FSM-510G series

10-Port Managed Industrial Ethernet Switch

CLI Command Reference

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1. Scope

1.1 Scope

1.2 Audience

1.3 Pre-required Knowledge

1.4 Access to Hardware Interface

1.5 Related Documents

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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 FSM-510G 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 FSM-510G series (see the HW Installation 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:

- FSM-510G series Quick Installation Guide

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2. Operator Interface

2.1 Introduction

2.2 Connect Interface

2.3 Authorization Level

2.4 Screen Description

2.5 Execution Modes

2.6 Getting Help

2.7 Terminal Key Function

2.8 Notation Conventions

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2 Operator Interface

2.1 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 user name is (admin) and none password (). You should change the password as soon as possible, because the initial password is known to anyone who reads this manual. You can also change the user name or add additional user names. Use the “account add” command to enter a new user identification, password and authorization level.

2.2 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)

2.3 Screen Description

1. Connecting to FSM-510G Ethernet port(RJ45 Ethernet port)
2. Key-in the command under Telnet: ***telnet 192.0.2.1***
3. Login with default account and password.
   Username: admin
   Password: (none)

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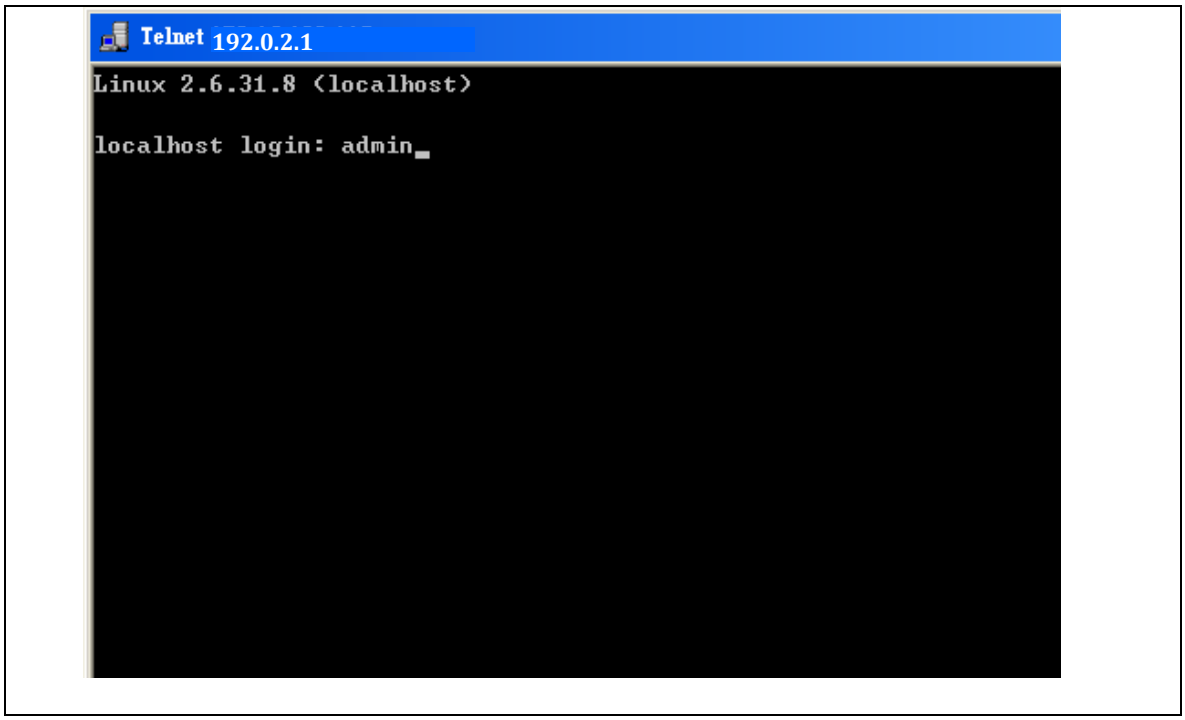


Figure 2-1 Screen Description

2.4 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	(gigabit-intf-conf)#
ACL Profile Config Mode	Engineer	(acl-profile-conf)#
scheduler Profile Config Mode	Engineer	(sch-profile-conf)#
Vlan Interface Config Mode	Engineer	(vlan-intf-conf)#
IGMP MVR Profile Config Mode	Engineer	(igmp-mvr-profile-conf)#
IGMP ACL Profile Config Mode	Engineer	(igmp-acl-profile-conf)#
Ring Group Config Mode	Engineer	(ring-group-conf)#
Trunk Group Config Mode	Engineer	(trunk-group-conf)#

2.5 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.

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2.6 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	

2.7 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.

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3. Commands Descriptions

3.1 Initialize Mode Commands

3.2 Enable Mode Commands

3.3 Configure Mode Commands

3.4 VLAN Mode Commands

3.5 Interface VLAN Mode Commands

3.6 Ring Group Mode Commands

3.7 Spanning Tree Configure Commands

3.8 sFlow Configure Command

3.9 SNMP Configure Command

3.10 Qos Function Command

3.11 IGMP Functional Commands

3.12 MVR Functional Commands

3.13 MLD Functional Commands

3.14 Authenticate Mode Commands

3.15 Loop-Protection Configure commands

3.16 LLDP Configure commands

3.17 RFC2544 Testing Configure Commands

3.18 GVRP Configure Commands

3.19 Voice VLAN Configure Commands

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3 Commands Descriptions

3.1 Initialize Mode Commands

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

3.1.1 exit

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

3.1.2 configure terminal

Description	Enter configuration mode.
Syntax	configure terminal
Parameter	None

3.1.3 enable

Description	Enter enable mode.
Syntax	enable
Parameter	None

3.1.4 Show terminal

Description	Show CLI environment variables
Syntax	show terminal
Parameter	None

3.1.5 Show history

Description	Show command history (Note: commands issued in one execution mode only appear in history of that execution mode)
Syntax	show history
Parameter	None

3.1.6 Show clock

Description	Show current time
Syntax	show clock [detail]
Parameter	None

3.1.7 Show clock detail

Description	Show detailed information
Syntax	show clock detail
Parameter	None

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3.2 Enable Mode Commands

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

3.2.1 configure terminal

Description	Enter configuration mode.
Syntax	configure
Parameter	None

3.2.2 disable

Description	Enter init mode.
Syntax	disable
Parameter	None

3.2.3 show ntp status

Description	Show SNTP information.
Syntax	show sntp
Parameter	None

3.2.4 show users

Description	Show account list.
Syntax	show account
Parameter	None

3.2.5 show running-cfg

Description	Show running configuration.
Syntax	show running-cfg
Parameter	None

3.2.6 show running-config interface

Description	Show default running configuration.
Syntax	show running-config interface vlan <vlan_list> [all-defaults]
Parameter	None

3.2.7 show version

Description	Show firmware hardware and software status update status.
Syntax	show version
Parameter	None

