KYLAND SWITCH

SICOM3000A Industrial Ethernet Switch

CLI Command User Guide

Version Number: 1.1
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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 KYLAND 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 KYLAND 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:
- KYLAND series Quick Installation Guide

2. Operator Interface

2.1 Introduction

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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 password is (123). 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 KYLAND Ethernet port(RJ45 Ethernet port)

2. Key-in the command under Telnet: *telnet 192.168.0.2*

3. Login with default account and password.
   Username: admin
   Password: 123

```
Username: admin
Password:
```
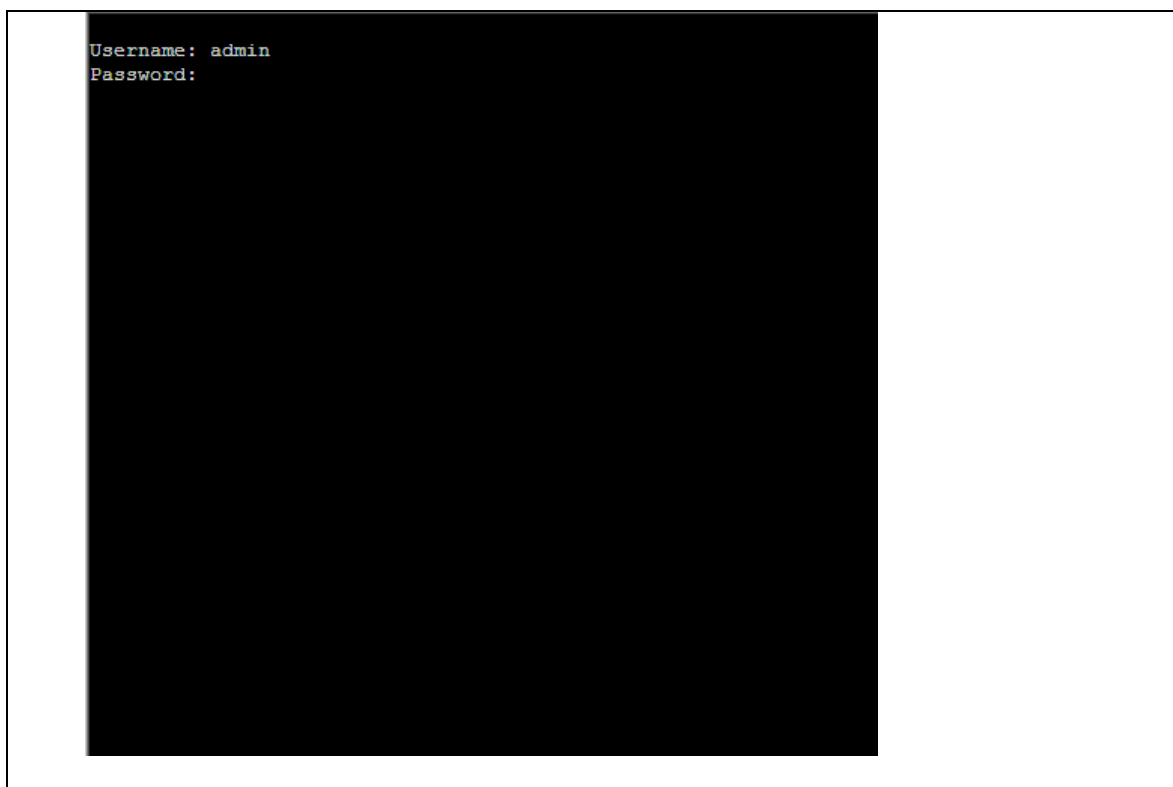
Figure 2-1   Screen Description

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)#

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.

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.
CTRL-I	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.
?	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.

3. Commands Descriptions

3 Commands Descriptions

3.1   Enable Mode Commands

The commands in this section can be executed under enable command modes.

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

3.1.8 load default

Description	Load default config
Syntax	load default
Parameter	None

3.1.9 save

Description	Write running configuration to flash

Syntax	save
Parameter	None

3.1.10 Reboot

Description	Reboot system.
Syntax	reboot
Parameter	None

3.1.11 firmware application upgrade

Description	Use firmware upgrade to load new firmware image to the switch.	
Syntax	firmware application upgrade { first | second | all | to-ram} <word>	
Parameter		
	Name	**Description**
	first	only upgrade the first application file.
	second	only upgrade the second application file.
	all	upgrade both application file.
	to-ram	upgrade application to ram and restart from ram, for debug only.

3.1.12 ping ip

Description	Check the status of Network.	
Syntax	ping ip <ipv4_addr> [repeat <1-60>] [size <2-1452>] [interval <0-30>]	
Parameter		
	Name	**Description**
	ipv4_addr	ICMP destination IPv4 address.
	repeat	Specify repeat count.
	size	Specify datagram size.
	interval	Specify repeat interval.

3.1.13 show aaa

Description	Show AAA
Syntax	show aaa
Parameter	None

3.1.14 show access management

Description	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

3.1.15 show access-list

Description	Access list	
Syntax	show access-list [interface [(<port_type> [<v_port_type_list>])]] [rate-limiter [<rate_limiter_list>]] [ace statistics [<ace_list>]] show access-list ace-status [static] [link-oam] [loop-protect] [dhcp] [ptp] [upnp] [arp-inspection] [mep] [ipmc] [ip-source-guard] [ip-mgmt] [conflicts] [switch <switch_list>]	
Parameter		
	Name	**Description**
	interface	Select an interface to configure

	ace-status	The local ACEs status
	port_type	GigabitEthernet,1 Gigabit Ethernet Port
	v_port_type_list	PORT_LIST, Port list in 1/1-14
	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

3.1.16 show aggregation

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

3.1.17 show alarm

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

3.1.18 show cpu-load

Description	Device information
Syntax	show build
Parameter	

3.1.19 show build

Description	Device information
Syntax	show system cpu status
Parameter	

3.1.20 show command active timeout

Description	Command active timeout
Syntax	show command active timeout
Parameter	

3.1.21 show dot1x authentication method

Description	dot1x authen method
Syntax	show dot1x authentication method

Parameter	

3.1.22 show dot1x statistics

Description	dot1x statistics information	
Syntax	show dot1x statistics { eapol	radius	all} [interface <port_type_list>]	
Parameter		
	Name	**Description**
	eapol	EAPOL statistics
	radius	Backend Server statistics
	all	all dot1x statistics
	port_type_list	Interface list

3.1.23 show drp

Description	DRP config information.	
Syntax	show drp [domain <1-32>] { configuration	state }	
Parameter		
	Name	**Description**
	domain	Domain ID
	configuration	Configuration
	state	State

3.1.24 show dt-ring

Description	dt-ring config information.	
Syntax	show dt-ring <1-32>	
Parameter		
	Name	**Description**
	<1-32>	dt-ringID

3.1.25 show dt-ring config

Description	dt-ring config information.
Syntax	show dt-ring config
Parameter	

3.1.26 show dt-ring-plus

Description	dt-ring-plus config information.	
Syntax	show dt-ring-plus [master]	
Parameter		
	Name	**Description**
	<1-32>	dt-ringID

3.1.27 show flash

Description	show FLASH information.
Syntax	show flash
Parameter	

3.1.28 show gmrp

Description	gmrp information.	
Syntax	show gmrp [interface <port_type_list>]	
Parameter		
	Name	**Description**
	port_type_list	List of port ID

3.1.29 show gmrp mac-address

Description	Gmrp mac-address information.	
Syntax	show gmrp mac-address {agent|dynamic}	
Parameter		
	Name	**Description**
	mac-address	Gmrp MAC addresses
	agent	Gmrp agent mac addresses
	dynamic	Gmrp dynamic mac addresses

3.1.30 show ip

Description	IP information	
Syntax	show ip	
Parameter		
	Name	**Description**
	arp	Address Resolution Protocol
	dhcp	Dynamic Host Configuration Protocol
	http	Hypertext Transfer Protocol
	igmp	Internet Group Management Protocol
	interface	IP interface status and configuration
	name-server	Domain Name System
	route	Display the current ip routing table
	source	source command
	ssh	Secure Shell
	statistics	Traffic statistics
	verify	verify command

3.1.31 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

3.1.32 show ipv6

Description	IPv6 information	
Syntax	show ipv6	
Parameter		
	Name	**Description**
	interface	Select an interface to configure
	mld	Multicasat Listener Discovery
	neighbor	IPv6 neighbors
	route	IPv6 routes
	statistics	Traffic statistics

3.1.33 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

3.1.34 show line

Description	Alive line information
Syntax	show line [alive]
Parameter	

	Name	**Description**
	alive	Display information about alive lines

3.1.35 show lldp neighbors

Description	Shows the LLDP neighbors information.
Syntax	show lldp neighbors [interface <port_type_list>]
Parameter	

	Name	**Description**
	port_type_list	Interface to display.

3.1.36 show lldp statistics

Description	Shows the LLDP statistics information.
Syntax	show lldp statistics [interface <port_type_list>]
Parameter	

	Name	**Description**
	port_type_list	Interface to display.

