off.

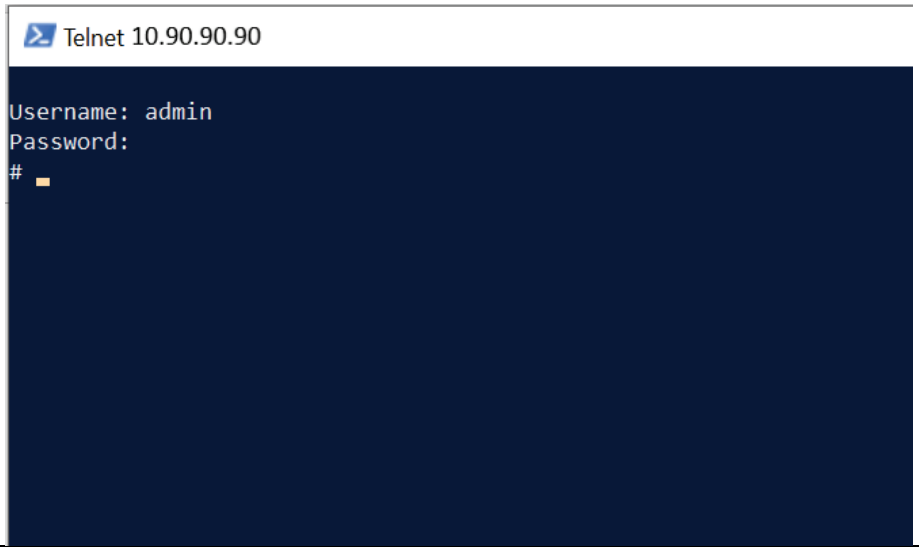
The CLI initial fixed user name is (admin) while the password is (admin). You should change the password as soon as possible, because the initial password is known to anyone who reads this manual. You can also add additional user names. Use the “username” command to enter a new user identification, password and authorization level.

1.7 Connect Interface

Interface	**Parameter**
Console	Baud rate: 115200bps, Data bit: 8, Parity: None, Stop bit: 1
Telnet	Port 23
SSH	Port 22 (In Windows, you can run terminal emulator such as PuTTY)

1.8 Screen Description

1. Connecting to the Ethernet port(RJ45 Ethernet port)
2. Key-in the command under Telnet: ***telnet 10.90.90.90***
3. Login with default account and password.
   Username: admin
   Password: admin



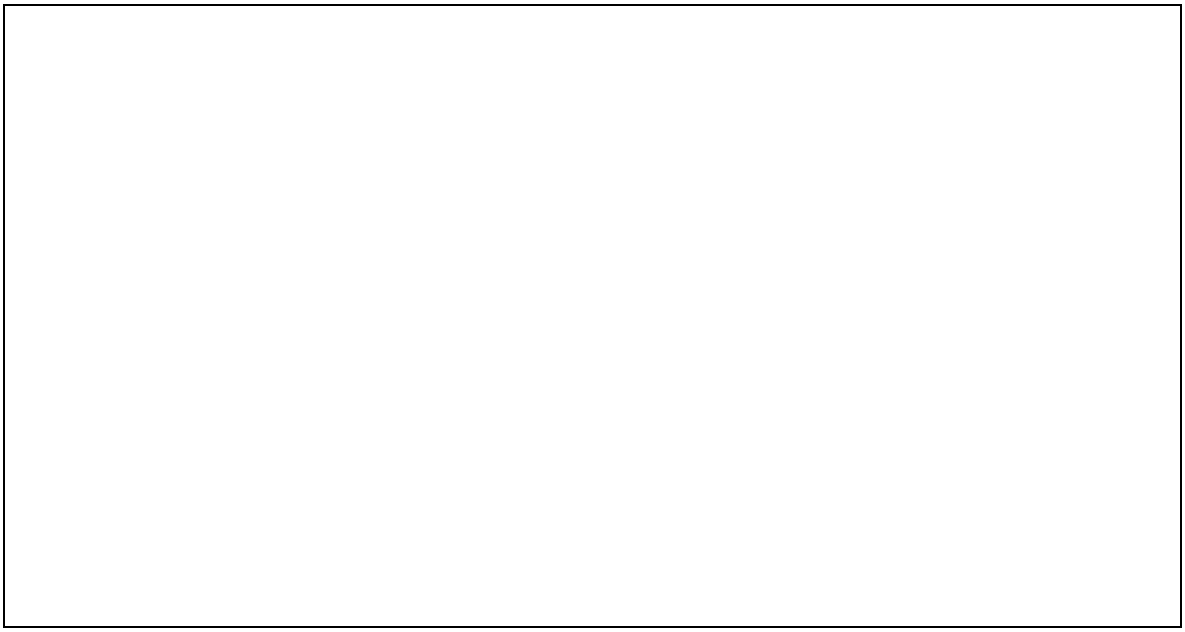


Figure 2-1 Screen Description

1.9 Execution Modes

The CLI contains several execution modes. Users will see different set of commands under different execution modes. Table 2-1 lists all the execution modes and their purposes. When users enter a certain execution mode, the corresponding mode prompt will be displayed automatically on the screen. The mode prompts of all the execution modes are also listed in Table 2-1.

Table 2-1 List of Execution Modes

Mode	**Access Level**	**Prompt**
Init Mode	Guest	>
Enable Mode	Guest	#
Config Mode	Guest	(conf)#
Alarm Profile Config Mode	Engineer	(alarm-profile-conf)#
Gigabit Interface Config Mode	Engineer	(config-if)#
ACL Profile Config Mode	Engineer	(acl-profile-conf)#
scheduler Profile Config Mode	Engineer	(sch-profile-conf)#
Vlan Interface Config Mode	Engineer	(config-if-vlan)#
IGMP MVR Profile Config Mode	Engineer	(igmp-mvr-profile-conf)#
IGMP ACL Profile Config Mode	Engineer	(igmp-acl-profile-conf)#
RingV2 Group Config Mode	Engineer	(ring)#
Trunk Group Config Mode	Engineer	(trunk-group-conf)#
SNMP Host Config Mode	Engineer	(config-snmps-host)#

1.10 Getting help

The user can get help by entering a question mark ‘?’ at each position in the command. The displayed result depends on the execution mode and previous input.

1.11 Terminal Key Function

Following is the list of all the terminal keys and their function.

Table 2-2 List of Terminal Keys

ENTER	Run a CLI config script
CTRL-M	
TAB	Tab completion. If tab is pressed after a non-whitespace character, complete the word before the Tab. If tab is pressed after a whitespace character, complete the next word.
CTRL-I	
?	Display available commands If ? is pressed after a non-whitespace character, show possible choices for this word. If ? is pressed after a whitespace character, show possible choices for the next word.
<Up Arrow>	Up history
CTRL-P	
<Down Arrow>	Down history
CTRL-N	
Home	Move the cursor to the beginning of the input line
CTRL-A	
End	Move the cursor to the end of the input line
CTRL-E	
<Left Arrow>	Move the cursor backward
CTRL-B	
<Right Arrow>	Move the cursor forward
CTRL-F	
BACKSPACE	Erase the character before the cursor
CTRL-H	

1.12 Notation Conventions

The notation conventions for the parameter syntax of each CLI command are as follows:

- Parameters enclosed in [ ] are optional.
- Parameter values are separated by a vertical bar “|” only when one of the specified values can be used.
- Parameter values are enclosed in { } when you must use one of the values specified.

3. Commands Descriptions

2 Commands Descriptions

2.1 Initialize Mode Commands

The commands in this section (except 'enable' command) can be executed under all command modes. These commands are global commands.

2.1.1 clear ip arp

Description	Clear ARP cache
Syntax	clear ip arp
Parameter	None

2.1.2 clear lldp statistics

Description	Clears LLDP statistics	
Syntax	clear lldp statistics { [interface (<port_type> [<plist>])] | global }	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<plist>	Port list in 1/1- max number of ports.
	global	Clear global counters

2.1.3 clear statistics

Description	Clear statistics for one or more given interfaces	
Syntax	clear statistics [interface] (<port_type> [<v_port_type_list>])	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.

2.1.4 configure terminal

Description	Enter configuration mode.
Syntax	configure terminal
Parameter	None

2.1.5 disable

Description	Turn off privileged commands	
Syntax	disable [<new_priv>]	
Parameter		
	Name	**Description**
	<new_priv>	Valid value: <0-15>

2.1.6 enable

Description	Turn on privileged commands
Syntax	enable
Parameter	None

2.1.7 exit

Description	Exit current mode and quit CLI.
Syntax	exit
Parameter	None

2.1.8 help

Description	Description of the interactive help system
Syntax	help
Parameter	None

2.1.9 logout

Description	Disconnect the device
Syntax	logout
Parameter	None

2.1.10 ping ip

Description	The ping IPv4 function	
Syntax	ping ip { <v_ip_addr> | <v_ip_name> } [repeat <count>] [size <size>] [interval <seconds>]	
Parameter		
	Name	**Description**
	<v_ip_addr>	ICMP destination IPv4 address
	<v_ip_name>	<domain_name> ICMP destination IP domain name
	<count>	1-60; Default is 5
	<size>	2-1452; Default is 56 (excluding MAC, IP and ICMP headers)
	<seconds>	0-30; Default is 0

2.1.11 ping ipv6

Description	The ping IPv6 function	
Syntax	ping ipv6 { <v_ipv6_addr> | <v_ipv6_name> } [repeat <count>] [size <size>] [interval <seconds>] [interface vlan <v_vlan_id>]	
Parameter		
	Name	**Description**
	<v_ipv6_addr>	ICMPv6 destination IPv6 address
	<v_ipv6_name>	<domain_name> ICMPv6 destination IP domain name
	<count>	1-60; Default is 5
	<size>	2-1452; Default is 56 (excluding MAC, IP and ICMP headers)
	<seconds>	0-30; Default is 0
	interface	VLAN identifier(s): VID

2.1.12 show

Description	Display Function	
Syntax	show <commands>	
Parameter		
	Name	**Description**
	<commands>	Any of the commands

2.2 Enable Mode Commands

All the “show - -” commands in this section can also be executed under any other command mode except Initialize Mode.

2.2.1 clear access management statistics

Description	Clear access management statistics data.
Syntax	clear access management statistics
Parameter	None

2.2.2 clear access-list ace statistics

Description	Clear access list data
Syntax	clear access-list ace statistics
Parameter	None

2.2.3 clear dot1x statistics

Description	Clear dot1x statistics data	
Syntax	clear dot1x statistics [interface (<port_type> [<v_port_type_list>])]	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.

2.2.4 clear ip arp

Description	Clear ARP cache data.
Syntax	clear ip arp
Parameter	None

2.2.5 clear ip dhcp detailed statistics

Description	Clear DHCP detailed statistics data.	
Syntax	clear ip dhcp detailed statistics { server | client | snooping | relay | helper | all } [interface (<port_type> [<in_port_list>])]	
Parameter		
	Name	**Description**
	server	DHCP server
	client	DHCP client
	snooping	DHCP snooping
	relay	DHCP relay
	helper	DHCP normal L2 or L3 forward
	All	Clear all DHCP related statistics
	<port_type>	Select port type.
	<in_port_list>	Port list in 1/1- max number of ports.

2.2.6 clear ip dhcp relay statistics

Description	Clear DHCP relay statistics data.
Syntax	clear ip dhcp relay statistics
Parameter	None

2.2.7 clear ip dhcp server binding <ip>

Description	Clear DHCP binding IP data.	
Syntax	clear ip dhcp server binding <ip>	
Parameter		
	Name	**Description**

	<ip>	IP address of the binding

2.2.8 clear ip dhcp server binding type

Description	Clear DHCP binding type.	
Syntax	clear ip dhcp server binding type { automatic | manual | expired }	
Parameter		
	Name	**Description**
	automatic	Clear automatic bindings to expired bindings
	manual	Clear manual bindings to expired bindings
	expired	Clear expired bindings for free

2.2.9 clear ip dhcp server statistics

Description	Clear DHCP server statistics data.
Syntax	clear ip dhcp server statistics
Parameter	None

2.2.10 clear ip dhcp snooping statistics

Description	Clear DHCP snooping statistics data.	
Syntax	clear ip dhcp snooping statistics [interface (<port_type> [<in_port_list>])]	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<in_port_list>	Port list in 1/1- max number of ports.

2.2.11 clear ip igmp snooping

Description	Clear IGMP snooping statistics data.	
Syntax	clear ip igmp snooping [vlan <v_vlan_list>] statistics	
Parameter		
	Name	**Description**
	<v_vlan_list>	VLAN identifier(s): VID

2.2.12 clear ip statistics

Description	Clear IP statistics data.	
Syntax	clear ip statistics [system] [interface vlan <v_vlan_list>] [icmp] [icmp-msg <type>]	
Parameter		
	Name	**Description**
	[system]	IPv4 system traffic
	<v_vlan_list>	VLAN identifier(s): VID
	[icmp]	IPv4 ICMP traffic
	<type>	<0~255> ICMP message type ranges from 0 to 255

2.2.13 clear ipv6 mld snooping

Description	Clear ipv6 MLD snooping statistics data	
Syntax	clear ipv6 mld snooping [vlan <v_vlan_list>] statistics	
Parameter		
	Name	**Description**
	<v_vlan_list>	VLAN identifier(s): VID

2.2.14 clear ipv6 neighbors

Description	Clear ipv6 neighbors

Syntax	clear ipv6 neighbors
Parameter	None

2.2.15 clear ipv6 statistics

Description	Clear ipv6 MLD statistics data	
Syntax	clear ipv6 statistics [system] [interface vlan <v_vlan_list>] [icmp] [icmp-msg <type>]	
Parameter		
	Name	**Description**
	[system]	IPv6 system traffic
	<v_vlan_list>	VLAN identifier(s): VID
	[icmp]	IPv6 ICMP traffic
	<type>	<0~255> ICMP message type ranges from 0 to 255

2.2.16 clear lacp statistics

Description	Clear lacp statistics data
Syntax	clear lacp statistics
Parameter	None

2.2.17 clear lldp statistics

Description	Clear LLDP statistics data	
Syntax	clear lldp statistics { [interface (<port_type> [<plist>])] | global }	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<plist>	Port list in 1/1- max number of ports.
	global	Clear global counters

2.2.18 clear logging

Description	Clear logging data	
Syntax	clear logging [informational] [notice] [warning] [error]	
Parameter		
	Name	**Description**
	informational	Severity 6: Informational messages
	notice	Severity 5: Normal but significant condition
	warning	Severity 4: Warning conditions
	error	Severity 3: Error conditions

2.2.19 clear mac address-table

Description	Clear MAC address-table data
Syntax	clear mac address-table
Parameter	None

2.2.20 clear mvr

Description	Clear MVR statistics data	
Syntax	clear mvr [vlan <v_vlan_list> | name <mvr_name>] statistics	
Parameter		
	Name	**Description**
	<v_vlan_list>	MVR multicast VLAN list
	<mvr_name>	<word16> MVR multicast VLAN name

2.2.21 clear sflow

Description	Clear MVR statistics data	
Syntax	clear sflow statistics { receiver | samplers [interface (<port_type> [<v_port_type_list>])] }	
Parameter		
	Name	**Description**
	receiver	Clear statistics for receiver
	samplers	Clear statistics for samplers
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.

2.2.22 clear spanning-tree

Description	Clear spanning-tree data	
Syntax	clear spanning-tree { { statistics [interface (<port_type> [<v_port_type_list>])] } | { detected-protocols [interface (<port_type> [<v_port_type_list_1>])] } }	
Parameter		
	Name	**Description**
	statistics	STP statistics
	detected-protocols	Set the STP migration check
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.
	<v_port_type_list_1>	Port list in 1/1- max number of ports.

2.2.23 clear statistics

Description	Clear statistics data	
Syntax	clear statistics [interface] (<port_type> [<v_port_type_list>])	
Parameter		
	Name	**Description**
	[interface]	Interface
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.

2.2.24 configure terminal

Description	Enter configuration mode.
Syntax	configure
Parameter	None

2.2.25 copy

Description	Save and install configuration	
Syntax	copy { startup-config | running-config | <source_path> } { startup-config | running-config | <destination_path> } [syntax-check]	
Parameter		
	Name	**Description**
	running-config	Currently running configuration
	startup-config	Startup configuration
	<source_path>	File in FLASH or on TFTP server. Sytax: <flash:filename | tftp://server/path-and-filename>. A valid file name is a text string drawn from alphabet (A-Za-z), digits (0-9), dot (.), hyphen (-), under score(_). The maximum length is 63 and hyphen must not be first character. The file name content that only contains '.' is not allowed.

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

2.2.26 delete

Description	Delete one file in flash: file system.	
Syntax	delete <path>	
Parameter		
	Name	**Description**
	<path>	File in FLASH. Sytax: <flash:filename>. A valid file name is a text string drawn from alphabet (A-Z, a-z), digits (0-9), dot (.), hyphen (-), under score(_). The maximum length is 63 and hyphen must not be first character. The file name content that only contains '.' is not allowed.

2.2.27 dir

Description	Directory of all files in flash: file system.
Syntax	dir
Parameter	None

2.2.28 disable

Description	Turn off privileged commands
Syntax	disable
Parameter	None

2.2.29 do

Description	To run exec commands in the configuration mode.	
Syntax	do <command>	
Parameter		
	Name	**Description**
	<command>	<line> Exec Command

2.2.30 dot1x

Description	IEEE Standard for port-based Network Access Control	
Syntax	dot1x initialize [interface (<port_type> [<plist>])]	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<plist>	Port list in 1/1- max number of ports.

2.2.31 enable

Description	Turn on privileged commands	
Syntax	enable [<new_priv>]	
Parameter	None	
	Name	**Description**
	<new_priv>	<0-15> Choose privileged level

2.2.32 exit

Description	Exit from current mode.
Syntax	exit
Parameter	None

2.2.33 firmware

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

2.2.34 help

Description	Description of the interactive help system.
Syntax	help
Parameter	None

2.2.35 ip

Description	IPv4 commands	
Syntax	ip dhcp retry interface vlan <vlan_id>	
Parameter		
	Name	**Description**
	<vlan_id>	Vlan ID

2.2.36 ipv6

Description	IPv6 configuration commands	
Syntax	ipv6 dhcp-client restart [interface vlan <v_vlan_list>]	
Parameter		
	Name	**Description**
	<v_vlan_list>	IPv6 interface VLAN list

2.2.37 logout

Description	Exit from current mode.
Syntax	logout
Parameter	None

2.2.38 more

Description	Display file.
Syntax	more <path>

Parameter		
	Name	**Description**
	<path>	File in FLASH or on TFTP/FTP server. Sytax: <flash:filename | tftp://server/path-and-filename | ftp://user:passwd@server:port/path-and-filename>. Where FTP port can be ignored if default port 21 is used. A valid file name is a text string drawn from alphabet (A-Z, a-z), digits (0-9), dot (.), hyphen (-), under score(_). The maximum length is 63 and hyphen must not be first character. The file name content that only contains '.' is not allowed.

2.2.39 no debug interrupt monitor

Description	Disable printing out of reception of the selected interrupt source.	
Syntax	no debug interrupt monitor [source <source>]	
Parameter		
	Name	**Description**
	<source>	The possible values are enum vtss_interrupt_source_t values found in file board/interrupt_api.h

2.2.40 no debug ipv6 nd

Description	Delete IPv6 Neighbor Discovery debugging
Syntax	no debug ipv6 nd
Parameter	None

2.2.41 no debug trace hunt

Description	Delete trace hunt string.
Syntax	no debug trace hunt
Parameter	None

2.2.42 no port-security shutdown

Description	Disable port security shutdown	
Syntax	no port-security shutdown [interface (<port_type> [<v_port_type_list>])]	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<v_port_type_ list>	Port list in 1/1- max number of ports.

2.2.43 no terminal editing

Description	Disable command line editing.
Syntax	no terminal editing
Parameter	None

2.2.44 no terminal exec-timeout

Description	Return terminal exec-timeout to default.
Syntax	no terminal exec-timeout
Parameter	None

2.2.45 no terminal history size

Description	Return terminal history size to default.
Syntax	no terminal history size

Parameter	None

2.2.46 no terminal length

Description	Return terminal length to default.
Syntax	no terminal length
Parameter	None

2.2.47 no terminal width

Description	Return terminal width to default.
Syntax	no terminal width
Parameter	None

2.2.48 ping ip

Description	The ping IPv4 function	
Syntax	ping ip { <v_ip_addr> | <v_ip_name> } [repeat <count>] [size <size>] [interval <seconds>]	
Parameter		
	Name	**Description**
	<v_ip_addr>	ICMP destination IPv4 address
	<v_ip_name>	<domain_name> ICMP destination IP domain name
	<count>	1-60; Default is 5
	<size>	2-1452; Default is 56 (excluding MAC, IP and ICMP headers)
	<seconds>	0-30; Default is 0

2.2.49 ping ipv6

Description	The ping IPv6 function	
Syntax	ping ipv6 { <v_ipv6_addr> | <v_ipv6_name> } [repeat <count>] [size <size>] [interval <seconds>] [interface vlan <v_vlan_id>]	
Parameter		
	Name	**Description**
	<v_ipv6_addr>	ICMPv6 destination IPv6 address
	<v_ipv6_name>	<domain_name> ICMPv6 destination IP domain name
	<count>	1-60; Default is 5
	<size>	2-1452; Default is 56 (excluding MAC, IP and ICMP headers)
	<seconds>	0-30; Default is 0
	interface	VLAN identifier(s): VID

2.2.50 platform

Description	Platform configuration.	
Syntax	platform debug { allow | deny }	
Parameter		
	Name	**Description**
	allow	Allow debug commands
	deny	Deny debug commands

2.2.51 reload

Description	Reload system.
Syntax	reload { cold | defaults [keep-ip] }
Parameter	

	Name	Description
	cold	Reload cold, to reboot system.
	defaults	Reload defaults without rebooting.
	[keep-ip]	Attempt to keep VLAN1 IP setup.

2.2.52 send

Description	Send a message to other tty lines.	
Syntax	send { * | <session_list> | console 0 | vty <vty_list> } <message>	
Parameter		
	Name	Description
	*	All tty lines.
	<session_list>	<0~16> Send a message to multiple lines.
	console 0	Send a message to a specific line.
	<vty_list>	<0~15> Send a message to multiple lines.
	<message>	Message to be sent to lines, in 128 characters.

2.2.53 show aaa

Description	Show AAA
Syntax	show aaa
Parameter	None

2.2.54 show access management

Description	Show access management configuration	
Syntax	show access management [statistics | <access_id_list>]	
Parameter		
	Name	Description
	statistics	Statistics data
	access_id_list	ID of access management entry

2.2.55 show access-list

Description	Access list information	
Syntax	show access-list [interface [(<port_type> [<v_port_type_list>])]] [rate-limiter [<rate_limiter_list>]] [ace statistics [<ace_list>]] show access-list ace-status [static] [loop-protect] [dhcp] [arp-inspection] [ipmc] [ip-source-guard] [conflicts]	
Parameter		
	Name	Description
	interface	Select an interface to configure
	ace-status	The local ACEs status
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.
	rate-limiter	Rate limiter
	<rate_limiter_list>	<RateLimiterList : 1~16> Rate limiter ID
	ace	Access list entry
	statistics	Traffic statistics
	<ace_list>	<AceId : 1~256> ACE ID
	static	The ACEs that are configured by users manually
	loop-protect	The ACEs that are configured by Loop Protect module
	ipmc	The ACEs that are configured by IPMC module
	ip-source-guard	The ACEs that are configured by IP Source Guard

		module
	dhcp	The ACEs that are configured by DHCP module
	conflicts	The ACEs that did not get applied to the hardware due to hardware limitations
	arp-inspection	The ACEs that are configured by ARP Inspection module

2.2.56 show aggregation

Description	Aggregation information	
Syntax	show aggregation [mode]	
Parameter		
	Name	**Description**
	mode	Traffic distribution mode

2.2.57 show alarm

Description	Alarm information	
Syntax	show alarm { history | current }	
Parameter		
	Name	**Description**
	current	Show alarm current infomation
	history	Show alarm history infomation

2.2.58 show clock

Description	Show time-of-day clock information
Syntax	show clock
Parameter	None

2.2.59 show clock detail

Description	Show clock detailed information
Syntax	show clock detail
Parameter	None

2.2.60 show ddmi

Description	Show DDMI configuration
Syntax	show ddmi
Parameter	None

2.2.61 show dot1x status

Description	Show dot1x status.	
Syntax	show dot1x status [interface <port_type> [<port_type_list>]] [brief]	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<port_type_list>	Port list in 1/1- max number of ports.
	[brief]	Show status in a brief format

2.2.62 show dot1x statistics

Description	Show dot1x statistics	
Syntax	show dot1x statistics { eapol | radius | all } [interface (<port_type> [<v_port_type_list>])]	
Parameter		
	Name	**Description**
	all	Show all dot1x statistics

	eapol	Show EAPOL statistics
	radius	Show Backend Server statistics
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.