3.2.8 show clock

Description	Show current time.
Syntax	Show clock
Parameter	None

3.2.9 show version

Description	Show version information.
Syntax	show version
Parameter	None

3.2.10 show system inventory

Description	Show system inventory.
Syntax	show system inventory

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Parameter	None

3.2.11 show mac address table aging-time

Description	Show aging time for MAC learning table (system-wide).
Syntax	show aging time
Parameter	None

3.2.12 show mac address table

Description	Show MAC learning table.
Syntax	show mac address-table [conf | static | aging-time | { { learning | count } [interface <port_type> [<port_type_list>]] } | { address <mac_addr> [vlan <vlan_id>] } | vlan <vlan_id> | interface <port_type> [<port_type_list>]]
Parameter	None

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3.2.13 show mac address table interface

Description	Show MAC learning table per port.	
Syntax	show mac address-table [interface <port_type> [<port_type_list>]]	
Parameter		
	Name	**Description**
	<portNo>	**Valid values**: 1 ~10(GIE5010) or 1~8(GIE510G8) **Type**: Mandatory

3.2.14 show mac address vlan <vlanid>

Description	Show MAC learning table per VLAN index.	
Syntax	show mac address-table { learning | count } vlan <vlan_id>	
Parameter		
	Name	**Description**
	<vlanid>	**Valid values**: 1~4094 **Type**: Mandatory

3.2.15 show fdb static table

Description	Show static MAC forwarding table.
Syntax	show mac address-table static
Parameter	None

3.2.16 show fdbstatic interface gigabit <portNo>

Description	Show static MAC forwarding table per gigabit port.	
Syntax	Show mac address-table { learning | count } [interface <port_type> [<port_type_list>]]	
Parameter		
	Name	**Description**
	<port_type>	Port type in Fast, Giga or Tengiga ethernet
	<portNo>	**Valid values**: 1 ~ 10 **Type**: Mandatory

3.2.17 show fdbstatic vlan <vlanid>

Description	Show static MAC forwarding table per VLAN index.	
Syntax	show mac address-table { learning | count } vlan <vlanid>	
Parameter		
	Name	**Description**
	<vlanid>	**Valid values:** 1~4094 **Type**: Mandatory

3.2.18 show interface port < port_type_list >

Description	Show interface information per \port.	
Syntax	show interface <port_type> [<port_type_list>] status	
Parameter		
	Name	**Description**
	<port_type>	Port type in Fast, Giga or Tengiga ethernet
	<portNo>	**Valid values**: 1 ~ 10 **Type**: Mandatory

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3.2.19 show interface port <portNo> statistics

Description	Show Ethernet counter per gigabit port.	
Syntax	show interface <port_type> [<port_type_list>] statistics	
Parameter		
	Name	**Description**
	<port_type>	Port type in Fast, Giga or Tengiga ethernet
	<portNo>	**Valid values**: 1 ~ 10 **Type**: Mandatory
	counter	Show Gigabit Ethernet counter.

3.2.20 show spanning-tree

Description	System Wide Spanning Tree Setting/Status.
Syntax	show spanning-tree
Parameter	None

3.2.21 show vlan

Description	Show bridge port memberset/status.
Syntax	show vlan
Parameter	None

3.2.22 show vlan ID

Description	Show bridge port member set/status per VLAN index (1~4094).	
Syntax	show vlan id <vlanid>	
Parameter		
	Name	**Description**
	<vlanid>	**Valid values**: 1~4094 **Type**: Mandatory.

3.2.23 show vlan name

Description	Show bridge port member set/status per VLAN name (32 words).	
Syntax	show vlan name <vword32>	
Parameter		
	Name	**Description**
	< vword32>	**Valid values**: 32 words **Type**: Mandatory.

3.2.24 show qos-queue-mapping

Description	Show CoS queue mapping table.
Syntax	show qos maps
Parameter	None

3.2.25 show interface ports <portNo> priority

Description	Show QoS per gigabit port.	
Syntax	show interface <port_type> [<port_type_list>] statistics { priority [<0~7>] }	
Parameter		
	Name	**Description**
	priority [<0~7>]	**Valid values**:0 ~7 **Type**: Mandatory
	<port_type>	Port type in Fast, Giga or Tengiga ethernet
	<portNo>	**Valid values**:0 ~ 10 **Type**: Mandatory

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3.2.26 show qos

Description	Show scheduler profile table.
Syntax	show queue-scheduler profile
Parameter	None

3.2.27 show queue-shaper

Description	Show queue shaper information.
Syntax	show queue-shaper
Parameter	None

3.2.28 show port-shaper

Description	Show port shaper information.
Syntax	show port-shaper
Parameter	None

3.2.29 show pvlan isolation [interface <port_type> [<port_type_list>]]

Description	Show all port isolation information.	
Syntax	show pvlan isolation [interface <port_type> [<port_type_list>]]	
Parameter	None	
	Name	**Description**
	<port_type>	Port type in Fast, Giga or Tengiga ethernet
	<portNo>	**Valid values**: 1 ~ 10 **Type**: Mandatory

3.2.30 show interface gigabit <portNo> port-isolation

Description	Show isolation information per gigabit port.	
Syntax	show pvlan isolation [interface <port_type> [<port_type_list>]]	
Parameter		
	Name	**Description**
	<portNo>	**Valid values**: 1 ~ 10 **Type**: Mandatory

3.2.31 show interface gigabit <portNo> storm-control

Description	Show storm control information per gigabit port.	
Syntax	show interface gigabit <portNo> storm-control	
Parameter		
	Name	**Description**
	<port_type>	Port type in Fast, Giga or Tengiga ethernet
	<portNo>	**Valid values**: 1~10 **Type**: Mandatory

3.2.32 show qos storm {unknown-uc|unknown-mc|broadcast}

Description	Show storm control information by VLAN.	
Syntax	show vlan unknown-uc show vlan unknown-mc show vlan broadcast	
Parameter		
	Name	**Description**
	unknown-uc	Show unknown unicast storm control information by

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		VLAN. **Type**: Mandatory
	unknown-mc	Show unknown multicast storm control information by VLAN. **Type**: Mandatory
	broadcast	Show broadcast storm control information by VLAN. **Type**: Mandatory

3.2.33 show port-mirror

Description	Show port mirror information.
Syntax	show port-mirror
Parameter	None

3.2.34 show ring-protect

Description	Show ring protect information
Syntax	show ring-protect
Parameter	None

3.2.35 show interface gigabit <portNo>

Description	Show interface gigaport information	
Syntax	show interface gigabit <portNo>	
Parameter		
	Name	**Description**
	<portNo>	Gigabit port. **Valid values**: 1 ~ 10 **Type**: Mandatory

3.2.36 show ext-tpid

Description	Show TPID for the VLAN Tag
Syntax	show ext-tpid
Parameter	None

3.2.37 show interface vlan

Description	Show VLAN interface information of all VLANs.
Syntax	show interface vlan
Parameter	None

