LGB5124A-R2, LGB5218A-R2

ECO MANAGED ENET SWITCH

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PURPOSE

This guide gives specific information on how to operate and use the management functions of the switch.

AUDIENCE

The guide is intended for use by network administrators who are responsible for operating and maintaining network equipment; consequently, it assumes a basic working knowledge of general switch functions, the Internet Protocol (IP), and Simple Network Management Protocol (SNMP).

CONVENTIONS

The following conventions are used throughout this guide to show information:

NOTE: Emphasizes important information or calls your attention to related features or instructions.

CAUTION: Alerts you to a potential hazard that could cause loss of data, or damage the system or equipment.

WARNING: Alerts you to a potential hazard that could cause personal injury.

RELATED PUBLICATIONS

The following publication details the hardware features of the switch, including the physical and performance-related characteristics, and how to install the switch:

The *Installation Guide*

Also, as part of the switch's software, there is an online web-based help that describes all management related features.

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REVISION HISTORY

INITIAL RELEASE	08/08/2017	A1

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CHAPTER 1. CLI MANAGEMENT

Follow these steps to connect to the network:

◆ Locate the correct DB-9 RS-232 cable with female DB-9 connector. RS-232 cable is used for connecting a terminal or terminal emulator to the Managed Switch's RS-232 port to access the command-line interface.

◆ Attach the DB-9 serial port on the switch's front panel, which is used to connect to the switch for console configuration.

◆ Attach the other end of the DB-9 cable to an ASCII terminal emulator or PC Com-1, 2 port. For example, PC runs Microsoft Windows HyperTerminal utility.

◆ At "Com Port Properties" Menu, configure the parameters as below: *(see the next section)*

Baud rate	115200
Stop bits	1
Data bits	8
Parity	N
Flow control	none

1-1 LOGIN

The Command-Line Interface (CLI) is a text-based interface. Users can access the CLI through either a direct serial connection to the device, or a Telnet session. The default username and password to log into the Managed Switch are listed below:

Username: admin

Password: <none>

Note: <none> means empty string

```
USERNAME: ADMIN
PASSWORD:
LGB5124A-R2#
```

After you successfully login, the prompt will be shown as "<sys_name>#", which means you behave as an administrator and have the privilege for setting the Managed Switch (see the following two figures). If you do not login as the administrator, the prompt will be shown as "<sys_name>>", which means you behave as a guest and are only allowed for setting the system under the administrator. Each CLI command has its own privileges.

1-2 COMMANDS OF CLI

The CLI is divided into several modes. If a user has enough privileges to run a particular command, the user has to run the command in the correct mode. To see the commands of the mode, input '?' after the system prompt, then all commands will be listed on the screen. The command modes are listed below:

TABLE : COMMAND MODES

MODE	PROMPT	COMMAND FUNCTION IN THIS MODE
exec	<sys_name>#	Display current configuration, diagnostics, maintenance
config	<sys_name>(config)#	Configure features other than those below
Config-if	<sys_name>(config-interface)#	Configure ports
Config-if-vlan	<sys_name>(config-if-vlan)#	Configure static vlan
Config-line	<sys_name>(config-line)#	Line Configuration
Config-impc-profile	<sys_name>(config-impc-profile)#	IPMC Profile
Config-snmp-host	<sys_name>(config-snmp-host)#	SNMP Server Host
Config-stp-aggr	<sys_name>(config-stp-aggr)#	STP Aggregation
Config-dhcp-pool	<sys_name>(config-dhcp-pool)#	DHCP Pool Configuration
Config-rfc2544-profile	<sys_name>(config-rfc2544-profile)#	RFC2544 Profile

Commands reside in the corresponding mode and can only run in that mode. To run a particular command, the user has to change to the appropriate mode. The command modes are organized as a tree, and users start in enable mode. The following table explains how to change from one mode to another:

TABLE : CHANGE BETWEEN COMMAND MODES

MODE	ENTER MODE	LEAVE MODE
exec	—	—
config	Configure terminal	exit
config-interface	Interface <port-type> <port-type-list>	exit
config-vlan	Interface vlan <vlan_list>	exit

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1-3 GLOBAL COMMANDS OF CLI

```
LGB5124A-R2# ?
clear        Reset functions
configure    Enter configuration mode
copy         Copy from source to destination
debug        Debugging functions
delete       Delete one file in flash: file system
dir          Directory of all files in flash: file system
disable      Turn off privileged commands
do           To run exec commands in config mode
dot1x        IEEE Standard for port-based Network Access Control
enable       Turn on privileged commands
exit         Exit from EXEC mode
firmware     Firmware upgrade/swap
help         Description of the interactive help system
ip           IPv4 commands
logout       Exit from EXEC mode
more         Display file
no           Negate a command or set its defaults
ping         Send ICMP echo messages
reload       Reload system
send         Send a message to other tty lines
show         Show running system information
terminal     Set terminal line parameters
```

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EXIT

Exit from EXEC mode.

SYNTAX

exit

PARAMETER

None

EXAMPLE

```
LGB5124A-R2(CONFIG)# EXIT
LGB5124A-R2#
```

HELP

Description of the interactive help system.

SYNTAX

help

PARAMETER

None

EXAMPLE

```
LGB5124A-R2# help
Help may be requested at any point in a command by entering a question mark ('?'). If nothing
 matches, the help list will be empty and you must backup until entering a '?' shows the
available options. Two styles of help are provided:
1. Full help is available when you are ready to enter a command argument (e.g. "show ?") and
 describes each possible argument.
2. Partial help is provided when an abbreviated argument is entered and you want to know what
 arguments match the input (e.g. "show pr?").

LGB5124A-R2#
```

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LOGOUT

Exit from EXEC mode.

SYNTAX

logout

PARAMETER

None

EXAMPLE

```
LGB5124A-R2# LOGOUT
PRESS ENTER TO GET STARTED
```

END

Go back to EXEC mode.

SYNTAX

end

EXAMPLE

```
LGB5124A-R2(CONFIG)# END
LGB5124A-R2#
```

CLEAR COMMANDS

COMMAND	FUNCTION
access	Access management
access-list	Access list
dot1x	IEEE Standard for port-based Network Access Control
ip	Interface Internet Protocol config commands
ipv6	IPv6 configuration commands
lacp	Clear LACP statistics
lldp	Clear LLDP statistics
logging	Syslog
mac	MAC Address Table
mvr	Multicast VLAN Registration configuration
sflow	Statistics flow
spanning-tree	STP Bridge
statistics	Clear statistics for a given interface

ACCESS

Access management.

SYNTAX

clear access management statistics

PARAMETER

management	Access management configuration
statistics	Statistics data

EXAMPLE

```
LGB5124A-R2# CLEAR ACCESS MANAGEMENT STATISTICS
LGB5124A-R2#
```

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ACCESS-LIST

Access-list.

SYNTAX

clear access-list ace statistics

PARAMETER

ace	Access-list entry
statistics	Traffic statistics

EXAMPLE

```
LGB5124A-R2# CLEAR ACCESS-LIST ACE STATISTICS
LGB5124A-R2#
```

DOT1X

IEEE Standard for port-based Network Access Control.

SYNTAX

clear dot1x statistics

clear dot1x statistics interface GigabitEthernet < PORT_TYPE_LIST>

clear dot1x statistics interface 10GigabitEthernet < PORT_TYPE_LIST>

PARAMETER

statistics	Clears the statistics counters
interface	Interface
GigabitEthernet	1 GigabitEthernet Port
GigabitEthernet	10 GigabitEthernet Port
PORT_TYPE_LIST	Port list in 1/1-24 for GigabitEthernet, 1/1-4 for 10GigabitEthernet

EXAMPLE

```
LGB5124A-R2# CLEAR DOT1X STATISTICS INTERFACE GIGABITETHERNET 1/1-24
LGB5124A-R2#
```

IP

Interface Internet Protocol config commands.

SYNTAX

clear ip arp

clear ip dhcp detailed statistics { server | client | snooping | relay | helper | all } [interface (<port_type> [<in_port_list>])]

clear ip dhcp relay statistics

clear ip dhcp server binding <ip>

clear ip dhcp server binding { automatic | manual | expired }

clear ip dhcp server statistics

clear ip dhcp snooping statistics [interface (<port_type> [<in_port_list>])]

clear ip igmp snooping [vlan <v_vlan_list>] statistics

clear ip statistics [system] [interface vlan <v_vlan_list>] [icmp] [icmp-msg <type>]

PARAMETER

arp	Clear ARP cache
dhcp	Dynamic Host Configuration Protocol
igmp	Internet Group Management Protocol
statistics	Traffic statistics
relay	DHCP relay agent configuration
snooping	DHCP snooping
interface	Select an interface to configure
GigabitEthernet	1 GigabitEthernet Port
10GigabitEthernet	10 GigabitEthernet Port
vlan	IPv4 traffic interface
<vlan_list>	VLAN identifier(s): VID

EXAMPLE

```
LGB5124A-R2# CLEAR IP ARP
LGB5124A-R2# CLEAR IP DHCP DETAILED STATISTICS ALL INTERFACE GIGABITETHERNET 1/1-24
LGB5124A-R2# CLEAR IP DHCP RELAY STATISTICS
LGB5124A-R2# CLEAR IP DHCP SERVER BINDING 192.168.1.11
LGB5124A-R2# CLEAR IP DHCP SERVER BINDING AUTOMATIC
LGB5124A-R2# CLEAR IP DHCP SERVER STATISTICS
LGB5124A-R2# CLEAR IP DHCP SNOOPING STATISTICS INTERFACE GIGABITETHERNET 1/1-24
LGB5124A-R2# CLEAR IP IGMP SNOOPING VLAN 1 STATISTICS
LGB5124A-R2# CLEAR IP STATISTICS SYSTEM INTERFACE
LGB5124A-R2# CLEAR IP STATISTICS SYSTEM INTERFACE VLAN 1 ICMP ICMP-MSG 2
```

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IPV6

IPv6 configuration commands.

SYNTAX

clear ipv6 mld snooping [vlan <v_vlan_list>] statistics

clear ipv6 neighbors

clear ipv6 statistics [system] [interface vlan <v_vlan_list>] [icmp] [icmp-msg <type>]

PARAMETER

mld	Multicast Listener Discovery
neighbors	Ipv6 neighbors
statistics	Traffic statistics
snooping	Snooping MLD
statistics	Running MLD snooping counters
vlan	Ipv6 interface traffic
<vlan_list>	VLAN identifier(s): VID
icmp	IPv6 ICMP traffic
icmp-msg	IPv6 ICMP traffic for designated message type
interface	Select an interface to configure
system	IPv6 system traffic
< 0~255>	ICMP message type ranges from 0 to 255

EXAMPLE

```
LGB5124A-R2# CLEAR IPV6 MLD SNOOPING VLAN 3 STATISTICS

LGB5124A-R2# CLEAR IPV6 NEIGHBORS

LGB5124A-R2# CLEAR IPV6 STATISTICS SYSTEM
ICMP ICMP-MSG 2
```

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LACP

Clear LACP statistics.

SYNTAX

clear lacp statistics

PARAMETER

statistics   Clear all LACP statistics

EXAMPLE

```
LGB5124A-R2# CLEAR LACP STATISTICS
LGB5124A-R2#
```

LLDP

Clear LLDP statistics.

SYNTAX

clear lldp statistics

clear lldp statistics| begin | exclude | include >< LINE >

PARAMETER

statistics   Clear LLDP statistics

| Output modifiers

begin   Begin with the line that matches

exclude   Exclude lines that match

include   Include lines that match

<LINE>   String to match output lines

EXAMPLE

```
LGB5124A-R2# CLEAR LLDP STATISTICS | BEGIN LINE
LGB5124A-R2#
```

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LOGGING

Syslog.

SYNTAX

clear logging [info] [warning] [error]

PARAMETER

error   Error

info   Information

warning   Warning

EXAMPLE

```
LGB5124A-R2# CLEAR LOGGING INFO ERROR WARNING
LGB5124A-R2#
```

MAC

MAC Address Table.

SYNTAX

clear mac address-table

PARAMETER

address-table   Flush MAC Address Table

EXAMPLE

```
LGB5124A-R2 # CLEAR MAC ADDRESS-TABLE
LGB5124A-R2 #
```

MVR

Multicast VLAN registration configuration.

SYNTAX

clear mvr [vlan <v_vlan_list> | name <mvr_name>] statistics

PARAMETER

name   MVR multicast name

statistics   Running MVR protocol counters

vlan   MVR multicast vlan

< word16>   MVR multicast VLAN name

<vlan_list>   MVR multicast VLAN list

EXAMPLE

```
LGB5124A-R2# CLEAR MVR VLAN 25 STATISTICS
LGB5124A-R2#
```

SFLOW

Statistics flow.

SYNTAX

clear sflow statistics { receiver [<receiver_index_list>] | samplers [interface [<samplers_list>] (<port_type> [<v_port_type_list>])] }

PARAMETER

interface   Interface

receiver   Clear statistics for receiver

<port_type>   GigabitEthernet or 10GigabitEthernet

<Samplers : option>   Runtime

<port_type_list>   Port list in 1/1-24 for GigabitEthernet, 1/1-4 for 10GigabitEthernet

EXAMPLE

```
LGB5124A-R2# CLEAR SFLOW STATISTICS INTERFACE GIGABITETHERNET 1/1-
```

SPANNING-TREE

STP Bridge.

SYNTAX

clear spanning-tree { { statistics [interface (<port_type> [<v_port_type_list>])] } | { detected-protocols [interface (<port_type> [<v_port_type_list_1>])] } }

PARAMETER

detected-protocols	Set the STP migration check
statistics	STP statistics
interface	Choose port
<port_type>	GigabitEthernet or 10GigabitEthernet
<port_type_list>	Port list in 1/1-24 for GigabitEthernet, 1/1-4 for 10GigabitEthernet

EXAMPLE

```
LGB5124A-R2# CLEAR SPANNING-TREE DETECTED-PROTOCOLS INTERFACE GIGABITETHERNET 1/1-24
```

STATISTICS

Clear statistics for a given interface.

SYNTAX

clear statistics interface <port_type> <port_type_list>

clear statistics <port_type> <port_type_list>

PARAMETER

<port_type>	GigabitEthernet or 10GigabitEthernet
<port_type_list>	Port list in 1/1-24 for GigabitEthernet, 1/1-4 for 10GigabitEthernet

EXAMPLE

```
LGB5124A-R2# CLEAR STATISTICS GIGABITETHERNET 1/1-13
LGB5124A-R2#
```

TABLE : CONFIGURE COMMANDS

COMMAND	FUNCTION
terminal	Configure from the terminal
aaa	Authentication, Authorization and Accounting
access	Access management
access-list	Access list
aggregation	Aggregation mode
banner	Define a login banner
clock	Configure time-of-day clock
default	Set a command to its defaults
do	To run exec commands in config mode
dot1x	IEEE Standard for port-based Network Access Control
enable	Modify enable password parameters
end	Go back to EXEC mode
event	Trap event severity level
exit	Exit from Configuration mode
gvrp	Enable GVRP feature
help	Description of the interactive help system
hostname	Set system's network name
interface	Select an interface to configure
ip	Internet Protocol
ipmc	IPv4/IPv6 multicast configuration
ipv6	IPv6 configuration commands
lacp	LACP settings
line	Configure a terminal line

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lldp	LLDP configurations
logging	Syslog
loop-protect	Loop protection configuration
mac	MAC table entries/configuration
monitor	Set monitor configuration
mvr	Multicast VLAN Registration configuration
no	Negate a command or set its defaults
ntp	Configure NTP
port-security	Enable/disable port security globally
Privilege	Command privilege parameters
qos	Quality of Service
radius-server	Configure RADIUS
rmon	Remote Monitoring
sflow	Statistics flow
smtp	Set email information
snmp-server	Set SNMP server's configurations
spanning-tree	Spanning Tree protocol
system	Set the SNMP server's configurations
tacacs-server	Configure TACACS+
upnp	Set UPnP's configurations
username	Establish User Name Authentication
vlan	VLAN commands
voice	Voice appliance attributes
web	Web

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CHAPTER 3. CONFIGURE COMMANDS OF CLI

TERMINAL

Configure from the terminal.

SYNTAX

configure terminal

EXAMPLE

```
LGB5124A-R2# CONFIGURE TERMINAL
LGB5124A-R2(CONFIG)#
```

AAA

Authentication, Authorization and Accounting.

SYNTAX

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

PARAMETER

authentication	Authentication
login	Login
console	Configure Console
http	Configure HTTP
ssh	Configure SSH
telnet	Configure Telnet
local	Use local database for authentication
radius	Use RADIUS for authentication
tacacs	Use TACACS+ for authentication

EXAMPLE

```
LGB5124A-R2(CONFIG)# AAA AUTHENTICATION LOGIN HTTP RADIUS GEFX-
LGB5124A-R2(CONFIG)#
```

ACCESS

Access management.

SYNTAX

access management

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

PARAMETER

management	Access management configuration
< 1-16>	ID of access management entry
< 1-4094>	The VLAN ID for the access management entry
< ipv4_addr>	Start IPv4 address
< ipv6_addr>	Start IPv6 address
all	All services
snmp	SNMP service
telnet	TELNET/SSH service
to	End address of the range
web	Web service

EXAMPLE

```
LGB5124A-R2(CONFIG)# ACCESS MANAGEMENT 10 3 192.168.1.1 ALL
LGB5124A-R2(CONFIG)#
```

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AGGREGATION

Aggregation mode.

SYNTAX

aggregation mode { [dmac] [ip] [dmac] [port] }

PARAMETER

mode   Traffic distribution mode

dmac   Destination MAC affects the distribution

ip   IP address affects the distribution

port   IP port affects the distribution

smac   Source MAC affects the distribution

EXAMPLE

```
LGB5124A-R2(CONFIG)# AGGREGATION MODE IP PORT DMAC SMAC
LGB5124A-R2(CONFIG)#
```

BANNER

Define a login banner.

SYNTAX

banner [motd] <banner>

banner exec <banner>

banner login <banner>

PARAMETER

<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

EXAMPLE

```
LGB5124A-R2(CONFIG)# BANNER EXEC LINE
ENTER TEXT MESSAGE. END WITH THE CHARACTER 'L'.
L
LGB5124A-R2(CONFIG)#
```

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CLOCK

Configure time-of-day clock.

SYNTAX

clock set <icliDate> <icliTime>

clock summer-time <word16> date [<start_month_var> <start_date_var> <start_year_var> <start_hour_var> <end_month_var> <end_date_var> <end_year_var> <end_hour_var> [<offset_var>]]

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

clock timezone <word_var> <hour_var> [<minute_var>]

PARAMETER

set	Set clock
summer-time	Configure summer (daylight savings) time
timezone	Configure time zone
<date>	yyyy/mm/dd
<time>	hh:mm:ss
<2000-2097>	Year to start
hh:mm	Time to start (hh:mm)
<1-12>	Month to end
<1-31>	Date to end
<2000-2097>	Year to end
hh:mm	Time to end (hh:mm)
<1-1440>	Offset to add in minutes
<1-5>	Week number to start
<1-7>	Weekday to start
<1-12>	Month to start

EXAMPLE

```
LGB5124A-R2(CONFIG)# CLOCK SET 2014/11/04 10:22:03
2014-11-04T10:22:03+00:00
LGB5124A-R2(CONFIG)# DO SHOW CLOCK
SYSTEM TIME      : 2011-01-01T00:05:48+00:00
```

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DEFAULT

Set a command to its defaults.

SYNTAX

default access-list rate-limiter [<rate_limiter_list>]

PARAMETER

access-list   Access list

rate-limiter   Rate limiter

<RateLimiterId : 1-16>   Rate limiter ID

EXAMPLE

```
LGB5124A-R2(CONFIG)# DEFAULT ACCESS-LIST RATE-LIMITER 3
LGB5124A-R2(CONFIG)#
```

DO

To run exec commands in config mode.

SYNTAX

do < LINE >{[< LINE >]}

PARAMETER

<LINE>   Exec Command

EXAMPLE

```
LGB5124A-R2(CONFIG)# DO SHOW VLAN
VLAN  NAME                              PORTS
--------------------------------------------------------------------------------
--------------------
1     DEFAULT                          GIGABITETHERNET 1/1, GIGABITETHERNET 1/2,
GIGABITETHERNET 1/3,
                                       GIGABITETHERNET 1/4, GIGABITETHERNET 1/5
LGB5124A-R2 (CONFIG)#
```

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DOT1X

IEEE Standard for port-based Network Access Control.

SYNTAX

dot1x authentication timer inactivity <v_10_to_100000>

dot1x authentication timer re-authenticate <v_1_to_3600>

dot1x feature { [guest-vlan] [radius-qos] [radius-vlan] }*1

dot1x guest-vlan <value>

dot1x guest-vlan supplicant

dot1x max-reauth-req <value>

dot1x re-authentication

dot1x system-auth-control

dot1x timeout quiet-period <v_10_to_1000000>

dot1x timeout tx-period <v_1_to_65535>

PARAMETER

authentication	Authentication
feature	Globally enables/disables a dot1x feature functionality
guest-vlan	Guest VLAN
max-reauth-req	Guest VLAN ID used when entering the Guest VLAN
re-authentication	Set Re-authentication state
system-auth-control	Set the global NAS state
timeout	Timeout
timer	Timer
inactivity	Time in seconds between check for activity on successfully authenticated MAC addresses
re-authenticate	The period between re-authentication attempts in seconds
<10-1000000>	Seconds
<1-3600>	Seconds

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guest-vlan	Globally enables/disables state of guest-vlan
radius-qos	Globally enables/disables state of RADIUS-assigned QoS
radius-vlan	Globally enables/disables state of RADIUS-assigned VLAN
<1-4095>	The number of times a Request Identity EAPOL frame is sent without response before considering entering the Guest VLAN
supplicant	The switch remembers if an EAPOL frame has been received on the port for the life-time of the port. Once the switch considers whether to enter the Guest VLAN, it will first check if this option is enabled or disabled. If disabled (unchecked; default), the switch will only enter the Guest VLAN if an EAPOL frame has not been received on the port for the life-time of the port. If enabled (checked), the switch will consider entering the Guest VLAN even if an EAPOL frame has been received on the port for the life-time of the port.
<1-255>	Number of times
quiet-period	Time in seconds before a MAC-address that failed authentication gets a new authentication chance
tx-period	The time between EAPOL retransmissions
<10-1000000>	Seconds
<1-65535>	Seconds

EXAMPLE

```
LGB5124A-R2(CONFIG)# DOT1X AUTHENTICATION TIMER INACTIVITY 1000
LGB5124A-R2(CONFIG)# DOT1X FEATURE GUEST-VLAN RADIUS-QOS RADIUS-VLAN
LGB5124A-R2(CONFIG)# DOT1X GUEST-VLAN 33
LGB5124A-R2(CONFIG)# DOT1X MAX-REAUTH-REQ 3
LGB5124A-R2(CONFIG)# DOT1X RE-AUTHENTICATION
LGB5124A-R2(CONFIG)# DOT1X SYSTEM-AUTH-CONTROL
LGB5124A-R2(CONFIG)# DOT1X TIMEOUT QUIET-PERIOD 3000
```

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ENABLE

Modify enable password parameters.

SYNTAX

enable password [<level> <1-15>] <WORD>

enable secret { 0 | 5 } [< level> <1-15>] <WORD>

PARAMETER

password	Assign the privileged level clear password
secret	Assign the privileged level secret
WORD	The UNENCRYPTED (cleartext) password
level	Set exec level password
<1-15>	Level number
0	Specifies an UNENCRYPTED password will follow
5	Specifies an ENCRYPTED secret will follow

EXAMPLE

```
LGB5124A-R2(CONFIG)# ENABLE PASSWORD LEVEL 10 999
LGB5124A-R2(CONFIG)#
```

EVENT

Trap event severity level.

SYNTAX

event group <group_name> { level <lvl> | syslog { enable | disable } | trap { enable | disable } | smtp { enable | disable } | ipush { enable | disable } }

PARAMETER

group	Configure trap event severity level
<word32>	ACL, ACL_Log, Access_Mgmt, Auth_Failed, Cold_Start, Config_Info, FAN_FAIL, Firmware_Upgrade, Import_Export, LACP, Link_Status, Login, Logout, Loop_Protect, Mgmt_IP_Change, Module_Change, NAS, Password_Change, Poe_Auto_Check, Port_Security, Temperature, VLAN, Voltage, Warm_Start

EXAMPLE

```
LGB5124A-R2(CONFIG)# EVENT GROUP VLAN TRAP ENABLE
LGB5124A-R2(CONFIG)#
```

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GVRP

Enable GVRP feature.

SYNTAX

gvrp

gvrp max-vlans <1-4095>

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

PARAMETER

time   Config GVRP timer value in units of centi seconds [cs]

EXAMPLE

```
LGB5124A-R2(CONFIG)# GVRP MAX-VLANS 333
LGB5124A-R2(CONFIG)# GVRP TIME JOIN-TIME 13 LEAVE-ALL-TIME 3000 LEAVE-TIME 200
LGB5124A-R2(CONFIG)#
```

HOSTNAME

Set system's network name.

SYNTAX

hostname < WORD >

PARAMETER

WORD   This system's network name

EXAMPLE

```
LGB5124A-R2(CONFIG)# HOSTNAME RUBY
RUBY(CONFIG)#
```

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INTERFACE

Select an interface to configure.

SYNTAX

interface (<port_type> [<plist>])

interface vlan <vlist>

PARAMETER

<port_type>   GigabitEthernet or 10GigabitEthernet

vlan   VLAN interface configurations

<vlan_list>   List of VLAN interface numbers, 1-4095

<port_type_list>   Port list in 1/1-24 for Gigabitethernet, 1/1-4 for 10Gigabitethernet

EXAMPLE

```
LGB5124A-R2(CONFIG)# INTERFACE GIGABITETHERNET 1/1-13
LGB5124A-R2(CONFIG)# INTERFACE VLAN 3
LGB5124A-R2(CONFIG-IF-VLAN)# IP ADDRESS DHCP
LGB5124A-R2(CONFIG-IF-VLAN)#
```

IP

Internet Protocol.

SYNTAX

ip arp inspection

ip arp inspection entry interface <port_type> <in_port_type_id> <vlan_var> <mac_var> <ipv4_var>

ip arp inspection translate [interface <port_type> <in_port_type_id> <vlan_var> <mac_var> <ipv4_var>]

ip arp inspection vlan <in_vlan_list>

ip arp inspection vlan <in_vlan_list> logging { deny | permit | all }

ip dhcp excluded-address <low_ip> [<high_ip>]

ip dhcp pool <pool_name>

ip dhcp relay

ip dhcp relay information option

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

ip dhcp server

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ip dhcp snooping

ip dns proxy

ip helper-address <v_ipv4_ucast>

ip http secure-redirect

ip http secure-server

ip igmp host-proxy [leave-proxy]

ip igmp snooping

ip igmp snooping vlan <v_vlan_list>

ip igmp ssm-range <v_ipv4_mcast> <ipv4_prefix_length>

ip igmp unknown-flooding

ip name-server { <v_ipv4_addr> | dhcp [interface vlan <v_vlan_id>] }

ip route <v_ipv4_addr> <v_ipv4_netmask> <v_ipv4_gw>

ip routing

ip source binding interface <port_type> <in_port_type_id> <vlan_var> <ipv4_var> <mac_var>

ip ssh

ip verify source

ip verify source translate

PARAMETER

arp	Address Resolution Protocol
dhcp	Dynamic Host Configuration Protocol
dns	Domain Name System
helper-address	DHCP relay server
http	Hypertext Transfer Protocol
igmp	Internet Group Management Protocol
name-server	Domain Name System
route	Add IP route
routing	Enable routing for IPv4 and IPv6
source	Source command
ssh	Secure Shell
verify	Verify command
inspection	ARP inspection

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entry	ARP inspection entry
interface	ARP inspection entry interface config
<port_type>	Port type in Fast, Giga ethernet
<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
deny	Log denied entries
permit	Log permitted entries
all	Log all entries
translate	ARP inspection translate all entries
vlan	ARP inspection vlan setting
<vlan_list>	ARP inspection vlan list
relay	DHCP relay agent information
information	DHCP information option <Option 82>
option	DHCP option
information	DHCP information option(Option 82)
policy	Policy for handling the receiving of DHCP packet that already includes the information option
drop	Drop the package when receiving a DHCP message that already contains relay information
keep	Keep the original relay information when receiving a DHCP message that already contains it
replace	Replace the original relay information when receiving a DHCP message that already contains it
server	Enable DHCP server
snooping	DHCP snooping
proxy	DNS proxy service
secure-redirect	Secure HTTP web redirection
secure-server	Secure HTTP web server
snooping	Snooping IGMP
<word16>	Profile name in 16 char's
vlan	IGMP VLAN
ssm-range	IPv4 address range of Source Specific Multicast
<ipv4_mcast>	Valid IPv4 multicast address
<4-32>	Prefix length ranges from 4 to 32

unknown-flooding	Flooding unregistered IPv4 multicast traffic
<ipv4_ucast>	A valid IPv4 unicast address
dhcp	Dynamic Host Configuration Protocol
interface	Select an interface to configure
vlan	VLAN Interface
<vlan_id>	VLAN identifier(s): VID
<ipv4_addr>	Network
<ipv4_netmask>	Netmask
<ipv4_addr>	Gateway
binding	IP source binding
interface	IP source binding entry interface config
<port_type>	* or GigabitEthernet
*	All switches or All ports
Gigabitethernet	1 GigabitEthernet Port
10Gigabitethernet	10 GigabitEthernet Port
<port_type_id>	Port ID in the format of switch-no/port-no, ex 1/1-24 for GigabitEthernet, 1/1-4 for 10GigabitEthernet
<vlan_id>	Select a VLAN id to configure
<ipv4_ucast>	Select an IP Address to configure
<ipv4_netmask>	Select a subnet mask to configure
<mac_ucast>	Select a MAC address to configure
source	Verify source
limit	Limit command
<0-2>	The number of limit
translate	ip verify source translate all entries
loggin	ARP inspection vlan logging mode config

EXAMPLE

```
LGB5124A-R2(CONFIG)# IP ARP INSPECTION
LGB5124A-R2(CONFIG)# IP HELPER-ADDRESS 192.168.1.1
LGB5124A-R2(CONFIG)# IP IGMP SNOOPING VLAN 3
LGB5124A-R2(CONFIG)# IP NAME-SERVER 192.168.1.6
LGB5124A-R2(CONFIG)# IP ROUTE 192.168.1.1 255.255.255.0 192.168.1.100
LGB5124A-R2(CONFIG)# IP VERIFY SOURCE TRANSLATE
IP SOURCE GUARD:
      TRANSLATE 0 DYNAMIC ENTRIES INTO STATIC ENTRIES.
```

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IPMC

IPv4/IPv6 multicast configuration.

SYNTAX

ipmc profile
ipmc profile <profile_name>
ipmc range <entry_name> { <v_ipv4_mcast> [<v_ipv4_mcast_1>] | <v_ipv6_mcast> [<v_ipv6_mcast_1>] }

PARAMETER

profile	IPMC profile configuration
range	A range of IPv4/IPv6 multicast addresses for the profile
< word16>	Range entry name in 16 char's
<ipv4_mcast>	Valid IPv4 multicast address
<ipv6_mcast>	Valid IPv6 multicast address

EXAMPLE

```
LGB5124A-R2(CONFIG)# IPMC PROFILE TEST
LGB5124A-R2(CONFIG-IPMC-PROFILE)#
```

IPV6

IPv6 configuration commands.

SYNTAX

ipv6 mld host-proxy [leave-proxy]

ipv6 mld snooping

ipv6 mld snooping vlan <v_vlan_list>

ipv6 mld ssm-range <v_ipv6_mcast> <ipv6_prefix_length>

ipv6 mld unknown-flooding

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

PARAMETER

mld	Multicast Listener Discovery
route	Configure static routes
host-proxy	MLD proxy configuration
snooping	Snooping MLD

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ssm-range	IPv6 address range of Source Specific Multicast
unknown-flooding	Flooding unregistered IPv6 multicast traffic
leave-proxy	MLD proxy for leave configuration
vlan	MLD VLAN
<vlan_list>	VLAN identifier(s): VID
<ipv6_mcast>	Valid IPv6 multicast address
X:X:X:X::X/<0-128>	IPv6 prefix x:x::y/z

EXAMPLE

```
LGB5124A-R2(CONFIG)# IPV6 MLD HOST-PROXY LEAVE-PROXY
LGB5124A-R2(CONFIG)# IPV6 MLD SNOOPING VLAN 1
LGB5124A-R2(CONFIG)#
```

LACP

LACP settings.

SYNTAX

lacp system-priority <1-65535>

PARAMETER

system-priority	System priority
<1-65535>	Priority value, lower means higher priority

EXAMPLE

```
LGB5124A-R2(CONFIG)# LACP SYSTEM-PRIORITY 333
LGB5124A-R2(CONFIG)#
```

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LINE

Configure a terminal line.

SYNTAX

line { <0~16> | console 0 | vty <0~15> }

PARAMETER

<0~16>	List of line numbers
console	Console terminal line
0	Console Line number
vty	Virtual terminal
<0~15>	List of vty numbers

EXAMPLE

```
LGB5124A-R2(CONFIG)# LINE CONSOLE 0
LGB5124A-R2(CONFIG-LINE)#
```

LLDP

LLDP configurations.