2.2.63 show green-ethernet

Description	Green Ethernet information	
Syntax	show green-ethernet [interface (<port_type> [<port_list>])] show green-ethernet eee [interface (<port_type> [<port_list>])] show green-ethernet energy-detect [interface (<port_type> [<port_list>])] show green-ethernet short-reach [interface (<port_type> [<port_list>])]	
Parameter		
	Name	**Description**
	eee	Shows green ethernet EEE status for a specific port or ports
	energy-detect	Shows green ethernet energy-detect status for a specific port or ports
	short-reach	Shows green ethernet short-reach status for a specific port or ports
	<port_type>	Select port type.
	<port_list>	Port list in 1/1- max number of ports.

2.2.64 Show history

Description	Display the session command history
Syntax	show history
Parameter	None

2.2.65 show interface switchport

Description	Show interface switchport information.	
Syntax	show interface (<port_type> [<in_port_list>]) switchport [access | trunk | hybrid]	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<in_port_list>	Port list in 1/1- max number of ports.
	access	Show access ports status
	trunk	Show trunk ports status
	hybrid	Show hybrid ports status

2.2.66 show interface transceiver

Description	Show interface transceiver information.	
Syntax	show interface (<port_type> [<plist>]) transceiver	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<plist>	Port list in 1/1- max number of ports.

2.2.67 show interface capabilities

Description	Display interface capabilities information.
Syntax	show interface (<port_type> [<v_port_type_list>]) capabilities
Parameter	

	Name	Description
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.

2.2.68 show interface statistics

Description	Display interface statistics information.	
Syntax	show interface (<port_type> [<v_port_type_list>]) statistics [{ packets | bytes | errors | discards | filtered | { priority [<priority_v_0_to_7>] } }] [{ up | down }]	
Parameter		
	Name	Description
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.
	packets	Show packet statistics.
	bytes	Show byte statistics.
	errors	Show error statistics.
	discards	Show discard statistics.
	filtered	Show filtered statistics.
	<priority_v_0_to_7>	Show priority level statistics.
	up	Show ports which are up.
	down	Show ports which are down.

2.2.69 show interface status

Description	Display interface status information.	
Syntax	show interface (<port_type> [<v_port_type_list>]) status	
Parameter		
	Name	Description
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.

2.2.70 show interface veriphy

Description	Display the latest cable diagnostic results.	
Syntax	show interface (<port_type> [<v_port_type_list>]) veriphy	
Parameter		
	Name	Description
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.

2.2.71 show interface vlan

Description	Display VLAN status.	
Syntax	show interface vlan [<vlist>]	
Parameter		
	Name	Description
	<vlist>	VLAN list

2.2.72 show ip arp

Description	Display Address Resolution Protocol information.
Syntax	show ip arp

Parameter	None

2.2.73 show ip arp inspection

Description	Display Address Resolution Protocol inspection information.	
Syntax	show ip arp inspection [interface (<port_type> [<in_port_type_list>]) | vlan <in_vlan_list>]	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<in_port_type_list>	Port list in 1/1- max number of ports.
	<in_vlan_list>	Select a VLAN id to configure

2.2.74 show ip arp inspection entry

Description	Display Address Resolution Protocol inspection entry information.	
Syntax	show ip arp inspection entry [dhcp-snooping | static] [interface (<port_type> [<in_port_type_list>])]	
Parameter		
	Name	**Description**
	dhcp-snooping	Learn from dhcp snooping
	static	Setting from static entries
	<port_type>	Select port type.
	<in_port_type_list>	Port list in 1/1- max number of ports.

2.2.75 show ip dhcp detailed statistics

Description	Show DHCP detailed statistics information	
Syntax	show ip dhcp detailed statistics { server | client | snooping | relay | normal-forward | combined } [interface (<port_type> [<in_port_list>])]	
Parameter		
	Name	**Description**
	server	DHCP server
	client	DHCP client
	snooping	DHCP snooping
	relay	DHCP relay
	normal-forward	DHCP normal L2 or L3 forward
	combined	Show all DHCP related statistics
	<port_type>	Select port type.
	<in_port_list>	Port list in 1/1- max number of ports.

2.2.76 show ip dhcp excluded-address

Description	Show DHCP excluded-address information
Syntax	show ip dhcp excluded-address
Parameter	None

2.2.77 show ip dhcp pool

Description	Show DHCP pool name information	
Syntax	show ip dhcp pool [<pool_name>]	
Parameter		
	Name	**Description**
	<pool_name>	<word32> Pool name in 32 characters

2.2.78 show ip dhcp relay

Description	Show DHCP relay information	
Syntax	show ip dhcp relay [statistics]	
Parameter		
	Name	**Description**
	[statistics]	Traffic statistics

2.2.79 show ip dhcp server

Description	Show DHCP server information
Syntax	show ip dhcp server
Parameter	None

2.2.80 show ip dhcp server binding

Description	Show DHCP binding IP information	
Syntax	show ip dhcp server binding <ip>	
Parameter		
	Name	**Description**
	<ip>	IP address in dotted-decimal notation

2.2.81 show ip dhcp server binding state/type

Description	Show DHCP state or type of binding information	
Syntax	show ip dhcp server binding [state { allocated | committed | expired }] [type { automatic | manual | expired }]	
Parameter		
	Name	**Description**
	allocated	Allocated state
	committed	Committed state
	expired	Expired state
	automatic	Automatic binding with infinite lease time
	manual	Manual binding for a specific host
	expired	Expired binding that is aged out

2.2.82 show ip dhcp server declined-ip

Description	Show DHCP declined IP information	
Syntax	show ip dhcp server declined-ip show ip dhcp server declined-ip <declined_ip>	
Parameter		
	Name	**Description**
	<declined_ip>	IP address

2.2.83 show ip dhcp server statistics

Description	Show DHCP server statistics information
Syntax	show ip dhcp server statistics
Parameter	None

2.2.84 show ip dhcp snooping

Description	Show DHCP snooping information	
Syntax	show ip dhcp snooping [interface (<port_type> [<in_port_list>])] show ip dhcp snooping table	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<in_port_list>	Port list in 1/1- max number of ports.

2.2.85 show ip domain

Description	Show default domain name
Syntax	show ip domain
Parameter	None

2.2.86 show ip http server secure status

Description	Show IP HTTP server secure status
Syntax	show ip http server secure status
Parameter	None

2.2.87 show ip igmp snooping

Description	Show IGMP snooping information	
Syntax	show ip igmp snooping [vlan <v_vlan_list>] [group-database [interface (<port_type> [<v_port_type_list>])] [sfm-information]] [detail]	
Parameter		
	Name	**Description**
	<v_vlan_list>	VLAN identifier(s): VID
	group-database	Multicast group database from IGMP
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.
	sfm-information	Including source filter multicast information from IGMP
	detail	Detail running information/statistics of IGMP snooping

2.2.88 show ip igmp snooping mrouter

Description	Show IGMP snooping information	
Syntax	show ip igmp snooping mrouter [detail]	
Parameter		
	Name	**Description**
	[detail]	Detail running information/statistics of IGMP snooping

2.2.89 show ip interface brief

Description	Show brief IP interface status
Syntax	show ip interface brief
Parameter	None

2.2.90 show ip name-server

Description	Show domain Name System
Syntax	show ip name-server
Parameter	None

2.2.91 show ip route

Description	Display the current ip routing table
Syntax	show ip route
Parameter	None

2.2.92 show ip source binding

Description	Show IP source binding information	
Syntax	show ip source binding [dhcp-snooping | static] [interface (<port_type> [<in_port_type_list>])]	
Parameter		
	Name	**Description**

	dhcp-snooping	Learn from dhcp snooping.
	static	Setting from static entries.
	<port_type>	Select port type.
	<in_port_type_list>	Port list in 1/1- max number of ports.

2.2.93 show ip ssh

Description	Show SSH information	
Syntax	show ip ssh show ip ssh public-key	
Parameter		
	Name	**Description**
	public-key	Display SSH public key

2.2.94 show ip statistics

Description	Show traffic statistics information	
Syntax	show ip statistics [system] [interface vlan <v_vlan_list>] [icmp] [icmp-msg <type>]	
Parameter		
	Name	**Description**
	system	IPv4 system traffic
	<v_vlan_list>	IPv4 interface traffic
	icmp	IPv4 ICMP traffic
	icmp-msg	IPv4 ICMP traffic for designated message type
	<type>	ICMP message type ranges from 0 to 255

2.2.95 show ip verify source

Description	Show IP verify source information	
Syntax	show ip verify source [interface (<port_type> [<in_port_type_list>])]	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<in_port_type_list>	Port list in 1/1- max number of ports.

2.2.96 show ipmc

Description	IPMC information	
Syntax	show ipmc profile [<profile_name>] [detail] show ipmc range [<entry_name>]	
Parameter		
	Name	**Description**
	profile	IPMC profile configuration
	range	A range of IPv4/IPv6 multicast addresses for the profile
	<profile_name>	<ProfileName : word16> Profile name in 16 char's
	detail	Detail information of a profile
	<entry_name>	<EntryName : word16> Range entry name in 16 char's

2.2.97 show ipv6 dhcp-client

Description	Show IPv6 DHCP client information
Syntax	show ipv6 dhcp-client [interface vlan <v_vlan_list>]

Parameter		
	Name	**Description**
	<v_vlan_list>	IPv6 interface VLAN list

2.2.98 show ipv6 interface

Description	Show IPv6 interface information	
Syntax	show ipv6 interface [vlan <v_vlan_list> { brief | statistics }]	
Parameter		
	Name	**Description**
	<v_vlan_list>	IPv6 interface VLAN list
	brief	Brief summary of IPv6 status and configuration
	statistics	Traffic statistics

2.2.99 show ipv6 mld snooping

Description	Show IPv6 MLD snooping information	
Syntax	show ipv6 mld snooping [vlan <v_vlan_list>] [group-database [interface (<port_type> [<v_port_type_list>])]] [detail]	
Parameter		
	Name	**Description**
	<v_vlan_list>	IPv6 interface VLAN list
	group-database	Multicast group database from MLD
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.
	detail	Detail running information/statistics of MLD snooping

2.2.100 show ipv6 mld snooping mrouter

Description	Show multicast router port status in MLD information	
Syntax	show ipv6 mld snooping mrouter [detail]	
Parameter		
	Name	**Description**
	detail	Detail running information/statistics of MLD snooping

2.2.101 show ipv6 neighbor

Description	Show IPv6 neighbors information	
Syntax	show ipv6 neighbor [interface vlan <v_vlan_list>]	
Parameter		
	Name	**Description**
	<v_vlan_list>	VLAN of IPv6 interface

2.2.102 show ipv6 route

Description	Show IPv6 route information	
Syntax	show ipv6 route [interface vlan <v_vlan_list>]	
Parameter		
	Name	**Description**
	<v_vlan_list>	VLAN of IPv6 interface

2.2.103 show ipv6 statistics

Description	Show IPv6 traffic statistics information	
Syntax	show ipv6 statistics [system] [interface vlan <v_vlan_list>] [icmp] [icmp-msg <type>]	
Parameter		

	Name	Description
	system	IPv6 system traffic
	<v_vlan_list>	IPv6 interface traffic
	icmp	IPv6 ICMP traffic
	icmp-msg	IPv6 ICMP traffic for designated message type
	<type>	ICMP message type ranges from 0 to 255

2.2.104 show lacp

Description	LACP information	
Syntax	show lacp { internal | statistics | system-id | neighbour }	
Parameter		
	Name	Description
	internal	Internal LACP configuration
	neighbour	Neighbour LACP status
	statistics	Internal LACP statistics
	system-id	LACP system id

2.2.105 show line

Description	Alive line information	
Syntax	show line [alive]	
Parameter		
	Name	Description
	alive	Display information about alive lines

2.2.106 show lldp

Description	LLDP information	
Syntax	show lldp eee [interface (<port_type> [<v_port_type_list>])] show lldp med media-vlan-policy [<v_0_to_31>] show lldp med remote-device [interface (<port_type> [<port_list>])] show lldp neighbors [interface (<port_type> [<v_port_type_list>])] show lldp statistics [interface (<port_type> [<v_port_type_list>])]	
Parameter		
	Name	Description
	eee	Display LLDP local and neighbor EEE information.
	media-vlan-policy	Display media vlan policies.
	<v_0_to_31>	<0~31> List of policies.
	remote-device	Display remote device LLDP-MED neighbors information.
	neighbors	Display LLDP neighbors information.
	statistics	Display LLDP statistics information.
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.
	<port_list>	Port list in 1/1- max number of ports.

2.2.107 show logging

Description	Logging information	
Syntax	show logging <log_id> show logging [informational] [notice] [warning] [error]	
Parameter		
	Name	Description
	log_id	<logging_id: 1-4294967295> Logging ID

	error	Severity 3: Error conditions
	infomational	Severity 6: Informational messages
	notice	Severity 5: Normal but significant condition
	warning	Severity 4: Warning conditions

2.2.108 show loop-protect

Description	Loop protect information	
Syntax	show loop-protect [interface (<port_type> [<plist>])]	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<plist>	Port list in 1/1- max number of ports.

2.2.109 show mac address table

Description	Show MAC learning table information.	
Syntax	show mac address-table [conf | static | aging-time | { { learning | count } [interface (<port_type> [<v_port_type_list>]) | vlan <v_vlan_id_2>] } | { address <v_mac_addr> [vlan <v_vlan_id>] } | vlan <v_vlan_id_1> | interface (<port_type> [<v_port_type_list_1>])]	
Parameter	None	
	Name	**Description**
	conf	User added static mac addresses
	static	All static mac addresses
	aging-time	Aging time
	learning	Learn/disable/secure state
	count	Total number of mac addresses
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.
	<v_mac_addr>	48 bit MAC address: xx:xx:xx:xx:xx:xx
	<v_vlan_id>	VLAN IDs 1-4095
	<v_vlan_id_1>	VLAN IDs 1-4095
	<v_port_type_list_1>	Port list in 1/1- max number of ports.

2.2.110 show monitor

Description	Show monitoring different system event	
Syntax	show monitor [session { <session_number> | all | remote }]	
Parameter		
	Name	**Description**
	<session_number>	MIRROR session number
	all	Show all MIRROR sessions
	remote	Show only Remote MIRROR sessions

2.2.111 show mvr

Description	MVR information	
Syntax	show mvr [vlan <v_vlan_list> | name <mvr_name>] [group-database [interface (<port_type> [<v_port_type_list>])] [sfm-information]] [detail]	
Parameter		
	Name	**Description**

	vlan	Search by VLAN
	v_vlan_list	<vlan_list> MVR multicast VLAN list
	name	Search by MVR name
	mvr_name	<MvrName : word16> MVR multicast VLAN name
	group-database	Multicast group database from MVR
	interface	Search by port
	port_type	GigabitEthernet, 1 Gigabit Ethernet Port
	v_port_type_list	PORT_LIST, Port list in 1/1-14
	sfm-information	Including source filter multicast information from MVR
	detail	Detail information/statistics of MVR group database

2.2.112 show ntp status

Description	Show NTP information.
Syntax	show ntp status
Parameter	None

2.2.113 show platform debug

Description	Show platform debug information.
Syntax	show platform debug
Parameter	None

2.2.114 show platform phy

Description	PHYs' information	
Syntax	show platform phy [interface (<port_type> [<v_port_type_list>])] show platform phy id [interface (<port_type> [<v_port_type_list>])] show platform phy instance	
Parameter		
	Name	**Description**
	id	ID information
	instance	PHY Instance Information
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.

2.2.115 show poe

Description	Show PoE status and information for each port	
Syntax	show poe [interface (<port_type> [<v_port_type_list>])]	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.

2.2.116 show port-security

Description	Show port security information	
Syntax	show port-security port [interface (<port_type> [<v_port_type_list>])] show port-security switch [interface (<port_type> [<v_port_type_list>])]	
Parameter		
	Name	**Description**
	port	Show MAC Addresses learned by Port Security
	switch	Show Port Security status
	<port_type>	Select port type.

	<v_port_type_list>	Port list in 1/1- max number of ports.

2.2.117 show privilege

Description	Display command privilege
Syntax	show privilege
Parameter	None

2.2.118 show process

Description	Show process information	
Syntax	show process list [detail] show process load	
Parameter		
	Name	**Description**
	list	List
	detail	Optionally show thread call stack
	load	Load

2.2.119 show profile alarm

Description	Profile alarm information
Syntax	show profile alarm
Parameter	None

2.2.120 show pvlan

Description	PVLAN ID information	
Syntax	show pvlan [<pvlan_list>]	
Parameter		
	Name	**Description**
	<pvlan_list>	PVLAN ID to show configuration for

2.2.121 show pvlan isolation

Description	Show all port isolation information.	
Syntax	show pvlan isolation [interface <port_type> [<port_type_list>]]	
Parameter	None	
	Name	**Description**
	<port_type>	Select port type.
	<portNo>	Port list in 1/1- max number of ports.

2.2.122 show qos

Description	Show QoS information	
Syntax	show qos [{ interface [(<port_type> [<port>])] } | { maps [dscp-cos] [dscp-ingress-translation] [dscp-classify] [cos-dscp] [dscp-egress-translation] } | storm | { qce [<qce>] }]	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<Port>	Port list in 1/1- max number of ports.
	wred	
	maps	Global QoS Maps/Tables
	dscp-cos	Map for dscp to cos
	dscp-ingress-translation	Map for dscp ingress translation
	dscp-classify	Map for dscp classify enable

	cos-dscp	Map for cos to dscp
	dscp-egress-translation	Map for dscp egress translation
	storm	Storm policer
	<qce>	<1-256> QCE ID

2.2.123 show radius-server [statistics]

Description	Show radius-server statistics data	
Syntax	show radius-server [statistics]	
Parameter		
	Name	**Description**
	[statistics]	RADIUS statistics

2.2.124 show ringv2

Description	Show user status ringv2 information
Syntax	show ringv2
Parameter	None

2.2.125 show rmon

Description	Show RMON information	
Syntax	show rmon alarm [<id_list>] show rmon event [<id_list>] show rmon history [<id_list>] show rmon statistics [<id_list>]	
Parameter		
	Name	**Description**
	alarm	Display the RMON alarm table
	event	Display the RMON event table
	history	Display the RMON history table
	statistics	Display the RMON statistics table
	<id_list>	<1~65535>, Statistics entry list

2.2.126 show running-config all-defaults

Description	Show running-config information	
Syntax	show running-config [all-defaults]	
Parameter		
	Name	**Description**
	[all-defaults]	Include most/all default values

2.2.127 show running-config feature

Description	Show configuration for specific feature	
Syntax	show running-config feature <feature_name> [all-defaults]	
Parameter		
	Name	**Description**
	feature_name	Valid words are 'GVRP' 'TYNDBG' 'access' 'access-list' 'aggregation' 'alm_profile' 'arp-inspection' 'auth' 'clock' 'ddmi' 'dhcp' 'dhcp-snooping' 'dhcp6_client_interface' 'dhcp_server' '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' 'json_rpc_notification' 'lacp' 'lldp' 'logging' 'loop-protect' 'mac' 'mstp' 'mvr' 'mvr-port'

		'ntp' 'poe' 'port' 'port-security' 'pvlan' 'qos' 'rmon' 'snmp' 'source-guard' 'ssh' 'thermal-protect' 'tring_g1' 'tring_g2' 'tring_g3' 'user' 'vlan' 'voice-vlan' 'vtss-rmirror' 'web-privilege-group-level'
	[all-defaults]	Include most/all default values

2.2.128 show running-config interface

Description	Show running-config interface information.	
Syntax	show running-config interface (<port_type> [<list>]) [all-defaults]	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<list>	Port list in 1/1- max number of ports.
	[all-defaults]	Include most/all default values

2.2.129 show running-config interface vlan

Description	Show running-config interface VLAN information.	
Syntax	show running-config interface vlan <list> [all-defaults]	
Parameter		
	Name	**Description**
	<list>	List of VLAN numbers
	[all-defaults]	Include most/all default values

2.2.130 show running-config line

Description	Show running-config line information	
Syntax	show running-config line { console | vty } <list> [all-defaults]	
Parameter		
	Name	**Description**
	console	Console
	vty	VTY
	<list>	List of console/VTYs
	[all-defaults]	Include most/all default values

2.2.131 show running-config vlan

Description	Show running-config VLAN information.	
Syntax	show running-config vlan { [<vlan_list>] } [all-defaults]	
Parameter	None	
	Name	**Description**
	<vlan_list>	List of VLAN numbers
	[all-defaults]	Include most/all default values

2.2.132 show sflow

Description	Show sflow information	
Syntax	show sflow show sflow statistics { receiver | samplers [interface (<port_type> [<v_port_type_list>])] }	
Parameter		
	Name	**Description**
	receiver	Show statistics for receiver
	samplers	Show statistics for samplers
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.

2.2.133 show snmp

Description	Show SNMP information	
Syntax	show snmp show snmp access [<group_name> { v1 | v2c | v3 | any } { auth | noauth | priv }] show snmp community v3 [<community>] show snmp host [<conf_name>] [system] [switch] [interface] [aaa] show snmp mib context show snmp mib ifmib ifIndex show snmp security-to-group [{ v1 | v2c | v3 } <security_name>] show snmp user [<username> <engineID>] show snmp view [<view_name> <oid_subtree>]	
Parameter		
	Name	**Description**
	access	access configuration
	group_name	<GroupName : word32> group name
	any	any security model
	v1	v1 security model
	v2c	v2c security model
	v3	v3 security model
	auth	authNoPriv Security Level
	noauth	noAuthNoPriv Security Level
	priv	authPriv Security Level
	community	Community
	community	<Community : word127> Specify community name
	host	Set SNMP host's configurations
	conf_name	<ConfName : word32> Name of the host configuration
	aaa	AAA event group
	interface	Interface event group
	switch	Switch event group
	system	System event group
	mib	MIB(Management Information Base)
	context	MIB context
	ifmib	IF-MIB
	ifIndex	The IfIndex that is defined in IF-MIB
	security-to-group	security-to-group configuration
	security_name	<SecurityName : word32> security group name
	user	User
	username	<Username : word32> Security user name
	engineID	<Engiedid : word10-32> Security Engine ID
	view	MIB view configuration
	view_name	<ViewName : word32> MIB view name
	oid_subtree	<OidSubtree : word255> MIB view OID

2.2.134 show spanning-tree

Description	Show System Wide Spanning Tree Setting/Status.	
Syntax	show spanning-tree [summary | active | { interface (<port_type> [<v_port_type_list>]) } | { detailed [interface (<port_type> [<v_port_type_list_1>])] } | { mst [configuration | { <instance> [interface (<port_type> [<v_port_type_list_2>])] }] }]	
Parameter		
	Name	**Description**

	summary	STP summary
	active	STP active interfaces
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.
	<v_port_type_list_1>	Port list in 1/1- max number of ports.
	<v_port_type_list_2>	Port list in 1/1- max number of ports.
	detailed	STP statistics
	interface	Choose port
	mst	Configuration
	configuration	STP bridge instance no (0-7, CIST=0, MST2=1...)
	<instance>	<0-7> Choose instance

2.2.135 show switchport forbidden

Description	Lookup VLAN Forbidden port entry	
Syntax	show switchport forbidden [{ vlan <vlan_list> } | { name <name> }]	
Parameter		
	Name	**Description**
	<vlan_list>	VLAN id
	<name>	VLAN name

2.2.136 show system cpu status

Description	Show system CPU status.
Syntax	show system cpu status
Parameter	None

2.2.137 show system information

Description	Show system information
Syntax	show system information
Parameter	None

2.2.138 show system led status

Description	show system LED status
Syntax	show system led status
Parameter	None

2.2.139 show tacacs-server

Description	Show TACACS+ information
Syntax	show tacacs-server
Parameter	None

2.2.140 Show terminal

Description	Display terminal configuration parameters
Syntax	show terminal
Parameter	None

2.2.141 show user-privilege

Description	Show user-privilege information
Syntax	show user-privilege
Parameter	None

2.2.142 show users

Description	Display information about terminal lines.

