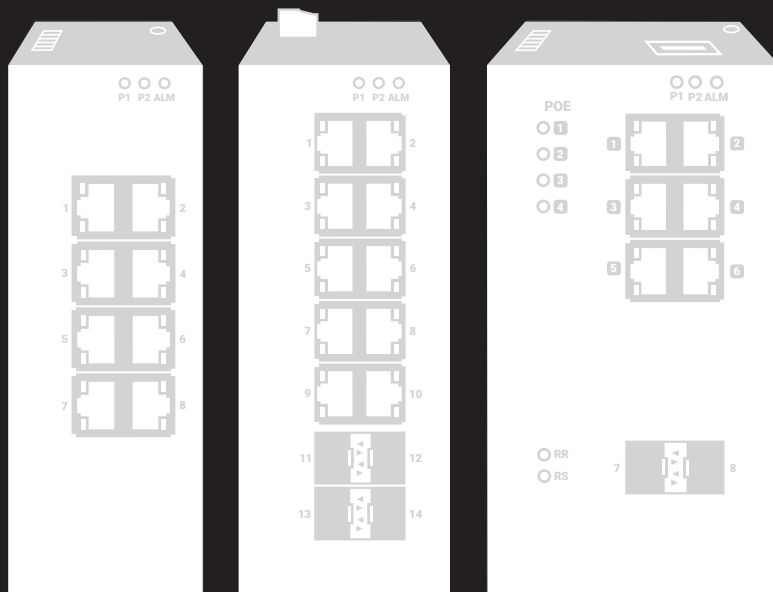


# COMMAND-LINE INTERFACE (CLI) GUIDE

LIG1014A, LIG1080A, LIG1082A, LIE1014A, LIE1080A, LIE1082A

# INDUSTRIAL ETHERNET SWITCHES

24/7 TECHNICAL SUPPORT AT 1.877.877.2269 OR VISIT [BLACKBOX.COM](http://BLACKBOX.COM)



# TABLE OF CONTENTS

<b>1. SCOPE.....</b>	<b>12</b>
1.1 Scope .....	12
1.2 Audience .....	12
1.3 Pre-Required Knowledge .....	12
1.4 Access to Hardware Interface.....	12
1.5 Related Documents.....	12
<b>2. OPERATOR INTERFACE .....</b>	<b>13</b>
2.1 Introduction.....	13
2.2 Connect Interface .....	13
2.3 Screen Description.....	13
2.4 Execution Modes.....	14
2.5 Getting Help.....	14
2.6 Terminal Key Function .....	15
2.7 Notation Conventions .....	15
<b>3. COMMANDS DESCRIPTIONS .....</b>	<b>16</b>
3.1 Initialize Mode Commands .....	16
3.1.1 exit.....	16
3.1.2 configure terminal .....	16
3.1.3 enable.....	16
3.1.4 Show terminal.....	16
3.1.5 Show history .....	16
3.1.6 Show clock.....	16
3.1.7 Show clock detail.....	17
3.2 Enable Mode Commands .....	17
3.2.1 exit .....	17
3.2.2 disable .....	17
3.2.3 show add .....	17
3.2.4 show access management.....	17
3.2.5 show access-list.....	18
3.2.6 show aggregation .....	18
3.2.7 show alarm.....	18
3.2.8 show cpu-load .....	19
3.2.9 show green-ethernet .....	19
3.2.10 show ip .....	19
3.2.11 show ipmc .....	20
3.2.12 show ipv6.....	20
3.2.13 show lacp.....	20
3.2.14 show line .....	21
3.2.15 show logging .....	21
3.2.16 show loop-protec .....	21
3.2.17 show ntp status .....	21
3.2.18 show users .....	21



**CHAPTER 1: HEADLINE**

3.2.19 show running-cfg .....	22
3.2.20 show running-config interface Gigabit .....	22
3.2.21 show running-config interface vlan .....	22
3.2.22 show running-config all-defaults .....	22
3.2.23 show running-config feature.....	22
3.2.24 show running-config line.....	23
3.2.25 show running-config vlan .....	23
3.2.26 show version.....	23
3.2.27 show clock .....	23
3.2.28 show ddmi.....	23
3.2.29 show version.....	24
3.2.30 show system inventory.....	24
3.2.31 show mac address table aging-time .....	24
3.2.32 show mac address table.....	24
3.2.33 show mac address table conf.....	24
3.2.34 show mac address table count .....	24
3.2.35 show mac address table learning .....	25
3.2.36 show mac address table static.....	25
3.2.37 show mac address table interface.....	25
3.2.38 show mac address vlan <vlanid> .....	25
3.2.39 show mvr.....	26
3.2.40 show fdb static table.....	26
3.2.41 show fdbstatic interface gigabit <portNo>.....	26
3.2.42 show fdbstatic vlan <vlanid> .....	26
3.2.43 show interface port <port_type_list> .....	27
3.2.44 show interface port <portNo> statistics.....	27
3.2.45 show platform phy.....	28
3.2.46 show poe .....	28
3.2.47 show port-security .....	28
3.2.48 show profile alarm.....	29
3.2.49 show sflow .....	29
3.2.50 show snmp .....	29
3.2.51 show spanning-tree.....	30
3.2.52 show switchport forbidden.....	31
3.2.53 show tacacs-server.....	31
3.2.54 show vlan .....	31
3.2.55 show vlan id .....	31
3.2.56 show vlan name.....	31
3.2.57 show vlan brief .....	32
3.2.58 show vlan ip-subnet.....	32
3.2.59 show vlan mac .....	32
3.2.60 show vlan protocol .....	33
3.2.61 show vlan .....	33
3.2.62 show qos-queue-mapping.....	34

**CHAPTER 1: HEADLINE**

3.2.63 show interface ports <portNo> priority .....	34
3.2.64 show qos .....	34
3.2.65 show queue-shaper .....	34
3.2.66 show port-shaper .....	34
3.2.67 show pvlan [ <pvlan-list> ] .....	34
3.2.68 show pvlan isolation [ interface <port_type> [ <port_type_list> ] ] .....	35
3.2.69 show interface gigabit <portNo> port-isolation .....	35
3.2.70 show interface gigabit <portNo> storm-control .....	35
3.2.71 show interface gigabit <portNo> transceiver .....	35
3.2.72 show qos interface .....	36
3.2.73 show qos maps .....	36
3.2.74 show qos qce .....	36
3.2.75 show qos storm {unknown-uc unknown-mc broadcast} .....	37
3.2.76 show port-mirror .....	37
3.2.77 show ringv2 .....	37
3.2.78 show rmon .....	37
3.2.79 show interface gigabit <portNo> .....	38
3.2.80 show ext-tpid .....	38
3.2.81 show interface vlan .....	38
3.2.82 show interface vlan <vlanid> .....	38
3.2.83 show protocol-vlan .....	38
3.2.84 show interface gigabit <portNo> vlan .....	39
3.2.85 show vlan-trans .....	39
3.2.86 show multicast-fdb .....	39
3.2.87 show dot1x .....	39
3.2.88 show dot1x status .....	39
3.2.89 show dot1x statistics .....	40
3.2.90 show radius-server [ statistics ] .....	40
3.2.91 show rfc2544 profile [ <word32> ] .....	40
3.2.92 show voice .....	40
3.2.93 show web .....	41
<b>3.3 Configure Mode Commands .....</b>	<b>41</b>
3.3.1 interface gigabit <portNo> .....	41
3.3.2 interface vlan <vlanid> .....	41
3.3.3 aaa .....	42
3.3.4 access .....	42
3.3.5 access-list .....	42
3.3.6 aggregation mode .....	42
3.3.7 alarm history clear .....	43
3.3.8 banner .....	43
3.3.9 ddmi .....	43
3.3.10 default access-list rate-limiter .....	43
3.3.11 profile sch .....	43
3.3.12 ntp server <1-5> ip-address <ip> .....	43
3.3.13 clock timezone .....	44



**CHAPTER 1: HEADLINE**

3.3.14 clock summer-time set [start-time] [end-time] .....	44
3.3.15 account add <username> .....	44
3.3.16 account delete <username> .....	45
3.3.17 syslog {enable disable} .....	45
3.3.18 configuration save and replace .....	45
3.3.19 clear ip sgmp snooping statistics .....	45
3.3.20 clear logging .....	46
3.3.21 clear mac address-table .....	46
3.3.22 debug .....	46
3.3.23 delete .....	46
3.3.24 dir .....	46
3.3.25 do .....	47
3.3.26 duplex .....	47
3.3.27 editing .....	47
3.3.28 firmware .....	47
3.3.29 flowcontrol .....	47
3.3.30 frame-sizes .....	48
3.3.31 green-etherneteee .....	48
3.3.32 green-etherneteee optimize-for-power .....	48
3.3.33 green-etherneteee urgent-queues .....	48
3.3.34 help .....	48
3.3.35 ip arp inspection .....	49
3.3.36 ip arp inspection translate .....	49
3.3.37 ip arp inspection entry .....	49
3.3.38 ip arp inspection vlan .....	49
3.3.39 ip dns proxy .....	50
3.3.40 ip http secure-redirect .....	50
3.3.41 ip http secure-server .....	50
3.3.42 ip source binding interface .....	50
3.3.43 ip ssh .....	50
3.3.44 ip name-server .....	51
3.3.45 ip route .....	51
3.3.46 ip routing .....	51
3.3.47 ip verify .....	51
3.3.48 ipmc profile .....	51
3.3.49 ipmc range .....	52
3.3.50 lacp .....	52
3.3.51 line .....	52
3.3.52 login host .....	52
3.3.53 login level .....	53
3.3.54 login on .....	53
3.3.55 logout .....	53
3.3.56 mac address-table aging-time .....	53
3.3.57 mac address-table static .....	53
3.3.58 more .....	54



**CHAPTER 1: HEADLINE**

3.3.59 no .....	54
3.3.60 ping.....	54
3.3.61 port-security .....	54
3.3.62 privilege.....	55
3.3.63 reload .....	55
3.3.64 rmon.....	55
3.3.65 rmon alarm.....	56
3.3.66 rmon event.....	56
3.3.67 terminal.....	57
3.3.68 vlan <vlanid> .....	57
3.3.69 vlan <vlanid> <name> .....	57
3.3.70 vlan disable <vlan id> .....	58
3.3.71 mac address-table aging-time <time> .....	58
3.3.72 mtu <value>.....	58
3.3.73 media-type .....	58
3.3.74 monitor destination interface.....	59
3.3.75 monitor source interface.....	59
3.3.76 monitor source cpu .....	59
3.3.77 speed.....	59
3.3.78 tacacs-server host.....	60
3.3.79 tacacs-server key.....	60
3.3.80 tacacs-server timeout .....	60
3.3.81 traps.....	60
3.3.82 upnp.....	61
3.3.83 upnp advertising-duration .....	61
3.3.84 upnp ttl.....	61
3.3.85 username .....	61
3.3.86 web .....	62
3.3.87 flow-control {enable disable}.....	62
3.3.88 speed.....	63
3.3.89 port {enable disable} .....	63
3.3.90 Date/Time .....	63
<b>3.4 VLAN Mode Commands.....</b>	<b>64</b>
3.4.1 vlan .....	64
3.4.2 vlan ethertype s-custom-port .....	64
3.4.3 vlan protocol.....	64
3.4.4 vlan-trunking .....	65
3.4.5 switchport access vlan .....	65
3.4.6 switchport forbidden vlan .....	65
3.4.7 switchport hybrid acceptable-frame-type .....	65
3.4.8 switchport hybrid allowed vlan.....	66
3.4.9 switchport hybrid egress-tag.....	66
3.4.10 switchport hybrid ingress-filtering.....	66
3.4.11 switchport mode .....	66
3.4.12 switchport trunk allowed vlan.....	67