SYNTAX

lldp holdtime <2-10>

lldp med datum { wgs84 | nad83_navd88 | nad83_mllw }

lldp med fast <1-10>

lldp med location-tlv altitude { meters | floors } <word11>

lldp med location-tlv civic-addr { country | state | county | city | district | block | street | leading-street-direction | trailing-street-suffix | street-suffix | house-no | house-no-suffix | landmark | additional-info | name | zip-code | building | apartment | floor | room-number | place-type | postal-community-name | p-o-box | additional-code } <string250>

lldp med location-tlv elin-addr <dword25>

lldp med location-tlv latitude { north | south } <word8>

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lldp med location-tlv longitude { west | east } <word9>

lldp med media-vlan policy-list <range_list>

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

lldp reinit <1-10>

lldp timer <5-32768>

lldp transmission-delay <1-8192>

PARAMETER

holdtime	Sets LLDP hold time (The neighbor switch will discard the LLDP information after "hold time"multiplied with "timer" seconds)
med	Media Endpoint Discovery
reinit	LLDP tx reinitialization delay in seconds
timer	Sets LLDP TX interval (The time between each LLDP frame transmitted in seconds)
transmission-delay	Sets LLDP transmision-delay; LLDP transmission delay (the amount of time that the transmission of LLDP frames will delayed after LLDP configuration has changed [in seconds])
<2-10>	2-10 seconds
<1-10>	1-10 seconds
<5-32768>	5-32768 seconds
<1-8192>	1-8192 seconds
datum	Datum (geodetic system) type
fast	Number of times to repeat LLDP frame transmission at fast start
location-tlv	LLDP-MED Location Type Length Value parameter
media-vlan-policy	Use the media-vlan-policy to create a policy, which can be assigned to an interface
nad83_mllw	Mean lower low water datum 1983
nad83_navd88	North American vertical datum 1983
wgs84	World Geodetic System 1984
altitude	Altitude parameter

meter	Altitude value
floors	Altitude value
civic-addr	Civic address information and postal information
country	The two-letter ISO 3166 country code in capital ASCII letters — Example: DK, DE or US
state	National subdivisions (state, canton, region, province, prefecture)
county	County, parish, gun (Japan), district
city	City, township, shi (Japan) — Example: Copenhagen
district	City division, borough, city district, ward, chou (Japan)
block	Neighborhood, block
street	Street — Example: Poppelvej
leading-street-direction	Leading street direction — Example: N
trailing-street-suffix	Trailing street suffix — Example: SW
street-suffix	Street suffix —Example: Ave, Platz
house-no	House number — Example: 21
house-no-suffix	House number suffix — Example: A, 1/2
landmark	Landmark or vanity address — Example: Columbia University
additional-info	Additional location info — Example: South Wing
name	Name (residence and office occupant) — Example: Flemming Jahn
zip-code	Postal/zip code — Example: 2791
building	Building (structure) — Example: Low Library
apartment	Unit (apartment, suite) — Example: Apt 42
floor	Floor — Example: 4
room-number	Room number — Example: 450F
place-type	Place type — Example: Office
postal-community-name	Postal community name — Example: Leonia

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p-o-box	Post office box (P.O. BOX) — Example: 12345
additional-code	Additional code — Example: 1320300003
<string250>	Value for the corresponding selected civic address
elin-addr	ELIN, (e.g. E911 and others), such as defined by TIA or NENA
<dword25>	ELIN value
north	Setting latitude direction to north
south	Setting latitude direction to south
<word8>	Latitude degrees (0.0000–90.0000)
policy-list	Assignment of policies
<range_list>	Policies to assign to the interface
<0-31>	Policy id for the policy which is created
voice	Create a voice policy
voice-signaling	Create a voice signaling policy
guest-voice-signaling	Create a guest voice signaling policy
guest-voice	Create a guest voice policy
softphone-voice	Create a softphone voice policy
video-conferencing	Create a video conferencing policy
streaming-video	Create a streaming video policy
video-signaling	Create a video signaling policy
tagged	The policy uses tagged frames
<vlan_id>	The VLAN the policy uses tagged frames
untagged	The policy uses un-tagged frames
l2-priority	Layer 2 priority
<0-7>	Priority 0-7
dscp	Differentiated Services Code Point
<0-63>	DSCP value 0–63

EXAMPLE

```
LGB5124A-R2(CONFIG)# LLDP HOLDTIME 5
LGB5124A-R2(CONFIG)# LLDP MED FAST 5
LGB5124A-R2(CONFIG)# LLDP TIMER 555
LGB5124A-R2(CONFIG)# LLDP TRANSMISSION-DELAY 333
NOTE: ACCORDING TO IEEE 802.1AB-CLAUSE 10.5.4.2 THE TRANSMISSION-DELAY MUST NOT BE
LARGER THAN LLDP TIMER * 0.25. LLDP TIMER CHANGED TO 13332
```

LOGGING

Syslog.

SYNTAX

logging host { <ipv4_ucast> | <hostname> }

logging on

logging port <1-65535>

PARAMETER

host	Host
on	Enable syslog server
port	Service port number
<hostname>	Domain name of the log server
<ipv4_ucast>	IP address of the log server
<1-65535>	Port number

EXAMPLE

```
LGB5124A-R2(CONFIG)# LOGGING LEVEL ERROR
LGB5124A-R2(CONFIG)# LOGGING ON
LGB5124A-R2(CONFIG)#
```

LOOP-PROTECT

Loop protection configuration.

SYNTAX

loop-protect

loop-protect shutdown-time <0-604800>

loop-protect transmit-time <1-10>

PARAMETER

shutdown-time	Loop protection shutdown time interval
<0-604800>	Shutdown time in seconds
transmit-time	Loop protection transmit time interval
<1-10>	Transmit time in seconds

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EXAMPLE

```
LGB5124A-R2(CONFIG)# LOOP-PROTECT
LGB5124A-R2(CONFIG)# LOOP-PROTECT SHUTDOWN-TIME 333
LGB5124A-R2(CONFIG)# LOOP-PROTECT TRANSMIT-TIME 3
LGB5124A-R2(CONFIG)#
```

MAC

MAC table entries/configuration.

SYNTAX

mac address-table aging-time <0,10-1000000>

mac address-table static <mac_addr> vlan <vlan_id> interface <port_type> <port_type_list>

PARAMETER

address-table	Mac Address Table
aging-time	Mac address aging time
<0,10-1000000>	Aging time in seconds, 0 disables aging
static	Static MAC address
<mac_addr>	48-bit MAC address: xx:xx:xx:xx:xx:xx
vlan	VLAN keyword
<vlan_id>	VLAN IDs 1-4095
interface	Select an interface to configure
<port_type>	Port type * or GigabitEthernet or 10GigabitEthernet
*	All switches or all ports
GigabitEthernet	1 GigabitEthernet port
10GigabitEthernet	10 GigabitEthernet port
<port_type_list>	Port list in 1/1-24 for GigabitEthernet, 1/1-4 for 10GigabitEthernet

EXAMPLE

```
LGB5124A-R2(CONFIG)# MAC ADDRESS-TABLE AGING-TIME 3333
LGB5124A-R2(CONFIG)#
```

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MONITOR

Set monitor configuration.

SYNTAX

monitor destination interface <port_type> <port_type_id>

monitor source { interface <port_type> <port_type_list> | cpu } { both | rx | tx }

PARAMETER

destination	The destination port; the port that traffic should be mirrored to
interface	Interface to mirror traffic
source	The source port; the source port to be mirrored to the destination port
interface	Mirror interface traffic
<port_type>	1 GigabitEthernet port
*	All switches or all ports
<port_type_list>	Port list in 1/1-24
cpu	Mirror CPU traffic
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
<port_type>	Port type in GigabitEthernet or 10GigabitEthernet
<port_type_list>	Port list in 1/1-24 for GigabitEthernet, 1/1-4 for 10GigabitEthernet

EXAMPLE

```
LGB5124A-R2(CONFIG)# MONITOR DESTINATION INTERFACE GIGABITETHERNET 1/13
LGB5124A-R2(CONFIG)# MONITOR SOURCE CPU BOTH
LGB5124A-R2(CONFIG)#
```

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MVR

Multicast VLAN registration configuration.

SYNTAX

mvr

mvr name <mvr_name> channel <profile_name>

mvr name <mvr_name> frame priority <cos_priority>

mvr name <mvr_name> frame tagged

mvr name <mvr_name> igmp-address <v_ipv4_ucast>

mvr name <mvr_name> last-member-query-interval <ipmc_lmqi>

mvr name <mvr_name> mode { dynamic | compatible }

mvr vlan <v_vlan_list> [name <mvr_name>]

mvr vlan <v_vlan_list> channel <profile_name>

mvr vlan <v_vlan_list> frame priority <cos_priority>

mvr vlan <v_vlan_list> frame tagged

mvr vlan <v_vlan_list> igmp-address <v_ipv4_ucast>

mvr vlan <v_vlan_list> last-member-query-interval <ipmc_lmqi>

mvr vlan <v_vlan_list> mode { dynamic | compatible }

PARAMETER

name	MVR multicast name
<word16>	MVR multicast VLAN name
channel	MVR channel configuration
<word16>	Profile name in 16 char's
frame	MVR control frame in TX
priority	Interface CoS priority
<0-7>	CoS priority ranges from 0 to 7
tagged	Tagged IGMP/MLD frames will be sent
igmp-address	MVR address configuration used in IGMP
<ipv4_ucast>	A valid IPv4 unicast address MVR multicast VLAN name
last-member-query-interval	Last Member Query Interval in tenths of seconds
<0-31744>	0 - 31744 tenths of seconds
mode	MVR mode of operation

dynamic	Dynamic MVR operation mode
compatible	Compatible MVR operation mode
vlan	MVR multicast vlan
<vlan_list>	MVR multicast VLAN list
channel	MVR channel configuration
<word16>	Profile name in 16 char's
frame	MVR control frame in TX
priority	Interface CoS priority
<0-7>	CoS priority ranges from 0 to 7
igmp-address	MVR address configuration used in IGMP
<ipv4_ucast>	A valid IPv4 unicast address
<vlan_list>	MVR multicast VLAN list
last-member-query-interval	Last Member Query Interval in tenths of seconds
<0-31744>	0–31744 tenths of seconds
compatible	Compatible MVR operation mode

EXAMPLE

```
LGB5124A-R2(CONFIG)# MVR VLAN 10 MODE DYNAMIC
LGB5124A-R2(CONFIG)#
```

NTP

Configure NTP.

SYNTAX

ntp

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

ntp server <1-5> ip-address <ipv4_ucast>

ntp server <1-5> ip-address <ipv6_ucast>

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PARAMETER

server	Configure NTP server
<1-5>	Index number
ip-address	IP address
<ipv4_ucast>	ipv4 address
<ipv6_ucast>	ipv6 address
<hostname>	Domain name

EXAMPLE

```
LGB5124A-R2(CONFIG)# NTP SERVER 3 IP-ADDRESS 192.168.1.1
LGB5124A-R2(CONFIG)#
```

PORT-SECURITY

Enable/disable port security globally.

SYNTAX

port-security

port-security aging

port-security aging time <v_10_to_10000000>

PARAMETER

aging	Time in seconds between check for activity on learned MAC addresses
time	Time in seconds between check for activity on learned MAC addresses
<10-10000000>	Seconds

EXAMPLE

```
LGB5124A-R2(CONFIG)# PORT-SECURITY AGING TIME 1000
LGB5124A-R2(CONFIG)#
```

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PRIVILEGE

Command privilege parameters.

SYNTAX

privilege { exec | configure | config-vlan | line | interface | if-vlan | ipmc-profile | snmps-host | stp-aggr | dhcp-pool | rfc2544-profile } level <privilege> <cmd>

PARAMETER

config-vlan	VLAN Configuration Mode
configure	Global Configuration Mode
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
level	Set privilege level of command
<LINE>	Initial valid words and literals of the command to modify, in 128 char's

EXAMPLE

```
LGB5124A-R2(CONFIG)# PRIVILEGE CONFIG-VLAN LEVEL 10 LINE
LGB5124A-R2(CONFIG)# PRIVILEGE CONFIGURE LEVEL 10 LINE
LGB5124A-R2(CONFIG)# PRIVILEGE DHCP-POOL LEVEL 10 LINE
LGB5124A-R2(CONFIG)#
```

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RADIUS-SERVER

Configure RADIUS.

SYNTAX

radius-server attribute 32 <line1-255>

radius-server attribute 4 <ipv4_ucast>

radius-server attribute 95 <ipv6_ucast>

radius-server deadtime <1-1440>

radius-server host { <word1-255> | <ipv4_ucast> | <ipv6_ucast> } [auth-port <0-65535>] [acct-port <0-65535>] [timeout <1-1000>] [retransmit <1-1000>] [key <line1-63>]

radius-server key <line1-63>

radius-server retransmit <1-1000>

radius-server timeout <1-1000>

PARAMETER

Attribute

deadtime	Time to stop using a RADIUS server that doesn't respond
host	Specify a RADIUS server
key	Set RADIUS encryption key
retransmit	Specify the number of retries to active server
timeout	Time to wait for a RADIUS server to reply
<Minutes : 1-1440>	Time in minutes
<Host4 : ipv4_ucast>	IPv4 address
<Host6 : ipv6_ucast>	IPv6 address
<HostName : word1-255>	Hostname
acct-port	UDP port for RADIUS accounting server
auth-port	UDP port for RADIUS authentication server
key	Server specific key (overrides default)
retransmit	Specify the number of retries to active server (overrides default)
timeout	Time to wait for this RADIUS server to reply (overrides default)

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<AuthPort : 0-65535>   UDP port number

<Seconds : 1-1000>   Wait time in seconds

<Key : line1-63>   The shared key

<1-1000>   Number of retries for a transaction

EXAMPLE

```
LGB5124A-R2(CONFIG)# RADIUS-SERVER HOST DEVICE KEY 12
LGB5124A-R2(CONFIG)#
```

RMON

Remote Monitoring.

SYNTAX

rmon alarm <1-65535> <WORD> <1-2147483647> { absolute | delta } rising-threshold <-2147483648-2147483647> [<0-65535>] falling-threshold <-2147483648-2147483647> [<0-65535>] { [rising | falling | both] }

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

rmon event <1-65535> [log] [trap <word127>] { [description <line127>] }

PARAMETER

alarm   Configure RMON alarm

event   Configure RMON event

<1-65535>   Alarm entry ID

<WORD>   MIB object to monitor

<1-2147483647>   Sample interval

absolute   Test each sample directly

delta   Test delta between samples

rising-threshold   Configure the rising threshold

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

EXAMPLE

```
LGB5124A-R2(CONFIG)# RMON ALARM 10000 IFINERRORS 10 9999 ABSOLUTE RISING-THRESHOLD 0
FALLING-THRESHOLD 0 BOTH
LGB5124A-R2(CONFIG)#
```

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SFLOW

Statistics flow.

SYNTAX

sflow agent-ip { ipv4 <ipv4_addr> | ipv6 <ipv6_addr> }

sflow collector-address{ <ipv4_addr> | <ipv6_addr> }

sflow collector-port <1-65535>

sflow max-datagram-size [receiver <range_list>] <200-1468>

sflow timeout [receiver <range_list>] <0-2147483647>

PARAMETER

agent-ip	The agent IP address used as agent-address in UDP datagrams; defaults to IPv4 loopback address
Ipv4	ipv4 address
Ipv6	ipv6 address
<ipv4_addr>	ipv4 address
<ipv6_addr>	ipv6 address
collector-address	Collector address
collector-port	Collector UDP port
<1-65535>	Port number
max-datagram-size	Maximum datagram size
<200-1468>	Bytes
timeout	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 configurations are reset to defaults.
<0-2147483647>	Number in seconds

EXAMPLE

```
LGB5124A-R2(CONFIG)# SFLOW AGENT-IP IPV4 192.168.1.2
LGB5124A-R2(CONFIG)# SFLOW COLLECTOR-PORT 3
LGB5124A-R2(CONFIG)# SFLOW MAX-DATAGRAM-SIZE 333
LGB5124A-R2(CONFIG)# SFLOW TIMEOUT 3333
LGB5124A-R2(CONFIG)#
```

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SMTP

Set email information.

SYNTAX

smtp delete { server | username | sender | returnpath | mailaddress <index> }

smtp mailaddress <index> <mail_addr_name>

smtp returnpath <return_path>

smtp sender <sender_name>

smtp server <hostname>

smtp username <username> <password>

PARAMETER

delete   Delete command

mailaddress   Configure email address

returnpath   Configure email return path

sender   Configure email sender

server   Configure email server

username   Configure email user name

EXAMPLE

```
LGB5124A-R2(CONFIG)# SMTP MAILADDRESS 1 JEFFERSON@MAIL.RUBYTECH.COM.TW
LGB5124A-R2(CONFIG)# SMTP RETURNPATH JEFFERSON
LGB5124A-R2(CONFIG)# SMTP SENDER TEST
LGB5124A-R2(CONFIG)# SMTP SERVER SERVER
LGB5124A-R2(CONFIG)# SMTP USERNAME JEFFERSON 12345
LGB5124A-R2(CONFIG)# SMTP DELETE MAILADDRESS 1
LGB5124A-R2(CONFIG)#
```

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SYSTEM

Set the SNMP server's configurations.

SYNTAX

system contact <v_line255>

system location <v_line255>

system name <v_line255>

PARAMETER

contact   Set the SNMP server's contact string

location   Set the SNMP server's location string

name   Set the SNMP server's system model name string

<line255>   Maximum number of 255 character strings

EXAMPLE

```
LGB5124A-R2(CONFIG)#  SYSTEM  CONTACT  222
LGB5124A-R2(CONFIG)#  SYSTEM  LOCATION  333
LGB5124A-R2(CONFIG)#  SYSTEM  NAME  GE
LGB5124A-R2(CONFIG)#
```

TACACS-SERVER

Configure TACACS+.

SYNTAX

tacacs-server deadtime <minutes>

tacacs-server host <host_name> [port <port>] [timeout <seconds>] [key <key>]

tacacs-server key <key>

tacacs-server timeout <seconds>

PARAMETER

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

host   Specify a TACACS+ server

key	Set TACACS+ encryption key
timeout	Time to wait for a TACACS+ server to reply
<Minutes : 1-1440>	Time in minutes
<Key : line1-63>	The shared key
<Seconds : 1-1000>	Wait time in seconds
<word1-255>	Hostname
<ipv4_ucast>	IPv4 address
<ipv6_ucast>	IPv6 address
port	TCP port for TACACS+ server
<0-65535>	TCP port number

EXAMPLE

```
LGB5124A-R2(CONFIG)# TACACS-SERVER DEADTIME 300
LGB5124A-R2(CONFIG)# TACACS-SERVER HOST 192.168.1.2
LGB5124A-R2(CONFIG)# TACACS-SERVER KEY 33
LGB5124A-R2(CONFIG)# TACACS-SERVER TIMEOUT 300
LGB5124A-R2(CONFIG)#
```

UPNP

Set UPnP's configurations.

SYNTAX

upnp

upnp advertising-duration <100-86400>

upnp ttl <1-255>

PARAMETER

advertising-duration	Set advertising duration
ttl	Set TTL value
<100-86400>	Advertising duration
<1-255>	TTL value

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EXAMPLE

```
LGB5124A-R2(CONFIG)# UPNP ADVERTISING-DURATION 8
LGB5124A-R2(CONFIG)# UPNP TTL 25
LGB5124A-R2(CONFIG)#
```

USERNAME

Establish username authentication.

SYNTAX

username <username> privilege <priv> password encrypted <encry_password>

username <username> privilege <priv> password none

username <username> privilege <priv> password unencrypted <password>

PARAMETER

<Username : word31>	Username allows letters, numbers and underscores
privilege	Set user privilege level
<privilegeLevel : 0-15>	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
<Password : line31>	The UNENCRYPTED (Plain Text) user password. Any printable characters, including space, is accepted. Notice that you have no change to get the Plain Text password after this command. The system will always display the ENCRYPTED password.
<Password : word4-44>	The ENCRYPTED (hidden) user password. Notice the ENCRYPTED password will be decoded by system internally. You cannot directly use it the same as the Plain Text and it is not human-readable text, normally.

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EXAMPLE

```
LGB5124A-R2(CONFIG)# USERNAME JEFFERSON PRIVILEGE 15
PASSWORD NONE
LGB5124A-R2(CONFIG)#  (CONFIG)#
```

VLAN

VLAN commands.

SYNTAX

vlan <vlan_list>

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

vlan protocol { { eth2 { <0x600-0xffff> | arp | ip | ipx | at } } | { snap { <0x0-0xffffff> | rfc_1042 | snap_8021h } <0x0-0xffff> } | { llc <0x0-0xff> <0x0-0xff> } } group <word16>

PARAMETER

<vlan_list>	ISL VLAN IDs 1-4095
ethertype	Ether type for Custom S-ports
protocol	Protocol-based VLAN commands
s-custom-port	Custom S-ports configuration
<0x0600-0xffff>	Ether type (Range: 0x0600-0xffff)
eth2	Ethernet-based VLAN commands
<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
snap	SNAP-based VLAN group
<0x0-0xffffff>	SNAP OUI (Range 0x000000–0XFFFFFF)

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rfc_1042   SNAP OUI is rfc_1042

snap_8021h   SNAP OUI is 8021h

<0x0-0xffff>   PID (Range: 0x0 - 0xFFFF)

llc   LLC-based VLAN group

<0x0-0xff>   DSAP (Range: 0x00–0xFF)

<0x0-0xff>   SSAP (Range: 0x00–0xFF)

group   Protocol-based VLAN group commands

<word16>   Group Name (Range: 1–16 characters)

EXAMPLE

```
LGB5124A-R2(CONFIG)# VLAN ETHERTYPE S-CUSTOM-PORT 0X1111
LGB5124A-R2(CONFIG)# VLAN PROTOCOL ETH2 ARP GROUP 123
LGB5124A-R2(CONFIG)#
```

VOICE

Voice appliance attributes.

SYNTAX

voice vlan

voice vlan aging-time <aging_time>

voice vlan class { <traffic_class> | low | normal | medium | high }

voice vlan oui <oui> [description <description>]

voice vlan vid <vid>

PARAMETER

advertising-duration   Set advertising duration

vlan   Vlan for voice traffic

aging-time   Set secure learning aging time

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<10-10000000>	Aging time, 10–10,000,000 seconds
class	Set traffic class
<0-7>	Traffic class value
oui	OUI configuration
<oui>	OUI value
description	Set description for the OUI
<line32>	Description line
vid	Set VLAN ID
<vlan_id>	VLAN ID, 1-4095

EXAMPLE

```
LGB5124A-R2(CONFIG)# VOICE VLAN AGING-TIME 3333
LGB5124A-R2(CONFIG)# VOICE VLAN CLASS 7
LGB5124A-R2(CONFIG)# VOICE VLAN VID 3333
LGB5124A-R2(CONFIG)#
```

WEB

Web.

SYNTAX

web privilege group <CWORD> level { [cro <0-15>] [crw <0-15>] [sro <0-15>] [srw <0-15>] }

PARAMETER

privilege   Web privilege

group   Web privilege group

CWORD   Valid words are 'Aggregation' 'Debug' 'Dhcp_Client'

'IP2' 'IPMC_Snooping' 'LACP' 'LLDP'

'Loop_Protect' 'MAC_Table' 'MEP' 'MVR' 'Maintenance'

'Mirroring' 'NTP' 'Ports' 'Private_VLANs' 'QoS'

'RPC' 'Security' 'Spanning_Tree' 'System' 'Timer'

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'UPnP' 'VCL' 'VLAN_Translation' 'VLANs' 'Voice_VLAN'

'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

EXAMPLE

```
LGB5124A-R2(CONFIG)# WEB PRIVILEGE GROUP PTP LEVEL SRO
10
 (CONFIG)#
```

3-1 ACCESS-LIST

TABLE : CONFIGURE – ACCESS-LIST COMMANDS

COMMAND	FUNCTION
ace	Access list entry
rate-limiter	Rate limiter

RATE-LIMITER

Rate limiter.

SYNTAX

access-list rate-limiter [<1~16>] { pps <0-3276700> | 100kbps <0-10000> }

Parameter

100kbps   100k bits per second

<RateLimiterList : 1~16>   Rate limiter ID

<PpsRate : 0-3276700>   Rate value

<0-10000>   Rate value

EXAMPLE

```
LGB5124A-R2(CONFIG)# ACCESS-LIST RATE-LIMITER 100KBPS 111
LGB5124A-R2(CONFIG)#
```

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ACE

Access list entry.

SYNTAX

access-list ace{ update<1-256> | <1-256> } [action< deny | filter | permit >]

access-list ace{ update<1-256> | <1-256> } [dmac-type < any | broadcast | multicast | unicast >]

access-list ace{ update<1-256> | <1-256> } [frametype < any | arp | etype | ipv4 | ipv4-icmp | ipv4-tcp | ipv4-udp | ipv6 | ipv6-icmp | ipv6-tcp | ipv6-udp >]

access-list ace{ update<1-256> | <1-256> } [ingress] [ingress interface { <port_type> <port_type_id> | <port_type> <port_type_list> } | any }]

access-list ace{ update<1-256> | <1-256> } [logging [disable]]

access-list ace{ update<1-256> | <1-256> } [lookup [disable]]

access-list ace{ update<1-256> | <1-256> } [mirror [disable]]

access-list ace{ update<1-256> | <1-256> } [next { <1-256> | last }]

access-list ace{ update<1-256> | <1-256> } [policy <0-255> [policy-bitmask <0x0-0xFF>]]

access-list ace{ update<1-256> | <1-256> } [rate-limiter { <1-16> | disable }]

access-list ace{ update<1-256> | <1-256> } [redirect | interface { <port_type> <port_type_id> | <port_type> <port_type_list> } | disable }]

access-list ace{ update<1-256> | <1-256> } [shutdown]

access-list ace{ update<1-256> | <1-256> } [tag { tagged | untagged | any }]

access-list ace{ update<1-256> | <1-256> } [tag-priority { <0-7> | any }]

access-list ace{ update<1-256> | <1-256> }[vid { <1-4095> | any }]

PARAMETER

action	Access list action
dmac-type	The type of destination MAC address
frametype	Frame type
ingress	Ingress
logging	Logging frame information
lookup	Second lookup

mirror	Mirror frame to destination mirror port
next	Insert the current ACE before the next ACE ID
policy	Policy
rate-limiter	Rate limiter
redirect	Redirect frame to specific port
shutdown	Shutdown incoming port
tag	Tag
tag-priority	Tag priority
vid	VID field
deny	Deny
filter	Filter
permit	Permit
any	Don't-care the type of destination MAC address
broadcast	Broadcast destination MAC address
multicast	Multicast destination MAC address
unicast	Unicast destination MAC address
any	Don't-care the frame type
arp	Frame type of ARP
etype	Frame type of etype
ipv4	Frame type of IPv4
ipv4-icmp	Frame type of IPv4 ICMP
ipv4-tcp	Frame type of IPv4 TCP
ipv4-udp	Frame type of IPv4 UDP
ipv6	Frame type of IPv6
ipv6-icmp	Frame type of IPv6 ICMP
ipv6-tcp	Frame type of IPv6 TCP

ipv6-udp	Frame type of IPv6 UDP
interface	Select an interface to configure
<port_type>	* or GigabitEthernet or 10GigabitEthernet
*	All switches or All ports
Gigabitethernet	1 GigabitEthernet port
10Gigabitethernet	10 GigabitEthernet port
<port_type_id>	Port ID in the format of switch-no/port-no ex, 1/1-24 for GigabitEthernet, 1/1-4 for 10GigabitEthernet
<port_type>	* or GigabitEthernet
*	All Switches or All ports
Gigabitethernet	1 GigabitEthernet Port
<port_type_list>	Port list in 1/1-24
any	Don't-care the ingress interface
<0-255>	Policy ID
policy-bitmask	The bitmask for policy ID
<0x0-0xFF>	The value of policy bitmask
<1-4095>	The value of VID field
<0-7>	The value of tag priority
EXAMPLE	

```
LGB5124A-R2(CONFIG)# ACCESS-LIST ACE 10 ACTION DENY
LGB5124A-R2(CONFIG)#
```

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3-2 NO

Negate a command or set its defaults.

TABLE : CONFIGURE — NO COMMANDS

COMMAND	FUNCTION
aaa	Authentication, Authorization and Accounting
access	Access management
access-list	Access list
aggregation	Aggregation mode
banner	Define a login banner
clock	Configure time-of-day clock
default	Set a command to its defaults
dms	DMS mode
do	To run exec commands in config mode
dot1x	IEEE Standard for port-based Network Access Control
enable	Modify enable password parameters
green ethernet	Green Ethernet (power reduction)
gvrp	Enable GVRP feature
hostname	Set system's network name
interface	Select an interface to configure
ip	Internet Protocol
ipmc	IPv4/IPv6 multicast configuration
ipv6	IPv6 configuration commands
lacp	LACP settings
lldp	LLDP configurations
logging	Syslog
loop-protect	Loop protection configuration
mac	MAC table entries/configuration
monitor	Set monitor configuration
mvr	Multicast VLAN Registration configuration
ntp	Configure NTP
port-security	Enable/disable port security globally
Privilege	Command privilege parameters
prompt	Set prompt

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qos	Quality of Service
radius-server	Configure RADIUS
rmon	Remote Monitoring
sflow	Statistics flow
snmp-server	Enable SNMP server
spanning-tree	Spanning Tree protocol
svi	Unmap Shared VLAN Learning for a range or all FID

AAA

Authentication, Authorization and Accounting

SYNTAX

no aaa authentication login { console | telnet | ssh | http }

PARAMETER

authentication	Authentication
login	Login
console	Disable Console
http	Disable HTTP
ssh	Disable SSH
telnet	Disable Telnet

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO AAA AUTHENTICATION LOGIN SSH
LGB5124A-R2(CONFIG)#
```

ACCESS

Access management.

SYNTAX

no access management [<1~16>]

no access management

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PARAMETER

management   Access management configuration

<1~16>   ID of access management entry

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO ACCESS MANAGEMENT
LGB5124A-R2(CONFIG)#
```

ACCESS-LIST

Access-list.

SYNTAX

no access-list ace <1~256>

PARAMETER

ace   Access list entry

<AceId : 1-256>   ACE ID

EXAMPLE

```
LGB5124A-R2(CONFIG)# ACCESS-LIST ACE 1
LGB5124A-R2(CONFIG)#
```

AGGREGATION

Aggregation mode.

SYNTAX

no aggregation mode

PARAMETER

mode   Traffic distribution mode

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO AGGREGATION MODE
LGB5124A-R2(CONFIG)#
```

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BANNER

Define a login banner.

SYNTAX

no banner [motd]

no banner exec

no banner login

PARAMETER

exec   Set EXEC process creation banner

login   Set login banner

motd   Set Message of the Day banner

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO BANNER LOGIN
LGB5124A-R2(CONFIG)#
```

CLOCK

Configure time-of-day clock.

SYNTAX

no clock summer-time

no clock timezone

PARAMETER

summer-time   Configure summer (daylight savings) time

timezone   Configure time zone

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO CLOCK SUMMER-TIME
LGB5124A-R2(CONFIG)# NO CLOCK TIMEZONE
LGB5124A-R2(CONFIG)#
```

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DOT1X

IEEE Standard for port-based Network Access Control.

SYNTAX

no dot1x authentication timer inactivity

no dot1x authentication timer re-authenticate

no dot1x feature { [guest-vlan] [radius-qos] [radius-vlan] }

no dot1x guest-vlan [supplicant]

no dot1x max-reauth-req

no dot1x re-authentication

no dot1x system-auth-control

no dot1x timeout quiet-period

no dot1x timeout tx-period

PARAMETER

authentication	Authentication
feature	Globally enables/disables a dot1x feature functionality
guest-vlan	Guest VLAN
max-reauth-req	The number of times a Request Identity EAPOL frame is sent without response before considering entering the Guest VLAN
re-authentication	Set re-authentication state
system-auth-control	Set the global NAS state
timeout	Timeout
timer	Timer
inactivity	Time in seconds between check for activity on successfully authenticated MAC addresses
re-authenticate	The period between re-authentication attempts in seconds
guest-vlan	Globally enables/disables state of guest-vlan

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radius-qos   Globally enables/disables state of RADIUS-assigned QoS

radius-vlan   Globally enables/disables state of RADIUS-assigned VLAN

supplicant   The switch remembers if an EAPOL frame has been received on

                    the port for the life-time of the port. Once the switch

                    considers whether to enter the Guest VLAN, it will first

                    check if this option is enabled or disabled. If disabled

                    (unchecked; default), the switch will only enter the Guest

                    VLAN if an EAPOL frame has not been received on the port for

                    the life-time of the port. If enabled (checked), the switch

                    will consider entering the Guest VLAN even if an EAPOL frame

                    has been received on the port for the life-time of the port.

quiet-period   Time in seconds before a MAC-address that failed

                    authentication gets a new authentication chance

tx-period   The time between EAPOL retransmissions

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO DOT1X AUTHENTICATION TIMER INACTIVITY
LGB5124A-R2(CONFIG)# NO DOT1X FEATURE GUEST-VLAN RADIUS-QOS RADIUS-VLAN
LGB5124A-R2(CONFIG)# NO DOT1X GUEST-VLAN SUPPLICANT
LGB5124A-R2(CONFIG)# NO DOT1X MAX-REAUTH-REQ
LGB5124A-R2(CONFIG)# NO DOT1X RE-AUTHENTICATION
LGB5124A-R2(CONFIG)# NO DOT1X SYSTEM-AUTH-CONTROL
LGB5124A-R2(CONFIG)# NO DOT1X TIMEOUT TX-PERIOD
LGB5124A-R2(CONFIG)#
```

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ENABLE

Modify enable password parameters.