Syntax	show users [myself]	
Parameter		
	Name	**Description**
	myself	Display information about mine.

2.2.143 show version

Description	Show version information.	
Syntax	show version [brief]	
Parameter	None	
	Name	**Description**
	[brief]	Brief

2.2.144 show vlan

Description	Show VLAN information	
Syntax	show vlan [id <vlan_list> | name <name> | brief] [all]	
Parameter		
	Name	**Description**
	id	VLAN status by VLAN id
	vlan_list	<vlan_list> VLAN IDs 1-4095
	name	VLAN status by VLAN name
	name	<vword32> A VLAN name
	brief	VLAN summary information

2.2.145 show vlan ip-subnet

Description	Show VLAN ip-subnet entries	
Syntax	show vlan ip-subnet [<ipv4>]	
Parameter		
	Name	**Description**
	<ipv4>	Specify a specific IP Subnet.

2.2.146 show vlan mac

Description	Show VLAN MAC entries	
Syntax	show vlan mac [address <mac_addr>]	
Parameter		
	Name	**Description**
	<mac_addr>	The specific MAC entry to show.

2.2.147 show vlan protocol

Description	Show protocol-based VLAN status	
Syntax	show vlan protocol [eth2 { <etype> | arp | ip | ipx | at }] [snap { <oui> | rfc-1042 | snap-8021h } <pid>] [llc <dsap> <ssap>]	
Parameter		
	Name	**Description**
	eth2	Ethernet protocol based VLAN status
	etype	0x600-0xffff> Ether Type(Range: 0x600 - 0xFFFF)
	arp	Ether Type is ARP
	ip	Ether Type is IP
	ipx	Ether Type is IPX
	at	Ether Type is AppleTalk
	llc	LLC-based VLAN status
	dsap	<0x0-0xff> DSAP (Range: 0x00 - 0xFF)
	ssap	<0x0-0xff> SSAP (Range: 0x00 - 0xFF)
	snap	SNAP-based VLAN status

	oui	<0x0-0xffffff> SNAP OUI (Range 0x000000 - 0XFFFFFF)
	rfc-1042	SNAP OUI is rfc-1042
	snap-8021h	SNAP OUI is 8021h
	pid	<0x0-0xffff> PID (Range: 0x0 - 0xFFFF)

2.2.148 show vlan status

Description	Show the VLANs configured for each interface	
Syntax	show vlan status [interface (<port_type> [<plist>])] [admin | all | combined | conflicts | gvrp | mstp | mvr | nas | rmirror | vcl | voice-vlan]	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<plist>	Port list in 1/1- max number of ports.
	admin	Show the VLANs configured by administrator
	all	Show all VLANs configured
	combined	Show the VLANs configured by a combination
	conflicts	Show VLANs configurations that has conflicts
	gvrp	Show the VLANs configured by GVRP
	mstp	Show the VLANs configured by MSTP
	mvr	Show the VLANs configured by MVR
	nas	Show the VLANs configured by NAS
	rmirror	Show the VLANs configured by Remote mirroring.
	vcl	Show the VLANs configured by VCL
	voice-vlan	Show the VLANs configured by Voice VLAN

2.2.149 show voice

Description	Vlan for voice traffic	
Syntax	show voice vlan [oui <oui> | interface (<port_type> [<port_list>])]	
Parameter		
	Name	**Description**
	<oui>	OUI value
	<port_type>	Select port type.
	<port_list>	Port list in 1/1- max number of ports.

2.2.150 show web

Description	Show web privilege information	
Syntax	show web privilege group [<group_name>] level	
Parameter		
	Name	**Description**
	<group_name>	Valid words are 'Aggregation' 'DDMI' 'DHCP' 'DHCPv6_Client' 'Debug' 'Diagnostics' 'EEE' 'Green_Ethernet' 'IP' 'IPMC_Snooping' 'JSON_RPC' 'JSON_RPC_Notification' 'LACP' 'LLDP' 'Loop_Protect' 'MAC_Table' 'MVR' 'Maintenance' 'NTP' 'POE' 'Ports' 'Private_VLANs' 'QoS' 'RMirror' 'Security' 'Spanning_Tree' 'System' 'VCL' 'VLANs' 'Voice_VLAN' 'XXRP' 'alm_profile' 'sFlow' 'tring' 'tyndbg'
	level	Web privilege group level

2.2.151 terminal editing

Description	Enable command line editing.
Syntax	terminal editing

Parameter	None

2.2.152 terminal help

Description	Description of the interactive help system.
Syntax	terminal help
Parameter	None

2.2.153 terminal history size

Description	Set history buffer size	
Syntax	terminal history size <history_size>	
Parameter		
	Name	**Description**
	<history_size>	<0-32> Number of history commands, 0 means disable

2.2.154 terminal length

Description	Set up the number of lines on screen.	
Syntax	terminal length <lines>	
Parameter		
	Name	**Description**
	<lines>	<0,3-512> Number of lines on screen (0 for no pausing).

2.2.155 terminal width

Description	Set up the number of characters on a screen line.	
Syntax	terminal width <width>	
Parameter		
	Name	**Description**
	<width>	<0,40-512> Number of characters on a screen line (0 for unlimited width).

2.2.156 veriphy

Description	VeriPHY keyword.	
Syntax	veriphy [{ interface (<port_type> [<v_port_type_list>]) }]	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<v_port_type_list>	Port list in 1/1- max number of ports.

2.3 Configure Mode Commands

Commands that can be executed under Configure Mode

2.3.1 aaa accounting

Description	Set up accounting	
Syntax	aaa accounting { console | telnet | ssh } tacacs { [commands <priv_lvl>] [exec] }*1	
Parameter		
	Name	**Description**
	console	Configure Console command accounting
	ssh	Configure SSH command accounting
	telnet	Configure Telnet command accounting
	tacacs	Use TACACS+ for accounting
	commands	Enable command accounting
	<priv_lvl>	<0-15> Command privilege level. Commands >= this level are accounted
	[exec]	Enable EXEC accounting

2.3.2 aaa authentication

Description	Set up authentication	
Syntax	aaa authentication login { console | telnet | ssh | http } { { local | radius | tacacs } [{ local | radius | tacacs } [{ local | radius | tacacs }]] }	
Parameter		
	Name	**Description**
	console	Configure Console authentication
	http	Configure HTTP authentication
	ssh	Configure SSH authentication
	telnet	Configure Telnet authentication
	local	Use local database for authentication
	raduis	Use RADIUS for authentication
	tacacs	Use TACACS+ for authentication

2.3.3 aaa authorization

Description	Set up authorization	
Syntax	aaa authorization { console | telnet | ssh } tacacs commands <priv_lvl> [config-commands]	
Parameter		
	Name	**Description**
	console	Configure Console authorization
	ssh	Configure SSH authorization
	telnet	Configure Telnet authentication
	<priv_lvl>	<0-15> Command privilege level.
	[config-commands]	Include configuration commands

2.3.4 access management

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

Parameter		
	Name	**Description**
	<access_id>	ID of access management entry
	<access_vid>	The VLAN ID for the access management entry
	<start_addr>	Start IP Address
	<end_addr>	End IP Address
	all	All services
	[web]	Web service
	[snmp]	SNMP service
	[telnet]	TELNET/SSH service

2.3.5 access-list action

Description	Access list action	
Syntax	acces-list ace [update] <ace_id> [action { permit | deny | filter { switchport <filter_switch_port_list> | interface (<port_type> [<fliter_port_list>]) } }]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	permit	Permit
	deny	Deny
	Filter	Filter
	<filter_switch_port_list>	Filter switch port list
	<port_type>	The type of port
	<fliter_port_list>	Filter port list

2.3.6 access-list dmac-type

Description	The type of destination MAC address	
Syntax	acces-list ace [update] <ace_id> [dmac-type { unicast | multicast | broadcast | any }]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	unicast	Unicast destination MAC address
	multicast	Multicast destination MAC address
	braodcast	Broadcast destination MAC address
	any	Don't-care the type of destination MAC address

2.3.7 access-list frame-type arp arp-flag

Description	ARP flag	
Syntax	acces-list ace [update] <ace_id> frame-type arp [arp-flag [arp-request { <arp_flag_request> | any }] [arp-smac { <arp_flag_smac> | any }] [arp-tmac { <arp_flag_tmac> | any }] [arp-len { <arp_flag_len> | any }] [arp-ip { <arp_flag_ip> | any }] [arp-ether { <arp_flag_ether> | any }]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	<arp_flag_request: 0-1>	The value of ARP Request/Reply opcode field
	<arp_flag_smac: 0-1>	The value of ARP sender hardware address (SHA) field
	<arp_flag_tmac: 0-1>	The value of ARP target hardware address (THA) field

	<arp_flag_len: 0-1>	The value of ARP/RARP hardware address length (HLN) and protocol address length (PLN) field
	<arp_flag_ip: 0-1>	The value of ARP/RARP hardware address space (HRD) field
	<arp_flag_ether: 0-1>	The value of ARP/RARP protocol address space (PRO) field
	any	Don't-care the value of ARP Request/Reply opcode field, don't-care the value of ARP sender hardware address (SHA) field, don't-care the value of ARP target hardware address (THA) field, don't-care the value of ARP/RARP hardware address length (HLN) and protocol address length (PLN) field, don't-care the value of ARP/RARP hardware address space (HRD) field, or don't-care the value of ARP/RARP protocol address space (PRO) field

2.3.8 access-list frame-type arp arp-opcode

Description	Frame type is ARP.	
Syntax	acces-list ace [update] <ace_id> frame-type arp [arp-opcode { arp | rarp | other | any }]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	Arp	ARP opcode
	Rarp	RARP opcode
	other	None ARP/RARP opcode
	any	Don't-care the value of ARP/RARP opcode field

2.3.9 access-list frame-type arp sip

Description	Frame type is ARP.	
Syntax	acces-list ace [update] <ace_id> frame-type arp [sip { <arp_sip> | any }] [dip { <arp_dip> | any }]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	<arp_sip>	The value of source IP address field. Notice the invalid IP address configuration is acceptable too, for example, 0.0.0.0. Normally, an ACE with invalid IP address will explicitly adding deny action
	<arp_dip>	The value of destination IP address field.
	any	Don't-care the value of source IP address field, or don't-care the value of destination IP address field

2.3.10 access-list frame-type arp smac

Description	Frame type is ARP.	
Syntax	acces-list ace [update] <ace_id> frame-type arp [smac { <arp_smac> | any }]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-	ACE ID

	255>	
	<arp_smac>	The value of source MAC address field
	any	Don't-care the value of source MAC address field

2.3.11 access-list frame-type etype

Description	Frame type is Ethernet type.	
Syntax	acces-list ace [update] <ace_id> frame-type { any | etype [etype-value { <etype_value> | any }] [smac { <etype_smac> | any }] [dmac { <etype_dmac> | any }]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	<etype_value>	The value of etype Field. 0x600-0x7ff,0x801-0x805,0x807-0x86dc,0x86de-0xffff
	<etype_smac>	The value of source MAC address field
	<etype_dmac>	The value of destination MAC address field
	any	Don't-care the type of destination MAC address, or don't-care the value of source MAC address field

2.3.12 access-list frame-type ipv4

Description	Frame type of IPv4	
Syntax	acces-list ace [update] <ace_id> frame-type ipv4 [sip { <sipv4> | any }] [dip { <dipv4> | any }] [ip-protocol { <ipv4_protocol> | any }] [ip-flag [ip-ttl { <ip_flag_ttl> | any }] [ip-options { <ip_flag_options> | any }] [ip-fragment { <ip_flag_fragment> | any }]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	<sipv4>	The value of source IP address field. Notice the invalid IP address configuration is acceptable too, for example, 0.0.0.0. Normally, an ACE with invalid IP address will explicitly adding deny action
	<dipv4>	The value of destination IP address field. Notice the invalid IP address configuration is acceptable too, for example, 0.0.0.0. Normally, an ACE with invalid IP address will explicitly adding deny action
	<ipv4_protocol>	The value of IPv4 protocol field, 0,2-5,7-16,18-255
	<ip_flag_ttl>	The value of IPv4 TTL field
	<ip_flag_options: 0-1>	The value of IPv4 options field
	<ip_flag_fragment: 0-1>	The value of IPv4 fragment field
	any	Don't-care the value of source IP address field, don't-care the value of destination IP address field, don't-care the value of IPv4 protocol field, don't-care the value of IPv4 TTL field, don't-care the value of IPv4 options field

2.3.13 access-list frame-type ipv4-icmp

Description	Frame type of IPv4 ICMP
Syntax	acces-list ace [update] <ace_id> frame-type ipv4-icmp [sip { <sipv4_icmp> | any }] [dip { <dipv4_icmp> | any }] [icmp-type

	{ <icmpv4_type> | any }] [icmp-code { <icmpv4_code> | any }] [ip-flag [ip-ttl { <ip_flag_icmp_ttl> | any }] [ip-options { <ip_flag_icmp_options> | any }] [ip-fragment { <ip_flag_icmp_fragment> | any }]]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	<sipv4_icmp>	The value of source IP address field. Notice the invalid IP address configuration is acceptable too, for example, 0.0.0.0. Normally, an ACE with invalid IP address will explicitly adding deny action
	<dipv4_icmp>	The value of destination IP address field. Notice the invalid IP address configuration is acceptable too, for example, 0.0.0.0. Normally, an ACE with invalid IP address will explicitly adding deny action
	<icmpv4_type: 0-255>	The value of ICMP type field
	<icmpv4_code: 0-255>	The value of ICMP code field
	<ip_flag_icmp_ttl: 0-1>	The value of IPv4 TTL field
	<ip_flag_icmp_options: 0-1>	The value of IPv4 options field
	<ip_flag_icmp_fragment: 0-1>	The value of IPv4 fragment field
	any	Don't-care the value of source IP address field, don't-care the value of destination IP address field, don't-care the value of ICMP type field, don't-care the value of ICMP code field, don't-care the value of IPv4 TTL field, don't-care the value of IPv4 options field, or don't-care the value of IPv4 fragment field

2.3.14 access-list frame-type ipv4-udp

Description	Frame type of IPv4 UDP	
Syntax	acces-list ace [update] <ace_id> frame-type ipv4-udp [sip { <sipv4_udp> | any }] [dip { <dipv4_udp> | any }] [sport { <sportv4_udp_start> [to <sportv4_udp_end>] | any }] [dport { <dportv4_udp_start> [to <dportv4_udp_end>] | any }] [ip-flag [ip-ttl { <ip_flag_udp_ttl> | any }] [ip-options { <ip_flag_udp_options> | any }] [ip-fragment { <ip_flag_udp_fragment> | any }]]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	<sipv4_udp>	The value of source IP address field. Notice the invalid IP address configuration is acceptable too, for example, 0.0.0.0. Normally, an ACE with invalid IP address will explicitly adding deny action
	<dipv4_udp>	The value of destination IP address field. Notice the invalid IP address configuration is acceptable too, for example, 0.0.0.0. Normally, an ACE with invalid IP address will explicitly adding deny action
	<sportv4_udp_start>	The value of UDP start source port field, 0-65535
	<sportv4_udp_end>	The value of UDP end source port field, 0-

		65535
	<dportv4_udp_start>	The value of UDP start destination port field
	<dportv4_udp_end>	The value of UDP end destination port field
	<ip_flag_udp_ttl: 0-1>	The value of IPv4 TTL field
	<ip_flag_udp_options: 0-1>	The value of IPv4 options field
	<ip_flag_udp_fragment: 0-1>	The value of IPv4 fragment field
	any	Don't-care the value of source IP address field, don't-care the value of destination IP address field, don't care the value of UDP source port field, or don't-care the value of UDP destination port field, don't-care the value of IPv4 TTL field, don't-care the value of IPv4 options field, don't-care the value of IPv4 fragment field

2.3.15 access-list frame-type ipv4-tcp

Description	Frame type of IPv4 TCP	
Syntax	acces-list ace [update] <ace_id> frame-type ipv4-tcp [sip { <sipv4_tcp> | any }] [dip { <dipv4_tcp> | any }] [sport { <sportv4_tcp_start> [to <sportv4_tcp_end>] | any }] [dport { <dportv4_tcp_start> [to <dportv4_tcp_end>] | any }] [ip-flag [ip-ttl { <ip_flag_tcp_ttl> | any }] [ip-options { <ip_flag_tcp_options> | any }] [ip-fragment { <ip_flag_tcp_fragment> | any }]] [tcp-flag [tcp-fin { <tcpv4_flag_fin> | any }] [tcp-syn { <tcpv4_flag_syn> | any }] [tcp-rst { <tcpv4_flag_rst> | any }] [tcp-psh { <tcpv4_flag_psh> | any }] [tcp-ack { <tcpv4_flag_ack> | any }] [tcp-urg { <tcpv4_flag_urg> | any }]]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	<sipv4_tcp>	The value of source IP address field. Notice the invalid IP address configuration is acceptable too, for example, 0.0.0.0. Normally, an ACE with invalid IP address will explicitly adding deny action
	<dipv4_tcp>	The value of destination IP address field. Notice the invalid IP address configuration is acceptable too, for example, 0.0.0.0. Normally, an ACE with invalid IP address will explicitly adding deny action
	<sportv4_tcp_start>	The value of TCP start source port field, 0-65535
	<sportv4_tcp_end>	The value of TCP end source port field, 0-65535
	<dportv4_tcp_start>	The value of TCP start destination port field
	<dportv4_tcp_end>	The value of TCP end destination port field
	<ip_flag_tcp_ttl: 0-1>	The value of IPv4 TTL field
	<ip_flag_tcp_options: 0-1>	The value of IPv4 options field
	<ip_flag_tcp_fragment: 0-1>	The value of IPv4 fragment field
	<tcpv4_flag_fin: 0-1>	The value of TCP FIN field
	<tcpv4_flag_syn: 0-1>	The value of TCP SYN field

	<tcpv4_flag_rst: 0-1>	The value of TCP RST field
	<tcpv4_flag_psh: 0-1>	The value of TCP PSH field
	<tcpv4_flag_ack: 0-1>	The value of TCP ACK field
	<tcpv4_flag_urg: 0-1>	The value of TCP URG field
	any	Don't-care the value of source IP address field, don't-care the value of destination IP address field, don't care the value of TCP source port field, or don't-care the value of TCP destination port field, don't-care the value of IPv4 TTL field, don't-care the value of IPv4 options field, don't-care the value of IPv4 fragment field, or don't-care the value of TCP FIN, TCP SYN, TCP RST, TCP PSH, TCP ACK, or TCP URG field

2.3.16 access-list frame-type ipv6

Description	Frame type of IPv6	
Syntax	acces-list ace [update] <ace_id> frame-type ipv6 [next-header { <next_header> | any }] [sip { <sipv6> [sip-bitmask <sipv6_bitmask>] | any }] [hop-limit { <hop_limit> | any }]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	<next_header>	The value of IPv6 hop limiter field, 0-5,7-16,18-57,59-255
	<sipv6>	The value of source IP address field. Notice the invalid IP address configuration is acceptable too, for example, 0.0.0.0. Normally, an ACE with invalid IP address will explicitly adding deny action
	<sipv6_bitmask>	Specify SIPv6 mask
	<hop_limit: 0-1>	The value of IPv6 hop limiter field
	any	Don't-care the value of IPv6 next header field, don't-care the value of source IP address field, don't-care the value of SIPv6 mask field, or don't-care the value of IPv6 hop limiter field

2.3.17 access-list frame-type ipv6-icmp

Description	Frame type of IPv6 ICMP	
Syntax	acces-list ace [update] <ace_id> frame-type ipv6-icmp [sip { <sipv6_icmp> [sip-bitmask <sipv6_bitmask_icmp>] | any }] [icmp-type { <icmpv6_type> | any }] [icmp-code { <icmpv6_code> | any }] [hop-limit { <hop_limit_icmp> | any }]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	<sipv6_icmp>	The value of source IP address field. Notice the invalid IP address configuration is acceptable too, for example, 0.0.0.0. Normally, an ACE with invalid IP address will explicitly adding deny action
	<sipv6_bitmask_icmp>	Specify SIPv6 mask
	<icmpv6_type>	The value of ICMP type field, 0-255

	<icmpv6_code>	The value of ICMP code field, 0-255
	<hop_limit: 0-1>	The value of IPv6 hop limiter field
	any	Don't-care the value of IPv6 next header, source IP address, SIPv6 mask, IPv6 hop limiter, ICMP type, or ICMP code field

2.3.18 access-list frame-type ipv6-udp

Description	Frame type of IPv6 UDP	
Syntax	acces-list ace [update] <ace_id> frame-type ipv6-udp [sip { <sipv6_udp> [sip-bitmask <sipv6_bitmask_udp>] | any }] [sport { <sportv6_udp_start> [to <sportv6_udp_end>] | any }] [dport { <dportv6_udp_start> [to <dportv6_udp_end>] | any }] [hop-limit { <hop_limit_udp> | any }]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	<sipv6_udp>	The value of source IP address field. Notice the invalid IP address configuration is acceptable too, for example, 0.0.0.0. Normally, an ACE with invalid IP address will explicitly adding deny action
	<sipv6_bitmask_udp>	Specify SIPv6 mask
	<sportv6_udp_start>	The value of UDP start source port field, 0-65535
	<sportv6_udp_end>	The value of UDP end source port field, 0-65535
	<dportv6_udp_start>	The value of UDP start destination port field, 0-65535
	<dportv6_udp_end>	The value of UDP end destination port field, 0-65535
	<hop_limit_udp: 0-1>	The value of IPv6 hop limiter field
	any	Don't-care the value of IPv6, UDP start and end source IP address, SIPv6 mask, IP destination address, IPv6 hop limiter field

2.3.19 access-list frame-type ipv6-tcp

Description	Frame type of IPv4 TCP	
Syntax	acces-list ace [update] <ace_id> frame-type ipv6-tcp [sip { <sipv6_tcp> [sip-bitmask <sipv6_bitmask_tcp>] | any }] [sport { <sportv6_tcp_start> [to <sportv6_tcp_end>] | any }] [dport { <dportv6_tcp_start> [to <dportv6_tcp_end>] | any }] [hop-limit { <hop_limit_tcp> | any }] [tcp-flag [tcp-fin { <tcpv6_flag_fin> | any }] [tcp-syn { <tcpv6_flag_syn> | any }] [tcp-rst { <tcpv6_flag_rst> | any }] [tcp-psh { <tcpv6_flag_psh> | any }] [tcp-ack { <tcpv6_flag_ack> | any }] [tcp-urg { <tcpv6_flag_urg> | any }]] }]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	<sipv6_tcp>	The value of source IP address field. Notice the invalid IP address configuration is acceptable too, for example, 0.0.0.0. Normally, an ACE with invalid IP address will explicitly adding deny action
	<sipv6_bitmask_tcp>	Specify SIPv6 mask

	<sportv6_tcp_start>	The value of TCP start source port field, 0-65535
	<sportv6_tcp_end>	The value of TCP end source port field, 0-65535
	<dportv6_tcp_start>	The value of TCP start destination port field
	<dportv6_tcp_end>	The value of TCP end destination port field
	<hop_limit_tcp: 0-1>	The value of IPv6 hop limiter field
	<tcpv6_flag_fin: 0-1>	The value of TCP FIN field
	<tcpv6_flag_syn: 0-1>	The value of TCP SYN field
	<tcpv6_flag_rst: 0-1>	The value of TCP RST field
	<tcpv6_flag_psh: 0-1>	The value of TCP PSH field
	<tcpv6_flag_ack: 0-1>	The value of TCP ACK field
	<tcpv6_flag_urg: 0-1>	The value of TCP URG field
	any	Don't-care the value of source IP address field, don't-care the value of SIPv6 mask, don't care the value of TCP source port field, don't-care the value of TCP destination port field, or don't-care the value of TCP FIN, TCP SYN, TCP RST, TCP PSH, TCP ACK, or TCP URG field