3.2.38 show interface vlan <vlanid>

Description	Show VLAN interface information of specify VLAN.	
Syntax	show interface vlan <vlanid>	
Parameter		
	Name	**Description**
	<vlanid>	VLAN ID. **Valid values**: 1 ~ 4094 **Type**: Mandatory

3.2.39 show protocol-vlan

Description	Show protocol based VLAN information for all entries.
Syntax	show protocol-vlan
Parameter	None

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3.2.40 show interface gigabit <portNo> vlan

Description	Show vlan information per port	
Syntax	show interface gigabit <portNo> vlan	
Parameter		
	Name	**Description**
	<portNo>	Gigabit port. **Valid values**: 1 ~ 10 **Type**: Mandatory

3.2.41 show vlan-trans

Description	Show VLAN translation table for all
Syntax	show vlan-trans
Parameter	None

3.2.42 show multicast-fdb

Description	Show IGMP group membership table
Syntax	show multicast-fdb
Parameter	None

3.2.43 show dot1x

Description	Show dot1x information.
Syntax	show dot1x
Parameter	None

3.2.44 show dot1x status

Description	Show dot1x stats.
Syntax	show dot1x status [interface <port_type> [<port_type_list>]] [brief]
Parameter	None

3.2.45 show radius-server [statistics]

Description	show radius-server statistics	
Syntax	show radius-server [statistics]	
Parameter		
	Name	**Description**
	[statistics]	Count radius packet statistics

3.2.46 show rfc2544 profile [<word32>]

Description	show rfc2544 profile name	
Syntax	show rfc2544 profile [<word32>]	
Parameter		
	Name	**Description**
	<word32>	rfc2544 profile name

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3.3 Configure Mode Commands

Commands that can be executed under Configure Mode

3.3.1 interface gigabit <portNo>

Description	Gigabit Ethernet interface. (enter gigabit interface mode)	
Syntax	interface gigabit <portNo>	
Parameter		
	Name	**Description**
	<portNo>	**Valid values**: 1 ~ 10 **Type**: Mandatory

3.3.2 interface vlan <vlanid>

Description	Vlan Ethernet interface (enter mode of interface vlan)	
Syntax	interface vlan <vlanid>	
Parameter		
	Name	**Description**
	<vlanid>	**Valid values**: 1 ~ 4094 **Type**: Mandatory

3.3.3 access-list

Description	Enter Acl Profile Config Mode	
Syntax	profile acl	
Parameter	**Name**	**Description**
	<vlanid>	**Valid values**: 1 ~ 4094 **Type**: Mandatory
Parameter	None	

3.3.4 profile sch

Description	Enter Scheduling Profile Config Mode
Syntax	profile sch
Parameter	None

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

Description	Set NTP server address.	
Syntax	ntp server <1-5> ip-address { <ipv4_ucast> | <ipv6_ucast> | <hostname> }	
Parameter		
	Name	**Description**
	<1-5>	index number
	<ipv4> <ipv6 >	**Type**: Mandatory
	<hostname>	Server name

3.3.6 clock timezone

Description	Set time zone.	
Syntax	clock timezone <word16> <-23-23> [<0-59>]	
Parameter		
	Name	**Description**
	< word16>	**Valid values**: please see 'list timezone' **Type**: Mandatory

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	default	Set time zone to default (GMT/UTC). **Type**: Mandatory

3.3.7 clock summer-time set [start-time] [end-time]

Description	Set date/time.	
Syntax	clock summer-time <word16> date [<1-12> <1-31> <2000-2097> <hhmm> <1-12> <1-31> <2000-2097> <hhmm> [<1-1440>]]	
Parameter		
	Name	**Description**
	< word16>	**Valid values**: please see 'list timezone' **Type**: Mandatory
	<day>	**Valid values**: 1 ~ 31 **Type**: Mandatory
	<month>	**Valid values**: 1 ~ 12 **Type**: Mandatory
	<year>	**Valid values**: 2000-2097 **Type**: Mandatory
	<minute>	**Valid values**: 0 ~ 59 **Type**: Mandatory
	<second>	**Valid values**: 0 ~ 59 **Type**: Optional

3.3.8 account add <username>

Description	Add an account.	
Syntax	username <word31> privilege <0-15> password encrypted <word4-44>	
Parameter		
	Name	**Description**
	< word31>	**Valid values**: 1 ~ 31 characters **Type**: Mandatory
	<0-15>	**Valid values**: 0 ~ 15 **Type**: Mandatory
	< word4-44>	**Valid values**: 4-44 characters **Type**: Mandatory

3.3.9 account delete <username>

Description	Delete an account.	
Syntax	no username <word31>	
Parameter		
	Name	**Description**
	< word31>	**Valid values**: 1 ~ 31 characters **Type**: Mandatory

3.3.10 syslog {enable|disable}

Description	Disable or enable syslog service.
Syntax	logging on no logging on
Parameter	None

3.3.11 Configuration save and replace

Description	Save and install configuration
Syntax	copy { startup-config | running-config | <Filename> } { startup-config | running-config | < Filename > } [syntax-check]

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Parameter		
	Name	**Description**
	running-config	Currently running configuration
	startup-config	Startup configuration
	syntax-check	Perform syntax check on source configuration
	Filename	File in FLASH or on TFTP server

3.3.12 clearipigmp snoopingstatistics

Description	clear ipigmpsnoopingstatisti	
Syntax	clear ipigmp snooping [vlan<vlan_list>] statistics	
Parameter		
	Name	**Description**
	vlan_list	VLAN list.

3.3.13 clear logging

Description	clear logging	
Syntax	clear logging [info] [warning] [error] [switch <switch_list>]	
Parameter		
	Name	**Description**
	info	Information
	warning	Warning
	error	Error
	Switch list	List of switch ID, ex, 1,3-5,6

3.3.14 clear mac address-table

Description	clear mac address-table
Syntax	clear mac address-table
Parameter	

3.3.15 delete

Description	Delete one file in flash: file system	
Syntax	delete <word>	
Parameter		
	Name	**Description**
	<word>	Name of file to delete

3.3.16 dir

Description	Directory of all files in flash: file system
Syntax	dir
Parameter	

3.3.17 do

Description	To run exec commands in config mode	
Syntax	do <line>	
Parameter		
	Name	**Description**
	<line>	Exec Command

3.3.18 duplex

Description	Set duplex mode	
Syntax	duplex { half | full | auto [half | full] }	
Parameter		
	Name	**Description**

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	half	Forced half duplex.
	full	Forced full duplex.
	auto	Auto negotiation of duplex mode.
	[half | full]	Advertise half /full duplex.

3.3.19 editing

Description	Enable command line editing
Syntax	editing
Parameter	

3.3.20 flowcontrol

Description	Enable/Disable flow control.	
Syntax	flowcontrol { on | off }	
Parameter		
	Name	**Description**
	on	Enable flow control.
	off	Disable flow control.