3.1.37 show logging

Description	Logging information
Syntax	show logging <log_id> [switch <switch_list>] show logging [info] [warning] [error] [switch <switch_list>]
Parameter	

	Name	**Description**
	log_id	<logging_id: 1-4294967295> Logging ID
	error	Error
	info	Infomation
	warning	Warning

3.1.38 show loop-protec

Description	Loop protect information
Syntax	show loop-protect [interface (<port_type> [<plist>])]
Parameter	

	Name	**Description**
	interface	Interface status and configuration
	port_type	GigabitEthernet, 1 Gigabit Ethernet Port
	plist	<port_type_list> Port list in 1/1-14

3.1.39 show manufacture information

Description	show manufacture information.
Syntax	show manufacture-information
Parameter	None

3.1.40 show memory

Description	show memory information.
Syntax	show memory
Parameter	None

3.1.41 show monitor

Description	show monitor information.
Syntax	show monitor [session {<uint> | all | remote}]
Parameter	

	Name	Description
	monitor	Monitoring different system events
	session	MIRROR session
	all	Show all MIRROR sessions
	remote	Show only Remote MIRROR sessions

3.1.42 show ntp status

Description	Show SNTP information.
Syntax	show sntp
Parameter	None

3.1.43 show users

Description	Show account list.
Syntax	show users
Parameter	None

3.1.44 show running-config

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

3.1.45 show running-config interface Gigabit

Description	Show port config
Syntax	show running-config interface (<port_type> [<list>]) [all-defaults]
Parameter	

	Name	Description
	list	<port_type_list> Port list in 1/1-14
	all-defaults	Include most/all default values

3.1.46 show running-config interface vlan

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

3.1.47 show running-config all-defautls

Description	Show all default setting
Syntax	show running-config [all-defaults]
Parameter	None

3.1.48 show running-config feature

Description	Show running config feature
Syntax	show running-config feature <feature_name> [all-defaults]
Parameter	

	Name	Description

	feature_name	CWORD
		Valid words are 'GVRP' 'access' 'access-list' 'aggregation' 'alm_profile' 'arp-inspection' 'auth' 'clock' 'dhcp' 'dhcp-snooping' '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' 'lacp' 'lldp' 'logging' 'loop-protect' 'mac' 'monitor' 'mstp' 'mvr' 'mvr-port' 'ntp' 'phy' 'port' 'port-security' 'pvlan' 'qos' 'rmon' 'snmp' 'source-guard' 'ssh' 'tring_g1' 'tring_g2' 'tring_g3' 'user' 'vlan' 'voice-vlan' 'web-privilege-group-level'
	all-defaults	Include most/all default values

3.1.49 show running-config line

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

3.1.50 show running-config vlan

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

3.1.51 show version

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

3.1.52 show clock

Description	Show current time.
Syntax	Show clock
Parameter	None

3.1.53 show ddm

Description	Show DDMI configuration
Syntax	show transceiver [base	ddm] info
Parameter	None

3.1.54 show version

Description	Show version information.
Syntax	show version
Parameter	None

3.1.55 show mac address table

Description	Show MAC information.	
Syntax	show mac address-table [conf	static	aging-time	{ { learning	count } [interface <port_type_list>	vlan <vlan_id>] }	{ address <mac_addr> [vlan <vlan_id>] }	vlan <vlan_id>	interface <port_type_list>	dynamic	unicast	multicast]	
Parameter		
	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
	interface	Select an interface to configure
	vlan	Addresses in this VLAN
	address	MAC address lookup
	dynamic	All dynamic mac addresses
	unicast	All unicast mac addresses
	multicast	All multicast mac addresses

3.1.56 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

3.1.57 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

3.1.58 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.

3.1.59 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 show platform phy status [interface (<port_type> [<v_port_type_list>])]	
Parameter		
	Name	**Description**
	id	ID
	instance	PHY Instance Information
	status	Status
	interface	Interface
	port_type	GigabitEthernet, 1 Gigabit Ethernet Port
	v_port_type_list	PORT_LIST, Port list in 1/1-14

3.1.60 show poe

Description	Show PoE status and information for each port	
Syntax	show poe [interface <port_type_list>	extension]	
Parameter		
	Name	**Description**
	poe	Power over Ethernet
	port_type_list	PORT_LIST, Port list in 1/1-14
	extension	Extend infomation

3.1.61 show port-security

Description	Port security	
Syntax	show port-security	
Parameter		
	Name	**Description**
	port	Show MAC Addresses learned by Port Security
	switch	Show Port Security status
	interface	Interface
	port_type	GigabitEthernet, 1 Gigabit Ethernet Port
	v_port_type_list	PORT_LIST, Port list in 1/1-14

3.1.62 show process

Description	Show current state of system

Syntax	show process	
Parameter		
	Name	**Description**
	load	Show current CPU load: 100ms, 1s and 10s running average (in percent, zero is idle)
	list	Show current state of system threads
	detail	optionally show thread call stack

3.1.63 show ptp

Description	Show PTP data	
Syntax	show ptp	
Parameter		
	Name	**Description**
	<0-3>	various PTP data
	system-time	the PTP <-> system time synchronization mode.
	default	PTP default data set (IEEE1588 paragraph 8.2.1).
	current	PTP current data set (IEEE1588 paragraph 8.2.2).
	parent	PTP parent data set (IEEE1588 paragraph 8.2.3).
	time-property	PTP time properties data set (IEEE1588 paragraph 8.2.4).
	filter	PTP filter parameters.
	servo	PTP servo parameters.
	servo-extended	PTP servo extended parameters.
	clk	PTP slave clock options parameters.
	ho	PTP slave holdover parameters.
	uni	PTP slave unicast configuration parameters.
	master-table-unicast	PTP master list of connected unicast slaves.
	slave	PTP slave clock lock threshold parameters.
	port-state	PTP port state.
	port-ds	PTP port data set (IEEE1588 paragraph 8.2.5).
	wireless	PTP port wireless parameters.
	foreign-master-record	PTP port foreign masters.

3.1.64 show sntp

Description	Show sntp status information.
Syntax	show sntp status
Parameter	None

3.1.65 show ssh public-key

Description	Show system information.	
Syntax	show system	
Parameter		
	Name	**Description**
	cpu	CPU
	led	led
	status	status

3.1.66 show system

Description	Show ssh public-key information.	
Syntax	show ssh public-key [name <word3-20>]	
Parameter		
	Name	**Description**

	name	detail of the key by name
	<word3-20>	public key name

3.1.67 show sflow

Description	Sflow information
Syntax	show sflow show sflow statistics { receiver [<rcvr_idx_list>] | samplers [interface [<samplers_list>] (<port_type> [<v_port_type_list>])] }
Parameter	

	Name	**Description**
	receiver	Show statistics for receiver
	samplers	Show statistics for samplers
	interface	Interface
	port_type	GigabitEthernet, 1 Gigabit Ethernet Port
	v_port_type_list	<port_type_list> Port list in 1/1-14

3.1.68 show snmp

Description	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

3.1.69 show spanning-tree

Description	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**
	active	STP active interfaces
	detailed	STP statistics
	interface	Choose port
	mst	Configuration
	summary	STP summary

3.1.70 show switchport forbidden

Description	Lookup VLAN Forbidden port entry	
Syntax	show switchport forbidden [{ vlan <vid> }	{ name <name> }]	
Parameter		
	Name	**Description**
	vlan	Show forbidden access for specific VLAN id
	vid	VLAN id
	name	Show forbidden access for specific VLAN name
	name	VLAN name

3.1.71 show tacacs-server

Description	TACACS+ configuration
Syntax	show tacacs-server
Parameter	

3.1.72 show vlan

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

3.1.73 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.

3.1.74 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.

3.1.75 show vlan brief

Description	VLAN summary information
Syntax	show vlan [id <vlan_list>	name <name>	brief]
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

3.1.76 show vlan ip-subnet

Description	Show VLAN ip-subnet entries
Syntax	show vlan ip-subnet [id <subnet_id>]
Parameter	

	Name	**Description**
	id	Show a specific ip-subnet entry
	subnet_id	<1-128> The specific ip-subnet to show

3.1.77 show vlan mac

Description	Show VLAN MAC entries
Syntax	show vlan mac [address <mac_addr>]
Parameter	

	Name	**Description**
	address	Show a specific MAC entry
	mac_addr	<mac_ucast> The specific MAC entry to show

3.1.78 show vlan protocol

Description	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

3.1.79 show vlan status

Description	Show the VLANs configured for each interface	
Syntax	show vlan status [interface (<port_type> [<plist>])] [combined | admin | nas | mvr | voice-vlan | mstp | erps | vcl | evc | gvrp | all | conflicts]	
Parameter		
	Name	**Description**
	admin	Show the VLANs configured by administrator
	all	Show all VLANs configured
	combined	Show the VLANs configured by a combination
	conflicts	Show VLANs configurations that has conflicts
	gvrp	Show the VLANs configured by GVRP
	interface	Show the VLANs configured for a specific interface(s)
	mstp	Show the VLANs configured by MSTP.
	mvr	Show the VLANs configured by MVR
	nas	Show the VLANs configured by NAS
	vcl	Show the VLANs configured by VCL

3.1.80 show qos-queue-mapping

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

3.1.81 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

3.1.82 show pvlan [<pvlan_list>]

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

3.1.83 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

3.1.84 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

3.1.85 show qos interface

Description	QoS interface information	
Syntax	show qos [{ interface [(<port_type> [<port>])] }]	
Parameter		
	Name	**Description**
	interface	Interface
	port_type	GigabitEthernet, 1 Gigabit Ethernet Port
	port	PORT_LIST, Port list in 1/1-14