SYNTAX

no enable password [level <1-15>]

no enable secret [0|5 { level <1-15> }]

PARAMETER

password   Assign the privileged level clear password

secret   Assign the privileged level secret

0   Specifies an UNENCRYPTED password will follow

5   Specifies an ENCRYPTED password will follow

level   Set exec level password

<1-15>   Level number

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO ENABLE SECRET LEVEL 15
LGB5124A-R2(CONFIG)# NO ENABLE PASSWORD LEVEL 15
LGB5124A-R2(CONFIG)#
```

HOSTNAME

Set system's network name.

SYNTAX

no hostname

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO HOSTNAME
LGB5124A-R2(CONFIG)#
```

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INTERFACE

SYNTAX

no interface vlan < vlan_list >

PARAMETER

vlan   Vlan interface configurations

<vlan_list>   Vlan list

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO INTERFACE VLAN 10
LGB5124A-R2(CONFIG)#
```

IP

Set system's network name.

SYNTAX

no ip arp inspection

no ip arp inspection entry interface Gigabitethernet|10Gigabitethernet <port_type_id> <vlan_id> <mac_ucast> <ipv4_ucast>

no ip arp inspection vlan <vlan_list> [logging]

no dhcp excluded-address [<ip_address> [<ip_address>]]

no dhcp pool <WORD>

no ip dhcp relay [information {option| policy }]

no ip dhcp server

no ip dhcp snooping

no ip dns proxy

no ip helper-address

no ip http secure-redirect

no ip http secure-server

no ip igmp host-proxy [leave-proxy]

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no ip igmp snooping

no ip igmp snooping vlan [<vlan_list>]

no ip igmp ssm-range

no ip igmp unknown-flooding

no ip name-server

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

no ip routing

no ip source binding interface Gigabitethernet|10Gigabitethernet <port_type_id> <vlan_id> <ipv4_ucast>{ <ipv4_netmask>|<mac_ucast>}

no ip ssh

no ip verify source

PARAMETER

arp	Address Resolution Protocol
inspection	ARP inspection
entry	ARP inspection entry
interface	ARP inspection entry interface config
GigabitEthernet	1 GigabitEthernet Port
10GigabitEthernet	10 GigabitEthernet Port
<port_type_id>	Port ID in the format of switch-no/port-no, 1/1-24 for GigabitEthernet, 1/1-4 for10GigabitEthernet
<vlan_id>	Select a VLAN id to configure
<mac_ucast>	Select a MAC address to configure
<ipv4_ucast>	Select an IP Address to configure
vlan	ARP inspection vlan setting
<vlan_list>	ARP inspection vlan list
logging	ARP inspection vlan logging mode config
dhcp	Dynamic Host Configuration Protocol

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excluded-address	Prevent DHCP from assigning certain address
<ip_address>	Low IP address and High IP address
<WORD>	Pool name in 32 characters
pool	Configure DHCP address pools
relay	DHCP relay agent configuration
server	Enable DHCP server
snooping	DHCP snooping
information	DHCP information option (Option 82)
option	DHCP option
policy	Policy for handling the receiving DHCP packet already include the information option
snooping	DHCP snooping
dns	Domain Name System
proxy	DNS proxy service
helper-address	None
http	Hypertext Transfer Protocol
secure-redirect	Secure HTTP web redirection
secure-server	Secure HTTP web server
igmp	Internet Group Management Protocol
host-proxy	IGMP proxy configuration
leave-proxy	IGMP proxy for leave configuration
snooping	Snooping IGMP
vlan	IGMP VLAN
<vlan_list>	VLAN identifier(s): VID
ssm-range	IPv4 address range of Source Specific Multicast
unknown-flooding	Flooding unregistered IPv4 multicast traffic
name-server	Domain Name System
Route	None
<ipv4_addr>	Network

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<ipv4_netmask>	Netmask
<ipv4_gateway>	Gateway
routing	Disable routing for IPv4 and IPv6
source	Source command
binding	IP source binding
interface	IP source binding entry interface config
Gigabitethernet	1 GigabitEthernet port
10Gigabitethernet	10 GigabitEthernet port
<port_type_id>	Port ID in the format of switch-no/port-no, ex., 1/1-24 for GigabitEthernet, 1/1-4 for 10GigabitEthernet
<vlan_id>	Select a VLAN id to configure
<ipv4_ucast>	Select an IP Address to configure
<ipv4_netmask>	Select a subnet mask to configure
<mac_ucast>	Select a MAC address to configure
ssh	Secure Shell
verify	Verify command
source	Verify source

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO IP ARP INSPECTION VLAN 3 LOGGING
LGB5124A-R2(CONFIG)# NO IP DHCP RELAY INFORMATION OPTION
LGB5124A-R2(CONFIG)# NO IP DNS PROXY
LGB5124A-R2(CONFIG)# NO IP HELPER-ADDRESS
LGB5124A-R2(CONFIG)# NO IP HTTP SECURE-REDIRECT
LGB5124A-R2(CONFIG)# NO IP IGMP SNOOPING
LGB5124A-R2(CONFIG)# NO IP NAME-SERVER
LGB5124A-R2(CONFIG)# NO IP ROUTING
LGB5124A-R2(CONFIG)# NO IP SSH
LGB5124A-R2(CONFIG)# NO IP VERIFY SOURCE
LGB5124A-R2(CONFIG)#
```

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IPMC

IPv4/IPv6 multicast configuration.

SYNTAX

no ipmc profile <Profilename : word16>

no ipmc range <Entryname : word16>

PARAMETER

profile	IPMC profile configuration
<Profilename : word16>	Profile name in 16 char's
range	A range of IPv4/IPv6 multicast addresses for the profile
<Entryname : word16>	Range entry name in 16 char's

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO IPMC PROFILE
```

IPV6

IPv6 configuration commands.

SYNTAX

no ipv6 mld host-proxy [leave-proxy]

no ipv6 mld snooping

no ipv6 mld snooping [vlan <vlan_list>]

no ipv6 mld ssm-range

no ipv6 mld unknown-flooding

no ipv6 route <ipv6_subnet> { <ipv6_ucast> | interface vlan <vlan_id> <ipv6_linklocal> }

PARAMETER

mld	Multicasat Listener Discovery
host-proxy	MLD proxy configuration
leave-proxy	MLD proxy for leave configuration

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snooping	Snooping MLD
vlan	MLD VLAN
<vlan_list>	VLAN identifier(s): VID
ssm-range	IPv6 address range of Source Specific Multicast
unknown-flooding	Flooding unregistered IPv6 multicast traffic
route	Configure static routes
<ipv6_subnet>	IPv6 prefix x:x::y/z
<ipv6_ucast>	IPv6 unicast address (except link-local address) of next-hop
interface	Select an interface to configure
vlan	VLAN Interface
<vlan_id>	VLAN identifier(s): VID
<ipv6_linklocal>	IPv6 link-local address of next-hop

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO IPV6 MLD SNOOPING
LGB5124A-R2(CONFIG)#
```

LACP

LACP settings.

SYNTAX

no lacp system-priority <1-65535>

PARAMETER

system-priority	System priority
<1-65535>	Priority value, lower means higher priority

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO LACP SYSTEM-PRIORITY 10000
LGB5124A-R2(CONFIG)#
```

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LLDP

LLDP configurations.

SYNTAX

no lldp holdtime

no lldp med datum

no lldp med fast

no lldp med location-tlv altitude

no lldp med location-tlv civic-addr { country | state | county | city | district | block | street | leading-street-direction | trailing-street-suffix | street-suffix | house-no | house-no-suffix | landmark | additional-info | name | zip-code | building | apartment | floor | room-number | place-type | postal-community-name | p-o-box | additional-code }

no lldp med location-tlv elin-addr

no lldp med location-tlv latitude

no lldp med location-tlv longitude

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

no lldp reinit

no lldp timer

no lldp transmission-delay

PARAMETER

holdtime	Sets LLDP hold time (The neighbor switch will discard the LLDP information after "hold time" multiplied with "timer" seconds)
med	Media Endpoint Discovery
reinit	Sets LLDP reinitialization delay
timer	Sets LLDP TX interval (The time between each LLDP frame transmitted in seconds)
tlv-select	Which optional TLVs to transmit
transmission-delay	Sets LLDP transmision-delay; LLDP transmission delay (the amount of time that the transmission of LLDP frames will be delayed after LLDP configuration has changed [in seconds])

datum	Set datum to default value
fast	Set fast repeat count to default value
location-tlv	LLDP-MED Location Type Length Value parameter
media-vlan-policy	Use the media-vlan-policy to create a policy, which can be assigned to an interface
altitude	Setting altitude to default
civic-addr	Civic address information and postal information
elin-addr	Set elin address to default value.
latitude	Setting Latitude parameter to default
longitude	Setting longitude to default
additional-code	Additional code — Example: 1320300003
additional-info	Additional location info — Example: South Wing
apartment	Unit (Apartment, suite) — Example: Apt 42
block	Neighborhood, block
building	Building (structure) — Example: Low Library
city	City, township, shi (Japan) — Example: Copenhagen
country	The two-letter ISO 3166 country code in capital ASCII letters — Example: DK, DE or US
county	County, parish, gun (Japan), district
district	City division, borough, city district, ward, chou (Japan)
floor	Floor — Example: 4
house-no	House number — Example: 21
house-no-suffix	House number suffix — Example: A, 1/2
landmark	Landmark or vanity address — Example: Columbia University
leading-street-direction	Leading street direction — Example: N
name	Name (residence and office occupant) — Example: Flemming Jahn
p-o-box	Post office box (P.O. BOX) — Example: 12345
place-type	Place type — Example: Office

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postal-community-name   Postal community name — Example: Leonia

room-number   Room number — Example: 450F

state   National subdivisions (state, canton, region, province, prefecture)

street   Street — Example: Poppelvej

street-suffix   Street suffix — Example: Ave, Platz

trailing-street-suffix   Trailing street suffix — Example: SW

zip-code   Postal/zip code — Example: 2791

<0~31>   Policy to delete

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO LLDP HOLDTIME
LGB5124A-R2(CONFIG)# NO LLDP MED LOCATION-TLV CIVIC-ADDR FLOOR
LGB5124A-R2(CONFIG)# NO LLDP REINIT
LGB5124A-R2(CONFIG)# NO LLDP TIMER
LGB5124A-R2(CONFIG)# NO LLDP TRANSMISSION-DELAY
LGB5124A-R2(CONFIG)#
```

LOGGING

Syslog.

SYNTAX

no logging host

no logging on

PARAMETER

host   Host

on   Enable syslog server

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO LOGGING HOST
LGB5124A-R2(CONFIG)# NO LOGGING ON
LGB5124A-R2(CONFIG)#
```

LOOP-PROTECT

Loop protection configuration.

SYNTAX

no loop-protect

no loop-protect shutdown-time

no loop-protect transmit-time

PARAMETER

shutdown-time	Loop protection shutdown time interval
transmit-time	Loop protection transmit time interval

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO LOOP-PROTECT SHUTDOWN-TIME
LGB5124A-R2(CONFIG)# NO LOOP-PROTECT TRANSMIT-TIME
LGB5124A-R2(CONFIG)#
```

MAC

MAC table entries/configuration.

SYNTAX

no mac address-table aging-time [<0,10-1000000>]

no mac address-table static <mac_addr> vlan <vlan_id> interface {*|Gigabitethernet|10Gigabitethernet [<port_type_list>]}

PARAMETER

address-table	Mac table entries configuration/table
aging-time	Mac address aging time
<0,10-1000000>	Aging time in seconds, 0 disables aging
static	Static MAC address
<mac_addr>	48 bit MAC address: xx:xx:xx:xx:xx:xx
vlan	VLAN keyword
<vlan_id>	VLAN IDs 1-4095

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interface	Select an interface to configure
Gigabitethernet	1 GigabitEthernet port
10Gigabitethernet	10 GigabitEthernet port
<port_type_list>	Port list in , ex, 1/1-24 for Gigaethernet, 1/1-4 for 10Gigaethernet

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO MAC ADDRESS-TABLE AGING-TIME 10000
LGB5124A-R2NFIG)#
```

MONITOR

Set monitor configuration.

SYNTAX

no monitor destination

no monitor source { interface Gigabitethernet | 10Gigabitethernet <port_type_list> | cpu}

PARAMETER

destination

source	The source port(s); The ports to be mirrored to the destination port
cpu	Mirror CPU traffic
interface	Mirror Interface traffic
Gigabitethernet	1 GigabitEthernet Port
<port_type_list>	Port list in 1/1-24 for GigabitEthernet, 1/1-4 for 10GigabitEthernet

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO MONITOR DESTINATION
LGB5124A-R2(CONFIG)# NO MONITOR SOURCE CPU
LGB5124A-R2(CONFIG)#
```

MVR

Multicast VLAN registration configuration.

SYNTAX

no mvr

no mvr name <word16> channel

no mvr name <word16> frame priority

no mvr name <word16> frame tagged

no mvr name <word16> igmp-address

no mvr name <word16> last-member-query-interval

no mvr name <word16> mode

no mvr vlan <vlan_list>

no mvr vlan <vlan_list> channel

no mvr vlan <vlan_list> frame priority

no mvr vlan <vlan_list> frame tagged

no mvr vlan <vlan_list> igmp-address

no mvr vlan <vlan_list> last-member-query-interval

no mvr vlan <vlan_list> mode [{channel | frame | igmp-address | last-member-query-interval}

PARAMETER

name	MVR multicast name
<word16>	MVR multicast VLAN name
channel	MVR channel configuration
frame	MVR control frame in TX
priority	Interface CoS priority
tagged	Tagged IGMP/MLD frames will be sent
igmp-address	MVR address configuration used in IGMP

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last-member-query-interval	Last Member Query Interval in tenths of seconds
mode	MVR mode of operation
vlan	MVR multicast vlan
<vlan_list>	MVR multicast VLAN list

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO MVR VLAN 12 MODE
LGB5124A-R2(CONFIG)#
```

NTP

Configure NTP.

SYNTAX

no ntp

no ntp server <1-5>

PARAMETER

server	Configure NTP server
<1-5>	Index number

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO NTP SERVER 2
LGB5124A-R2(CONFIG)#
```

PORT-SECURITY

Enable/disable port security globally.

SYNTAX

no port-security

no port-security aging

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no port-security aging time

PARAMETER

aging   Enable/disable port security aging

time   Time in seconds between check for activity on learned MAC addresses

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO PORT-SECURITY AGING TIME
LGB5124A-R2(CONFIG)#
```

RADIUS-SERVER

Configure RADIUS.

SYNTAX

no radius-server attribute {32 | 4 | 95}

no radius-server deadtime

no radius-server host { <word1-255> | <ipv4_ucast> | <ipv6_ucast> } [auth-port <0-65535>] [acct-port <0-65535>]

no radius-server key

no radius-server retransmit

no radius-server timeout

PARAMETER
attribute

deadtime   Time to stop using a RADIUS server that doesn't respond

host   Specify a RADIUS server

key   Set RADIUS encryption key

retransmit Specify the number of retries to active server

timeout   Time to wait for a RADIUS server to reply

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO RADIUS-SERVER ATTRIBUTE 4
LGB5124A-R2(CONFIG)# NO RADIUS-SERVER DEADTIME
LGB5124A-R2(CONFIG)# NO RADIUS-SERVER KEY
LGB5124A-R2(CONFIG)# NO RADIUS-SERVER RETRANSMIT
LGB5124A-R2(CONFIG)# NO RADIUS-SERVER TIMEOUT
LGB5124A-R2(CONFIG)#
```

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RMON

Remote Monitoring.

SYNTAX

no rmon (alarm | event) <1-65535>

no rmon event<event : 1-65535>

PARAMETER

alarm	Configure an RMON alarm
event	Configure an RMON event
<alarm : 1-65535>	Alarm entry ID
<event: 1-65535>	Event entry ID

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO RMON ALARM 1000
LGB5124A-R2(CONFIG)#
```

SFLOW

Statistics flow.

SYNTAX

no sflow agent-ip

no sflow collector-address

no sflow collector-port

no sflow max-datagram-size

no sflow timeout

PARAMETER

agent-ip	Sets the agent IP address used as agent-address in UDP datagrams to 127.0.0.1.
collector-address	Collector address
collector-port	Collector UDP port
max-datagram-size	Maximum datagram size
timeout	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 configurations are reset to defaults.

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EXAMPLE

```
LGB5124A-R2(CONFIG)# NO SFLOW AGENT-IP
LGB5124A-R2(CONFIG)# NO SFLOW COLLECTOR-ADDRESS
LGB5124A-R2(CONFIG)# NO SFLOW COLLECTOR-PORT
LGB5124A-R2(CONFIG)# NO SFLOW MAX-DATAGRAM-SIZE
LGB5124A-R2(CONFIG)# NO SFLOW TIMEOUT
LGB5124A-R2(CONFIG)#
```

SNMP-SERVER

Enable SNMP server.

SYNTAX

no snmp-server

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

no snmp-server community v2c

no snmp-server community v3 <Community : word127>

no snmp-server contact

no snmp-server engined-id local

no snmp-server host <Conf : word32>

no snmp-server location

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

no snmp-server trap

no snmp-server user <Username : word32> engine-id <Engineid : word10-32>

no snmp-server version

no snmp-server view <Viewname : word32> <Oidsubtree : word255>

PARAMETER

access	Access configuration
<Groupname : word32>	Group name
model	Security model
v1	v1 security model
v2c	v2c security model
v3	v3 security model
any	Any security model
level	Security level

auth	authNoPriv Security Level
noauth	noAuthNoPriv Security Level
priv	authPriv Security Level
community	Set the SNMP community
contact	Clear the SNMP server's contact string
engined-id	Set SNMP engine ID
host	Set SNMP host's configurations
location	Clear the SNMP server's location string
security-to-group	Security-to-group configuration
trap	Set trap's configurations
user	User who can access SNMP server
version	Set the SNMP server's version
view	MIB view configuration
<Community : word127>	
local	Set SNMP local engine ID
<ConfName : word32>	Name of the host configuration
model	Security model
v1	v1 security model
v2c	v2c security model
v3	v3 security model
name	Security user
<SecurityName : word32>	Security user name
<Username : word32>	Name of user
engine-id	Engine ID
<Engineid : word10-32>	Engine ID octet string
<Viewname : word32>	MIB view name
<Oidsubtree : word255>	MIB view OID

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EXAMPLE

```
LGB5124A-R2(CONFIG)# NO SNMP-SERVER ACCESS 333 MODEL ANY LEVEL AUTH
LGB5124A-R2(CONFIG)# NO SNMP-SERVER COMMUNITY V2C
LGB5124A-R2(CONFIG)# NO SNMP-SERVER ENGINED-ID LOCAL
LGB5124A-R2(CONFIG)# NO SNMP-SERVER HOST 333
LGB5124A-R2(CONFIG)# NO SNMP-SERVER LOCATION
LGB5124A-R2(CONFIG)# NO SNMP-SERVER SECURITY-TO-GROUP MODEL V2C NAME 132
LGB5124A-R2(CONFIG)# NO SNMP-SERVER TRAP
LGB5124A-R2(CONFIG)# NO SNMP-SERVER VERSION
LGB5124A-R2(CONFIG)#
```

SPANNING-TREE

STP Bridge.

SYNTAX

no spanning-tree edge bpdu-filter

no spanning-tree edge bpdu-guard

no spanning-tree mode

no spanning-tree mst <instance> priority

no spanning-tree mst <instance> vlan

no spanning-tree mst forward-time

no spanning-tree mst max-age

no spanning-tree mst max-hops

no spanning-tree mst name

no spanning-tree recovery interval

no spanning-tree transmit hold-count

PARAMETER

edge	Edge ports
mode	STP protocol mode
mst	STP bridge instance
recovery	The error recovery timeout

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transmit	BPDUs to transmit
bpdu-filter	Enable BPDU filter (stop BPDU tx/rx)
bpdu-guard	Enable BPDU guard
<Instance : 0-7>	Instance 0-7 (CIST=0, MST2=1...)
priority	Priority of the instance
forward-time	Delay between port states
max-age	Max bridge age before timeout
max-hops	MSTP bridge max hop count
name	Name keyword
vlan	VLAN keyword
interval	The interval
hold-count	Max number of transmit BPDUs per sec
<Holdcount : 1-10>	1–10 per sec, 6 is default

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO SPANNING-TREE EDGE BPDU-FILTER
LGB5124A-R2(CONFIG)# NO SPANNING-TREE MODE
LGB5124A-R2(CONFIG)# NO SPANNING-TREE MST MAX-AGE
LGB5124A-R2(CONFIG)# NO SPANNING-TREE RECOVERY INTERVAL
LGB5124A-R2(CONFIG)# NO SPANNING-TREE TRANSMIT HOLD-COUNT
LGB5124A-R2(CONFIG)#
```

TACACS-SERVER

Configure TACACS+.

SYNTAX

no tacacs-server deadtime

no tacacs-server host <host_name> [port <port>]

no tacacs-server key

no tacacs-server timeout

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PARAMETER

deadtime	Time to stop using a TACACS+ server that doesn't respond
host	Specify a TACACS+ server
<Hostname : word1-255>	Host name or IP address
key	Set TACACS+ encryption key
timeout	Time to wait for a TACACS+ server to reply
key	Server specific key (overrides default)
port	TCP port for TACACS+ server
timeout	Time to wait for this TACACS+ server to reply (overrides default)
<Port : 0-65535>	TCP port number

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO TACACS-SERVER DEADTIME
LGB5124A-R2(CONFIG)# NO TACACS-SERVER HOST 192.168.1.1 PORT 10000
LGB5124A-R2(CONFIG)# NO TACACS-SERVER KEY
LGB5124A-R2(CONFIG)# NO TACACS-SERVER TIMEOUT
LGB5124A-R2(CONFIG)#
```

UPNP

Set UPnP's configurations.

SYNTAX
no upnp

no upnp advertising-duration

no upnp ttl

PARAMETER

advertising-duration	Set advertising duration
ttl	Set TTL value

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO UPNP ADVERTISING-DURATION
LGB5124A-R2(CONFIG)# NO UPNP TTL
LGB5124A-R2(CONFIG)#
```

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USERNAME

Establish username authentication.

SYNTAX

no username <Username : word31>

PARAMETER

<Username : word31>   User name allows letters, numbers and underscores

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO USERNAME ADMIN
LGB5124A-R2(CONFIG)#
```

VLAN

Vlan commands.

SYNTAX

no vlan protocol { { eth2 { <0x600-0xffff> | arp | ip | ipx | at } } | { snap { <0x0-0xffffff> | rfc_1042 | snap_8021h } <0x0-0xffff> } | { llc <0x0-0xff> <0x0-0xff> } } group <word16>

no vlan { [ethertype s-custom-port] | <vlan_list> }

PARAMETER

protocol   Protocol-based VLAN commands

eth2   Ethernet-based VLAN commands

<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

snap   SNAP-based VLAN group

<0x0-0xffffff>   SNAP OUI (Range 0x000000 - 0XFFFFFF)

rfc_1042   SNAP OUI is rfc_1042

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snap_8021h	SNAP OUI is 8021h
<0x0-0xffff>	PID (Range: 0x0 − 0xFFFF)
llc	LLC-based VLAN group
<0x0-0xff>	DSAP (Range: 0x00 − 0xFF)
<0x0-0xff>	SSAP (Range: 0x00 − 0xFF)
group	Protocol-based VLAN group commands
<word16>	Group Name (Range: 1 − 16 characters)
<vlan_list>	Vlan list
ethertype	
s-custom-port	

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO VLAN 3
LGB5124A-R2(CONFIG)# NO VLAN ETHERTYPE S-CUSTOM-PORT
LGB5124A-R2(CONFIG)#
```

VOICE

Voice appliance attributes.

SYNTAX

no voice vlan

no voice vlan aging-time

no voice vlan class

no voice vlan oui <oui>

no voice vlan vid

PARAMETER

vlan	Vlan for voice traffic
aging-time	Set secure learning aging time

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class	Set traffic class
oui	OUI configuration
<oui>	Traffice class value
vid	Set VLAN ID

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO VOICE VLAN VID
LGB5124A-R2(CONFIG)# NO VOICE VLAN CLASS
LGB5124A-R2(CONFIG)# NO VOICE VLAN AGING-TIME
LGB5124A-R2(CONFIG)#
```

WEB

Web.

SYNTAX

no web privilege group [<group_name>] level

PARAMETER

privilege	Web privilege
group	Web privilege group
<CWORD>	Valid words are 'Aggregation' 'Debug' 'Dhcp_Client' 'Diagnostics'
	'GARP' 'GVRP' 'IP2' 'IPMC_Snooping' 'LACP' 'LLDP'
	'Loop_Protect' 'MAC_Table' 'MEP' 'MVR' 'Maintenance'
	'Mirroring' 'NTP''Ports' 'Private_VLANs' 'QoS'
	'RPC' 'Security' 'Spanning_Tree' 'System' 'Timer'
	'UPnP' 'VCL' 'VLANs' 'Voice_VLAN' 'XXRP' 'sFlow'
level	Web privilege group level

EXAMPLE

```
LGB5124A-R2(CONFIG)# NO WEB PRIVILEGE GROUP LACP LEVEL
LGB5124A-R2(CONFIG)#
```

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3-3 QOS

TABLE : CONFIGURE – QOS COMMANDS

COMMAND	FUNCTION
map	Global QoS Map/Table
qce	QoS Control Entry
wred	Weighted Random Early Discard

MAP

Global QoS Map/Table.

SYNTAX

qos map cos-dscp <0~7> dpl <dpl : 0~1> dscp { <DscpNum : 0-63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } }

qos map dscp-classify { <dscpNum : 0~63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } }

qos map dscp-cos { < dscpNum : 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 <Cos : 0-7> dpl <dpl>

qos map dscp-egress-translation { < DscpNum : 0~63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } } <Dpl : 0~1> to { <Dscpnum : 0-63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } }

qos map dscp-ingress-translation { < DscpNum : 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 { < DscpNum : 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

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
dpl	Specify drop precedence level
<Dpl : 0~1>	Specific drop precedence level or range
dscp	Specify DSCP

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<DscpNum : 0-63>	Specific DSCP
cos	Specify class of QoS
<Cos : 0-7>	Specific class of QoS
af11	Assured Forwarding PHB AF11 (DSCP 10)
af12	Assured Forwarding PHB AF12 (DSCP 12)
af13	Assured Forwarding PHB AF13 (DSCP 14)
af21	Assured Forwarding PHB AF21 (DSCP 18)
af22	Assured Forwarding PHB AF22 (DSCP 20)
af23	Assured Forwarding PHB AF23 (DSCP 22)
af31	Assured Forwarding PHB AF31 (DSCP 26)
af32	Assured Forwarding PHB AF32 (DSCP 28)
af33	Assured Forwarding PHB AF33 (DSCP 30)
af41	Assured Forwarding PHB AF41 (DSCP 34)
af42	Assured Forwarding PHB AF42 (DSCP 36)
af43	Assured Forwarding PHB AF43 (DSCP 38)
be	Default PHB(DSCP 0) for best effort traffic
cs1	Class Selector PHB CS1 precedence 1 (DSCP 8)
cs2	Class Selector PHB CS2 precedence 2 (DSCP 16)
cs3	Class Selector PHB CS3 precedence 3 (DSCP 24)
cs4	Class Selector PHB CS4 precedence 4 (DSCP 32)
cs5	Class Selector PHB CS5 precedence 5 (DSCP 40)
cs6	Class Selector PHB CS6 precedence 6 (DSCP 48)
cs7	Class Selector PHB CS7 precedence 7 (DSCP 56)
ef	Expedited Forwarding PHB (DSCP 46)
va	Voice Admit PHB (DSCP 44)

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EXAMPLE

```
LGB5124A-R2(CONFIG)# QOS MAP COS-DSCP 5 DPL 1 DSCP 20
LGB5124A-R2(CONFIG)#
```

QCE

QoS control entry.

SYNTAX

qos qce refresh

qos qce { [update] } <Id : 1-256> [{ next <Id : 1-256> } | last] [ingress interface *|Gigabitethernet | 10Gigabitethernet <PORT_LIST>] [tag { tagged | untagged | any }] [vid { <vlan_list> | any }] [pcp { <pcp> | any }] [dei { <Dpl : 0-1> | any }] [smac { <mac_addr> | <oui> | any }] [dmac-type { unicast | multicast | broadcast | any }] [frametype { any | { etype [{ <0x600-0x7ff,0x801-0x86dc,0x86de-0xffff> | any }] } | { llc [dsap { <0-0xff> | any }] [ssap { <0-0xff> | any }] [control { <0-0xff> | any }] } | { snap [{ <0-0xffff> | any }] } | { ipv4 [proto { <0-255> | tcp | udp | any }] [sip { <ipv4_subnet> | any }] [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 } | any }] [frag { yes | no | any }] [sport { <0~65535> | any }] [dport { <0~65535> | any }] } | { ipv6 [proto { <0-255> | tcp | udp | any }] [sip { <ipv4_subnet> | any }] [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 } | any }] [sport { <0~65535> | any }] [dport { <0~65535> | any }] } }] [action { [cos { <0-7> | default }] [dpl { <0-1> | default }] [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 } | default }] }]

PARAMETER

<Id : 1-256>	QCE ID
refresh	Refresh QCE tables in hardware
update	Update an existing QCE
action	Specify action
dei	Specify DEI (Drop Eligible Indicator)
dmac-type	Specify DMAC type
frametype	Specify frame type
ingress	Ingress interfaces
last	Place QCE at the end
next	Place QCE before the next QCE ID
pcp	Specify PCP (Priority Code Point)

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smac	Specify SMAC. If 'qos qce dmac-dip' is set, this parameter specifies the DMAC
tag	Specify tag options
vid	Specify VLAN ID
cos	Specify class of service
dpl	Specify drop precedence level
dscp	Specify DSCP
cos	Specify class of service
<Cos : 0-7>	Specific class of service
default	Keep default class of service
<Dpl : 0-1>	Specific drop precedence level
default	Keep default drop precedence level
<Dscp : 0-63>	Specific DSCP
af11	Assured Forwarding PHB AF11 (DSCP 10)
af12	Assured Forwarding PHB AF12 (DSCP 12)
af13	Assured Forwarding PHB AF13 (DSCP 14)
af21	Assured Forwarding PHB AF21 (DSCP 18)
af22	Assured Forwarding PHB AF22 (DSCP 20)
af23	Assured Forwarding PHB AF23 (DSCP 22)
af31	Assured Forwarding PHB AF31 (DSCP 26)
af32	Assured Forwarding PHB AF32 (DSCP 28)
af33	Assured Forwarding PHB AF33 (DSCP 30)
af41	Assured Forwarding PHB AF41 (DSCP 34)
af42	Assured Forwarding PHB AF42 (DSCP 36)
af43	Assured Forwarding PHB AF43 (DSCP 38)
be	Default PHB (DSCP 0) for best effort traffic

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cs1	Class Selector PHB CS1 precedence 1 (DSCP 8)
cs2	Class Selector PHB CS2 precedence 2 (DSCP 16)
cs3	Class Selector PHB CS3 precedence 3 (DSCP 24)
cs4	Class Selector PHB CS4 precedence 4 (DSCP 32)
cs5	Class Selector PHB CS5 precedence 5 (DSCP 40)
cs6	Class Selector PHB CS6 precedence 6 (DSCP 48)
cs7	Class Selector PHB CS7 precedence 7 (DSCP 56)
default	Keep default DSCP
ef	Expedited Forwarding PHB (DSCP 46)
va	Voice Admit PHB (DSCP 44)
any	Any
broadcast	Broadcast
multicast	Multicast
unicast	Unicast
etype	Ethernet frames
ipv4	IPv4 frames
ipv6	IPv6 frames
llc	LLC frames
snap	SNAP frames
<Etype : 0x600-0x7ff,0x801-0x86dc,0x86de-0xffff>	Specific EtherType
interface	Interfaces
<Next : 1-256>	The next QCE ID
<Pcp : pcp>	Specific PCP (0–7) or range (0–1, 2–3, 4–5, 6–7, 0–3 or 4–7)
<Smac : mac_addr>	Specific SMAC (XX-XX-XX-XX-XX-XX)
tagged	Tagged frames only

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untagged	Untagges frames only
<Vid : vlan_list>	Specific VLAN ID or range
interface	Interfaces
Gigabitethernet	1 GigabitEthernet Port
10Gigabitethernet	10 GigabitEthernet Port
<PORT_LIST>	Port list in 1/1-24 for GigabitEthernet, 1/1-4 for 10GigabitEthernet

EXAMPLE

```
LGB5124A-R2(CONFIG)# QOS QCE 100 VID ANY
LGB5124A-R2(CONFIG)#
```

WRED

Weighted random early discard.

SYNTAX

qos wred queue <queue> min-th <min_th> mdp-1 <mdp_1> mdp-2 <mdp_2> mdp-3 <mdp_3>

PARAMETER

queue	Specify queue
<Queue : 0~5>	Specific queue or range
<MinTh : 0-100>	Specific minimum threshold in percent
mdp-1	Specify drop probability for drop precedence level 1
<Mdp1 : 0-100>	Specific drop probability in percent
mdp-2	Specify drop probability for drop precedence level 2
<Mdp2 : 0-100>	Specific drop probability in percent
mdp-3	Specify drop probability for drop precedence level 3
<Mdp3 : 0-100>	Specific drop probability in percent unicast

EXAMPLE