3.3.21 frame-sizes

Description	Select the frame sizes that the enabled tests will loop through	
Syntax	frame-sizes { [64] [128] [256] [512] [1024] [1280] [1518] [2000] [9600] }	
Parameter		
	Name	**Description**
	64	Enable testing with 64-byte TST PDUs
	128	Enable testing with 128-byte TST PDUs
	256	Enable testing with 256-byte TST PDUs
	512	Enable testing with 512-byte TST PDUs
	1024	Enable testing with 1024-byte TST PDUs
	1280	Enable testing with 1280-byte TST PDUs
	1518	Enable testing with 1518-byte TST PDUs
	2000	Enable testing with 2000-byte TST PDUs
	9600	Enable testing with 9600-byte TST PDUs

3.3.22 green-etherneteee

Description	Powering down of PHYs when there is no traffic.
Syntax	green-etherneteee
Parameter	

3.3.23 green-etherneteee optimize-for-power

Description	Set if EEE shall be optimized for least power consumption (else optimized for least traffic latency).
Syntax	green-etherneteee optimize-for-power
Parameter	

3.3.24 green-etherneteee 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.	
Syntax	green-etherneteee urgent-queues [<range_list>]	
Parameter		
	Name	**Description**
	range_list	EEE Interface.

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3.3.25 help

Description	Description of the interactive help system
Syntax	help
Parameter	

3.3.26 iparp inspection

Description	iparp inspection
Syntax	iparp inspection
Parameter	

3.3.27 iparp inspection translate

Description	IP ARP inspection entry interface configuration	
Syntax	iparp inspection translate [interface <port_type><port_type_id><vlan_id><mac_ucast><ipv4_ucast>]	
Parameter		
	Name	**Description**
	port_type	Port type in Fast, Giga or Tengigaethernet
	port_type_id	Port ID in the format of switch-no/port-no
	vlan_id	Select a VLAN id to configure
	mac_ucast	Select a MAC address to configure
	ipv4_ucast	Select an IP Address to configure

3.3.28 iparp inspection trust

Description	IP ARP inspection trust configuration
Syntax	iparp inspection trust
Parameter	

3.3.29 iparp inspection vlan

Description	IP ARP inspection vlan setting	
Syntax	iparp inspection vlan<vlan_list>	
Parameter		
	Name	**Description**
	vlan_list	arp inspection vlan list

3.3.30 ipdns proxy

Description	IP DNS proxy service
Syntax	ipdns proxy
Parameter	

3.3.31 ip http secure-redirect

Description	IP http secure-redirect
Syntax	ip http secure-redirect
Parameter	

3.3.32 ip http secure-server

Description	IP Secure HTTP web server
Syntax	ip http secure-server
Parameter	

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3.3.33 ip source binding interface

Description	IP source binding entry interface configuration	
Syntax	Ip source binding interface <port_type> <port_type_id> <vlan_id> <ipv4_ucast> <mac_ucast>	
Parameter		
	Name	**Description**
	port_type	Port type in Fast, Giga or Tengigaethernet
	port_type_id	Port ID in the format of switch-no/port-no
	vlan_id	Select a VLAN id to configure
	ipv4_ucast	Select an IP Address to configure
	mac_ucast	Select a MAC address to configure

3.3.34 ipssh

Description	IP Secure Shell
Syntax	ipssh
Parameter	

3.3.35 ipmc profile

Description	IPMC profile configuration
Syntax	ipmc profile
Parameter	

3.3.36 ipmc range

Description	A range of IPv4/IPv6 multicast addresses for the profile	
Syntax	ipmc range <word16> { <ipv4_mcast> [<ipv4_mcast>] | <ipv6_mcast> [<ipv6_mcast>] }	
Parameter		
	Name	**Description**
	word16	Range entry name in 16 char's
	ipv4_mcast	Valid IPv4 multicast address
	ipv4_mcast	Valid IPv4 multicast address that is not less than start address
	ipv6_mcast	Valid IPv6 multicast address
	ipv6_mcast	Valid IPv6 multicast address that is not less than start address

3.3.37 vlan <vlanid>

Description	Configure VLAN.	
Syntax	vlan <vlanid>	
Parameter		
	Name	**Description**
	<vlanid>	Create an empty VLAN index. **Valid values**: 1 ~ 4094 **Type**: Mandatory

3.3.38 vlan <vlanid> <name>

Description	Configure VLAN's name.	
Syntax	vlan <vlanid> <name>	
Parameter		
	Name	**Description**
	<vlanid>	Create an empty VLAN index. **Valid values**: 1 ~ 4094

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		Type: Mandatory
	<name>	VLAN Name (0~31) **String Size**:0~31 **Type**: Mandatory

3.3.39 vlan disable <vlanid>

Description	Delete VLAN memberset/setting.	
Syntax	vlan disable <vlanid>	
Parameter		
	Name	**Description**
	<vlanid>	**Valid values**: 1 ~ 4094 **Type**: Mandatory

3.3.40 aging <time>

Description	Configure aging time for a bridge port.	
Syntax	aging <time>	
Parameter		
	Name	**Description**
	<time>	**Valid values**: 10 ~ 1000000 (seconds) **Type**: Mandatory

3.3.41 jumboframe {enable|disable}

Description	Set jumbo frame settings.	
Syntax	jumboframe {enable|disable}	
Parameter		
	Name	**Description**
	enable	Enable jumbo frame.
	disable	Disable jumbo frame.

3.3.42 jumboframe mtu <value>

Description	MTU size.	
Syntax	jumboframe mtu <value>	
Parameter		
	Name	**Description**
	<value>	Range. **Valid values**: 1536~9000 (bytes) **Type**: Mandatory

3.3.43 media-type

Description	Configure media-type	
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).

3.3.44 monitor destination interface

Description	The destination port. That is the port that trafficed should be mirrored to.	
Syntax	monitor destination interface <port_type> <port_type_id>	
Parameter		
	Name	**Description**

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	<port_type	Port type
	<port_type_id>	Port Number

3.3.45 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.	
Syntax	speed { 10g | 2510G | 1000 | 100 | 10 | auto { [10] [100] [1000] } }	
Parameter		
	Name	**Description**
	1000	1Gbps
	100	100Mbps
	10	10Mbps
	auto	Auto negotiation
	[10]	10Mbps
	[10 0]	100Mbps
	[1000]	1Gbps

3.3.46 tacacs-server host

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

3.3.47 tacacs-server key

Description	Configure TACACS+ encryption key	
Syntax	tacacs-server key <line1-63>	
Parameter		
	Name	**Description**
	line1-63	

3.3.48 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

3.3.49 traps

Description	trap event configuration	
Syntax	traps [aaa authentication] [system [coldstart] [warmstart]] [switch [stp] [rmon]]	
Parameter		
	Name	**Description**
	aaa authentication	AAA authentication fail event
	coldstart	Cold start event
	warmstart	Warm start event
	stp	STP event

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	rmon	RMON event

3.3.50 upnp

Description	Set UPnP's configurations
Syntax	upnp
Parameter	

3.3.51 upnp advertising-duration

Description	Set UPnP's advertising duration	
Syntax	upnp advertising-duration <100-86400>	
Parameter		
	Name	**Description**
	100-86400	advertising duration

3.3.52 upnp ttl

Description	Set UPnP's TTL value	
Syntax	upnp ttl <1-255>	
Parameter		
	Name	**Description**
	1-255	TTL value

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3.3.53 flow-control {enable|disble}

Description	Enable/Disable flow-control.	
Syntax	flow-control {enable|disble}	
Parameter		
	Name	**Description**
	enable	Enable flow-control.
	disable	Disable flow-control.

