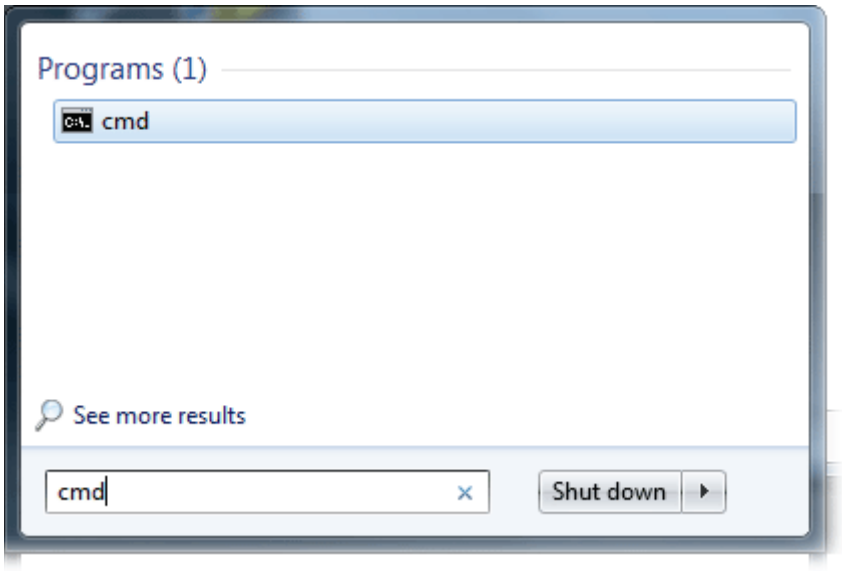
# Part XII Telnet Commands

# XII-1 Accessing Telnet of VigorSwitch

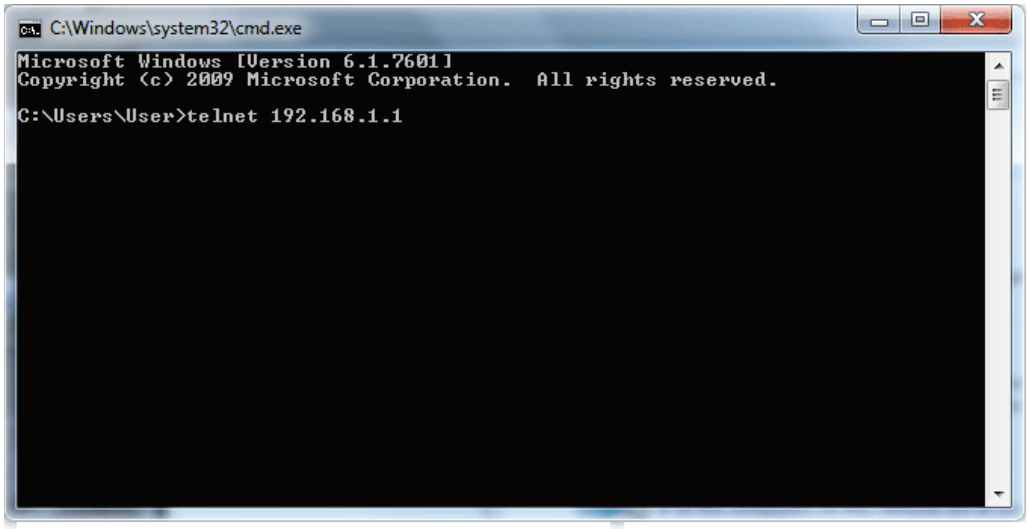
This chapter also gives you a general description for accessing telnet and describes the firmware versions for the routers explained in this manual.

| | |
|---|---|
| **Info** | For Windows 7 user, please make sure the Windows Features of Telnet Client has been turned on under **Control Panel>>Programs**. |

Type **cmd** and press Enter. The Telnet terminal will be open later.



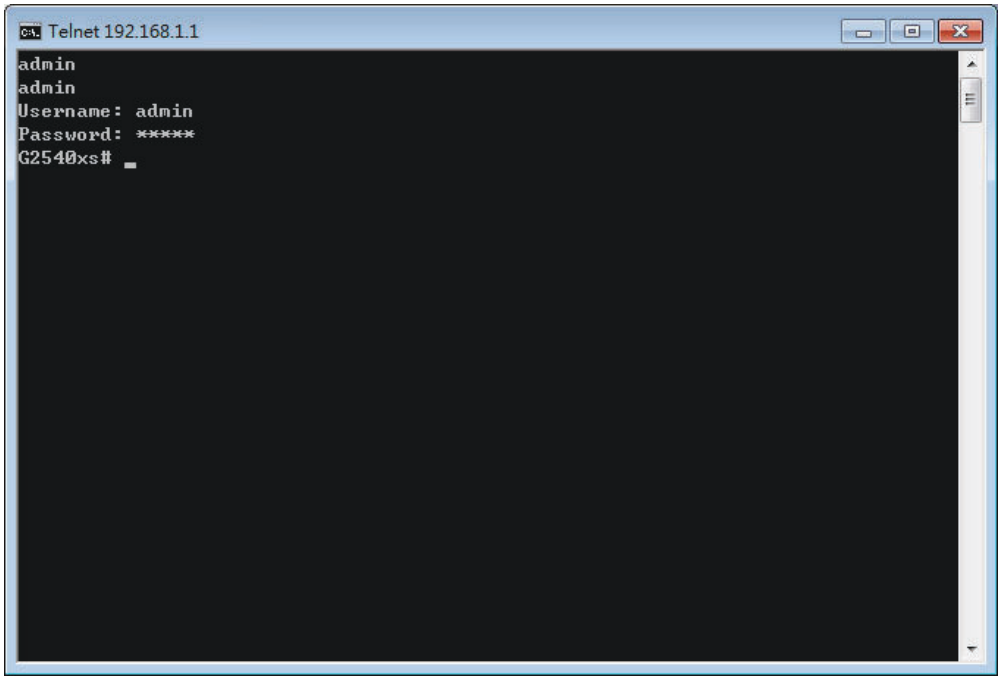

In the following window, type **Telnet 192.168.1.224** as below and press Enter. Note that the IP address in the example is the default address of the router. If you have changed the default, enter the current IP address of the router.