2.3.20 access-list ingress

Description	insert the current ACE before the next ACE ID	
Syntax	acces-list ace [update] <ace_id> [ingress { switch <ingress_switch_id> | switchport { <ingress_switch_port_id> | <ingress_switch_port_list> } | interface { <port_type> <ingress_port_id> | (<port_type> [<ingress_port_list>]) } | any }]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	<ingress_switch_id>	Ingress switch ID
	<ingress_switch_port_id>	Ingress switch port ID
	<ingress_switch_port_list>	Ingress switch port list
	<port_type>	The type of port
	<ingress_port_id>	Ingress port ID
	<ingress_port_list>	Ingress port list
	any	Don't-care the ingress interface

2.3.21 access-list logging

Description	Logging frame information. Note: The logging feature only works when the packet length is less than 1518 (without VLAN tags) and the System Log memory size and logging rate is limited.	
Syntax	acces-list ace [update] <ace_id> [logging [disable]]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	disable	Disable logging

2.3.22 access-list mirror

Description	Mirror frame to destination mirror port	
Syntax	acces-list ace [update] <ace_id> [mirror [disable]]	
Parameter	**Name**	**Description**
	update	Update an existing ACE

	<ace_id: 1-255>	ACE ID
	disable	Disable mirror

2.3.23 access-list next

Description	insert the current ACE before the next ACE ID	
Syntax	acces-list ace [update] <ace_id> [next { <ace_id_next> | last }]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	<ace_id_next: 1-255>	The next ID
	last	Place the current ACE to the end of access list

2.3.24 access-list policy

Description	Policy	
Syntax	acces-list ace [update] <ace_id> [policy <policy> [policy-bitmask <policy_bitmask>]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	<policy: 1-255>	Policy ID
	<policy_bitmask: 1-255>	The value of policy bitmask

2.3.25 access-list rate-limiter

Description	Rate limiter	
Syntax	acces-list ace [update] <ace_id> [rate-limiter { <rate_limiter_id> | disable }] acces-list rate-limiter [<rate_limiter_list>] { pps <pps_rate> | 100kbps <kpbs100_rate> }	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	<rate_limiter_id>	Rate limiter ID, 0-16
	<rate_limiter_list>	Rate limiter ID, 0-16
	<pps_rate>	Rate value, 0-3276700
	<kpbs100_rate>	Rate value, 0-10000
	disable	Disable rate-limiter

2.3.26 access-list redirect

Description	Rate limiter	
Syntax	acces-list ace [update] <ace_id> [redirect { switchport { <redirect_switch_port_id> | <redirect_switch_port_list> } | interface { <port_type> <redirect_port_id> | (<port_type> [<redirect_port_list>]) } | disable }]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	<redirect_switch_port_id>	Redirect switch port ID
	<redirect_switch_port_list>	Redirect switch port list
	<port_type>	The type of port
	<redirect_port_id>	Redirect port IS

	<redirect_port_list>	Redirect port list
	disable	Disable redirect

2.3.27 access-list shutdown

Description	Shutdown incoming port. The shutdown feature only works when the packet length is less than 1518 (without VLAN tags).	
Syntax	acces-list ace [update] <ace_id> [shutdown [disable]]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	disable	Disable shutdown

2.3.28 access-list tag

Description	Tag	
Syntax	acces-list ace [update] <ace_id> [tag { tagged | untagged | any }]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	tagged	Tagged
	Untagged	Untagged
	any	Don't-care tagged or untagged

2.3.29 access-list tag-priority

Description	Tag priority	
Syntax	acces-list ace [update] <ace_id> [tag-priority { <tag_priority> | 0-1 | 2-3 | 4-5 | 6-7 | 0-3 | 4-7 | any }]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	<tag_priority: 0-7>	The value of tag priority
	0-1	The range of tag priority
	2-3	The range of tag priority
	4-5	The range of tag priority
	6-7	The range of tag priority
	0-3	The range of tag priority
	4-7	The range of tag priority
	any	Don't-care the value of tag priority field

2.3.30 access-list vid

Description	VID field	
Syntax	acces-list ace [update] <ace_id> [vid { <vid> | any }]	
Parameter	**Name**	**Description**
	update	Update an existing ACE
	<ace_id: 1-255>	ACE ID
	<vid>	The value of VID field, 1-4095
	any	Don't-care the value of VID field

2.3.31 access-list action interface

Description	Access list action on interface Note:

	The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”	
Syntax	access-list action { permit | deny }	
Parameter	**Name**	**Description**
	permit	Permit
	deny	Deny

2.3.32 access-list logging interface

Description	Logging frame information on interface. Note: The logging feature only works when the packet length is less than 1518 (without VLAN tags) and the System Log memory size and logging rate is limited. The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”
Syntax	access-list logging
Parameter	None

2.3.33 access-list mirror interface

Description	Mirror frame to destination mirror port on interface. Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”
Syntax	access-list mirror
Parameter	None

2.3.34 access-list policy interface

Description	Set up access list policy on interface Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”	
Syntax	access-list policy <policy_id>	
Parameter	**Name**	**Description**
	<policy_id>	<0-255> Policy ID

2.3.35 access-list port-state interface

Description	Re-enable shutdown port that was shutdown by access-list module on interface Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”
Syntax	access-list port-state
Parameter	None

2.3.36 access-list rate-limiter interface

Description	Set up access list rate limiter on interface Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”	
Syntax	access-list rate-limiter <rate_limiter_id>	
Parameter	**Name**	**Description**
	<rate_limiter_id>	<1-16> Rate limiter ID

2.3.37 access-list shutdown interface

Description	Shutdown incoming port on interface. The shutdown feature only works when the packet length is less than 1518 (without VLAN tags). Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”
Syntax	access-list shutdown
Parameter	None

2.3.38 access-list redirect interface

Description	Redirect frame to specific port on interface. Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”	
Syntax	access-list { redirect } interface { <port_type> <port_type_id> | (<port_type> [<port_type_list>]) }	
Parameter	**Name**	**Description**
	{ redirect }	<1-16> Rate limiter ID
	<port_type>	Select port type
	<port_type_id>	Port list in 1/1- max number of ports
	<port_type_list>	Port list in 1/1- max number of ports

2.3.39 aggregation mode

Description	Traffic distribution mode	
Syntax	aggregation mode { [smac] [dmac] [ip] [port] }*1	
Parameter	**Name**	**Description**
	dmac	Destination MAC affects the distribution
	smac	Source MAC affects the distribution
	ip	IP address affects the distribution
	port	IP port affects the distribution

2.3.40 aggregation group

Description	Create an aggregation group Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	aggregation group <v_uint>	
Parameter	**Name**	**Description**
	<v_uint>	The aggregation group id

2.3.41 alarm history clear

Description	Clear alarm history
Syntax	alarm history clear
Parameter	None

2.3.42 banner

Description	Banner control	
Syntax	banner [motd] <banner> banner exec <banner> banner login <banner>	
Parameter		
	Name	**Description**
	<banner>	c banner-text c, where 'c' is a delimiting character
	exec	Set EXEC process creation banner

	login	Set login banner
	motd	Set Message of the Day banner

2.3.43 clock datetime

Description	Configure system datetime	
Syntax	clock datetime <input_year> <input_month> <input_date> <input_hour> <input_minute> <input_second>	
Parameter		
	Name	**Description**
	<input_year>	Year
	<input_month>	Month
	<input_date>	Date
	<input_hour>	Hour
	<input_minute>	Minute
	<input_second>	Second

2.3.44 clock timezone

Description	Set time zone.	
Syntax	clock timezone <word_var> <hour_var> [<minute_var> [<subtype_var>]]	
Parameter		
	Name	**Description**
	<word_var>	<word16> Acronym, the name of time zone
	<hour_var>	<-12-12> Hours offset from UTC
	<minute_var>	<0-59> Minutes offset from UTC
	<subtype_var>	<0-8> Sequence number of time zone in case multiple locations available in same time zone.

2.3.45 clock summer-time date

Description	Configure absolute summer time	
Syntax	clock summer-time <word16> date [<start_month_var> <start_date_var> <start_year_var> <start_hour_var> <end_month_var> <end_date_var> <end_year_var> <end_hour_var> [<offset_var>]]	
Parameter		
	Name	**Description**
	< word16>	<word16> name of time zone in summer
	<start_month_var>	<1-12> Month to start
	<start_date_var>	<1-31> Date to start
	<start_year_var>	<2000-2097> Year to start
	<start_hour_var>	Time to start (hh:mm)
	<end_month_var>	<1-12> Month to end
	<end_date_var>	<1-31> Date to end
	<end_year_var>	<2000-2097> Year to end
	<end_hour_var>	Time to end (hh:mm)
	<offset_var>	<1-1440> Offset to add in minutes

2.3.46 clock summer-time recurring

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

	Name	Description
	< word16>	<word16> name of time zone in summer
	<start_week_var>	<1-5> Week number to start
	<start_date_var>	<1-7> Weekday to start
	<start_month_var>	<1-12> Month to start
	<start_hour_var>	Time to start (hh:mm)
	<end_week_var>	<1-5> Week number to end
	<end_date_var>	<1-7> Weekday to end
	<end_month_var>	<1-12> Month to end
	<end_hour_var>	Time to end (hh:mm)
	<offset_var>	<1-1440> Offset to add in minutes

2.3.47 ddmi

Description	Enable DDMI function
Syntax	ddmi
Parameter	None

2.3.48 default access-list rate-limiter

Description	Rate limiter	
Syntax	default access-list rate-limiter [<rate_limiter_list>]	
Parameter		
	Name	**Description**
	<rate_limiter_list>	<1~16> Rate limiter ID

2.3.49 do

Description	To run exec commands in the configuration mode.	
Syntax	do <command>	
Parameter		
	Name	**Description**
	<command>	<line> Exec Command.

2.3.50 duplex

Description	Set up interface duplex	
Syntax	duplex { half | full | auto [half | full] }	
Parameter		
	Name	**Description**
	half	Forced half duplex.
	full	Forced full duplex.
	auto	Auto negotiation of duplex mode.

2.3.51 enable

Description	Modify enable password parameters	
Syntax	enable password [level <priv>] <password> enable secret { 0 | 5 } [level <priv>] <password>	
Parameter		
	Name	**Description**
	password	Assign the privileged level clear password
	secret	Assign the privileged level secret
	<priv>	<1-15> Level number
	<password>	<word32> Set up the password
	0	Specifies an UNENCRYPTED password will follow
	5	Specifies an ENCRYPTED secret will follow

2.3.52 end

Description	Go back to EXEC mode
Syntax	end
Parameter	None

2.3.53 excessive-restart

Description	Restart backoff algorithm after 16 collisions (No excessive-restart means discard frame after 16 collisions) Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.
Syntax	excessive-restart
Parameter	None

2.3.54 exit

Description	Exit from current mode.
Syntax	exit
Parameter	None

2.3.55 green-ethernet eee

Description	Powering down of PHYs when there is no traffic. Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.
Syntax	green-ethernet eee
Parameter	None

2.3.56 green-ethernet eee optimize-for-power

Description	Set if EEE shall be optimized for least power consumption (else optimized for least traffic latency).
Syntax	green-ethernet eee optimize-for-power
Parameter	None

2.3.57 green-ethernet energy-detect

Description	Enable power saving for ports with no link partner. Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.
Syntax	green-ethernet energy-detect
Parameter	None

2.3.58 green-ethernet short-reach

Description	Enable power saving for ports which is connect to link partner with short cable. Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.
Syntax	green-ethernet short-reach
Parameter	None

2.3.59 green-ethernet eee urgent-queues

Description	Enables EEE urgent queue. An urgent queue means that latency is kept to a minimum for traffic goin to that queue. Note: EEE power savings will

	be reduced. Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	green-ethernet eee urgent-queues [<urgent_queue_range_list>]	
Parameter		
	Name	**Description**
	<urgent_queue_range_list>	EEE Interface.

2.3.60 help

Description	Description of the interactive help system
Syntax	help
Parameter	None

2.3.61 hostname

Description	Set system's network name	
Syntax	hostname <hostname>	
Parameter		
	Name	**Description**
	<hostname>	<kword255> This system's network name

2.3.62 interface

Description	Select an interface to configure	
Syntax	interface (<port_type> [<plist>]) interface vlan <vlist>	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<plist>	Port list in 1/1- max number of ports.
	<vlist>	List of VLAN interface numbers, 1~4095

2.3.63 ip arp inspection

Description	Enable Address Resolution Protocol inspection
Syntax	ip arp inspection
Parameter	None

2.3.64 ip arp inspection entry

Description	ARP inspection entry interface config	
Syntax	ip arp inspection entry interface <port_type> <in_port_type_id> <vlan_var> <mac_var> <ipv4_var>	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<in_port_type_id>	Port list in 1/1- max number of ports.
	<vlan_var>	Select a VLAN id to configure
	<mac_var>	Select a MAC address to configure
	<ipv4_var>	Select an IP Address to configure

2.3.65 ip arp inspection translate

Description	ARP inspection translate all entries
Syntax	ip arp inspection translate [interface <port_type><port_type_id><vlan_id><mac_ucast><ipv4_ucast>]
Parameter	

	Name	Description
	<port_type>	Select port type.
	<port_type_id>	Port list in 1/1- max number of ports.
	<vlan_id>	Select a VLAN id to configure
	<mac_ucast>	Select a MAC address to configure
	<ipv4_ucast>	Select an IP Address to configure

2.3.66 ip arp inspection vlan

Description	IP ARP inspection VLAN setting	
Syntax	ip arp inspection vlan<vlan_list> ip arp inspection vlan <in_vlan_list> logging { deny | permit | all }	
Parameter		
	Name	**Description**
	<vlan_list>	ARP inspection vlan list
	<in_vlan_list>	ARP inspection vlan list
	logging	ARP inspection vlan logging mode config
	deny	Log denied entries
	permit	Log permitted entries
	all	Log all entries

2.3.67 ip arp inspection check-vlan

Description	ARP inspection VLAN mode config Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.
Syntax	ip arp inspection check-vlan
Parameter	None

2.3.68 ip arp inspection logging

Description	ARP inspection logging mode config Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	ip arp inspection logging { deny | permit | all }	
Parameter		
	Name	**Description**
	deny	Log denied entries
	permit	Log permitted entries
	all	Log all entries

2.3.69 ip arp inspection trust

Description	ARP inspection trust config Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.
Syntax	ip arp inspection trust
Parameter	None

2.3.70 ip dns proxy

Description	IP DNS proxy service
Syntax	ip dns proxy
Parameter	None

2.3.71 ip domain name

Description	Define the default domain name	
Syntax	ip domain name { <v_domain_name> | dhcp [ipv6] [interface vlan <v_vlan_id_dhcp>] }	
Parameter		
	Name	**Description**
	<v_domain_name>	Default domain name
	dhcp	Dynamic Host Configuration Protocol
	ipv6	DNS setting is derived from DHCPv6; Default selection
	<v_vlan_id_dhcp>	VLAN identifier(s): VID

2.3.72 ip http secure-certificate

Description	Set up HTTPS certificate	
Syntax	ip http secure-certificate { upload <url_file> [pass-phrase <pass_phrase>] | delete | generate }	
Parameter		
	Name	**Description**
	<url_file>	Uniform Resource Locator. It is a specific character string that constitutes a reference to a resource. Syntax: <protocol>://[<username>[:<password>]@]<host>[:<port>][/<path>]/<file_name> If the following special characters: space !"#$%&'()*+,/:;<=>?@[\]^`{|}~ need to be contained in the input url string, they should have percent-encoded. A valid file name is a text string drawn from alphabet (A-Z, a-z), digits (0-9), dot (.), hyphen (-), under score(_). The maximum length is 63 and hyphen must not be first character. The file name content that only contains '.' is not allowed.
	<pass_phrase>	Privacy key pass phrase string.
	delete	Delete the current certificate.
	generate	Generate a new self-signed RSA certificate.

2.3.73 ip http secure-redirect

Description	Secure HTTP web redirection
Syntax	ip http secure-redirect
Parameter	None

2.3.74 ip http secure-server

Description	Secure HTTP web server
Syntax	ip http secure-server
Parameter	None

2.3.75 ip http timeout-policy

Description	Set the EXEC timeout when web is idle	
Syntax	ip http timeout-policy idle <sec>	
Parameter		
	Name	**Description**
	<sec>	<60-36000> Timeout in second

2.3.76 ip route

Description	Set up IP route
Syntax	ip route <v_ipv4_addr> <v_ipv4_netmask> <v_ipv4_gw>
Parameter	

	Name	Description
	<v_ipv4_addr>	Network
	<v_ipv4_netmask>	Netmask
	<v_ipv4_gw>	Gateway

2.3.77 ip routing

Description	Enable routing for IPv4 and IPv6
Syntax	ip routing
Parameter	None

2.3.78 ip source binding interface

Description	IP source binding entry interface configuration	
Syntax	ip source binding interface <port_type> <in_port_type_id> <vlan_var> <ipv4_var> <mac_var>	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<in_port_type_id>	Port list in 1/1- max number of ports.
	<vlan_var>	Select a VLAN id to configure
	<ipv4_var>	Select an IP Address to configure
	<mac_var>	Select a MAC address to configure

2.3.79 ip ssh

Description	Enable IP Secure Shell
Syntax	ip ssh
Parameter	None

2.3.80 ip ssh regenerate-hostkey

Description	Regenerate hostkeys for all cipher types, it will take 1~2 minutes.
Syntax	ip ssh regenerate-hostkey
Parameter	None

2.3.81 ip verify

Description	Set up IP verify configuration	
Syntax	ip verify source ip verify source translate	
Parameter		
	Name	**Description**
	source	Verify source
	translate	IP verify source translate all entries

2.3.82 ip verify source limit

Description	Set up IP verify source limit Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	ip verify source limit <cnt_var>	
Parameter		
	Name	**Description**
	<cnt_var>	<0-2> the number of limit

2.3.83 ipmc profile

Description	IPMC profile configuration

Syntax	ipmc profile ipmc profile <profile_name>	
Parameter		
	Name	**Description**
	<profile_name>	Profile name in 16 char's

2.3.84 ipmc range

Description	A range of IPv4/IPv6 multicast addresses for the profile	
Syntax	ipmc range <entry_name> { <v_ipv4_mcast> [<v_ipv4_mcast_1>] | <v_ipv6_mcast> [<v_ipv6_mcast_1>] }	
Parameter		
	Name	**Description**
	<entry_name>	Range entry name in 16 char's
	<v_ipv4_mcast>	Valid IPv4 multicast address
	<v_ipv4_mcast_1>	Valid IPv4 multicast address that is not less than start address
	<v_ipv6_mcast>	Valid IPv6 multicast address
	<v_ipv6_mcast_1>	Valid IPv6 multicast address that is not less than start address

2.3.85 ipv6 address

Description	Configure the IPv6 address of an interface Note: The command is only valid in “VLAN Interface Config Mode”. Refer to section 2.4 for information to enter “VLAN Interface Config Mode”.	
Syntax	ipv6 address <subnet> ipv6 address { dhcp [rapid-commit] }	
Parameter		
	Name	**Description**
	<subnet>	IPv6 prefix x:x::y/z
	[rapid-commit]	Enable DHCPv6 client Rapid-Commit option

2.3.86 ipv6 address autoconfig

Description	IPv6 Autoconfig via Route Adventisement for Stateless Address
Syntax	ipv6 address autoconfig
Parameter	None

2.3.87 json

Description	Set up JSON notification	
Syntax	json notification host <hname> json notification listen <notification> <host>	
Parameter		
	Name	**Description**
	<hname>	<word32> Name of Notification host
	<notification>	Valid words are 'acl.status.ace.crossed-threshold.update' 'aggregation.status.group.update' 'arp-inspection.status.crossed-threshold.update' 'ddmi.status.interface.crossed-threshold.update' 'ip.status.interface.dhcp-client.update' 'ip.status.interface.ipv4.update' 'ip.status.interface.ipv6.update' 'ip.status.interface.link.update' 'ip.status.route.ipv4.update'

		'ip.status.route.ipv6.update' 'port.status.update'
	<host>	<word32> Name of Json-rpc notification destination to receive updates

2.3.88 lacp system-priority

Description	Set up LACP system priority	
Syntax	lacp system-priority <v_1_to_65535>	
Parameter		
	Name	**Description**
	<v_1_to_65535>	Priority value, lower means higher priority

2.3.89 lacp

Description	Enable LACP on this interface Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.
Syntax	lacp
Parameter	None

2.3.90 lacp key

Description	Set up key of the LACP aggregation Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	lacp key { <v_1_to_65535> | auto }	
Parameter		
	Name	**Description**
	<v_1_to_65535>	Key value
	auto	Choose a key based on port speed

2.3.91 lacp port-priority

Description	Set up LACP priority of the port Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	lacp port-priority <v_1_to_65535>	
Parameter		
	Name	**Description**
	<v_1_to_65535>	Priority value, lower means higher priority

2.3.92 lacp role

Description	Set up active / passive (speak if spoken to) role Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	lacp role { active | passive }	
Parameter		
	Name	**Description**
	active	Transmit LACP BPDUs continously
	passive	Wait for neighbor LACP BPDUs before transmitting

2.3.93 lacp timeout

Description	Set up the period between BPDU transmissions Note:

	The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	lacp timeout { fast | slow }	
Parameter		
	Name	**Description**
	fast	Transmit BPDU each second (fast timeout)
	slow	Transmit BPDU each 30th second (slow timeout)

2.3.94 line

Description	Console terminal control	
Syntax	line { <0~16> | console | vty <0~15> | telnet | ssh }	
Parameter		
	Name	**Description**
	<0~16>	List of line numbers
	console	Console terminal line
	vty	Virtual terminal
	telnet	Telnet terminal line
	ssh	SSH terminal line

2.3.95 loggin host

Description	Set up domain name and IP address	
Syntax	logging host { <ipv4_addr> | <domain_name> }	
Parameter		
	Name	**Description**
	<domain_name>	The domain name is to provide a mechanism for naming resources on the Internet. A complete domain name consists of one or more subdomain names which are separated by dots(.)
	<ipv4_addr>	IP address of the log server

2.3.96 loggin level

Description	Set up severity level	
Syntax	logging level { informational | notice | warning | error }	
Parameter		
	Name	**Description**
	error	Severity 3: Error conditions
	notice	Severity 5: Normal but significant condition
	warning	Severity 4: Warning conditions
	informational	Severity 6: Informational messages

2.3.97 loggin on

Description	Enable Switch logging host mode
Syntax	logging on
Parameter	None

2.3.98 mac address-table aging-time

Description	MAC table entries/configuration	
Syntax	mac address-table aging-time <v_0_10_to_1000000>	
Parameter		
	Name	**Description**
	<v_0_10_to_1000000>	Aging time in seconds, 0 disables aging

2.3.99 mac address-table static

Description	MAC table entries/configuration	
Syntax	mac address-table static <v_mac_addr> vlan <v_vlan_id> [interface (<port_type> [<v_port_type_list>])]	
Parameter		
	Name	**Description**
	<v_mac_addr>	48 bit MAC address: xx:xx:xx:xx:xx:xx
	<v_vlan_id>	VLAN IDs 1-4095
	<port_type>	Select port type
	<v_port_type_list>	Port list in 1/1- max number of ports

2.3.100 mac address-table learning vlan

Description	MAC learning	
Syntax	mac address-table learning vlan <vlan_list>	
Parameter		
	Name	**Description**
	<v_mac_addr>	48 bit MAC address: xx:xx:xx:xx:xx:xx
	<v_vlan_id>	VLAN IDs 1-4095
	<port_type>	Select port type
	<v_port_type_list>	Port list in 1/1- max number of ports

2.3.101 mac address-table learning

Description	Set up MAC port Secure mode Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	mac address-table learning [secure]	
Parameter		
	Name	**Description**
	[secure]	Port Secure mode

2.3.102 management vlan

Description	Set up management VLAN	
Syntax	management vlan <access_vid>	
Parameter		
	Name	**Description**
	<access_vid>	<1-4094> VID

2.3.103 monitor session

Description	Configure a MIRROR session	
Syntax	monitor session <session_number> [destination { interface (<port_type> [<di_list>]) | remote vlan <drvid> reflector-port <port_type> <rportid> } | source { interface (<port_type> [<si_list>]) [both | rx | tx] | remote vlan <srvid> | vlan <source_vlan_list> | cpu [both | rx | tx] } | intermediate { interface (<port_type> [<ii_list>]) | remote vlan <irvid> }]	
Parameter		
	Name	**Description**
	<session_number>	<1> MIRROR session number
	destination	MIRROR destination interface or VLAN
	<port_type>	Select port type
	<di_list>	Port list in 1/1- max number of ports
	remote vlan	MIRROR destination Remote number