3.3.54 speed

Description	Configure gigabit Ethernet speed and Copper/SFP for gigabit port 7~8. (port1~6 Only support copper, no SFP) (port 9, 10 only support auto)	
Syntax	speed {auto|full-l000mbps|full-100mbps|full-10mbps|half-100mbps|half-10mbps}	
Parameter		
	Name	**Description**
	auto	Auto negotiation.
	full-l000mbps	Set 1000Mbps full duplexing.
	full-100mbps	Set 100Mbps full duplexing.
	full-10mbps	Set 10Mbps full duplexing.
	half-100mbps	Set 100Mbps half duplexing.
	half-10mbps	Set 10Mbps half duplexing.

3.3.55 port {enable/disable}

Description	Set interface gigabit port enable or disable.	
Syntax	port {enable/disable}	
Parameter		
	Name	**Description**
	disable	Turn off gigabit port.
	enable	Turn off gigabit port.

3.4 VLAN Mode Commands

3.4.1 vlan

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

3.4.2 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)

3.4.3 vlan protocol

Description	
Syntax	vlan protocol { { eth2 { <0x600-0xffff> | arp | ip | ipx | at } } | { snap

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	{ <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)

3.4.4 vlan-trunking

Description	Change whether trunking of unknown VLANs is enabled
Syntax	vlan-trunking
Parameter	

3.4.5 switchport access vlan

Description	Set switch access mode of the interface	
Syntax	switchport access vlan <vlan_id>	
Parameter		
	Name	**Description**
	vlan_id	VLAN ID of the VLAN when this port is in access mode

3.4.6 switchport forbidden vlan

Description	Adds or removes forbidden VLANs from the current list of forbidden VLANs	
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

3.4.7 switchport hybrid acceptable-frame-type

Description	Set acceptable frame type on a port	
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

3.4.8 switchport hybrid allowed vlan

Description	Set allowed VLAN characteristics when interface is in hybrid mode
Syntax	switchport hybrid allowed vlan { all | none | [add | remove | except] <vlan_list> }

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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

3.4.9 switchport hybrid egress-tag

Description	Egress VLAN tagging configuration	
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

3.4.10 switchport hybrid ingress-filtering

Description	VLAN Ingress filter configuration
Syntax	switchport hybrid ingress-filtering
Parameter	

3.4.11 switchport mode

Description	Set switching 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

3.4.12 switchport trunk allowed vlan

Description	Set allowed VLAN characteristics when interface is in trunk 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

3.4.13 switchport vlan protocol group

Description	Protocol-based VLAN group commands	
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)

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3.5 Interface VLAN Mode Commands

3.5.1 interface

Description	Interface configuration	
Syntax	interface <port_type> [<port_type_list>]	
Parameter		
	Name	**Description**
	port_type	Port type in Fast, Giga or Tengigaethernet
	port_type_list	List of Port ID, ex, 1/1,3-5;2/2-4,6

3.5.2 interface vlan

Description	VLAN interface configurations	
Syntax	interface vlan<vlan_list>	
Parameter		
	Name	**Description**
	vlan_list	List of VLAN interface numbers, 1~4095

3.5.3 ip address

Description	IPv4 address configurations	
Syntax	ip address { { <ipv4_addr><ipv4_netmask> } | { dhcp [fallback <ipv4_addr><ipv4_netmask> [timeout <uint>]] } }	
Parameter		
	Name	**Description**
	ipv4_addr	IP address
	ipv4_netmask	IP netmask
	dhcp	Enable DHCP
	fallback	DHCP fallback settings
	ipv4_addr	DHCP fallback address
	ipv4_netmask	DHCP fallback netmask
	timeout	DHCP fallback timeout
	uint	DHCP fallback timeout in seconds

3.5.4 ip name-server

Description	Interface Internet Protocol config commands Domain Name System	
Syntax	ip name-server { <ipv4_ucast> | dhcp [interface vlan<vlan_id>] }	
Parameter		
	Name	**Description**
	ipv4_ucast	A valid IPv4 unicast address
	vlan_id	VLAN identifier(s): VID

3.5.5 ipdhcp relay

Description	DHCP relay agent configuration
Syntax	ipdhcp relay
Parameter	

3.5.6 ipdhcp relay information option

Description	IP DHCP relay information option(Option 82)
Syntax	ipdhcp relay information option
Parameter	

3.5.7 ipdhcp retry interface vlan

Description	Restart the DHCP query process
Syntax	ipdhcp retry interface vlan<vlan_id>

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Parameter		
	Name	**Description**
	vlan_id	Vlan ID

3.5.8 ipdhcp snooping

Description	IP DHCP snooping
Syntax	ipdhcp snooping
Parameter	

3.5.9 ipv6 address

Description	Configure the IPv6 address of an interface	
Syntax	ipv6 address <ipv6_subnet>	
Parameter		
	Name	**Description**
	ipv6_subnet	IPv6 prefix x:x::y/z

3.5.10 ipv6mtu

Description	IPv6 Maximum transmission unit	
Syntax	ipv6 mtu<1280-1510G>	
Parameter		
	Name	**Description**
	1280-1510G	MTU value in bytes

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3.6 Ring Group Mode Commands

3.6.1 ring-protect {enable|disable}

Description	Enable/disable ring protection.
Syntax	ring-protect {enable|disable}
Parameter	None

3.6.2 ring-protect {node1|node2} <portNo>

Description	Set node1/node2 for ring protection.	
Syntax	ring-protect {node1|node2} <portNo>	
Parameter		
	Name	**Description**
	<portNo>	Port number. **Valid values**: 1~10 **Type**: Mandatory

3.6.3 ring-protect role {master| slave}

Description	Set role to ring protection.
Syntax	ring-protect role {master| slave}
Parameter	None

3.6.4 ring-protect <ring-id>

Description	Set ring protection ID.	
Syntax	ring-protect <ring-id>	
Parameter		
	Name	**Description**
	<ring-id>	Ring ID. **Valid values**: 0~255 **Type**: Mandatory

3.6.5 ring-protect {enable|disable}

Description	Enable / disable ring-protection.
Syntax	ring-protect enable ring-protect disable
Parameter	None

3.6.6 ring-protect {node1|node2} <portNo>

Description	Set ring-protection node.	
Syntax	ring-protect node1 <portNo> ring-protect node2 <portNo>	
Parameter		
	Name	**Description**
	<portNo>	**Valid values**: 1~10. **Type**: Mandatory