Next, enter admin/admin for Account/Password.

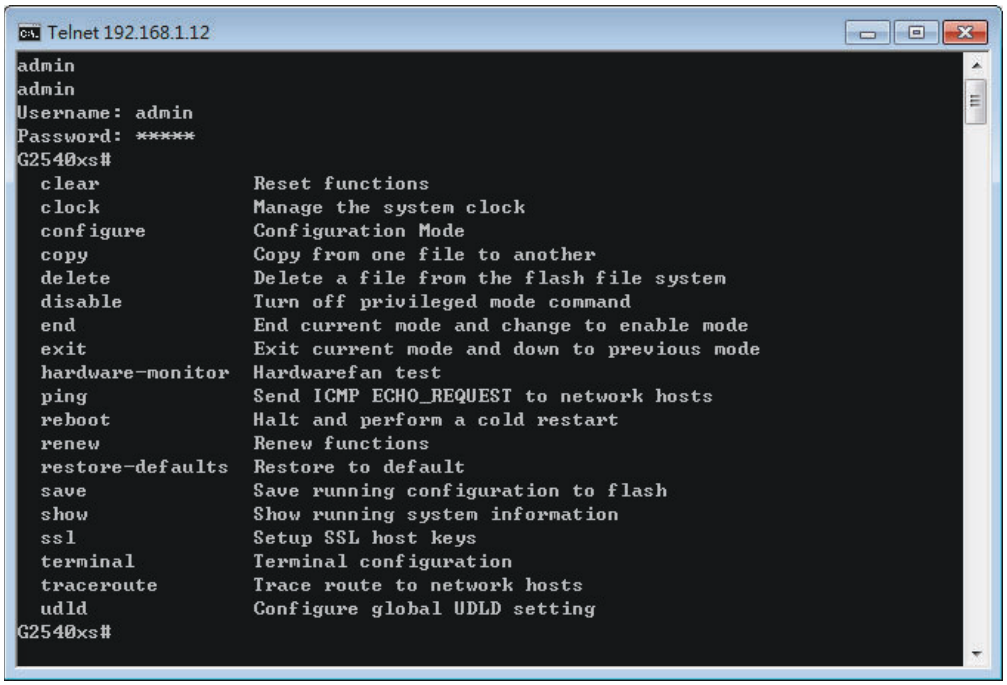
For users using previous Windows system (e.g., XP), simply click **Start >> Run** and type **Telnet 192.168.1.224** in the Open box.

Next, enter admin/admin for Account/Password.




## XII-2 Available Commands

Enter ? to get a list of available commands.




The availabe commands contain – clear, clock, configure, copy, delete, disable, end, exit, hardware-monitor, ping, reboot, renew, restore-defaults, save, show, ssl, terminal, traceroute and udld. Each command will be explained as follows.

**Note:** You can also enter ? to check if there are subcommands under current command.

## XII-2-1 Clear Configuration

This command allows resetting the functions of ARP, interface, IP, IPv6, LACP, Line, LLDP, Logging, MAC, and Spanning Tree.

### Telnet Command: clear arp

Use this command to clear entries in the ARP cache.

#### Syntax Items

**clear arp**

#### Description

| Syntax Items | Description |
|---|---|
| *clear arp* | <A.B.C.D> - Enter the IP address of the device (e.g., 192.168.1.224).<br>**Related Syntax:**<br>● # clear arp<br>● # clear arp <A.B.C.D> |

#### Example

```
G2540xs# clear arp 192.168.1.224
G2540xs#
```

### Telnet Command: clear authentication

Use this command to clear authentication sessions based on LAN port, MAC address, or authentication type for 802.1x/MAC authentication.

#### Syntax Items

**clear authentication sessions**

**clear authentication sessions interfaces**

**clear authentication sessions mac**

**clear authentication sessions session-id**

**clear authentication sessions type**

#### Description

| Syntax Items | Description |
|---|---|
| *clear authentication sessions* | Clear all of the sessions related to authentication.<br>**Related Syntax:**<br>● # clear authentication sessions |
| *clear authentication sessions interfaces gigabitethernet* | Clear the sessions of a specific interface.<br><1-48> - Enter the number of LAN port.<br>**Related Syntax:**<br>● # clear authentication sessions interfaces gigabitethernet |

| | |
|---|---|
| | <1-48> |
| *clear authentication sessions interfaces 10gigabitethernet* | Clear the sessions of a specific interface.<br><1-6> - Enter the number of 10Gigabitethernet device number.<br>**Related Syntax:**<br>● # clear authentication sessions interfaces 10gigabitethernet <1-6> |
| *clear authentication sessions mac* | Clear the sessions with the MAC address set here.<br><A:B:C:D:E:F> - Enter the MAC address of the device that you want to clear the authentication information.<br>**Related Syntax:**<br>● # clear authentication sessions mac <A:B:C:D:E:F> |
| *clear authentication sessions session-id* | Clear the sessions with the string set here.<br><WORD> - Enter a string of a session that you want to clear.<br>**Related Syntax:**<br>● # clear authentication sessions session-id <WORD> |
| *clear authentication sessions type* | Clear the sessions with authentication type selected here.<br><dot1x> - Use 802.1x authentication.<br><mac> - Use mac-based authentication.<br><web> - Use web-based authentication.<br>**Related Syntax:**<br>● # clear authentication sessions type <dot1x><mac><web> |

### Example

```
G2540xs# clear authentication sessions
No Auth Manager sessions currently exist
G2540xs# clear authentication sessions mac 48:5B:39:2F:A8:66
G2540xs# clear authentication sessions interfaces GigabitEthernet 2
G2540xs# clear authentication sessions session-id 0000000B002AFBE8
```

## Telnet Command: clear gvrp

Use this command to clear statistics or port error statistics for all interfaces or a specific interface (LAN or LAG).