3.1.86 show qos maps

Description	MAPS	
Syntax	show qos maps { maps [dscp-cos] [dscp-ingress-translation] [dscp-classify] [cos-dscp] [dscp-egress-translation] }	
Parameter		
	Name	**Description**
	cos-dscp	Map for cos to dscp
	dscp-classify	Map for dscp classify enable
	dscp-cos	Map for dscp to cos
	dscp-egress-translation	Map for dscp egress translation
	dscp-ingress-translation	Map for dscp ingress translation

3.1.87 show qos qce

Description	QCE	
Syntax	show qos { qce [<qce>] }	
Parameter		
	Name	**Description**
	qce	<Id : 1-256> QCE ID

3.1.88 show qos storm

Description	Show storm control information by VLAN.
Syntax	show qos storm
Parameter	

3.1.89 show rmon

Description	
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

3.1.90 show interface vlan

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

3.1.91 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

3.1.92 show dot1x status

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

3.1.93 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
	interface	Interface
	port_type	GigabitEthernet, 1 Gigabit Ethernet Port
	v_port_type_list	PORT_LIST, Port list in 1/1-14

3.1.94 show radius-server [statistics]

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

3.1.95 show web

Description	Web privilege	
Syntax	show web privilege group [<group_name>] level	
Parameter		
	Name	**Description**
	privilege	Web privilege
	group	Web privilege grou
	group_name	CWORD 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

3.1.96 show link state track

Description	Monitor link state track	
Syntax	show link state track [group <group_num> }	
Parameter		
	Name	**Description**
	group_num	Link state track group <1-2>

3.1.97 show udld

Description	Monitor udld	
Syntax	show udld [<port_list>]	
Parameter		
	Name	**Description**
	<port_list>	port list

3.2 Configure Mode Commands

Commands that can be executed under Configure Mode

3.2.1 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

3.2.2 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

3.2.3 aaa authentication login

Description	Use the aaa authentication login command to configure the authentication methods.	
Syntax	aaa authentication login { console	telnet	ssh	http } { [local	radius	tacacs] ... }	
Parameter		
	Name	Description
	authentication	Authentication

3.2.4 aaa accounting

Description	Use the aaa accounting command to configure the accounting methods.	
Syntax	aaa accounting { console	telnet	ssh } tacacs { [commands <0-15>] [exec] }	
Parameter		
	Name	Description
	accounting	Accounting

3.2.5 aaa authorization

Description	Use the aaa authorization command to configure the authorization methods.	
Syntax	aaa authorization { console	telnet	ssh } tacacs commands <0-15> [config-commands]	
Parameter		
	Name	Description
	authorization	Authorization

3.2.6 access

Description	Management configuration	
Syntax	access management	
Parameter		
	Name	Description
	management	Access management configuration

3.2.7 access-list

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

3.2.8 address-conflict-detect state

Description	set ip mac address conflict detect	
Syntax	address-conflict-detect {enable | disable}	
Parameter	Name	Description
	enable	Enable detect
	disable	Disable detect

3.2.9 address-conflict-detect interval

Description	set ip mac address conflict detect interval timer	
Syntax	address-conflict-detect interval <180-600>	
Parameter	Name	Description

3.2.10 aggregation mode

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

3.2.11 alarm port-alarm

Description	set port alarm state	
Syntax	alarm port-alarm	
Parameter		
	Name	Description
	crc-err	Crc error
	input-rate	Input rate
	linkdown	Link down
	output-rate	Output rate
	pkt-loss	Packet loss

3.2.12 alarm cpu-usage

Description	set cpu alarm state	
Syntax	alarm cpu-usage { enable [threshold <50-100> margin <1-20>] | disable}	
Parameter		
	Name	Description
	enable	Enable cpu usage alarm
	threshold	Threshold
	margin	Margin
	disable	Disable cpu usage alarm

3.2.13 alarm drp state

Description	set drp alarm state

Syntax	alarm drp <1-32> { enable | disable}	
Parameter		
	Name	Description
	<1-32>	Domain id <1-32>
	enable	Enable alarm
	disable	Disable alarm

3.2.14 alarm dt-ring state

Description	set dt-ring alarm state	
Syntax	alarm dt-ring <1-32> { enable | disable}	
Parameter		
	Name	Description
	<1-32>	Domain id <1-32>
	enable	Enable alarm
	disable	Disable alarm

3.2.15 alarm mem

Description	set memory alarm state	
Syntax	alarm memory-usage { enable [threshold <50-100> margin <1-20>] | disable}	
Parameter		
	Name	Description
	enable	Enable memory usage alarm
	threshold	Threshold
	margin	Margin
	disable	Disable memory usage alarm

3.2.16 alarm power

Description	set power alarm state	
Syntax	alarm power { enable | disable}	
Parameter		
	Name	Description
	enable	Enable alarm
	disable	Disable alarm

3.2.17 set transceiver alarm enable

Description	set transceive alarm state	
Syntax	alarm transceive hard { enable | disable }	
Parameter		
	Name	Description
	enable	Enable alarm
	disable	Disable alarm

3.2.18 set transceiver soft alarm enable

Description	set transceive alarm state	
Syntax	alarm transceive soft-rx interface <port_type_list> { disable | enable [threshold <-400-82>] }	
Parameter		
	Name	Description
	port_type_list	Sfp interface
	disable	Disable alarm
	enable	Enable
	threshold	Threshold

3.2.19 banner

Description	Banner control	
Syntax	banner { LINE | exec | login | motd }	
Parameter		
	Name	**Description**
	LINE	c banner-text c, where 'c' is a delimiting character
	exec	Set EXEC process creation banner
	login	Set login banner
	motd	Set Message of the Day banner

3.2.20 default access-list rate-limiter

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

3.2.21 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
	default	Set time zone to default (GMT/UTC). **Type**: Mandatory

3.2.22 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

3.2.23 green ethernet eee

Description	Sets if EEE should be optimized for least traffic latency or least power comsumption.
Syntax	green-ethernet eee optimize-for-power
Parameter	None

3.2.24 LED power reduction

Description	Use green-ethernet led interval to configure the LED intensity at specific interval of the day.	
Syntax	green-ethernet led interval <0~24> intensity <0-100>	
Parameter		
	Name	**Description**
	interval	Interval in whole hours at which to configure the LED intensity.
	intensity	LEDs intensity.

3.2.25 green-ethernet led on-event

Description	Use green-ethernet led on-event to configure when to turn LEDs intensity to 100%%.	
Syntax	green-ethernet led on-event { [link-change <0-65535>] [error] }	
Parameter		
	Name	**Description**
	link-change	Specifies how long to turn LEDs intensity to 100%%, when a link changes state.
	error	Set LEDs intensity to 100%% if an error occurs.

3.2.26 set system's network name

Description	Set system's network name.	
Syntax	hostname <line255>	
Parameter		
	Name	**Description**
	<line255>	This system's network name (1-32 characters).

3.2.27 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

3.2.28 account delete <username>

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

3.2.29 syslog {enable|disable}

Description	Disable or enable syslog service.
Syntax	logging on no logging on

Parameter	None

3.2.30 configuration save and replace

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

3.2.31 clear ip igmp snooping statistics

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

3.2.32 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

3.2.33 clear mac address-table

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

3.2.34 delete

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

3.2.35 dir

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

3.2.36 do

Description	To run exec commands in config mode
Syntax	do <line>

Parameter		
	Name	**Description**
	<line>	Exec Command

3.2.37 duplex

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

3.2.38 firmware

Description	Firmware swap and upgrade	
Syntax	firmware upgrade	
Parameter		
	Name	**Description**
	upgrade	Firmware upgrade

3.2.39 help

Description	Description of the interactive help system
Syntax	help
Parameter	

3.2.40 ip arp inspection

Description	iparp inspection
Syntax	Ip arp inspection
Parameter	

3.2.41 ip arp inspection translate

Description	IP ARP inspection entry interface configuration	
Syntax	ip arp 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

3.2.42 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	Port type in Fast, Giga or Tengigaethernet
	in_port_type_id	Port ID in the format of switch-no/port-no

	vlan_var	Select a VLAN id to configure
	mac_var	Select a MAC address to configure
	ipv4_var	Select an IP Address to configure

3.2.43 ip arp inspection vlan

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

3.2.44 ip arp static add

Description	Add static arp	
Syntax	ip arp static add <ipv4_addr> <mac_addr>	
Parameter		
	Name	**Description**
	ipv4_addr	static arp ipv4 ip address
	mac_addr	static arp ipv4 mac address

3.2.45 ip arp static delete

Description	Delete static arp	
Syntax	ip arp static delete <ipv4_addr> <mac_addr>	
Parameter		
	Name	**Description**
	ipv4_addr	static arp ipv4 ip address
	mac_addr	static arp ipv4 mac address

3.2.46 ip arp timeout set

Description	Set ARP timeout	
Syntax	ip arp timeout set <1-60>	
Parameter		
	Name	**Description**