3.6.7 ring-guardtime <time>

Description	Set ring guard time	
Syntax	ring-guardtime <time>	
Parameter		
	Name	**Description**
	<time>	Guard time, unit :second **Valid values**: 0~3600 **Type**: Mandatory

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3.6.8 ring-group <number>

Description	Entry ring group interface	
Syntax	ring-group <number>	
Parameter		
	Name	**Description**
	<number>	Ring group index **Valid values**: 1~2 **Type**: Mandatory

3.7 Spanning Tree

3.7.1 spanning-tree

Description	Enable/disable STP on this interface	
Syntax	spanning-tree	
Parameter		
	Name	**Description**

3.7.2 spanning-tree aggregation

Description	Spanning Tree protocol	
Syntax	spanning-tree aggregation	
Parameter		
	Name	**Description**

3.7.3 spanning-tree auto-edge

Description	Auto detect edge status	
Syntax	**3.7.4 spanning-tree auto-edge**	
Parameter		
	Name	**Description**

3.7.5 spanning-tree bpdu-guard

Description	Enable/disable BPDU guard	
Syntax	spanning-tree bpdu-guard	
Parameter		
	Name	**Description**

3.7.6 spanning-tree edge

Description	Edge port spanning-tree STP Bridge	
Syntax	spanning-tree edge	
Parameter		
	Name	**Description**

3.7.7 spanning-tree edge bpdu-filter

Description	Enable BPDU filter (stop BPDU tx/rx)	
Syntax	spanning-tree edge bpdu-filter	
Parameter		
	Name	**Description**

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3.7.8 spanning-tree mode

Description	mode STP protocol mode stp 802.1D Spanning Tree rstp Rabid Spanning Tree (802.1w) mstp Multiple Spanning Tree (802.1s)	
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)

3.7.9 spanning-tree mst cost

Description	STP bridge instance STP Cost of this port	
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

3.7.10 spanning-tree mst port-priority

Description	port-priority	
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

3.7.11 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

3.7.12 spanning-tree mst vlan

Description	VLAN keyword
Syntax	spanning-tree mst <0-7> vlan <vlan_list>
Parameter	

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	Name	Description
	<0-7>	instance 0-7 (CIST=0, MST2=1...)
	<vlan_list>	Range of VLANs

3.7.13 spanning-tree mst forward-time

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

3.7.14 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

3.7.15 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

3.7.16 spanning-tree mst name

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

3.8 sFlow Configure Command

3.8.1 sflow

Description	Enables/disables flow sampling on this port.	
Syntax	sflow [<range_list>]	
Parameter		
	Name	**Description**
	< range_list >	Sampler instance

3.8.2 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	

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	Name	Description
	< ipv4_addr >	Ipv4 address
	< ipv6_addr>	ipv6 address

3.8.3 sflow collector-address

Description	Sflow runtime, see sflow_icli_functions	
Syntax	**3.8.4 sflow collector-address [receiver <range_list>] [<word>]**	
Parameter		
	Name	**Description**
	< range_list >	Sampler instance

3.8.5 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

3.8.6 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>]	
Parameter		
	Name	**Description**
	< range_list >	Sampler instance
	<200-1468>	packet byte

3.8.7 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>]	
Parameter		
	Name	**Description**
	< range_list >	Sampler instance
	<1-4294967295>	Sampling rate

3.8.8 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.

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3.9 SNMP Configure Command

3.9.1 snmp-server

Description	Enable SNMP server	
Syntax	snmp-server	
Parameter		
	Name	**Description**

3.9.2 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 | noauth | priv }	authNoPriv Security Level
		noAuthNoPriv Security Level
		authPriv Security Level
	read	specify a read view for the group
	<word255>	read view name

3.9.3 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

3.9.4 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

3.9.5 snmp-server host

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

3.9.6 snmp-server host traps

Description	Set SNMP host's configurations	
Syntax	snmp-server host < Name of the host configuration > traps [linkup] [linkdown] [lldp]	
Parameter		
	Name	**Description**
	< Name of the host	Name of the host configuration

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	configuration >	
	<200-1468>	packet byte
	[linkup]	Link up event
	[linkdown]	Link down event
	[lldp]	LLDP event

3.9.7 snmp-server trap

Description	Set SNMP server's configurations	
Syntax	snmp-server trap	
Parameter		
	Name	**Description**

3.9.8 snmp-server user

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

3.9.9 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

3.9.10 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

3.9.11 SNMP trap receive ipv6 host

Description	host configuration	
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

3.9.12 SNMP trap receive ipv4 host

Description	host configuration
Syntax	host { <ipv4_ucast> | <hostname> } [<1-65535>] [traps | informs]
Parameter	

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	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

3.10 Qos Function Command

3.10.1 qos cos

Description	Class of service configuration	
Syntax	qos cos <0-7>	
Parameter		
	Name	Description
	<0-7>	Specific class of service

3.10.2 qos dscp-classify

Description	Set qos dscp-classify.	
Syntax	qos dscp-classify { zero | selected | any }	
Parameter		
	Name	Description

3.10.3 qos dscp-remark

Description	Set qos dscp-remark	
Syntax	qos dscp-remark { rewrite | remap | remap-dp }	
Parameter		
	Name	Description

3.10.4 qos dscp-translate

Description	Enable qos dscp-translate mode
Syntax	qos dscp-translate

3.10.5 qos map cos-dscp

Description	Configure cos mapping to dscptable	
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)

3.10.6 qos map cos-dscp

Description	Configure dscp mapping to cos table

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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

3.10.7 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

3.10.8 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 |

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	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

3.10.9 qos policer

Description	Configure qos policer	
Syntax	qos policer <unit> [fps] [flowcontrol]	
Parameter		
	Name	**Description**
	< unit >	Traffic meter
	< fps >	Frame rate
	[flowcontrol]	Enable flowcontrol mode

3.10.10 qos wrr

Description	Specifies qos wrr mode	
Syntax	qos wrr <1-100> <1-100> <1-100> <1-100> <1-100> <1-100>	
Parameter		
	Name	**Description**
	<1-100>	every level proportion

3.10.11 qos queue-shaper

Description	Configure queue-shaper command	
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

3.10.12 qos queue-policer

Description	Configure queue-policer command	
Syntax	qos queue-policer queue <0~7> <uint>	
Parameter		
	Name	**Description**
	<0~7>	Queue number
	<uint>	Traffic meter

3.10.13 qos shaper <unit>

Description	Configure qos shaper command	
Syntax	qos shaper <uint>	
Parameter		

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	Name	Description
	<1-100>	every level proportion
	<unit>	Traffic meter

3.11 IGMP Functional Commands

3.11.1 ip igmp host-proxy [leave-proxy]

Description	IGMP proxy for leave configuration	
Syntax	ipigmp host-proxy [leave-proxy]	
Parameter		
	Name	Description
	leave-proxy	IGMP proxy for leave