### Syntax Items

**clear gvrp error-statistics**

**clear gvrp statistics**

### Description

| Syntax Items | Description |
|---|---|
| *clear gvrp error-statistics* | Specify a LAN/LAG interface for clearing error statistics for GVRP.<br><1-6> - Enter the number of 10Gigabitethernet device number.<br><1-48> - Enter the number (1 to 48) of LAN port.<br><1-8> - Enter the number (1 to 8) of LAG interface (IEEE 802.3 Link Aggregation Interface) that you want to clear the GVRP setting.<br>**Related Syntax:**<br>● # clear gvrp error-statistics interfaces 10GigabitEthernet |

| | |
|---|---|
| | <1-6><br>● # clear gvrp error-statistics interfaces GigabitEthernet <1-48><br>● # clear gvrp error-statistics interfaces LAG <1-8> |
| *clear gvrp statistics* | Specify a LAN/LAG interface for clearing statistics for GVRP.<br><1-6> - Specify an interface (10Gigabit) for clearing statistics for GVRP.<br><1-48> - Specify an interface for clearing statistics for GVRP.<br><1-8> - Specify LAG interface for clearing statistics for GVRP.<br>**Related Syntax:**<br>● # clear statistics interfaces 10GigabitEthernet <1-6><br>● # clear statistics interfaces GigabitEthernet <1-48><br>● # clear statistics interfaces LAG <1- 8> |

## Example

```
G2540xs# clear gvrp error-statistics interfaces GigabitEthernet 2
G2540xs#
G2540xs# clear gvrp error-statistics interfaces LAG 2
G2540xs#
```

## Telnet Command: clear interfaces

Use this command to clear statistics counters for all interfaces or a specific interface (LAN or LAG).

### Syntax Items

**clear interfaces 10GigabitEthernet**

**clear interfaces GigabitEthernet**

**clear interfaces LAG**

### Description

| Syntax Items | Description |
|---|---|
| *clear interfaces* | Specify a LAN/LAG interface for clearing statistics counters on that port.<br><1-6> - Enter the number of 10Gigabitethernet device number.<br><1-48> - Enter the number (1 to 48) of LAN port.<br><1-8> - Enter the number (1 to 8) of LAG interface (IEEE 802.3 Link Aggregation Interface).<br>**Related Syntax:**<br>● # clear interfaces gigabitEthernet <1-48> counters<br>● # clear interfaces 10gigabitEthernet <1-6> counters<br>● # clear interfaces LAG <1-8> counters |

### Example

```
G2540xs# clear interfaces gigabitethernet 3 counters
G2540xs# clear interfaces
G2540xs# clear interfaces lag 2 counters
G2540xs#
```

## Telnet Command: clear ip

Use this command to clear ARP inspection information, DHCP snooping database agent, and IGMP snooping groups (dynamic or static) information for all interfaces or a specific interface (LAN or LAG) with IP address.

### Syntax Items

**clear ip arp**

**clear ip dhcp**

**clear ip igmp**

### Description

| Syntax Items | Description |
|---|---|
| clear ip arp | <1-6> - Enter the number (1 to 4) of LAN port (10GB).<br><1-48> - Enter the number (1 to 48) of LAN port.<br><1-8> - Specify a LAG interface for clearing ARP inspection information.<br>statistics - Clear the statistics for ARP inspection.<br>**Related Syntax:** |

| | |
|---|---|
| | • # clear ip arp inspection interfaces 10GigabitEthernet <1-6><br>• # clear ip arp inspection interfaces GigabitEthernet <1-48><br>• # clear ip arp inspection interfaces LAG <1-8> statistics |
| *clear ip dhcp* | snooping database statistics - Clear snooping database statistics for DHCP server.<br>snooping interfaces GigabitEthernet / LAG- Specify a LAN / LAG interface for clearing DHCP snooping information.<br><1-6> - Enter the number of 10Gigabitethernet device number.<br><1-48> - Enter the number (1 to 48) of LAN port.<br><1-8> - Specify a LAG interface for clearing DHCP snooping information.<br>**Related Syntax:**<br>• # clear ip dhcp snooping database statistics<br>• # clear ip dhcp snooping interfaces 10GigabitEthernet <1-6> statistics<br>• # clear ip dhcp snooping interfaces GigabitEthernet <1-48> statistics<br>• # clear ip dhcp snooping interfaces LAG <1-8> statistics |
| *clear ip igmp* | snooping groups dynamic - Clear dynamic snooping groups of IGMP server.<br>snooping groups static - Clear static snooping groups of IGMP server.<br>snooping statistics - Clear snooping statistics for IGMP server.<br>**Related Syntax:**<br>• # clear ip igmp snooping groups dynamic<br>• # clear ip igmp snooping groups static<br>• # clear ip igmp snooping statistics |

### Example

```
G2540xs# clear ip igmp snooping groups dynamic
G2540xs#
```

## Telnet Command: clear ipv6

Use this command to clear MLD snooping configuration for dynamic / static group(s) with IPv6 address.

### Syntax Items

**clear ipv6 mld**

### Description

| Syntax Items | Description |
|---|---|
| *clear ipv6 mld* | snooping groups dynamic - Clear dynamic snooping groups of MLD.<br>snooping groups static - Clear static snooping groups of MLD.<br>**Related Syntax:**<br>• # clear ipv6 mld snooping groups dynamic<br>• # clear ipv6 mld snooping groups static<br>• # clear ipv6 mld snooping statistics |

### Example

```
G2540xs# clear ipv6
G2540xs# clear ipv6 mld snooping groups dynamic
G2540xs# clear ipv6 mld snooping groups dynamic?
  <cr>
G2540xs# clear ipv6 mld snooping groups static
```

## Telnet Command: clear lacp

Use this command to clear LACP configuration for specified LAG interface or all LAG intefaces.

### Syntax Items

**clear lacp** <*1-8*> **counters**

**clear lacp counters**

### Description

| Syntax Items | Description |
|---|---|
| *clear lacp <1-8>* | <1-8> - Enter the number (1 to 8) of LAG interface (IEEE 802.3 Link Aggregation Interface).<br>**Related Syntax:**<br>● # clear lacp <1-8> counters |
| *clear lacp counters* | Clear LACP configuration for all LAG interfaces.<br>**Related Syntax:**<br>● # clear lacp counters |

### Example

```
G2540xs# clear lacp 1 counters

No interfaces configured in the channel group

G2540xs#
```

## Telnet Command: clear line

Use this command to clear line settings including SSH (Secure Shell) configuration and telnet daemon configuration.