# CHAPTER 1: HEADLINE

3.4.13 switchport vlan protocol group .....	67
<b>3.5 Interface VLAN Mode Commands .....</b>	<b>67</b>
3.5.1 interface .....	67
3.5.2 interface vlan.....	67
3.5.3 ip address .....	68
3.5.4 ip name-server.....	68
3.5.5 ip dhcp excluded-address .....	68
3.5.6 ip dhcp pool.....	68
3.5.7 ip dhcp server.....	69
3.5.8 ip dhcp relay .....	69
3.5.9 ip dhcp relay information option .....	69
3.5.10 ip dhcp retry interface vlan.....	69
3.5.11 ip dhcp snooping .....	69
3.5.12 ip helper-address.....	69
3.5.13 ipv6 address .....	70
3.5.14 ipv6mtu.....	70
<b>3.6 RingV2 Group Mode Commands .....</b>	<b>70</b>
3.6.1 ringv2 protect .....	70
3.6.2 guard-time .....	70
3.6.3 mode.....	71
3.6.4 node1 interface GigabitEthernet <portNo>.....	71
3.6.5 node2 interface GigabitEthernet <portNo> .....	71
3.6.6 role.....	71
<b>3.7 Spanning Tree .....</b>	<b>72</b>
3.7.1 spanning-tree.....	72
3.7.2 spanning-tree aggregation .....	72
3.7.3 spanning-tree auto-edge.....	72
3.7.4 spanning-tree bpdu-guard.....	72
3.7.5 spanning-tree edge .....	72
3.7.6 spanning-tree edge bpdu-filter .....	72
3.7.7 spanning-tree mode.....	73
3.7.8 spanning-tree mst cost.....	73
3.7.9 spanning-tree mst port-priority .....	73
3.7.10 spanning-tree mst priority .....	73
3.7.11 spanning-tree mst vlan .....	74
3.7.12 spanning-tree forward-time.....	74
3.7.13 spanning-tree mst max-age .....	74
3.7.14 spanning-tree mst max-hops.....	74
3.7.15 spanning-tree mst name.....	75
3.7.16 spanning-tree mst <instance> .....	75
3.7.17 spanning-tree recovery.....	75
3.7.18 spanning-tree transmit .....	75

**CHAPTER 1: HEADLINE**

<b>3.8 sFlow Configure Command</b> .....	<b>76</b>
3.8.1 sflow.....	76
3.8.2 sflow agent-ip.....	76
3.8.3 sflow collector address.....	76
3.8.4 sflow max-datagram-size.....	76
3.8.5 sflow max-sampling-size.....	77
3.8.6 sflow collector-port.....	77
3.8.7 sflow sampling-rate.....	77
3.8.8 sflow timeout.....	77
<b>3.9 SNMP Configure Command</b> .....	<b>78</b>
3.9.1 snmp-server.....	78
3.9.2 snmp-server access.....	78
3.9.3 snmp-server community v2c.....	78
3.9.4 snmp-server community v3.....	78
3.9.5 snmp-server host.....	79
3.9.6 snmp-server host traps.....	79
3.9.7 snmp-server trap.....	79
3.9.8 snmp-server user.....	79
3.9.9 snmp-server version.....	80
3.9.10 snmp-server view.....	80
3.9.11 snmp trap receive ipv6 host.....	80
3.9.12 snmp-server contact.....	80
3.9.13 snmp-server engine-id.....	81
3.9.14 snmp-server location.....	81
3.9.15 snmp-server security-to-group.....	81
3.9.16 snmp trap receive ipv4 host.....	82
<b>3.10 QoS Function Command</b> .....	<b>82</b>
3.10.1 qos qce.....	82
3.10.2 qos storm.....	82
3.10.3 qos cos.....	83
3.10.4 qos dscp-classify.....	83
3.10.5 qos dscp-remark.....	83
3.10.6 qos dscp-translate.....	83
3.10.7 qos map cos-dscp.....	83
3.10.8 qos map cos-dscp.....	84
3.10.9 qos map dscp-egress translation.....	84
3.10.10 qos map dscp-ingress translation.....	85
3.10.11 qos policier.....	85
3.10.12 qos wrr.....	85
3.10.13 qos queue-shaper.....	86
3.10.14 qos queue-policier.....	86
3.10.15 qos shaper <unit>.....	86





**CHAPTER 1: HEADLINE**

<b>3.11 IGMP Functional Commands</b> .....	<b>86</b>
3.11.1 ip igmp host-proxy [ leave-proxy ] .....	86
3.11.2 ip igmp snooping .....	87
3.11.3 ip igmp snooping immediate-leave .....	87
3.11.4 ip igmp snooping last-member-query-interval .....	87
3.11.5 ip igmp snooping max-groups .....	87
3.11.6 ip igmp snooping mrouter .....	87
3.11.7 ip igmp snooping querier .....	88
3.11.8 ip igmp snooping query-interval .....	88
3.11.9 ip igmp snooping vlan .....	88
3.11.10 ip igmp ssm-range .....	88
3.11.11 ip igmp unknown-flooding .....	88
3.11.12 clear ip igmp snooping statistics .....	89
<b>3.12 MVR Functional Commands</b> .....	<b>89</b>
3.12.1 mvr .....	89
3.12.2 mvr immediate-leave .....	89
3.12.3 mvr name channel .....	89
3.12.4 mvr frame priority .....	89
3.12.5 mvr name <word16> frame tagged .....	90
3.12.6 mvr name <word16> igmp-address <ipv4_ucast> .....	90
3.12.7 mvr name <word16> last member-query-interval <0-31744> .....	90
3.12.8 mvr name <word16> mode .....	90
3.12.9 mvr name <word16> type .....	91
3.12.10 mvr vlan .....	91
3.12.11 mvr vlan <vlan_list> channel .....	91
3.12.12 mvr vlan <vlan_list> frame priority .....	91
3.12.13 mvr vlan <vlan_list> frame tagged .....	92
3.12.14 mvr vlan <vlan_list> igmp-address .....	92
3.12.15 mvr vlan <vlan_list> mode .....	92
3.12.16 mvr vlan <vlan_list> type .....	92
<b>3.13 MLD Functional Commands</b> .....	<b>93</b>
3.13.1 ipv6 mld host-proxy .....	93
3.13.2 ipv6 mld snooping .....	93
3.13.3 ipv6 mld snooping compatibility .....	93
3.13.4 ipv6 mld snooping immediate-leave .....	93
3.13.5 ipv6 mld snooping last-member-query-interval .....	93
3.13.6 ipv6 mld snooping max-groups .....	94
3.13.7 ipv6 mld snooping mrouter .....	94
3.13.8 ipv6 mld snooping query-interval .....	94
3.13.9 ipv6 mld snooping query-max-response-time .....	94
3.13.10 ipv6 mld snooping vlan .....	94
3.13.11 ipv6 mld ssm-range .....	95
3.13.12 ipv6 mld unknown-flooding .....	95
3.13.13 ipv6 route .....	95

**CHAPTER 1: HEADLINE**

<b>3.14 Authenticate Mode Commands</b> .....	<b>95</b>
3.14.1 radius-server attribute 32 .....	95
3.14.2 radius-server attribute 4 .....	95
3.14.3 radius-server attribute 95 .....	96
3.14.4 radius-server deadtime .....	96
3.14.5 radius-server host [ auth-port ] [ acct-port ] [ timeout ] [ retransmit ] [ key ] .....	96
3.14.6 radius-server key .....	96
3.14.7 radius-server retransmit .....	96
3.14.8 radius-server timeout .....	97
3.14.9 tacacs-server deadtime <1-1440> .....	97
3.14.10 tacacs-server host [ auth-port ] [ timeout ] [ key ] .....	97
3.14.11 tacacs-server deadtime <1-1440> .....	97
3.14.12 tacacs-server deadtime <1-1440> .....	97
3.14.13 dot1x feature .....	98
3.14.14 dot1x authentication timer .....	98
3.14.15 dot1x max-reauth-req .....	98
3.14.16 dot1x re-authentication .....	98
3.14.17 dot1x system-auth-controln .....	98
3.14.18 dot1x timeout .....	99
3.14.19 dot1x guest-vlan .....	99
3.14.20 dot1x initialize .....	99
3.14.21 dot1x port-control .....	99
3.14.22 dot1x radius-vlan .....	100
3.14.23 show radius-server [ statistics ] .....	100
3.14.24 enable .....	100
3.14.25 end .....	100
3.14.26 exit .....	101
3.14.27 hostname .....	101
<b>3.15 Loop-Protection Configure Commands</b> .....	<b>101</b>
3.15.1 loop-protect .....	101
3.15.2 loop-protect action .....	101
3.15.3 loop-protect shutdown-time .....	101
3.15.4 loop-protect transmit-time .....	102
3.15.5 loop-protect tx-mode .....	102
<b>3.16 LLDP Configure Commands</b> .....	<b>102</b>
3.16.1 lldp holdtime .....	102
3.16.2 lldp med .....	102
3.16.3 lldp receive .....	103
3.16.4 lldp reint <1-10> .....	103
3.16.5 lldp time <5-32768> .....	103
3.16.6 lldp tlv-select .....	103
3.16.7 lldp transmission-delay .....	103
3.16.8 lldp transmit .....	104



**CHAPTER 1: HEADLINE**

<b>3.17 RFC2544 Testing Configure Commands.....</b>	<b>104</b>
3.17.1 rfc2544 profile <word32>.....	104
3.17.2 rfc2544 rename profile.....	104
3.17.3 rfc2544 save <word32> <word>.....	104
3.17.4 rfc2544 start <word32> profile <word32> [ desc <line128> ].....	104
3.17.5 rfc2544 stop <word32>.....	105
3.17.6 show rfc2544 profile [ <word32> ].....	105
<b>3.18 GVRP Configure Commands.....</b>	<b>105</b>
3.18.1 gvrp.....	105
3.18.2 gvrpjoin request vlan.....	105
3.18.3 gvrpleave request vlan.....	105
3.18.4 gvrp max-vlans.....	106
3.18.5 gvrp time { [ join-time <1-20> ] [ leave-time <60-300> ] [ leave-all0time <1000-50> ].....	106
<b>3.19 Voice VLAN Configure Commands.....</b>	<b>106</b>
3.19.1 voice vlan.....	106
3.19.2 voice vlan aging-time.....	106
3.19.3 voice vlan class.....	107
3.19.4 voice vlan oui.....	107
3.19.5 voice vlan vid.....	107
<b>3.20 Voice VLAN Configure Commands.....</b>	<b>107</b>
3.20.1 profile alarm.....	107
3.20.2 alarm.....	108
<b>3.21 PoE Commands.....</b>	<b>108</b>
3.21.1 poe management mode.....	108
3.21.2 poe supply.....	108
3.21.3 poe 4pairs.....	108
3.21.4 poe mode.....	109
3.21.5 poe operation.....	109
3.21.6 poe power.....	109
3.21.7 poe priority.....	109
3.21.8 poe reset.....	110
3.21.9 poe schedule.....	110
<b>APPENDIX. TRADEMARKS/DISCLAIMER.....</b>	<b>111</b>
A.1 Trademarks Used in this Manual.....	111
A.2 Disclaimer.....	111

# CHAPTER 1: SCOPE

## 1.1 SCOPE

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

## 1.2 AUDIENCE

The guide is intended for operating personnel.

## 1.3 PRE-REQUIRED KNOWLEDGE

The reader must be familiar with the:

- ♦ Basic operations of industrial Ethernet Switches series (see the Hardware 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:

- ♦ Industrial Ethernet Switches Quick Installation Guide



## CHAPTER 2: OPERATOR INTERFACE

### 2.1 INTRODUCTION

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

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

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

### 2.2 CONNECT INTERFACE

TABLE 2-1. CONNECT INTERFACE

INTERFACE	PARAMETER
CONSOLE	Baud rate: 115,200 bps; Data bit: 8; Parity: None; Stop bit: 1
TELNET	Port 23
SSH	Port 22 (In Windows, you can run a terminal emulator, such as PuTTY)

### 2.3 SCREEN DESCRIPTION

1. Connect to the Industrial Ethernet Switch port (RJ-45 Ethernet port)
2. Key in the command under Telnet: telnet 192.0.2.1
3. Log in with the default account and password:

Username: admin

Password: none (Just press the Enter key.)

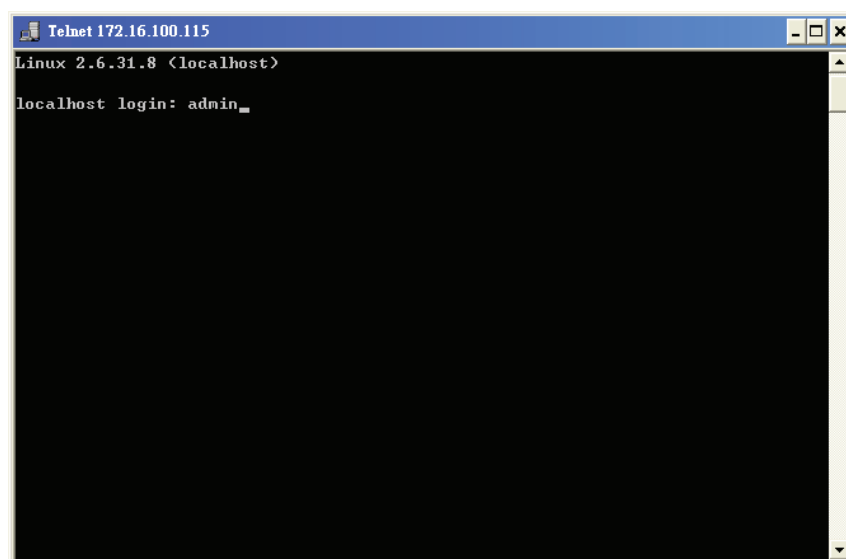


FIGURE 2-1. LOGIN SCREEN.