3.11.2 ip igmp snooping

Description	Snooping igmp
Syntax	ipigmp snooping
Parameter	

3.11.3 ip igmp snooping immediate-leave

Description	IP IGMP snooping immediate leave configuration
Syntax	ipigmp snooping immediate-leave
Parameter	

3.11.4 ip igmp snooping last-member-query-interval

Description	IP IGMP snooping Last Member Query Interval in tenths of seconds	
Syntax	ipigmp snooping last-member-query-interval <0-31744>	
Parameter		
	Name	Description
	0-31744	0 - 31744 tenths of seconds

3.11.5 ip igmp snooping max-groups

Description	IGMP group throttling configuration	
Syntax	ipigmp snooping max-groups <1-10>	
Parameter		
	Name	Description
	1-10	Maximun number of IGMP group registration

3.11.6 ip igmp snooping mrouter

Description	IPIGMP snooping Multicast router port configuration
Syntax	ipigmp snooping mrouter
Parameter	

3.11.7 ip igmp snooping querier

Description	IP IGMP querier configuration	
Syntax	ipigmp 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

3.11.8 ip igmp snooping query-interval

Description	IP IGMP snooping Query-Intervalin seconds
Syntax	Ip igmp snooping query-interval <1-31744>

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Parameter		
	Name	**Description**
	1-317	1 - 31744 seconds

3.11.9 ip igmp snooping vlan

Description	ipigmp snooping vlan IDs	
Syntax	ipigmp snooping vlan<vlan_list>	
Parameter		
	Name	**Description**
	vlan_list	VLAN identifier(s): VID

3.11.10 ip igmp unknown-flooding

Description	IP IGMP flooding unregistered IPv4 multicast traffic
Syntax	ipigmp unknown-flooding
Parameter	

3.11.11 clear ip igmp snooping statistics

Description	clear ip igmp snooping statisti	
Syntax	clear ip igmp snooping [vlan<vlan_list>] statistics	
Parameter		
	Name	**Description**
	vlan_list	VLAN list.

3.12 MVR Functional Commands

3.12.1 mvr

Description	Multicast VLAN Registration configuration	
Syntax	mvr	
Parameter		
	Name	**Description**

3.12.2 mvr immediate-leave

Description	mvr immediate leave configuration	
Syntax	mvr immediate-leave	
Parameter		
	Name	**Description**

3.12.3 mvr name channel

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

3.12.4 mvr frame priority

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

3.12.5 mvr name <word16> frame tagged

Description	MVR control frame in TX, Tagged IGMP/MLD frames will be sent
Syntax	mvr name <word16> frame tagged

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Parameter		
	Name	**Description**
	name <word16>	MVR multicast VLAN name

3.12.6 mvr name <word16> igmp-address <ipv4_ucast>

Description	MVR address configuration used in IGMP	
Syntax	mvr name <word16> igmp-address <ipv4_ucast>	
Parameter		
	Name	**Description**
	name <word16>	MVR multicast VLAN name
	<ipv4_ucast>	A valid IPv4 unicast address

3.12.7 mvr name <word16> last-member-query-interval <0-31744>

Description	Configure last Member Query Interval in tenths of seconds	
Syntax	mvr name <word16> last-member-query-interval <0-31744>	
Parameter		
	Name	**Description**
	name <word16>	MVR multicast VLAN name
	<0-31744>	0 - 31744 tenths of seconds

3.12.8 mvr name <word16> mode

Description	Dynamic MVR operation mode	
Syntax	mvr name <word16> mode { dynamic | compatible }	
Parameter		
	Name	**Description**
	dynamic	Dynamic MVR operation mode
	compatible	Compatible MVR operation mode

3.12.9 mvr name <word16> type

Description	MVR port role configuration	
Syntax	mvr name <word16> type { source | receiver }	
Parameter		
	Name	**Description**
	source	MVR source port
	receiver	MVR receiver port

3.12.10 mvr vlan

Description	Multicast VLAN Registration configuration	
Syntax	mvr vlan <vlan_list> [name <word16>]	
Parameter		
	Name	**Description**
	< vlan_list >	MVR multicast VLAN list
	name <word16>	MVR multicast VLAN name in 16 char's

3.12.11 mvr vlan <vlan_list> channel

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

3.12.12 mvr vlan <vlan_list> frame priority

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

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3.12.13 mvr vlan <vlan_list> frame tagged

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

3.12.14 mvr vlan <vlan_list> igmp-address

Description	Set tagged IGMP/MLD frames will be sent	
Syntax	mvr vlan <vlan_list> igmp-address <ipv4_ucast>	
Parameter		
	Name	**Description**
	< vlan_list >	MVR multicast VLAN list
	<ipv4_ucast>	A valid IPv4 unicast address for IGMP

3.12.15 mvr vlan <vlan_list> mode

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

3.12.16 mvr vlan <vlan_list> type

Description	MVR vlan role configuration	
Syntax	mvr vlan <vlan_list> type { source | receiver }	
Parameter		
	Name	**Description**
	< vlan_list >	MVR multicast VLAN list
	source	MVR source port
	receiver	MVR receiver port

3.13 MLD Functional Commands

3.13.1 ipv6mld host-proxy

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

3.13.2 ipv6mld snooping

Description	ipv6 mld snooping
Syntax	ipv6 mld snooping
Parameter	

3.13.3 ipv6mld snooping compatibility

Description	IPv6 MLD snooping compatibility configuration	
Syntax	ipv6 mld snooping compatibility { auto | v1 | v2 }	
Parameter		
	Name	**Description**
	auto	Compatible with MLDv1/MLDv2
	v1	Forced MLDv1
	v2	Forced MLDv2

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3.13.4 ipv6mld snooping immediate-leave

Description	IPv6 MLD snooping immediate-leave configuration	
Syntax	ipv6 mld snooping immediate-leave	
Parameter		

3.13.5 ipv6mld snooping last-member-query-interval

Description	ipv6 mld snooping last member query interval in tenths of seconds	
Syntax	ipv6 mld snooping last-member-query-interval <0-31744>	
Parameter		
	Name	**Description**
	0-31744	0 - 31744 tenths of seconds

3.13.6 ipv6mld snooping max-groups

Description	IPv6 MLD group throttling configuration	
Syntax	ipv6 mld snooping max-groups <1-10>	
Parameter		
	Name	**Description**
	1-10	Maximun number of MLD group registration

3.13.7 ipv6mld snooping mrouter

Description	ipv6 mld snooping multicast router port configuration
Syntax	ipv6 mld snooping mrouter
Parameter	

3.13.8 ipv6mld snooping query-interval

Description	IPv6 MLD snooping query interval in seconds	
Syntax	ipv6 mld snooping query-interval <1-31744>	
Parameter		
	Name	**Description**
	1-31744	1 - 31744 seconds

3.13.9 ipv6mld snooping query-max-response-time

Description	IPv6 MLD snooping querymaxresponse interval in tenths of seconds	
Syntax	ipv6 mld snooping query-max-response-time <0-31744>	
Parameter		
	Name	**Description**
	0-31744	0 - 31744 tenths of seconds