### Syntax Items

**clear line ssh**

**clear line telnet**

### Description

| Syntax Items | Description |
|---|---|
| *clear line ssh* | Clear SSH configuration for line connection.<br>**Related Syntax:**<br>● # clear line ssh |
| *clear line telnet* | Clear SSH Telnet configuration for line connection.<br>**Related Syntax:** |

| | |
|---|---|
| | • # clear line telnet |

### Example

```
G2540xs# clear line ssh
G2540xs# clear line telnet
```

## Telnet Command: clear lldp

Use this command to clear LLDP statistics or reset LLDP information.

### Syntax Items

**clear lldp global**

**clear lldp interfaces**

### Description

| Syntax Items | Description |
|---|---|
| *clear lldp global* | Clear all of the statistics related to LLDP.<br>**Related Syntax:**<br>• # clear lldp global statistics |
| *clear lldp interfaces* | Specify a LAN / LAG interface for clearing LLDP information.<br><1-6> - Enter the number of 10Gigabitethernet device number.<br><1-48> - Enter the number (1 to 48) of LAN port.<br><1-8> - Enter the number (1 to 8) of LAG interface (IEEE 802.3 Link Aggregation Interface).<br>**Related Syntax:**<br>• # clear lldp interfaces 10GigabitEthernet <1-6> statistics<br>• # clear lldp interfaces GigabitEthernet <1-48> statistics<br>• # clear lldp interfaces LAG <1-8> statistics |

### Example

```
G2540xs# clear lldp global statistics
G2540xs#
G2540xs# clear lldp interfaces LAG 1 statistics
G2540xs# clear lldp interfaces gigabitethernet 1 statistics
G2540xs#
```

## Telnet Command: clear logging

Use this command to clear log messages from the internal logging buffer and flash.

### Syntax Items

**clear logging buffered**

**clear logging file**

### Description

| Syntax Items | Description |
|---|---|
| *clear logging buffered* | Clear the log stored in RAM. |

| | |
|---|---|
| | **Related Syntax:**<br>● # clear logging buffered |
| *clear logging file* | Clear the log stored in flash.<br>**Related Syntax:**<br>● # clear logging file |

### Example

```
G2540xs# clear logging buffered
G2540xs# clear logging file
G2540xs#
```

## Telnet Command: clear mac

Use this command to clear MAC configuration related to VLAN, LAG, and LAN port.

### Syntax Items

**clear mac**

### Description

| Syntax Items | Description |
|---|---|
| *clear mac address-table* | <1-6> - Enter the number of 10Gigabitethernet device number.<br><1-48> - Enter the number (1 to 48) of LAN port.<br><1-8>- Enter the number (1 to 8) of LAG interface (IEEE 802.3 Link Aggregation Interface).<br><1-4094> - Specify a VLAN ID by entering its number.<br>**Related Syntax:**<br>● # clear mac adderss-table dynamic interfaces 10GigabitEthernet <1-6><br>● # clear mac adderss-table dynamic interfaces GigabitEthernet <1-48><br>● # clear mac adderss-table dynamic interfaces LAG <1-8><br>● # clear mac adderss-table dynamic vlan <1-4094> |

### Example

```
G2540xs# clear mac address-table dynamic vlan 2038
G2540xs# clear mac address-table dynamic interfaces gigabitethernet 3
G2540xs#
```

## Telnet Command: clear mvr

Use this command to clear information for all members (including dynamic, static) of MVR.

### Syntax Items

**clear mvr members**

### Description

| Syntax Items | Description |
|---|---|
| *clear mvr members* | Clear information for dynamic / static members. |

| | |
|---|---|
| | **Related Syntax:**<br>● # clear mvr members dynamic<br>● # clear mvr members static |

## Example

```
G2540xs# clear mvr members dynamic
G2540xs# clear mvr members static
G2540xs#
```

# Telnet Command: clear spanning-tree

Use this command to clear running system information.

## Syntax Items

**clear spanning-tree**

## Description

| Syntax Items | Description |
|---|---|
| *clear spanning-tree interfaces* | Specify a LAN interface for clearing its running information.<br><1-6> - Enter the number of 10Gigabitethernet device number.<br><1-48>- Enter the number (1 to 48) of LAN port.<br><1-8>- Enter the number (1 to 8) of LAG interface (IEEE 802.3 Link Aggregation Interface).<br>**Related Syntax:**<br>● # clear spanning-tree interfaces 10GigabitEthernet <1-6> statistics<br>● # clear spanning-tree interfaces GigabitEthernet <1-48> statistics<br>● # clear spanning-tree interfaces LAG <1-8> statistics |

## Example

```
G2540xs# clear spanning-tree interfaces GigabitEthernet
  <1-48>  GigabitEthernet device number
G2540xs# clear spanning-tree interfaces gigabitethernet 3 statistics
G2540xs# clear spanning-tree interfaces LAG 1 statistics
G2540xs#
```

## XII-2-2 Clock Configuration

This command allows managing the system clock.

### Telnet Command: clock set

Use this command to configure the system clock manually.

#### Syntax Items

**clock set**

#### Description

| Syntax Items | Description |
|---|---|
| *clock set* | Set current by entering hours, minutes, seconds, month, date and year with the format listed below:<br><HH:MM:SS> - Hour, minute, second (e.g., 08:10:30).<br><Jan> - January.<br><feb> - February<br><mar> - March<br><apr> - April<br><may> - May<br><jun> - June<br><jul> - July<br><aug> - August<br><sep> - September<br><oct> - October<br><nov> - November<br><dec> - December<br><1-31> - Date 1 to 31.<br><2000-2035> - Year of 2000 to 2035.<br>**Related Syntax:**<br>● # clock set HH:MM:SS jan/feb/mar/apr/may/jun/jul/aug/sep/oct/nov/dec <1-31> <2000-2035> |

#### Example

```
G2540xs# clock set 12:10:30 jan 1 2019

2019-01-01 12:10:30 UTC+8
```

## XII-2-3 Configure Configuration

This command allows configuring the settings related to VigorSwitch.

Available sub-commands under Configure include:

*aaa, acct, authentication, boot, clock, custom, dhcp-server, dos, dot1x, do, dray_surveillence, enable, end, errdisable, exit, gvrp, hostname, interface, ip, ipv6, jumbo-frame, lacp, lag, line, lldp, logging, logmail, loop-protection, mac, mailalert, management, management-vlan, mirror, mvr, no, openvpn, poe, port-security, qos, radius, schedule, sflow, snmp, sntp, spanning-tree, start-up, storm-control, surveillance-vlan, system, tacacs, tr069, udld, username, vlan, voice-vlan, webhook*

Before configuration, you have to enter "*configure*" to access into next phase.