3.2.47 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

3.2.48 ip dhcp pool

Description	Pool name in 32 characters
Syntax	ip dhcp pool <pool_name>
Parameter	

3.2.49 ip dhcp server

Description	DHCP Server
Syntax	ip dhcp server
Parameter	

3.2.50 ip dhcp relay

Description	DHCP relay agent configuration
Syntax	ip dhcp relay
Parameter	

3.2.51 ip dhcp relay information option

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

3.2.52 ip dhcp snooping

Description	IP DHCP snooping
Syntax	ipdhcp snooping
Parameter	

3.2.53 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

3.2.54 ip dns proxy

Description	IP DNS proxy service
Syntax	ipdns proxy
Parameter	

3.2.55 ip http secure-redirect

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

3.2.56 ip http secure-server

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

3.2.57 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

3.2.58 ip ssh

Description	IP Secure Shell
Syntax	ipssh

Parameter	

3.2.59 ip name-server

Description	IP name server	
Syntax	ip name-server { <v_ipv4_ucast> | dhcp [interface vlan <v_vlan_id>] }	
Parameter		
	Name	**Description**
	v_ipv4_ucast	A valid IPv4 unicast address
	dhcp	Dynamic Host Configuration Protocol
	v_vlan_id	VLAN identifier(s): VID

3.2.60 ip route

Description	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

3.2.61 ip routing

Description	IP routing
Syntax	ip routing
Parameter	

3.2.62 ip verify

Description	IP verify	
Syntax	ip verify [source] [translate]	
Parameter		
	Name	**Description**
	source	verify source
	translate	ip verify source translate all entries

3.2.63 ipmc profile

Description	IPMC profile configuration
Syntax	ipmc profile
Parameter	

3.2.64 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

3.2.65 ipv6 mld host-proxy

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

3.2.66 ipv6 mld snooping

Description	enable MLD snooping.	
Syntax	ipv6 mld snooping	
Parameter		
	Name	**Description**

3.2.67 ipv6 mld snooping vlan

Description	config MLD VLAN.	
Syntax	ipv6 mld snooping vlan <vlan_list>	
Parameter		
	Name	**Description**

3.2.68 ipv6 mld ssm-range

Description	set MLD SSM range.	
Syntax	ipv6 mld ssm-range <ipv6_mcast> <8-128>	
Parameter		
	Name	**Description**
	ipv6_mcast	Valid IPv6 multicast address
	<8-128>	Prefix length ranges from 8 to 128

3.2.69 key-file

Description	set Keyfile.	
Syntax	key-file {import |delete} public-key <word3-20>	
Parameter		
	Name	**Description**
	import	Create
	delete	Delete
	<word3-20>	key file name

3.2.70 lacp

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

3.2.71 line

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

3.2.72 login host

Description	Domain name and IP address	
Syntax	logging host { <v_ipv4_ucast>	<v_word45> }	
Parameter		
	Name	**Description**
	hostname	Donain name of the log server
	ipv4_ucast	IP address of the log server

3.2.73 log level

Description	Log level	
Syntax	logging level { info	warning	error }	
Parameter		
	Name	**Description**
	error	Error
	info	Information
	warning	Warning

3.2.74 log on

Description	Log on
Syntax	logging on
Parameter	

3.2.75 logout

Description	System logout
Syntax	logout
Parameter	

3.2.76 modbusTCP enable

Description	modbusTCP state configuration
Syntax	modbusTCP enable
Parameter	

3.2.77 modbusTCP disable

Description	modbusTCP state configuration
Syntax	modbusTCP disable
Parameter	

3.2.78 modbusTCP readonly enable

Description	modbusTCP readonly state configuration
Syntax	modbusTCP readonly enable
Parameter	

3.2.79 modbusTCP readonly disable

Description	modbusTCP readonly state configuration
Syntax	modbusTCP readonly disable
Parameter	

3.2.80 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

3.2.81 mac address-table learning

Description	VLAN learning.	
Syntax	mac address-table learning vlan <vlan_list>	
Parameter		
	Name	**Description**

3.2.82 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
	v_vlan_id	VLAN IDs 1-4095
	port_type	Select an interface to configure
	v_port_type_list	Port list

3.2.83 multicast unregistered

Description	Configure multicast.
Syntax	multicast unregistered {ip	l2 } action {forward |discard}
Parameter	

3.2.84 Mvr

Description	enable MVR.
Syntax	mvr
Parameter	

3.2.85 mvr name <word16> channel

Description	set MVR interface channel.	
Syntax	mvr name <word16> channel <word16>	
Parameter		
	Name	**Description**
	<word16>	MVR multicast VLAN name
	<word16>	Profile name in 16 char's

3.2.86 mvr name <word16> frame priority

Description	set MVR interface priority settings.	
Syntax	mvr name <word16> frame priority <0-7>	
Parameter		
	Name	**Description**
	<word16>	MVR multicast VLAN name
	priority	Interface CoS priority

3.2.87 mvr name <word16> frame tagged

Description	set MVR interface priority settings.	
Syntax	mvr name <word16> frame tagged	
Parameter		
	Name	**Description**
	<word16>	MVR multicast VLAN name
	tagged	Tagged IGMP/MLD frames will be sent

3.2.88 mvr name <word16> igmp-address

Description	set MVR IGMP address settings for IGMP.	
Syntax	mvr name <word16> igmp-address <ipv4_ucast>	
Parameter		
	Name	**Description**
	<word16>	MVR multicast VLAN name

3.2.89 mvr name <word16> last-member-query-interval

Description	set MVR interface LMQI.	
Syntax	mvr name <word16> last-member-query-interval <0-31744>	
Parameter		
	Name	**Description**
	<word16>	MVR multicast VLAN name

3.2.90 mvr name <word16> mode

Description	set MVR interface mode setting.	
Syntax	mvr name <word16> mode { dynamic | compatible }	
Parameter		
	Name	**Description**
	<word16>	MVR multicast VLAN name
	dynamic	Dynamic MVR operation mode
	compatible	Compatible MVR operation mode

3.2.91 mvr vlan <vlan_list> channel

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

3.2.92 mvr vlan <vlan_list> frame priority

Description	set MVR interface priority settings.	
Syntax	mvr vlan <vlan_list> frame priority <0-7>	
Parameter		
	Name	**Description**
	<vlan_list>	MVR multicast VLAN list
	priority	Interface CoS priority

3.2.93 mvr vlan <vlan_list> frame tagged

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

3.2.94 mvr vlan <vlan_list> igmp-address

Description	set MVR IGMP address settings for IGMP.	
Syntax	mvr vlan <vlan_list> igmp-address <ipv4_ucast>	
Parameter		
	Name	**Description**

	<vlan_list>	MVR multicast VLAN list

3.2.95 mvr vlan <vlan_list> last-member-query-interval

Description	set MVR interface LMQI.	
Syntax	mvr vlan <vlan_list> last-member-query-interval <0-31744>	
Parameter		
	Name	Description
	<vlan_list>	MVR multicast VLAN list

3.2.96 mvr vlan <vlan_list> mode

Description	set MVR interface mode setting.	
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

3.2.97 mvr vlan <vlan_list> [name <word16>]

Description	set MVR VLAN interface.	
Syntax	mvr vlan <vlan_list> [name <word16>]	
Parameter		
	Name	Description
	<vlan_list>	MVR multicast VLAN list
	name	MVR multicast name
	<word16>	MVR multicast VLAN name

3.2.98 no

Description	Function disable	
Syntax	no { port-securit | terminal }	
Parameter		
	Name	Description
	port-securit	Port security (psec limit)
	terminal	Set terminal line parameters

3.2.99 ping

Description	The ping function	
Syntax	ping { ip | ipv6 }	
Parameter		
	Name	Description
	ip	IP (ICMP) echo
	ipv6	IPv6 (ICMPv6) echo

3.2.100   port-security

Description	Port security	
Syntax	port-security [aging] [time <v_10_to_10000000>]	
Parameter		
	Name	Description
	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

3.2.101   ptp <0-3> domain

Description	Set clock domain	
Syntax	ptp <0-3> domain <0-127>	
Parameter		
	Name	**Description**
	<0-3>	Clock instance [0-3]
	domain	Clock domain for PTP

3.2.102   ptp <0-3> log

Description	Set the PTP debug mode	
Syntax	ptp <0-3> log <1-4>	
Parameter		
	Name	**Description**
	<0-3>	Clock instance [0-3]
	log	Set the PTP debug mode

3.2.103   ptp <0-3> mode

Description	Create a PTP clock instance	
Syntax	ptp <0-3> mode { boundary	e2etransparent	p2ptransparent	master	slave } [onestep	twostep] [ethernet	ip4multi] [oneway	twoway] [id <clock_id>] [vid <vlan_id> [<0-7>] [tag]] [profile { ieee1588 }] [clock-domain 0] [dscp <0-63>]	
Parameter		
	Name	**Description**
	<0-3>	Clock instance [0-3]
	mode	Enable a PTP instance

3.2.104   ptp <0-3> priority1

Description	Set Clock priority1	
Syntax	ptp <0-3> priority1 <0-255>	
Parameter		
	Name	**Description**
	<0-3>	Clock instance [0-3]
	priority1	Clock priority 1 for PTP BMC algorithm (0 is highest priority)

3.2.105   ptp <0-3> priority1

Description	Set Clock priority2	
Syntax	ptp <0-3> priority2 <0-255>	
Parameter		
	Name	**Description**
	<0-3>	Clock instance [0-3]
	Priority2	Clock priority 2 for PTP BMC algorithm (0 is highest priority)