3.13.10 ipv6mld snooping vlan

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

3.13.11 ipv6mld unknown-flooding

Description	Flooding unregistered IPv6 multicast traffic
Syntax	ipv6 mld unknown-flooding
Parameter	

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3.14 Authenticate Mode Commands

3.14.1 radius-server attribute 4

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

3.14.2 radius-server attribute 95

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

3.14.3 radius-server deadtime

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

3.14.4 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>	

3.14.5 tacacs-server deadtime <1-1440>

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

3.14.6 tacacs-server host [auth-port] [timeout] [key]

Description	Configure tacacs-server host behavior	
Syntax	tacacs-server host <word1-255> [port <0-65535>] [timeout <1-1000>] [key <line1-63>]	
Parameter		
	Name	**Description**
	< <1-1440>	TCP port number

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3.14.7 tacacs-server deadtime <1-1440>

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

3.14.8 tacacs-server deadtime <1-1440>

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

3.14.9 tacacs-server deadtime <1-1440>

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

3.14.10 dot1x feature

Description	Globally enables/disables a dot1x feature functionality	
Syntax	dot1x feature { [guest-vlan] [radius-qos] [radius-vlan] }	
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.

3.14.11 dot1x guest-vlan

Description	G Enables/disables Guest VLAN globally or on one or more ports	
Syntax	dot1x guest-vlan dot1x guest-vlan<1-4095>	
Parameter		
	Name	**Description**
	<1-4095>	Guest VLAN ID used when entering the Guest VLAN.

3.14.12 dot1x initialize

Description	Forces a reinitialization of the clients on the port and thereby a reauthentication immediately.	
Syntax	dot1x initialize [interface <port_type> [<port_type_list>]]	
Parameter		
	Name	**Description**
	<port_type>	Port type in Fast, Giga or Tengigaethernet
	<port_type_list>	List of Port ID, ex, 1/1,3-5;2/2-4,6

3.14.13 dot1x port-control

Description	Sets the port security state.
Syntax	dot1x port-control { force-authorized | force-unauthorized | auto | single |

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	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

3.14.14 dot1x radius-vlan

Description	Enables/disables per-port state of RADIUS-assigned VLAN.
Syntax	dot1x radius-vlan
Parameter	

3.14.15 show radius-server [statistics]

Description	show radius-server statistics	
Syntax	show radius-server [statistics]	
Parameter		
	Name	**Description**
	[statistics]	Count radius packet statistics

3.15 Loop-Protection Configure commands

3.15.1 loop-protect

Description	Loop protection configuration on port
Syntax	loop-protect
Parameter	

3.15.2 loop-protect action

Description	Loop protection configuration on port	
Syntax	loop-protect action { [shutdown] [log]	
Parameter		
	Name	**Description**
	shutdown	Shutdown port
	log	Generate log

3.15.3 loop-protect shutdown-time

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

3.15.4 loop-protect transmit-time

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

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3.15.5 loop-protect tx-mode

Description	Loop protection actively generate PDUs
Syntax	loop-protect tx-mode
Parameter	

3.16 LLDP Configure commands

3.16.1 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 <2-10>	
Parameter		
	Name	**Description**
	<2-10>	Holdtime 2-10 seconds

3.16.2 lldp receive

Description	Enable/Disable decoding of received LLDP frames.
Syntax	lldp receive

3.16.3 lldp reinit <1-10>

Description	LLDP tx reinitialization delay in seconds.	
Syntax	lldp reinit <1-10>	
Parameter		
	Name	Description
	<1-10>	Reinitialization delay time

3.16.4 lldp timer <5-32768>

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

3.16.5 lldp tlv-select

Description	Which optional TLVs to transmit.	
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.

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3.16.6 lldp transmission-delay

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

3.16.7 lldp transmit

Description	Enable/Disabled transmision of LLDP frames.
Syntax	lldp transmit
Parameter	

3.17 RFC2544 Testing Configure Commands

3.17.1 rfc2544 profile <word32>

Description	RFC2544 profile configuration	
Syntax	rfc2544 profile <word32>	
Parameter		
	Name	**Description**
	<word32>	Profile name up to 32 characters long

3.17.2 rfc2544 rename profile

Description	Rename an existing profile	
Syntax	rfc2544 rename profile <word32> <word32>	
Parameter		
	Name	**Description**
	profile <word32>	Old profile name
	<word32>	New profile name

3.17.3 rfc2544 save <word32> <word>

Description	Save a report to a file on a TFTP server	
Syntax	rfc2544 save <word32> <word>	
Parameter		
	Name	**Description**
	<word32>	Name of existing report to save
	<word>	TFTP server URL on the form tftp://server[:port]/path-to-file

3.17.4 rfc2544 start <word32> profile <word32> [desc <line128>]

Description	Start execution of a pre-configured profile	
Syntax	rfc2544 start <word32> profile <word32> [desc <line128>]	
Parameter		
	Name	**Description**
	start <word32>	Unique name of resulting report
	profile <word32>	Name of existing profile to execute
	desc <line128>	Description that will appear in the report

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3.17.5 rfc2544 stop <word32>

Description	Stop execution of an ongoing test	
Syntax	rfc2544 stop <word32>	
Parameter		
	Name	**Description**
	<word32>	Report name to stop execution of

3.17.6 show rfc2544 profile [<word32>]

Description	show rfc2544 profile name	
Syntax	show rfc2544 profile [<word32>]	
Parameter		
	Name	**Description**
	<word32>	rfc2544 profile name

3.18 GVRP Configure Commands

3.18.1 gvrp

Description	Enable GVRP on port(s)
Syntax	gvrp
Parameter	

3.18.2 gvrpjoin request vlan

Description	Emit a Join-Request for test purpose	
Syntax	gvrp join-request vlan<vlan_list>	
Parameter		
	Name	**Description**
	vlan_list	List of VLANs

3.18.3 gvrpleave request vlan

Description	Emit a leave-Request for test purpose	
Syntax	gvrp leave-request vlan<vlan_list>	
Parameter		
	Name	**Description**
	vlan_list	List of VLANs

3.18.4 gvrp max-vlans

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

3.18.5 gvrp time { [join-time <1-20>] [leave-time <60-300>] [leave-all-time <1000-50>]

Description	Set gvrp time	
Syntax	gvrp time { [join-time <1-20>] [leave-time <60-300>] [leave-all-time <1000-510G0>] }	
Parameter		
	Name	**Description**
	1-20	join timer, available from 1 to 20
	60-300	leave timer, available from 60 to 300
	1000-510G0	leaveall timer, available from 1000 to 510G0

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3.19 Voice VLAN Configure Commands

3.19.1 voice vlan

Description	Vlan for Voice appliance attributes
Syntax	voice vlan
Parameter	

3.19.2 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

3.19.3 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)

3.19.4 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

3.19.5 voice vlan vid

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

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