## CHAPTER 2: OPERATOR INTERFACE

### 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 2-2.

**TABLE 2-2. LIST OF EXECUTION MODES**

MODE	ACCESS LEVEL	PROMPT
INIT MODE	Guest	>
ENABLE MODE	Guest	#
CONFIG MODE	Guest	(conf)#
ALARM PROFILE CONFIG MODE	Engineer	(alarm-profile-conf)#
GIGABIT INTERFACE CONFIG MODE	Engineer	(gigabit-intf-conf)#
ACL PROFILE CONFIG MODE	Engineer	(acl-profile-conf)#
SCHEDULER PROFILE CONFIG MODE	Engineer	(sch-profile-conf)#
VLAN INTERFACE CONFIG MODE	Engineer	(vlan-intf-conf)#
IGMP MVR PROFILE CONFIG MODE	Engineer	(igmp-mvr-profile-conf)#
IGMP ACL PROFILE CONFIG MODE	Engineer	(igmp-acl-profile-conf)#
RINGV2 GROUP CONFIG MODE	Engineer	(ring)#
TRUNK GROUP CONFIG MODE	Engineer	(trunk-group-config)#

### 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.

## CHAPTER 2: OPERATOR INTERFACE

### 2.6 TERMINAL KEY FUNCTION

**TABLE 2-3. LIST OF TERMINAL KEYS**

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

### 2.7 NOTATION CONVENTIONS

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

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

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.1 INITIALIZE MODE COMMANDS

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

#### 3.1.1 EXIT

---

Description: Exit current mode and quit CLI.

Syntax: exit

Parameter: none

#### 3.1.2 CONFIGURE TERMINAL

---

Description: Enter configuration mode.

Syntax: configure terminal

Parameter: none

#### 3.1.3 ENABLE

---

Description: Enter enable mode.

Syntax: enable

Parameter: none

#### 3.1.4 SHOW TERMINAL

---

Description: Show CLI environment variables

Syntax: show terminal

Parameter: none

#### 3.1.5 SHOW HISTORY

---

Description: Show command history (Note: commands issued in one execution mode only appear in history of that execution mode)

Syntax: show history

Parameter: none

#### 3.1.6 SHOW CLOCK

---

Description: Show current time

Syntax: show clock [detail]

Parameter: none





## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.1.7 SHOW CLOCK DETAIL

---

Description: Show detailed information

Syntax: show clock detail

Parameter: none

## 3.2 ENABLE MODE COMMANDS

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

### 3.2.1 CONFIGURE TERMINAL

---

Description: Enter configuration mode.

Syntax: configure

Parameter: none

### 3.2.2 DISABLE

---

Description: Enter init mode.

Syntax: disable

Parameter: none

### 3.2.3 SHOW AAA

---

Description: Show AAA

Syntax: show aaa

Parameter: none

### 3.2.4 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

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.5 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 ]  
[ ipmgmt ] [ 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	<AcelId : 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

### 3.2.6 SHOW AGGREGATION

---

Description: Aggregation

Syntax: show aggregation [ mode ]

Parameter:

Name	Description
mode	Traffic distribution mode

### 3.2.7 SHOW ALARM

---

Description: Alarm information

Syntax: show alarm { history | current }

Parameter:

Name	Description
current	Show alarm current information
history	Show alarm history information



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.8 SHOW CPU-LOAD

---

Description: CPU LOAD

Syntax: show cpu-load

Parameter:

### 3.2.9 SHOW GREEN-ETHERNET

---

Description: Green Ethernet

Syntax: show green-ethernet [ interface ( <port\_type> [ <port\_list> ] ) ]

show green-ethernet eee [ interface ( <port\_type> [ <port\_list> ] ) ]

show green-ethernet energy-detect [ interface ( <port\_type> [ <port\_list> ] ) ]

show green-ethernet short-reach [ interface ( <port\_type> [ <port\_list> ] ) ]

Parameter:

Name	Description
eee	Shows green ethernet EEE status for a specific port or ports
energy-detect	Shows green ethernet energy-detect status for a specific port or ports
short-reach	Shows green ethernet short-reach status for a specific port or ports
interface	Shows green ethernet status for a specific port or ports
port_type	GigabitEthernet, 1 Gigabit Ethernet Port
port_list	<port_type_list> Port list in 1/1-14

### 3.2.10 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

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.11 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

### 3.2.12 SHOW IPV6

---

Description: IPv6 information

Syntax: show ipv6

Parameter:

Name	Description
interface	Select an interface to configure
mld	Multicast Listener Discovery
neighbor	IPv6 neighbors
route	IPv6 routes
statistics	Traffic statistics

### 3.2.13 SHOW LACP

---

Description: LACP information

Syntax: show lacp { internal | statistics | system-id | neighbor }

Parameter:

Name	Description
internal	Internal LACP configuration
neighbor	Neighbor LACP status
statistics	Internal LACP statistics
system-id	LACP system id



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.14 SHOW LINE

---

Description: Alive line information

Syntax: show line [ alive ]

Parameter:

Name	Description
alive	Display information about alive lines

### 3.2.15 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	Information
warning	Warning

### 3.2.16 SHOW LOOP-PROTECT

---

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

### 3.2.17 SHOW NTP STATUS

---

Description: Show SNTP information.

Syntax: show sntp

Parameter: None

### 3.2.18 SHOW USERS

---

Description: Show account list.

Syntax: show account

Parameter: None

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.19 SHOW RUNNING-CFG

---

Description: Show running configuration.

Syntax: show running-cfg

Parameter: None

### 3.2.20 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

### 3.2.21 SHOW RUNNING-CONFIG INTERFACE VLAN

---

Description: Show default running configuration.

Syntax: show running-config interface vlan <vlan\_list> [ all-defaults ]

Parameter: None

### 3.2.22 SHOW RUNNING-CONFIG ALL-DEFAULTS

---

Description: Show all default settings

Syntax: show running-config [ all-defaults ]

Parameter: None

### 3.2.23 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' 'greenethernet' 'http' 'icli' 'ip-igmp-snooping' 'ip-igmpsnooping-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-grouplevel'
all-defaults	Include most/all default values



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.24 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

### 3.2.25 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

### 3.2.26 SHOW VERSION

---

Description: Show firmware hardware and software status update status.

Syntax: show version

Parameter: None

### 3.2.27 SHOW CLOCK

---

Description: Show current time.

Syntax: Show clock

Parameter: None

### 3.2.28 SHOW DDMI

---

Description: Show DDMI configuration

Syntax: show ddmi

Parameter: None

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.29 SHOW VERSION

---

Description: Show version information.

Syntax: show version

Parameter: None

### 3.2.30 SHOW SYSTEM INVENTORY

---

Description: Show system inventory.

Syntax: show system inventory

Parameter: None

### 3.2.31 SHOW MAC ADDRESS TABLE AGING-TIME

---

Description: Show aging time for MAC learning table (system-wide).

Syntax: show aging time

Parameter: None

### 3.2.32 SHOW MAC ADDRESS TABLE

---

Description: Show MAC learning table.

Syntax: show mac address-table [ conf | static | aging-time | { { learning | count } [ interface <port\_type> [ <port\_type\_list> ] ] } | { address <mac\_addr> [ vlan <vlan\_id> ] } | vlan <vlan\_id> | interface <port\_type> [ <port\_type\_list> ] ]

Parameter: None

### 3.2.33 SHOW MAC ADDRESS TABLE CONF

---

Description: User added static mac addresses

Syntax: show mac address-table [ conf | static | aging-time | { { learning | count } [ interface ( <port\_type> [ <v\_port\_type\_list> ] ) ] } | { address <v\_mac\_addr> [ vlan <v\_vlan\_id> ] } | vlan <v\_vlan\_id\_1> | interface ( <port\_type> [ <v\_port\_type\_list\_1> ] ) ]

Parameter: None

### 3.2.34 SHOW MAC ADDRESS TABLE COUNT

---

Description: Total number of mac addresses

Syntax: show mac address-table [ conf | static | aging-time | { { learning | count } [ interface ( <port\_type> [ <v\_port\_type\_list> ] ) ] } | { address <v\_mac\_addr> [ vlan <v\_vlan\_id> ] } | vlan <v\_vlan\_id\_1> | interface ( <port\_type> [ <v\_port\_type\_list\_1> ] ) ]

Parameter: None





## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.35 SHOW MAC ADDRESS TABLE LEARNING

---

Description: Learn/disable/secure stat

Syntax: show mac address-table [ conf | static | aging-time | { { learning | count } [ interface ( <port\_type> [ <v\_port\_type\_list> ] ) ] } ] { address <v\_mac\_addr> [ vlan <v\_vlan\_id> ] } | vlan <v\_vlan\_id\_1> | interface ( <port\_type> [ <v\_port\_type\_list\_1> ] ) ]

Parameter: None

### 3.2.36 SHOW MAC ADDRESS TABLE STATIC

---

Description: All static mac addresses

Syntax: show mac address-table [ conf | static | aging-time | { { learning | count } [ interface ( <port\_type> [ <v\_port\_type\_list> ] ) ] } ] { address <v\_mac\_addr> [ vlan <v\_vlan\_id> ] } | vlan <v\_vlan\_id\_1> | interface ( <port\_type> [ <v\_port\_type\_list\_1> ] ) ]

Parameter: None

### 3.2.37 SHOW MAC ADDRESS TABLE INTERFACE

---

Description: Show MAC learning table per port.

Syntax: show mac address-table [ interface <port\_type> [ <port\_type\_list> ] ]

Parameter:

Name	Description
<portNo>	Valid values: 1–10 Type: Mandatory

### 3.2.38 SHOW MAC ADDRESS VLAN <VLANID>

---

Description: Show MAC learning table per VLAN index.

Syntax: show mac address-table { learning | count } vlan <vlan\_id>

Parameter:

Name	Description
<vlanid>	Valid values: 1–4094 Type: Mandatory

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.39 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

### 3.2.40 SHOW FDB STATIC TABLE

---

Description: Show static MAC forwarding table.

Syntax: show mac address-table static

Parameter: None

### 3.2.41 SHOW FDBSTATIC INTERFACE GIGABIT <PORTNO>

---

Description: Show static MAC forwarding table per gigabit port.

Syntax: Show mac address-table { learning | count } [ interface <port\_type> [ <port\_type\_list> ] ]

Parameter:

Name	Description
<port_type>	Port type in Fast, Giga or Ten-giga ethernet
<portNo>	Valid values: 1-10 Type: Mandatory

### 3.2.42 SHOW FDBSTATIC VLAN <VLANID>

---

Description: Show static MAC forwarding table per VLAN index.

Syntax: show mac address-table { learning | count } vlan <vlanid>

Parameter:

Name	Description
<vlanid>	Valid values: 1-4094 Type: Mandatory



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.43 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

### 3.2.43 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

### 3.2.44 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.

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.45 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

### 3.2.46 SHOW POE

---

Description: Show PoE status and information for each port

Syntax: show poe

show poe [ interface ( <port\_type> [ <v\_port\_type\_list> ] ) ]

Parameter:

Name	Description
poe	Power over Ethernet
port_type	GigabitEthernet, 1 Gigabit Ethernet Port
v_port_type_list	PORT_LIST, Port list in 1/1-14

### 3.2.47 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



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.48 SHOW PROFILE ALARM

---

Description: Profile alarm

Syntax: show profile alarm

Parameter: None

### 3.2.49 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

### 3.2.50 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

## CHAPTER 3: COMMANDS DESCRIPTIONS

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

### 3.2.51 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



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.52 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

### 3.2.53 SHOW TACACS-SERVER

---

Description: TACACS+ configuration

Syntax: show tacacs-server

Parameter:

### 3.2.54 SHOW VLAN

---

Description: Show bridge port memberset/status.

Syntax: show vlan

Parameter: None

### 3.2.55 SHOW VLAN ID

---

Description: Show bridge port member set/status per VLAN index (1-4094).

Syntax: show vlan id <vlanid>

Parameter:

Name	Description
<vlanid>	Valid values: 1-4094 Type: Mandatory.

### 3.2.56 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.

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.57 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

### 3.2.58 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

### 3.2.59 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





## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.60 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	<0x0-0xfffff> SNAP OUI (Range 0x000000–0FFFFFFF)
rfc-1042	SNAP OUI is rfc-1042
snap-8021h	SNAP OUI is 8021h

### 3.2.61 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
voice-vlan	Show the VLANs configured by Voice VLAN

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.62 SHOW QOS-QUEUE-MAPPING

---

Description: Show CoS queue mapping table.

Syntax: show qos maps

Parameter: None

### 3.2.63 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

### 3.2.64 SHOW QOS

---

Description: Show scheduler profile table.

Syntax: show queue-scheduler profile

Parameter: None

### 3.2.65 SHOW QUEUE-SHAPER

---

Description: Show queue shaper information.