```
LGB5124A-R2(CONFIG)# QOS WRED QUEUE 1 MIN-TH 33 MDP-1 44 MDP-2 55 MDP-3 66
LGB5124A-R2(CONFIG)#
```

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3-4 SNMP-SERVER

Set SNMP server's configurations.

SYNTAX

snmp-server

TABLE : CONFIGURE – SNMP-SERVER COMMANDS

COMMAND	FUNCTION
access	access configuration
community	Set the SNMP community
security to group	security to group configuration
user	Set the SNMPv3 user's configuration
view	MIB view configuration

ACCESS

Access configuration.

SYNTAX

snmp-server access <GroupName : word32> model { v1 | v2c | v3 | any } level { auth | noauth | priv } [read <ViewName : word255>] [write <WriteName : word255>]

PARAMETER

<GroupName : word32>	Group name
model	security model
any	Any security model
v1	v1 security model
v2c	v2c security model
v3	v3 security model
level	Security level
auth	authNoPriv Security Level
noauth	noAuthNoPriv Security Level
priv	authPriv Security Level
read	Specify a read view for the group

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write   Specify a write view for the group

<ViewName : word255>   Read view name

<WriteName : word255>   Write view name

EXAMPLE

```
LGB5124A-R2(CONFIG)# SNMP-SERVER ACCESS TEXT MODEL V2C LEVEL NOAUTH WRITE TEXT
LGB5124A-R2(CONFIG)#
```

COMMUNITY

Set the SNMP community.

SYNTAX

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

snmp-server community v3 <word127> [<ipv4_addr> <ipv4_netmask>]

PARAMETER

v2c   SNMPv2c

<Community : word127>   Community word

ro   Read only

rw   Read write

v3   SNMPv3

<Community : word127>   Community word

<ipv4_addr>   IPv4 address

<ipv4_netmask>   IPv4 netmask

EXAMPLE

```
LGB5124A-R2(CONFIG)# SNMP-SERVER COMMUNITY V2C TEXT
LGB5124A-R2(CONFIG)#
```

CONTACT

Set the SNMP server's contact string.

SYNTAX

snmp-server contact <line255>

PARAMETER

contact   Set the SNMP server's contact string

<line255>   Contact string

EXAMPLE

```
LGB5124A-R2(CONFIG)# SNMP-SERVER CONTACT TEXT
LGB5124A-R2(CONFIG)#
```

ENGINE-ID

Set SNMP engine ID.

SYNTAX

snmp-server engine-id local <Engineid : word10-32>

PARAMETER

local   Set SNMP local engine ID

<Engineid : word10-32>   Local engine ID

EXAMPLE

```
LGB5124A-R2(CONFIG)# SNMP-SERVER ENGINE-ID LOCAL 1234567891
LGB5124A-R2(CONFIG)#
```

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HOST

Set SNMP host's configurations.

SYNTAX

snmp-server host <word32>

PARAMETER

<word32>   Name of the host configuration

EXAMPLE

```
LGB5124A-R2(CONFIG)# SNMP-SERVER HOST TEXT
LGB5124A-R2(CONFIG-SNMPS-HOST)#
```

LOCATION

Set the SNMP server's location string.

SYNTAX

snmp-server location <line255>

PARAMETER

<line255>   Location string

EXAMPLE

```
LGB5124A-R2(CONFIG)# SNMP-SERVER LOCATION TEXT
LGB5124A-R2(CONFIG)#
```

SECURITY-TO-GROUP

Security-to-group configuration.

SYNTAX

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

PARAMETER

model   Security model

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v1	v1 security model
v2c	v2c security model
v3	v3 security model
name	Security user
<SecurityName : word32>	Security user name
group	Security group
<GroupName : word32>	Security group name

EXAMPLE

```
LGB5124A-R2(CONFIG)# SNMP-SERVER SECURITY-TO-GROUP MODEL V2C NAME TEXT GROUP TEXT
LGB5124A-R2(CONFIG)#
```

TRAP

Set trap's configurations.

SYNTAX

snmp-server trap

EXAMPLE

```
LGB5124A-R2(CONFIG)# SNMP-SERVER TRAP
LGB5124A-R2(CONFIG)#
```

USER

Set the SNMPv3 user's configurations.

SYNTAX

snmp-server user <Username : word32> engine-id <Engineid : word10-32> [{ md5 <Md5Passwd : word8-32> | sha <ShaPasswd : word8-40> } [priv { des | aes } <word8-32>]]

PARAMETER

<Username : word32>	Username
engine-id	Engine ID

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<Engineid : word10-32>	Engine ID octet string
md5	Set MD5 protocol
<Md5Passwd : word8-32>	MD5 password
sha	Set SHA protocol
<ShaPasswd word8-40>	SHA password
priv	Set Privacy
des	Set DES protocol
aes	Set AES protocol
<word8-32>	Set privacy password

EXAMPLE

```
LGB5124A-R2(CONFIG)# SNMP-SERVER USER TEXT ENGINE-ID 1234567891 MD5 12345678 PRIV AES 12345678
LGB5124A-R2(CONFIG)#
```

VERSION

Set the SNMP server's version.

SYNTAX

snmp-server version { v1 | v2c | v3 }

PARAMETER

v1	SNMPv1
v2c	SNMPv2c
v3	SNMPv3

EXAMPLE

```
LGB5124A-R2(CONFIG)# SNMP-SERVER VERSION V2C
LGB5124A-R2(CONFIG)#
```

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VIEW

MIB view configuration.

SYNTAX

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

PARAMETER

<ViewName : word32>	MIB view name
<OidSubtree : word255>	MIB view OID
include	Included type from the view
exclude	Excluded type from the view

EXAMPLE

```
LGB5124A-R2(CONFIG)# SNMP-SERVER VIEW TEXT .1 INCLUDE
LGB5124A-R2(CONFIG)#
```

3-5 SPANNING-TREE

Spanning Tree protocol.

TABLE : CONFIGURE – SPANNING-TREE COMMANDS

COMMAND	FUNCTION
aggregation	Aggregation mode
edge	Edge ports
mode	STP protocol mode
mst	STP bridge instance
recovery	The error recovery timeout
transmit	BPDUs to transmit

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AGGREGATION

Aggregation mode.
SYNTAX

spanning-tree aggregation

EXAMPLE

```
LGB5124A-R2(CONFIG)# SPANNING-TREE  AGGREGATION
LGB5124A-R2(CONFIG-STP-AGGR)#
```

EDGE

Edge ports.
SYNTAX

spanning-tree edge bpdu-filter

spanning-tree edge bpdu-guard

PARAMETER

bpdu-filter   Enable BPDU filter (stop BPDU tx/rx)

bpdu-guard   Enable BPDU guard

EXAMPLE

```
LGB5124A-R2(CONFIG)# SPANNING-TREE EDGE BPDU-FILTER
LGB5124A-R2(CONFIG)#
```

MODE

STP protocol mode.
SYNTAX

spanning-tree mode { stp | rstp | mstp }

PARAMETER

mstp   Multiple Spanning Tree (802.1s)

rstp   Rabid Spanning Tree (802.1w)

stp   802.1D Spanning Tree

EXAMPLE

```
LGB5124A-R2(CONFIG)# SPANNING-TREE MODE STP
LGB5124A-R2(CONFIG)#
```

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MST

STP bridge instance.

SYNTAX

spanning-tree mst <Instance : 0-7> priority <Prio : 0-61440>

spanning-tree mst < Instance : 0-7> vlan <vlan_list>

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

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

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

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

PARAMETER

<Instance : 0-7>	Instance 0-7 (CIST=0, MST2=1...)
forward-time	Delay between port states
max-age	Max bridge age before timeout
max-hops	MSTP bridge max hop count
name	Name keyword
priority	Priority of the instance
vlan	VLAN keyword
<Prio : 0-61440>	Range in seconds
<vlan_list>	Range of VLANs
<Fwdtime : 4-30>	Range in seconds
<Maxage : 6-40>	Range in seconds
<Maxhops : 6-40>	Hop count range
<Name : word32>	Name of the bridge
revision	Revision keyword
<0-65535>	Revision number

EXAMPLE

```
LGB5124A-R2(CONFIG)# SPANNING-TREE MST 7 VLAN 10
LGB5124A-R2(CONFIG)#
```

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RECOVERY

The error recovery timeouts.

SYNTAX

spanning-tree recovery interval <Interval : 30-86400>

PARAMETER

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

EXAMPLE

```
LGB5124A-R2(CONFIG)# SPANNING-TREE RECOVERY INTERVAL 50
LGB5124A-R2(CONFIG)#
```

TRANSMIT

BPDUs to transmit.

SYNTAX

spanning-tree transmit hold-count <Holdcount : 1-10>

PARAMETER

hold-count	Max number of transmit BPDUs per second
<Holdcount : 1-10>	1–10 per second, 6 is default

EXAMPLE

```
LGB5124A-R2(CONFIG)# SPANNING-TREE TRANSMIT HOLD-COUNT 5
LGB5124A-R2(CONFIG)#
```

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CHAPTER 4. COPY COMMANDS OF CLI

COPY FROM SOURCE TO DESTINATION

SYNTAX

copy { startup-config | running-config | < flash:filename | tftp://server/path-and-filename > } { startup-config | running-config | < flash:filename | tftp://server/path-and-filename > } [syntax-check][| { begin | exclude | include }{ <LINE >}]

PARAMETER

flash:filename | tftp://server/path-and-filename	File in FLASH or on TFTP server
running-config	Currently running configuration
startup-config	Startup configuration
|	Output modifiers
syntax-check	Perform syntax check on source configuration
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# COPY STARTUP-CONFIG  RUNNING-CONFIG SYNTAX-CHECK | INCLUDE
#
```

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DEBUGGING FUNCTIONS

SYNTAX

debug prompt text

PARAMETER

prompt   Set prompt for testing

WORD   Word for prompt in 32 characters

EXAMPLE

```
LGB5124A-R2# DEBUG PROMPT TEST
TEST#
```

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CHAPTER 6. DELETE COMMANDS OF CLI

Delete one file in flash: file system.

SYNTAX

Delete <Path : word>

PARAMETER

<Path : word>   Name of file to delete

EXAMPLE

```
LGB5124A-R2# DELETE TEXT
LGB5124A-R2#
```

CHAPTER 7. DIR COMMANDS OF CLI

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DIRECTORY OF ALL FILES IN FLASH: FILE SYSTEM

SYNTAX

Dir [| begin | exclude | include <LINE>]

PARAMETER

	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# DIR
DIRECTORY OF FLASH:
    R- 2011-01-01 00:00:00      720 DEFAULT-CONFIG
    RW 2011-01-01 00:00:11     1777 STARTUP-CONFIG
2 FILES, 2497 BYTES TOTAL.
```

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CHAPTER 8. DISABLE COMMANDS OF CLI

Turn off privileged commands.

SYNTAX

disable <0-15>

PARAMETER

<0-15>   Privilege level

EXAMPLE

```
LGB5124A-R2# DISABLE 10
LGB5124A-R2#
```

CHAPTER 9. DO COMMANDS OF CLI

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TO RUN EXEC COMMANDS IN CONFIG MODE

SYNTAX

Do <LINE>{[LINE]}

PARAMETER

LINE   Exec command

EXAMPLE

```
LGB5124A-R2# DO SHOW CLOCK
SYSTEM TIME     : 2011-01-01T00:03:44+00:00
```

CHAPTER 10. DOT1X OF CLI

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IEEE STANDARD FOR PORT-BASED NETWORK ACCESS CONTROL

SYNTAX

dot1x initialize [interface (<port_type> [<plist>])]

PARAMETER

initialize	Force re-authentication immediately
interface	Interface
*	All switches or all ports
Gigabitethernet	1 GigabitEthernet port
10Gigabitethernet	10 GigabitEthernet port
<port_type_list>	Port list in 1/1-24 for GigabitEthernet, 1/1-4 for 10GigabitEthernet

EXAMPLE

```
LGB5124A-R2# DOT1X INITIALIZE INTERFACE GIGABITETHERNET 1/1-13
LGB5124A-R2#
```

CHAPTER 11. ENABLE OF CLI

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TURN ON PRIVILEGED COMMANDS

SYNTAX

Enable <1-15>

PARAMETER

<0-15>   Choose privileged level

EXAMPLE

```
LGB5124A-R2# ENABLE 10
LGB5124A-R2#
```

CHAPTER 12. FIRMWARE OF CLI

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FIRMWARE UPGRADE/SWAP

SYNTAX

firmware swap

firmware upgrade < TFTPServer_path_file : word>

PARAMETER

swap	Swap between active and alternate firmware image
upgrade	Firmware upgrade
<TFTPServer_path_file : word>	TFTP Server IP address, path and file name for the server containing the new image

EXAMPLE

```
LGB5124A-R2# FIRMWARE UPGRADE TFTP://192.168.1.1/PATH/GEL2706
PROGRAMMING IMAGE...
LGB5124A-R2#
```

NEGATE A COMMAND OR SET ITS DEFAULTS

SYNTAX

no debug prompt

PARAMETER

debug   Debugging functions

prompt   Clear prompt for testing

EXAMPLE

```
LGB5124A-R2# NO DEBUG PROMPT
LGB5124A-R2#
```

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SEND ICMP ECHO MESSAGES

SYNTAX

ping ip <word1-255> [repeat <Count : 1-60>] [size <Size : 2-1452>] [interval <Seconds : 0-30>]

ping ipv6 <ipv6_addr> [repeat <Count : 1-60>] [size <Size : 2-1452>] [interval <Seconds : 0-30>] [interface vlan <vlan_id>]

PARAMETER

ip	IP (ICMP) echo
<word1-255>	ICMP destination address
repeat	Specify repeat count
<Count : 1-60>	1–60; Default is 5
size	Specify datagram size
<Size : 2-1452>	2–1452; Default is 56 (excluding MAC, IP and ICMP headers)
interval	Specify repeat interval
<Seconds : 0-30>	0–30; Default is 0
ipv6	IPv6 (ICMPv6) echo
<ipv6_addr>	ICMPv6 destination address
repeat	Specify repeat count
<1-60>	1–60; Default is 5
size	Specify datagram size
<2-1452>	2–1452; Default is 56 (excluding MAC, IP and ICMP headers)
interval	Specify repeat interval
<0-30>	0–30; Default is 0
interface	Select an interface to configure
vlan	VLAN interface
<vlan_id>	VLAN identifier(s): VID

EXAMPLE

```
LGB5124A-R2# PING IP 33 INTERVAL 22 REPEAT 33 SIZE 444
PING SERVER 0.0.0.33, 444 BYTES OF DATA INITIALIZE INTERFACE
```

RELOAD SYSTEM

SYNTAX

reload { { { cold | warm } [sid <usid>] } | { defaults [keep-ip] } }

PARAMETER

cold   Reload cold, i.e. reboot

defaults   Reload defaults without rebooting

keep-ip   Attempt to keep VLAN1 IP setup.r

EXAMPLE

```
LGB5124A-R2# RELOAD DEFAULTS

% RELOADING DEFAULTS. PLEASE STAND BY.

LGB5124A-R2# RELOAD COLD

% COLD RELOAD IN PROGRESS, PLEASE STAND BY.

LGB5124A-R2# +M25PXX : INIT DEVICE WITH JEDEC ID 0X20BA19.

LUTON26 BOARD DETECTED (VSC7427 REV. D).


REDBOOT(TM) BOOTSTRAP AND DEBUG ENVIRONMENT [ROMRAM]

NON-CERTIFIED RELEASE, VERSION 1 _ 15A-VITESSE - BUILT 18:36:46, SEP  9 2014


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PLATFORM: VCORE-III (MIPS32 24KEC) LUTON26

RAM: 0X80000000-0X88000000 [0X80021F70-0X87FE1000 AVAILABLE]

FLASH: 0X40000000-0X41FFFFFF, 512 X 0X10000 BLOCKS

== EXECUTING BOOT SCRIPT IN 1.000 SECONDS - ENTER ^C TO ABORT

REDBOOT> FIS LOAD -D MANAGED

IMAGE LOADED FROM 0X80040000-0X80BF3D80

REDBOOT> GO
```

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SEND A MESSAGE TO OTHER TTY LINES

SYNTAX

send { * | <session_list> | console 0 | vty <vty_list> } <message>

PARAMETER

*	All tty lines
<0~16>	Send a message to multiple lines
console	Primary terminal line
0	Send a message to a specific line
vty	Virtual terminal
<0~15>	Send a message to multiple lines
<LINE>	Message to be sent to lines, in 128 characters

EXAMPLE

```
LGB5124A-R2# SEND * YES,I DO
ENTER TEXT MESSAGE.   END WITH THE CHARACTER 'Y'.


Y


---------------------------------------
*** MESSAGE FROM LINE 0:
YES,I DO


---------------------------------------
LGB5124A-R2 #
```

SHOW RUNNING SYSTEM INFORMATION

TABLE : SHOW COMMANDS

COMMAND	FUNCTION
aaa	Login methods
access	Access management
access-list	Access list
aggregation	Aggregation port configuration
clock	Configure time-of-day clock
dot1x	IEEE Standard for port-based Network Access Control
event	Show trap event configuration
history	Display the session command history
interface	Interface status and configuration
ip	Internet Protocol
ipmc	IPv4/IPv6 multicast configuration
ipv6	IPv6 configuration commands
lacp	LACP configuration/status
line	TTY line information
lldp	Display LLDP neighbors information
logging	Syslog
loop-protect	Loop protection configuration
mac	Mac Address Table information
mvr	Multicast VLAN Registration configuration
ntp	Configure NTP
platform	Platform specific information
port-security	
privilege	Display command privilege
pvlan	PVLAN status
qos	Quality of Service
radius-server	RADIUS configuration
rmon	RMON statistics
running-config	Show running system information
sflow	Statistics flow
smtp	Show email information
snmp	Display SNMP configurations
spanning-tree	STP Bridge

CHAPTER 17. SHOW OF CLI

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switchport	Display switching mode characteristics
System	Show system information
tacacs-server	TACACS+ configuration
terminal	Display terminal configuration parameters
upnp	Display UPnP configurations
users	Display information about terminal lines
version	System hardware and software status
vlan	VLAN status
voice	Voice appliance attributes
web	Web

AAA

Login methods.

SYNTAX

show aaa [| {begin | exclude | include } <LINE>]

PARAMETER

		Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW AAA
CONSOLE : LOCAL
TELNET  : LOCAL
SSH     : LOCAL
HTTP    : LOCAL
LGB5124A-R2#
```

CHAPTER 17. SHOW OF CLI

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ACCESS

Access management.

SYNTAX

show access management [statistics | <access_id_list>]

PARAMETER

management	Access management configuration
statistics	Statistics data
<AccessidList : 1~16>	ID of access management entry
|	Output modifier
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW ACCESS MANAGEMENT
SWITCH ACCESS MANAGEMENT MODE IS DISABLED


W: WEB/HTTPS
S: SNMP
T: TELNET/SSH


IDX VID  START IP ADDRESS                END IP ADDRESS                 W S T
--- ---  ------------------------------ ----------------------------- - - - -
LGB5124A-R2# SHOW ACCESS MANAGEMENT STATISTICS


ACCESS MANAGEMENT STATISTICS:
----------------------------
HTTP     RECEIVE:        0    ALLOW:        0    DISCARD:        0
HTTPS    RECEIVE:        0    ALLOW:        0    DISCARD:        0
SNMP     RECEIVE:        0    ALLOW:        0    DISCARD:        0
TELNET   RECEIVE:        0    ALLOW:        0    DISCARD:        0
SSH      RECEIVE:        0    ALLOW:        0    DISCARD:        0
LGB5124A-R2#
```

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ACCESS-LIST

Access list.

SYNTAX

show access-list [interface [* | Gigabitethernet <PORT_LIST>]] [rate-limiter [<RateLimiterList : 1~16>]] [ace statistics [<AceId : 1~256>]]

show access-list ace-status [static] [loop-protect] [dhcp] [upnp] [arp-inspection] [mep] [ipmc] [ip-source-guard] [ip-mgmt] [conflicts]

PARAMETER

interface	Select an interface to configure
*	All Switches or all ports
Gigabitethernet	1 GigabitEthernet Port
<port_type_list>	Port list in 1/1-24
rate-limiter	Rate limiter
< RateLimiterList : 1~16>	Rate limiter ID
ace	Access list entry
statistics	Traffic statistics
<AceId : 1~256>	ACE ID
ace-status	The local ACEs status
static	The ACEs that are configured by users manually
loop-protect	The ACEs that are configured by Loop Protect module
dhcp	The ACEs that are configured by DHCP module
upnp	The ACEs that are configured by UPnP module
arp-inspection	The ACEs that are configured by ARP Inspection module
mep	The ACEs that are configured by MEP module
ipmc	The ACEs that are configured by IPMC module

CHAPTER 17. SHOW OF CLI

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ip-source-guard	The ACEs that are configured by IP Source Guard module
ip-mgmt	The ACEs that are configured by IP Management module
conflicts	The conflicts ACEs that do not apply to the hardware due to hardware limitations
|	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW ACCESS-LIST ACE STATISTICS RATE-LIMITER


SWITCH ACCESS-LIST ACE NUMBER: 0


SWITCH ACCESS-LIST RATE LIMITER ID 1 IS 1 PPS
SWITCH ACCESS-LIST RATE LIMITER ID 2 IS 1 PPS
SWITCH ACCESS-LIST RATE LIMITER ID 3 IS 1 PPS
SWITCH ACCESS-LIST RATE LIMITER ID 4 IS 1 PPS
SWITCH ACCESS-LIST RATE LIMITER ID 5 IS 1 PPS
SWITCH ACCESS-LIST RATE LIMITER ID 6 IS 1 PPS
SWITCH ACCESS-LIST RATE LIMITER ID 7 IS 1 PPS
SWITCH ACCESS-LIST RATE LIMITER ID 8 IS 1 PPS
SWITCH ACCESS-LIST RATE LIMITER ID 9 IS 1 PPS
SWITCH ACCESS-LIST RATE LIMITER ID 10 IS 1 PPS
SWITCH ACCESS-LIST RATE LIMITER ID 11 IS 1 PPS
SWITCH ACCESS-LIST RATE LIMITER ID 12 IS 1 PPS
SWITCH ACCESS-LIST RATE LIMITER ID 13 IS 1 PPS
SWITCH ACCESS-LIST RATE LIMITER ID 14 IS 1 PPS
SWITCH ACCESS-LIST RATE LIMITER ID 15 IS 1 PPS
SWITCH ACCESS-LIST RATE LIMITER ID 16 IS 1 PPS
LGB5124A-R2#
```

CHAPTER 17. SHOW OF CLI

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AGGREGATION

Aggregation port configuration.

SYNTAX

show aggregation [mode] [| {begin | exclude | include } <LINE>]

PARAMETER

mode	Traffic distribution mode
		Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW AGGREGATION  MODE
AGGREGATION MODE:

SMAC  : ENABLED
DMAC  : DISABLED
IP    : ENABLED
PORT  : ENABLED
LGB5124A-R2#
```

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CLOCK

Configure time-of-day clock.

SYNTAX

show clock [detail]

PARAMETER

detail   Display detailed information

EXAMPLE

```
LGB5124A-R2# SHOW CLOCK DETAIL
SYSTEM TIME     : 2011-01-01T00:53:57+00:00


TIMEZONE : TIMEZONE OFFSET : 0 ( 0 MINUTES)
TIMEZONE ACRONYM :


DAYLIGHT SAVING TIME MODE : DISABLED.
DAYLIGHT SAVING TIME START TIME SETTINGS :
        WEEK: 0
        DAY: 0
        MONTH: 0
        DATE: 0
        YEAR: 0
        HOUR: 0
        MINUTE: 0
DAYLIGHT SAVING TIME END TIME SETTINGS :
        WEEK: 0
        DAY: 0
        MONTH: 0
        DATE: 0
        YEAR: 0
        HOUR: 0
        MINUTE: 0
DAYLIGHT SAVING TIME OFFSET : 1 (MINUTES)
```

DOT1X

IEEE Standard for port-based Network Access Control.

SYNTAX

show dot1x statistics { eapol | radius | all } [interface <port_type> <port_type_list>] [| {begin | exclude | include } <LINE>]

show dot1x status [interface (<port_type> [<port_type_list>])] [brief] [| {begin | exclude | include } <LINE>]

PARAMETER

statistics	Shows statistics for either eapol or radius
all	Show all dot1x statistics
eapol	Show EAPOL statistics
radius	Show Backend Server statistics
<port_type >	GigabitEthernet or 10GigabitEthernet
<port_type_list>	Port list in 1/1-24 for GigabitEthernet, 1/1-4 for 10GigabitEthernet
Status	Shows dot1x status, such as admin state, port state and last source
brief	Show status in a brief format
interface	Interface
*	All switches or all ports
Gigabitethernet	1 GigabitEthernet Port
10Gigabitethernet	10 GigabitEthernet Port
<port_type_list>	Port list in 1/1-24, 1/1-4 for 10GigabitEthernet

EXAMPLE

```
LGB5124A-R2 # SHOW DOT1X STATISTICS RADIUS

                     RX ACCESS    RX OTHER     RX AUTH.     RX AUTH.     TX           MAC
INTERFACE            CHALLENGES   REQUESTS     SUCCESSES    FAILURES     RESPONSES    ADDRESS

--------------------  ----------  ----------  ----------   ----------   ----------  --
GIGABITETHERNET 1/1   0           0           0            0            0           -
GIGABITETHERNET 1/2   0           0           0            0            0           -
GIGABITETHERNET 1/3   0           0           0            0            0           -
GIGABITETHERNET 1/4   0           0           0            0            0           -
GIGABITETHERNET 1/5   0           0           0            0            0           -
LGB5124A-R2 #
```

CHAPTER 17. SHOW OF CLI

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EVENT

Show trap event configuration.

SYNTAX

show event

EXAMPLE

```
LGB5124A-R2# SHOW EVENT
```

GROUP NAME	SEVERITY LEVEL	SYSLOG MODE	TRAP MODE	SMTP MODE	IPUSH MODE
ACL	INFO	ENABLE	DISABLE	DISABLE	DISABLE
ACL _ LOG	INFO	ENABLE	DISABLE	DISABLE	DISABLE
ACCESS _ MGMT	INFO	ENABLE	DISABLE	DISABLE	DISABLE
AUTH _ FAILED	WARNING	ENABLE	DISABLE	DISABLE	DISABLE
COLD _ START	WARNING	ENABLE	DISABLE	DISABLE	DISABLE
CONFIG _ INFO	INFO	ENABLE	DISABLE	DISABLE	DISABLE
DYING _ GASP	CRIT	ENABLE	DISABLE	DISABLE	DISABLE
FAN _ FAIL	WARNING	ENABLE	DISABLE	DISABLE	DISABLE
FAN	WARNING	ENABLE	DISABLE	DISABLE	DISABLE
FIRMWARE _ UPGRADE	INFO	ENABLE	DISABLE	DISABLE	DISABLE
IMPORT _ EXPORT	INFO	ENABLE	DISABLE	DISABLE	DISABLE

CHAPTER 17. SHOW OF CLI

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LOOP _ PROTECT	INFO	ENABLE	DISABLE	DISABLE	
DISABLE					
MGMT _ IP _ CHANGE	INFO	ENABLE	DISABLE	DISABLE	
DISABLE					
MODULE _ CHANGE	WARNING	ENABLE	DISABLE	DISABLE	
DISABLE					
NAS	INFO	ENABLE	DISABLE	DISABLE	DISABLE
PASSWORD _ CHANGE	INFO	ENABLE	DISABLE	DISABLE	
DISABLE					
PORT _ SECURITY	INFO	ENABLE	DISABLE	DISABLE	
DISABLE					
TEMPERATURE	WARNING	ENABLE	DISABLE	DISABLE	DISABLE
VOLTAGE	WARNING	ENABLE	DISABLE	DISABLE	DISABLE
WARM _ START	WARNING	ENABLE	DISABLE	DISABLE	

HISTORY

Display the session command history.

SYNTAX

show history [| {begin | exclude | include } <LINE>]

PARAMETER

|	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW HISTORY
   SHOW EVC STATISTICS
   SHOW HISTORY
LGB5124A-R2#
```

CHAPTER 17. SHOW OF CLI

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INTERFACE

Interface status and configuration.

SYNTAX

show interface <port_type> <port_type_list> [switchport [access | trunk | hybrid]]

show interface <port_type> <port_type_list> capabilities

show interface <port_type> <port_type_list> statistics [{ packets | bytes | errors | discards | filtered | { priority [<0~7>] } }] [{ up | down }]

show interface <port_type> <port_type_list> status

show interface <port_type> <port_type_list> veriphy

show interface vlan [<vlan_list>]

PARAMETER

<port_type>	* or GigabitEthernet or 10GigabitEthernet
*	All switches or all ports
Gigabitethernet	1 GigabitEthernet Port
10Gigabitethernet	10 GigabitEthernet Port
<port_type_list>	Port list in 1/1-24 for GigabitEhernet, 1/1-4 for 10GigabitEthernet
capabilities	Display capabilities
statistics	Display statistics counters
status	Display status
switchport	Show interface switchport information
veriphy	Run cable diagnostics and show result
bytes	Show byte statistics
discards	Show discard statistics
down	Show ports that are down
errors	Show error statistics

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filtered	Show filtered statistics
packets	Show packet statistics
priority	Queue number
up	Show ports that are up
vlan	VLAN status
<vlan_list>	VLAN list

EXAMPLE

```
LGB5124A-R2# SHOW INTERFACE GIGABITETHERNET 1/1-3 CAPABILITIES


GIGABITETHERNET 1/1 CAPABILITIES:
SFP TYPE: NONE
SFP VENDOR NAME:
SFP VENDOR PN:
SFP VENDOR REVISION:


GIGABITETHERNET 1/2 CAPABILITIES:
SFP TYPE: NONE
SFP VENDOR NAME:
SFP VENDOR PN:
SFP VENDOR REVISION:


GIGABITETHERNET 1/3 CAPABILITIES:
SFP TYPE: NONE
SFP VENDOR NAME:
SFP VENDOR PN:
SFP VENDOR REVISION:
LGB5124A-R2#
```

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IP

Internet Protocol.

SYNTAX

show ip arp

show ip arp inspection [interface {<port_type> <port_type_list>} | vlan <vlan_list>]

show ip arp inspection entry [dhcp-snooping | static] [interface <port_type> <port_type_list>]

show ip dhcp relay [statistics]

show ip dhcp snooping [statistics] [interface <port_type> <port_type_list>]

show ip http server secure status

show ip igmp snooping [vlan <vlan_list>] [group-database [interface <port_type> <port_type_list>] [sfm-information]] [detail]

show ip igmp snooping mrouter [detail]

show ip interface brief

show ip name-server

show ip route

show ip source binding [dhcp-snooping | static] [interface <port_type> <port_type_list>]

show ip ssh

show ip statistics [system] [interface vlan <vlan_list>] [icmp] [icmp-msg <0~255>]

show ip verify source [interface <port_type> <port_type_list>]

PARAMETER

arp	Address Resolution Protocol
inspection	ARP inspection
interface	arp inspection entry interface config
<port_type>	* or GigabitEthernet or 10GigabitEthernet
<port_type_list>	Port list in 1/1-24 for GigabitEthernet, 1/1-4 for 10GigabitEthernet

CHAPTER 17. SHOW OF CLI

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vlan	VLAN configuration
<vlan_list>	Select a VLAN id to configure
entry	ARP inspection entries
dhcp-snooping	Learn from dhcp snooping
static	Setting from static entries
dhcp	Dynamic Host Configuration Protocol
relay	DHCP relay agent configuration
statistics	Traffic statistics
snooping	DHCP snooping
http	Hypertext Transfer Protocol
server	HTTP web server
secure	Secure
status	Status
igmp	Internet Group Management Protocol
snooping	Snooping IGMP
vlan	Search by VLAN
<vlan_list>	VLAN identifier(s): VID
group-database	Multicast group database from IGMP
sfm-information	Including source filter multicast information from IGMP
detail	Detail running information/statistics of IGMP snooping
mrouter	Multicast router port status in IGMP
detail	Detail running information/statistics of IGMP snooping
interface	IP interface status and configuration
brief	Brief IP interface status
name-server	Domain Name System

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route	Display the current ip routing table
binding	IP source binding
dhcp-snooping	Learn from DHCP snooping
ssh	Secure Shell
system	IPv4 system traffic
icmp	IPv4 ICMP traffic
icmp-msg	IPv4 ICMP traffic for designated message type
<0~255>	ICMP message type ranges from 0 to 255
verify	Verify command
source	Verify source

EXAMPLE

```
LGB5124A-R2# SHOW IP STATISTICS SYSTEM


IPV4 STATISTICS:


  RCVD:   411 TOTAL IN 36226 BYTES

          273 LOCAL DESTINATION, 0 FORWARDING

          0 HEADER ERROR, 0 ADDRESS ERROR, 0 UNKNOWN PROTOCOL

          0 NO ROUTE, 0 TRUNCATED, 138 DISCARDED

  SENT:  0 TOTAL IN 0 BYTE

          0 GENERATED, 0 FORWARDED

          0 NO ROUTE, 0 DISCARDED

  FRAGS: 0 REASSEMBLE (0 REASSEMBLED, 0 COULDN'T REASSEMBLE)

          0 FRAGMENT (0 FRAGMENTED, 0 COULDN'T FRAGMENT)

          0 FRAGMENT CREATED

  MCAST: 411 RECEIVED IN 36226 BYTES

          0 SENT IN 0 BYTE

  BCAST: 273 RECEIVED, 0 SENT

LGB5124A-R2#
```

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IPMC

IPv4/IPv6 multicast configuration.