	<drvid>	Remote MIRROR destination RMIRROR VLAN number
	<rportid>	Port list in 1/1- max number of ports
	source	MIRROR source interface, VLAN
	<si_list>	Port list in 1/1- max number of ports
	both	MIRROR source receive both
	rx	MIRROR source receive rx
	tx	MIRROR source receive tx
	<srvid>	Remote MIRROR source RMIRROR VLAN number
	<source_vlan_list>	MIRROR source VLAN
	intermediate	MIRROR intermediate interface, VLAN
	<ii_list>	Port list in 1/1- max number of ports
	<irvid>	Remote MIRROR intermediate RMIRROR VLAN number

2.3.104 no

Description	Function disable	
Syntax	no <commands>	
Parameter		
	Name	**Description**
	<commands>	Any of the commands

2.3.105 ntp

Description	Enable NTP or set NTP server address.	
Syntax	ntp ntp server <index_var> ip-address { <ipv4_var> | <ipv6_var> | <name_var> }	
Parameter		
	Name	**Description**
	<index_var>	<1-5> Index number
	<ipv4_var>	IPv4 address
	<ipv6_var>	IPv6 address
	<name_var>	Domain name

2.3.106 port-security

Description	Set up port security	
Syntax	port-security port-security aging port-security [aging] [time <v_10_to_10000000>]	
Parameter		
	Name	**Description**
	port-security	Enable port security
	aging	Enable/disable port security aging
	time	Time in seconds between check for activity on learned MAC addresses
	v_10_to_10000000	<10-10000000> seconds

2.3.107 port-security maximum

Description	Miximum number of MAC addresses that can be learned on this set of interfaces. Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”

Syntax	port-security maximum [<v_1_to_1024>]	
Parameter		
	Name	**Description**
	<v_1_to_1024>	<1-1024> Number of addresses

2.3.108 port-security violation

Description	The action involved with exceeding the limit. Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”	
Syntax	port-security violation { protect | trap | trap-shutdown | shutdown }	
Parameter		
	Name	**Description**
	protect	Don't do anything
	trap	Send an SNMP trap
	trap-shutdown	Send an SNMP trap and shutdown the port
	shutdown	Shutdown the port

2.3.109 privilege

Description	Set up privilege	
Syntax	privilege <mode_name> level <privilege> <cmd>	
Parameter		
	Name	**Description**
	<mode_name>	Valid words are 'config-vlan' 'configure' 'dhcp-pool' 'exec' 'if-vlan' 'interface' 'ipmc-profile' 'json-noti-host' 'line' 'snmps-host' 'stp-aggr'
	<privilege>	Privilege level, 0-15
	<cmd>	Initial valid words and literals of the command to modify, in 128 char's

2.3.110 pvlan

Description	Private VLAN Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”	
Syntax	pvlan <pvlan_list> pvlan isolation	
Parameter		
	Name	**Description**
	<pvlan_list>	List of PVLANs. Range is from 1 to number of ports.
	isolation	Port isolation

2.3.111 reload

Description	System or configuration reset	
Syntax	reload { cold | default }	
Parameter		
	Name	**Description**
	cold	Reload cold
	defaults	Reload defaults without rebooting

2.3.112 rmon

Description	RMON
Syntax	rmon {alarm | event}

Parameter		
	Name	**Description**
	alarm	Configure an RMON alarm
	event	Configure an RMON event

2.3.113 rmon alarm

Description	RMON Alarm	
Syntax	rmon alarm <id> { ifInOctets | ifInUcastPkts | ifInNUcastPkts | ifInDiscards | ifInErrors | ifInUnknownProtos | ifOutOctets | ifOutUcastPkts | ifOutNUcastPkts | ifOutDiscards | ifOutErrors } <ifIndex> <interval> { absolute | delta } rising-threshold <rising_threshold> [<rising_event_id>] falling-threshold <falling_threshold> [<falling_event_id>] { [rising | falling | both] }	
Parameter		
	Name	**Description**
	id	Alarm entry ID
	ifInDiscards	The number of inbound packets that are discarded even the packets are normal
	fInErrors	The number of inbound packets that contained errors preventing them from being deliverable to a higher-layer protocol
	ifInNUcastPkts	The number of broad-cast and multi-cast packets delivered to a higher-layer protocol
	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
	ifInUnknownProtos	The number of the inbound packets that were discarded because of the unknown or un-support protocol
	ifOutDiscards	The number of outbound packets that are discarded event the packets is normal
	ifOutErrors	The The number of outbound packets that could not be transmitted because of errors
	ifOutNUcastPkts	The number of broad-cast and multi-cast packets that request to transmit
	ifOutOctets	The number of octets transmitted out of the interface, including framing characters
	ifOutUcastPkts	The number of uni-cast packets that request to transmi
	interval	<1-2147483647> Sample interval
	absolute	Test each sample directly
	delta	Test delta between samples
	rising_threshold	<1-2147483647> rising threshold value
	rising_event_id	<0-65535> Event to fire on rising threshold crossing
	falling_threshold	<1-2147483647> falling threshold value
	falling_event_id	<0-65535> Event to fire on falling threshold crossing
	both	Trigger alarm when the first value is larger than the rising threshold or less than the falling threshold (default)
	falling	rigger alarm when the first value is less than the falling threshold

	rising	Trigger alarm when the first value is larger than the rising threshold

2.3.114 rmon event

Description	RMON Event	
Syntax	rmon event <id> [log] [trap <community>] { [description <description>] }	
Parameter		
	Name	**Description**
	description	Specify a description of the event
	log	Generate RMON log when the event fires
	trap	Generate SNMP trap when the event fires

2.3.115 rmon collection

Description	Configure Remote Monitoring Collection on an interface Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	rmon collection history <id> [buckets <buckets>] [interval <interval>] rmon collection stats <id>	
Parameter		
	Name	**Description**
	history	Configure history
	<id>	<1-65535> History entry ID <1-65535> Statistics entry ID
	<buckets>	<1-65535> Requested buckets of intervals
	<interval>	<1-3600> Interval in seconds to sample data for each bucket
	stats	Configure statistics

2.3.116 system-temperature

Description	adjust system temperature offset to close real temperature	
Syntax	system-temperature offset <temp>	
Parameter		
	Name	**Description**
	<temp>	<int16> input offset range: -32768 ~ 32767. (display_val - real_val) < 0, offset should be minus(-); (display_val - real_val) > 0, offset should be postive(+). If temperature display in CLI is lower than real temperature, the offset should be minus value. For example CLI show 20, but real temperature is 33, then the offset value would be -13.

2.3.117 tacacs-server deadtime

Description	Time to stop using a TACACS+ server that doesn't respond	
Syntax	tacacs-server deadtime <minutes>	
Parameter		
	Name	**Description**
	<minutes : 1-1440>	Time in minutes

2.3.118 tacacs-server host

Description	Configure TACACS+ server

Syntax	tacacs-server host <host_name> [port <port>] [timeout <seconds>] [key [encrypted] <key>]	
Parameter		
	Name	**Description**
	word1-255	Hostname or IP address
	0-65535	TCP port number
	1-1000	Wait time in seconds
	[encrypted]	The encrypted shared key
	<key>	<line1-63> The encrypted shared key

2.3.119 username

Description	User account	
Syntax	username <username> privilege <priv> password encrypted <encry_password> username <username> privilege <priv> password none username <username> privilege <priv> password unencrypted <password>	
Parameter		
	Name	**Description**
	username	<Username : word31> User name allows letters, numbers and underscores
	privilege	Set user privilege level
	priv	User privilege level
	password	Specify the password for the user
	encrypted	Specifies an ENCRYPTED password will follow
	none	NULL password
	unencrypted	Specifies an UNENCRYPTED password will follow

2.3.120 web

Description	Web privilege configuration	
Syntax	web privilege group <group_name> level { [cro <cro>] [crw <crw>] [sro <sro>] [srw <srw>] }*1	
Parameter		
	Name	**Description**
	privilege	Web privilege
	group	Web privilege group
	group_name	Valid words are 'Aggregation' 'DHCP' 'Debug' 'Dhcp_Client' 'Diagnostics' 'EEE' 'Green_Ethernet' 'IP2' 'IPMC_Snooping' 'LACP' 'LLDP' 'Loop_Protect' 'MAC_Table' 'MVR' 'Maintenance' 'Mirroring' 'NTP' 'Ports' 'Private_VLANs' 'QoS' 'RPC' 'Security' 'Spanning_Tree' 'System' 'Timer' 'VCL' 'VLANs' 'Voice_VLAN' 'XXRP' 'sFlow'
	level	Web privilege group level
	cro	Configuration Read-only level
	crw	Configuration Read-write level
	sro	Status/Statistics Read-only level
	srw	Status/Statistics Read-write level
	cro	<Cro : 0-15>
	crw	<Crw : 0-15>
	sro	<Sro : 0-15>
	srw	<Srw : 0-15>

2.3.121 mtu <value>

Description	MTU size. Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	mtu <value>	
Parameter		
	Name	**Description**
	<value>	Range. **Valid values**: 1536~9000 (bytes) **Type**: Mandatory

2.3.122 media-type

Description	Configure media-type Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	media-type { rj45 | sfp | dual }	
Parameter		
	Name	**Description**
	rj45	rj45 interface (copper interface).
	sfp	sfp interface (fiber interface).
	dual	Dual media interface (cu & fiber interface).

2.3.123 speed

Description	Configures interface speed. If you use 10, 100, or 1000 keywords with the auto keyword the port will only advertise the specified speeds. Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	speed { 1000 | 100 | 10 | auto { [10] [100] [1000] } }	
Parameter		
	Name	**Description**
	1000	1Gbps
	100	100Mbps
	10	10Mbps
	auto	Auto negotiation
	[10]	10Mbps
	[100]	100Mbps
	[1000]	1Gbps

2.3.124 flow-control {on|off}

Description	Enable/Disable flow-control. Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	flow-control {on|off}	
Parameter		
	Name	**Description**
	on	Enable flow-control.
	off	Disable flow-control.

2.3.125 shutdown

Description	Shutdown the interface.

	Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.
Syntax	shutdown
Parameter	None

2.4 VLAN Mode Commands

2.4.1 vlan

Description	VLAN commands	
Syntax	vlan <vlan_list>	
Parameter		
	Name	**Description**
	vlan_lis	ISL VLAN IDs 1~4095

2.4.2 vlan ethertype s-custom-port

Description	Vlan Ether type for custom S-ports configuration	
Syntax	vlan ethertype s-custom-port <0x0600-0xffff>	
Parameter		
	Name	**Description**
	0x0600-0xffff	Ethertype (Range: 0x0600-0xffff)

2.4.3 vlan protocol

Description	Protocol-based VLAN commands	
Syntax	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>	
Parameter		
	Name	**Description**
	0x600-0xffff	Ether Type(Range: 0x600 - 0xFFFF)
	arp	Ether Type is ARP
	ip	Ether Type is IP
	ipx	Ether Type is IPX
	at	Ether Type is AppleTalk
	0x0-0xffffff	SNAP OUI (Range 0x000000 - 0XFFFFFF)
	rfc_1042	SNAP OUI is rfc_1042
	snap_8021h	SNAP OUI is 8021h
	0x0-0xffff	PID (Range: 0x0 - 0xFFFF)
	0x0-0xff	DSAP (Range: 0x00 - 0xFF)
	0x0-0xff	SSAP (Range: 0x00 - 0xFF)
	word16	Group Name (Range: 1 - 16 characters)

2.4.4 switchport access vlan

Description	Set switch access mode of the interface Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	switchport access vlan <vlan_id>	
Parameter		
	Name	**Description**
	vlan_id	VLAN ID of the VLAN when this port is in access mode

2.4.5 switchport forbidden vlan

Description	Adds or removes forbidden VLANs from the current list of forbidden VLANs Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	switchport forbidden vlan { add | remove } <vlan_list>	
Parameter		
	Name	**Description**
	add	Add to existing list.
	remove	Remove from existing list.
	vlan_list	VLAN IDs

2.4.6 switchport hybrid acceptable-frame-type

Description	Set acceptable frame type on a port Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	switchport hybrid acceptable-frame-type { all | tagged | untagged }	
Parameter		
	Name	**Description**
	all	Allow all frames
	tagged	Allow only tagged frames
	untagged	Allow only untagged frames

2.4.7 switchport hybrid allowed vlan

Description	Set allowed VLAN characteristics when interface is in hybrid mode Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	switchport hybrid allowed vlan { all | none | [add | remove | except] <vlan_list> }	
Parameter		
	Name	**Description**
	all	All VLANs
	none	No VLANs
	add	Add VLANs to the current list
	remove	Remove VLANs from the current list
	except	All VLANs except the following
	vlan_list	VLAN IDs of the allowed VLANs when this port is in hybrid mode

2.4.8 switchport hybrid egress-tag

Description	Egress VLAN tagging configuration Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	switchport hybrid egress-tag { none | all [except-native] }	
Parameter		
	Name	**Description**
	none	No egress tagging
	all	Tag all frames
	except-native	Tag all frames except frames classified to native

		VLAN of the hybrid port

2.4.9 switchport hybrid ingress-filtering

Description	VLAN Ingress filter configuration Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.
Syntax	switchport hybrid ingress-filtering
Parameter	None

2.4.10 switchport hybrid native vlan

Description	Set native VLAN Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	switchport hybrid native vlan <pvid>	
Parameter		
	Name	**Description**
	<pvid>	VLAN ID of the native VLAN when this port is in hybrid mode

2.4.11 switchport hybrid port-type

Description	Set port type Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	switchport hybrid port-type { unaware | c-port | s-port | s-custom-port }	
Parameter		
	Name	**Description**
	unware	Port in not aware of VLAN tags
	c-port	Customer port
	s-port	Provider port
	s-custom-port	Custom Provider port

2.4.12 switchport mode

Description	Set switching mode Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	switchport mode { access | trunk | hybrid }	
Parameter		
	Name	**Description**
	access	Set mode to ACCESS unconditionally
	trunk	Set mode to TRUNK unconditionally
	hybrid	Set mode to HYBRID unconditionall

2.4.13 switchport trunk allowed vlan

Description	Set allowed VLAN characteristics when interface is in trunk mode Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	switchport trunk allowed vlan { all | none | [add | remove | except] <vlan_list> }	
Parameter		
	Name	**Description**
	all	All VLANs

	none	No VLANs
	add	Add VLANs to the current list
	remove	Remove VLANs from the current list
	except	All VLANs except the following
	vlan_list	VLAN IDs of the allowed VLANs when this port is in trunk mode

2.4.14 switchport trunk native vlan

Description	Set native VLAN when interface is in trunk mode Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	switchport trunk native vlan <pvid>	
Parameter		
	Name	**Description**
	<pvid>	VLAN ID of the native VLAN when this port is in trunk mode

2.4.15 switchport trunk vlan tag native

Description	Tag native vlan Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.
Syntax	switchport trunk vlan tag native
Parameter	None

2.4.16 switchport vlan ip-subnet

Description	VCL IP Subnet-based VLAN configuration. Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	switchport vlan ip-subnet [id <1-128>] <ipv4> vlan <vid>	
Parameter		
	Name	**Description**
	<1-128>	The index of the ip-subnet entry.(deprecated)
	<ipv4>	Source IP address and mask (Format: xx.xx.xx.xx/mm.mm.mm.mm)
	<vid>	VLAN ID required for the group to VLAN mapping (Range: 1-4095)

2.4.17 switchport vlan protocol group

Description	Protocol-based VLAN group commands Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	switchport vlan protocol group <word16> vlan <vlan_id>	
Parameter		
	Name	**Description**
	word16	Group Name (Range: 1 - 16 characters)
	vlan_id	VLAN ID required for the group to VLAN mapping (Range: 1-4095)

2.4.18 switchport voice vlan

Description	Voice appliance attributes

	Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	switchport voice vlan discovery-protocol { oui | lldp | both } switchport voice vlan mode { auto | force | disable } switchport voice vlan security	
Parameter		
	Name	**Description**
	oui	Detect telephony device by OUI address
	lldp	Detect telephony device by LLDP
	both	Detect telephony device by OUI address and LLDP
	auto	Enable auto detect mode
	force	Force to join Voice VLAN
	disable	Disjoin Voice VLAN
	security	Enable Voice VLAN port security mode

2.5 DHCP Commands

2.5.1 ip address

Description	IPv4 address configurations Note: The command is only valid in “VLAN Interface Config Mode”. Refer to section 2.4 for information to enter “VLAN Interface Config Mode”.	
Syntax	ip address { { <address> <netmask> } | { dhcp [fallback <fallback_address> <fallback_netmask> [timeout <fallback_timeout>]] } }	
Parameter		
	Name	**Description**
	<address>	IP address
	<netmask>	IP netmask
	<fallback_address>	DHCP fallback address
	<fallback_netmask>	DHCP fallback netmask
	<fallback_timeout>	DHCP fallback timeout, Default value is 60 seconds

2.5.2 ip name-server

Description	Set up domain Name System	
Syntax	ip name-server [<order>] { <v_ipv4_ucast> | { <v_ipv6_ucast> } | dhcp [ipv4 | ipv6] [interface vlan <v_vlan_id_dhcp>] }	
Parameter		
	Name	**Description**
	<order>	<0-3> Preference of DNS server; Default selection is 0
	<v_ipv4_ucast>	A valid IPv4 unicast address
	<v_ipv6_ucast>	A valid IPv6 unicast address
	ipv4	DNS setting is derived from DHCPv4; Default selection
	ipv6	DNS setting is derived from DHCPv6
	<v_vlan_id_dhcp>	VLAN identifier(s): VID

2.5.3 ip dhcp excluded-address

Description	Prevent DHCP from assigning certain addresses	
Syntax	ip dhcp excluded-address <low_ip> [<high_ip>]	
Parameter		
	Name	**Description**
	<low_ip>	Low IP address
	<high_ip>	High IP addres

2.5.4 ip dhcp pool

Description	Set up DHCP pool name	
Syntax	ip dhcp pool <pool_name>	
Parameter		
	Name	**Description**
	<pool_name>	Pool name in 32 characters

2.5.5 ip dhcp relay

Description	DHCP relay agent configuration
Syntax	ip dhcp relay
Parameter	None

2.5.6 ip dhcp relay information option

Description	IP DHCP relay information option(Option 82)
Syntax	ip dhcp relay information option
Parameter	None

2.5.7 ip dhcp relay information policy

Description	Policy for handling the receiving DHCP packet already include the	
Syntax	ip dhcp relay information policy { drop | keep | replace }	
Parameter		
	Name	**Description**
	drop	Drop the package when receive a DHCP message that already contains relay information
	keep	Keep the original relay information when receive a DHCP message that already contains it
	replace	Replace the original relay information when receive a DHCP message that already contains it

2.5.8 ip dhcp server

Description	Enable DHCP server
Syntax	ip dhcp server
Parameter	None

2.5.9 ip dhcp snooping

Description	DHCP snooping
Syntax	ip dhcp snooping
Parameter	None

2.5.10 ip dhcp snooping trust

Description	DHCP snooping trust config Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.
Syntax	ip dhcp snooping trust
Parameter	None

2.5.11 ip helper-address

Description	DHCP relay server	
Syntax	ip helper-address <v_ipv4_ucast>	
Parameter		
	Name	**Description**
	Ip : ipv4_ucast	IP address of the DHCP relay server

2.6 RingV2 Group Mode Commands

Note: RSTP & Ring cannot be enabled simultaneously. Therefore, disable Spanning Tree before configuring Ring Network. To Disable Spanning Tree, follow the commands below.

configure terminal
(config)# spanning-tree aggregation
(config-stp-aggr)# no spanning-tree
(config-stp-aggr)# exit
(config)# interface *
(config-if)# no spanning-tree
(config-if)# exit

2.6.1 ringv2 protect

Description	To configure ring protection.	
Syntax	ringv2 protect group1 ringv2 protect group2 ringv2 protect group3	
Parameter		
	Name	**Description**
	group1	Configure ring protection v2 group1 (Ring)
	group2	Configure ring protection v2 group2 (Ring)
	group3	Configure ring protection v2 group3 (Chain)

2.6.2 guard-time

Description	Set guard time Note: The command is only valid in “RingV2 Group Config Mode”. Refer to section 2.4 for information to enter “RingV2 Group Config Mode”.	
Syntax	guard-time { <ringGuardTimerDef> }	
Parameter		
	Name	**Description**
	ringGuardTimerDef	<10-3600>, unit: secound. Default is 10 secounds

2.6.3 mode

Description	Enable/Disable ring group Note: The command is only valid in “RingV2 Group Config Mode”. Refer to section 2.4 for information to enter “RingV2 Group Config Mode”.	
Syntax	mode { disable | enable }	
Parameter		
	Name	**Description**
	disable	Set the specified Ring group to Disabled
	enable	Set the specified Ring group to Enabled

2.6.4 node1 interface

Description	Set interface of ring protection node Note: The command is only valid in “RingV2 Group Config Mode”. Refer to section 2.4 for information to enter “RingV2 Group Config Mode”.
Syntax	node1 { interface (<port_type> [<port_list>]) }

Parameter		
	Name	**Description**
	<port_type>	Select port type
	<port_list>	Valid values: 1~max port index.

2.6.5 node2 interface

Description	Set interface of ring protection node Note: The command is only valid in “RingV2 Group Config Mode”. Refer to section 2.4 for information to enter “RingV2 Group Config Mode”.	
Syntax	node2 { interface (<port_type> [<port_list>]) }	
Parameter		
	Name	**Description**
	<port_type>	Select port type
	<port_list>	Valid values: 1~max port index.

2.6.6 role

Description	Set role for group Note: The command is only valid in “RingV2 Group Config Mode”. Refer to section 2.4 for information to enter “RingV2 Group Config Mode”.	
Syntax	role { ring-master | ring-slave | coupling-primary | coupling-backup | dual-homing | chain-head | chain-tail | chain-member | b-chain-terminal-1 | b-chain-terminal-2 | b-chain-central-block | b-chain-member}	
Parameter		
	Name	**Description**
	ring-master	Set role to ring master
	ring-slave	Set role to ring slave
	coupling-primary	Set role to coupling primary
	coupling-backup	Set role to coupling backup
	dual-homing	Set role to dual homing
	chain-head	Set role to chain head
	chain-member	Set role to chain member
	chain-tail	Set role to chain tail
	b-chain-central-block	Set role to balancing chain central block
	b-chain-member	Set role to balancing chain member
	b-chain-terminal-1	Set role to balancing chain terminal 1
	b-chain-terminal-2	Set role to balancing chain terminal 2

2.7 Spanning Tree

2.7.1 spanning-tree

Description	Enable/disable STP on this interface Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.