Syntax: show queue-shaper

Parameter: None

### 3.2.66 SHOW PORT-SHAPER

---

Description: Show port shaper information.

Syntax: show port-shaper

Parameter: None

### 3.2.67 SHOW PVLAN [ <PVLAN\_LIST> ]

---

Description: PVLAN ID

Syntax: show pvlan [ <pvlan\_list> ]

Parameter:

Name	Description
pvlan_list	PVLAN ID to show configuration for

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.68 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:

Name	Description
<port_type>	Port type in Fast, Giga or Tengiga ethernet
<portNo>	Valid values: 1–10 Type: Mandatory

### 3.2.69 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
<port_type>	Port type in Fast, Giga or Tengiga ethernet
<portNo>	Valid values: 1–10 Type: Mandatory

### 3.2.70 SHOW INTERFACE GIGABIT <PORTNO> STORM-CONTROL

---

Description: Show storm control information per gigabit port.

Syntax: show interface gigabit <portNo> storm-control

Parameter:

Name	Description
<port_type>	Port type in Fast, Giga or Tengiga ethernet
<portNo>	Valid values: 1–10 Type: Mandatory

### 3.2.71 SHOW INTERFACE GIGABIT <PORTNO> TRANSCEIVER

---

Description: Show interface transceiver

Syntax: show interface gigabit <port\_type\_list> transceiver

Parameter:

Name	Description
<portNo>	Valid values: 11–14 (for 14-port model) Type: Mandatory

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.72 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

### 3.2.73 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

### 3.2.74 SHOW QOS QCE

---

Description: QCE

Syntax: show qos { qce [ <qce> ] }

Parameter:

Name	Description
qce	<Id: 1-256> QCE ID



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.75 SHOW QOS STORM {UNKNOWN-UC|UNKNOWN-MC|BROADCAST}

---

Description: Show storm control information by VLAN.

Syntax: show vlan unknown-uc

show vlan unknown-mc

show vlan broadcast

Parameter:

Name	Description
unknown-uc	Show unknown unicast storm control information by VLAN. Type: Mandatory
unknown-mc	Show unknown multicast storm control information by VLAN. Type: Mandatory
broadcast	Show broadcast storm control information by VLAN. Type: Mandatory

### 3.2.76 SHOW PORT-MIRROR

---

Description: Show port mirror information.

Syntax: show port-mirror

Parameter: None

### 3.2.77 SHOW RINGV2

---

Description: Show ring protect information

Syntax: show ring

Parameter: None

### 3.2.78 SHOW RMON

---

Description: Show storm control information by VLAN.

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

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.79 SHOW INTERFACE GIGABIT <PORTNO>

---

Description: Show interface gigaport information

Syntax: show interface gigabit <portNo>

Parameter:

Name	Description
<portNo>	Gigabit port. Valid values: 1–10 Type: Mandatory

### 3.2.80 SHOW EXT-TPID

---

Description: Show TPID for the VLAN Tag

Syntax: show ext-tpid

Parameter: None

### 3.2.81 SHOW INTERFACE VLAN

---

Description: Show VLAN interface information of all VLANs

Syntax: show interface vlan

Parameter: None

### 3.2.82 SHOW INTERFACE VLAN <VLANID>

---

Description: Show VLAN interface information of specify VLAN.

Syntax: show interface vlan <vlanid>

Parameter:

Name	Description
<vlanid>	VLAN ID. Valid values: 1–4094 Type: Mandatory

### 3.2.83 SHOW PROTOCOL-VLAN

---

Description: Show protocol based VLAN information for all entries.

Syntax: show protocol-vlan

Parameter: None



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.84 SHOW INTERFACE GIGABIT <PORTNO> VLAN

---

Description: Show vlan information per port

Syntax: show interface gigabit <portNo> vlan

Parameter:

Name	Description
<portNo>	Gigabit port. Valid values: 1–10 Type: Mandatory

### 3.2.85 SHOW VLAN-TRANS

---

Description: Show VLAN translation table for all

Syntax: show vlan-trans

Parameter: None

### 3.2.86 SHOW MULTICAST-FDB

---

Description: Show IGMP group membership table

Syntax: show multicast-fdb

Parameter: None

### 3.2.87 SHOW INTERFACE GIGABIT <PORTNO> VLAN

---

Description: Show dot1x information.

Syntax: show dot1x

Parameter: None

### 3.2.88 SHOW DOT1X STATUS

---

Description: Show dot1x stats.

Syntax: show dot1x status [ interface <port\_type> [ <port\_type\_list> ] ] [ brief ]

Parameter: None

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.89 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

### 3.2.90 SHOW RADIUS-SERVER [ STATISTICS ]

Description: show radius-server statistics

Syntax: show radius-server [ statistics ]

Parameter:

Name	Description
[ statistics ]	Count radius packet statistics

### 3.2.91 SHOW RFC2544 PROFILE [ <WORD32> ]

Description: show rfc2544 profile name

Syntax: show rfc2544 profile [ <word32> ]

Parameter:

Name	Description
<word32>	rfc2544 profile name

### 3.2.92 SHOW VOICE

Description: Vlan for voice traffic

Syntax: show voice vlan [ oui <oui> | interface ( <port\_type> [ <port\_list> ] ) ]

Parameter:

Name	Description
vlan	Vlan for voice traffic
oui	OUI configuration
oui	OUI value
interface	Select an interface to configure
port_type	GigabitEthernet, 1 Gigabit Ethernet Port
port_list	<port_type_list> Port list in 1/1-14





## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.2.93 SHOW WEB

Description: Web privilege

Syntax: show web privilege group [ <group\_name> ] level

Parameter:

Name	Description
privilege	Web privilege
group	Web privilege group
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

## 3.3 CONFIGURE MODE COMMANDS

Commands that can be executed under Configure Mode.

### 3.3.1 INTERFACE GIGABIT <PORTNO>

Description: Gigabit Ethernet interface. (enter gigabit interface mode)

Syntax: interface gigabit <portNo>

Parameter:

Name	Description
<portNo>	Valid values: 1–10 Type: Mandatory

### 3.3.2 INTERFACE VLAN <VLANID>

Description: Vlan Ethernet interface (enter mode of interface vlan)

Syntax: interface vlan <vlanid>

Parameter:

Name	Description
<vlanid>	Valid values: 1–4094 Type: Mandatory

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.3 AAA

---

Description: Authentication

Syntax: aaa authentication

Parameter:

Name	Description
authentication	Authentication

### 3.3.4 ACCESS

---

Description: Management configuration

Syntax: access management

Parameter:

Name	Description
management	Access management configuration

### 3.3.5 ACCESS-LIST

---

Description: Enter Acl Profile Config Mode

Syntax: profile acl

Parameter:

Name	Description
<vlanid>	Valid values: 1–4094 Type: Mandatory

### 3.3.6 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

### 3.3.7 ALARM HISTORY CLEAR

---

Description: Clear alarm history

Syntax: alarm history clear

Parameter: None



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.8 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

### 3.3.9 DDMI

Description: Enable DDMI function

Syntax: ddmi

Parameter: None

### 3.3.10 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

### 3.3.11 PROFILE SCH

Description: Enter Scheduling Profile Config Mode

Syntax: profile sch

Parameter: None

### 3.3.12 NTP SERVER <1-5> IP-ADDRESS <IP>

Description: Set NTP server address.

Syntax: ntp server <1-5> ip-address { <ipv4\_ucast> | <ipv6\_ucast> | <hostname> }

Parameter:

Name	Description
<1-5>	index number
<ipv4>	Type: Mandatory
<ipv6 >	
<hostname>	Server name

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.13 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

### 3.3.14 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: 1–59 Type: Mandatory
<second>	Valid values: 0–59 Type: Mandatory

### 3.3.15 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: 1–15 Type: Mandatory
< word4-44>	Valid values: 4–44 characters debug Type: Mandatory



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.16 ACCOUNT DELETE <USERNAME>

---

Description: Delete an account.

Syntax: no username <word31>

Parameter:

Name	Description
< word31>	Valid values: 1–31 characters Type: Mandatory

### 3.3.17 SYSLOG {ENABLE|DISABLE}

---

Description: Disable or enable syslog service.

Syntax: logging on

no logging on

Parameter: None

### 3.3.18 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

### 3.3.19 CLEAR IP IGMP SNOOPING STATISTICS

---

Description: clear ipigmpsnoppingstatisti

Syntax: clear ip igmp snooping [ vlan<vlan\_list> ] statistics

Parameter:

Name	Description
vlan_list	VLAN list.

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.20 CLEAR LOGGING

---

Description: clear logging

Syntax: clear logging [ info ][ warning ][ error ][ switch <switch\_list> ]

Parameter:

Name	Description
info	Information
warning	Warning
error	Error
Switch list	List of switch ID, ex, 1,3-5,6

### 3.3.21 CLEAR MAC ADDRESS TABLE

---

Description: clear mac address-table

Syntax: clear mac address-table

Parameter:

### 3.3.22 DEBUG

---

Description: Set prompt for testing

Syntax: debug prompt

Parameter:

Name	Description
<word>	Word for prompt in 32 char's

### 3.3.23 DELETE

---

Description: Delete one file in flash: file system

Syntax: delete <word>

Parameter:

Name	Description
<word>	Name of file to delete

### 3.3.24 DIR

---

Description: Directory of all files in flash: file system

Syntax: dir

Parameter:



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.25 DO

---

Description: To run exec commands in config mode

Syntax: do <line>

Parameter:

Name	Description
<line>	Exec Command

### 3.3.26 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.

### 3.3.27 EDITING

---

Description: Enable command line editing

Syntax: editing

Parameter:

### 3.3.28 FIRMWARE

---

Description: Firmware swap and upgrade

Syntax: firmware { swap | upgrade }

Parameter:

Name	Description
swap	Swap between Active and Alternate firmware image
upgrade	Firmware upgrade

### 3.3.29 FLOWCONTROL

---

Description: Enable/Disable flow control.

Syntax: flowcontrol { on | off }

Parameter:

Name	Description
on	Enable flow control.
off	Disable flow control.

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.30 FRAME SIZES

---

Description: Select the frame sizes that the enabled tests will loop through

Syntax: frame-sizes {[ 64 ][ 128 ][ 256 ][ 512 ][ 1024 ][ 1280 ][ 1518 ][ 2000 ][ 9600 ]}

Parameter:

Name	Description
64	Enable testing with 64-byte TST PDUs
128	Enable testing with 128-byte TST PDUs
256	Enable testing with 256-byte TST PDUs
512	Enable testing with 512-byte TST PDUs
1024	Enable testing with 1024-byte TST PDUs
1280	Enable testing with 1280-byte TST PDUs
1518	Enable testing with 1518-byte TST PDUs
2000	Enable testing with 2000-byte TST PDUs
9600	Enable testing with 9600-byte TST PDUs

### 3.3.31 GREEN-ETHERNETEEE

---

Description: Powering down of PHYs when there is no traffic.

Syntax: green-etherneteee

Parameter:

### 3.3.32 GREEN-ETHERNETEEE OPTIMIZE FOR POWER

---

Description: Set if EEE shall be optimized for least power consumption (else optimized for least traffic latency).

Syntax: green-etherneteee optimize-for-power

Parameter:

### 3.3.33 GREEN-ETHERNETEEE URGENT-QUEUES

---

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

Syntax: green-etherneteee urgent-queues [ <range\_list> ]

Parameter:

Name	Description
range_list	EEE Interface.