To return to previous phase, enter "exit"

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# exit
G2540xs#
```

## Telnet Command: aaa

Use this command to add a login authentication list to authenticate with local, tacacs+, radius, and none service.

### Syntax Items

**aaa authentication enable**

**aaa authentication login**

### Description

| Syntax Items | Description |
|---|---|
| *aaa authentication enable* | Enable authentication is used only on CLI for a user trying to switch from User EXEC (>) mode to Privileged EXEC (#) mode.<br>enable – Enable the authentication list.<br><LISTNAME> – Enter a string as the list name for authentication type. Default value is "default".<br><none, enable, tacacs+, radius> – Specify the authentication method by entering none, enable, tacacs+ or radius.<br>● None: Do nothing and just make user be authenticated.<br>● Enable: Use local password to authenticate.<br>● Tacacs+: Use remote Tacas+ server to authenticate.<br>● Radius: Use remote Radius server to authenticate.<br>default - It is used to configure default enable authentication.<br>**Related Syntax:**<br>● <config>#aaa authentication enable <LISTNAME> <none, enable, tacacs+, radius><br>● <config>#aaa authentication enable default <none, enable, tacacs+, radius> |
| *aaa authentication login* | Login authentication is used when a user tries to login into the switch.<br><LISTNAME> – Enter a string as the list name for authentication |

| | |
|---|---|
| | type. Default value is “default”.<br><none, enable, tacacs+, radius> –Specify the authentication method by entering none, enable, tacacs+ or radius.<br>default - It is used to configure default login authentication.<br>**Related Syntax:**<br>● <config>#aaa authentication login <LISTNAME> <none, enable, tacacs+, radius><br>● <config>#aaa authentication login default <none, enable, tacacs+, radius> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# aaa authentication enable LISTNAME enable
G2540xs(config)#
G2540xs(config)# exit
G2540xs# show aaa authentication enable lists
 Enable List Name   Authentication Method List
------------------ ------------------------------
         default   enable
        LISTNAME       enable
G2540xs#
```

## Telnet Command: acct

Use this command to set RADIUS / TACACS server.

### Syntax Items

**acct server radius**

**acct server tacacs**

### Description

| Syntax Items | Description |
|---|---|
| *acct server* | <1-65535> - Set a value to wait for a packet retransmission to the authentication server.<br><1-60> - Set the transmission interval (unit is second).<br>● # acct server radius disconnect message port <1-65535> interval <1-60> |
| *acct tacacs* | <1-65535> - Set a value to wait for a packet retransmission to the authentication server.<br><1-60> - Set the transmission interval (unit is second).<br>● # acct server tacacs disconnect message port <1-65535> interval <1-60> |

## Telnet Command: authentication

Use this command to enable the global setting of 802.1x/MAC/WEB authentication network access control (default is disabled for all).

### Syntax Items

**authentication dot1x**

**authentication guest-vlan**

**authentication mac**

**authentication web**

## Description

| Syntax Items | Description |
|---|---|
| *authentication dot1x* | Enable 802.1x authentication by entering the word, dot1x after authentication.<br>**Related Syntax:**<br>● <config># authentication dot1x |
| *authentication guest-vlan* | Configure the guest VLAN.<br><1-4094> - Specify a guest VLAN ID by entering its number.<br>**Related Syntax:**<br>● <config># authentication guest-vlan <1-4094> |
| *authentication mac* | Enable MAC authentication by entering the word, mac after authentication.<br>mac local - Local database for MAC-Based authentication. It can add local MAC authentication hosts in database.<br><A:B:C:D:E:F> - Enter the MAC address to be added for authentication.<br>control auth – Set a local entry control mode, auth (the host will be set to authorized) or unauth (the host will be set to unauthorized).<br>vlan <1~4094> - Specify a VLAN ID by entering its number<br>reauth-period <300~4294967294> - Set a time to initiate automatic re-authentication.<br>inactive-timeout <60~65535>- Set the inactive timeout for MAC authentication host. After the time interval, if there is no activity from the client, then it will be unauthorized by Vigor system.<br>control unauth - Set a local entry control mode as “unauth” to let the host set as unauthorized.<br>radius mac-case <lower / upper> - Set RADIUS user ID with lower case or upper case.<br>radius mac-delimiter <colon/dot/hyphen/none> - Select RADIUS user ID delimiter. In which,<br>colon: XX:XX:XX:XX:XX:XX<br>dot: XX.XX.XX.XX.XX.XX<br>hyphen: XX-XX-XX-XX-XX-XX<br>none: XXXXXXXXXXXX<br>gap <2/4/6> - Select delimiter gap.<br>**Related Syntax:**<br>● <config>#authentication mac<br>● <config>#authentication mac local <A:B:C:D:E:F> control auth inactive-timeout <60~65535><br>● <config>#authentication mac local <A:B:C:D:E:F> control auth reauth-period <300~4294967294><br>● <config>#authentication mac local <A:B:C:D:E:F> control auth vlan <1~4094><br>● <config>#authentication mac local <A:B:C:D:E:F> control auth vlan<1~4094> reauth-period <300~4294967294><br>● <config>#authentication mac local <A:B:C:D:E:F> control auth vlan<1~4094> reauth-period <300~4294967294> inactive-timeout <60~65535><br>● <config>#authentication mac local <A:B:C:D:E:F> control unauth<br>● <config>#authentication mac radius mac-case <lower / |

| | |
|---|---|
| | upper><br>● <config>#authentication mac radius mac-delimiter <colon/dot/hyphen/none><br>● <config>#authentication mac radius mac-delimiter <colon/dot/hyphen/none> gap <2/4/6> |
| *authentication web* | Web - Enable web authentication by entering the word “web” after “authentication”.<br>username <WORD> - Specify a username.<br>password <string> - Set a password.<br>vlan <1~4094> - Specify a VLAN ID by entering its number.<br>reauth-period <30~4294967294> - Set a time to initiate automatic re-authentication.<br>inactive-timeout <60~65535>- Set the inactive timeout for MAC authentication host. After the time interval, if there is no activity from the client, then it will be unauthorized by Vigor system.<br>**Related Syntax:**<br>● <config>#authentication web<br>● <config>#authentication web local username <WORD> password <string> inactive-timeout <60~65535><br>● <config>#authentication web local username <WORD> password <string> reauth-period <300~4294967294><br>● <config>#authentication web local username <WORD> password <string> reauth-period <300~4294967294> inactive-timeout <60~65535><br>● <config>#authentication web local username <WORD> password <string> vlan<1~4094><br>● <config>#authentication web local username <WORD> password <string> vlan<1~4094> reauth-period <30~4294967294> inactive-timeout <60~65535> |