Syntax	spanning-tree
Parameter	None

2.7.2 spanning-tree aggregation

Description	Spanning Tree protocol
Syntax	spanning-tree aggregation
Parameter	None

2.7.3 spanning-tree auto-edge

Description	Auto detect edge status Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.
Syntax	spanning-tree auto-edge
Parameter	None

2.7.4 spanning-tree bpdu-guard

Description	Enable BPDU guard Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.
Syntax	spanning-tree bpdu-guard
Parameter	None

2.7.5 spanning-tree edge bpdu-guard

Description	Enable BPDU guard
Syntax	spanning-tree edge bpdu-guard
Parameter	None

2.7.6 spanning-tree edge bpdu-filter

Description	Enable BPDU filter (stop BPDU tx/rx)
Syntax	spanning-tree edge bpdu-filter
Parameter	None

2.7.7 spanning-tree mode

Description	STP protocol mode	
Syntax	spanning-tree mode { stp | rstp | mstp }	
Parameter		
	Name	**Description**
	stp	802.1D Spanning Tree
	rstp	Rabid Spanning Tree (802.1w)
	mstp	Multiple Spanning Tree (802.1s)

2.7.8 spanning-tree edge

Description	Edge port Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	spanning-tree edge	
Parameter		
	Name	**Description**

2.7.9 spanning-tree link-type

Description	Port link-type Note:

	The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	spanning-tree link-type { point-to-point | shared | auto }	
Parameter		
	Name	**Description**
	point-to-point	Forced to point-to-point
	shared	Forced to Shared
	auto	Auto detect

2.7.10 spanning-tree restricted-role

Description	Port role is restricted (never root port) Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.
Syntax	spanning-tree restricted-role
Parameter	None

2.7.11 spanning-tree restricted-tcn

Description	Restrict topology change notifications Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.
Syntax	spanning-tree restricted-tcn
Parameter	None

2.7.12 spanning-tree mst cost

Description	STP Cost of this port Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	spanning-tree mst <0-7> cost { <1-200000000> | auto }	
Parameter		
	Name	**Description**
	<0-7>	instance 0-7 (CIST=0, MST2=1...)
	<1-200000000>	STP Cost of this port

2.7.13 spanning-tree mst port-priority

Description	STP priority of this port Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	spanning-tree mst <0-7> port-priority <0-240>	
Parameter		
	Name	**Description**
	<0-7>	instance 0-7 (CIST=0, MST2=1...)
	<0-240>	STP priority of this port

2.7.14 spanning-tree mst priority

Description	Priority of the instance Range in seconds	
Syntax	spanning-tree mst <0-7> priority <0-61440>	
Parameter		
	Name	**Description**

	<0-7>	instance 0-7 (CIST=0, MST2=1...)
	<0-61440>	Priority of the instance

2.7.15 spanning-tree mst forward-time

Description	Delay between port states	
Syntax	spanning-tree mst forward-time <4-30>	
Parameter		
	Name	**Description**
	<4-30>	Delay between port states

2.7.16 spanning-tree mst hello-time

Description	MSTP bridge hello time	
Syntax	spanning-tree mst hello-time <hellotime>	
Parameter		
	Name	**Description**
	<hellotime>	<1-10> Hello BPDU timer value

2.7.17 spanning-tree mst max-age

Description	Max bridge age before timeout.	
Syntax	spanning-tree mst max-age <6-40> [forward-time <4-30>]	
Parameter		
	Name	**Description**
	<6-40>	Max bridge age before timeout
	<4-30>	forward-time

2.7.18 spanning-tree mst max-hops

Description	MSTP bridge max hop count	
Syntax	spanning-tree mst max-hops <6-40>	
Parameter		
	Name	**Description**
	<6-40>	MSTP bridge max hop count

2.7.19 spanning-tree mst name

Description	Name keyword	
Syntax	spanning-tree mst name <word32> revision <0-65535>	
Parameter		
	Name	**Description**
	<word32>	Name of the bridge
	<0-65535>	Revision keyword

2.7.20 spanning-tree mst <instance>

Description	instance 0-7 (CIST=0, MST2=1...)	
Syntax	spanning-tree mst <instance> priority <prio> spanning-tree mst <instance> vlan <v_vlan_list>	
Parameter		
	Name	**Description**
	instance	<Instance : 0-7> instance 0-7 (CIST=0, MST2=1...)
	priority	Priority of the instance
	vlan	VLAN keyword
	prio	<Prio : 0-61440> Range in seconds
	v_vlan_list	<vlan_list> Range of VLANs

2.7.21 spanning-tree recovery

Description	The error recovery timeout
Syntax	spanning-tree recovery interval <interval>

Parameter		
	Name	**Description**
	<interval>	Interval : 30-86400> Range in seconds

2.7.22 spanning-tree transmit

Description	BPDUs to transmit	
Syntax	spanning-tree transmit hold-count <holdcount>	
Parameter		
	Name	**Description**
	hold-count	Max number of transmit BPDUs per sec
	holdcount	<Holdcount : 1-10> 1-10 per sec, 6 is default

2.8 sFlow Configure Command

2.8.1 sflow

Description	Enables/disables flow sampling on this port. Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	sflow [<range_list>]	
Parameter		
	Name	**Description**
	< range_list >	Sampler instance

2.8.2 sflow agent-ip

Description	The agent IP address used as agent-address in UDP datagrams. Defaults to IPv4 loopback address.	
Syntax	sflow agent-ip { ipv4 <ipv4_addr> | ipv6 <ipv6_addr> }	
Parameter		
	Name	**Description**
	< ipv4_addr >	Ipv4 address
	< ipv6_addr>	ipv6 address

2.8.3 sflow collector-address

Description	Sflow Collector address function	
Syntax	sflow collector-address [<ipv4_var> | <ipv6_var> | <domain_name>]	
Parameter		
	Name	**Description**
	<ipv4_var>	IPv4 address identifying the collector receiver
	<ipv6_var>	IPv6 address identifying the collector receiver
	<domain_name>	Domain name identifying the collector receiver

2.8.4 sflow max-datagram-size

Description	Statistics flow Maximum datagram size.	
Syntax	sflow max-datagram-size [receiver <range_list>] <200-1468>	
Parameter		
	Name	**Description**
	<range_list>	receiver list
	<200-1468>	packet byte

2.8.5 sflow collector-port

Description	Collector UDP port
Syntax	sflow collector-port [receiver <rcvr_idx_list>] <collector_port>

Parameter		
	Name	**Description**
	collector_port	<Collector Port : 1-65535> Port number

2.8.6 sflow counter-poll-interval

Description	The interval - in seconds - between counter poller samples. Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	sflow counter-poll-interval [sampler <sampler_idx_list>] [<poll_interval>]	
Parameter		
	Name	**Description**
	<PollInterval : 1-3600>	The unit is in second

2.8.7 sflow max-sampling-size

Description	Specifies the maximum number of bytes to transmit per flow sample.	
Syntax	sflow max-sampling-size [sampler <range_list>] [<14-200>] Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Parameter		
	Name	**Description**
	< range_list >	Sampler instance
	<200-1468>	packet byte

2.8.8 sflow sampling-rate

Description	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.	
Syntax	sflow sampling-rate [sampler <range_list>] [<1-4294967295>] Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Parameter		
	Name	**Description**
	< range_list >	Sampler instance
	<1-4294967295>	Sampling rate

2.8.9 sflow timeout

Description	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.	
Syntax	sflow timeout [receiver <range_list>] <0-2147483647>	
Parameter		
	Name	**Description**
	< range_list >	Sampler instance
	<0-2147483647>	Number of seconds.

2.9 SNMP Configure Command

2.9.1 snmp-server

Description	Enable SNMP server
Syntax	snmp-server
Parameter	None

2.9.2 snmp-server access

Description	snmp-server access configuration	
Syntax	snmp-server access < group name > model { v1 | v2c | v3 | any } level { auth | noauth | priv } [read <word255>] [write <word255>]	
Parameter		
	Name	**Description**
	< group name >	32 words
	< v1 | v2c | v3 | any >	V1~v3 security model
	< level >	Security level
	auth	authNoPriv Security Level
	noauth	noAuthNoPriv Security Level
	priv	authPriv Security Level
	read	Specify a read view for the group
	write	Specify a write view for the group
	<word255>	Read/Write view name

2.9.3 snmp-server community v2c

Description	Set the SNMP v2c community	
Syntax	snmp-server community v2c <word127> [ro | rw]	
Parameter		
	Name	**Description**
	< word127 >	Community word
	< ro >	Read only
	<rw>	Read write

2.9.4 snmp-server community v3

Description	S Set the SNMP v3 community	
Syntax	snmp-server community v3 <word127> [<ipv4_addr> <ipv4_netmask>]	
Parameter		
	Name	**Description**
	< word127 >	Community word
	< ipv4_addr >	IPv4 address
	<ipv4_netmask>	IPv4 netmask

2.9.5 snmp-server contact

Description	SNMP server contact	
Syntax	snmp-server contact <v_line255>	
Parameter		
	Name	**Description**
	<v_line255>	Contact string

2.9.6 snmp-server engine-id

Description	SNMP server engine ID	
Syntax	snmp-server engine-id local <engineID>	
Parameter		
	Name	**Description**
	local	Set SNMP local engine ID
	engineID	<word10-64> Local engine ID

2.9.7 snmp-server host

Description	Set SNMP server's configurations	
Syntax	snmp-server host <word32>	
Parameter		
	Name	**Description**
	< word32 >	Name of the host configuration

2.9.8 traps

Description	Trap event configuration Note: The command is only valid in “SNMP Host Config mode”. Refer to section 2.4 for information to enter “SNMP Host Config mode”.	
Syntax	traps [authentication snmp-auth-fail] [system [coldstart] [warmstart]] [switch [stp] [rmon]]	
Parameter		
	Name	**Description**
	authentication snmp-auth-fail	AAA authentication fail event
	coldstart	Cold start event
	warmstart	Warm start event
	stp	STP event
	rmon	RMON event

2.9.9 version

Description	Set SNMP trap version Note: The command is only valid in “SNMP Host Config mode”. Refer to section 2.4 for information to enter “SNMP Host Config mode”.	
Syntax	version { v1 [<v1_comm>] | v2 [<v2_comm>] | v3 [probe | engineID <v_word10_to_64>] [<securtyname>] }	
Parameter		
	Name	**Description**
	<v1_comm>	<word255> SNMP trap community
	<v2_comm>	<word255> SNMP trap community
	probe	Probe trap server's engine ID
	engineID	Configure trap server's engine ID
	<v_word10_to_64>	<word10-64> Trap server's engine ID
	<securtyname>	<word32> Seucrity name

2.9.10 snmp-server host traps

Description	Set SNMP host's configurations Note: The command is only valid in “Interface Gigabit Config mode”. Refer to section 2.4 for information to enter “Interface Gigabit Config mode”.	
Syntax	snmp-server host <conf_name> traps [linkup] [linkdown] [lldp]	
Parameter		
	Name	**Description**
	<conf_name>	<word32> Name of the host configuration
	[linkup]	Link up event
	[linkdown]	Link down event
	[lldp]	LLDP event

2.9.11 snmp-server location

Description	SNMP server loation	
Syntax	snmp-server location <v_line255>	
Parameter		
	Name	**Description**
	v_line255	<line255> location string

2.9.12 snmp-server security-to-group

Description	SNMP server security	
Syntax	snmp-server security-to-group model { v1 | v2c | v3 } name <security_name> group <group_name>	
Parameter		
	Name	**Description**
	model	security model
	v1	v1 security model
	v2c	v2c security model
	v3	v3 security model
	name	security user
	security_name	<SecurityName : word32> security user name
	group	security group
	group_name	<GroupName : word32> security group name

2.9.13 snmp-server trap

Description	Set SNMP server's configurations
Syntax	snmp-server trap
Parameter	None

2.9.14 snmp trap receive ipv6 host

Description	Host configuration Note: The command is only valid in “SNMP Host Config mode”. Refer to section 2.4 for information to enter “SNMP Host Config mode”.	
Syntax	host <ipv6_ucast> [<1-65535>] [traps | informs]	
Parameter		
	Name	**Description**
	ipv6_ucast	IP address of SNMP trap host
	1-65535	UDP port of the trap messges
	traps	Send Trap messages to this host
	informs	Send Inform messages to this host

2.9.15 snmp trap receive ipv4 host

Description	Host configuration Note: The command is only valid in “SNMP Host Config mode”. Refer to section 2.4 for information to enter “SNMP Host Config mode”.	
Syntax	host { <ipv4_ucast> | <hostname> } [<1-65535>] [traps | informs]	
Parameter		
	Name	**Description**
	Ipv4_ucast	IP address of SNMP trap host
	hostname	hostname of SNMP trap host
	1-65535	UDP port of the trap messges
	traps	Send Trap messages to this host
	informs	Send Inform messages to this host

2.9.16 snmp-server user

Description	Set the SNMPv3 user's configurations	
Syntax	snmp-server user <username> engine-id <engineID> [{ md5 [encrypted] <md5_passwd> | sha [encrypted] <sha_passwd> } [priv { des | aes } [encrypted] <priv_passwd>]]	
Parameter		
	Name	**Description**
	< username >	32 words
	<engineID>	<word10-64> Engine ID octet string
	[encrypted]	Set encrypted MD5 password Set encrypted SHA password Set encrypted password
	<md5_passwd>	<word8-32> MD5 password
	<sha_passwd>	<word8-40> SHA password
	aes	Set AES protocol
	des	Set DES protocol
	<priv_passwd>	<word8-32> Set privacy password

2.9.17 snmp-server version

Description	Set the SNMP server's version	
Syntax	snmp-server version { v1 | v2c | v3 }	
Parameter		
	Name	**Description**
	{ v1 | v2c | v3 }	SNMP v1,v2c,v3

2.9.18 snmp-server view

Description	Snmp MIB view configuration	
Syntax	snmp-server view <word32> <word255> { include | exclude }	
Parameter		
	Name	**Description**
	< word32 >	MIB view name
	< word255>	MIB view OID
	{ include | exclude }	Included/Excluded type from the view

2.10 Qos Function Command

2.10.1 qos qce

Description	QCE setting	
Syntax	qos qce { <Id : 1-256> | refresh | update }	
Parameter		
	Name	**Description**
	<Id : 1-256>	QCE ID
	refresh	Refresh QCE tables in hardware
	update	Update an existing QCE

2.10.2 qos qce next/last

Description	Place QCE before the next QCE ID Place QCE at the end	
Syntax	qos qce { [update] } <qce_id> [{ next <qce_id_next> } | last]	
Parameter		
	Name	**Description**
	[update]	Update an existing QCE
	<qce_id>	<1-256> QCE ID

	<qce_id_next>	<1-256> The next QCE ID
	last	Place QCE at the end

2.10.3 qos qce interface

Description	Set up QCE interface	
Syntax	qos qce { [update] } <qce_id> [interface (<port_type> [<port_list>])]	
Parameter		
	Name	**Description**
	[update]	Update an existing QCE
	<qce_id>	<1-256> QCE ID
	<port_type>	Select port type.
	<port_list>	Port list in 1/1- max number of ports.

2.10.4 qos qce smac

Description	Set up matched SMAC. If 'qos qce addr destination' is set, this parameter specifies the DMAC	
Syntax	qos qce { [update] } <qce_id> [smac { <mac_addr> | any }]	
Parameter		
	Name	**Description**
	[update]	Update an existing QCE
	<qce_id>	<1-256> QCE ID
	<mac_addr>	Matched SMAC (XX-XX-XX-XX-XX-XX)
	any	Match any SMAC

2.10.5 qos qce dmac

Description	Set up matched DMAC	
Syntax	qos qce { [update] } <qce_id> [dmac { <dmac> | unicast | multicast | broadcast | any }]	
Parameter		
	Name	**Description**
	[update]	Update an existing QCE
	<qce_id>	<1-256> QCE ID
	<dmac>	Matched SMAC (XX-XX-XX-XX-XX-XX)
	unicast	Match unicast DMAC
	multicast	Match multicast DMAC
	broadcast	Match broadcast DMAC
	any	Match any DMAC

2.10.6 qos qce tag

Description	Set up tag options	
Syntax	qos qce { [update] } <qce_id> [tag { [type { untagged | tagged | any }]	
Parameter		
	Name	**Description**
	[update]	Update an existing QCE
	<qce_id>	<1-256> QCE ID
	untagged	Match untagged frames
	tagged	Match tagged frames
	any	Match tagged and untagged frames

2.10.7 qos qce frame-type any

Description	Set up any matched frame type
Syntax	qos qce { [update] } <qce_id> frame-type any
Parameter	

	Name	Description
	[update]	Update an existing QCE
	<qce_id>	<1-256> QCE ID
	any	Match any frame type

2.10.8 qos qce frame-type etype

Description	Match EtherType frames	
Syntax	qos qce { [update] } <qce_id> frame-type etype [{ <etype_type> | any }]	
Parameter		
	Name	Description
	[update]	Update an existing QCE
	<qce_id>	<1-256> QCE ID
	etype_type>	<0x600-0x7ff,0x801-0x86dc,0x86de-0xffff> Matched EtherType
	any	Match any EtherType

2.10.9 qos qce frame-type llc

Description	Match LLC frames	
Syntax	qos qce { [update] } <qce_id> frame-type { llc [dsap { <llc_dsap> | any }] [ssap { <llc_ssap> | any }] [control { <llc_control> | any }] }	
Parameter		
	Name	Description
	[update]	Update an existing QCE
	<qce_id>	<1-256> QCE ID
	<llc_dsap>	<0-0xff> Matched LLC DSAP
	<llc_ssap>	<0-0xff> Matched LLC SSAP
	<llc_control>	<0-0xff> Matched LLC Control byte
	any	Matched LLC DSAP Match any LLC SSAP Match any LLC Control byte

2.10.10 qos qce frame-type snap

Description	Match SNAP frames	
Syntax	qos qce { [update] } <qce_id> frame-type { snap [{ <snap_data> | any }	
Parameter		
	Name	Description
	[update]	Update an existing QCE
	<qce_id>	<1-256> QCE ID
	<snap_data>	<0-0xffff> Setup matched SNAP EtherType
	any	Match any SNAP EtherType

2.10.11 qos qce frame-type ipv4

Description	Match IPv4 frames	
Syntax	qos qce { [update] } <qce_id> frame-type { ipv4 [proto { <pr4> | tcp | udp | any }] [sip { <sip4> | any }] [dip { <dip4> | any }] [dscp { <dscp4> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } | any }] [fragment { yes | no | any }] [sport { <sp4> | any }] [dport { <dp4> | any }] }	
Parameter		
	Name	Description
	[update]	Update an existing QCE
	<qce_id>	<1-256> QCE ID

	<pr4>	<0-255> Matched IP protocol
	tcp	Match TCP frames
	udp	Match UDP frames
	<sip4>	Matched source IP address/mask
	<dscp4>	Matched DSCP value/range
	be	Default PHB(DSCP 0) for best effort traffic
	af11	Assured Forwarding PHB AF11(DSCP 10)
	af12	Assured Forwarding PHB AF12(DSCP 12)
	af13	Assured Forwarding PHB AF13(DSCP 14)
	a21	Assured Forwarding PHB AF21(DSCP 18)
	a22	Assured Forwarding PHB AF22(DSCP 20)
	a23	Assured Forwarding PHB AF23(DSCP 22)
	af31	Assured Forwarding PHB AF31(DSCP 26)
	af32	Assured Forwarding PHB AF32(DSCP 28)
	af33	Assured Forwarding PHB AF33(DSCP 30)
	af41	Assured Forwarding PHB AF41(DSCP 34)
	af42	Assured Forwarding PHB AF42(DSCP 36)
	af43	Assured Forwarding PHB AF43(DSCP 38)
	cs1	Class Selector PHB CS1 precedence 1(DSCP 8)
	cs2	Class Selector PHB CS1 precedence 2(DSCP 16)
	cs3	Class Selector PHB CS1 precedence 3(DSCP 24)
	cs4	Class Selector PHB CS1 precedence 4(DSCP 32)
	cs5	Class Selector PHB CS1 precedence 5(DSCP 40)
	cs6	Class Selector PHB CS1 precedence 6(DSCP 48)
	cs7	Class Selector PHB CS1 precedence 7(DSCP 56)
	ef	Expedited Forwarding PHB(DSCP 46)
	va	Voice Admit PHB(DSCP 44)
	yes	Match IPv4 fragments
	no	Match IPv4 non-fragments
	<sp4>	Match UDP/TCP source port value/range
	<dp4>	Match UDP/TCP destination port value/range
	any	Match any IP protocol Match any source IP address Match any DSCP Match any IPv4 fragments Match any UDP/TCP source port Match any UDP/TCP destination port

2.10.12 qos qce frame-type ipv6

Description	Match IPv4 frames
Syntax	qos qce { [update] } <qce_id> frame-type { ipv6 [proto { <pr6> | tcp | udp | any }] [sip { <sip6> | any }] [dip { <dip6> | any }] [dscp { <dscp6> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } | any }] [sport { <sp6> | any }] [dport { <dp6> | any }] } }]
Parameter	

	Name	Description
	[update]	Update an existing QCE
	<qce_id>	<1-256> QCE ID
	<pr6>	<0-255> Matched IP protocol
	tcp	Match TCP frames
	udp	Match UDP frames
	<sip6>	Matched source IP address/mask
	<dscp6>	Matched DSCP value/range
	be	Default PHB(DSCP 0) for best effort traffic
	af11	Assured Forwarding PHB AF11(DSCP 10)
	af12	Assured Forwarding PHB AF12(DSCP 12)
	af13	Assured Forwarding PHB AF13(DSCP 14)
	a21	Assured Forwarding PHB AF21(DSCP 18)
	a22	Assured Forwarding PHB AF22(DSCP 20)
	a23	Assured Forwarding PHB AF23(DSCP 22)
	af31	Assured Forwarding PHB AF31(DSCP 26)
	af32	Assured Forwarding PHB AF32(DSCP 28)
	af33	Assured Forwarding PHB AF33(DSCP 30)
	af41	Assured Forwarding PHB AF41(DSCP 34)
	af42	Assured Forwarding PHB AF42(DSCP 36)
	af43	Assured Forwarding PHB AF43(DSCP 38)
	cs1	Class Selector PHB CS1 precedence 1(DSCP 8)
	cs2	Class Selector PHB CS1 precedence 2(DSCP 16)
	cs3	Class Selector PHB CS1 precedence 3(DSCP 24)
	cs4	Class Selector PHB CS1 precedence 4(DSCP 32)
	cs5	Class Selector PHB CS1 precedence 5(DSCP 40)
	cs6	Class Selector PHB CS1 precedence 6(DSCP 48)
	cs7	Class Selector PHB CS1 precedence 7(DSCP 56)
	ef	Expedited Forwarding PHB(DSCP 46)
	va	Voice Admit PHB(DSCP 44)
	<sp6>	Match UDP/TCP source port value/range
	<dp6>	Match UDP/TCP destination port value/range
	any	Match any IP protocol Match any source IP address Match any DSCP Match any UDP/TCP source port Match any UDP/TCP destination port

2.10.13 qos qce action

Description	Setup action
Syntax	qos qce { [update] } <qce_id> [action { [cos { <action_cos> | default }] [dpl { <action_dpl> | default }] [pcp-dei { <action_pcp> <action_dei> | default }] [dscp { <action_dscp_dscp> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } | default }] [policy { <action_policy> | default }] }*1]

Parameter		
	Name	**Description**
	[update]	Update an existing QCE
	<qce_id>	<1-256> QCE ID
	<action_cos>	<0-7> Assign class of service
	<action_dpl>	<0-1> Assign drop precedence level
	<action_pcp>	<0-7> Assign PCP
	<action_dei>	<0-1> Assign DEI
	<action_dscp_dscp>	<0-63> Assign DSCP
	be	Default PHB(DSCP 0) for best effort traffic
	af11	Assured Forwarding PHB AF11(DSCP 10)
	af12	Assured Forwarding PHB AF12(DSCP 12)
	af13	Assured Forwarding PHB AF13(DSCP 14)
	a21	Assured Forwarding PHB AF21(DSCP 18)
	a22	Assured Forwarding PHB AF22(DSCP 20)
	a23	Assured Forwarding PHB AF23(DSCP 22)
	af31	Assured Forwarding PHB AF31(DSCP 26)
	af32	Assured Forwarding PHB AF32(DSCP 28)
	af33	Assured Forwarding PHB AF33(DSCP 30)
	af41	Assured Forwarding PHB AF41(DSCP 34)
	af42	Assured Forwarding PHB AF42(DSCP 36)
	af43	Assured Forwarding PHB AF43(DSCP 38)
	cs1	Class Selector PHB CS1 precedence 1(DSCP 8)
	cs2	Class Selector PHB CS1 precedence 2(DSCP 16)
	cs3	Class Selector PHB CS1 precedence 3(DSCP 24)
	cs4	Class Selector PHB CS1 precedence 4(DSCP 32)
	cs5	Class Selector PHB CS1 precedence 5(DSCP 40)
	cs6	Class Selector PHB CS1 precedence 6(DSCP 48)
	cs7	Class Selector PHB CS1 precedence 7(DSCP 56)
	ef	Expedited Forwarding PHB(DSCP 46)
	va	Voice Admit PHB(DSCP 44)
	<action_policy>	<0-255> Assign ACL policy
	default	Keep existing class of service Keep existing drop precedence level Keep existing PCP and DEI Keep existing DSCP Keep existing ACL policy

2.10.14 qos storm

Description	QoS storm	
Syntax	qos storm { unicast | multicast | broadcast } { { <rate> [kfps] } | { 1024 kfps } }	
Parameter		
	Name	**Description**
	broadcast	Police broadcast frames
	multicast	Police multicast frames
	unicast	Police unicast frames

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

2.10.15 qos qce addr

Description	Setup address match mode Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	qos qce addr source qos qce addr destination	
Parameter		
	Name	**Description**
	source	Match SMAC and SIP (default)
	destination	Match DMAC and DIP