### 3.3.34 HELP

---

Description: Description of the interactive help system

Syntax: help

Parameter:





## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.35 IPARP INSPECTION

---

Description: iparp inspection

Syntax: iparp inspection

Parameter:

### 3.3.36 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

### 3.3.37 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
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

### 3.3.38 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

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.39 IP DNS PROXY

---

Description: IP DNS proxy service

Syntax: ipdns proxy

Parameter:

### 3.3.40 IP HTTP SECURE-REDIRECT

---

Description: IP http secure-redirect

Syntax: ip http secure-redirect

Parameter:

### 3.3.41 IP HTTP SECURE-SERVER

---

Description: IP Secure HTTP web server

Syntax: ip http secure-server

Parameter:

### 3.3.42 IP SOURCE BINDING INTERFACE

---

Description: IP source binding entry interface configuration

Syntax: Ip source binding interface <port\_type> <port\_type\_id> <vlan\_id> <ipv4\_ucast> <mac\_ucast>

Parameter:

Name	Description
port_type	Port type in Fast, Giga or Tengigaethernet
port_type_id	Port ID in the format of switch-no/port-no
vlan_id	Select a VLAN id to configure
ipv4_ucast	Select an IP Address to configure
mac_ucast	Select a MAC address to configure

### 3.3.43 IP SSH

---

Description: IP Secure Shell

Syntax: ipssh

Parameter:



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.44 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

### 3.3.45 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

### 3.3.46 IP ROUTING

---

Description: IP routing

Syntax: ip routing

Parameter:

### 3.3.47 IP VERIFY

---

Description: IP verify

Syntax: ip verify [source] [translate]

Parameter:

Name	Description
source	verify source
translate	ip verify source translate all entries

### 3.3.48 IPMC PROFILE

---

Description: IPMC profile configuration

Syntax: ipmc profile

Parameter:

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.49 IPMC RANGE

---

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

Syntax: ipmc range <word16> { <ipv4\_mcast> [ <ipv4\_mcast> ] | <ipv6\_mcast> [ <ipv6\_mcast> ] }

Parameter:

Name	Description
word16	Range entry name in 16 char's
ipv4_mcast	Valid IPv4 multicast address
ipv4_mcast	Valid IPv4 multicast address that is not less than start address
ipv6_mcast	Valid IPv6 multicast address
ipv6_mcast	Valid IPv6 multicast address that is not less than start address

### 3.3.50 LACP

---

Description: LACP system priority

Syntax: lacp system-priority <v\_1\_to\_65535>

Parameter:

Name	Description
system-priority	System priority
<v_1_to_65535>k	Priority value, lower means higher priority

### 3.3.51 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
vtty	Virtual terminal

### 3.3.52 LOGIN HOST

---

Description: Domain name and IP address

Syntax: logging host { <v\_ipv4\_ucast> | <v\_word45> }

Parameter:

Name	Description
hostname	Domain name of the log server
ipv4_ucast	IP address of the log server



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.53 LOGIN LEVEL

---

Description: Log level

Syntax: logging level { info | warning | error }

Parameter:

Name	Description
error	Error
info	Information

### 3.3.54 LOGIN ON

---

Description: Log on

Syntax: logging on

Parameter:

### 3.3.55 LOGOUT

---

Description: System logout

Syntax: logout

Parameter:

### 3.3.56 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

### 3.3.57 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

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.58 MORE

---

Description: File in FLASH or on TFTP server

Syntax: more <Path>

Parameter:

### 3.3.59 NO

---

Description: Function disable

Syntax: no { debug | port-securit | terminal }

Parameter:

Name	Description
debug	Debugging functions
port-security	Port security (psec limit)
terminal	Set terminal line parameters

### 3.5.60 PING

---

Description: The ping function

Syntax: ping { ip | ipv6 }

Parameter:

### 3.3.61 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



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.62 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

### 3.3.63 RELOAD

---

Description: System or configuration reset

Syntax: `reload { cold | default }`

Parameter:

Name	Description
cold	Reload cold
defaults	Reload defaults without rebooting

### 3.3.64 RMON

---

Description: RMON

Syntax: `rmon {alarm | event}`

Parameter:

Name	Description
alarm	Configure an RMON alarm
event	Configure an RMON event

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.65 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 if the packets are normal
ifInErrors	The number of inbound packets that contained errors preventing them from being deliverable to a higher-layer protocol
ifInNUcastPkts	The number of 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 an unknown or un-supported protocol
ifOutDiscards	The number of outbound packets that are discarded even if the packets are normal
ifOutErrors	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 transmit
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	Trigger alarm when the first value is less than the falling threshold
rising	Trigger alarm when the first value is larger than the rising threshold

### 3.3.66 RMON EVENT

Description: RMON Event

Syntax: rmon event <id> [ log ] [ trap <community> ] { [ description <description> ] }

Parameter:

Name	Description
description	Specify a description of the event
log	Generate RMON log when the event occurs
trap	Generate SNMP trap when the event occurs





## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.67 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

### 3.3.68 VLAN <VLANID>

---

Description: Configure VLAN.

Syntax: vlan <vlanid>

Parameter:

Name	Description
<vlanid>	Create an empty VLAN index. Valid values: 1–4094 Type: Mandatory

### 3.3.69 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

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.70 VLAN DISABLE <VLANID>

---

Description: Delete VLAN memberset/setting.

Syntax: vlan disable <vlanid>

Parameter:

Name	Description
<vlanid>	Valid values: 1–4094 Type: Mandatory

### 3.3.71 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

### 3.3.72 MTU <VALUE>

---

Description: MTU size.

Syntax: mtu <value>

Parameter:

Name	Description
<value>	Valid values: 1536–9000 (bytes) Type: Mandatory

### 3.3.73 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 (copper & fiber interface)



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.74 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

### 3.3.75 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

### 3.3.76 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

### 3.3.77 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	1 Gbps
100	100 Mbps
10	10 Mbps
auto	Auto negotiation
[ 10 ]	10 Mbps
[ 10 0 ]	100 Mbps
[ 1000 ]	1 Gbps

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.78 TACACS-SERVER HOST

---

Description: Configure TACACS+ server

Syntax: tacacs-server host <word1-255> [ port <0-65535> ] [ timeout <1-1000> ] [ key <line1-63> ]

Parameter:

Name	Description
word1-255	Hostname or IP address
0-65535	TCP port number
1-1000	Wait time in seconds
line1-63	The shared key

### 3.3.79 TACACS-SERVER KEY

---

Description: Configure TACACS+ encryption key

Syntax: tacacs-server key <line1-63>

Parameter:

Name	Description
line1-63	

### 3.3.80 TACACS-SERVER TIMEOUT

---

Description: Time to wait for a TACACS+ server to reply

Syntax: tacacs-server timeout <1-1000>

Parameter:

Name	Description
1-1000	Wait time in seconds

### 3.3.81 TRAPS

---

Description: trap event configuration

Syntax: traps [ aaa authentication ] [ system [ coldstart ] [ warmstart ] ] [ switch [ stp ] [ rmon ] ]

Parameter:

Name	Description
aaa authentication	AAA authentication fail event
coldstart	Cold start event
warmstart	Warm start event
stp	STP event
rmon	RMON event'



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.82 UPNP

---

Description: Set UPnP's configurations

Syntax: upnp

Parameter:

### 3.3.83 UPNP ADVERTISING-DURATION

---

Description: Set UPnP's advertising duration

Syntax: upnp advertising-duration <100-86400>

Parameter:

Name	Description
100-86400	advertising duration

### 3.3.84 UPNP TTL

---

Description: Set UPnP's TTL value

Syntax: upnp ttl <1-255>

Parameter:

Name	Description
1-255	TTL value

### 3.3.85 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

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.86 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>

### 3.3.87 FLOW-CONTROL {ENABLE|DISABLE}

---

Description: Enable/Disable flow-control.

Syntax: flow-control {enable|disable}

Parameter:

Name	Description
enable	Enable flow-control
disable	Disable flow-control



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.3.88 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-1000mbps|full-100mbps|full-10mbps|half-100mbps|half-10mbps}

Parameter:

Name	Description
auto	Auto negotiation
full-1000mbps	Set 1000Mbps full duplexing
full-100mbps	Set 100Mbps full duplexing
full-10mbps	Set 10Mbps full duplexing
half-100mbps	Set 100Mbps half duplexing
half-10mbps	Set 10Mbps half duplexing

### 3.3.89 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 on gigabit port.

### 3.3.90 DATE/TIME

---

Description: Set device date and time

Syntax: clock datetime <2000-2037> <1-12> <1-31> <0-23> <0-59> <0-59>

Parameter:

Name	Description
<2000-2037>	year
<1-12>	month
<1-31>	date
<0-23>	hour
<0-59>	minute
<0-59>	second

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.4 VLAN MODE COMMANDS

#### 3.4.1 VLAN

Description: VLAN commands

Syntax: vlan <vlan\_list>

Parameter:

Name	Description
vlan_list	ISL VLAN IDs 1–4095

#### 3.4.2 VLAN ETHERTYPE S-CUSTOM-PORT

Description: Vlan Ether type for custom S-ports configuration

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

Parameter:

Name	Description
0x0600-0xffff	Ethertype (Range: 0x0600-0xffff)

#### 3.4.3 VLAN PROTOCOL

Description:

Syntax: vlan protocol { { eth2 { <0x600-0xffff> | arp | ip | ipx | at } } | { snap { <0x0-0xfffff> | 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
0x0-0xfffff	SNAP OUI (Range 0x000000 - 0xFFFFF)
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)





## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.4.4 VLAN TRUNKING

---

Description: Change whether trunking of unknown VLANs is enabled

Syntax: vlan-trunking

Parameter:

### 3.4.5 SWITCHPORT ACCESS VLAN

---

Description: Set switch access mode of the interface

Syntax: switchport access vlan <vlan\_id>

Parameter:

Name	Description
vlan_id	VLAN ID of the VLAN when this port is in access mode

### 3.4.6 SWITCHPORT FORBIDDEN VLAN

---

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

Syntax: switchport forbidden vlan { add | remove } <vlan\_list>

Parameter:

Name	Description
add	Add to existing list
remove	Remove from existing list
vlan_list	VLAN IDs

### 3.4.7 SWITCHPORT HYBRID ACCEPTABLE-FRAME-TYPE

---

Description: Set acceptable frame type on a port

Syntax: switchport hybrid acceptable-frame-type { all | tagged | untagged }

Parameter:

Name	Description
all	Allow all frames
tagged	Allow only tagged frames
untagged	Allow only untagged frames

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.4.8 SWITCHPORT FORBIDDEN 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

### 3.4.9 SWITCHPORT HYBRID EGRESS-TAG

---

Description: Egress VLAN tagging configuration

Syntax: `switchport hybrid egress-tag { none | all [ except-native ] }`

Parameter:

Name	Description
none	No egress tagging
all	Tag all frames
except-native	Tag all frames except frames classified to native VLAN of the hybrid port

### 3.4.10 SWITCHPORT HYBRID INGRESS-FILTERING

---

Description: VLAN Ingress filter configuration

Syntax: `switchport hybrid ingress-filtering`

Parameter:

### 3.4.11 SWITCHPORT MODE

---

Description: Set switching mode

Syntax: `switchport mode { access | trunk | hybrid }`

Parameter:

Name	Description
access	Set mode to ACCESS unconditionally
trunk	Set mode to TRUNK unconditionally
hybrid	Set mode to HYBRID unconditionally



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.4.12 SWITCHPORT TRUNK ALLOWED VLAN

Description: Set allowed VLAN characteristics when interface is in trunk mode

Syntax: switchport trunk allowed vlan { all | none | [ add | remove | except ] <vlan\_list> }

Parameter:

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

### 3.4.13 SWITCHPORT VLAN PROTOCOL GROUP

Description: Protocol-based VLAN group commands

Syntax: switchport vlan protocol group <word16> vlan <vlan\_id>

Parameter:

Name	Description
word16	Group Name (Range: 1–16 characters)
vlan_id	VLAN ID required for the group to VLAN mapping (Range: 1-4095)

## 3.5 INTERFACE VLAN MODE COMMANDS

### 3.5.1 INTERFACE

Description: Interface configuration

Syntax: interface <port\_type> [ <port\_type\_list> ]

Parameter:

Name	Description
port_type	Port type in Fast, Giga or Tengigaethernet
port_type_list	List of Port ID, ex, 1/1,3-5;2/2-4,6

### 3.5.2 INTERFACE VLAN

Description: VLAN interface configurations

Syntax: interface vlan<vlan\_list>

Parameter:

Name	Description
vlan_list	List of VLAN interface numbers, 1–4095

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.5.3 IP ADDRESS

---

Description: IPv4 address configurations

Syntax: ip address { { <ipv4\_addr><ipv4\_netmask> } | { dhcp [ fallback <ipv4\_addr><ipv4\_netmask> [ timeout <uint> ] ] } }

Parameter:

Name	Description
ipv4_addr	IP address
ipv4_netmask	IP netmask
dhcp	Enable DHCP
fallback	DHCP fallback settings
ipv4_addr	DHCP fallback address
ipv4_netmask	DHCP fallback netmask
timeout	DHCP fallback timeout
uint	DHCP fallback timeout in seconds

### 3.5.4 IP NAME-SERVER

---

Description: Interface Internet Protocol config commands Domain Name System

Syntax: ip name-server { <ipv4\_ucast> | dhcp [ interface vlan<vlan\_id> ] }

Parameter:

Name	Description
ipv4_ucast	A valid IPv4 unicast address
vlan_id	VLAN identifier(s): VID

### 3.5.5 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
igh_ip	High IP address

### 3.5.6 IP DHCP POOL

---

Description: Pool name in 32 characters

Syntax: ip dhcp pool <pool\_name>

Parameter:



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.5.7 IP DHCP SERVER

---

Description: DHCP Server

Syntax: ip dhcp server

Parameter:

### 3.5.8 IP DHCP RELAY

---

Description: DHCP relay agent configurations

Syntax: ipdhcp relay

Parameter:

### 3.5.9 IP DHCP RELAY INFORMATION OPTION

---

Description: IP DHCP relay information option (Option 82)

Syntax: ipdhcp relay information option

Parameter:

### 3.5.10 IP DHCP RETRY INTERFACE VLAN

---

Description: Restart the DHCP query process

Syntax: ipdhcp retry interface vlan <vlan\_id>

Parameter:

Name	Description
vlan_id	Vlan ID

### 3.5.11 IP DHCP SNOOPING

---

Description: IP DHCP snooping

Syntax: ipdhcp snooping

Parameter:

### 3.5.12 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

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.5.13 IPV6 ADDRESS

---

Description: Configure the IPv6 address of an interface

Syntax: ipv6 address <ipv6\_subnet>

Parameter:

Name	Description
ipv6_subnet	IPv6 prefix x:x::y/z

### 3.5.14 IPV6MTU

---

Description: IPv6 Maximum transmission unit

Syntax: ipv6 mtu<1280-1500>

Parameter:

Name	Description
1280-1500	MTU value in bytes

## 3.6 RINGV2 GROUP MODE COMMANDS

### 3.6.1 RINGV2 PROTECT

---

Description: To configure ring protection.