## Example

```
G2540xs# configure
G2540xs(config)# authentication dot1x
G2540xs(config)# vlan 3
G2540xs(config-vlan)# exit
G2540xs(config)# authentication guest-vlan 3
G2540xs(config)#
G2540xs(config)# exit
G2540xs# show authentication
Autentication dot1x state      : enabled
Autentication mac state        : disabled
Autentication web state        : disabled
Guest VLAN                 : enabled (3)
Mac-auth Radius User ID Format : XXXXXXXXXXXX
Mac-auth Local Entry           :
Web-auth Local Entry           :
Interface Configurations
Interface GigabitEthernet1
  Admin Control            : disable
  Host Mode                : multi-auth
  Type dot1x State         : disabled
  Type mac State           : disabled
  Type web State           : disabled
  Type Order               : dot1x
  MAC/WEB Method Order     : radius
  Guest VLAN               : disabled
```

```
  Reauthentication          : disabled
  Max Hosts                 : 256
  VLAN Assign Mode          : static
--More—
……..
G2540xs# configure
G2540xs(config)# authentication mac local 00:11:22:33:00:01 control auth vlan
3 reauth-period 500 inactive-timeout 300
G2540xs(config)#
G2540xs(config)# authentication mac local 00:11:22:33:00:01 control unauth
G2540xs(config)#
G2540xs(config)# authentication web local username user_1 password 1234tw vlan
3 reauth-period 600 inactive-timeout 700
G2540xs(config)#
```

## Telnet Command: boot

Use this command to have a backup image in the flash partition. Select the active firmware image, and another firmware image will become a backup one.

### Syntax Items

**boot system**

### Description

| Syntax Items | Description |
|---|---|
| *boot system* | Boot the system from flash image partition 0 / 1.<br>**Related Syntax:**<br>● <config># boot system image0<br>● <config># boot system image1 |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# boot system image0
Select "image0" Success
G2540xs(config)# exit
G2540xs#
G2540xs# show boot
Image  Version     Date                 Status      File Name
-----  ----------  --------------------  -----------  ----------
0       2.6.2_RC1  2020-04-27 10:06:20    Active*    g2540x_r1775_260_s.all
1          2.6.0  2020-02-17 16:36:19    Not active  g2540x_r1775_260_s.all

"*" designates that the image was selected for the next boot

G2540xs#
```

## Telnet Command: clock

Use this command to configure time zone, summer-time and external time source for the system clock.

### Syntax Items

**clock auto timezone**
**clock source local**
**clock source sntp**
**clock summer-time**
**clock timezone**

### Description

| Syntax Items | Description |
|---|---|
| *clock auto timezone* | VigorSwitch sets the time zone automatically. |
| *clock source local* | Configure an external time source for the system clock.<br>“local” means to use static time. It is the default setting.<br>**Related Syntax:**<br>● <config># clock source local |
| *clock source sntp* | Configure an external time source for the system clock. “sntp” means to use SNTP time.<br>**Related Syntax:**<br>● <config># clock source sntp |
| *clock summer-time* | Configure the system to automatically switch to summer time (daylight saving time).<br>ACRONYM – Specify the acronym name of time zone. The acronym of the time zone will be displayed when summer time is in effect. If unspecified, the time zone acronym will be used in default. (1-4 chars)<br><jan/feb/mar/apr/may/jun/jul/aug/sep/oct/nov/dec> - Indicate January, February, March, April, May, June, July, August, September, October, November, December.<br><1-31> means date 1 to 31.<br><2000-2037> - means year of 2000 to 2035.<br><HH:MM> - means hours and minutes.<br>recurring - Summer time should start and end on the corresponding specified days every year.<br><1-1440>- Set the number of minutes to add during the summer time. The default number is 60.<br>eu - The summer time is based on the European Union rules. (Start point – last Sunday in March, End point – last Sunday in October)<br>usa - The summer time is based on the United States rules. (Start point – second Sunday in March, End point – first Sunday in November)<br>first - The first week of the month.<br>last - The last week of the month.<br><sun/mon/tue/wed/thu/fri/sat> - Indicate Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday.<br><jan/feb/mar/apr/may/jun/jul/aug/sep/oct/nov/dec> - Indicate January, February, March, April, May, June, July, August, September, October, November, December.<br><first/last>- Specify the first week or the last week of the month.<br><1-5> - Specify the number of the week in the month.<br>Note that the first group of month, date, hour and minute is used for configuring starting time, and the second group is used for configuring ending time. |

| | |
|---|---|
| | **Related Syntax:**<br>● <config># clock summer-time ACRONYM date <jan/feb/mar/apr/may/jun/jul/aug/sep/oct/nov/dec> <1-31> <2000-2037> <HH:MM> <jan/feb/mar/apr/may/jun/jul/aug/sep/oct/nov/dec><1-31>< 2000-2037> <HH:MM><br>● <config># clock summer-time ACRONYM recurring eu <1-1440><br>● <config># clock summer-time ACRONYM recurring usa <1-1440><br>● <config># clock summer-time ACRONYM recurring first <sun/mon/tue/wed/thu/fri/sat>< jan / feb / mar / apr / may / jun/jul/aug/sep/oct/nov/dec> <HH:MM> <first/last> <sun/mon/tue/wed/thu/fri/sat>< jan /feb /mar /apr/may/ jun/jul/aug/sep/oct/nov/dec> <HH:MM> <1-14400><br>● <config># clock summer-time ACRONYM recurring last <sun/mon/tue/wed/thu/fri/sat>< jan /feb /mar /apr /may /jun/jul/aug/sep/oct/nov/dec> <HH:MM> <first/last><sun/mon/tue/wed/thu/fri/sat>< jan /feb /mar /apr/may/ jun/jul/aug/sep/oct/nov/dec> <HH:MM> <1-14400><br>● <config># clock summer-time ACRONYM recurring <1-5> <sun/mon/tue/wed/thu/fri/sat>< jan /feb /mar /apr /may /jun/jul/aug/sep/oct/nov/dec> <HH:MM> <1-5> <sun/mon/tue/wed/thu/fri/sat>< jan /feb /mar /apr /may/jun/jul/aug/sep/oct/nov/dec> <HH:MM> <1-14400> |
| *clock timezone ACRONYM <-12-13> minutes <0-59>* | Set the time zone for display purposes.<br>ACRONYM – Specify the acronym name of time zone. The acronym of the time zone will be displayed when summer time is in effect. If unspecified, the time zone acronym will be used in default. (1-4 chars)<br><-12-13> – Specify the hour offset (from -12 to +13) of time zone.<br>minutes <0-59> – Specify the minute difference from UTC.<br>**Related Syntax:**<br>● <config># clock timezone ACRONYM <-12-13> minutes <0-59> |

## Example