3.2.106   ptp system-time

Description	Enable synchronization between PTP and System time	
Syntax	ptp system-time { get	set }	
Parameter		
	Name	**Description**
	get	Get (update) the PTP time from the system time
	set	Set (update) the system time from the PTP

3.2.107 sntp server ip-address

Description	Configure SNTP server ip.	
Syntax	sntp server ip-address {<ipv4_ucast>}	
Parameter		
	Name	Description

3.2.108 Sntp

Description	sntp enable.	
Syntax	sntp	
Parameter		
	Name	Description

3.2.109 switchport vlan mapping

Description	add VLAN Translation mapping..	
Syntax	switchport vlan mapping <1-26> <vlan_list> <vlan_id>	
Parameter		
	Name	Description
	mapping	Add VLAN translation entry into a group.
	<1-26>	Group id

3.2.110 telnet-server

Description	telnet-server enable.	
Syntax	telnet-server enable	
Parameter		
	Name	Description
	enable	open telnet server

3.2.111 thermal-protect grp

Description	Thermal protection configuirations.	
Syntax	thermal-protect grp <0~3> temperature <0-255>	
Parameter		
	Name	Description
	grp	Sets temperature at which to turn ports mapped to the corresponding group off.
	temperature	temperature keyword

3.2.112 usb auto backup configurator

Description	usb auto backup configuirations.	
Syntax	usb auto backup configurator { enable | disable }	
Parameter		
	Name	Description
	auto	auto backup configurator
	backup	auto backup configurator

3.2.113 usb config-file delete

Description	Delete usb config-file.	
Syntax	usb config-file delete <vword8>	
Parameter		
	Name	Description
	<vword8>	config-file name

3.2.114 usb config-file download

Description	download usb config-file.	
Syntax	usb config-file download <vword8>	
Parameter		
	Name	**Description**
	<vword8>	config-file name

3.2.115 usb config-file upload

Description	Upload usb config-file.	
Syntax	usb config-file upload	
Parameter		
	Name	**Description**

3.2.116 usb config-file list

Description	List usb config-file.	
Syntax	usb config-file list	
Parameter		
	Name	**Description**

3.2.117 profinet enable

Description	profinet Configuration .	
Syntax	profinet disable	
Parameter		
	Name	**Description**

3.2.118 profinet enable

Description	profinet Configuration .	
Syntax	profinet enable	
Parameter		
	Name	**Description**

3.2.119 privilege

Description		
Syntax	privilege { exec | configure | config-vlan | line | interface | if-vlan | ipmc-profile | snmps-host | stp-aggr | dhcp-pool | rfc2544-profile } level <privilege> <cmd>	
Parameter		
	Name	**Description**
	config-vlan	VLAN Configuration Mode
	configure	Global configuration mod
	dhcp-pool	DHCP Pool Configuration Mode
	exec	Exec mode
	if-vlan	VLAN Interface Mode
	interface	Port List Interface Mode
	ipmc-profile	IPMC Profile Mode
	line	Line configuration mode
	rfc2544-profile	RFC2544 Profile Mode
	snmps-host	SNMP Server Host Mode
	stp-aggr	STP Aggregation Mode

3.2.120 reboot

Description	System or configuration reset

Syntax	reboot	
Parameter		
	Name	**Description**

3.2.121 rmon

Description	RMON	
Syntax	rmon {alarm | event}	
Parameter		
	Name	**Description**
	alarm	Configure an RMON alarm
	event	Configure an RMON event

3.2.122 rmon alarm

Description	RMON Alarm	
Syntax	rmon alarm <id> <oid_str> <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	Sample interval
	absolute	Test each sample directly
	delta	Test delta between samples
	rising_threshold	<-2147483648-2147483647> rising threshold value
	rising_event_id	<0-65535> Event to fire on rising threshold crossing
	falling_threshold	<-2147483648-2147483647> 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

3.2.123 rmon alarm

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

3.2.124 terminal

Description	Terminal control	
Syntax	terminal { editing | exec-timeout | help | history | length | width }	
Parameter		
	Name	Description
	editing	Enable command line editing
	exec-timeout	Set the EXEC timeout
	help	Description of the interactive help system
	history	Control the command history function
	length	Set number of lines on a screen
	width	Set width of the display terminal

3.2.125 vlan <vlanid>

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

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

3.2.127 mac address-table aging-time \<time\>

Description	Configure aging time for a bridge port.	
Syntax	mac address-table aging-time \<time\>	
Parameter		
	Name	**Description**
	\<time\>	**Valid values**: 10 ~ 1000000 (seconds), 0: disable aging **Type**: Mandatory

3.2.128 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).

3.2.129 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**
	\<port_type	Port type
	\<port_type_id\>	Port Number

3.2.130   monitor source interface

Description	Mirror Interface traffic	
Syntax	monitor source { { interface (\<port_type\> [\<v_port_type_list\>]) }	
Parameter		
	Name	**Description**
	port_type	1 Gigabit Ethernet Port
	v_port_type_lis	Port list

3.2.131   monitor source cpu

Description	Mirror Interface traffic
Syntax	monitor source { cpu [\<cpu_switch_range\>] } } { both | rx | tx }
Parameter	

	Name	**Description**
	both	Setting source port to both will mirror both ingress and egress traffic
	rx	Setting source port to rx will mirror ingress traffic
	tx	Setting source port to tx will mirror egress traffic

3.2.132   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

3.2.133 tacacs-server key

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

3.2.134 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

3.2.135 traps

Description	trap event configuration	
Syntax	traps [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
	rmon	RMON event

3.2.136 upnp

Description	Set UPnP's configurations
Syntax	upnp
Parameter	

3.2.137 upnp advertising-duration

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

3.2.138 upnp ttl

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

3.2.139 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

3.2.140 web

Description	
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>

3.2.141 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.

3.2.142 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.

3.2.143 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.

3.3   VLAN Mode Commands

3.3.1 vlan

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

3.3.2 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)

3.3.3 vlan protocol

Description		
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)

3.4 Interface Vlan Mode Commands

3.4.1 IP address configuration

Description	IP address configuration.
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
	fallback	DHCP fallback settings
	timeout	DHCP fallback timeout, Default value is 60 seconds

3.4.2 ip dhcp server

Description	Enable DHCP server per VLAN.
Syntax	ip dhcp server
Parameter	

	Name	Description

3.4.3 ip igmp snooping

Description	enable IGMP VLAN interface.
Syntax	ip igmp snooping
Parameter	

	Name	Description

3.4.4 ip igmp snooping compatibility

Description	Configure ip igmp snooping interface compatibility.
Syntax	ip igmp snooping compatibility { auto	v1	v2	v3 }
Parameter	

	Name	Description

3.4.5 ip igmp snooping last-member-query-interval

Description	Configure ip igmp snooping interface last member query interval in tenths of seconds.
Syntax	ip igmp snooping last-member-query-interval <0-31744>
Parameter	

	Name	Description

3.4.6 ip igmp snooping priority

Description	Configure ip igmp snooping interface priority.
Syntax	ip igmp snooping priority <0-7>
Parameter	

	Name	Description

3.4.7 ip igmp snooping querier

Description	Configerate ip igmp snooping querier .
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.

3.4.8 ip igmp snooping query-interval

Description	Configerate ip igmp snooping querier .	
Syntax	ip igmp snooping query-interval <1-31744>	
Parameter		
	Name	**Description**

3.4.9 ip igmp snooping query-max-response-time

Description	Configerate ip igmp snooping Query Response Interval in tenths of seconds .	
Syntax	ip igmp snooping query-max-response-time <0-31744>	
Parameter		
	Name	**Description**

3.4.10 ip igmp snooping robustness-variable

Description	Configerate ip igmp snooping Robustness Variable.	
Syntax	ip igmp snooping robustness-variable <2-255>	
Parameter		
	Name	**Description**

3.4.11 ip igmp snooping unsolicited-report-interval

Description	Configerate ip igmp snooping unsolicited-report-interval.	
Syntax	ip igmp snooping unsolicited-report-interval <0-31744>	
Parameter		
	Name	**Description**

3.4.12 ipv6 address <ipv6_subnet>

Description	Create ipv6 address.	
Syntax	ipv6 address <ipv6_subnet>	
Parameter		
	Name	**Description**
	<ipv6_subnet>	IPv6 prefix x:x::y/z

3.4.13 ipv6 address

Description	Enable DHCPv6 client function.	
Syntax	ipv6 address { autoconfig	dhcp [rapid-commit] }	
Parameter		
	Name	**Description**
	rapid-commit	Enable DHCPv6 client Rapid-Commit option

3.4.14 ipv6 mld snooping

Description	enable MLD snooping..	
Syntax	ipv6 mld snooping	
Parameter		
	Name	**Description**

3.4.15 ipv6 mld snooping compatibility

Description	Configure ipv6 mld snooping interface compatibility.	
Syntax	ipv6 mld snooping compatibility { auto	v1	v2 }	
Parameter		
	Name	**Description**
	auto	Compatible with MLDv1/MLDv2

	v1	Forced MLDv1
	V2	Forced MLDv2

3.4.16 ipv6 mld snooping last-member-query-interval

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

3.4.17 ipv6 mld snooping priority

Description	Configure ipv6 mld snooping interface priority.	
Syntax	ipv6 mld snooping priority <0-7>	
Parameter		
	Name	**Description**

3.4.18 ipv6 mld snooping querier election

Description	Configerate ipv6 mld snooping querier .	
Syntax	ipv6 mld snooping querier election	
Parameter		
	Name	**Description**
	election	Act as a MLD Querier to join Querier-Election.