2.10.16 qos cos

Description	Class of service configuration Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	qos cos <0-7>	
Parameter		
	Name	**Description**
	<0-7>	Specific class of service

2.10.17 qos dei

Description	Drop Eligible Indicator configuration Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	qos dei <dei>	
Parameter		
	Name	**Description**
	<Dei : 0-1>	Drop Eligible Indicator configuration

2.10.18 qos dpl

Description	Drop precedence level configuration Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	qos dpl <dpl>	
Parameter		
	Name	**Description**
	<Dpl : dpl>	Specific drop precedence level

2.10.19 qos dscp-classify

Description	Set qos dscp-classify. Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	qos dscp-classify { zero | selected | any }	
Parameter		
	Name	**Description**

	zero	Classify to new DSCP if DSCP is 0
	selected	Classify to new DSCP if classify is enabled for specific DSCP value in global dscp-classify map
	any	Classify to new DSCP always

2.10.20 qos dscp-remark

Description	Set qos dscp-remark Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	qos dscp-remark { rewrite | remap | remap-dp }	
Parameter		
	Name	**Description**
	rewrite	Rewrite DSCP field with classified DSCP value (no translation)
	remap	Rewrite DSCP field using classified DSCP and DPL=0 remapped through global dscp-egress-translation map
	Remap-dp	Rewrite DSCP field using classified DSCP and DPL remapped through global dscp-egress-translation map

2.10.21 qos dscp-translate

Description	Enable qos dscp-translate mode Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.
Syntax	qos dscp-translate
Parameter	None

2.10.22 qos map cos-tag

Description	Map for cos to tag configuration Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	qos map cos-tag cos <cos> dpl <dpl> pcp <pcp> dei <dei>	
Parameter		
	Name	**Description**
	<cos>	<0~7> Specific class of service or range
	<dpl>	<0~1> Specific drop precedence level or range
	<pcp>	<0-7> Specific PCP
	<dei>	<0-1> Specific DEI

2.10.23 qos map tag-cos

Description	Map for tag to cos configuration Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	qos map tag-cos pcp <pcp> dei <dei> cos <cos> dpl <dpl>	
Parameter		
	Name	**Description**
	<cos>	<0~7> Specific class of service or range
	<dpl>	<0~1> Specific drop precedence level or range

	<pcp>	<0-7> Specific PCP
	<dei>	<0-1> Specific DEI

2.10.24 qos map cos-dscp

Description	Map for cos to dscp.	
Syntax	qos map cos-dscp <0~7> dpl <0~1> dscp { <0-63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } }	
Parameter		
	Name	**Description**
	<0~7>	Cos level
	<0~1>	Specific drop precedence level
	<0-63>	Dscp level
	be	Default PHB(DSCP 0) for best effort traffic
	af11~13	Assured Forwarding PHB 11~13(DSCP 10,12,14)
	af22~23	Assured Forwarding PHB 22~23(DSCP 20,22)
	af31~33	Assured Forwarding PHB 31~33(DSCP 26,28,30)
	Af41~43	Assured Forwarding PHB 41~43(DSCP 34,36,38)
	cs1~7	Class Selector PHB CS1~7 precedence 1~7(DSCP 8*(cs value))
	ef	Expedited Forwarding PHB(DSCP 46)
	va	Voice Admit PHB(DSCP 44)

2.10.25 qos map dscp-classify

Description	Configure dscp mapping to cos table	
Syntax	qos map dscp-classify { <dscp_num> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } }	
Parameter		
	Name	**Description**
	<0-63>	Dscp level
	be	Default PHB(DSCP 0) for best effort traffic
	af11~13	Assured Forwarding PHB 11~13(DSCP 10,12,14)
	af22~23	Assured Forwarding PHB 22~23(DSCP 20,22)
	af31~33	Assured Forwarding PHB 31~33(DSCP 26,28,30)
	Af41~43	Assured Forwarding PHB 41~43(DSCP 34,36,38)
	cs1~7	Class Selector PHB CS1~7 precedence 1~7(DSCP 8*(cs value))
	ef	Expedited Forwarding PHB(DSCP 46)
	va	Voice Admit PHB(DSCP 44)

2.10.26 qos map dscp-cos

Description	Configure dscp mapping to cos table
Syntax	qos map dscp-cos { <0~63> | { be | af11 | af12 | af13 | af21 | af22 | af23 |

	af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } } cos <0-7> dpl <dpl>	
Parameter		
	Name	**Description**
	<0~7>	Cos level
	<0-63>	Dscp level
	be	Default PHB(DSCP 0) for best effort traffic
	af11~13	Assured Forwarding PHB 11~13(DSCP 10,12,14)
	af22~23	Assured Forwarding PHB 22~23(DSCP 20,22)
	af31~33	Assured Forwarding PHB 31~33(DSCP 26,28,30)
	Af41~43	Assured Forwarding PHB 41~43(DSCP 34,36,38)
	cs1~7	Class Selector PHB CS1~7 precedence 1~7(DSCP 8*(cs value))
	ef	Expedited Forwarding PHB(DSCP 46)
	va	Voice Admit PHB(DSCP 44)
	<0~1>	Specific drop precedence level

2.10.27 qos map dscp-egress-translation

Description	Configure dscp egress-translation	
Syntax	qos map dscp-egress-translation { <0~63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } } <0~1> to { <0-63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } }	
Parameter		
	Name	**Description**
	<0~7>	Cos level
	<0-63>	Dscp level
	be	Default PHB(DSCP 0) for best effort traffic
	af11~13	Assured Forwarding PHB 11~13(DSCP 10,12,14)
	af22~23	Assured Forwarding PHB 22~23(DSCP 20,22)
	af31~33	Assured Forwarding PHB 31~33(DSCP 26,28,30)
	Af41~43	Assured Forwarding PHB 41~43(DSCP 34,36,38)
	cs1~7	Class Selector PHB CS1~7 precedence 1~7(DSCP 8*(cs value))
	ef	Expedited Forwarding PHB(DSCP 46)
	va	Voice Admit PHB(DSCP 44)
	<0~1>	Specific drop precedence level

2.10.28 qos map dscp-ingress-translation

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

		cs4 | cs5 | cs6 | cs7 | ef | va } }	
Parameter			
	Name	**Description**	
	<0~7>	Cos level	
	<0-63>	Dscp level	
	be	Default PHB(DSCP 0) for best effort traffic	
	af11~13	Assured Forwarding PHB 11~13(DSCP 10,12,14)	
	af22~23	Assured Forwarding PHB 22~23(DSCP 20,22)	
	af31~33	Assured Forwarding PHB 31~33(DSCP 26,28,30)	
	Af41~43	Assured Forwarding PHB 41~43(DSCP 34,36,38)	
	cs1~7	Class Selector PHB CS1~7 precedence 1~7(DSCP 8*(cs value))	
	ef	Expedited Forwarding PHB(DSCP 46)	
	va	Voice Admit PHB(DSCP 44)	
	<0~1>	Specific drop precedence level	

2.10.29 qos pce refresh

Description	Refresh QCE tables in hardware
Syntax	qos qce refresh
Parameter	None

2.10.30 qos pcp

Description	Priority Code Point configuration Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	qos pcp <pcp>	
Parameter		
	Name	**Description**
	<Pcp : 0-7>	Specific Priority Code Point

2.10.31 qos policer

Description	Configure qos policer Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	qos policer <unit> [fps] [flowcontrol]	
Parameter		
	Name	**Description**
	< unit >	Traffic meter
	< fps >	Frame rate
	[flowcontrol]	Enable flowcontrol mode

2.10.32 qos queue-shaper

Description	Configure queue-shaper command Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.
Syntax	qos queue-shaper queue <0~7> <uint> [excess]
Parameter	

	Name	Description
	<1-100>	every level proportion
	<unit>	Traffic meter
	[excess]	Agree the shaper could be excess or not

2.10.33 qos queue-policer

Description	Configure queue-policer command Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	qos queue-policer queue <0~7> <uint>	
Parameter		
	Name	**Description**
	<0~7>	Queue number
	<uint>	Traffic meter

2.10.34 qos shaper <unit>

Description	Configure qos shaper command Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	qos shaper <rate> [kbps | mbps]	
Parameter		
	Name	**Description**
	<rate>	<100-1000000> Shaper rate (default kbps). Internally rounded up to the nearest value supported by the port shaper.
	kbps	Unit is kilobits per second (default)
	mbps	Unit is Megabits per second

2.10.35 qos tag-remark

Description	Tag remarking configuration Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	qos tag-remark { pcp <pcp> dei <dei> | mapped }	
Parameter		
	Name	**Description**
	mapped	Used mapped values (cos,dpl -> pcp,dei)
	<pcp : 0-7>	Specific PCP
	<Dei : 0-1>	Specific DEI

2.10.36 qos trust

Description	Trust configuration Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	qos trust dscp qos trust tag	
Parameter		
	Name	**Description**
	dscp	DSCP value
	tag	VLAN tag

2.10.37 qos wrr

Description	Specifies qos wrr mode Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	qos wrr <1-100> <1-100> <1-100> <1-100> <1-100> <1-100>	
Parameter		
	Name	**Description**
	<1-100>	every level proportion

2.11 IGMP Functional Commands

2.11.1 ip igmp host-proxy

Description	IGMP proxy configuration	
Syntax	ip igmp host-proxy [leave-proxy]	
Parameter		
	Name	**Description**
	[leave-proxy]	IGMP proxy for leave

2.11.2 ip igmp snooping

Description	Enable IGMP snooping
Syntax	ip igmp snooping
Parameter	None

2.11.3 ip igmp snooping vlan

Description	IP IGMP snooping vlan IDs	
Syntax	ip igmp snooping vlan<vlan_list>	
Parameter		
	Name	**Description**
	vlan_list	VLAN identifier(s): VID

2.11.4 ip igmp ssm-range

Description	Set up SSM range	
Syntax	ip igmp ssm-range <v_ipv4_mcast> <ipv4_prefix_length>	
Parameter		
	Name	**Description**
	<v_ipv4_mcast>	Valid IPv4 multicast address
	<ipv4_prefix_length>	Length

2.11.5 ip igmp unknown-flooding

Description	Flooding unregistered IPv4 multicast traffic
Syntax	ip igmp unknown-flooding
Parameter	None

2.11.6 ip igmp snooping compatibility

Description	Set up interface compatibility Note: The command is only valid in “VLAN Interface Config Mode”. Refer to section 2.4 for information to enter “VLAN Interface Config Mode”.
Syntax	ip igmp snooping compatibility { auto | v1 | v2 | v3 }
Parameter	

	Name	Description
	auto	Compatible with IGMPv1/IGMPv2/IGMPv3
	v1	Forced IGMPv1
	v2	Forced IGMPv2
	v3	Forced IGMPv3

2.11.7 ip igmp snooping last-member-query-interval

Description	IP IGMP snooping Last Member Query Interval in tenths of seconds Note: The command is only valid in “VLAN Interface Config Mode”. Refer to section 2.4 for information to enter “VLAN Interface Config Mode”.	
Syntax	ip igmp snooping last-member-query-interval <ipmc_lmqi>	
Parameter		
	Name	**Description**
	<ipmc_lmqi>	0 - 31744 tenths of seconds

2.11.8 ip igmp snooping priority

Description	Set up interface CoS priority Note: The command is only valid in “VLAN Interface Config Mode”. Refer to section 2.4 for information to enter “VLAN Interface Config Mode”.	
Syntax	ip igmp snooping priority <cos_priority>	
Parameter		
	Name	**Description**
	<cos_priority>	CoS priority ranges from 0 to 7

2.11.9 ip igmp snooping querier

Description	IP IGMP querier configuration Note: The command is only valid in “VLAN Interface Config Mode”. Refer to section 2.4 for information to enter “VLAN Interface Config Mode”.	
Syntax	ip igmp snooping querier { election | address <ipv4_ucast> }	
Parameter		
	Name	**Description**
	election	Act as an IGMP Querier to join Querier-Election
	address	IGMP Querier address configuration
	<ipv4_ucast>	A valid IPv4 unicast address

2.11.10 ip igmp snooping query-interval

Description	Set up IGMP snooping query interval Note: The command is only valid in “VLAN Interface Config Mode”. Refer to section 2.4 for information to enter “VLAN Interface Config Mode”.	
Syntax	ip igmp snooping query-interval <ipmc_qi>	
Parameter		
	Name	**Description**
	<ipmc_qi>	1 - 31744 second

2.11.11 ip igmp snooping query-max-response-time

Description	Set up query response interval in tenths of seconds Note: The command is only valid in “VLAN Interface Config Mode”. Refer to section 2.4 for information to enter “VLAN Interface Config Mode”.
Syntax	ip igmp snooping query-max-response-time <ipmc_qri>

Parameter		
	Name	**Description**
	<ipmc_qri>	0 - 31744 tenths of seconds

2.11.12 ip igmp snooping robustness-variable

Description	Set up robustness variable Note: The command is only valid in “VLAN Interface Config Mode”. Refer to section 2.4 for information to enter “VLAN Interface Config Mode”.	
Syntax	ip igmp snooping robustness-variable <ipmc_rv>	
Parameter		
	Name	**Description**
	<ipmc_rv>	Packet loss tolerance count from 1 to 255

2.11.13 ip igmp snooping unsolicited-report-interval

Description	Set up unsolicited report interval in seconds Note: The command is only valid in “VLAN Interface Config Mode”. Refer to section 2.4 for information to enter “VLAN Interface Config Mode”.	
Syntax	ip igmp snooping unsolicited-report-interval <ipmc_uri>	
Parameter		
	Name	**Description**
	<ipmc_uri>	0 - 31744 seconds

2.11.14 ip igmp snooping filter

Description	Access control on IGMP multicast group registration Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	ip igmp snooping filter <profile_name>	
Parameter		
	Name	**Description**
	<profile_name>	Maximun number of IGMP group registration

2.11.15 ip igmp snooping immediate-leave

Description	Immediate leave configuration Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.
Syntax	ip igmp snooping immediate-leave
Parameter	None

2.11.16 ip igmp snooping max-groups

Description	IGMP group throttling configuration Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	ip igmp snooping max-groups <throttling>	
Parameter		
	Name	**Description**
	<throttling>	<1-10> Maximun number of IGMP group registration

2.11.17 ip igmp snooping mrouter

Description	IP IGMP snooping Multicast router port configuration Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.
Syntax	ip igmp snooping mrouter
Parameter	None

2.11.18 clear ip igmp snooping statistics

Description	clear ip igmp snooping statistis Note: The command is only valid in “Enable Mode”. Refer to section 2.4 for information to enter “Enable Mode”.	
Syntax	clear ip igmp snooping [vlan<vlan_list>] statistics	
Parameter		
	Name	**Description**
	vlan_list	VLAN list.

2.12 MVR Functional Commands

2.12.1 mvr

Description	Multicast VLAN Registration configuration
Syntax	mvr
Parameter	None

2.12.2 mvr name channel

Description	MVR channel configuration	
Syntax	mvr name <mvr_name> channel <profile_name>	
Parameter		
	Name	**Description**
	<mvr_name>	<word16> MVR multicast VLAN name
	<profile_name>	<word16> Profile name in 16 char's

2.12.3 mvr frame priority

Description	Interface CoS priority	
Syntax	mvr name <mvr_name> frame priority <cos_priority>	
Parameter		
	Name	**Description**
	<mvr_name>	<word16> MVR multicast VLAN name
	<cos_priority>	<0-7> CoS priority ranges from 0 to 7

2.12.4 mvr name frame tagged

Description	Tagged IGMP/MLD frames will be sent	
Syntax	mvr name <mvr_name> frame tagged	
Parameter		
	Name	**Description**
	<mvr_name>	<word16> MVR multicast VLAN name

2.12.5 mvr name igmp-address

Description	MVR address configuration used in IGMP	
Syntax	mvr name <mvr_name> igmp-address <v_ipv4_ucast>	
Parameter		
	Name	**Description**

	<mvr_name>	<word16> MVR multicast VLAN name
	<ipv4_ucast>	A valid IPv4 unicast address

2.12.6 mvr name last-member-query-interval

Description	Configure last Member Query Interval in tenths of seconds	
Syntax	mvr name <mvr_name> last-member-query-interval <ipmc_lmqi>	
Parameter		
	Name	**Description**
	<mvr_name>	MVR multicast VLAN name
	<ipmc_lmqi>	0 - 31744 tenths of seconds

2.12.7 mvr name mode

Description	Dynamic MVR operation mode	
Syntax	mvr name <mvr_name> mode { dynamic | compatible }	
Parameter		
	Name	**Description**
	<mvr_name>	MVR multicast VLAN name
	dynamic	Dynamic MVR operation mode
	compatible	Compatible MVR operation mode

2.12.8 mvr vlan

Description	Multicast VLAN Registration configuration	
Syntax	mvr vlan <v_vlan_list> [name <mvr_name>]	
Parameter		
	Name	**Description**
	<v_vlan_list>	MVR multicast VLAN list
	<mvr_name>	<word16> MVR multicast VLAN name

2.12.9 mvr vlan channel

Description	MVR channel configuration	
Syntax	mvr vlan <v_vlan_list> channel <profile_name>	
Parameter		
	Name	**Description**
	<v_vlan_list>	MVR multicast VLAN list
	<profile_name>	<word16> Profile name in 16 char's

2.12.10 mvr vlan frame priority

Description	Interface CoS priority	
Syntax	mvr vlan <v_vlan_list> frame priority <cos_priority>	
Parameter		
	Name	**Description**
	<v_vlan_list>	MVR multicast VLAN list
	<cos_priority>	CoS priority ranges from 0 to 7

2.12.11 mvr vlan frame tagged

Description	Set tagged IGMP/MLD frames will be sent	
Syntax	mvr vlan <v_vlan_list> frame tagged	
Parameter		
	Name	**Description**
	< v_vlan_list >	MVR multicast VLAN list

2.12.12 mvr vlan igmp-address

Description	MVR address configuration used in IGMP	
Syntax	mvr vlan <vlan_list> igmp-address <v_ipv4_ucast>	
Parameter		
	Name	**Description**
	< v_vlan_list >	MVR multicast VLAN list
	<v_ipv4_ucast>	A valid IPv4 unicast address for IGMP

2.12.13 mvr vlan last-member-query-interval

Description	MVR address configuration used in IGMP	
Syntax	mvr vlan <v_vlan_list> last-member-query-interval <ipmc_lmqi>	
Parameter		
	Name	**Description**
	< v_vlan_list >	MVR multicast VLAN list
	<ipmc_lmqi>	0 - 31744 tenths of seconds

2.12.14 mvr vlan mode

Description	Dynamic MVR vlan operation mode	
Syntax	mvr vlan <v_vlan_list> mode { dynamic | compatible }	
Parameter		
	Name	**Description**
	< v_vlan_list >	MVR multicast VLAN list
	dynamic	Dynamic MVR operation mode
	compatible	Compatible MVR operation mode

2.12.15 mvr immediate-leave

Description	MVR immediate leave configuration Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”
Syntax	mvr immediate-leave
Parameter	None

2.12.16 mvr name type

Description	MVR port role configuration Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”	
Syntax	mvr name <mvr_name> type { source | receiver }	
Parameter		
	Name	**Description**
	<mvr_name>	<word16> MVR multicast VLAN name
	source	MVR source port
	receiver	MVR receiver port

2.12.17 mvr vlan type

Description	MVR vlan role configuration Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”	
Syntax	mvr vlan <v_vlan_list> type { source | receiver }	
Parameter		
	Name	**Description**

	< v_vlan_list >	MVR multicast VLAN list
	source	MVR source port
	receiver	MVR receiver port

2.13 MLD Functional Commands

2.13.1 ipv6 mld host-proxy

Description	IPv6 MLD proxy configuration	
Syntax	ipv6 mld host-proxy [leave-proxy]	
Parameter		
	Name	**Description**
	[leave-proxy]	MLD proxy for leave configuration

2.13.2 ipv6 mld snooping

Description	Enable IPv6 MLD snooping
Syntax	ipv6 mld snooping
Parameter	None

2.13.3 ipv6 mld snooping vlan

Description	Set up IPv6 MLD snooping VLAN	
Syntax	ipv6 mld snooping vlan <vlan_list>	
Parameter		
	Name	**Description**
	<vlan_list>	VLAN identifier(s): VID

2.13.4 ipv6 mld ssm-range

Description	IPv6 address range of Source Specific Multicast	
Syntax	ipv6 mld ssm-range <v_ipv6_mcast> <ipv6_prefix_length>	
Parameter		
	Name	**Description**
	<v_ipv6_mcast>	Valid IPv6 multicast address
	<ipv6_prefix_length>	Length

2.13.5 ipv6 mld unknown-flooding

Description	Flooding unregistered IPv6 multicast traffic
Syntax	ipv6 mld unknown-flooding
Parameter	None

2.13.6 ipv6 mld snooping compatibility

Description	IPv6 MLD snooping compatibility configuration Note: The command is only valid in “VLAN Interface Config Mode”. Refer to section 2.4 for information to enter “VLAN Interface Config Mode”.	
Syntax	ipv6 mld snooping compatibility { auto | v1 | v2 }	
Parameter		
	Name	**Description**
	auto	Compatible with MLDv1/MLDv2
	v1	Forced MLDv1
	v2	Forced MLDv2

2.13.7 ipv6 mld snooping last-member-query-interval

Description	IPv6 MLD snooping last member query interval in tenths of seconds Note:

	The command is only valid in “VLAN Interface Config Mode”. Refer to section 2.4 for information to enter “VLAN Interface Config Mode”.	
Syntax	ipv6 mld snooping last-member-query-interval <ipmc_lmqi>	
Parameter		
	Name	**Description**
	<ipmc_lmqi>	0 - 31744 tenths of seconds

2.13.8 ipv6 mld snooping priority

Description	Set up interface CoS priority Note: The command is only valid in “VLAN Interface Config Mode”. Refer to section 2.4 for information to enter “VLAN Interface Config Mode”.	
Syntax	ipv6 mld snooping priority <cos_priority>	
Parameter		
	Name	**Description**
	<cos_priority>	CoS priority ranges from 0 to 7

2.13.9 ipv6 mld snooping querier election

Description	Act as a MLD Querier to join Querier-Election Note: The command is only valid in “VLAN Interface Config Mode”. Refer to section 2.4 for information to enter “VLAN Interface Config Mode”.
Syntax	ipv6 mld snooping querier election
Parameter	None

2.13.10 ipv6 mld snooping query-interval

Description	IPv6 MLD snooping query interval in seconds Note: The command is only valid in “VLAN Interface Config Mode”. Refer to section 2.4 for information to enter “VLAN Interface Config Mode”.	
Syntax	ipv6 mld snooping query-interval <ipmc_qi>	
Parameter		
	Name	**Description**
	<ipmc_qi>	1 - 31744 seconds

2.13.11 ipv6 mld snooping query-max-response-time

Description	IPv6 MLD snooping query max response interval in tenths of seconds Note: The command is only valid in “VLAN Interface Config Mode”. Refer to section 2.4 for information to enter “VLAN Interface Config Mode”.	
Syntax	ipv6 mld snooping query-max-response-time <ipmc_qri>	
Parameter		
	Name	**Description**
	<ipmc_qri>	0 - 31744 tenths of seconds

2.13.12 ipv6 mld snooping robustness-variable

Description	Set up robustness variable Note: The command is only valid in “VLAN Interface Config Mode”. Refer to section 2.4 for information to enter “VLAN Interface Config Mode”.	
Syntax	ipv6 mld snooping robustness-variable <ipmc_rv>	
Parameter		
	Name	**Description**

	<ipmc_rv>	Packet loss tolerance count from 1 to 255

2.13.13 ipv6 mld snooping unsolicited-report-interval

Description	Set up unsolicited report interval in seconds Note: The command is only valid in “VLAN Interface Config Mode”. Refer to section 2.4 for information to enter “VLAN Interface Config Mode”.	
Syntax	ipv6 mld snooping unsolicited-report-interval <ipmc_uri>	
Parameter		
	Name	**Description**
	<ipmc_uri>	0 - 31744 seconds

2.13.14 ipv6 mld snooping filter

Description	Access control on MLD multicast group registration Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”.	
Syntax	ipv6 mld snooping filter <profile_name>	
Parameter		
	Name	**Description**
	<profile_name>	Profile name in 16 char's

2.13.15 ipv6 mld snooping immediate-leave

Description	IPv6 MLD snooping immediate leave configuration Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”.
Syntax	ipv6 mld snooping immediate-leave
Parameter	None