```
G2540xs# configure
G2540xs(config)# clock source sntp
G2540xs(config)# exit
G2540xs# show clock detail
2019-01-05 06:51:23 UTC+8
Time source is sntp
Time zone:
Acronym is
Offset is UTC+8
G2540xs# configure
G2540xs(config)# clock summer-time tw date jan 30 2019 23:30 feb 1 2019 20:50
G2540xs(config)# exit
G2540xs# show clock detail
2019-01-05 07:13:49 UTC+8
Time source is sntp

Time zone:
Acronym is ACRONYM
Offset is UTC-10:08

Summertime:
Acronym is tw
Starting and ending on a specific date.
Begins at 1 30 19 23:30
```

```
Ends at 2 1 19 20:50
Offset is 60 minutes.
G2540xs# configure
G2540xs(config)# clock summer-time ACRONYM recurring eu 1200
G2540xs(config)# clock summer-time ACRONYM recurring first mon jan 10:10 first
sun feb 10:10 1000
G2540xs(config)# exit
G2540xs# show clock detail
2019-01-05 11:37:18 UTC+8
Time source is sntp
Time zone:
Acronym is
Offset is UTC+8
Summertime:
Acronym is ACRONYM
Recurring every year.
Begins at 1 1 1 10:10
Ends at 1 0 2 10:10
Offset is 1000 minutes.
```

## Telnet Command: custom

Use this command to enable the module settings.

### Syntax Items

**custom enable**

### Description

| Syntax Items | Description |
|---|---|
| *custom enable* | Enable the module settings.<br>**Related Syntax:**<br>● <config># custom enable |

### Example

```
G2540xs# configure
G2540xs(config)# custom enable
G2540xs(config)#
```

## Telnet Command: dos

Use this command to enable specific Denial of Service (DoS) protection.

### Syntax Items

**dos daeqsa-deny**
**dos icmp-frag-pkts-deny**
**dos icmp-ping-max-length**
**dos icmpv4-ping-max-check**
**dos icmpv6-ping-max-check**
**dos ipv6-min-frag-size-check**
**dos ipv6-min-frag-size-length**
**dos land-deny**
**dos nullscan-deny**
**dos pod-deny**
**dos smurf-deny**

**dos smurf-netmask**
**dos syn-sportl1024-deny**
**dos synfin-deny**
**dos synrst-deny**
**dos tcp-frag-off-min-check**
**dos tcpblat-deny**
**dos tcphdr-min-check**
**dos tcphdr-min-length**
**dos udpblat-deny**
**dos xma-deny**

## Description

| Syntax Items | Description |
|---|---|
| *dos daeqsa-deny* | Drop the packets if the destination MAC address equals to the source MAC address.<br>**Related Syntax:**<br>● <config># dos daeqsa-deny |
| *dos icmp-frag-pkts-deny* | Drop the fragmented ICMP packets.<br>**Related Syntax:**<br>● <config># dos icmp-frag-pkts-deny |
| *dos icmp-ping-max-length* | Set the maximum packet size for ICMPv4/ICMPv6 ping operation.<br><0-65535> - Specify a packet number.<br>**Related Syntax:**<br>● <config># dos icmp-ping-max-length <0-65535> |
| *dos icmpv4-ping-max-check* | Check ICMPv4 ping maximum packets size and drop the packets larger than the maximum packet size defined by the command, *dos icmp-ping-max-length*.<br>**Related Syntax:**<br>● <config># dos icmpv4-ping-max-check |
| *dos icmpv6-ping-max-check* | Check ICMPv6 ping maximum packets size and drop the packets larger than the maximum packet size defined by the command, icmp-ping-max-length.<br>**Related Syntax:**<br>● <config># dos icmpv6-ping-max-check |
| *dos ipv6-min-frag-size-check* | Check minimum size of IPv6 fragments.<br>**Related Syntax:**<br>● <config># dos ipv6-min-frag-size-check |
| *dos ipv6-min-frag-size-length <0-65535>* | Set the minimum packet size of IPv6 fragmented packets.<br><0-65535> - Specify a packet number.<br>**Related Syntax:**<br>● <config># dos ipv6-min-frag-size-length <0-65535> |
| *dos land-deny* | Drop the packets if the source IP address equals to destination IP address.<br>**Related Syntax:**<br>● <config># dos land-deny |
| *dos nullscan-deny* | Drop the packets if attacked by NULL Scan.<br>**Related Syntax:**<br>● <config># dos nullscan-deny |
| *dos pod-deny* | Drop the packets if attacked by Ping of Death.<br>**Related Syntax:**<br>● <config># dos pod-deny |
| *dos smurf-deny* | Drop the packets if encountered Smurf attack. |

| | |
|---|---|
| | **Related Syntax:**<br>● <config># dos smurf-deny |
| *dos smurf-netmask* | Set the smurf attack size.<br><0-32> - Enter a number as smurf attacks size.<br>**Related Syntax:**<br>● <config># dos smurf-netmask <0-32> |
| *dos syn-sportl1024-deny* | Drop SYN packets with sport less than 1024.<br>**Related Syntax:**<br>● <config># dos syn-sportl1024-deny |
| *dos synfin-deny* | Drop the packets with SYN and FIN bits set.<br>**Related Syntax:**<br>● <config># dos synfin-deny |
| *dos synrst-deny* | Drop the packets with SYNC and RST bits set.<br>**Related Syntax:**<br>● <config># dos synrst-deny |
| *dos tcp-frag-off-min-check* | Drop the TCP fragmented packet with offset equals to the minimum packet size.<br>**Related Syntax:**<br>● <config># dos tcp-frag-off-min-check |
| *dos tcpblat-deny* | Drop the packets if the source TCP port equals to destination TCP port.<br>**Related Syntax:**<br>● <config># dos tcpblat-deny |
| *dos tcphdr-min-check* | Check the minimum TCP header and drop the TCP packets with the header smaller than the minimum size defined.<br>**Related Syntax:**<br>● <config># dos tcphdr-min-check |
| *dos tcphdr-min-length* | Set the minimum size of TCP header.<br><0-65535> - Specify a packet number.<br>**Related Syntax:**<br>● <config># dos tcphdr-min-length <0-65535> |
| *dos udpblat-deny* | Drop the packets if the source UDP port equals to destination UDP port.<br>**Related Syntax:**<br>● <config># dos udpblat-deny |
| *dos xma-deny* | Drop the packets if the sequence number is zero and the FIN, URG and PSH bits are set already.<br>**Related Syntax:**<br>● <config># dos xma-deny |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# dos icmp-ping-max-length 25252
G2540xs(config)# dos icmpv4-ping-max-check
G2540xs(config)#
```