3.4.19 ipv6 mld snooping query-interval

Description	Configerate ipv6 mld snooping query-interval.	
Syntax	ipv6 mld snooping query-interval <1-31744>	
Parameter		
	Name	**Description**

3.4.20 ipv6 mld snooping query-max-response-time

Description	Configerate ipv6 mld snooping Query Response Interval in tenths of seconds .	
Syntax	ipv6 mld snooping query-max-response-time <0-31744>	
Parameter		
	Name	**Description**

3.4.21 ipv6 mld snooping robustness-variable

Description	Configerate ipv6 mld snooping Robustness Variable.	
Syntax	ipv6 mld snooping robustness-variable <1-255>	
Parameter		
	Name	**Description**

3.4.22 ipv6 mld snooping unsolicited-report-interval

Description	Configerate ipv6 mld snooping unsolicited-report-interval.	
Syntax	ipv6 mld snooping unsolicited-report-interval <0-31744>	
Parameter		
	Name	**Description**

3.5 Interface Mode Commands

3.5.1 create an aggregation

Description	Create an aggregation group.	
Syntax	aggregation group <uint>	
Parameter		
	Name	**Description**
	<uint>	The aggregation group id.

3.5.2 dot1x port-control

Description	Sets the port security state.	
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

3.5.3 dot1x guest-vlan

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

3.5.4 dot1x radius-vlan

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

3.5.5 dot1x radius-qos

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

3.5.6 dot1x re-authenticate

Description	Refresh (restart) 802.1X authentication process.
Syntax	dot1x re-authenticate
Parameter	

3.5.7 configure interface duplex mode

Description	Use duplex to configure interface duplex mode.	
Syntax	duplex { half	full	auto [half	full] }	
Parameter		
	Name	**Description**
	half	Forced half duplex.

	full	Forced full duplex.
	auto	Auto negotiation of duplex mode.
	half	Advertise half duplex.
	full	Advertise full duplex.

3.5.8 flowcontrol

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

3.5.9 frame-length-check

Description	Enable 803.3 frame length check for ethertypes below 0x0600.
Syntax	frame-length-check
Parameter	

3.5.10 enable gmrp port agent

Description	enable gmrp port agent.
Syntax	gmrp agent enable
Parameter	

3.5.11 enable gmrp port

Description	enable gmrp port.
Syntax	gmrp enable
Parameter	

3.5.12 green-ethernet eee urgent-queues

Description	Sets EEE urgeent queues.	
Syntax	green-ethernet eee urgent-queues [<range_list>]	
Parameter		
	Name	**Description**
	<range_list>	EEE Interface.

3.5.13 green-ethernet energy-detect

Description	Enables energy-detect power savings.
Syntax	green-ethernet energy-detect
Parameter	

3.5.14 green-ethernet short-reach

Description	Enables short-reach power savings.
Syntax	green-ethernet short-reach
Parameter	

3.5.15 gvrp

Description	Enable GVRP on port
Syntax	gvrp
Parameter	

3.5.16 ip arp inspection check-vlan

Description	VLAN interface configurations

Syntax	ip arp inspection check-vlan	
Parameter		
	Name	Description

3.5.17 ip arp inspection trust

Description	ARP inspection trust config.	
Syntax	ip arp inspection trust	
Parameter		
	Name	Description

3.5.18 ip dhcp snooping trust

Description	DHCP Snooping trust config.	
Syntax	ip dhcp snooping trust	
Parameter		
	Name	Description

3.5.19 ip igmp snooping filter <word16>

Description	Access control on IGMP multicast group registration.	
Syntax	ip igmp snooping filter <word16>	
Parameter		
	Name	Description
	<word16>	Profile name in 16 char's.

3.5.20 ip igmp snooping immediate-leave

Description	Immediate leave configuration.	
Syntax	ip igmp snooping immediate-leave	
Parameter		
	Name	Description

3.5.21 ip igmp snooping max-groups

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

3.5.22 ip igmp snooping mrouter

Description	Multicast router port configuration.	
Syntax	ip igmp snooping mrouter	
Parameter		
	Name	Description

3.5.23 ipv6 mld snooping filter

Description	Access control on MLD multicast group registration.	
Syntax	ipv6 mld snooping filter <word16>	
Parameter		
	Name	Description
	<word16>	Profile name in 16 char's.

3.5.24 ipv6 mld snooping immediate-leave

Description	Immediate leave configuration.	

Syntax	ipv6 mld snooping immediate-leave	
Parameter		
	Name	**Description**

3.5.25 ipv6 mld snooping max-groups

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

3.5.26 ipv6 mld snooping mrouter

Description	Multicast router port configuration.	
Syntax	ipv6 mld snooping mrouter	
Parameter		
	Name	**Description**

3.5.27 Enable LACP on an interface

Description	Enable LACP on an interface.	
Syntax	lacp	
Parameter		
	Name	**Description**

3.5.28 lacp key

Description	Key of the LACP aggregation configuration.	
Syntax	lacp key { <1-65535>	auto }	
Parameter		
	Name	**Description**
	<1-65535>	Key value.
	auto	Choose a key based on port speed.

3.5.29 lacp port-priority

Description	Set the lacp port priority.	
Syntax	lacp port-priority <1-65535>	
Parameter		
	Name	**Description**
	<1-65535>	Priority value, lower means higher priority.

3.5.30 lacp role

Description	Set the LACP role, active or passive in transmitting BPDUs.	
Syntax	lacp role { active	passive }	
Parameter		
	Name	**Description**
	active	Transmit LACP BPDUs continously.
	passive	Wait for neighbor LACP BPDUs before transmitting.

3.5.31 lacp timeout

Description	Set the LACP timeout, i.e. how fast to transmit BPDUs, once a sec or once each 30 sec..
Syntax	lacp timeout { fast	slow }
Parameter	

	Name	Description
	fast	Transmit BPDU each second (fast timeout).
	slow	Transmit BPDU each 30th second (slow timeout).

3.5.32 Link check function

Description	Enable link-check on an interface.
Syntax	link-check enable
Parameter	
	Name	Description

3.5.33 lldp cdp-aware

Description	Configures if the interface shall be CDP aware.
Syntax	lldp cdp-aware
Parameter	
	Name	Description
	cdp-aware	Configures if the interface shall be CDP aware (CDP discovery information is added to the LLDP neighbor table).

3.5.34 lldp med media-vlan policy-list

Description	Use the media-vlan policy-list to assign policy to the interface.
Syntax	lldp med media-vlan policy-list <range_list>
Parameter	
	Name	Description
	<range_list>	Policies to assign to the interface.

3.5.35 lldp med transmit-tlv

Description	Use the lldp med transmit-tlv to configure which TLVs to transmit to link partner.
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.

3.5.36 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 TVLs transmission. A "Network Connectivity LLDP-MED 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.

Syntax	lldp med type {connectivity | end-point}	
Parameter		
	Name	**Description**
	connectivity	Work as connectivity device.
	end-point	Work as end-point device.

3.5.37 mac address-table learning

Description	Enable learning on port.	
Syntax	mac address-table learning [secure]	
Parameter		
	Name	**Description**
	secure	Port Secure mode.

3.5.38 configure the interface media type

Description	Use media-type to configure the interface media type.	
Syntax	media-type { copper | fiber | auto }	
Parameter		
	Name	**Description**
	copper	copper interface.
	fiber	fiber interface.
	auto	Dual media interface (fiber interface preference).

3.5.39 mtu <value>

Description	MTU size.	
Syntax	mtu <value>	
Parameter		
	Name	**Description**
	<value>	Range. **Valid values**: 1518~9600 (bytes) **Type**: Mandatory

3.5.40 mvr immediate-leave

Description	MVR immediate leave configuration.	
Syntax	mvr immediate-leave	
Parameter		
	Name	**Description**
	immediate-leave	Immediate leave configuration

3.5.41 mvr name

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

3.5.42 mvr vlan

Description	MVR multicast vlan 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

3.5.43 port-security

Description	Enable port security per interface.	
Syntax	port-security	
Parameter		
	Name	**Description**

3.5.44 port-security maximum

Description	Miximum number of MAC addresses that can be learned on this set of interfaces.	
Syntax	port-security maximum [<1-1024>]	
Parameter		
	Name	**Description**

3.5.45 port-security violation

Description	The action involved with exceeding the limit..	
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

3.5.46 ptp <0-3> announce

Description	set ptp announce interval and timeout.	
Syntax	ptp <0-3> announce { [interval <-3-4>] [timeout <1-10>] }	
Parameter		
	Name	**Description**
	<0-3>	Clock instance
	interval	announce interval
	timeout	announce timeout

3.5.47 ptp <0-3> sync-interval

Description	set ptp sync interval.	
Syntax	ptp <0-3> sync-interval <-7-4>	
Parameter		
	Name	**Description**
	<0-3>	Clock instance
	sync-interval	sync interval

3.5.48 ptp <0-3> delay-mechanism

Description	set delay machanism.	
Syntax	ptp <0-3> delay-mechanism { e2e | p2p }	
Parameter		
	Name	**Description**
	<0-3>	Clock instance
	e2e	End to End Delay mechanism
	p2p	Peer to Peer Delay mechanism