Syntax: ring protect

Parameter:

Name	Description
group1	Configure ring protection v2 group1 (Ring)
group2	Configure ring protection v2 group2 (Ring)
group3	Configure ring protection v2 group3 (Chain)

### 3.6.2 GUARD-TIME

---

Description: Set guard time

Syntax: guard-time { <ringGuardTimerDef> }

Parameter:

Name	Description
ringGuardTimerDef	<10-3600>, unit: second. Default is 10 seconds



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.6.3 MODE

Description: Enable/Disable ring group

Syntax: mode { disable | enable }

Parameter:

Name	Description
disable	Set the specified Ring group to Disabled
enable	Set the specified Ring group to Enabled

### 3.6.4 NODE1 INTERFACE GIGABITETHERNET <PORTNO>

Description: Set interface of ring protection node

Syntax: node1 interface GigabitEthernet <portNo>

Parameter:

Name	Description
<portNo>	Valid values: 1–max port index.

### 3.6.5 NODE2 INTERFACE GIGABITETHERNET <PORTNO>

Description: Set interface of ring protection node

Syntax: Node2 interface GigabitEthernet <portNo>

Parameter:

Name	Description
<portNo>	Valid values: 1–max port index.

### 3.6.6 ROLE

Description: Set role for group

Syntax: role { ring-master | ring-slave | coupling-primary | coupling-backup | dual-homing | chain-head | chain-tail | chain-member | b-chain-terminal-1 | b-chain-terminal-2 | b-chain-central-block | b-chain-member }

Parameter:

Name	Description
ring-master	Set role to ring master
ring-slave	Set role to ring slave
coupling-primary	Set role to coupling primary
coupling	Set role to coupling backup
dual-homing	Set role to dual homing
chain-head	Set role to chain head
chain-member	Set role to chain member
chain-tail	Set role to chain tail
b-chain-central-block	Set role to balancing chain central block

## CHAPTER 3: COMMANDS DESCRIPTIONS

b-chain-member	Set role to balancing chain member
b-chain-terminal-1	Set role to balancing chain terminal 1
b-chain-terminal-2	Set role to balancing chain terminal 2

### 3.7 SPANNING TREE

#### 3.7.1 SPANNING-TREE

---

Description: Enable/disable STP on this interface

Syntax: spanning-tree

Parameter:

#### 3.7.2 SPANNING-TREE AGGREGATION

---

Description: Spanning Tree protocol

Syntax: spanning-tree aggregation

Parameter:

#### 3.7.3 SPANNING-TREE AUTO-EDGE

---

Description: Auto detect edge status

Syntax: spanning-tree-auto-edge

Parameter:

#### 3.7.4 SPANNING-TREE BPDU-GUARD

---

Description: Enable/disable BPDU guard

Syntax: spanning-tree bpdu-guard

Parameter:

#### 3.7.5 SPANNING-TREE EDGE

---

Description: Edge port, spanning-tree, STP Bridge

Syntax: spanning-tree edge

Parameter:

#### 3.7.6 PANNING-TREE EDGE BPDU-FILTER

---

Description: Enable BPDU filter (stop BPDU tx/rx)

Syntax: spanning-tree edge bpdu-filter

Parameter:





## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.7.7 SPANNING-TREE MODE

---

Description:

mode: STP protocol mode

stp: 802.1D Spanning Tree

rstp: Rabid Spanning Tree (802.1w)

mstp: Multiple Spanning Tree (802.1s)

Syntax: spanning-tree mode { stp | rstp | mstp }

Parameter:

Name	Description
stp	802.1D Spanning Tree
rstp	Rabid Spanning Tree (802.1w)
mstp	Multiple Spanning Tree (802.1s)

### 3.7.8 SPANNING-TREE MST COST

---

Description:

STP bridge instance

STP Cost of this port

Syntax: spanning-tree mst <0-7> cost { <1-200000000> | auto }

Parameter:

Name	Description
<0-7>	instance 0-7 (CIST=0, MST2=1...)
<1-200000000>	STP Cost of this port

### 3.7.9 SPANNING-TREE MST PORT-PRIORITY

---

Description: port-priority

Syntax: spanning-tree mst <0-7> port-priority <0-240>

Parameter:

Name	Description
<0-7>	instance 0-7 (CIST=0, MST2=1...)
<0-240>	STP priority of this port

### 3.7.10 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

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.7.11 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

### 3.7.12 SPANNING-TREE MST FORWARD-TIME

---

Description:

forward-time

Delay between port states

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

Parameter:

Name	Description
<4-30>	Delay between port states

### 3.7.13 SPANNING-TREE MST MAX-AGE

---

Description: Max bridge age before timeout.

Syntax: spanning-tree mst max-age <6-40> [ forward-time <4-30> ]

Parameter:

Name	Description
<6-40>	Max bridge age before timeout
4-30>	forward-time

### 3.7.14 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



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.7.15 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

### 3.7.16 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

### 3.7.17 SPANNING-TREE RECOVERY

---

Description: Recovery

Syntax: spanning-tree recovery interval <interval>

Parameter:

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

### 3.7.18 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

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.8 SFLOW CONFIGURE COMMAND

#### 3.8.1 SFLOW

Description: Enables/disables flow sampling on this port

Syntax: sflow [ <range\_list> ]

Parameter:

Name	Description
< range_list >	Sampler instance

#### 3.8.2 SFLOW AGENT-IP

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

Syntax: sflow agent-ip { ipv4 <ipv4\_addr> | ipv6 <ipv6\_addr> }

Parameter:

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

#### 3.8.3 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

#### 3.8.4 SFLOW MAX-DATAGRAM-SIZE

Description: Statistics flow Maximum datagram size

Syntax: sflow max-datagram-size [ receiver <range\_list> ] <200-1468>

Parameter:

Name	Description
<range_list>	Sampler instance
<200-1468>	packet byte



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.8.5 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

### 3.8.6 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

### 3.8.7 SFLOW SAMPLING-RATE

---

Description: Specifies the statistical sampling rate. The sample rate is specified as N to sample 1/Nth of the packets in the monitored flows. There are no restrictions on the value, but the switch will adjust it to the closest possible sampling rate.

Syntax: sflow sampling-rate [ sampler <range\_list> ] [ <1-4294967295> ]

Parameter:

Name	Description
<range_list>	Sampler instance
<1-4294967295>	Sampling rate

### 3.8.8 SFLOW TIMEOUT

---

Description: Receiver timeout measured in seconds. The switch decrements the timeout once per second, and as long as it is non-zero, the receiver receives samples. Once the timeout reaches 0, the receiver and all its configuration is reset to defaults.

Syntax: sflow timeout [ receiver <range\_list> ] <0-2147483647>

Parameter:

Name	Description
<range_list>	Sampler instance
<0-2147483647>	Number of seconds

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.9 SNMP CONFIGURE COMMAND

#### 3.9.1 SNMP-SERVER

Description: Enable SNMP server

Syntax: snmp-server

Parameter:

#### 3.9.2 SNMP-SERVER ACCESS

Description: snmp-server access configuration

Syntax: snmp-server access < group name > model { v1 | v2c | v3 | any } level { auth | noauth | priv } [ read <word255> ] [ write <word255> ]

Parameter:

Name	Description
< group name >	32 words
< v1   v2c   v3   any >	V1–V3 security model
< level >	security level
{ auth   noauth   priv }	authNoPriv Security Level noAuthNoPriv Security Level authPriv Security Level
read	specify a read view for the group
<word255>	read view name

#### 3.9.3 SNMP-SERVER COMMUNITY V2C

Description: Set the SNMP v2c community

Syntax: snmp-server community v2c <word127> [ ro | rw ]

Parameter:

Name	Description
< word127 >	Community word
< ro >	Read only
<rw>	Read write

#### 3.9.4 SNMP-SERVER COMMUNITY V3

Description: 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



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.9.5 SNMP-SERVER HOST

Description: Set SNMP server's configurations

Syntax: snmp-server host <word32>

Parameter:

Name	Description
< word32 >	Name of the host configuration

### 3.9.6 SNMP-SERVER HOST TRAPS

Description: Set SNMP host's configurations

Syntax: snmp-server host < Name of the host configuration > traps [ linkup ] [ linkdown ] [ lldp ]

Parameter:

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

### 3.9.7 SNMP-SERVER TRAP

Description: Set SNMP server's configurations

Syntax: snmp-server trap

Parameter:

### 3.9.8 SNMP-SERVER USER

Description: Set the SNMPv3 user's configurations

Syntax: snmp-server user <Username> engine-id <Engine ID octet string> [ { md5 <word8-32> | sha <word8-40> } [ priv { des | aes } <word8-32> ] ]

Parameter:

Name	Description
<Username >	32 words
<Engine ID octet string>	word10-32
MD5	Set MD5 protocol
sha	Set SHA protocol
<word8-40>	SHA password
priv	Set Privacy
{ des   aes }	Set DES/AES protocol
<word8-32>	Set privacy password

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.9.9 SNMP-SERVER VERSION

---

Description: Set the SNMP server's version

Syntax: snmp-server version { v1 | v2c | v3 }

Parameter:

Name	Description
{ v1   v2c   v3 }	SNMP v1,v2c,v3

### 3.9.10 SNMP-SERVER VIEW

---

Description: Snmp MIB view configuration

Syntax: snmp-server view <word32> <word255> { include | exclude }

Parameter:

Name	Description
< word32 >	MIB view name
< word255 >	MIB view OID
{ include   exclude }	Included/Excluded type from the view

### 3.9.11 SNMP TRAP RECEIVE IPV6 HOST

---

Description: host configuration

Syntax: host <ipv6\_ucast> [ <1-65535> ] [ traps | informs ]

Parameter:

Name	Description
ipv6_ucast	IP address of SNMP trap host
1-65535	UDP port of the trap messages
traps	Send Trap messages to this host
informs	Send Inform messages to this host

### 3.9.12 SNMP-SERVER CONTACT

---

Description: SNMP server contact

Syntax: snmp-server contact <v\_line255>

Parameter:

Name	Description
v_line255	<line255> contact string





## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.9.13 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

### 3.9.14 SNMP-SERVER LOCATION

---

Description: SNMP server location

Syntax: snmp-server location <v\_line255>

Parameter:

Name	Description
v_line255	<line255> location string

### 3.9.15 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

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.9.16 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 messages
traps	Send Trap messages to this host
informs	Send Inform messages to this host

## 3.10 QOS FUNCTION COMMAND

### 3.10.1 QOS QCE

---

Description: QCE setting

Syntax: os 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

### 3.10.2 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)



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.10.3 QOS COS

---

Description: Class of service configuration

Syntax: qos cos <0-7>

Parameter:

Name	Description
<0-7>	Specific class of service

### 3.10.4 QOS DSCP-CLASSIFY

---

Description: Set qos dscp-classify

Syntax: qos dscp-classify { zero | selected | any }

Parameter:

### 3.10.5 QOS DSCP-REMARK

---

Description: Set qos dscp-remark

Syntax: qos dscp-remark { rewrite | remap | remap-dp }

Parameter:

### 3.10.6 QOS DSCP-TRANSLATE

---

Description: Enable qos dscp-translate mode

Syntax: qos dscp-translate

Parameter:

### 3.10.7 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))

## CHAPTER 3: COMMANDS DESCRIPTIONS

ef	Expedited Forwarding PHB(DSCP 46)
va	Voice Admit PHB(DSCP 44)

### 3.10.8 QOS MAP COS-DSCP

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

### 3.10.9 QOS MAP DSCP-EGRESS-TRANSLATION

Description: Configure dscp egress-translation

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



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.10.10 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

### 3.10.11 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

### 3.10.12 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

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.10.13 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
<uint>	Traffic meter
[ excess ]	Agree the shaper could be excess or not

### 3.10.14 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

### 3.10.15 QOS SHAPER <UNIT>

---

Description: Configure qos shaper command

Syntax: qos shaper <uint>

Parameter:

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

## 3.11 IGMP FUNCTIONAL COMMANDS

### 3.11.1 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



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.11.2 IP IGMP SNOOPING

---

Description: Snooping igmp

Syntax: ip igmp snooping

Parameter:

### 3.11.3 IP IGMP SNOOPING IMMEDIATE-LEAVE

---

Description: IP IGMP snooping immediate leave configuration

Syntax: Ip igmp snooping immediate-leave

Parameter:

### 3.11.4 IP IGMP SNOOPING LAST-MEMBER-QUERY-INTERVAL

---

Description: IP IGMP snooping Last Member Query Interval in tenths of seconds

Syntax: ip igmp snooping last-member-query-interval <0-31744>

Parameter:

Name	Description
0-31744	0 - 31744 tenths of seconds

### 3.11.5 IP IGMP SNOOPING MAX-GROUPS

---

Description: IGMP group throttling configuration

Syntax: ip igmp snooping max-groups <1-10>

Parameter:

Name	Description
1-10	Maximum number of IGMP group registration

### 3.11.6 IP IGMP SNOOPING MROUTER

---

Description: IP IGMP snooping Multicast router port configuration

Syntax: Ip igmp snooping mrouter

Parameter:

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.11.7 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

### 3.11.8 IP IGMP SNOOPING QUERY-INTERVAL

---

Description: IP IGMP snooping Query-Interval in seconds

Syntax: ip igmp snooping query-interval <1-31744>

Parameter:

Name	Description
1-317	1 - 31744 seconds

### 3.11.9 IP IGMP SNOOPING VLAN

---

Description: ip igmp snooping vlan IDs

Syntax: ip igmp snooping vlan<vlan\_list>

Parameter:

Name	Description
vlan_list	VLAN identifier(s): VID

### 3.11.10 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

### 3.11.11 IP IGMP UNKNOWN-FLOODING

---

Description: IP IGMP flooding unregistered IPv4 multicast traffic

Syntax: ip igmp unknown-flooding

Parameter:





## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.11.12 CLEAR IP IGMP SNOOPING STATISTICS

---

Description: clear ip igmp snooping statistics

Syntax: clear ip igmp snooping [ vlan<vlan\_list> ] statistics

Parameter:

Name	Description
vlan_list	VLAN list

## 3.12 MVR FUNCTIONAL COMMANDS

### 3.12.1 MVR

---

Description: Multicast VLAN Registration configuration

Syntax: mvr

Parameter:

### 3.12.2 MVR IMMEDIATE-LEAVE

---

Description: mvr immediate leave configuration

Syntax: mvr immediate-leave

Parameter:

### 3.12.3 MVR NAME CHANNEL

---

Description: Multicast VLAN name and channel configuration

Syntax: mvr name <word16> channel <word16>

Parameter:

Name	Description
name <word16>	MVR multicast VLAN name
channel <word16>	Profile name in 16 char's

### 3.12.4 MVR FRAME PRIORITY

---

Description: Multicast VLAN interface CoS priority

Syntax: mvr name <word16> frame priority <0-7>

Parameter:

Name	Description
name <word16>	MVR multicast VLAN name
priority <0-7>	CoS priority ranges from 0 to 7

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.12.5 MVR NAME <WORD16> FRAME TAGGED

---

Description: MVR control frame in TX, Tagged IGMP/MLD frames will be sent

Syntax: mvr name <word16> frame tagged

Parameter:

Name	Description
name <word16>	MVR multicast VLAN name

### 3.12.6 MVR NAME <WORD16> IGMP-ADDRESS <IPV4\_UCAST>

---

Description: MVR address configuration used in IGMP

Syntax: mvr name <word16> igmp-address <ipv4\_ucast>

Parameter:

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

### 3.12.7 MVR NAME <WORD16> LAST-MEMBER-QUERY-INTERVAL <0-31744>

---

Description: Configure last Member Query Interval in tenths of seconds

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

Parameter:

Name	Description
name <word16>	MVR multicast VLAN name
<0-31744>	0 - 31744 tenths of seconds

### 3.12.8 MVR NAME <WORD16> MODE

---

Description: Dynamic MVR operation mode

Syntax: mvr name <word16> mode { dynamic | compatible }

Parameter:

Name	Description
dynamic	Dynamic MVR operation mode
compatible	Compatible MVR operation mode



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.12.9 MVR NAME <WORD16> TYPE

---

Description: MVR port role configuration

Syntax: mvr name <word16> type { source | receiver }

Parameter:

Name	Description
source	MVR source port
receiver	MVR receiver port

### 3.12.10 MVR VLAN

---

Description: Multicast VLAN Registration configuration

Syntax: mvr vlan <vlan\_list> [ name <word16> ]

Parameter:

Name	Description
< vlan_list >	MVR multicast VLAN list
name <word16>	MVR multicast VLAN name in 16 char's

### 3.12.11 MVR VLAN <VLAN\_LIST> CHANNEL

---

Description: MVR channel configuration

Syntax: mvr vlan <vlan\_list> channel <word16>

Parameter:

Name	Description
< vlan_list >	MVR multicast VLAN listt
channel <word16>	MVR multicast channel name in 16 char's

### 3.12.12 MVR VLAN <VLAN\_LIST> FRAME PRIORITY

---

Description: Interface CoS priority

Syntax: mvr vlan <vlan\_list> frame priority <0-7>

Parameter:

Name	Description
< vlan_list >	MVR multicast VLAN list
<0-7>	CoS priority ranges from 0 to 7

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.12.13 MVR VLAN <VLAN\_LIST> FRAME TAGGED

---

Description: Set tagged IGMP/MLD frames will be sent

Syntax: mvr vlan <vlan\_list> frame tagged

Parameter:

Name	Description
< vlan_list >	MVR multicast VLAN list

### 3.12.14 MVR VLAN <VLAN\_LIST> IGMP-ADDRESS

---

Description: Set tagged IGMP/MLD frames will be sent

Syntax: mvr vlan <vlan\_list> igmp-address <ipv4\_ucast>

Parameter:

Name	Description
< vlan_list >	MVR multicast VLAN list
<ipv4_ucast>	A valid IPv4 unicast address for IGMP

### 3.12.15 MVR VLAN <VLAN\_LIST> MODE

---

Description: Dynamic MVR vlan operation mode

Syntax: mvr vlan <vlan\_list> mode { dynamic | compatible }

Parameter:

Name	Description
< vlan_list >	MVR multicast VLAN listt
dynamic	Dynamic MVR operation mode

### 3.12.16 MVR VLAN <VLAN\_LIST> TYPE

---

Description: MVR vlan role configuration

Syntax: mvr vlan <vlan\_list> type { source | receiver }

Parameter:

Name	Description
< vlan_list >	MVR multicast VLAN list
source	MVR source port
receiver	MVR receiver port

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.13 MLD FUNCTIONAL COMMANDS

#### 3.13.1 IPV6 MLD HOST-PROXY

---

Description: IPv6 MLD proxy configuration

Syntax: `ipv6 mld host-proxy [ leave-proxy ]`

Parameter:

Name	Description
leave-proxy	MLD proxy for leave configuration

#### 3.13.2 IPV6 MLD SNOOPING

---

Description: `ipv6 mld snooping`

Syntax: `ipv6 mld snooping`

Parameter:

#### 3.13.3 IPV6 MLD SNOOPING COMPATIBILITY

---

Description: IPv6 MLD snooping compatibility configuration

Syntax: `ipv6 mld snooping compatibility { auto | v1 | v2 }`

Parameter:

Name	Description
auto	Compatible with MLDv1/MLDv2
v1	Forced MLDv1
v2	Forced MLDv2

#### 3.13.4 IPV6 MLD SNOOPING IMMEDIATE-LEAVE

---

Description: IPv6 MLD snooping immediate-leave configuration

Syntax: `ipv6 mld snooping immediate-leave`

Parameter:

#### 3.13.5 IPV6 MLD SNOOPING LAST-MEMBER-QUERY-INTERVAL

---

Description: `ipv6 mld snooping last member query interval` in tenths of seconds

Syntax: `ipv6 mld snooping last-member-query-interval <0-31744>`

Parameter:

0-31744	0 - 31744 tenths of seconds
---------	-----------------------------

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.13.6 IPV6 MLD SNOOPING MAX-GROUPS

---

Description: IPv6 MLD group throttling configuration

Syntax: ipv6 mld snooping max-groups <1-10>

Parameter:

Name	Description
1-10	Maximum number of MLD group registration

### 3.13.7 IPV6 MLD SNOOPING MROUTER

---

Description: ipv6 mld snooping multicast router port configuration

Syntax: ipv6 mld snooping mrouter

Parameter:

### 3.13.8 IPV6 MLD SNOOPING QUERY-INTERVAL

---

Description: IPv6 MLD snooping query interval in seconds

Syntax: ipv6 mld snooping query-interval <1-31744>

Parameter:

Name	Description
1-31744	1 - 31744 seconds

### 3.13.9 IPV6 MLD SNOOPING QUERY-MAX-RESPONSE-TIME

---

Description: IPv6 MLD snooping querymaxresponse interval in tenths of seconds

Syntax: ipv6 mld snooping query-max-response-time <0-31744>

Parameter:

Name	Description
1-31744	0 - 31744 tenths of seconds

### 3.13.10 IPV6 MLD SNOOPING VLAN

---

Description: ipv6 mld snooping vlan

Syntax: ipv6 mld snooping vlan<vlan\_list>

Parameter:

vlan_list	VLAN identifier(s): VID
-----------	-------------------------

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.13.11 IPV6 MLD SSM-RANGE

---

Description: SSM range

Syntax: `pv6 mld ssm-range <v_ipv6_mcast> <ipv6_prefix_length>`

Parameter:

<code>v_ipv6_mcast</code>	Valid IPv6 multicast address
<code>ipv6_prefix_length</code>	length

### 3.13.12 IPV6 MLD UNKNOWN-FLOODING

---

Description: SSM range

Syntax: `ipv6 mld unknown-flooding`

### 3.13.13 IPV6 ROUTE

---

Description: IPv6 Route

Syntax: `ipv6 route <v_ipv6_subnet> { <v_ipv6_ucast> | interface vlan <v_vlan_id> <v_ipv6_addr> }`

Parameter:

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

## 3.14 AUTHENTICATE MODE COMMANDS

### 3.14.1 RADIUS-SERVER ATTRIBUTE 32

---

Description: Configure radius-server attribute

Syntax: `radius-server attribute 32 <id>`

Parameter:

Name	Description
<code>id</code>	Id : line1-253

### 3.14.2 RADIUS-SERVER ATTRIBUTE 4

---

Description: Configure radius-server attribute

Syntax: `radius-server attribute 4 <ipv4_ucast>`

Parameter:

Name	Description
<code>&lt;ipv4_ucast&gt;</code>	ipv4_ucast address

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.14.3 RADIUS-SERVER ATTRIBUTE 95

---

Description: Configure radius-server attribute

Syntax: radius-server attribute 95 <ipv6\_ucast>

Parameter:

Name	Description
<ipv6_ucast>	Ipv6_ucast address

### 3.14.4 RADIUS-SERVER DEADTIME

---

Description: Configure radius-server deadtime

Syntax: radius-server deadtime <1-1440>

Parameter:

Name	Description
<1-1440>	Time in minutes

### 3.14.5 RADIUS-SERVER HOST [ AUTH-PORT ] [ ACCT-PORT ] [ TIMEOUT ] [ RETRANSMIT ] [ KEY ]

---

Description: Configure radius-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:

<word1-255>	Hostname or IP address
auth-port <0-65535>	UDP port number for RADIUS authentication server
acct-port <0-65535>	UDP port number for RADIUS accounting server
timeout <1-1000>	Wait time in seconds for this RADIUS server to reply (overrides default)
retransmit <1-1000>	

### 3.14.6 RADIUS -SERVER KEY

---

Description: radius-server key

Syntax: radius-server key <key>

Parameter:

key	<Key : line1-63> The shared key
-----	---------------------------------

### 3.14.7 RADIUS-SERVER RETRANSMIT

---

Description: radius-server retransmit

Syntax: radius-server retransmit <retries>

Parameter:

retries	<Retries : 1-1000> Number of retries for a transaction
---------	--





## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.14.8 RADIUS-SERVER TIMEOUT

---

Description: radius-server timeout

Syntax: radius-server timeout <seconds>

Parameter:

Name	Description
seconds	<Seconds : 1-1000> Wait time in second

### 3.14.9 TACACS-SERVER DEADTIME <1-1440>

---

Description: Time to stop using a TACACS+ server that doesn't respond

Syntax: tacacs-server deadtime <1-1440>

Parameter:

Name	Description
<1-1440>	Time in minutes

### 3.14.10 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:

<1-1440>	TCP port number
----------	-----------------

### 3.14.11 TACACS-SERVER DEADTIME <1-1440>

---

Description: Time to stop using a TACACS+ server that doesn't respond

Syntax: tacacs-server deadtime <1-1440>

Parameter:

<1-1440>	Time in minutes
----------	-----------------

### 3.14.12 TACACS-SERVER DEADTIME <1-1440>

---

Description: Time to stop using a TACACS+ server that doesn't respond

Syntax: tacacs-server deadtime <1-1440>

Parameter:

<1-1440>	Time in minutes
----------	-----------------



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.14.18 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.