2.13.16 ipv6 mld snooping max-groups

Description	IPv6 MLD group throttling configuration Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”.	
Syntax	ipv6 mld snooping max-groups <throttling>	
Parameter		
	Name	**Description**
	<throttling>	<1-10> Maximum number of MLD group registration

2.13.17 ipv6 mld snooping mrouter

Description	IPv6 MLD snooping multicast router port configuration Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”.
Syntax	ipv6 mld snooping mrouter
Parameter	None

2.13.18 ipv6 route

Description	Set up IPv6 route
Syntax	ipv6 route <v_ipv6_subnet> { <v_ipv6_ucast> | interface vlan <v_vlan_id> <v_ipv6_addr> }
Parameter	

	Name	Description
	<v_ipv6_subnet>	IPv6 prefix x:x::y/z
	<v_ipv6_ucast>	IP address of the DHCP relay server
	<v_vlan_id>	VLAN ID
	<v_ipv6_addr>	IP address

2.14 Authenticate Mode Commands

2.14.1 radius-server attribute 32

Description	Configure radius-server attribute	
Syntax	radius-server attribute 32 <id>	
Parameter		
	Name	Description
	id	Id : line1-253

2.14.2 radius-server attribute 4

Description	Configure radius-server attribute	
Syntax	radius-server attribute 4 <ipv4_ucast>	
Parameter		
	Name	Description
	<ipv4_ucast>	ipv4_ucast address

2.14.3 radius-server attribute 95

Description	Configure radius-server attribute	
Syntax	radius-server attribute 95 <ipv6_ucast>	
Parameter		
	Name	Description
	<ipv6_ucast>	Ipv6_ucast address

2.14.4 radius-server deadtime

Description	Configure adius-server deadtime	
Syntax	radius-server deadtime <1-1440>	
Parameter		
	Name	Description
	<1-1440>	Time in minutes

2.14.5 radius-server host [auth-port] [acct-port] [timeout] [retransmit] [key]

Description	Configure adius-server host behavior	
Syntax	radius-server host <word1-255> [auth-port <0-65535>] [acct-port <0-65535>] [timeout <1-1000>] [retransmit <1-1000>] [key <line1-63>]	
Parameter		
	Name	Description
	<word1-255>	Hostname or IP address
	auth-port <0-65535>	UDP port number for RADIUS authentication server
	acct-port <0-65535>	UDP port number for RADIUS accounting server
	timeout <1-1000>	Wait time in seconds for this RADIUS server to reply (overrides default)
	retransmit <1-1000>	

2.14.6 radius-server key

Description	radius-server key

Syntax	radius-server key <key>	
Parameter		
	Name	**Description**
	key	<Key : line1-63> The shared key

2.14.7 radius-server retransmit

Description	radius-server retransmit	
Syntax	radius-server retransmit <retries>	
Parameter		
	Name	**Description**
	retries	<Retries : 1-1000> Number of retries for a transaction

2.14.8 radius-server timeout

Description	radius-server timeout	
Syntax	radius-server timeout <seconds>	
Parameter		
	Name	**Description**
	seconds	<Seconds : 1-1000> Wait time in second

2.14.9 tacacs-server deadtime

Description	Time to stop using a TACACS+ server that doesn't respond	
Syntax	tacacs-server deadtime <minutes>	
Parameter		
	Name	**Description**
	<1-1440>	Time in minutes

2.14.10 tacacs-server host

Description	Configure tacacs-server host behavior	
Syntax	tacacs-server host <host_name> [port <port>] [timeout <seconds>] [key [encrypted] <key>]	
Parameter		
	Name	**Description**
	<host_name>	<word1-255> Hostname or IP address
	<port>	<0-65535> TCP port number
	<seconds>	<1-1000> Wait time in second
	[encrypted]	Server specific encrypted key (overrides default)
	<key>	<line1-63> The shared key

2.14.11 tacacs-server key

Description	Configure TACACS+ encryption key	
Syntax	tacacs-server key [encrypted] <key>	
Parameter		
	Name	**Description**
	[encrypted]	The encrypted shared key
	<key>	<line1-63> The encrypted shared key

2.14.12 tacacs-server timeout

Description	Time to wait for a TACACS+ server to reply	
Syntax	tacacs-server timeout <1-1000>	
Parameter		
	Name	**Description**

	1-1000	Wait time in seconds

2.14.13 dot1x authentication timer inactivity

Description	Time in seconds between check for activity on successfully authenticated MAC addresses	
Syntax	dot1x authentication timer inactivity <v_10_to_100000>	
Parameter		
	Name	**Description**
	<v_10_to_100000>	<10-1000000> Time in second.

2.14.14 dot1x authentication timer re-authenticate

Description	The period between re-authentication attempts in seconds	
Syntax	dot1x authentication timer re-authenticate <v_1_to_3600>	
Parameter		
	Name	**Description**
	<v_1_to_3600>	<1-3600> Time in second

2.14.15 dot1x feature

Description	Globally enables/disables a dot1x feature functionality	
Syntax	dot1x feature { [guest-vlan] [radius-qos] [radius-vlan] }*1	
Parameter		
	Name	**Description**
	guest-vlan	Globally enables/disables state of guest-vlan
	radius-qos	Globally enables/disables state of RADIUS-assigned QoS.
	radius-vlan	Globally enables/disables state of RADIUS-assigned VLAN.

2.14.16 dot1x guest-vlan

Description	Set up guest VLAN	
Syntax	dot1x guest-vlan <value> dot1x guest-vlan supplicant	
Parameter		
	Name	**Description**
	<value>	<1-4095> Guest VLAN ID used when entering the Guest VLAN.
	supplicant	The switch remembers if an EAPOL frame has been received on the port for the life-time of the port. Once the switch considers whether to enter the Guest VLAN, it will first check if this option is enabled or disabled. If disabled (unchecked; default), the switch will only enter the Guest VLAN if an EAPOL frame has not been received on the port for the life-time of the port. If enabled (checked), the switch will consider entering the Guest VLAN even if an EAPOL frame has been received on the port for the life-time of the port.

2.14.17 dot1x max-reauth-req

Description	Max value of authentication request	
Syntax	dot1x max-reauth-req <value>	
Parameter		
	Name	**Description**
	<value>	<1-255> Number of times

2.14.18 dot1x re-authentication

Description	Set Re-authentication state
Syntax	dot1x re-authentication
Parameter	None

2.14.19 dot1x system-auth-control

Description	Set the global NAS state
Syntax	dot1x system-auth-control
Parameter	None

2.14.20 dot1x timeout

Description	Set up dot1x timeout	
Syntax	dot1x timeout quiet-period <v_10_to_1000000> dot1x timeout tx-period <v_1_to_65535>	
Parameter		
	Name	**Description**
	quiet-period	Time in seconds before a MAC-address that failed authentication gets a new authentication chance
	<v_10_to_1000000>	<10-1000000> Time in second
	tx-period	The time between EAPOL retransmissions
	<v_1_to_65535>	<1-65535> Time in second

2.14.21 dot1x radius-qos

Description	Enables/disables per-port state of RADIUS-assigned QoS. Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.
Syntax	dot1x radius-qos
Parameter	None

2.14.22 dot1x re-authenticate

Description	Refresh (restart) 802.1X authentication process. Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.
Syntax	dot1x re-authenticate
Parameter	None

2.14.23 dot1x initialize

Description	Forces a reinitialization of the clients on the port and thereby a reauthentication immediately. Note: The command is only valid in “Enable Mode”. Refer to section 2.4 for information to enter “Enable Mode”.	
Syntax	dot1x initialize [interface (<port_type> [<plist>])]	
Parameter		
	Name	**Description**
	<port_type>	Select port type.
	<plist>	Port list in 1/1- max number of ports.

2.14.24 dot1x guest-vlan

Description	Enables/disables guest VLAN Note:

	The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.
Syntax	dot1x guest-vlan
Parameter	None

2.14.25 dot1x port-control

Description	Sets the port security state. Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	dot1x port-control { force-authorized | force-unauthorized | auto | single | multi | mac-based }	
Parameter		
	Name	**Description**
	force-authorized	Port access is allowed
	force-unauthorized	Port access is not allowed
	auto	Port-based 802.1X Authentication
	single	Single Host 802.1X Authentication
	multi	Multiple Host 802.1X Authentication
	mac-based	Switch authenticates on behalf of the client

2.14.26 dot1x radius-vlan

Description	Enables/disables per-port state of RADIUS-assigned VLAN. Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.
Syntax	dot1x radius-vlan
Parameter	None

2.14.27 show radius-server

Description	Show radius-server statistics data	
Syntax	show radius-server [statistics]	
Parameter		
	Name	**Description**
	[statistics]	RADIUS statistics

2.14.28 enable

Description	Privilege level control	
Syntax	Enable { password [level <priv>] <password>} | { secret { 0 | 5 } [level <priv>] <password>}	
Parameter		
	Name	**Description**
	password	Assign the privileged level clear password
	secret	Assign the privileged level secret

2.14.29 end

Description	Level exit
Syntax	end
Parameter	

2.14.30 exit

Description	Level exit

Syntax	end
Parameter	

2.15 Loop-Protection Configure commands

2.15.1 loop-protect

Description	Enable loop protection configuration
Syntax	loop-protect
Parameter	None

2.15.2 loop-protect shutdown-time

Description	Loop protection shutdown time interval	
Syntax	loop-protect shutdown-time <t>	
Parameter		
	Name	**Description**
	<t>	<0-604800> Shutdown time in second

2.15.3 loop-protect transmit-time

Description	Loop protection transmit time interval	
Syntax	loop-protect transmit-time <t>	
Parameter		
	Name	**Description**
	<t>	<1-10> Transmit time in second

2.15.4 loop-protect action

Description	Loop protection configuration on port Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.	
Syntax	loop-protect action { [shutdown] [log] }*1	
Parameter		
	Name	**Description**
	shutdown	Shutdown port
	log	Generate log

2.15.5 loop-protect tx-mode

Description	Loop protection actively generate PDUs Note: The command is only valid in “Gigabit Interface Config mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config mode”.
Syntax	loop-protect tx-mode
Parameter	None

2.16 LLDP Configure commands

2.16.1 lldp holdtime

Description	Sets LLDP hold time (The neighbor switch will discarded the LLDP information after \"hold time\" multiplied with \"timer\" seconds).	
Syntax	lldp holdtime <val>	
Parameter		
	Name	**Description**

	<2-10>	Holdtime 2-10 seconds

2.16.2 lldp med datum

Description	Set up datum (geodetic system) type.	
Syntax	lldp med datum { wgs84 | nad83-navd88 | nad83-mllw }	
Parameter		
	Name	**Description**
	wgs84	World Geodetic System 1984
	nad83-navd88	North American vertical datum 1983
	nad83-mllw	Mean lower low water datum 1983

2.16.3 lldp med fast

Description	Number of times to repeat LLDP frame transmission at fast start	
Syntax	lldp med fast <v_1_to_10>	
Parameter		
	Name	**Description**
	<v_1_to_10>	<1-10> Number of times

2.16.4 lldp med location-tlv altitude

Description	Set up altitude parameter	
Syntax	lldp med location-tlv altitude { meters | floors } <v_word11>	
Parameter		
	Name	**Description**
	meters	Specify the altitude in meters.
	floors	Specify the altitude in floor.
	<v_word11>	<word11> Altitude value. Valid range -2097151.9 to 2097151.9

2.16.5 lldp med location-tlv civic-addr

Description	Civic address information and postal information. The total number of characters for the combined civic address information must not exceed 250 characters. Note: 1) A non empty civic address location will use 2 extra characters in addition to the civic address location text. 2) The 2 letter country code is not part of the 250 characters limitation	
Syntax	lldp med location-tlv civic-addr { { country <country> } | { state | county | city | district | block | street | leading-street-direction | trailing-street-suffix | street-suffix | house-no | house-no-suffix | landmark | additional-info | name | zip-code | building | apartment | floor | room-number | place-type | postal-community-name | p-o-box | additional-code } <v_line> }	
Parameter		
	Name	**Description**
	<country>	The two-letter ISO 3166 country code in capital ASCII letters - Example: DK, DE or US
	state	National subdivisions (state, canton, region, province, prefecture)
	county	County, parish, gun (Japan), district
	city	City, township, shi (Japan) - Example: Copenhagen
	district	City division, borough, city district, ward, chou (Japan)
	block	Neighborhood, block
	street	Street - Example: Oxford Street
	leading-street-direction	Leading street direction - Example: N

	trailing-street-suffix	Trailing street suffix - Example: SW
	street-suffix	Street suffix - Example: Ave, Platz
	house-no	House number - Example: 21
	house-no-suffix	House number suffix - Example: A, 1/2
	landmark	Landmark or vanity address - Example: Columbia University
	additional-info	Additional location info - Example: South Wing
	name	Name (residence and office occupant) - Example: John Doe
	zip-code	Postal/zip code - Example: 2791
	building	Building (structure) - Example: Low Library
	apartment	Unit (Apartment, suite) - Example: Apt 42
	floor	Floor - Example: 4
	room-number	Room number - Example: 450F
	place-type	Place type - Example: Office
	postal-community-name	Postal community name - Example: Leonia
	p-o-box	Post office box (P.O. BOX) - Example: 12345
	additional-code	Additional code - Example: 1320300003
	<v_line>	<line250> Value for the corresponding selected civic address

2.16.6 lldp med location-tlv elin-addr

Description	Emergency Call Service ELIN identifier data format is defined to carry the ELIN identifier as used during emergency call setup to a traditional CAMA or ISDN trunk-based PSAP. This format consists of a numerical digit string, corresponding to the ELIN to be used for emergency calling. Emergency Location Identification Number, (e.g. E911 and others), such as defined by TIA or NENA	
Syntax	lldp med location-tlv elin-addr <v_word25>	
Parameter		
	Name	**Description**
	<v_word25>	ELIN value
Restriction	None	

2.16.7 lldp med location-tlv latitude

Description	Set up latitude parameter	
Syntax	lldp med location-tlv latitude { north | south } <v_word8>	
Parameter	None	
	Name	**Description**
	north	Setting latitude direction to north
	south	Setting latitude direction to south
	<v_word8>	Latitude degrees (0.0000-90.0000)

2.16.8 lldp med location-tlv longitude

Description	Set up longitude parameter	
Syntax	lldp med location-tlv longitude { west | east } <v_word9>	
Parameter		
	Name	**Description**
	west	Setting longitude direction to west
	east	Setting longitude direction to east
	<v_word9>	Longitude degrees (0.0000-180.0000)

2.16.9 lldp med media-vlan-policy

Description	Create a policy, which can be assigned to an interface	
Syntax	lldp med media-vlan-policy <policy_index> { voice | voice-signaling | guest-voice-signaling | guest-voice | softphone-voice | video-conferencing | streaming-video | video-signaling } { untagged | tagged <v_vlan_id> [l2-priority <v_0_to_7>] } [dscp <v_0_to_63>]	
Parameter		
	Name	**Description**
	<policy_index>	<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
	untagged	The policy uses untagged frames
	tagged	The policy uses tagged frames
	<v_vlan_id>	The VLAN the policy uses tagged frames
	<v_0_to_7>	Priority 0-7
	<v_0_to_63>	<0-63> DSCP value 0-63

2.16.10 lldp reinit

Description	LLDP tx reinitialization delay in seconds	
Syntax	lldp reinit <val>	
Parameter		
	Name	**Description**
	<val>	1-10 seconds

2.16.11 lldp timer

Description	Sets LLDP TX interval (The time between each LLDP frame transmitted in seconds)	
Syntax	lldp timer <val>	
Parameter		
	Name	**Description**
	<val>	5-32768 seconds

2.16.12 lldp transmission-delay

Description	Sets LLDP transmission-delay. LLDP transmission delay (the amount of time that the transmission of LLDP frames will delayed after LLDP configuration has changed) in seconds)	
Syntax	lldp transmission-delay <val>	
Parameter		
	Name	**Description**
	<val>	1-8192 seconds

2.16.13 lldp cdp-aware

Description	Configures if the interface shall be CDP aware (CDP discovery information is added to the LLDP neighbor table) Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to

	section 2.4 for information to enter “Gigabit Interface Config Mode”
Syntax	lldp cdp-aware
Parameter	None

2.16.14 lldp med media-vlan policy-list

Description	Set up assignment of policies Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”	
Syntax	lldp med media-vlan policy-list <v_range_list>	
Parameter		
	Name	**Description**
	<v_range_list>	Policies to assign to the interface

2.16.15 lldp med transmit-tlv

Description	Set up LLDP-MED Location Type Length Value parameter Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”	
Syntax	lldp med transmit-tlv [capabilities] [location] [network-policy] [poe]	
Parameter		
	Name	**Description**
	capabilities	Enable transmission of the optional capabilities TLV
	location	Enable transmission of the optional location TLV
	network-policy	Enable transmission of the optional network-policy TLV
	poe	Enable/Disable transmission of the optional PoE TLV

2.16.16 lldp med type

Description	Select if the interface is working as 'Network Connectivity Device' or an 'Endpoint Device'. The difference between working as 'Network Connectivity Device' and an 'Endpoint Device' is a question of who is initializing the LLDP-MED TLVs transmission. A 'Network Connectivity Device' is not starting LLDP-MED TLVs transmission until it has detected an 'Endpoint Device' as link partner. An 'Endpoint Device' will start LLDP-MED TLVs transmission at once Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”	
Syntax	lldp med type { connectivity | end-point }	
Parameter		
	Name	**Description**
	connectivity	Work as connectivity device
	end-point	Work as end-point device

2.16.17 lldp receive

Description	Enable/Disable decoding of received LLDP frames. Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”
Syntax	lldp receive
Parameter	None

2.16.18 lldp tlv-select

Description	Choose which optional TLVs to transmit. Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”	
Syntax	lldp tlv-select { management-address | port-description | system-capabilities | system-description | system-name }	
Parameter		
	Name	**Description**
	management-address	Enable/Disable transmission of management address
	port-description	Enable/Disable transmission of port description
	system-capabilities	Enable/Disable transmission of system capabilities
	system-description	Enable/Disable transmission of system description
	system-name	Enable/Disable transmission of system name.

2.16.19 lldp transmit

Description	Enable/Disabled transmision of LLDP frames. Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”
Syntax	lldp transmit
Parameter	None

2.17 GVRP Configure Commands

2.17.1 gvrp

Description	Enable GVRP feature
Syntax	gvrp
Parameter	None

2.17.2 gvrp max-vlans

Description	GVRP maximum number of VLANs	
Syntax	gvrp max-vlans <maxvlans>	
Parameter		
	Name	**Description**
	<maxvlans>	A valid range is from 1-4095.

2.17.3 gvrp time

Description	Set GVRP time	
Syntax	gvrp time { [join-time <jointime>] [leave-time <leavetime>] [leave-all-time <leavealltime>] }*1	
Parameter		
	Name	**Description**
	<jointime>	Join-time in units of centi seconds. Range is 1-20. Default is 20
	<leavetime>	Leave-time in units of centi seconds. Range is 60-300. Default is 60
	<leavealltime>	Leave-all-time in units of centi seconds Range is 1000-5000. Default is 1000.

2.18 Voice VLAN Configure Commands

2.18.1 voice vlan

Description	Vlan for Voice appliance attributes
Syntax	voice vlan
Parameter	None

2.18.2 voice vlan aging-time

Description	Set secure learning aging time for voice traffic	
Syntax	voice vlan aging-time <10-10000000>	
Parameter		
	Name	**Description**
	10-10000000	Aging time, 10-10000000 seconds

2.18.3 voice vlan class

Description	Set voice traffic class	
Syntax	voice vlan class { <0-7> | low | normal | medium | high }	
Parameter		
	Name	**Description**
	0-7	Traffic class value
	low	Traffic class low (0)
	normal	Traffic class normal (1)
	medium	Traffic class medium (2)
	high	Traffic class high (3)

2.18.4 voice vlan oui

Description	Set voice traffic OUI configuration	
Syntax	voice vlan oui <oui> [description <line32>]	
Parameter		
	Name	**Description**
	oui	OUI value
	description	Set description for the OUI
	line32	Description line

2.18.5 voice vlan vid

Description	Set voice VLAN ID	
Syntax	voice vlan vid <vlan_id>	
Parameter		
	Name	**Description**
	<vlan_id>	VLAN ID, 1-4095

2.19 Profile alarm Commands

2.19.1 profile alarm

Description	Enter Alarm Profile Mode.
Syntax	profile alarm
Parameter	None

2.19.2 alarm

Description	Set alarm content	
Syntax	alarm <alarmId> { mask | unmask | major | minor }	
Parameter		
	Name	**Description**
	<alarmId>	<101-1xx,151> 101~1xx: GE-1~max number of ports Port link down, 151: Power alarm
	mask	Set alarm as mask, it means event will not be send notify
	unmask	Set alarm as un-mask, it means event will be send notify
	major	Set alarm level as major
	minor	Set alarm level as minor

2.20 PoE Commands (For PoE Model Only)

2.20.1 poe management mode

Description	Use management mode to configure PoE power management method.	
Syntax	poe management mode { class-consumption | class-reserved-power | allocation-consumption | allocation-reserved-power | lldp-consumption | lldp-reserved-power }	
Parameter		
	Name	**Description**
	allocation-consumption	Max. port power determined by allocated, and power is managed according to power consumption.
	allocation-reserved-power	Max. port power determined by allocated, and power is managed according to reserved power.
	class-consumption	Max. port power determined by class, and power is managed according to power consumption.
	class-reserved-power	Max. port power determined by class, and

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

2.20.2 poe supply

Description	Use poe supply to specify the maximum power the power supply can deliver.	
Syntax	poe supply <v_0_to_120> <v_0_to_240>	
Parameter		
	Name	**Description**
	<v_0_to_120>	<0-120> Maximum power the power supply can deliver. This is for 8 port model.
	<v_0_to_240>	<0-240> Maximum power the power supply can deliver. This is for 14 port model.

2.20.3 poe 4pairs (for 14 port model only)

Description	Enable 4pairs mode Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”
Syntax	poe 4pairs
Parameter	None

2.20.4 poe mode

Description	Set PoE mode. Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”	
Syntax	poe mode { disable | enable | schedule }	
Parameter		
	Name	**Description**
	disable	Set poe to disable
	enable	Set poe to enable always
	schedule	Set poe to enable by scheduling

2.20.5 poe operation

Description	Set PoE operation mode. Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”	
Syntax	poe operation { af | at }	
Parameter		
	Name	**Description**
	af	Set operation mode to 802.3af(Maximum power 15.4W)
	at	Set operation mode to 802.3at(Maximum power 30.0 W)

2.20.6 poe power limit

Description	Set maximum power for port in allocation mode. Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”	
Syntax	poe power limit { <v_word9> }	
Parameter		
	Name	**Description**
	<v_word9>	<fword2.1> Maximum power for the interface (0-15.4 Watt for PoE standard mode, 0-30.0 Watt for PoE plus mode)

2.20.7 poe priority

Description	Set PoE port priority Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”	
Syntax	poe priority { low | high | critical }	
Parameter		
	Name	**Description**
	critical	Set priority to critical.
	high	Set priority to high.
	low	Set priority to low.

2.20.8 poe reset

Description	Set PoE power reset time. Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”	
Syntax	poe reset <hh> <mm> <day_range_list>	
Parameter		
	Name	**Description**
	<hh>	<0-23> Hour
	<mm>	<0-59> Minute
	<day_range_list>	Day(s).(1:Sunday, 2:Monday, 3:Tuesday, 4:Wednesday, 5.Thuesday, 6:Friday, 7:Saturday)

2.20.9 poe schedule

Description	Set PoE power scheduling during the week. Note: The command is only valid in “Gigabit Interface Config Mode”. Refer to section 2.4 for information to enter “Gigabit Interface Config Mode”	
Syntax	poe schedule { mon | tue | wed | thu | fri | sat | sun } { <time_range_list> }	
Parameter		
	Name	**Description**
	mon	Monday
	tue	Tuesday
	wed	Wednesday
	thu	Thursday
	fri	Friday
	sat	Saturday
	sun	Sunday
	<time_range_list>	There are 48 time interval one day. Each

		interval has 30 minutes. ([1]<00:00-00:29> [2]<00:30-00:59>[3]<01:00-01:29> ... [47]<23:00-23:29> [48]<23:30-23:59>).