3.5.49 ptp <0-3> delay-req interval

Description	set pdelay req interval.	
Syntax	ptp <0-3> delay-req interval <-7-5>	
Parameter		
	Name	**Description**
	<0-3>	Clock instance
	interval	Define pdelay req interval

3.5.50 ptp <0-3> delay-asymmetry

Description	set path delay asymmetry.	
Syntax	ptp <0-3> delay-asymmetry <-100000-100000>	
Parameter		
	Name	**Description**
	<0-3>	Clock instance

3.5.51 ptp <0-3> ingress-latency

Description	set port ingress latency.	
Syntax	ptp <0-3> ingress-latency <-100000-100000>	
Parameter		
	Name	**Description**
	<0-3>	Clock instance
	ingress-latency	port ingress latency

3.5.52 ptp <0-3> egress-latency

Description	set port egress latency.	
Syntax	ptp <0-3> egress-latency <-100000-100000>	
Parameter		
	Name	**Description**
	<0-3>	Clock instance
	egress-latency	port egress latency

3.5.53 ptp <0-3>

Description	Enable PTP for the interface(s), optionally set as an internal interface.	
Syntax	ptp <0-3> [internal]	
Parameter		
	Name	**Description**
	<0-3>	Clock instance
	internal	enable as an internal interface

3.5.54 pvlan isolation

Description	Use the pvlan isolation command to add the port into an isolation group.	
Syntax	pvlan isolation	
Parameter		
	Name	**Description**
	isolation	Port isolation

3.5.55 pvlan <range_list>

Description	Use the pvlan add or remove command to add or remove a port from a PVLAN.
Syntax	pvlan <range_list>

Parameter		
	Name	**Description**
	range_list	list of PVLANs. Range is from 1 to number of ports.

3.5.56 rmon collection stats

Description	Configure statistics.	
Syntax	rmon collection stats <1-65535>	
Parameter		
	Name	**Description**
	<1-65535>	statistics entry ID.

3.5.57 rmon collection history

Description	Configure history.	
Syntax	rmon collection history <1-65535> [buckets <1-65535>] [interval <1-3600>]	
Parameter		
	Name	**Description**
	<1-65535>	history entry ID.
	buckets	Requested buckets of intervals. Default is 50 buckets.
	<1-65535>	Requested buckets of intervals
	interval	Interval to sample data for each bucket. Default is 1800 seconds.
	<1-3600>	Interval in seconds to sample data for each bucket.

3.5.58 Shutdown

Description	Use shutdown to shutdown the interface.	
Syntax	shutdown	
Parameter		
	Name	**Description**

3.5.59 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 | 2500 | 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

3.5.60 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

3.5.61 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

3.5.62 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

3.5.63 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> }	
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

3.5.64 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

3.5.65 switchport hybrid ingress-filtering

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

3.5.66 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

3.5.67 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

3.5.68 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)

3.5.69 udld port

Description	Set UDLD mode Normal or Aggressive on an interface.	
Syntax	udld port [aggressive][message time-interval <7-90>]	
Parameter		
	Name	**Description**
	aggressive	Enable UDLD in the aggressive mode on an interface.
	message	Configures the period of time between UDLD probe messages on ports that are in the advertisement phase and are determined to be bidirectional. The range is from 7 to 90 seconds(Currently default message time interval 7 sec is supported).

3.6 Interface VLAN Mode Commands

3.6.1 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

3.6.2 interface vlan

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

3.6.3 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

3.7 Dt-ring Commands

3.7.1 dt-ring config mode

Description	To configure dt-ring.	
Syntax	dt-ring <domain_id>	
Parameter		
	Name	**Description**
	domain_id	Dt-ring domain id

3.7.2 dt-ring create

Description	Create dt-ring ring	
Syntax	dt-ring new <domain_name> domain <domain_id> { master | slave }	
Parameter		
	Name	**Description**
	domain_name	Dt-ring domain name
	domain_id	Dt-ring domain id <1-32>
	master	Master station
	slave	Slave station

3.7.3 dt-ring delete

Description	Dt-ring vlan config	
Syntax	dt-ring delete domain <domain_id>	
Parameter		
	Name	**Description**
	domain_id	Dt-ring domain id

3.7.4 dt-ring mode config

Description	Dt-ring vlan config	
Syntax	dt-ring mode { port-based | vlan-based }	
Parameter		
	Name	**Description**
	port-base	Set dt-ring port mode
	vlan-base	Set dt-ring vlan mode

3.7.5 ring port config

Description	Ring port config	
Syntax	ringport { add | delete } interface <port_type> <port_type_id>	
Parameter		
	Name	**Description**
	add	Add ring port to ring
	delete	Delete ring port from ring
	port_type	FastEthernet : Fast Ethernet Port GigabitEthernet : 1 Gigabit Ethernet Port
	port_type_id	Port ID

3.7.6 backup port config

Description	Set interface of ring protection node	
Syntax	backport { add interface <port_type> <port_type_id | delete>	
Parameter		
	Name	**Description**
	add	**Add backup port to ring**
	delete	**Delete backup port from ring**

	port_type	FastEthernet : Fast Ethernet Port
		GigabitEthernet : 1 Gigabit Ethernet Port
	port_type_id	Port ID

3.7.7 dt-ring protocol config

Description	Dt-ring protocol config	
Syntax	protocol { enable | disable }	
Parameter		
	Name	**Description**
	enable	**Enable ring backup function**
	disable	**Disable ring backup function**

3.8   Drp Commands

3.8.1 Drp mode

Description	Config drp running mode	
Syntax	drp mode { port-base | vlan-base }	
Parameter		
	Name	**Description**
	port-base	Set drp port mode
	vlan-base	Set drp vlan mode

3.8.2 Drp create

Description	Create drp ring	
Syntax	drp new <domain_name> domain <domain_id>	
Parameter		
	Name	**Description**
	domain_name	Drp ring name
	domain_id	Drp ring domain id

3.8.3 Drp delete

Description	Delete drp ring	
Syntax	dt-ring delete domain <domain_id>	
Parameter		
	Name	**Description**
	domain_id	Drp domain id

3.8.4 Drp config mode

Description	Drp config mode	
Syntax	drp <domain_id>	
Parameter		
	Name	**Description**
	domain_id	Drp domain id

3.8.5 Drp ring port config

Description	Config drp ring port	
Syntax	ringport { add | delete } interface <port_type> <port_type_id>	
Parameter		
	Name	**Description**
	add	Add ring port
	delete	Delete ring port
	port_type	FastEthernet : Fast Ethernet Port

		GigabitEthernet : 1 Gigabit Ethernet Port
	port_type_id	Port ID

3.8.6 Drp vlan

Description	Drp config vlan	
Syntax	vlan { add | delete } <vlan_list>	
Parameter		
	Name	Description
	add	Add drp vlan
	delete	Delete drp vlan
	vlan_list	Vlan list.

3.8.7 Drp protocol vlan

Description	Drp config protocol vlan	
Syntax	protocol-vlan { <vlan_id> | delete }	
Parameter		
	Name	Description
	vlan_id	Drp protocol vlan
	delete	Delete drp protocol vlan

3.8.8 Drp protocol enable

Description	Drp protocol enable	
Syntax	protocol { enable | disable }	
Parameter		
	Name	Description
	enable	Enable drp protocol
	disable	Disable drp protocol

3.8.9 Drp role priority

Description	Drp config role priority	
Syntax	role-priority <priority>	
Parameter		
	Name	Description
	priority	Drp role priority (0~255)

3.8.10 Drp crc threshold

Description	Drp config crc threshold	
Syntax	crc threshold <threshold>	
Parameter		
	Name	Description
	threshold	Drp crc threshold (25~65535)

3.8.11 Drp primary port

Description	Drp config primary port	
Syntax	primary-port { ring-port-1 | ring-port-2 | delete }	
Parameter		
	Name	Description
	ring-port-1	Drp the first ring port
	ring-port-2	Drp the second ring port
	delete	Delete drp primary port

3.8.12 Drp backup port

Description	Drp config backup port

Syntax	backup-port { add interface <port_type> <port_type_id>	delete }	
Parameter		
	Name	**Description**
	port_type	FastEthernet : Fast Ethernet Port GigabitEthernet : 1 Gigabit Ethernet Port
	port_type_id	Port ID
	delete	Delete drp backup port

3.8.13 Drp dhp mode

Description	Drp config dhp mode	
Syntax	dhp mode { disable	home-node	normal-node }	
Parameter		
	Name	**Description**
	disable	disable dhp mode
	home-node	drp home node
	normal-node	drp normal node

3.9   Spanning Tree

3.9.1 spanning-tree

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

3.9.2   spanning-tree aggregation

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

3.9.3   spanning-tree auto-edge

Description	Auto detect edge status	
Syntax	**3.9.4 spanning-tree auto-edge**	
Parameter		
	Name	**Description**

3.9.5 spanning-tree bpdu-guard

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

3.9.6 spanning-tree edge

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

3.9.7 spanning-tree edge bpdu-filter

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

3.9.8 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)

3.9.9 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

3.9.10 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

3.9.11 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

3.9.12 spanning-tree mst vlan

Description	VLAN keyword	
Syntax	spanning-tree mst <0-7> vlan <vlan_list>	
Parameter		
	Name	Description
	<0-7>	instance 0-7 (CIST=0, MST2=1...)
	<vlan_list>	Range of VLANs

3.9.13 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

3.9.14 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

3.9.15 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

3.9.16 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

3.9.17 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

3.9.18 spanning-tree recovery

Description	Recovery	
Syntax	spanning-tree recovery interval <interval>	
Parameter		
	Name	Description
	interval	The interval
	interva	Interval : 30-86400> Range in seconds

3.9.19 spanning-tree transmit

Description	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

3.10 sFlow Configure Command

3.10.1 sflow

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

3.10.2 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

3.10.3 sflow collector-address

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

3.10.4 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

3.10.5 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

3.10.6 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

3.10.7 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

3.10.8 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.