SYNTAX

show ipmc profile [<ProfileName : word16>] [detail] [| {begin | exclude | include } <LINE>]

show ipmc range [<EntryName : word16>] [| {begin | exclude | include } <LINE>]

PARAMETER

profile	IPMC profile configuration
range	A range of IPv4/IPv6 multicast addresses for the profile
<ProfileName : word16>	Profile name in 16 characters
detail	Retail information of a profile
<EntryName : word16>	Range entry name in 16 characters
|	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW IPMC RANGE
LGB5124A-R2#
```

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IPV6

IPv6 configuration commands.

SYNTAX

show ipv6 interface [vlan <vlan_list> { brief | statistics }] [| {begin | exclude | include } <LINE>]

show ipv6 mld snooping [vlan <vlan_list>] [group-database [interface <port_type> <port_type_list>] [sfm-information]] [detail]

show ipv6 mld snooping mrouter [detail]

show ipv6 neighbor [interface vlan <vlan_list>]

show ipv6 route [interface vlan <vlan_list>]

show ipv6 statistics [system] [interface vlan <vlan_list>] [icmp] [icmp-msg <Type : 0~255>]

PARAMETER

interface	Select an interface to configure
vlan	VLAN of IPv6 interface
<vlan_list>	IPv6 interface VLAN list
brief	Brief summary of IPv6 status and configuration
statistics	Traffic statistics
mld	Multicast Listener Discovery
snooping	Snooping MLD
vlan	Search by VLAN
<vlan_list>	VLAN identifier(s): VID
group-database	Multicast group database from MLD
interface	Search by port
<port_type>	* or GigabitEthernet or 10GigabitEthernet
*	All switches or all ports
Gigabitethernet	1 GigabitEthernet Port

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10Gigabitethernet	10 GigabitEthernet Port
<port_type_list>	Port list in 1/1-24 for GigabitEthernet, 1/1-4 for 10GigabitEthernet
sfm-information	Including source filter multicast information from MLD
detail	Detail running information/statistics of MLD snooping
mrouter	Multicast router port status in MLD
neighbor	IPv6 neighbors
route	IPv6 routes
statistics	Traffic statistics
system	IPv6 system traffic
icmp	IPv6 ICMP traffic
icmp-msg	IPv6 ICMP traffic for designated message type
<Type : 0~255>	ICMP message type ranges from 0 to 255
|	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW IPV6 STATISTICS SYSTEM


IPV6 STATISTICS:


   RCVD:  2 TOTAL IN 112 BYTES

         0 LOCAL DESTINATION, 0 FORWARDING

         0 HEADER ERROR, 0 ADDRESS ERROR, 0 UNKNOWN PROTOCOL

         0 NO ROUTE, 0 TRUNCATED, 2 DISCARDED

   SENT:  8 TOTAL IN 512 BYTES

         14 GENERATED, 0 FORWARDED

         3 NO ROUTE, 0 DISCARDED

   FRAGS: 0 REASSEMBLE (0 REASSEMBLED, 0 COULDN'T REASSEMBLE)

         0 FRAGMENT (0 FRAGMENTED, 0 COULDN'T FRAGMENT)

         0 FRAGMENT CREATED

   MCAST: 2 RECEIVED IN 112 BYTES

         8 SENT IN 512 BYTES

   BCAST: 0 RECEIVED, 0 SENT

LGB5124A-R2#
```

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LACP

LACP configuration/status.

SYNTAX

show lacp { internal | statistics | system-id | neighbour } [| {begin | exclude | include } <LINE>]

PARAMETER

internal	Internal LACP configuration
neighbour	Neighbour LACP status
statistics	Internal LACP statistics
system-id	LACP system id
|	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW LACP INTERNAL

PORT  MODE      KEY    ROLE    TIMEOUT  PRIORITY

----  --------  ----   ------  -------  --------

1     DISABLED  AUTO   ACTIVE  FAST     32768

2     DISABLED  AUTO   ACTIVE  FAST     32768

3     DISABLED  AUTO   ACTIVE  FAST     32768

4     DISABLED  AUTO   ACTIVE  FAST     32768

5     DISABLED  AUTO   ACTIVE  FAST     32768

6     DISABLED  AUTO   ACTIVE  FAST     32768

7     DISABLED  AUTO   ACTIVE  FAST     32768

LGB5124A-R2#
```

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LINE

TTY line information.

SYNTAX

show line [alive] [| {begin | exclude | include } <LINE>]

PARAMETER

alive   Display information about alive lines

begin   Begin with the line that matches

exclude   Exclude lines that match

include   Include lines that match

<LINE>   String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW LINE ALIVE
LINE IS CON 0.
    * YOU ARE AT THIS LINE NOW.
    ALIVE FROM CONSOLE.
    DEFAULT PRIVILEGED LEVEL IS 2.
    COMMAND LINE EDITING IS ENABLED
    DISPLAY EXEC BANNER IS ENABLED.
    DISPLAY DAY BANNER IS ENABLED.
    TERMINAL WIDTH IS 80.
        LENGTH IS 24.
            HISTORY SIZE IS 32.
            EXEC-TIMEOUT IS 10 MIN 0 SECOND.
```

```
    CURRENT SESSION PRIVILEGE IS 15.
    ELAPSED TIME IS 0 DAY 0 HOUR 26 MIN 52 SEC.
    IDLE TIME IS 0 DAY 0 HOUR 0 MIN 0 SEC.

LGB5124A-R2#
```

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LLDP

Display LLDP neighbors information.

SYNTAX

show lldp med media-vlan-policy [<0~31>] [| {begin | exclude | include } <LINE>]

show lldp med remote-device [interface <port_type> <port_type_list>] [| {begin | exclude | include } <LINE>]

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

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

PARAMETER

med	Display LLDP-MED neighbors information
neighbors	Display LLDP neighbors information
statistics	Display LLDP statistics information
media-vlan-policy	Display media VLAN policies
remote-device	Display remote device LLDP-MED neighbors information
<0~31>	List of policies
Interface	
<port_type >	* or GigabitEthernet or 10Gigabitethernet
*	All switches or all ports
Gigabitethernet	1 GigabitEthernet Port
10Gigabitethernet	10 GigabitEthernet Port
<port_type_list>	Port list in 1/1-24 for GigabitEthernet, 1/1-4 for 10GigabitEthernet
		Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW LLDP MED MEDIA-VLAN-POLICY
NO POLICIES DEFINED
LGB5124A-R2#
```

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LOGGING

Syslog.

SYNTAX

show logging <logging_id : 1-4294967295> [{ swtich <switch_list> } | { exclude | include } <LINE>]

show logging | { begin | exclude | include } <LINE>

show logging [alert] | [debug] | [emerg] | [error] | [info] | [notice] | [warning]

PARAMETER

<logging_id: 1-4294967295>	Logging ID
|	Output modifiers
alert	Alert
crit	Critical
debug	Debug
emerg	Emergency
error	Error
info	Information
notice	Notice
warning	Warning
exclude	Exclude lines that match
include	Include lines that match
switch	Switch
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match

EXAMPLE

```
LGB5124A-R2# SHOW LOGGING INFO
SWITCH LOGGING HOST MODE IS DISABLED
SWITCH LOGGING HOST ADDRESS IS NULL
SWITCH LOGGING LEVEL IS INFORMATION

NUMBER OF ENTRIES:
INFO   : 3
WARNING: 158
```

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```
ERROR  : 0
ALL    : 161


ID     LEVEL   TIME                          MESSAGE
----   ------  ----------------------  ----------------------------
   1   INFO    1970-01-01T00:00:00+00:00  SWITCH JUST MADE A COLD
BOOT.
   2   INFO    1970-01-01T00:00:03+00:00  LINK UP ON PORT 1
 161   INFO    1970-01-01T02:25:55+00:00  LINK DOWN ON PORT 1
LGB5124A-R2#
```

LOOP-PROTECT

Loop protection configuration.

SYNTAX

show loop-protect [interface <port_type> <port_type_list>]

PARAMETER

interface	Interface status and configuration
<port_type >	* or GigabitEthernet or 10GigabitEthernet
*	All switches or all ports
Gigabitethernet	1 GigabitEthernet Port
10Gigabitethernet	10 GigabitEthernet Port
<port_type_list>	Port list in 1/1-24, 1/1-4 for 10GigabitEthernet

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EXAMPLE

```
LGB5124A-R2# SHOW LOOP-PROTECT


LOOP PROTECTION CONFIGURATION
======================================
LOOP PROTECTION   : ENABLE
TRANSMISSION TIME : 1 SEC
SHUTDOWN TIME     : 180 SEC


GIGABITETHERNET 1/1
-----------------------------
    LOOP PROTECT MODE IS ENABLED.
    ACTIONS ARE BOTH OF SHUTDOWN AND LOG.
```

```
    TRANSMIT MODE IS ENABLED.
    NO LOOP.
    THE NUMBER OF LOOPS IS 0.
    STATUS IS DOWN.


GIGABITETHERNET 1/2
-----------------------------
    LOOP PROTECT MODE IS ENABLED.
-- MORE --, NEXT PAGE: SPACE, CONTINUE: G, QUIT: ^C    NO LOOP.
```

MAC

Mac Address Table information.

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>] [| {begin | exclude | include } <LINE>]

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PARAMETER

address-table	Mac Address Table
conf	User added static mac addresses
static	All static mac addresses
aging-time	Aging time
learning	Learn/disable/secure state
count	Total number of mac addresses
interface	Select an interface to configure
<port_type>	* or GigabitEthernet or 10GigabitEthernet
*	All switches or all ports
Gigabitethernet	1 GigabitEthernet Port
10Gigabitethernet	10 GigabitEthernet Port
<port_type_list>	Port list in 1/1-24, 1/1-4 for 10GigabitEthernet
address	MAC address lookup
<mac_addr>	48 bit MAC address: xx:xx:xx:xx:xx:xx
vlan	VLAN lookup
<vlan_id>	VLAN IDs 1-4095
vlan	Addresses in this VLAN
<vlan_id>	VLAN IDs 1-4095
interface	Select an interface to configure
<port_type>	* or GigabitEthernet or 10GigabitEthernet
*	All switches or all ports
Gigabitethernet	1 GigabitEthernet Port
10Gigabitethernet	10 GigabitEthernet Port
<port_type_list>	Port list in 1/1-24, 1/1-4 for 10GigabitEthernet

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	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW MAC ADDRESS-TABLE STATIC
LGB5124A-R2#
```

MVR

Multicast VLAN Registration configuration.

SYNTAX

show mvr [vlan <vlan_list> | name <word16>] [group-database [interface <port_type> <port_type_list>] [sfm-information]] [detail] [| {begin | exclude | include } <LINE>]

PARAMETER

vlan	Search by VLAN
<vlan_list>	MVR multicast VLAN list
name	Search by MVR name
<word16>	MVR multicast VLAN name
group-database	` Multicast group database from MVR
interface	Search by port
<port_type>	* or GigabitEthernet
*	All switches or all ports
Gigabitethernet	1 GigabitEthernet Port
10Gigabitethernet	10 GigabitEthernet Port

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<port_type_list>	Port list in 1/1-24, 1/1-4 for 10GigabitEthernet
sfm-information	Including source filter multicast information from MVR
detail	Detail information/statistics of MVR group database
|	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW MVR VLAN 10 DETAIL


MVR IS CURRENTLY DISABLED, PLEASE ENABLE MVR TO START GROUP REGISTRATION.
% INVALID MVR IGMP VLAN 10.


% INVALID MVR MLD VLAN 10.


LGB5124A-R2#
```

PLATFORM

Platform specific information.

SYNTAX

show platform phy [interface (<port_type> [<v_port_type_list>])] [| {begin | exclude | include } <LINE>]

show platform phy id [interface (<port_type> [<v_port_type_list>])] [| {begin | exclude | include } <LINE>]

show platform phy instance [| {begin | exclude | include } <LINE>]

show platform phy status [interface (<port_type> [<v_port_type_list>])] [| {begin | exclude | include } <LINE>]

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PARAMETER

phy	PHYs' information
|	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW PLATFORM PHY
PORT   API INST   WAN/LAN/1G MODE     DUPLEX     SPEED     LINK
----   ---------  ---------  ----     ------     -----     ----
1      DEFAULT    1G         PD       -          -         ,NO
2      DEFAULT    1G         PD       -          -         ,NO
3      DEFAULT    1G         PD       -          -         ,NO
4      DEFAULT    1G         PD       -          -         ,YES
5      DEFAULT    1G         PD       -          -         ,NO
6      DEFAULT    1G         PD       -          -         ,NO
7      DEFAULT    1G         PD       -          -         ,NO
8      DEFAULT    1G         PD       -          -         ,NO
9      DEFAULT    1G         PD       -          -         ,NO
10     DEFAULT    1G         PD       -          -         ,NO
11     DEFAULT    1G         PD       -          -         ,NO
12     DEFAULT    1G         PD       -          -         ,NO
```

NTP

Show NTP.

SYNTAX

show ntp status

PARAMETER

status   Status

EXAMPLE

```
LGB5124A-R2# SHOW NTP STATUS
NTP MODE : DISABLED
IDX    SERVER IP HOST ADDRESS (A.B.C.D) OR A HOST NAME STRING
---    ----------------------------------------------------
1
2
3
4
5
LGB5124A-R2#
```

PORT-SECURITY

SYNTAX

show port-security port [interface <port_type> <port_type_list>] [| {begin | exclude | include } <LINE>

show port-security switch [interface <port_type> <port_type_list>] [| {begin | exclude | include } <LINE>

PARAMETER

port   Show MAC Addresses learned by Port Security

switch   Show Port Security status.

Interface

<port_type >   * or GigabitEthernet of 10GigabitEthernet

*   All switches or all ports

Gigabitethernet   1 GigabitEthernet Port

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10Gigabitethernet	10 GigabitEthernet Port
<port_type_list>	Port list in 1/1-24, 1/1-4 for 10GigabitEthernet
|	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW PORT-SECURITY PORT INTERFACE GIGABITETHERNET 1/2
GIGABITETHERNET 1/2
------------------
MAC ADDRESS          VID   STATE       ADDED                 AGE/HOLD TIME
----------------   ----  ---------   ------------------   -------------
<NONE>


LGB5124A-R2#
```

PRIVILEGE

SYNTAX

show privilege [| {begin | exclude | include } <LINE>

PARAMETER

|	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match

EXAMPLE

```
LGB5124A-R2# SHOW PRIVILEGE


 --------------------------------------------

|    THE ORDER IS AS THE INPUT SEQUENCE AND    |

|    THE LAST ONE HAS THE HIGHEST PRIORITY.    |

 --------------------------------------------


  PRIVILEGE LINE LEVEL 5 LINE
```

PVLAN

PVLAN status.

SYNTAX

show pvlan<range_list>

show pvlan isolation interface <port_type> <port_type_list>

PARAMETER

<range_list>	PVLAN id to show configuration for
isolation	Show isolation configuration
<port_type >	* or GigabitEthernet or 10GigabitEthernet
*	All switches or all ports
Gigabitethernet	1 GigabitEthernet Port
10Gigabitethernet	10 GigabitEthernet Port
<port_type_list>	Port list in 1/1-24, 1/1-4 for 10GigabitEthernet
|	Output modifiers

begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW PVLAN ISOLATION INTERFACE GIGABITETHERNET 1/1-2
PORT                             ISOLATION
------------------------------  ---------
GIGABITETHERNET 1/1              DISABLED
GIGABITETHERNET 1/2              DISABLED
LGB5124A-R2#
```

QOS

Quality of Service.

SYNTAX

show qos [{ interface [<port_type> <port_type_list>] } | wred | { maps [dscp-cos] [dscp-ingress-translation] [dscp-classify] [cos-dscp] [dscp-egress-translation] } | storm | { qce [<Qce : 1-256>] }] [| {begin | exclude | include } <LINE>

PARAMETER

interface	Interface
<port_type >	* or GigabitEthernet or 10GigabitEthernet
*	All switches or all ports
Gigabitethernet	1 GigabitEthernet Port
10Gigabitethernet	10 GigabitEthernet Port
<port_type_list>	Port list in 1/1-24, 1/1-4 for 10GigabitEthernet
maps	Global QoS Maps/Tables
qce	QoS Control Entry

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storm	Storm policer
wred	Weighted Random Early Discard
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
<Qce : 1-256>	QCE ID
|	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW QOS STORM
QOS STORM:
==========
UNICAST  : DISABLED          1
MULTICAST: DISABLED          1
BROADCAST: DISABLED          1
LGB5124A-R2#
```

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RADIUS-SERVER

RADIUS configuration.

SYNTAX

show radius-server [statistics] [| {begin | exclude | include } <LINE>

PARAMETER

statistics	RADIUS statistics
		Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW RADIUS-SERVER
GLOBAL RADIUS SERVER TIMEOUT      : 5 SECONDS
GLOBAL RADIUS SERVER RETRANSMIT   : 3 TIMES
GLOBAL RADIUS SERVER DEADTIME     : 0 MINUTES
GLOBAL RADIUS SERVER KEY          :
GLOBAL RADIUS SERVER ATTRIBUTE 4  :
GLOBAL RADIUS SERVER ATTRIBUTE 95 :
GLOBAL RADIUS SERVER ATTRIBUTE 32 :
NO HOSTS CONFIGURED!
LGB5124A-R2#
```

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RMON

RMON statistics.

SYNTAX

show rmon alarm [<1~65535>] [| {begin | exclude | include } <LINE>

show rmon event [<1~65535>] [| {begin | exclude | include } <LINE>

show rmon history [<1~65535>] [| {begin | exclude | include } <LINE>

show rmon statistics [<1~65535>] [| {begin | exclude | include } <LINE>

PARAMETER

alarm	Display the RMON alarm table
event	Display the RMON event table
history	Display the RMON history table
statistics	Display the RMON statistics table
<1~65535>	Alarm/Event/History/Statistics entry list
|	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW RMON ALARM
LGB5124A-R2#
```

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RUNNING-CONFIG

Show running system information.

SYNTAX

show running-config [all-defaults] [| {begin | exclude | include } <LINE>

show running-config feature <CWORD> [all-defaults] [| {begin | exclude | include } <LINE>

show running-config interface <port_type> <port_type_list> [all-defaults] [| {begin | exclude | include } <LINE>

show running-config interface vlan <vlan_list> [all-defaults] [| {begin | exclude | include } <LINE>

show running-config line { console | vty } <range_list> [all-defaults] [| {begin | exclude | include } <LINE>

show running-config vlan <vlan_list> [all-defaults] [| {begin | exclude | include } <LINE>

PARAMETER

all-defaults	Include most/all default values
feature	Show configuration for specific feature
interface	Show specific interface(s)
line	Show line settings
vlan	VLAN
CWORD	Valid words are 'GVRP' 'access' 'access-list'
	'aggregation' 'arp-inspection' 'auth' 'clock'
	'dhcp' 'dhcp-snooping' 'dns' 'dot1x' 'http' 'icli'
	'ip-igmp-snooping' 'ip-igmp-snooping-port'
	'ip-igmp-snooping-vlan' 'ipmc-profile'
	'ipmc-profile-range' 'ipv4' 'ipv6'
	'ipv6-mld-snooping' 'ipv6-mld-snooping-port' 'ipv6-mld-snooping-vlan'
	'lacp' 'lldp' 'logging' 'loop-protect' 'mac' 'mep'
	'monitor' 'mstp' 'mvr' 'mvr-port' 'ntp' 'phy' 'port'
	'port-security' 'pvlan' 'qos' 'rmon' 'sflow'
	'snmp' 'source-guard' 'ssh' 'system' 'upnp' 'user'
	'vlan' 'voice-vlan'
	'web-privilege-group-level'
<port_type >	* or GigabitEthernet or 10Gigabitethernet

*	All switches or all ports
Gigabitethernet	1 GigabitEthernet Port
10Gigabitethernet	10 GigabitEthernet Port
<port_type_list>	Port list in 1/1-24, 1/1-4 for 10GigabitEthernet
<vlan_list>	List of VLAN numbers
console	Console
vty	VTY
<range_list>	List of console/VTYs
|	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW RUNNING-CONFIG INTERFACE VLAN 3
BUILDING CONFIGURATION...
END
LGB5124A-R2#
```

CHAPTER 17. SHOW OF CLI

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SFLOW

Statistics flow.

SYNTAX

show sflow [statistics { receiver | samplers [[<range_list>] <port_type> <port_type_list>] }] [| {begin | exclude | include } <LINE>

PARAMETER

statistics	sFlow statistics
receiver	Show statistics for receiver
samplers	Show statistics for samplers
<range_list>	Runtime, see sflow_icli_functions.c
<port_type >	* or GigabitEthernet or 10GigabitEthernet
*	All switches or all ports
Gigabitethernet	1 GigabitEthernet Port
10Gigabitethernet	10 GigabitEthernet Port
<port_type_list>	Port list in 1/1-24, 1/1-4 for 10GigabitEthernet
|	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

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EXAMPLE

```
LGB5124A-R2# SHOW SFLOW

AGENT CONFIGURATION:
====================

AGENT ADDRESS: 127.0.0.1

RECEIVER CONFIGURATION:
=======================

OWNER        : <NONE>
RECEIVER     : 0.0.0.0
UDP PORT     : 6343
MAX. DATAGRAM: 1400 BYTES
TIME LEFT    : 0 SECONDS

NO ENABLED COLLECTORS (RECEIVERS). SKIPPING DISPLAYING PER-PORT INFO.
LGB5124A-R2#
```

SNMP

Display SNMP configurations.

SYNTAX

show smtp

EXAMPLE

```
LGB5124A-R2# SHOW SMTP
MAIL SERVER      : SERVER
USER NAME        : JEFFERSON
PASSWORD         : ********
SENDER           : TEST
RETURN PATH      : JEFFERSON
EMAIL ADRESS 1   :
EMAIL ADRESS 2   :
EMAIL ADRESS 3   :
EMAIL ADRESS 4   :
EMAIL ADRESS 5   :
EMAIL ADRESS 6   :

LGB5124A-R2#
```

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SNMP

Display SNMP configurations.

SYNTAX

show snmp

show snmp access [<GroupName : word32> { v1 | v2c | v3 | any } { auth | noauth | priv }] [| {begin | exclude | include } <LINE>

show snmp community v3 [<Community : word127>] [| {begin | exclude | include } <LINE>

show snmp host [<ConfName : word32>] [system] [switch] [interface] [aaa] [| {begin | exclude | include } <LINE>

show snmp security-to-group [{ v1 | v2c | v3 } <SecurityName : word32>] [| {begin | exclude | include } <LINE>

show snmp user [<UserName : word32> <EngineId : word10-32>] [| {begin | exclude | include } <LINE>

show snmp view [<ViewName : word32> <OidSubtree : word255>] [| {begin | exclude | include } <LINE>

PARAMETER

access	Access configuration
<GroupName : word32>	Group name
v1	v1 security model
v2c	v2c security model
v3	v3 security model
any	Any security model
auth	authNoPriv Security Level
noauth	noAuthNoPriv Security Level
priv	authPriv Security Level
community	Community
v3	SNMPv3
<Community : word127>	Specify community name
host	Set SNMP host's configurations
<ConfName : word32>	Name of the host configuration

system	System event group
switch	Switch event group
interface	Interface event group
aaa	AAA event group
security-to-group	Security-to-group configuration
<SecurityName : word32>	Security group name
user	User
<UserName : word32>	Security user name
<EngineId : word10-32>	Security Engine ID
view	MIB view configuration
<ViewName : word32>	MIB view name
<OidSubtree : word255>	MIB view OID
|	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW SNMP

SNMP CONFIGURATION

SNMP MODE                    : ENABLED

SNMP VERSION                 : 2C

READ COMMUNITY               : PUBLIC

WRITE COMMUNITY              : PRIVATE

TRAP MODE                    : DISABLED

TRAP VERSION                 : 1


SNMPV3 COMMUNITIES TABLE:

COMMUNITY    : PUBLIC

SOURCE IP    : 0.0.0.0

SOURCE MASK : 0.0.0.0


COMMUNITY    : PRIVATE

SOURCE IP    : 0.0.0.0

SOURCE MASK : 0.0.0.0



SNMPV3 USERS TABLE:

USER NAME                 : DEFAULT _ USER

ENGINE ID                 : 800007E5017F000001

-- MORE --, NEXT PAGE: SPACE, CONTINUE: G, QUIT: ^C
```

SPANNING-TREE

STP Bridge.

SYNTAX

show spanning-tree [summary | active | { interface <port_type> <port_type_list> } | { detailed [interface <port_type> <port_type_list>] } | { mst [configuration | { <0-7> [interface <port_type> <port_type_list>] }] }] [| {begin | exclude | include } <LINE>

PARAMETER

summary	STP summary
active	STP active interfaces
interface	Choose port
<port_type>	* or GigabitEthernet or 10GigabitEthernet
*	All switches or all ports
Gigabitethernet	1 GigabitEthernet Port
10Gigabitethernet	10 GigabitEthernet Port
<port_type_list>	Port list in 1/1-24, 1/1-4 for 10GigabitEthernet
detailed	STP statistics
interface	List of port type and port ID, ex, 1/1-24
mst	Configuration
configuration	STP bridge instance no (0-7, CIST=0, MST2=1...)
<0-7>	Choose port
<port_type >	* or GigabitEthernet or 10GigabitEthernet
*	All switches or all ports
Gigabitethernet	1 GigabitEthernet Port
10Gigabitethernet	10 GigabitEthernet Port
<port_type_list>	Port list in 1/1-24, 1/1-4 for 10GigabitEthernet
		Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

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EXAMPLE

```
LGB5124A-R2# SHOW SNMP


SNMP CONFIGURATION

SNMP MODE                    : ENABLED

SNMP VERSION                 : 2C

READ COMMUNITY                : PUBLIC

WRITE COMMUNITY              : PRIVATE

TRAP MODE                    : DISABLED

TRAP VERSION                 : 1


SNMPV3 COMMUNITIES TABLE:

COMMUNITY    : PUBLIC

SOURCE IP    : 0.0.0.0

SOURCE MASK : 0.0.0.0


COMMUNITY    : PRIVATE

SOURCE IP    : 0.0.0.0

SOURCE MASK : 0.0.0.0



SNMPV3 USERS TABLE:

USER NAME                 : DEFAULT _ USER

ENGINE ID                 : 800007E5017F000001

LGB5124A-R2# SHOW SPANNING-TREE ?

    |              OUTPUT MODIFIERS

    ACTIVE        STP ACTIVE INTERFACES

    DETAILED      STP STATISTICS

    INTERFACE     CHOOSE PORT

    MST           CONFIGURATION

    SUMMARY       STP SUMMARY

    <CR>

LGB5124A-R2# SHOW SPANNING-TREE

CIST BRIDGE STP STATUS
```

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```
BRIDGE ID      : 32768.00-40-C7-01-02-03
ROOT ID        : 32768.00-40-C7-01-02-03
ROOT PORT      : -
ROOT PATHCOST: 0
REGIONAL ROOT: 32768.00-40-C7-01-02-03
INT. PATHCOST: 0
MAX HOPS       : 20
TC FLAG        : STEADY
TC COUNT       : 0
TC LAST        : -
PORT        PORT ROLE       STATE       PRI  PATHCOST  EDGE  P2P  UPTIME
---------   -------------   ----------  ---  --------  ----  ---  ------------
LGB5124A-R2#
```

SWITCHPORT

Display switching mode characteristics.

SYNTAX

show switchport forbidden [{ vlan <vlan_id> } | { name <word> }] [| {begin | exclude | include } <LINE>

PARAMETER

forbidden	Lookup VLAN Forbidden port entry
name	Name — Show forbidden access for specific VLAN name
vlan	Vid — Show forbidden access for specific VLAN id
<vlan_id>	VLAN id
<word>	VLAN name
|	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

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EXAMPLE

```
LGB5124A-R2# SHOW SWITCHPORT FORBIDDEN
FORBIDDEN VLAN TABLE IS EMPTY
LGB5124A-R2#
```

TACACS-SERVER

TACACS+ configuration.

SYNTAX

show tacacs-server [| {begin | exclude | include } <LINE>

PARAMETER

		Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW TACACS-SERVER
GLOBAL TACACS+ SERVER TIMEOUT      : 5 SECONDS
GLOBAL TACACS+ SERVER DEADTIME     : 0 MINUTES
GLOBAL TACACS+ SERVER KEY          :
NO HOSTS CONFIGURED!
LGB5124A-R2#
```

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SYSTEM

Show system information.

SYNTAX

show system

PARAMETER

None

EXAMPLE

```
LGB5124A-R2# SHOW SYSTEM

MODEL NAME                    :

SYSTEM DESCRIPTION            :

LOCATION                      :

CONTACT                       :

PLATFORM NAME                 :

SYSTEM DATE                   : 2011-01-01T01:41:34 00:00

SYSTEM UPTIME                 : 01:41:34

BOOTLOADER VERSION            : V1.15A

FIRMWARE VERSION              : V6.02 2014-09-23

HARDWARE VERSION              : V1.02

MECHANICAL VERSION            :

SERIAL NUMBER                 : XXXXYYZZZZZZ

MAC ADDRESS                   : 00-40-C7-01-02-03

MEMORY                        : TOTAL=84677 KBYTES, FREE=63281 KBYTES,
MAX=63281 KBYTES

FLASH                         : 0X40000000-0X41FFFFFF, 512 X 0X10000 BLOCKS

LGB5124A-R2#
```

TERMINAL

Display terminal configuration parameters.

SYNTAX

show terminal [| {begin | exclude | include } <LINE>

PARAMETER

	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW TERMINAL
LINE IS CON 0.
    * YOU ARE AT THIS LINE NOW.
    ALIVE FROM CONSOLE.
    DEFAULT PRIVILEGED LEVEL IS 2.
    COMMAND LINE EDITING IS ENABLED
    DISPLAY EXEC BANNER IS ENABLED.
    DISPLAY DAY BANNER IS ENABLED.
    TERMINAL WIDTH IS 80.
            LENGTH IS 24.
            HISTORY SIZE IS 32.
            EXEC-TIMEOUT IS 10 MIN 0 SECOND.

    CURRENT SESSION PRIVILEGE IS 15.
    ELAPSED TIME IS 0 DAY 0 HOUR 29 MIN 24 SEC.
    IDLE TIME IS 0 DAY 0 HOUR 0 MIN 0 SEC.

LGB5124A-R2#
```

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UPNP

Display UPnP configurations.

SYNTAX

show upnp [| {begin | exclude | include } <LINE>

PARAMETER

| | Output modifiers |

begin   Begin with the line that matches

exclude   Exclude lines that match

include   Include lines that match

<LINE>   String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW UPNP
UPNP MODE                 : DISABLED
UPNP TTL                  : 4
UPNP ADVERTISING DURATION : 100
LGB5124A-R2#
```

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USERS

Display information about terminal lines.

SYNTAX

show users myself [| {begin | exclude | include } <LINE>

PARAMETER

myself	Display information about mine
		Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW USER MYSELF
LINE IS VTY 0.
    * YOU ARE AT THIS LINE NOW.
    CONNECTION IS FROM 192.168.10.119:4123 BY TELNET.
    USER NAME IS ADMIN.
    PRIVILEGE IS 15.
    ELAPSED TIME IS 0 DAY 1 HOUR 33 MIN 27 SEC.
    IDLE TIME IS 0 DAY 0 HOUR 0 MIN 0 SEC.
```

VERSION

System hardware and software status.

SYNTAX

show version [| {begin | exclude | include } <LINE>

PARAMETER

| | Output modifiers

begin   Begin with the line that matches

exclude   Exclude lines that match

include   Include lines that match

<LINE>   String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW VERSION

MEMORY            : TOTAL=84677 KBYTES, FREE=63281 KBYTES, MAX=63281
KBYTES
FLASH             : 0X40000000-0X41FFFFFF, 512 X 0X10000 BLOCKS
MAC ADDRESS       : 00-40-C7-01-02-03
PREVIOUS RESTART : COLD

SYSTEM CONTACT    :
SYSTEM NAME       :
SYSTEM LOCATION   :
SYSTEM TIME       : 2011-01-01T01:43:12+00:00
SYSTEM UPTIME     : 01:43:12

ACTIVE IMAGE
------------
IMAGE             : MANAGED

VERSION           : LGB5124A-R2 (STANDALONE) V6.02
DATE              : 2014-09-23T13:35:25+08:00

ALTERNATE IMAGE
---------------
IMAGE             : MANAGED.BK
VERSION           :
DATE              :

-----------------
SID : 1
-----------------
CHIPSET ID        : VSC0

BOARD TYPE        : LGB5124A-R2
PORT COUNT        : 26

PRODUCT           : VITESSE LGB5124A-R2 SWITCH

SOFTWARE VERSION : LGB5124A-R2 (STANDALONE) V6.02
BUILD DATE        : 2014-09-23T13:35:25+08:00
```

VLAN

VLAN status.