### 3.14.19 DOT1X GUEST-VLAN

Description: G Enables/disables Guest VLAN globally or on one or more ports

Syntax: dot1x guest-vlan

dot1x guest-vlan<1-4095>

Parameter:

Name	Description
<1-4095>	Guest VLAN ID used when entering the Guest VLAN.

### 3.14.20 DOT1X INITIALIZE

Description: Forces a reinitialization of the clients on the port and thereby a reauthentication immediately.

Syntax: dot1x initialize [ interface <port\_type> [ <port\_type\_list> ] ]

Parameter:

Name	Description
<port_type>	Port type in Fast, Giga or Tengigaethernet
<port_type_list>	List of Port ID, ex, 1/1,3-5;2/2-4,6

### 3.14.21 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

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.4.22 DOT1X RADIUS-VLAN

---

Description: Enables/disables per-port state of RADIUS-assigned VLAN

Syntax: dot1x radius-vlan

Parameter:

### 3.14.23 SHOW RADIUS-SERVER [ STATISTICS ]

---

Description: show radius-server statistics

Syntax: show radius-server [ statistics ]

Parameter:

Name	Description
[ statistics ]	Count radius packet statistics

### 3.14.24 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

### 3.14.20 DOT1X INITIALIZE

---

Description: Forces a reinitialization of the clients on the port and thereby a reauthentication immediately.

Syntax: dot1x initialize [ interface <port\_type> [ <port\_type\_list> ] ]

Parameter:

Name	Description
<port_type>	Port type in Fast, Giga or Tengigaethernet
<port_type_list>	List of Port ID, ex, 1/1,3-5;2/2-4,6

### 3.14.25 END

---

Description: Level exit

Syntax: end

Parameter:



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.14.26 EXIT

---

Description: Level exit

Syntax: end

Parameter:

### 3.14.27 HOSTNAME

---

Description: This system's network name

Syntax: hostname <hostname>

Parameter:

## 3.15 LOOP-PROTECTION CONFIGURE COMMANDS

### 3.15.1 LOOP-PROTECT

---

Description: Loop protection configuration on port

Syntax: loop-protect

Parameter:

### 3.15.2 LOOP-PROTECT ACTION

---

Description: Loop protection configuration on port

Syntax: loop-protect action { [ shutdown ] [ log ]

Parameter:

Name	Description
shutdown	Shutdown port
log	Generate log

### 3.15.3 LOOP-PROTECT SHUTDOWN-TIME

---

Description: Loop protection shutdown time interval

Syntax: loop-protect shutdown-time <0-604800>

Parameter:

Name	Description
0-604800	!Shutdown time in second

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.15.4 LOOP-PROTECT TRANSMIT-TIME

---

Description: Loop protection transmit time interval

Syntax: loop-protect transmit-time <1-10>

Parameter:

Name	Description
1-10	Transmit time in second

### 3.15.5 LOOP-PROTECT TX-MODE

---

Description: Loop protection actively generate PDUs

Syntax: loop-protect tx-mode

## 3.16 LLDP CONFIGURE COMMANDS

### 3.16.1 LLDP HOLDDTIME

---

Description: Sets LLDP hold time (The neighbor switch will discarded the LLDP information after \"hold time\" multiplied with \"timer\" seconds).

Syntax :lldp holdtime <2-10>

Parameter:

Name	Description
<2-10>	Holdtime 2-10 seconds

### 3.16.2 LLDP 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: orth 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



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.16.3 LLDP RECEIVE

---

Description: Enable/Disable decoding of received LLDP frames

Syntax: lldp receive

Parameter:

### 3.16.4 LLDP REINIT <1-10>

---

Description: LLDP tx reinitialization delay in seconds

Syntax: lldp reinit <1-10>

Name	Description
<1-10>	Reinitialization delay time

### 3.16.5 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

### 3.16.6 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.

### 3.16.7 LLDP TRANSMISSION-DELAY

---

Description: Sets LLDP transmission-delay. LLDP transmission delay (the amount of time that the transmission of LLDP frames will be delayed after LLDP configuration has changed) in seconds.)

Syntax: lldp transmission-delay <1-8192>

Parameter:

Name	Description
<1-8192>	transmission-delay seconds

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.16.8 LLDP TRANSMIT

---

Description: Enable/Disabled transmission of LLDP frames

Syntax: lldp transmit

Parameter:

## 3.17 RFC2544 TESTING CONFIGURE COMMANDS

### 3.17.1 RFC2544 PROFILE <WORD32>

---

Description: RFC2544 profile configuration

Syntax rfc2544 profile <word32>

Parameter:

Name	Description
<word32>	Profile name up to 32 characters long

### 3.17.2 RFC2544 RENAME PROFILE

---

Description: Rename an existing profile

Syntax: rfc2544 rename profile <word32> <word32>

Parameter:

Name	Description
profile <word32>	Old profile name
<word32>	New profile name

### 3.17.3 RFC2544 SAVE <WORD32> <WORD>

---

Description: Save a report to a file on a TFTP server

Syntax: rfc2544 save <word32> <word>

Parameter:

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

### 3.17.4 RFC2544 START <WORD32> PROFILE <WORD32> [ DESC <LINE128> ]

---

Description: Start execution of a pre-configured profile

Syntax: rfc2544 start <word32> profile <word32> [ desc <line128> ]

Name	Description
start <word32>	Unique name of resulting report
profile <word32>	Name of existing profile to execute
desc <line128>	Description that will appear in the report





## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.17.5 RFC2544 STOP <WORD32>

---

Description: Stop execution of an ongoing test

Syntax rfc2544 stop <word32>

Parameter:

Name	Description
<word32>	Report name to stop execution of

### 3.17.6 SHOW RFC2544 PROFILE [ <WORD32> ]

---

Description: show rfc2544 profile name

Syntax: show rfc2544 profile [ <word32> ]

Parameter:

Name	Description
<word32>	rfc2544 profile name

## 3.18 GVRP CONFIGURE COMMANDS

### 3.18.1 GVRP

---

Description: Enable GVRP on port(s)

Syntax gvrp

Parameter:

### 3.18.2 GVRPJOIN REQUEST VLAN

---

Description: Emit a Join-Request for test purpose

Syntax: gvrp join-request vlan<vlan\_list>

Parameter:

Name	Description
vlan_list	List of VLANs

### 3.18.3 GVRPLEAVE REQUEST VLAN

---

Description: Emit a leave-Request for test purpose

Syntax: gvrp leave-request vlan<vlan\_list>

Parameter:

Name	Description
vlan_list	List of VLANs

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.18.4 GVRP MAX-VLANS

---

Description: gvrpmaximum number of VLANs

Syntax: gvrp max-vlans<1-4095>

Name	Description
<1-4095>	A valid range is from 1-4095

### 3.18.5 GVRP TIME { [ JOIN-TIME <1-20> ] [ LEAVE-TIME <60-300> ] [ LEAVE-ALL-TIME <1000-50> ] }

---

Description: Set gvrp time

Syntax: gvrp time { [ join-time <1-20> ] [ leave-time <60-300> ] [ leave-all-time <1000-5000> ] }

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 VOICE VLAN CONFIGURE COMMANDS

### 3.19.1 VOICE VLAN

---

Description: Vlan for Voice appliance attributes

Syntax: voice vlan

Parameter:

### 3.19.2 VOICE VLAN AGING-TIME

---

Description: Set secure learning aging time for voice traffic

Syntax: gvrp join-request vlan<vlan\_list>

Parameter:

Name	Description
10-10000000	Aging time, 10-10000000 seconds

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.19.3 VOICE VLAN CLASS

---

Description: Set voice traffic class

Syntax: voice vlan class { <0-7> | low | normal | medium | high }

Parameter:

Name	Description
0-7	Traffic class value
low	Traffic class low (0)
normal	Traffic class normal (1)
medium	Traffic class medium (2)
high	Traffic class high (3)

### 3.19.4 VOICE VLAN OUI

---

Description: Set voice traffic OUI configuration

Syntax: voice vlan oui <oui> [ description <line32> ]

Name	Description
oui	OUI value
description	Set description for the OUI
line32	Description line

### 3.19.5 VOICE VLAN VID

---

Description: Set voice VLAN ID

Syntax: voice vlan vid <vlan\_id>

Parameter:

Name	Description
<vlan_id>	VLAN ID, 1-4095

## 3.20 PROFILE ALARM COMMANDS

### 3.20.1 PROFILE ALARM

---

Description: Profile alarm

Syntax: profile alarm

Parameter:

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.20.2 ALARM

---

Description: Set alarm content

Syntax: alarm <alarmId> { mask | unmask | major | minor }

Parameter: 101–114: GE-1–14 Port link down (for 14 port model)

Name	Description
alarmId	151: set Power alarm
mask	Set alarm as mask, it means event will not be send notify
unmask	Set alarm as un-mask, it means event will be send notify
major	Set alarm level as major
minor	Set alarm level as minor

### 3.21 POE COMMANDS

#### 3.21.1 POE MANAGEMENT MODE

---

Description: Use management mode to configure PoE power management method.

Syntax: poe management mode <mode>

Parameter:

Name	Description
allocation-consumption	Max. port power determined by allocated, and power is managed according to power consumption.
allocation-reserved-power	Max. port power determined by allocated, and power is managed according to reserved power.
class-consumption	Max. port power determined by class, and power is managed according to power consumption.
class-reserved-power	Max. port power determined by class, and power is managed according to reserved power.
lldp-consumption	Max. port power determined by LLDP Media protocol, and power is managed according to power consumption.
lldp-reserved-power	Max. port power determined by LLDP Media protocol, and power is managed according to reserved power.

#### 3.21.2 POE SUPPLY

---

Description: Use poe supply to specify the maximum power the power supply can deliver.

Syntax: poe supply <power>

Parameter:

Name	Description
<power>	Value: 1-240 Maximum power the power supply can deliver.

#### 3.21.3 POE 4PAIRS

---

Description: Enable 4pairs mode.

Syntax: poe 4pairs

Parameter:



## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.21.4 POE MODE

---

Description: Set PoE mode

Syntax: poe mode <mode>

Parameter:

Name	Description
disable	Set poe to disable
enable	Set poe to enable always
schedule	Set poe to enable by scheduling

### 3.21.5 POE OPERATION

---

Description: Set PoE operation mode

Syntax: poe operation <af/at>

Name	Description
af	Set operation mode to 802.3af (Maximum power 15.4W)
at	Set operation mode to 802.3at (Maximum power 30.0 W)

### 3.21.6 POE POWER

---

Description: Set maximum power for port in allocation mode

Syntax: poe power limit <power>

Parameter:

Name	Description
<power>	Maximum power for the interface (0-15.4 Watt for PoE standard mode, 0-30.0 Watt for PoE plus mode)

### 3.21.7 POE PRIORITY

---

Description: Set PoE port priority

Syntax: poe priority <priority>

Parameter:

Name	Description
critical	Set priority to critical.
high	Set priority to high.
low	Set priority to low.

## CHAPTER 3: COMMANDS DESCRIPTIONS

### 3.21.8 POE RESET

---

Description: Set PoE power reset time

Syntax: poe reset <Hour> <Minute> <range\_list>

Parameter:

Name	Description
<0-23>	Hour
<0-59>	Minute

### 3.21.9 POE SCHEDULE

---

Description: Set PoE power scheduling during the week

Syntax: poe schedule <Day> <range\_list>

Parameter:

Name	Description
fri mon sat sun thu tue wed <range_list>	Day. There are 48 time interval one day. Each interval has 30 minutes. ([1]<00:00-00:29> [2]<00:30-00:59>[3]<01:00-01:29> ... [47]<23:00-23:29> [48]<23:30-23:59>).



## APPENDIX: DISCLAIMER/TRADEMARKS

### A.1 DISCLAIMER

Black Box Corporation shall not be liable for damages of any kind, including, but not limited to, punitive, consequential or cost of cover damages, resulting from any errors in the product information or specifications set forth in this document and Black Box Corporation may revise this document at any time without notice.

### A.2 TRADEMARKS USED IN THIS MANUAL

Black Box and the Black Box logo type and mark are registered trademarks of Black Box Corporation.

Any other trademarks mentioned in this manual are acknowledged to be the property of the trademark owners.



**NEED HELP?  
LEAVE THE TECH TO US**

---

**LIVE 24/7  
TECHNICAL  
SUPPORT**

---

**1.877.877.2269**