3.11 SNMP Configure Command

3.11.1 snmp-server

Description	Enable SNMP server	
Syntax	snmp-server	
Parameter		
	Name	Description

3.11.2 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

3.11.3 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

3.11.4 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

3.11.5 snmp-server host

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

3.11.6 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 configuration >	Name of the host configuration
	<200-1468>	packet byte
	[linkup]	Link up event
	[linkdown]	Link down event
	[lldp]	LLDP event

3.11.7 snmp-server trap

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

3.11.8 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

3.11.9 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

3.11.10 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

3.11.11 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

3.11.12 snmp-server contact

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

3.11.13 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	<Engineid : word10-32> local engine ID

3.11.14 snmp-server location

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

3.11.15 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

3.11.16 SNMP trap receive ipv4 host

Description	host configuration	
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

3.12 Qos Function Command

3.12.1 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

3.12.2 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)

3.12.3 qos cos

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

3.12.4 qos dscp-classify

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

3.12.5 qos dscp-remark

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

3.12.6 qos dscp-translate

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

3.12.7 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)

3.12.8 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

3.12.9 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

3.12.10 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

3.12.11 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

3.12.12 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

3.12.13 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

3.12.14 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

3.12.15 qos shaper <unit>

Description	Configure qos shaper command	
Syntax	qos shaper <uint>	
Parameter		
	Name	**Description**
	<1-100>	every level proportion
	<unit>	Traffic meter

3.13 GMRP Functional Commands

3.13.1 gmrp enable

Description	enable global gmrp.
Syntax	gmrp enable
Parameter	

3.13.2 add gmrp agent mac-address

Description	add gmrp agent mac-address.	
Syntax	gmrp agent mac-address <mac_addr> vlan <vlan_id> interface <port_type_list>	
Parameter		
	Name	**Description**
	mac-address	Agent MAC address
	vlan	VLAN keyword
	interface	Interface list

3.13.3 gmrp timer

Description	set gmrp timer.	
Syntax	gmrp timer {[join <100-327600>][leave <100-327600>][hold <100-327600>][leave-all <100-327600>]}	
Parameter		
	Name	**Description**
	join	Join timer
	leave	Leave timer
	hold	Hold timer
	leave-all	Leave-all timer

3.14 IGMP Functional Commands

3.14.1 ip igmp host-proxy [leave-proxy]

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

3.14.2 ip igmp snooping

Description	Snooping igmp
Syntax	ip igmp snooping
Parameter	

3.14.3 ip igmp snooping immediate-leave

Description	IP IGMP snooping immediate leave configuration
Syntax	Ip igmp snooping immediate-leave
Parameter	

3.14.4 ip igmp snooping last-member-query-interval

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

3.14.5 ip igmp snooping max-groups

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

3.14.6 ip igmp snooping mrouter

Description	IP IGMP snooping Multicast router port configuration
Syntax	Ip igmp snooping mrouter
Parameter	

3.14.7 ip igmp snooping querier

Description	IP IGMP querier configuration	
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

3.14.8 ip igmp snooping query-interval

Description	IP IGMP snooping Query-Intervalin seconds	
Syntax	ip igmp snooping query-interval <1-31744>	
Parameter		
	Name	**Description**
	1-317	1 - 31744 seconds

3.14.9 ip igmp snooping vlan

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

3.14.10   ip igmp ssm-range

Description	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

3.14.11   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.

3.15 Authenticate Mode Commands

3.15.1 radius-server attribute 32

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

3.15.2 radius-server attribute 4

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

3.15.3 radius-server attribute 95

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

3.15.4 radius-server deadtime

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

3.15.5 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>	

3.15.6 radius -server key

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

3.15.7 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

3.15.8 radius-server timeout

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

3.15.9 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

3.15.10 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

3.15.11 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.

3.15.12 dot1x authentication timer

Description	dot1x authentication timer	
Syntax	dot1x authentication timer { inactivity <v_10_to_100000> }	{ re-authenticate <v_1_to_3600>}	
Parameter		
	Name	**Description**
	inactivity	Time in seconds between check for activity on successfully authenticated MAC addresses
	re-authenticate	The period between re-authentication attempts in seconds

3.15.13 dot1x max-reauth-req

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

Name	Description
<1-255>	number of times

3.15.14 dot1x re-authentication

Description	re-authentication
Syntax	dot1x re-authentication
Parameter	

3.15.15 dot1x system-auth-controln

Description	System authentication control
Syntax	dot1x system-auth-control
Parameter	

3.15.16 dot1x timeout

Description	Timeout control	
Syntax	dot1x timeout { quiet-period <v_10_to_1000000>}	{ 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
	tx-period	the time between EAPOL retransmissions

3.15.17 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.

3.15.18 show radius-server [statistics]

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

3.15.19 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

3.15.20 end

Description	Level exit
Syntax	end
Parameter	

3.15.21 exit

Description	Level exit
Syntax	end
Parameter	

3.15.22 hostname

Description	This system's network name
Syntax	hostname <hostname>
Parameter	

3.16 Loop-Protection Configure commands

3.16.1 loop-protect

Description	Loop protection configuration on port
Syntax	loop-protect
Parameter	

3.16.2 loop-protect action

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

3.16.3 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

3.16.4 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

3.16.5 loop-protect tx-mode

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

3.17 LLDP Configure commands

3.17.1 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

3.17.2 lldp med

Description	LLDP MED		
Syntax	See Description		
Parameter			
	Name	**Description**	
	datum	Datum (geodetic system) type	
		nad83-mllw	Mean lower low water datum 1983
		nad83-navd88	North American vertical datum 1983
		wgs84	World Geodetic System 1984
	fast	Number of times to repeat LLDP frame transmission at fast start <v_1_to_10> : <1-10>	
	location-tlv	LLDP-MED Location Type Length Value parameter	
		altitude	Altitude parameter
		civic-addr	Civic address information and postal information
		elin-addr	Emergency Location Identification Number, (e.g. E911 and others), such as defined by TIA or NENA.
		latitude	Latitude parameter
		longitude	Longitude parameter
	media-vlan-policy	Use the media-vlan-policy to create a policy, which can be assigned to an interface <Index : 0-31> : Policy id for the policy which is created	

3.17.3 lldp receive

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

3.17.4 lldp reinit <1-10>

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

3.17.5 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.

3.17.6 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.

3.17.7 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

3.17.8 lldp transmit

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

3.18 GVRP Configure Commands

3.18.1 gvrp

Description	Enable global gvrp.
Syntax	gvrp
Parameter	

3.18.2 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.

3.18.3 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 <1000-5000>] }	
Parameter		
	Name	**Description**
	1-20	join timer, available from 1 to 20
	60-300	leave timer, available from 60 to 300
	1000-5000	leaveall timer, available from 1000 to 5000

3.19 Link state track Configure commands

3.19.1 Create group

Description	Create link state track group	
Syntax	link state track <group_num>	
Parameter		
	Name	**Description**
	group_num	link state track group <1-2>

3.19.2 Link state track config

Description	Link state track config in interface mode	
Syntax	link state track group <group_num> { [upstream]	[downstream] }	
Parameter		
	Name	**Description**
	group_num	Link state track group <1-2>
	upstream	Upstream
	downstream	Downstream

3.20 Udld Configure commands

3.20.1 Udld enable

Description	Enable udld	
Syntax	udld enable	
Parameter		
	Name	**Description**
	enable	Enable udld

3.20.2 Udld mode

Description	Udld config aggressive mode	
Syntax	udld aggressive	
Parameter		
	Name	**Description**
	group_num	link state track group <1-2>
	upstream	upstream
	downstream	downstream

3.20.3 Udld message timer-interval

Description	Udld config timer interval	
Syntax	message time-interval <v_interval>	
Parameter		
	Name	**Description**
	v_interval	message interval <7-90>

3.21 Device Maintenance commands

3.21.1 Show version

Description	Show device version	
Syntax	show { version | build | active}	
Parameter		
	Name	**Description**
	version	Version information
	build	Build information
	active	Software active information

3.21.2 Update Application commands

Description	Update application software	
Syntax	firmware application upgrade { first | second | all } <server_url>	
Parameter		
	Name	**Description**
	first/second/all	Select software for update
	server_url	Software url path

3.21.3 Update bootrom commands

Description	Update bootrom software	
Syntax	firmware bootloader upgrade <server_path_file>	
Parameter		
	Name	**Description**
	server_path_file	Software url path

3.21.4 Active application commands

Description	Update bootrom software	
Syntax	firmware application active { first | second }	
Parameter		
	Name	**Description**
	first/second	Select software for active