SYNTAX

show vlan [id <vlan_list> | name <vword32> | brief]

show vlan protocol [eth2 { <0x600-0xffff> | arp | ip | ipx | at }] [snap { <0x0-0xffffff> | rfc_1042 | snap_8021h } <0x0-0xffff>] [llc <0x0-0xff> <0x0-0xff>]

show vlan status [admin [interface] | all | combined | conflicts | gvrp | interface | mstp | mvr | nas | vcl | voice-vlan] [<port_type><port_type_list>]

PARAMETER

id	VLAN status by VLAN id
<vlan_list>	VLAN IDs 1-4095
name	VLAN status by VLAN name
<vword32>	A VLAN name
brief	VLAN summary information
protocol	Protocol-based VLAN status
eth2	Ethernet protocol based VLAN status
<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
snap	SNAP-based VLAN status
<0x0-0xffffff>	SNAP OUI (Range 0x000000 - 0XFFFFFF)
rfc_1042	SNAP OUI is rfc_1042
snap_8021h	SNAP OUI is 8021h
<0x0-0xffff>	PID (Range: 0x0 - 0xFFFF)

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llc	LLC-based VLAN status
<0x0-0xff>	DSAP (Range: 0x00 - 0xFF)
<0x0-0xff>	SSAP (Range: 0x00 - 0xFF)
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.
interface	Show the VLANs configured for a specific interface(s)
<port_type >	GigabitEthernet or 10GigabitEthernet
Gigabitethernet	1 GigabitEthernet Port
10Gigabitethernet	10 GigabitEthernet Port
<port_type_list>	Port list in 1/1-24, 1/1-4 for 10GigabitEthernet

EXAMPLE

```
LGB5124A-R2# SHOW VLAN
VLAN  NAME                              INTERFACES
----  --------------------------------  ----------
1     DEFAULT                           GI 1/1-26


LGB5124A-R2#
```

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VOICE

Voice appliance attributes.

SYNTAX

show voice vlan [oui <oui> | interface <port_type> <port_type_list>] [| {begin | exclude | include } <LINE>

PARAMETER

vlan	Vlan for voice traffic
oui	OUI configuration
<oui>	OUI value
interface	Select an interface to configure
<port_type>	* or GigabitEthernet
*	All Switches or all ports
Gigabitethernet	1 GigabitEthernet Port
10Gigabitethernet	10 GigabitEthernet Port
<port_type_list>	Port list in 1/1-24, 1/1-4 for 10GigabitEthernet
		Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW VOICE VLAN
SWITCH VOICE VLAN IS DISABLED
SWITCH VOICE VLAN ID IS 1000
SWITCH VOICE VLAN AGING-TIME IS 86400 SECONDS
SWITCH VOICE VLAN TRAFFIC CLASS IS 7

TELEPHONY OUI   DESCRIPTION
-------------   ----------
00-01-E3        SIEMENS AG PHONES
00-03-6B        CISCO PHONES
00-0F-E2        H3C PHONES
00-60-B9        PHILIPS AND NEC AG PHONES
00-D0-1E        PINGTEL PHONES
00-E0-75        POLYCOM PHONES
00-E0-BB        3COM PHONES


VOICE VLAN SWITCHPORT IS CONFIGURED ON FOLLOWING:
```

```
GIGABITETHERNET 1/1 :

--------------------

GIGABITETHERNET 1/1 SWITCHPORT VOICE VLAN MODE IS DISABLED

GIGABITETHERNET 1/1 SWITCHPORT VOICE SECURITY IS DISABLED

GIGABITETHERNET 1/1 SWITCHPORT VOICE DISCOVERY PROTOCOL IS OUI

-- MORE --, NEXT PAGE: SPACE, CONTINUE: G, QUIT: ^C
```

WEB

Web.

SYNTAX

show web privilege group [<cword>] level [| {begin | exclude | include } <LINE>

PARAMETER

privilege	Web privilege
group	Web privilege group
CWORD	Valid words are 'Aggregation' 'DHCP' 'Debug' 'Dhcp_Client' 'Diagnostics''GARP' 'GVRP' 'IP2' 'IPMC_Snooping' 'LACP' 'LLDP'Loop_Protect' 'MAC_Table' 'MVR' 'Maintenance''Mirroring' 'NTP' 'Ports' 'Private_VLANs' 'QoS' 'RPC' 'Security' 'Spanning_Tree' 'System' 'Timer' 'UPnP' 'VCL' 'VLANs' 'Voice_VLAN' 'XXRP' 'sFlow'sFlow'
level	Web privilege group level
		Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
LGB5124A-R2# SHOW WEB PRIVILEGE GROUP LEVEL
GROUP NAME                     PRIVILEGE LEVEL
                               CRO  CRW  SRO  SRW
------------------------------ ---  ---  ---  ---
ACTIVATE                        5   10    5   10
AGGREGATION                     5   10    5   10
CLOUD _ MANAGEMENT               5   10    5   10
DEBUG                          15   15   15   15
DHCP                            5   10    5   10
DHCP _ CLIENT                    5   10    5   10
DIAGNOSTICS                     5   10    5   10
GARP                            5   10    5   10
GVRP                            5   10    5   10
IP2                             5   10    5   10
IPMC _ SNOOPING                  5   10    5   10
LACP                            5   10    5   10
LLDP                            5   10    5   10
LOOP _ PROTECT                   5   10    5   10
MAC _ TABLE                      5   10    5   10
MAINTENANCE                    15   15   15   15
MIRRORING                       5   10    5   10
MVR                             5   10    5   10
NTP                             5   10    5   10
PORTS                           5   10    1   10
PRIVATE _ VLANS                  5   10    5   10
QOS                             5   10    5   10
RPC                             5   10    5   10
SECURITY                        5   10    5   10
SFLOW                           5   10    5   10
SPANNING _ TREE                  5   10    5   10
SYSTEM                          5   10    1   10
TIMER                           5   10    5   10
TRAP _ EVENT                     5   10    5   10
TROUBLE _ SHOOTING               5   10    5   10
UPNP                            5   10    5   10
VCL                             5   10    5   10
VLANS                           5   10    5   10
VOICE _ VLAN                     5   10    5   10
VTUN                            5   10    5   10
XXRP                            5   10    5   10
LGB5124A-R2#
```

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SET TERMINAL LINE PARAMETERS

SYNTAX
terminal editing

terminal exec-timeout <0-1440> [<0-3600>]

terminal help

terminal history size <0-32>

terminal length <0 or 3-512>

terminal width <0 or 40-512>

PARAMETER

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
<0-1440>	Timeout in minutes
<0-3600>	Timeout in seconds
size	Set history buffer size
<0-32>	Number of history commands, 0 means disable
<0 or 3-512>	Number of lines on screen (0 for no pausing)
<0 or 40-512>	Number of characters on a screen line (0 for unlimited width)

EXAMPLE

```
LGB5124A-R2# TERMINAL HELP
HELP MAY BE REQUESTED AT ANY POINT IN A COMMAND BY ENTERING
A QUESTION MARK '?'.  IF NOTHING MATCHES, THE HELP LIST WILL
BE EMPTY AND YOU MUST BACKUP UNTIL ENTERING A '?' SHOWS THE
AVAILABLE OPTIONS.
TWO STYLES OF HELP ARE PROVIDED:
1. FULL HELP IS AVAILABLE WHEN YOU ARE READY TO ENTER A
   COMMAND ARGUMENT (E.G. 'SHOW ?') AND DESCRIBES EACH POSSIBLE
   ARGUMENT.
2. PARTIAL HELP IS PROVIDED WHEN AN ABBREVIATED ARGUMENT IS ENTERED
   AND YOU WANT TO KNOW WHAT ARGUMENTS MATCH THE INPUT
   (E.G. 'SHOW PR?').

LGB5124A-R2#
```

IPV4 COMMANDS

SYNTAX

ip dhcp retry interface vlan <vlan_id>

PARAMETER

dhcp	DHCP commands
retry	Restart the DHCP query process
interface	Interface
vlan	VLAN interface
<vlan_id>	VLAN ID

EXAMPLE

```
LGB5124A-R2# IP DHCP RETRY INTERFACE VLAN 1
% FAILED TO RESTART DHCP CLIENT ON VLAN = 1.
```

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CHAPTER 20. CLI COMMAND REFERENCES

This chapter introduces the CLI privilege level and command modes.

• The privilege level determines whether or not the user could run the particular commands

• If the user could run the particular command, then the user has to run the command in the correct mode

20-1 PRIVILEGE LEVEL

Every command has a privilege level (0–15). Users can run a command if the session's privilege level is greater than or equal to the command's privilege level. The session's privilege level initially comes from the login account's privilege level, though it is possible to change the session's privilege level after logging in.

PRIVILEGE LEVEL	TYPES
0	DISPLAY BASIC SYSTEM INFORMATION
13	CONFIGURE FEATURES EXCEPT FOR LOGIN ACCOUNTS, THE AUTHENTICATION METHOD SEQUENCE, MULTIPLE LOGINS, AND ADMINISTRATOR AND ENABLE PASSWORDS
15	CONFIGURE LOGIN ACCOUNTS, THE AUTHENTICATION METHOD SEQUENCE, MULTIPLE LOGINS, AND ADMINISTRATOR AND ENABLE PASSWORDS

20-2 COMMAND MODES

The CLI is divided into several modes. If a user has enough privilege to run a particular command, the user has to run the command in the correct mode. The modes that are available depend on the session's privilege level.

COMMAND	MODE

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COMMAND SUMMARY

COMMAND	DESCRIPTION	P	M
show access management	Use the show access management user EXEC command without keywords to display the access management configuration. Use the statistics keyword to display statistics. Use the <AccessId> keyword to display the specific access management entry.	15	EXEC
clear access management statistics	Use the clear access management statistics privileged EXEC command to clear the statistics maintained by access management.	15	EXEC
access management	Use the access management global configuration command to enable the access management. Use the no form of this command to disable the access management.	15	GLOBAL_CONFIG
access management <1-16> <1-4094> <ipv4_addr> [to <ipv4_addr>] { [web] [snmp] [telnet]	all }	Use the access management <AccessId> global configuration command to set the access management entry for IPv4 address.	15	GLOBAL_CONFIG
access management <1-16> <1-4094> <ipv6_addr> [to <ipv6_addr>] { [web] [snmp] [telnet]	all }	Use the access management <AccessId> global configuration command to set the access management entry for IPv6 address.	15	GLOBAL_CONFIG
no access management <1~16>	Use the no access management <AccessIdList> global configuration command to delete the specific access management entry.	15	GLOBAL_CONFIG
access-list action { permit	deny }	Use the access-list action interface configuration command to configure access-list action. The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST
access-list rate-limiter <1-16>	Use the access-list rate-limiter interface configuration command to configure the access-list rate-limiter ID . The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST

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no access-list rate-limiter	Use the no access-list rate-limiter interface configuration command to disable the access-list rate-limiter. The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST
access-list { redirect | port-copy } interface { <port_type_id> | <port_type_list> }	Use the no access-list redirect interface configuration command to configure the access-list redirect interface.	15	INTERFACE_PORT_LIST
no access-list { redirect | port-copy }	Use the no access-list redirect interface configuration command to disable the access-list redirect. The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST
access-list mirror	Use the access-list mirror interface configuration command to enable access-list mirror. Use the no form of this command to disable access-list mirror. The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST
access-list logging	Use the access-list logging interface configuration command to enable access-list logging. Use the no form of this command to disable access-list logging. The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST
access-list shutdown	Use the access-list shutdown interface configuration command to enable access-list shutdown. Use the no form of this command to disable access-list shutdown. The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST
access-list evc-policer <1-256>	Use the access-list evc-policer interface configuration command to configure the access-list evc-policer ID. The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST

no access-list evc-policer	Use the no access-list evc-policer interface configuration command to configure the access-list evc-policer ID. The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST
access-list policy <0-255>	Use the access-list policy interface configuration command to configure the access-list policy value. The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST
no access-list policy	Use the no access-list policy interface configuration command to restore the default access-list policy ID. The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST
access-list port-state	Use the access-list port-state interface configuration command to enable access-list port-state. Use the no form of this command to disable access-list port-state.	15	INTERFACE_PORT_LIST
access-list rate-limiter [<1~16>] { pps <1,2,4,8,16,32,64,128,256,512>| 100pps <1-32767>	kpps <1,2,4,8,16,32,64,128,256,512,1024>	100kbps <0-10000> }	Use the access-list rate-limiter global configuration command to configure the access-list rate-limiter.	15	INTERFACE_PORT_LIST
default access-list rate-limiter [<1~16>]	Use the default access-list rate-limiter global configuration command to restore the default setting of access-list rate-limiter.	15	GLOBAL_CONFIG

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access-list ace [update] <1-256> [next {<1-256>|last}] [ingress {switch <switch_id>|switchport {1-53|1~53}|interface {<port_type_id>|<port_type_list>}|any}] [policy <0-255> [policy-bitmask <0x0-0xFF>]] [tag {tagged|untagged|any}] [vid {<1-4095>|any}] [tag-priority {<0-7>|0-1|2-3|4-5|6-7|0-3|4-7|any}] [dmac-type {unicast|multicast|broadcast|any}] [frametype { any| etype [etype-value {<0x600-0x7ff,0x801-0x805,0x807-0x86dc,0x86de-0xffff>|any}] [smac {<mac_addr>|any}] [dmac {<mac_addr>|any}]| arp [sip {<ipv4_subnet>|any}] [dip {<ipv4_subnet>|any}] [smac {<mac_addr>|any}] [arp-opcode {arp|rarp|other|any}] [arp-flag [arp-request {<0-1>|any}] [arp-smac {<0-1>|any}] [arp-tmac {<0-1>|any}] [arp-len {<0-1>|any}] [arp-ip {<0-1>|any}] [arp-ether {<0-1>|any}]]| ipv4 [sip {<ipv4_subnet>|any}] [dip {<ipv4_subnet>|any}] [ip-protocol {<0,2-5,7-16,18-255>|any}] [ip-flag [ip-ttl {<0-1>|any}] [ip-options {<0-1>|any}] [ip-fragment {<0-1>|any}]]| ipv4-icmp [sip {<ipv4_subnet>|any}] [dip {<ipv4_subnet>|any}] [icmp-type {<0-255>|any}] [icmp-code {<0-255>|any}] [ip-flag [ip-ttl {<0-1>|any}] [ip-options {<0-1>|any}] [ip-fragment {<0-1>|any}]]| ipv4-udp [sip {<ipv4_subnet>|any}] [dip {<ipv4_subnet>|any}] [sport {<0-65535> [to <0-65535>]|any}] [dport {<0-65535> [to <0-65535>]|any}] [ip-flag [ip-ttl {<0-1>|any}] [ip-options {<0-1>|any}] [ip-fragment {<0-1>|any}]]| ipv4-tcp [sip {<ipv4_subnet>|any}] [dip {<ipv4_subnet>|any}] [sport {<0-65535> [to <0-65535>]|any}] [dport {<0-65535> [to <0-65535>]|any}] [ip-flag [ip-ttl {<0-1>|any}] [ip-options {<0-1>|any}] [ip-fragment {<0-1>|any}]] [tcp-flag [tcp-fin {<0-1>|any}] [tcp-syn {<0-1>|any}] [tcp-rst {<0-1>|any}] [tcp-psh {<0-1>|any}] [tcp-ack {<0-1>|any}] [tcp-urg {<0-1>|any}]]| ipv6 [next-header {<0-5,7-16,18-57,59-255>|any}] [sip {<ipv6_addr> [sip-bitmask <uint>]|any}] [hop-limit {<0-1>|any}]| ipv6-icmp [sip {<ipv6_addr> [sip-bitmask <uint>]|any}] [icmp-type {<0-255>|any}] [icmp-code {<0-255>|any}] [hop-limit {<0-1>|any}]| ipv6-udp [sip {<ipv6_addr> [sip-bitmask <uint>]|any}] [sport {<0-65535> [to <0-65535>]|any}] [dport {<0-65535> [to <0-65535>]|any}] [hop-limit {<0-1>|any}]| ipv6-tcp [sip {<ipv6_addr> [sip-bitmask <uint>]|any}] [sport {<0-65535> [to <0-65535>]|any}] [dport {<0-65535> [to <0-65535>]|any}] [hop-limit {<0-1>|any}] [tcp-flag [tcp-fin {<0-1>|any}] [tcp-syn {<0-1>|any}] [tcp-rst {<0-1>|any}] [tcp-psh {<0-1>|any}] [tcp-ack {<0-1>|any}] [tcp-urg {<0-1>|any}]]}] [action {permit|deny|filter {switchport <1~53>|interface <port_type_list>}}] [rate-limiter {<1-16>|disable}] [evc-policer {<1-256>|disable}] [{redirect|port-copy} {switchport {1-53|1~53}|interface {<port_type_id>|<port_type_list>}|disable}] [mirror [disable]] [logging [disable]] [shutdown [disable]] [lookup [disable]]	Use the access-list ace global configuration command to set the access-list ace. The command without the update keyword creates or overwrites an existing ACE, any unspecified Parameter will be set to its default value. Use the update keyword to update an existing ACE and only specified Parameter are modified. The ACE must be ordered in an appropriate sequence; the received frame will only be hit on the first matched ACE. Use the next or last keyword to adjust the ACE's sequence order.	15	GLOBAL_CONFIG

no access-list ace <1~256>	Use the no access-list ace global configuration command to delete the access-list ace.	15	GLOBAL_CONFIG
show access-list [interface [<port_type_list>]] [rate-limiter [<1~16>]] [ace statistics [<1~256>]]	Use the show access-list privilege EXEC command without keywords to display the access-list configuration, or specifically to show the access-list interface for the access-list interface configuration. Use the rate-limiter keyword to display access-list rate-limiter configuration. Use the ace keyword to display access-list ace configuration.	15	EXEC
clear access-list ace statistics	Use the clear access-list ace statistics privilege EXEC command to clear the statistics maintained by access-list, including access-list interface statistics and ACE's statistics.	15	EXEC
show access-list ace-status [static] [link-oam] [loop-protect] [dhcp] [ptp] [upnp] [arp-inspection] [mep] [ipmc] [ip-source-guard] [ip-mgmt] [conflicts] [switch <switch_list>]	Use the show access-list ace-status privilege EXEC command without keywords to display the access-list ace status for all access-list users, or particularly the access-list user for the access-list ace status. Use conflicts keyword to display the access-list ace that doesn't apply on the hardware. In other words, it means the specific ACE is not applied to the hardware due to hardware limitations.	15	EXEC
show aggregation [mode]		15	EXEC
aggregation mode { [smac] [dmac] [ip] [port] }		15	GLOBAL_CONFIG
no aggregation mode		15	GLOBAL_CONFIG
aggregation group <uint>		15	INTERFACE_PORT_LIST
no aggregation group		15	INTERFACE_PORT_LIST
ip arp inspection	Use the ip arp inspection global configuration command to globally enable ARP inspection. Use the no form of this command to globally disable ARP inspection.	13	GLOBAL_CONFIG

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ip arp inspection vlan <vlan_list>	Use the ip arp inspection global configuration command to globally enable ARP inspection. Use the no form of this command to globally disable ARP inspection.	13	GLOBAL_CONFIG
ip arp inspection vlan <vlan_list> logging { deny | permit | all }		13	GLOBAL_CONFIG
no ip arp inspection vlan <vlan_list> logging		13	GLOBAL_CONFIG
ip arp inspection entry interface <port_type_id> <vlan_id> <mac_ucast> <ipv4_ucast>		13	GLOBAL_CONFIG
arp_inspection_translate		13	GLOBAL_CONFIG
arp_inspection_port_mode	Use the ip arp inspection trust interface configuration command to configure a port as trusted for ARP inspection purposes. Use the no form of this command to configure a port as untrusted.	13	INTERFACE_PORT_LIST
arp_inspection_port_check_vlan	Use the ip arp inspection check-vlan interface configuration command to configure a port as VLAN mode for ARP inspection purposes. Use the no form of this command to configure a port as default.	13	INTERFACE_PORT_LIST
ip arp inspection logging { deny | permit | all }	Use the ip arp inspection logging interface configuration command to configure a port as some logging mode for ARP inspection purposes. Use the no form of this command to configure a port as logging none.	13	INTERFACE_PORT_LIST
no ip arp inspection logging	Use the no ip arp inspection logging interface configuration command to configure a port as default logging mode for ARP inspection purposes.	13	INTERFACE_PORT_LIST
show ip arp inspection [interface <port_type_list> | vlan <vlan_list>]		0	EXEC
show ip arp inspection entry [dhcp-snooping | static] [interface <port_type_list>]		13	EXEC
aaa authentication login { console | telnet | ssh | http } { [local | radius | tacacs] ... }	Use the aaa authentication login command to configure the authentication methods.	15	GLOBAL_CONFIG
no aaa authentication login { console | telnet | ssh | http }		15	GLOBAL_CONFIG

radius-server timeout <1-1000>	Use the radius-server timeout command to configure the global RADIUS timeout value.	15	GLOBAL_CONFIG
no radius-server timeout	Use the no radius-server timeout command to reset the global RADIUS timeout value to default.	15	GLOBAL_CONFIG
radius-server retransmit <1-1000>	Use the radius-server retransmit command to configure the global RADIUS retransmit value.	15	GLOBAL_CONFIG
no radius-server retransmit	Use the no radius-server retransmit command to reset the global RADIUS retransmit value to default.	15	GLOBAL_CONFIG
radius-server deadtime <1-1440>	Use the radius-server deadtime command to configure the global RADIUS deadtime value.	15	GLOBAL_CONFIG
no radius-server deadtime	Use the no radius-server deadtime command to reset the global RADIUS deadtime value to default.	15	GLOBAL_CONFIG
radius-server key <line1-63>	Use the radius-server key command to configure the global RADIUS key.	15	GLOBAL_CONFIG
no radius-server key	Use the no radius-server key command to remove the global RADIUS key.	15	GLOBAL_CONFIG
radius-server attribute 4 <ipv4_ucast>		15	GLOBAL_CONFIG
no radius-server attribute 4		15	GLOBAL_CONFIG
radius-server attribute 95 <ipv6_ucast>		15	GLOBAL_CONFIG
no radius-server attribute 95		15	GLOBAL_CONFIG
radius-server attribute 32 <line1-253>		15	GLOBAL_CONFIG
no radius-server attribute 32		15	GLOBAL_CONFIG
radius-server host <word1-255> [auth-port <0-65535>] [acct-port <0-65535>] [timeout <1-1000>] [retransmit <1-1000>] [key <line1-63>]	Use the radius-server host command to add a new RADIUS host.	15	GLOBAL_CONFIG
no radius-server host <word1-255> [auth-port <0-65535>] [acct-port <0-65535>]	Use the no radius-server host command to delete an existing RADIUS host.	15	GLOBAL_CONFIG
tacacs-server timeout <1-1000>	Use the tacacs-server timeout command to configure the global TACACS+ timeout value.	15	GLOBAL_CONFIG
no tacacs-server timeout	Use the no tacacs-server timeout command to reset the global TACACS+ timeout value to default.	15	GLOBAL_CONFIG

tacacs-server deadtime <1-1440>	Use the tacacs-server deadtime command to configure the global TACACS+ deadtime value.	15	GLOBAL_CONFIG
no tacacs-server deadtime	Use the no tacacs-server deadtime command to reset the global TACACS+ deadtime value to default.	15	GLOBAL_CONFIG
tacacs-server key <line1-63>	Use the tacacs-server key command to configure the global TACACS+ key.	15	GLOBAL_CONFIG
no tacacs-server key	Use the no tacacs-server key command to remove the global TACACS+ key.	15	GLOBAL_CONFIG
tacacs-server host <word1-255> [port <0-65535>] [timeout <1-1000>] [key <line1-63>]	Use the tacacs-server host command to add a new TACACS+ host.	15	GLOBAL_CONFIG
no tacacs-server host <word1-255> [port <0-65535>]	Use the no tacacs-server host command to delete an existing TACACS+ host.	15	GLOBAL_CONFIG
show aaa	Use the show aaa command to view the currently active authentication login methods.	15	GLOBAL_CONFIG
show radius-server [statistics]	Use the show radius-server command to view the current RADIUS configuration and statistics.	15	EXEC
show tacacs-server	Use the show tacacs-server command to view the current TACACS+ configuration.	15	EXEC
debug auth { console	telnet	ssh	http } <word31> [<word31>]		debug	EXEC
clock summer-time <word16> recurring [<1-5> <1-7> <1-12> <hhmm> <1-5> <1-7> <1-12> <hhmm> [<1-1440>]]		13	GLOBAL_CONFIG
clock summer-time <word16> date [<1-12> <1-31> <2000-2097> <hhmm> <1-12> <1-31> <2000-2097> <hhmm> [<1-1440>]]		13	GLOBAL_CONFIG
no clock summer-time		13	GLOBAL_CONFIG
clock timezone <word16> <-23-23> [<0-59>]		13	GLOBAL_CONFIG
no clock timezone		13	GLOBAL_CONFIG
show clock detail		0	EXEC
clock summer-time <word16> recurring [<1-5> <1-7> <1-12> <hhmm> <1-5> <1-7> <1-12> <hhmm> [<1-1440>]]		13	GLOBAL_CONFIG

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Command	Description	Priv	Mode
clock summer-time <word16> date [<1-12> <1-31> <2000-2097> <hhmm> <1-12> <1-31> <2000-2097> <hhmm> [<1-1440>]]		13	GLOBAL_CONFIG
no clock summer-time		13	GLOBAL_CONFIG
clock timezone <word16> <-23-23> [<0-59>]		13	GLOBAL_CONFIG
no clock timezone		13	GLOBAL_CONFIG
show clock detail		0	EXEC
show ip dhcp detailed statistics { server	client	snooping	relay	normal-forward	combined } [interface <port_type_list>]	Use the show ip dhcp detailed statistics user EXEC command to display statistics. Notice that the normal forward per-port TX statistics isn't increased if the incoming DHCP packet is done by L3 forwarding mechanism. Also notice that the normal forward per-port TX statistics isn't increased if the incoming DHCP packet is done by L3 forwarding mechanism.	0	EXEC
clear ip dhcp detailed statistics { server	client	snooping	relay	helper	all } [interface <port_type_list>]	Use the clear ip dhcp detailed statistics privileged EXEC command to clear the statistics, or specifically the IP DHCP statistics for the interface. Notice that except for clear statistics on all interfaces, clear the statistics on specific port may not take effect on global statistics since it gathers the different layer overview.	15	EXEC
clear ip dhcp relay statistics	Use the clear ip dhcp relay statistics privileged EXEC command to clear the statistics maintained by IP DHCP relay.	15	EXEC
show ip dhcp relay [statistics]	Use the show ip dhcp relay user EXEC command without keywords to display the DHCP relay configuration, or use the statistics keyword to display statistics.	0	EXEC
ip dhcp relay	Use the ip dhcp relay global configuration command to enable the DHCP relay server. Use the no form of this command to disable the DHCP relay server.	15	GLOBAL_CONFIG
ip helper-address <ipv4_ucast>	Use the ip helper-address global configuration command to configure the host address of DHCP relay server.	15	GLOBAL_CONFIG

no ip helper-address	Use the no ip helper-address global configuration command to clear the host address of DHCP relay server.	15	GLOBAL_CONFIG
ip dhcp relay information option	Use the ip dhcp relay information option global configuration command to enable the DHCP relay information option. Use the no form of this command to disable the DHCP relay information option. The option 82 circuit ID format as "[vlan_id][module_id][port_no]". The first four characters represent the VLAN ID, the fifth and sixth characters are the module ID (in standalone device it always equal 0, in stackable device it means switch ID), and the last two characters are the port number. For EXAMPLE, "00030108" means the DHCP message was received from VLAN ID 3, switch ID 1, port No 8. And the option 82 remote ID value is equal to the switch MAC address.	15	GLOBAL_CONFIG
ip dhcp relay information policy { drop | keep | replace }	Use the ip dhcp relay information policy global configuration command to configure the DHCP relay information policy. When DHCP relay information mode operation is enabled, if the agent receives a DHCP message that already contains relay agent information it will enforce the policy. The 'Replace' policy is invalid when relay information mode is disabled.	15	GLOBAL_CONFIG
no ip dhcp relay information policy	Use the ip dhcp relay information policy global configuration command to restore the default DHCP relay information policy.	15	GLOBAL_CONFIG
show ip dhcp pool [<word32>]		0	EXEC
show ip dhcp pool counter [<word32>]		debug	EXEC
show ip dhcp excluded-address		0	EXEC
show ip dhcp server binding [state {allocated | committed | expired}] [type {automatic | manual | expired}]		0	EXEC
show ip dhcp server binding <ipv4_ucast>		0	EXEC
show ip dhcp server		0	EXEC
show ip dhcp server statistics		0	EXEC

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show ip dhcp server declined-ip		0	EXEC
show ip dhcp server declined-ip <ipv4_addr>		0	EXEC
clear ip dhcp server binding <ipv4_ucast>		13	EXEC
clear ip dhcp server binding { automatic | manual | expired }		13	EXEC
clear ip dhcp server statistics		13	EXEC
ip dhcp server		13	GLOBAL_CONFIG
ip dhcp excluded-address <ipv4_addr> [<ipv4_addr>]		13	GLOBAL_CONFIG
no ip dhcp pool <word32>		13	GLOBAL_CONFIG
ip dhcp server		13	INTERFACE_VLAN
network <ipv4_addr> <ipv4_netmask>		13	DHCP_POOL
no network		13	DHCP_POOL
broadcast <ipv4_addr>		13	DHCP_POOL
no broadcast		13	DHCP_POOL
default-router <ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast>]]]		13	DHCP_POOL
no default-router		13	DHCP_POOL
lease { <0-365> [<0-23> [<uint>]] | infinite }		13	DHCP_POOL
no lease		13	DHCP_POOL
domain-name <word128>		13	DHCP_POOL
no domain-name		13	DHCP_POOL
dns-server <ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast>]]]		13	DHCP_POOL
no dns-server		13	DHCP_POOL
ntp-server <ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast>]]]		13	DHCP_POOL
no ntp-server		13	DHCP_POOL
netbios-name-server <ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast>]]]		13	DHCP_POOL
no netbios-name-server		13	DHCP_POOL
netbios-node-type { b-node | h-node | m-node | p-node }		13	DHCP_POOL
no netbios-node-type		13	DHCP_POOL
netbios-scope <line128>		13	DHCP_POOL
no netbios-scope		13	DHCP_POOL
nis-domain-name <word128>		13	DHCP_POOL
no nis-domain-name		13	DHCP_POOL

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nis-server <ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast>]]]		13	DHCP_POOL
no nis-server		13	DHCP_POOL
host <ipv4_ucast> <ipv4_netmask>		13	DHCP_POOL
no host		13	DHCP_POOL
client-identifier { fqdn <line128>	mac-address <mac_addr> }		13	DHCP_POOL
no client-identifier		13	DHCP_POOL
hardware-address <mac_ucast>		13	DHCP_POOL
no hardware-address		13	DHCP_POOL
client-name <word32>		13	DHCP_POOL
no client-name		13	DHCP_POOL
vendor class-identifier <string64> specific-info <hexval32>		13	DHCP_POOL
no vendor class-identifier <string64>		13	DHCP_POOL
debug dhcp server memsize		debug	EXEC
debug dhcp server declined add <ipv4_addr>		debug	EXEC
debug dhcp server declined delete <ipv4_addr>		debug	EXEC
show ip dhcp snooping [interface <port_type_list>]	Use the show ip dhcp snooping user EXEC command to display the DHCP snooping configuration.	0	EXEC
show ip dhcp snooping [statistics] [interface <port_type_list>]	Use the show ip dhcp snooping user EXEC command without keywords to display the DHCP snooping configuration, or specifically the ip dhcp snooping statistics for the interface. Use the statistics keyword to display statistics.	0	EXEC
clear ip dhcp snooping statistics [interface <port_type_list>]	Use the clear ip dhcp snooping statistics privileged EXEC command to clear the statistics maintained by IP DHCP snooping, or specifically the IP DHCP snooping statistics for the interface.	15	EXEC
ip dhcp snooping	Use the ip dhcp snooping global configuration command to globally enable DHCP snooping. Use the no form of this command to globally disable DHCP snooping.	15	GLOBAL_CONFIG

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dhcp_snooping_port_mode	Use the ip dhcp snooping trust interface configuration command to configure a port as trusted for DHCP snooping purposes. Use the no form of this command to configure a port as untrusted.	15	INTERFACE_PORT_LIST
show ip dhcp snooping table	Use the show ip dhcp snooping table user EXEC command to display the IP assigned information that is obtained from DHCP server except for local VLAN interface IP addresses.	15	EXEC
ip name-server { <ipv4_ucast> | dhcp [interface vlan <vlan_id>] }	Set the DNS server for resolving domain names.	15	GLOBAL_CONFIG
no ip name-server	Stop resolving domain names by accessing DNS server.	15	GLOBAL_CONFIG
show ip name-server	Display the active domain name server information.	0	EXEC
ip dns proxy	Enable DNS proxy service.	15	GLOBAL_CONFIG
show version	Use show version to display firmware information.	0	EXEC
firmware upgrade <word>	Use firmware upgrade to load new firmware image to the switch.	15	EXEC
firmware swap	Use firmware swap to swap the active and alternative firmware images.	15	EXEC
show ip http server secure status	Use the show ip http server secure status privileged EXEC command to display the secure HTTP web server status.	15	EXEC
ip http secure-server	Use the ip http secure-server global configuration command to enable the secure HTTP web server. Use the no form of this command to disable the secure HTTP web server.	15	GLOBAL_CONFIG
ip http secure-redirect	Use the http secure-redirect global configuration command to enable the secure HTTP web redirection. When the secure HTTP web server is enabled, the feature automatically redirects the none secure HTTP web connection to the secure HTTP web connection. Use the no form of this command to disable the secure HTTP web redirection.	15	GLOBAL_CONFIG
reload { { { cold | warm } [sid <1-16>] } | { defaults [keep-ip] } }	Reload system, either cold (reboot) or restore defaults without reboot.	15	EXEC

show running-config [all-defaults]		15	EXEC
show running-config feature <cword> [all-defaults]		15	EXEC
show running-config interface <port_type_list> [all-defaults]		15	EXEC
show running-config interface vlan <vlan_list> [all-defaults]		15	EXEC
show running-config vlan <vlan_list> [all-defaults]		15	EXEC
show running-config line { console	vty } <range_list> [all-defaults]		15	EXEC
copy { startup-config	running-config	<word> } { startup-config	running-config	<word> } [SYNTAX-check]		15	EXEC
dir		15	EXEC
more <word>		15	EXEC
delete <word>		debug	EXEC
debug icfg wipe-flash-fs-conf-block		debug	EXEC
debug icfg wipe-specific-block {local|global} <uint>		debug	EXEC
debug icfg silent-upgrade status		debug	EXEC
debug icfg dir		debug	EXEC
debug icfg error-trace <line>		debug	EXEC
ip routing	Enable routing for IPv4 and IPv6	15	GLOBAL_CONFIG
no ip routing	Disable routing for IPv4 and IPv6	15	GLOBAL_CONFIG
ip address {{<ipv4_addr> <ipv4_netmask>}	{dhcp [fallback <ipv4_addr> <ipv4_netmask> [timeout <uint>]]}}	IP address configuration	15	INTERFACE_VLAN
ip dhcp retry interface vlan <vlan_id>	Restart the dhcp client	15	EXEC
no ip address	IP address configuration	15	INTERFACE_VLAN
ip route <ipv4_addr> <ipv4_netmask> <ipv4_addr>	Add new IP route	15	GLOBAL_CONFIG
no ip route <ipv4_addr> <ipv4_netmask> <ipv4_addr>	Delete an existing IP route	15	GLOBAL_CONFIG
show interface vlan [<vlan_list>]	Vlan interface status	15	EXEC
show ip interface brief	Brief IP interface status	0	EXEC
show ip arp	Print ARP table	0	EXEC
clear ip arp	Clear ARP cache	0	EXEC
show ip route	Routing table status	0	EXEC
ping ip <word1-255> [repeat <1-60>] [size <2-1452>] [interval <0-30>]		0	EXEC
clear ip statistics [system] [interface vlan <vlan_list>] [icmp] [icmp-msg <0~255>]		0	EXEC

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show ip statistics [system] [interface vlan <vlan_list>] [icmp] [icmp-msg <0~255>]		0	EXEC
debug ipstack log [ERR|NOERR] [WARNING|NOWARNING] [NOTICE|NONOTICE] [INFO|NOINFO] [DEBUG|NODEBUG] [MDEBUG|NOMDEBUG] [IOCTL|NOIOCTL] [INIT|NOINIT] [ADDR|NOADDR] [FAIL|NOFAIL] [EMERG|NOEMERG] [CRIT|NOCRIT]		debug	EXEC
debug ip kmem		debug	EXEC
debug ip route		debug	EXEC
debug ip sockets		debug	EXEC
debug ip lpm stat ip <vlan_list>		debug	EXEC
debug ip lpm stat ipv6 <vlan_list>		debug	EXEC
debug ip lpm stat clear <vlan_list>		debug	EXEC
debug ip lpm sticky clear		debug	EXEC
debug ip lpm usage		debug	EXEC
debug ip global interface table change		debug	EXEC
debug ip vlan ipv4 created <vlan_list>		debug	EXEC
debug ip vlan ipv4 changed <vlan_list>		debug	EXEC
debug ip vlan ipv6 created <vlan_list>		debug	EXEC
debug ip vlan ipv6 changed <vlan_list>		debug	EXEC
show ip igmp snooping mrouter [detail]		0	EXEC
clear ip igmp snooping [vlan <vlan_list>] statistics		15	EXEC
show ip igmp snooping [vlan <vlan_list>] [group-database [interface <port_type_list>] [sfm-information]] [detail]		0	EXEC
ip igmp snooping		15	GLOBAL_CONFIG
ip igmp unknown-flooding		15	GLOBAL_CONFIG
ip igmp host-proxy [leave-proxy]		15	GLOBAL_CONFIG
ip igmp ssm-range <ipv4_mcast> <4-32>		15	GLOBAL_CONFIG
no ip igmp ssm-range		15	GLOBAL_CONFIG
ip igmp snooping vlan <vlan_list>		15	GLOBAL_CONFIG
no ip igmp snooping vlan [<vlan_list>]		15	GLOBAL_CONFIG
ip igmp snooping		15	INTERFACE_VLAN
ip igmp snooping querier { election | address <ipv4_ucast> }		15	INTERFACE_VLAN
no ip igmp snooping querier { election | address }		15	INTERFACE_VLAN
ip igmp snooping compatibility { auto | v1 | v2 | v3 }		15	INTERFACE_VLAN
no ip igmp snooping compatibility		15	INTERFACE_VLAN

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ip igmp snooping priority <0-7>		15	INTERFACE_VLAN
no ip igmp snooping priority		15	INTERFACE_VLAN
ip igmp snooping robustness-variable <1-255>		15	INTERFACE_VLAN
no ip igmp snooping robustness-variable		15	INTERFACE_VLAN
ip igmp snooping query-interval <1-31744>		15	INTERFACE_VLAN
no ip igmp snooping query-interval		15	INTERFACE_VLAN
ip igmp snooping query-max-response-time <0-31744>		15	INTERFACE_VLAN
no ip igmp snooping query-max-response-time		15	INTERFACE_VLAN
ip igmp snooping last-member-query-interval <0-31744>		15	INTERFACE_VLAN
no ip igmp snooping last-member-query-interval		15	INTERFACE_VLAN
ip igmp snooping unsolicited-report-interval <0-31744>		15	INTERFACE_VLAN
no ip igmp snooping unsolicited-report-interval		15	INTERFACE_VLAN
ip igmp snooping immediate-leave		15	INTERFACE_VLAN
ip igmp snooping mrouter		15	INTERFACE_PORT_LIST
ip igmp snooping max-groups <1-10>		15	INTERFACE_PORT_LIST
no ip igmp snooping max-groups		15	INTERFACE_PORT_LIST
ip igmp snooping filter <word16>		15	INTERFACE_PORT_LIST
no ip igmp snooping filter		15	INTERFACE_PORT_LIST
ipv6 mld snooping		15	GLOBAL_CONFIG
ipv6 mld unknown-flooding		15	GLOBAL_CONFIG
ipv6 mld host-proxy [leave-proxy]		15	GLOBAL_CONFIG
ipv6 mld ssm-range <ipv6_mcast> <8-128>		15	GLOBAL_CONFIG
no ipv6 mld ssm-range		15	GLOBAL_CONFIG
ipv6 mld snooping vlan <vlan_list>		15	GLOBAL_CONFIG
no ipv6 mld snooping vlan [<vlan_list>]		15	GLOBAL_CONFIG
ipv6 mld snooping immediate-leave		15	INTERFACE_PORT_LIST
ipv6 mld snooping mrouter		15	INTERFACE_PORT_LIST
ipv6 mld snooping max-groups <1-10>		15	INTERFACE_PORT_LIST
no ipv6 mld snooping max-groups		15	INTERFACE_PORT_LIST
ipv6 mld snooping filter <word16>		15	INTERFACE_PORT_LIST
no ipv6 mld snooping filter		15	INTERFACE_PORT_LIST
show ipv6 mld snooping mrouter [detail]		0	EXEC
clear ipv6 mld snooping [vlan <vlan_list>] statistics		15	EXEC

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Command	Description	Priv	Mode
show ipv6 mld snooping [vlan <vlan_list>] [group-database [interface <port_type_list>] [sfm-information]] [detail]		0	EXEC
ipv6 mld snooping		15	INTERFACE_VLAN
ipv6 mld snooping querier election		15	INTERFACE_VLAN
ipv6 mld snooping compatibility { auto	v1	v2 }		15	INTERFACE_VLAN
no ipv6 mld snooping compatibility		15	INTERFACE_VLAN
ipv6 mld snooping priority <0-7>		15	INTERFACE_VLAN
no ipv6 mld snooping priority		15	INTERFACE_VLAN
ipv6 mld snooping robustness-variable <1-255>		15	INTERFACE_VLAN
no ipv6 mld snooping robustness-variable		15	INTERFACE_VLAN
ipv6 mld snooping query-interval <1-31744>		15	INTERFACE_VLAN
no ipv6 mld snooping query-interval		15	INTERFACE_VLAN
ipv6 mld snooping query-max-response-time <0-31744>		15	INTERFACE_VLAN
no ipv6 mld snooping query-max-response-time		15	INTERFACE_VLAN
ipv6 mld snooping last-member-query-interval <0-31744>		15	INTERFACE_VLAN
no ipv6 mld snooping last-member-query-interval		15	INTERFACE_VLAN
ipv6 mld snooping unsolicited-report-interval <0-31744>		15	INTERFACE_VLAN
no ipv6 mld snooping unsolicited-report-interval		15	INTERFACE_VLAN
ip verify source		13	GLOBAL_CONFIG
i ip verify source		13	INTERFACE_PORT_LIST
ip verify source limit <0-2>		13	INTERFACE_PORT_LIST
no ip verify source limit		13	INTERFACE_PORT_LIST
ip verify source translate		13	GLOBAL_CONFIG
show ip verify source [interface <port_type_list>]		0	EXEC
show ip source binding [dhcp-snooping	static] [interface <port_type_list>]		13	EXEC
ip source binding interface <port_type_id> <vlan_id> <ipv4_ucast> <mac_ucast>		13	GLOBAL_CONFIG
ip source binding interface <port_type_id> <vlan_id> <ipv4_ucast> <ipv4_netmask>		13	GLOBAL_CONFIG
show lacp { internal	statistics	system-id	neighbour }	Show LACP configuration and status.	15	EXEC
clear lacp statistics	Clear all LACP statistics.	15	EXEC
lacp system-priority <1-65535>	Set the LACP system priority.	15	GLOBAL_CONFIG
lacp	Enable LACP on an interface.	15	INTERFACE_PORT_LIST
lacp key { <1-65535>	auto }	Set the LACP key.	15	INTERFACE_PORT_LIST

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lacp role { active | passive }	Set the LACP role, active or passive, in transmitting BPDUs.	15	INTERFACE_PORT_LIST
lacp timeout { fast | slow }	Set the LACP timeout (i.e. how fast to transmit BPDUs) once a second or once each 30 seconds.	15	INTERFACE_PORT_LIST
lacp port-priority <1-65535>	Set the lacp port priority.	15	INTERFACE_PORT_LIST
lldp holdtime <2-10>	Sets LLDP hold time (The neighbor switch will discard the LLDP information after \"hold time\" multiplied with \"timer\" seconds).	15	GLOBAL_CONFIG
no lldp holdtime		15	GLOBAL_CONFIG
lldp timer <5-32768>	Sets LLDP TX interval (the time between each LLDP frame transmitted in seconds).	15	GLOBAL_CONFIG
no lldp timer		15	GLOBAL_CONFIG
lldp reinit <1-10>	Sets LLDP reinitialization delay.	15	GLOBAL_CONFIG
no lldp reinit	Sets LLDP reinitialization delay.	15	GLOBAL_CONFIG
lldp tlv-select {management-address | port-description | system-capabilities | system-description | system-name}	Enables/disables LLDP optional TLVs.	15	INTERFACE_PORT_LIST
lldp transmit	Sets if switch shall transmit LLDP frames.	15	INTERFACE_PORT_LIST
lldp receive	Sets if switch shall update LLDP entry table with incoming LLDP information.	15	INTERFACE_PORT_LIST
show lldp neighbors [interface <port_type_list>]	Shows the LLDP neighbors information.	0	EXEC
show lldp statistics [interface <port_type_list>]	Shows the LLDP statistics information.	0	EXEC
clear lldp statistics	Clears the LLDP statistics.	0	EXEC
lldp transmission-delay <1-8192>	Sets LLDP transmision-delay. LLDP transmission delay is the amount of time that the transmission of LLDP frames will be delayed after LLDP configuration has changed (in seconds).	15	GLOBAL_CONFIG
no lldp transmission-delay		15	GLOBAL_CONFIG
lldp cdp-aware	Configures if the interface shall be CDP aware (CDP discovery information is added to the LLDP neighbor table).	15	INTERFACE_PORT_LIST
show lldp med remote-device [interface <port_type_list>]	Show LLDP-MED neighbor device information.	0	EXEC

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show lldp med media-vlan-policy [<0~31>]	Show media vlan policy/policies.	0	EXEC
lldp med location-tlv latitude { north | south } <word8>	Use the lldp med location-tlv latitude to configure the location latitude.	15	GLOBAL_CONFIG
no lldp med location-tlv latitude	Use no lldp med location-tlv latitude to configure the latitude location to north 0 degrees.	15	GLOBAL_CONFIG
lldp med location-tlv longitude { west | east } <word9>	Use the lldp med location-tlv longitude to configure the location longitude.	15	GLOBAL_CONFIG
no lldp med location-tlv longitude	Use no lldp med location-tlv longitude to configure the longitude location to north 0 degrees.	15	GLOBAL_CONFIG
lldp med location-tlv altitude { meters | floors } <word11>	Use the lldp med location-tlv altitude to configure the location altitude.	15	GLOBAL_CONFIG
no lldp med location-tlv altitude	Use the lldp med location-tlv altitude to configure the location altitude.	15	GLOBAL_CONFIG
lldp med location-tlv civic-addr { country | state | county | city | district | block | street | leading-street-direction | trailing-street-suffix | street-suffix | house-no | house-no-suffix | landmark | additional-info | name | zip-code | building | apartment | floor | room-number | place-type | postal-community-name | p-o-box | additional-code } <string250>	Use lldp med location-tlv civic-addr to configure the civic address.	15	GLOBAL_CONFIG
no lldp med location-tlv civic-addr { country | state | county | city | district | block | street | leading-street-direction | trailing-street-suffix | street-suffix | house-no | house-no-suffix | landmark | additional-info | name | zip-code | building | apartment | floor | room-number | place-type | postal-community-name | p-o-box | additional-code }		15	GLOBAL_CONFIG
lldp med location-tlv elin-addr <dword25>	Use the lldp med location-tlv elin-addr to configure value for the Emergency Call Service.	15	GLOBAL_CONFIG
no lldp med location-tlv elin-addr	Use the no lldp med location-tlv elin-addr to configure value for the Emergency Call Service to default value.	15	GLOBAL_CONFIG
lldp med transmit-tlv [capabilities] [location] [network-policy]	Use the lldp med transmit-tlv to configure which TLVs to transmit to link partner.	15	INTERFACE_PORT_LIST
no lldp med transmit-tlv [capabilities] [location] [network-policy]		15	INTERFACE_PORT_LIST
lldp med datum { wgs84 | nad83-navd88 | nad83-mllw }	Use the lldp med datum to configure the datum (geodetic system) to use.	15	GLOBAL_CONFIG
no lldp med datum		15	GLOBAL_CONFIG

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lldp med fast <1-10>	Use the lldp med fast to configure the number of times the fast start LLDPDU are being sent during the activation of the fast start mechanism defined by LLDP-MED (1–10).	15	GLOBAL_CONFIG
no lldp med fast		15	GLOBAL_CONFIG
lldp med media-vlan-policy <0-31> { voice | voice-signaling | guest-voice-signaling | guest-voice | softphone-voice | video-conferencing | streaming-video | video-signaling } { tagged <vlan_id> | untagged } [l2-priority <0-7>] [dscp <0-63>]	Use the media-vlan-policy to create a policy, which can be assigned to an interface.	15	GLOBAL_CONFIG
no lldp med media-vlan-policy <0~31>		15	GLOBAL_CONFIG
lldp med media-vlan policy-list <range_list>	Use the media-vlan policy-list to assign policy to the interface.	15	INTERFACE_PORT_LIST
loop-protect	Loop protection configuration.	15	GLOBAL_CONFIG
loop-protect transmit-time <1-10>	Loop protection transmit time interval.	15	GLOBAL_CONFIG
no loop-protect transmit-time		15	GLOBAL_CONFIG
loop-protect shutdown-time <0-604800>	Loop protection shutdown time interval.	15	GLOBAL_CONFIG
no loop-protect shutdown-time		15	GLOBAL_CONFIG
loop-protect	Loop protection configuration.	15	INTERFACE_PORT_LIST
loop-protect action { [shutdown] [log] }*1		15	INTERFACE_PORT_LIST
no loop-protect action		15	INTERFACE_PORT_LIST
loop-protect tx-mode		15	INTERFACE_PORT_LIST
show loop-protect [interface <port_type_list>]		13	EXEC
mac address-table learning [secure]	Enable learning on port.	15	INTERFACE_PORT_LIST
show mac address-table [conf | static | aging-time | { { learning | count } [interface <port_type_list>] } | { address <mac_addr> [vlan <vlan_id>] } | vlan <vlan_id> | interface <port_type_list>]		0	EXEC
clear mac address-table		15	EXEC
mac address-table static <mac_addr> vlan <vlan_id> interface <port_type_list>	Assign a static mac address to this port.	15	GLOBAL_CONFIG
mac address-table aging-time <0,10-1000000>	Set switch aging time, 0 to disable.	15	GLOBAL_CONFIG
no mac address-table aging-time	Default aging time.	15	GLOBAL_CONFIG
monitor destination interface <port_type_id>	Sets monitor destination port.	15	GLOBAL_CONFIG
no monitor destination	Sets monitor destination port.	15	GLOBAL_CONFIG

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monitor source { { interface <port_type_list> }	{ cpu [<range_list>] } } { both	rx	tx }	Sets monitor source port(s).	15	GLOBAL_CONFIG
no monitor source { { interface <port_type_list> }	{ cpu [<range_list>] } }	Sets monitor source port(s).	15	GLOBAL_CONFIG
debug chip [{ 0	1	all }]		debug	EXEC
debug api [interface <port_type_list>] [{ ail	cil }] [{ init	misc	port	counters	phy	vlan	pvlan	mac-table	acl	qos	aggr	stp	mirror	evc	erps	eps	packet	fdma	ts	pts	wm	ipmc	stack	cmef	mplscore	mplsoam	vxlat	oam	sgpio	l3	afi	macsec }] [full] [clear]		debug	EXEC
debug suspend		debug	EXEC
debug resume		debug	EXEC
debug kr-conf [cm1 <-32-31>] [c0 <-32-31>] [cp1 <-32-31>] [ampl <300-1275>] [{ ps25	ps35	ps55	ps70	ps120 }] [en-ob	dis-ob] [ser-inv	ser-no-inv]		debug	INTERFACE_PORT_LIST
debug phy-10g loopback [{ a	b	c	d	e	f	g	h	j	k	h2	h3	h4	h5	h6	l0	l1	l2	l3 } { enable	disable }]	Show or set 10g phy loopback mode.	debug	INTERFACE_PORT_LIST
show spanning-tree [summary	active	{ interface <port_type_list> }	{ detailed [interface <port_type_list>] }	{ mst [configuration	{ <0-7> [interface <port_type_list>] }] }]		15	EXEC
clear spanning-tree { { statistics [interface <port_type_list>] }	{ detected-protocols [interface <port_type_list>] } }		15	EXEC
spanning-tree mode { stp	rstp	mstp }		15	GLOBAL_CONFIG
no spanning-tree mode		15	GLOBAL_CONFIG
spanning-tree transmit hold-count <1-10>		15	GLOBAL_CONFIG
no spanning-tree transmit hold-count		15	GLOBAL_CONFIG
spanning-tree mst max-hops <6-40>		15	GLOBAL_CONFIG
no spanning-tree mst max-hops		15	GLOBAL_CONFIG
spanning-tree mst max-age <6-40> [forward-time <4-30>]		15	GLOBAL_CONFIG
no spanning-tree mst max-age		15	GLOBAL_CONFIG
spanning-tree mst forward-time <4-30>		15	GLOBAL_CONFIG
no spanning-tree mst forward-time		15	GLOBAL_CONFIG
spanning-tree edge bpdu-filter		15	GLOBAL_CONFIG
spanning-tree edge bpdu-guard		15	GLOBAL_CONFIG
spanning-tree recovery interval <30-86400>		15	GLOBAL_CONFIG
no spanning-tree recovery interval		15	GLOBAL_CONFIG
spanning-tree mst <0-7> priority <0-61440>		15	GLOBAL_CONFIG
no spanning-tree mst <0-7> priority		15	GLOBAL_CONFIG

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spanning-tree mst <0-7> vlan <vlan_list>		15	GLOBAL_CONFIG
no spanning-tree mst <0-7> vlan		15	GLOBAL_CONFIG
spanning-tree mst name <word32> revision <0-65535>		15	GLOBAL_CONFIG
no spanning-tree mst name		15	GLOBAL_CONFIG
spanning-tree		15	INTERFACE_PORT_LIST
spanning-tree edge		15	INTERFACE_PORT_LIST
spanning-tree auto-edge		15	INTERFACE_PORT_LIST
spanning-tree link-type { point-to-point	shared	auto }		15	INTERFACE_PORT_LIST
no spanning-tree link-type		15	INTERFACE_PORT_LIST
spanning-tree restricted-role		15	INTERFACE_PORT_LIST
spanning-tree restricted-tcn		15	INTERFACE_PORT_LIST
spanning-tree bpdu-guard		15	INTERFACE_PORT_LIST
spanning-tree mst <0-7> cost { <1-200000000>	auto }		15	INTERFACE_PORT_LIST
no spanning-tree mst <0-7> cost		15	INTERFACE_PORT_LIST
spanning-tree mst <0-7> port-priority <0-240>		15	INTERFACE_PORT_LIST
no spanning-tree mst <0-7> port-priority		15	INTERFACE_PORT_LIST
spanning-tree		15	STP_AGGR
spanning-tree edge		15	STP_AGGR
spanning-tree auto-edge		15	STP_AGGR
spanning-tree link-type { point-to-point	shared	auto }		15	STP_AGGR
no spanning-tree link-type		15	STP_AGGR
spanning-tree restricted-role		15	STP_AGGR
spanning-tree restricted-tcn		15	STP_AGGR
spanning-tree bpdu-guard		15	STP_AGGR
spanning-tree mst <0-7> cost { <1-200000000>	auto }		15	STP_AGGR
no spanning-tree mst <0-7> cost		15	STP_AGGR
spanning-tree mst <0-7> port-priority <0-240>		15	STP_AGGR
no spanning-tree mst <0-7> port-priority		15	STP_AGGR
mvr vlan <vlan_list> type { source	receiver }		15	INTERFACE_PORT_LIST
mvr name <word16> type { source	receiver }		15	INTERFACE_PORT_LIST
no mvr vlan <vlan_list> type		15	INTERFACE_PORT_LIST
no mvr name <word16> type		15	INTERFACE_PORT_LIST
mvr immediate-leave		15	INTERFACE_PORT_LIST
clear mvr [vlan <vlan_list>	name <word16>] statistics		15	EXEC

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Command	Description	Privilege	Mode
show mvr [vlan <vlan_list> | name <word16>] [group-database [interface <port_type_list>] [sfm-information]] [detail]		0	EXEC
mvr		15	GLOBAL_CONFIG
mvr vlan <vlan_list> [name <word16>]		15	GLOBAL_CONFIG
no mvr vlan <vlan_list>		15	GLOBAL_CONFIG
mvr vlan <vlan_list> mode { dynamic | compatible }		15	GLOBAL_CONFIG
mvr name <word16> mode { dynamic | compatible }		15	GLOBAL_CONFIG
no mvr vlan <vlan_list> mode		15	GLOBAL_CONFIG
no mvr name <word16> mode		15	GLOBAL_CONFIG
mvr vlan <vlan_list> igmp-address <ipv4_ucast>		15	GLOBAL_CONFIG
mvr name <word16> igmp-address <ipv4_ucast>		15	GLOBAL_CONFIG
no mvr vlan <vlan_list> igmp-address		15	GLOBAL_CONFIG
no mvr name <word16> igmp-address		15	GLOBAL_CONFIG
mvr vlan <vlan_list> frame priority <0-7>		15	GLOBAL_CONFIG
mvr vlan <vlan_list> frame tagged		15	GLOBAL_CONFIG
mvr name <word16> frame priority <0-7>		15	GLOBAL_CONFIG
mvr name <word16> frame tagged		15	GLOBAL_CONFIG
no mvr vlan <vlan_list> frame priority		15	GLOBAL_CONFIG
no mvr name <word16> frame priority		15	GLOBAL_CONFIG
mvr vlan <vlan_list> last-member-query-interval <0-31744>		15	GLOBAL_CONFIG
mvr name <word16> last-member-query-interval <0-31744>		15	GLOBAL_CONFIG
no mvr vlan <vlan_list> last-member-query-interval		15	GLOBAL_CONFIG
no mvr name <word16> last-member-query-interval		15	GLOBAL_CONFIG
mvr vlan <vlan_list> channel <word16>		15	GLOBAL_CONFIG
no mvr vlan <vlan_list> channel		15	GLOBAL_CONFIG
no mvr name <word16> channel		15	GLOBAL_CONFIG
show dot1x statistics { eapol | radius | all} [interface <port_type_list>]	Shows statistics for either eapol or radius.	0	EXEC
show dot1x status [interface <port_type_list>] [brief]	Shows dot1x status, such as admin state, port state and last source.	0	EXEC
clear dot1x statistics [interface <port_type_list>]	Clears the statistics counters.	15	EXEC
dot1x re-authentication	Set re-authentication state.	15	GLOBAL_CONFIG
dot1x authentication timer re-authenticate <1-3600>	The period between re-authentication attempts in seconds.	15	GLOBAL_CONFIG
no dot1x authentication timer re-authenticate		15	GLOBAL_CONFIG

dot1x timeout tx-period <1-65535>	The time between EAPOL retransmissions.	15	GLOBAL_CONFIG
no dot1x timeout tx-period		15	GLOBAL_CONFIG
dot1x authentication timer inactivity <10-1000000>	Time in seconds between check for activity on successfully authenticated MAC addresses.	15	GLOBAL_CONFIG
no dot1x authentication timer inactivity		15	GLOBAL_CONFIG
dot1x timeout quiet-period <10-1000000>	Time in seconds before a MAC-address that failed authentication gets a new authentication chance.	15	GLOBAL_CONFIG
no dot1x timeout quiet-period		15	GLOBAL_CONFIG
dot1x re-authenticate	Refresh (restart) 802.1X authentication process.	15	INTERFACE_PORT_LIST
dot1x initialize [interface <port_type_list>]	Force re-authentication immediately.	15	EXEC
dot1x system-auth-control	Set the global NAS state.	15	GLOBAL_CONFIG
dot1x port-control { force-authorized	force-unauthorized	auto	single	multi	mac-based }	Sets the port security state.	15	INTERFACE_PORT_LIST
no dot1x port-control	Sets the port security state.	15	INTERFACE_PORT_LIST
dot1x guest-vlan	Enables/disables guest VLAN	15	INTERFACE_PORT_LIST
dot1x max-reauth-req <1-255>	The number of times a Request Identity EAPOL frame is sent without response before considering entering the Guest VLAN.	15	GLOBAL_CONFIG
no dot1x max-reauth-req	The number of times a Request Identity EAPOL frame is sent without response before considering entering the Guest VLAN.	15	GLOBAL_CONFIG
dot1x guest-vlan <1-4095>	Guest VLAN ID used when entering the Guest VLAN.	15	GLOBAL_CONFIG
no dot1x guest-vlan	Guest VLAN ID used when entering the Guest VLAN.	15	GLOBAL_CONFIG

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dot1x guest-vlan supplicant	The switch remembers if an EAPOL frame has been received on the port for the life-time of the port. Once the switch considers whether to enter the Guest VLAN, it will first check if this option is enabled or disabled. If disabled (unchecked; default), the switch will only enter the Guest VLAN if an EAPOL frame has not been received on the port for the life-time of the port. If enabled (checked), the switch will consider entering the Guest VLAN even if an EAPOL frame has been received on the port for the life-time of the port.	15	GLOBAL_CONFIG
dot1x radius-qos	Enables/disables per-port state of RADIUS-assigned QoS.	15	INTERFACE_PORT_LIST
dot1x radius-vlan	Enables/disables per-port state of RADIUS-assigned VLAN.	15	INTERFACE_PORT_LIST
dot1x feature { [guest-vlan] [radius-qos] [radius-vlan] }*1	Globally enables/disables a dot1x feature functionality.	15	GLOBAL_CONFIG
show dot1x statistics { eapol | radius | all} [interface <port_type_list>]	Shows statistics for either eapol or radius.	0	EXEC
ntp	Enable NTP	13	GLOBAL_CONFIG
ntp server <1-5> ip-address {<ipv4_ucast>|<ipv6_ucast>|<hostname>}		13	GLOBAL_CONFIG
ntp server <1-5> ip-address {<ipv4_ucast>|<hostname>}		13	GLOBAL_CONFIG
no_ntp_server_ip_address		13	GLOBAL_CONFIG
show ntp status		13	EXEC
show platform phy [interface <port_type_list>]	Show PHY module's information for all or a given interface.	15	EXEC
show platform phy id [interface <port_type_list>]	Platform PHY's IDs.	15	EXEC
show platform phy instance		15	EXEC
show platform phy failover		15	EXEC
platform phy instance restart { cool | warm }		15	EXEC
platform phy instance default-activate		15	EXEC
show platform phy status [interface <port_type_list>]		15	EXEC
platform phy instance { 1g | 10g }		15	GLOBAL_CONFIG
no platform phy instance		15	GLOBAL_CONFIG
platform phy failover		15	INTERFACE_PORT_LIST
debug phy read [<0~31>] [<0-0xffff>] [addr-sort]		debug	INTERFACE_PORT_LIST

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debug phy write [<0~31>] <0-0xffff> [<0-0xffff>]		debug	INTERFACE_PORT_LIST
debug phy do-page-chk [enable|disable]		debug	EXEC
debug phy force-pass-through-speed {1G | 100M | 10M}		debug	INTERFACE_PORT_LIST
debug phy reset		debug	INTERFACE_PORT_LIST
debug phy gpio <0-13> mode {output|input|alternative}		debug	INTERFACE_PORT_LIST
debug phy gpio <0-13> get		debug	INTERFACE_PORT_LIST
show interface <port_type_list> statistics [{ packets | bytes | errors | discards | filtered | { priority [<0~7>] } }] [{ up | down }]	Shows the statistics for the interface.	0	EXEC
show interface <port_type_list> veriphy	Run and display cable diagnostics.	0	EXEC
clear statistics [interface] <port_type_list>	Clears the statistics for the interface.	0	EXEC
show interface <port_type_list> capabilities		0	EXEC
show interface <port_type_list> status	Display status for the interface.	0	EXEC
mtu <'VTSS_MAX_FRAME_LENGTH_STANDARD'-'VTSS_MAX_FRAME_LENGTH_MAX'>	Use mtu to specify maximum frame size (1518-9600 bytes).	15	INTERFACE_PORT_LIST
no mtu	Use no mtu to set maximum frame size to default.	15	INTERFACE_PORT_LIST
shutdown	Use shutdown to shutdown the interface.	15	INTERFACE_PORT_LIST
speed { 10g | 2500 | 1000 | 100 | 10 | auto {[10] [100] [1000]} }	Configures interface speed. If you use 10, 100 or 1000 keywords with the auto keyword the port will only advertise the specified speeds.	15	INTERFACE_PORT_LIST
no speed	Use no speed to configure interface to default speed.	15	INTERFACE_PORT_LIST
duplex { half | full | auto [half | full] }	Use duplex to configure interface duplex mode.	15	INTERFACE_PORT_LIST
no duplex	Use no duplex to set duplex to default.	15	INTERFACE_PORT_LIST
media-type { rj45 | sfp | dual }	Use media-type to configure the interface media type.	15	INTERFACE_PORT_LIST
no media-type	Use to configure the interface media-type to default.	15	INTERFACE_PORT_LIST
flowcontrol { on | off }	Use flowcontrol to configure flow control for the interface.	15	INTERFACE_PORT_LIST
no flowcontrol	Use no flowcontrol to set flow control to default.	15	INTERFACE_PORT_LIST
excessive-restart	Use excessive-restart to configure backoff algorithm in half duplex mode.	15	INTERFACE_PORT_LIST

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Command	Description	Priv	Mode
show web privilege group [<cword>] level		0	EXEC
web privilege group <cword> level { [cro <0-15>] [crw <0-15>] [sro <0-15>] [srw <0-15>] }*1		15	GLOBAL_CONFIG
no web privilege group [<cword>] level		15	GLOBAL_CONFIG
show port-security port [interface <port_type_list>]	Show MAC Addresses learned by Port Security.	0	EXEC
show port-security switch [interface <port_type_list>]	Show Port Security status.	0	EXEC
no port-security shutdown [interface <port_type_list>]	Reopen one or more ports whose limit is exceeded and shut down.	15	EXEC
port-security	Enable/disable port security globally.	15	GLOBAL_CONFIG
port-security aging	Enable/disable port security aging.	15	GLOBAL_CONFIG
port-security aging time <10-10000000>	Time in seconds between check for activity on learned MAC addresses.	15	GLOBAL_CONFIG
no port-security aging time		15	GLOBAL_CONFIG
port-security	Enable/disable port security per interface.	15	INTERFACE_PORT_LIST
port-security maximum [<1-1024>]	Maximum number of MAC addresses that can be learned on this set of interfaces.	15	INTERFACE_PORT_LIST
no port-security maximum		15	INTERFACE_PORT_LIST
port-security violation { protect	trap	trap-shutdown	shutdown }	The action involved with exceeding the limit.	15	INTERFACE_PORT_LIST
no port-security violation	The action involved with exceeding the limit.	15	INTERFACE_PORT_LIST
pvlan <range_list>	Use the pvlan add or remove command to add or remove a port from a PVLAN.	13	INTERFACE_PORT_LIST
pvlan isolation	Use the pvlan isolation command to add the port into an isolation group.	13	INTERFACE_PORT_LIST
show pvlan [<range_list>]	Use the show pvlan command to view the PVLAN configuration.	13	EXEC
show pvlan isolation [interface <port_type_list>]	Use the show pvlan isolation command to view the PVLAN isolation configuration.	13	EXEC
show qos [{ interface [<port_type_list>] }	wred	{ maps [dscp-cos] [dscp-ingress-translation] [dscp-classify] [cos-dscp] [dscp-egress-translation] }	storm	{ qce [<1-256>] }]		15	EXEC
qos map dscp-cos { <0~63>	<dscp> } cos <0-7> dpl <dpl>		15	GLOBAL_CONFIG
no qos map dscp-cos { <0~63>	<dscp> }		15	GLOBAL_CONFIG

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qos map dscp-ingress-translation { <0~63>	<dscp> } to { <0-63>	<dscp> }		15	GLOBAL_CONFIG
no qos map dscp-ingress-translation { <0~63>	<dscp> }		15	GLOBAL_CONFIG
qos map dscp-classify { <0~63>	<dscp> }		15	GLOBAL_CONFIG
qos map cos-dscp <0~7> dpl <0~1> dscp { <0-63>	<dscp> }		15	GLOBAL_CONFIG
no qos map cos-dscp <0~7> dpl <0~1>		15	GLOBAL_CONFIG
qos map dscp-egress-translation { <0~63>	<dscp> } <0~1> to { <0-63>	<dscp> }		15	GLOBAL_CONFIG
no qos map dscp-egress-translation { <0~63>	<dscp> } <0~1>		15	GLOBAL_CONFIG
qos wred queue <0~5> min-th <0-100> mdp-1 <0-100> mdp-2 <0-100> mdp-3 <0-100>		15	GLOBAL_CONFIG
qos wred queue <0~5> min-fl <0-100> max <1-100> [fill-level]		15	GLOBAL_CONFIG
no qos wred queue <0~5>		15	GLOBAL_CONFIG
qos storm { unicast	multicast	broadcast } { { <1,2,4,8,16,32,64,128,256,512> [kfps] }	{ 1024 kfps } }		15	GLOBAL_CONFIG
no qos storm { unicast	multicast	broadcast }		15	GLOBAL_CONFIG
qos qce { [update] } <uint> [{ next <uint> }	last] [interface <port_type_list>] [smac { <mac_addr>	<oui>	any }] [dmac { <mac_addr>	unicast	multicast	broadcast	any }] [tag { [type { untagged	tagged	c-tagged	s-tagged	any }] [vid { <vcap_vr>	any }] [pcp { <pcp>	any }] [dei { <0-1>	any }] }*1] [inner-tag { [type { untagged	tagged	c-tagged	s-tagged	any }] [vid { <vcap_vr>	any }] [pcp { <pcp>	any }] [dei { <0-1>	any }] }*1] [frame-type { any	{ etype [{ <0x600-0x7ff,0x801-0x86dc,0x86de-0xffff>	any }] }	{ llc [dsap { <0-0xff>	any }] [ssap { <0-0xff>	any }] [control { <0-0xff>	any }] }	{ snap [{ <0-0xffff>	any }] }	{ ipv4 [proto { <0-255>	tcp	udp	any }] [sip { <ipv4_subnet>	any }] [dip { <ipv4_subnet>	any }] [dscp { <vcap_vr>	<dscp>	any }] [fragment { yes	no	any }] [sport { <vcap_vr>	any }] [dport { <vcap_vr>	any }] }	{ ipv6 [proto { <0-255>	tcp	udp	any }] [sip { <ipv4_subnet>	any }] [dip { <ipv4_subnet>	any }] [dscp { <vcap_vr>	<dscp>	any }] [sport { <vcap_vr>	any }] [dport { <vcap_vr>	any }] } }] [action { [cos { <0-7>	default }] [dpl { <0-1>	default }] [pcp-dei { <0-7> <0-1>	default }] [dscp { <0-63>	<dscp>	default }] [policy { <uint>	default }] }*1]		15	GLOBAL_CONFIG
no qos qce <'QCE_ID_START'~'QCE_ID_END'>		15	GLOBAL_CONFIG
qos qce refresh		15	GLOBAL_CONFIG
qos cos <0-7>		15	GLOBAL_CONFIG

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no qos cos		15	INTERFACE_PORT_LIST
qos dpl <dpl>		15	INTERFACE_PORT_LIST
no qos dpl		15	INTERFACE_PORT_LIST
qos pcp <0-7>		15	INTERFACE_PORT_LIST
no qos pcp		15	INTERFACE_PORT_LIST
qos dei <0-1>		15	INTERFACE_PORT_LIST
no qos dei		15	INTERFACE_PORT_LIST
qos trust tag		15	INTERFACE_PORT_LIST
qos trust dscp		15	INTERFACE_PORT_LIST
qos map tag-cos pcp <0~7> dei <0~1> cos <0-7> dpl <dpl>		15	INTERFACE_PORT_LIST
no qos map tag-cos pcp <0~7> dei <0~1>		15	INTERFACE_PORT_LIST
qos policer <uint> [fps] [flowcontrol]		15	INTERFACE_PORT_LIST
no qos policer		15	INTERFACE_PORT_LIST
qos queue-policer queue <0~7> <uint>		15	INTERFACE_PORT_LIST
qos queue-policer queue <0~7> <uint>		15	INTERFACE_PORT_LIST
no qos queue-policer queue <0~7>		15	INTERFACE_PORT_LIST
qos wrr <1-100> <1-100> <1-100> <1-100> <1-100> <1-100>		15	INTERFACE_PORT_LIST
no qos wrr		15	INTERFACE_PORT_LIST
qos shaper <uint>		15	INTERFACE_PORT_LIST
no qos shaper		15	INTERFACE_PORT_LIST
qos queue-shaper queue <0~7> <uint> [excess]		15	INTERFACE_PORT_LIST
no qos queue-shaper queue <0~7>		15	INTERFACE_PORT_LIST
qos tag-remark { pcp <0-7> dei <0-1>	mapped }		15	INTERFACE_PORT_LIST
no qos tag-remark		15	INTERFACE_PORT_LIST
qos map cos-tag cos <0~7> dpl <0~1> pcp <0-7> dei <0-1>		15	INTERFACE_PORT_LIST
no qos map cos-tag cos <0~7> dpl <0~1>		15	INTERFACE_PORT_LIST
qos dscp-translate		15	INTERFACE_PORT_LIST
qos dscp-classify { zero	selected	any }		15	INTERFACE_PORT_LIST
no qos dscp-classify		15	INTERFACE_PORT_LIST
qos dscp-remark { rewrite	remap	remap-dp }		15	INTERFACE_PORT_LIST
no qos dscp-remark		15	INTERFACE_PORT_LIST
qos storm { unicast	broadcast	unknown } <100-13200000> [fps]		15	INTERFACE_PORT_LIST
no qos storm { unicast	broadcast	unknown }		15	INTERFACE_PORT_LIST

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qos qce { [addr { source	destination }] [key { double-tag	normal	ip-addr	mac-ip-addr }] }*1		15	INTERFACE_PORT_LIST
no qos qce { [addr] [key] }*1		15	INTERFACE_PORT_LIST
debug qos shaper cir { <100-3300000> [cbs <4096-258048>] } { [eir <100-3300000> [ebs <4096-258048>]] }		debug	INTERFACE_PORT_LIST
no debug qos shaper		debug	INTERFACE_PORT_LIST
debug qos queue-shaper queue <0~7> { cir <100-3300000> [cbs <4096-258048>] } { [eir <100-3300000> [ebs <4096-258048>]] } [excess]		debug	INTERFACE_PORT_LIST
no debug qos queue-shaper queue <0~7>		debug	INTERFACE_PORT_LIST
debug show qos shapers		debug	EXEC
debug qos cmef [{ enable	disable }]		debug	EXEC
show rmon statistics [<1~65535>]		15	EXEC
show rmon history [<1~65535>]		15	EXEC
show rmon alarm [<1~65535>]		15	EXEC
show rmon event [<1~65535>]		15	EXEC
rmon alarm <1-65535> <word255> <1-2147483647> {absolute	delta} rising-threshold <-2147483648-2147483647> [<0-65535>] falling-threshold <-2147483648-2147483647> [<0-65535>] {[rising	falling	both]}		15	GLOBAL_CONFIG
no rmon alarm <1-65535>		15	GLOBAL_CONFIG
rmon event <1-65535> [log] [trap <word127>] {[description <line127>]}		15	GLOBAL_CONFIG
no rmon event <1-65535>		15	GLOBAL_CONFIG
rmon collection stats <1-65535>		15	INTERFACE_PORT_LIST
no rmon collection stats <1-65535>		15	INTERFACE_PORT_LIST
rmon collection history <1-65535> [buckets <1-65535>] [interval <1-3600>]		15	INTERFACE_PORT_LIST
no rmon collection history <1-65535>		15	INTERFACE_PORT_LIST
show sflow statistics { receiver [<range_list>]	samplers [interface [<range_list>] <port_type_list>]}	Use sflow statistics to show statistics for either receiver or sample interface.	0	EXEC
show sflow	Use show sflow to display the current sFlow configuration.	0	EXEC
clear sflow statistics { receiver [<range_list>]	samplers [interface [<range_list>] <port_type_list>] }	Clearing statistics.	15	EXEC
sflow agent-ip {ipv4 <ipv4_addr>	ipv6 <ipv6_addr>}	The agent IP address used as agent-address in UDP datagrams. Defaults to IPv4 loopback address.	15	GLOBAL_CONFIG

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no sflow agent-ip	Sets the agent IP address used as agent-address in UDP datagrams to 127.0.0.1.	15	GLOBAL_CONFIG
sflow timeout [receiver <range_list>] <0-2147483647>	Receiver timeout measured in seconds. The switch decrements the timeout once per second, and as long as it is non-zero, the receiver receives samples. Once the timeout reaches 0, the receiver and all its configuration are reset to defaults.	15	GLOBAL_CONFIG
no sflow timeout [receiver <range_list>]	Receiver timeout measured in seconds. The switch decrements the timeout once per second, and as long as it is non-zero, the receiver receives samples. Once the timeout reaches 0, the receiver and all its configuration are reset to defaults.	15	GLOBAL_CONFIG
sflow collector-address [receiver <range_list>] [<word>]	Collector address.	15	GLOBAL_CONFIG
no sflow collector-address [receiver <range_list>]		15	GLOBAL_CONFIG
sflow collector-port [receiver <range_list>] <1-65535>	Collector UDP port. Valid range is 0−65536.	15	GLOBAL_CONFIG
no sflow collector-port [receiver <range_list>]	Collector UDP port. Valid range is 0−65536.	15	GLOBAL_CONFIG
sflow max-datagram-size [receiver <range_list>] <200-1468>	Maximum datagram size.	15	GLOBAL_CONFIG
no sflow max-datagram-size [receiver <range_list>]	Maximum datagram size.	15	GLOBAL_CONFIG
sflow sampling-rate [sampler <range_list>] [<1-4294967295>]	Specifies the statistical sampling rate. The sample rate is specified as N to sample 1/Nth of the packets in the monitored flows. There are no restrictions on the value, but the switch will adjust it to the closest possible sampling rate.	15	INTERFACE_PORT_LIST
sflow max-sampling-size [sampler <range_list>] [<14-200>]	Specifies the maximum number of bytes to transmit per flow sample.	15	INTERFACE_PORT_LIST
no sflow max-sampling-size [sampler <range_list>]	Specifies the maximum number of bytes to transmit per flow sample.	15	INTERFACE_PORT_LIST
sflow counter-poll-interval [sampler <range_list>] [<1-3600>]	The interval, in seconds, between counter poller samples.	15	INTERFACE_PORT_LIST
no sflow counter-poll-interval [<range_list>]	The interval, in seconds, between counter poller samples.	15	INTERFACE_PORT_LIST
sflow [<range_list>]	Enables/disables flow sampling on this port.	15	INTERFACE_PORT_LIST

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show smtp	Email information.	0	EXEC
smtp delete { server	username	sender	returnpath	mailaddress <1-6> }	Delete email server.	15	GLOBAL_CONFIG
smtp mailaddress <1-6> <word47>	Set email server.	15	GLOBAL_CONFIG
smtp returnpath <word47>		15	GLOBAL_CONFIG
smtp returnpath <word47>		15	GLOBAL_CONFIG
smtp sender <word47>		15	GLOBAL_CONFIG
smtp username <word31> <word31>		15	GLOBAL_CONFIG
smtp server <word47>		15	GLOBAL_CONFIG
smtp level <0-7>		15	GLOBAL_CONFIG
show snmp		15	EXEC
show snmp community v3 [<word127>]		15	EXEC
show snmp user [<word32> <word10-32>]			
show snmp security-to-group [{ v1	v2c	v3 } <word32>]			
show snmp access [<word32> { v1	v2c	v3	any } { auth	noauth	priv }]			
show snmp view [<word32> <word255>]			
snmp-server	Enable SNMP server.	13	GLOBAL_CONFIG
snmp-server engine-id local <word10-32>	To specify SNMP server's engine ID.	13	GLOBAL_CONFIG
no snmp-server engined-id local	To set SNMP server's engine ID to default value.	15	GLOBAL_CONFIG
snmp-server version { v1	v2c	v3 }	Set the SNMP server version to SNMPv1, SNMPv2c or SNMPv3.	15	GLOBAL_CONFIG
no snmp-server version	Set SNMP server's version to default setting.	15	GLOBAL_CONFIG
snmp-server community v2c <word127> [ro	rw]		15	GLOBAL_CONFIG
snmp-server community v3 <word127> [<ipv4_addr> <ipv4_netmask>]		15	GLOBAL_CONFIG
no snmp-server community v2c		15	GLOBAL_CONFIG
no snmp-server community v3 <word127>		15	GLOBAL_CONFIG
snmp-server user <word32> engine-id <word10-32> [{md5 <word8-32>	sha <word8-40> } [priv { des	aes } <word8-32>]]		15	GLOBAL_CONFIG
no snmp-server user <word32> engine-id <word10-32>		15	GLOBAL_CONFIG
snmp-server security-to-group model { v1	v2c	v3 } name <word32> group <word32>		15	GLOBAL_CONFIG
no snmp-server security-to-group model { v1	v2c	v3 } name <word32>		15	GLOBAL_CONFIG

snmp-server access <word32> model { v1 | v2c | v3 | any } level { auth | noauth | priv } [read <word255>] [write <word255>]		15	GLOBAL_CONFIG
no snmp-server access <word32> model { v1 | v2c | v3 | any } level { auth | noauth | priv }		15	GLOBAL_CONFIG
snmp-server view <word32> <word255> { include | exclude }		15	GLOBAL_CONFIG
no snmp-server view <word32> <word255>		15	GLOBAL_CONFIG
snmp-server contact <line255>	To specify the system contact string.	15	GLOBAL_CONFIG
no snmp-server contact	To clear the system contact string.	15	GLOBAL_CONFIG
snmp-server location <line255>	To specify the system location string.	15	GLOBAL_CONFIG
no snmp-server location	To specify the system location string.	15	GLOBAL_CONFIG
show snmp mib context	Use the show snmp mib context user EXEC command to display the supported MIBs in the switch.	15	EXEC
show snmp mib ifmib ifIndex	Use the show snmp mib ifmib ifIndex user EXEC command to display the SNMP ifIndex (defined in IF-MIB) mapping information in the switch.	15	EXEC
show snmp mib redefine	Use the show snmp mib redefine user EXEC command to display the redefined MIBs in the switch, that are different definitions from the standard MIBs.	15	EXEC
snmp-server trap		15	GLOBAL_CONFIG
no snmp-server host <word32>		15	GLOBAL_CONFIG
shutdown		15	SNMPS_HOST
host { <ipv4_ucast> | <hostname> } [<1-65535>] [traps | informs]		15	SNMPS_HOST
host <ipv6_ucast> [<1-65535>] [traps | informs]		15	SNMPS_HOST
no host		15	SNMPS_HOST
version { v1 [<word127>] | v2 [<word127>] | v3 [probe | engineID <word10-32>] [<word32>] }		15	SNMPS_HOST
no version		15	SNMPS_HOST
informs retries <0-255> timeout <0-2147>		15	SNMPS_HOST
no informs		15	SNMPS_HOST
traps [aaa authentication] [system [coldstart] [warmstart]] [switch [stp] [rmon]]		15	SNMPS_HOST
no traps		15	SNMPS_HOST

snmp-server host <word32> traps [linkup] [linkdown] [lldp]		15	INTERFACE_PORT_LIST
no snmp-server host <word32> traps		15	INTERFACE_PORT_LIST
show snmp host [<word32>] [system] [switch] [interface] [aaa]		15	EXEC
switch stack re-elect	Config commands for the switches in the stack.	13	EXEC
switch stack priority {local | <1-16>} <1-4>	Configure master election priority.	13	GLOBAL_CONFIG
switch stack swap <1-16> <1-16>	Swap switch ID.	13	GLOBAL_CONFIG
no switch stack <1-16>		13	GLOBAL_CONFIG
switch stack <1-16> mac <mac_ucast>	MAC Address of the switch.	13	GLOBAL_CONFIG
switch stack { enable | disable }	Enable/disable stacking.	13	GLOBAL_CONFIG
switch stack interface <port_type_list>	Configure stacking interface.	13	GLOBAL_CONFIG
show switch stack [details]	Show switch Detail information.	0	EXEC
show switch stack debug	Show switch Debug information.	debug	EXEC
show ip ssh	Use the show ip ssh privileged EXEC command to display the SSH status.	15	EXEC
ip ssh	Use the ip ssh global configuration command to enable the SSH. Use the no form of this command to disable the SSH.	15	GLOBAL_CONFIG
show network-clock	Show selector state.	0	EXEC
clear network-clock clk-source <range_list>	Clear active WTR timer.	15	EXEC
network-clock clk-source <range_list> nominate { clk-in | {interface <port_type_id>} }	Nominate a clk input to become a selectable clock source.	15	GLOBAL_CONFIG
no network-clock clk-source <range_list> nominate		15	GLOBAL_CONFIG
network-clock input-source { 1544khz | 2048khz | 10mhz }	Sets the station clock input frequency.	15	GLOBAL_CONFIG
no network-clock input-source		15	GLOBAL_CONFIG
network-clock output-source { 1544khz | 2048khz | 10mhz }	Sets the station clock output frequency.	15	GLOBAL_CONFIG
no network-clock output-source		15	GLOBAL_CONFIG
network-clock clk-source <range_list> aneg-mode { master | slave | forced}	Sets the preferred negotiation.	15	GLOBAL_CONFIG
no network-clock clk-source <range_list> aneg-mode		15	GLOBAL_CONFIG
network-clock clk-source <range_list> hold-timeout <3-18>	The hold off timer value in 100 ms. Valid values are range 3–18.	15	GLOBAL_CONFIG
no network-clock clk-source <range_list> hold-timeout		15	GLOBAL_CONFIG

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network-clock selector { { manual clk-source <uint> } | selected | nonrevertive | revertive | holdover | freerun }	Selection mode of nominated clock sources.	15	GLOBAL_CONFIG
no network-clock selector		15	GLOBAL_CONFIG
network-clock clk-source <range_list> priority <0-1>	Priority of nominated clock sources.	15	GLOBAL_CONFIG
no network-clock clk-source <range_list> priority		15	GLOBAL_CONFIG
network-clock wait-to-restore <0-12>	WTR time (0–12 min.); '0' is disable.	15	GLOBAL_CONFIG
no network-clock wait-to-restore		15	GLOBAL_CONFIG
network-clock ssm-holdover { prc | ssua | ssub | eec2 | eec1 | dnu | inv }	Hold Over SSM overwrite.	15	GLOBAL_CONFIG
no network-clock ssm-holdover		15	GLOBAL_CONFIG
network-clock ssm-freerun { prc | ssua | ssub | eec2 | eec1 | dnu | inv }	Free Running SSM overwrite.	15	GLOBAL_CONFIG
no network-clock ssm-freerun		15	GLOBAL_CONFIG
network-clock clk-source <range_list> ssm-overwrite { prc | ssua | ssub | eec2 | eec1 | dnu }	Clock source SSM overwrite.	15	GLOBAL_CONFIG
no network-clock clk-source <range_list> ssm-overwrite		15	GLOBAL_CONFIG
network-clock option { eec1 | eec2 }	EEC options.	15	GLOBAL_CONFIG
no network-clock option		15	GLOBAL_CONFIG
network-clock synchronization ssm	SSM enable/disable.	15	INTERFACE_PORT_LIST
show logging [info] [warning] [error] [switch <switch_list>]	Use the show logging privileged EXEC command without keywords to display the logging configuration, or specifically the logging message summary for the logging level.	15	EXEC
show logging <1-4294967295> [switch <switch_list>]	Use the show logging privileged EXEC command with logging ID to display the detail logging message. OC_CMD_DEFAULT =	15	EXEC
clear logging [info] [warning] [error] [switch <switch_list>]	Use the clear logging privileged EXEC command to clear the logging message.	15	EXEC
logging on	Use the logging on global configuration command to enable the logging server. Use the no form of this command to disable the logging server.	15	GLOBAL_CONFIG
logging host { <ipv4_ucast> | <hostname> }	Use the logging host global configuration command to configure the host address of logging server.	15	GLOBAL_CONFIG

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no logging host	Use the no logging host global configuration command to clear the host address of logging server.	15	GLOBAL_CONFIG
logging level { info | warning | error }	Use the logging level global configuration command to configure what level of message will send to logging server.	15	GLOBAL_CONFIG
show clock	Show running system information.	0	EXEC
show version	System hardware and software status.	0	EXEC
password unencrypted <line31>	Use the password encrypted <password> global configuration command to configure administrator password with unencrypted password for the local switch access.	15	GLOBAL_CONFIG
password encrypted <word4-44>	Use the password encrypted <password> global configuration command to configure administrator password with encrypted password for the local switch access.	15	GLOBAL_CONFIG
password none	Use the password none global configuration command to remove the administrator password.	15	GLOBAL_CONFIG
show system	Show system information.	0	EXEC
system contact <line255>	To specify the system contact string.	15	GLOBAL_CONFIG
no system contact	To clear the system contact string.	15	GLOBAL_CONFIG
system location <line255>	To specify the system location string.	15	GLOBAL_CONFIG
no system location	To specify the system location string.	15	GLOBAL_CONFIG
system name <line255>	To specify the system mode name string.	15	GLOBAL_CONFIG
no system name	To specify the system model name string.	15	GLOBAL_CONFIG
show thermal-protect [interface <port_type_list>]	Shows thermal protection status (chip temperature and port status).	15	EXEC
thermal-protect prio <0~3> temperature <0-255>	Thermal protection configuirations.	15	GLOBAL_CONFIG
no thermal-protect prio <0~3>	Sets temperature at which to turn ports with the corresponding priority off.	15	GLOBAL_CONFIG
thermal-protect port-prio <0-3>	Sets temperature at which to turn ports with the corresponding priority off.	15	INTERFACE_PORT_LIST

no thermal-protect port-prio	Sets temperature at which to turn ports with the corresponding priority off.	15	INTERFACE_PORT_LIST
show upnp		15	EXEC
upnp		15	GLOBAL_CONFIG
upnp ttl <1-255>		15	GLOBAL_CONFIG
no upnp ttl		15	GLOBAL_CONFIG
upnp advertising-duration <100-86400>		15	GLOBAL_CONFIG
no upnp advertising-duration		15	GLOBAL_CONFIG
username <word31> privilege <0-15> password unencrypted <line31>	Use the username <username> privilege <level> password encrypted <password> global configuration command to add a user with unencrypted password for the local switch access.	15	GLOBAL_CONFIG
username <word31> privilege <0-15> password encrypted <word4-44>	Use the username <username> privilege <level> password encrypted <password> global configuration command to add a user with encrypted password for the local switch access.	15	GLOBAL_CONFIG
username <word31> privilege <0-15> password none	Use the username <username> privilege <level> password none global configuration command to remove the password for specific username.	15	GLOBAL_CONFIG
no username <word31>	Use the no username <username> global configuration command to delete a local user.	15	GLOBAL_CONFIG
vlan protocol {{eth2 {<0x600-0xffff>|arp|ip|ipx|at}} | {snap {<0x0-0xffffff>|rfc-1042|snap-8021h} <0x0-0xffff>} | {llc <0x0-0xff> <0x0-0xff>} } group <word16>		13	GLOBAL_CONFIG
switchport vlan mac <mac_ucast> vlan <vlan_id>	Use the switchport vlan mac command to associate a MAC address to VLAN ID.	13	INTERFACE_PORT_LIST
switchport vlan protocol group <word16> vlan <vlan_id>	Use the no form of this command to remove the group to VLAN mapping.	13	INTERFACE_PORT_LIST
show vlan protocol [eth2 {<0x600-0xffff>|arp|ip|ipx|at}] [snap {<0x0-0xffffff>|rfc-1042|snap-8021h} <0x0-0xffff>] [llc <0x0-0xff> <0x0-0xff>]	Use the switchport vlan protocol group command to add group to VLAN mapping.	13	EXEC
show vlan mac [address <mac_ucast>]		13	EXEC
show vlan ip-subnet [id <1-128>]		13	EXEC

Command	Description		
switchport vlan ip-subnet id <1-128> <ipv4_subnet> vlan <vlan_id>		13	INTERFACE_PORT_LIST
no switchport vlan ip-subnet id <1~128>		13	INTERFACE_PORT_LIST
debug vcl policy <uint>		debug	INTERFACE_PORT_LIST
no debug vcl policy		debug	GLOBAL_CONFIG
debug show vcl policy		debug	EXEC
switchport mode {access	trunk	hybrid}	Use the switchport mode command to define the type of the port.	13	INTERFACE_PORT_LIST
no switchport mode		13	INTERFACE_PORT_LIST
switchport access vlan <vlan_id>	Use the switchport access vlan command to configure a port to a VLAN. Valid VLAN IDs are 1 to 4095.	13	INTERFACE_PORT_LIST
no switchport access vlan		13	INTERFACE_PORT_LIST
switchport trunk native vlan <vlan_id>	Use the switchport native vlan command to configure a port VLAN ID for a trunk port.	13	INTERFACE_PORT_LIST
no switchport trunk native vlan	Set trunk mode characteristics of the interface.	13	INTERFACE_PORT_LIST
switchport hybrid native vlan <vlan_id>	Use the switchport native vlan command to configure a port VLAN ID for a hybrid port.	13	INTERFACE_PORT_LIST
no switchport hybrid native vlan	Set hybrid mode characteristics of the interface.	13	INTERFACE_PORT_LIST
switchport hybrid port-type { unaware	c-port	s-port	s-custom-port }	Set hybrid characteristics of the interface.	13	INTERFACE_PORT_LIST
no switchport hybrid port-type	Set hybrid characteristics of the interface.	13	INTERFACE_PORT_LIST
switchport hybrid ingress-filtering	Set hybrid characteristics of the interface.	13	INTERFACE_PORT_LIST
switchport hybrid acceptable-frame-type { all	tagged	untagged }	Set hybrid characteristics of the interface.	13	INTERFACE_PORT_LIST
no switchport hybrid acceptable-frame-type	Set hybrid characteristics of the interface.	13	INTERFACE_PORT_LIST
switchport hybrid egress-tag {none	all [except-native]}	Set hybrid characteristics of the interface.	13	INTERFACE_PORT_LIST
no switchport hybrid egress-tag	Set hybrid characteristics of the interface.	13	INTERFACE_PORT_LIST
switchport trunk vlan tag native	Set trunk characteristics of the interface.	13	INTERFACE_PORT_LIST
switchport trunk allowed vlan {all	none	[add	remove	except] <vlan_list>}	Set trunk mode characteristics of the interface.	13	INTERFACE_PORT_LIST

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no switchport trunk allowed vlan	Set trunk characteristics of the interface,	13	INTERFACE_PORT_LIST
switchport hybrid allowed vlan {all | none | [add | remove | except] <vlan_list>}	Set hybrid characteristics of the interface.	13	INTERFACE_PORT_LIST
no switchport hybrid allowed vlan	Set hybrid characteristics of the interface.	13	INTERFACE_PORT_LIST
vlan ethertype s-custom-port <0x0600-0xffff>		13	GLOBAL_CONFIG
no vlan {{ethertype s-custom-port} | <vlan_list>}		15	GLOBAL_CONFIG
show interface <port_type_list> switchport [access | trunk | hybrid]	Use the how interface command to display the administrative and operational status of all interfaces or a specified interface.	0	EXEC
show vlan [id <vlan_list> | name <vword32> | brief]	Use the show vlan command to view the VLAN configuration.	13	EXEC
show vlan status [interface <port_type_list>] [combined|admin|nas|mvr|voice-vlan|mstp|erps|vcl|evc|gvrp|all|conflicts]	Use the show vlan status command to view the VLANs configured for each interface.	13	EXEC
name <vword32>	Use the name <vword32> command to configure VLAN name.	13	CONFIG_VLAN
no name	The no form of this command will restore the VLAN name to its default.	13	CONFIG_VLAN
switchport forbidden vlan {add|remove} <vlan_list>	Adds or removes forbidden VLANs from the current list of forbidden VLANs.	15	INTERFACE_PORT_LIST
no switchport forbidden vlan	Allows for adding VLANs to an interface.	15	INTERFACE_PORT_LIST
show switchport forbidden [{vlan <vlan_id>} | {name <word>}]	Lookup VLAN forbidden port entry.	0	EXEC
voice vlan	Use the voice vlan global configuration command to enable voice VLAN. Use the no form of this command to globally disable voice VLAN.	15	GLOBAL_CONFIG
voice vlan vid <vlan_id>	Use the voice vlan vid global configuration command to configure voice VLAN vid.	15	GLOBAL_CONFIG
no voice vlan vid	Use the no voice vlan vid global configuration command to restore the default voice VLAN vid.	15	GLOBAL_CONFIG
voice vlan aging-time <10-10000000>	Use the voice vlan aging-time global configuration command to configure default voice VLAN aging-time.	15	GLOBAL_CONFIG

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no voice vlan aging-time	Use the no voice vlan aging-time global configuration command to restore the default voice VLAN aging-time.	15	GLOBAL_CONFIG
voice vlan class { <0-7> | low | normal | medium | high }	Use the voice vlan class global configuration command to configure voice VLAN class.	15	GLOBAL_CONFIG
no voice vlan class	Use the no voice vlan class global configuration command to restore the default voice VLAN class.	15	GLOBAL_CONFIG
voice vlan oui <oui> [description <line32>]	Use the voice vlan oui global configuration command to set the oui entry for voice VLAN.	15	GLOBAL_CONFIG
no voice vlan oui <oui>	Use the no voice vlan oui global configuration command to delete the oui entry.	15	GLOBAL_CONFIG
switchport voice vlan mode { auto | force | disable }	Use the switchport voice vlan mode interface configuration command to configure to switchport voice VLAN mode.	15	INTERFACE_PORT_LIST
no switchport voice vlan mode	Use the no switchport voice vlan mode interface configuration command to restore the default switchport voice VLAN mode.	15	INTERFACE_PORT_LIST
switchport voice vlan security	Use the switchport voice vlan security interface configuration command to configure switchport voice VLAN security mode. Use the no form of this command to globally disable switchport voice VLAN security mode.	15	INTERFACE_PORT_LIST
switchport voice vlan discovery-protocol {oui | lldp | both}	Use the switchport voice vlan discovery-protocol interface configuration command to configure to switchport voice VLAN discovery-protocol.	15	INTERFACE_PORT_LIST
no switchport voice vlan discovery-protocol	Use the no switchport voice vlan discovery-protocol interface configuration command to restore the default switchport voice VLAN discovery-protocol.	15	INTERFACE_PORT_LIST

show voice vlan [oui <oui> | interface <port_type_list>]	Use the show voice vlan privilege EXEC command without keywords to display the voice VLAN configuration, or specifically switchport configuration for the interface. Use the oui keyword to display oui table.	15	EXEC
debug gvrp protocol-state interface <port_type_list> vlan <vlan_list>		debug	EXEC
debug gvrp msti		debug	EXEC
debug gvrp statistic		debug	EXEC
gvrp		15	GLOBAL_CONFIG
gvrp time { [join-time <1-20>] [leave-time <60-300>] [leave-all-time <1000-5000>] }*1		15	GLOBAL_CONFIG
gvrp max-vlans <1-4095>		15	GLOBAL_CONFIG
gvrp		15	INTERFACE_PORT_LIST
gvrp join-request vlan <vlan_list>		15	INTERFACE_PORT_LIST
gvrp leave-request vlan <vlan_list>		15	INTERFACE_PORT_LIST