## Telnet Command: dot1x

Use this command to set 802.1x configuration.

### Syntax Items

**dot1x**

### Description

| Syntax Items | Description |
|---|---|
| *dot1x guest-vlan* | <0-4094> - Enter a number as guest VLAN ID.<br>**Related Syntax:**<br>● <config># dot1x guest-vlan <0-4094> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# dot1x guest-vlan 33
VLAN does not exist
G2540xs(config)#
```

## Telnet Command: dray_surveillence

Use this command to enable / disable the ONVIF.

### Syntax Items

**dray_surveillence add**

**dray_surveillence direct-add**

**dray_surveillence set**

### Description

| Syntax Items | Description |
|---|---|
| *dray_surveillence add* | Add an IP device for surveillance.<br>WORD <36-36> - Enter the UUID string of the IP camera or IP-based device.<br>**Related Syntax:**<br>● <config># dray_surveillence add device uuid WORD <36-36><br>● <config># dray_surveillence add group uuid WORD <36-36> |
| *dray_surveillence direct-add* | WORD <36-36> - Enter the UUID string of the IP camera or IP-based device.<br>**Related Syntax:**<br>● <config># dray_surveillence direct-add device uuid WORD <36-36> |
| *dray_surveillence set* | username WORD<1-32> - Enter a string as the default user name.<br>password WORD<1-32>> - Enter a string as the default password.<br>encptpwd WORD <1-128> - Enter a string as the encrypted key.<br>WORD <36-36> - Enter the UUID string of the IP camera or the IP-based device.<br>ip <A.B.C.D> - Enter the IP address of the IP camera or the IP-based device.<br>Mask <A.B.C.D> - Enter the subnet mask of the IP camera or the IP-based device.<br>vlan <1-4094> - Enter a value representing the VLAN ID.<br>**Related Syntax:**<br>● <config># dray_surveillence set default username WORD<1-32> password WORD<1-32> |

| | |
|---|---|
| | • <config># dray_surveillence set default username WORD<1-32>encptpwd WORD <1-128><br>• <config># dray_surveillence set device uuid WORD <36-36><br>• <config># dray_surveillence set group uuid WORD <36-36><br>• <config># dray_surveillence set interface ip <A.B.C.D><br>• <config># dray_surveillence set interface mask <A.B.C.D><br>• <config># dray_surveillence set vlan <1-4094> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# dray_surveillence
G2540xs(config)#
G2540xs(config)# dray_surveillence add device uuid
53d7762a-c52b-4bb9-8000-305501e0f35f
G2540xs(config)#
```

## Telnet Command: do

Use this command to execute a command immediately.

### Syntax Items

**do SEQUENCE**

### Description

| Syntax Items | Description |
|---|---|
| *SEQUENCE* | Enter the command that you want to execute immediately.<br>**Related Syntax: (for example)**<br>• <config># do show info |

### Example

```
G2540xs(config)# do show info
System Name       : G2540xs
System Location   : Default
System Contact    : Default
MAC Address       : 00:1D:AA:01:05:73
IP Address        : 192.168.1.11
Subnet Mask       : 255.255.255.0
Loader Version    : 1.0.4
Loader Date       : Apr 09 2020 - 08:16:10
Firmware Version  : 2.6.3
Firmware Date     : Jun 19 2020 - 12:09:26
Firmware Revision : 1889
System Object ID  : 1.3.6.1.4.1.7367
System Up Time    : 0 days, 4 hours, 23 mins, 22 secs
G2540xs(config)#
```

## Telnet Command: enable

Use this command to configure local password with encrypted string or not.

### Syntax Items

**enable password**
**enable privilege**
**enable secret**

### Description

| Syntax Items | Description |
|---|---|
| *enable password* | Edit the password for each privilege level for activating authentication.<br><1-15> - Enter a number for specifying a privilege level. Default value is 15.<br>**Related Syntax:**<br>● <config># enable password <1-15> |
| *enable privilege* | Edit the privilege level of the password for local user.<br><1-15> - Enter a number for specifying a privilege level. Default value is 15.<br><string> - Enter a new string as the password.<br>**Related Syntax:**<br>● <config># enable privilege <1-15> password <string> (This password will **NOT** be encrypted.)<br>● <config># enable privilege <1-15> secret <string> (This password will **BE** encrypted.)<br>● <config># enable privilege <1-15> secret encrypted <string> (This password is copied from another configuration file. So, enter an **existed** and **encrypted** password.) |
| *enable secret* | <PASSWORD> - Enter a new string as the encrypted password.<br>**Related Syntax:**<br>● <config># enable secret PASSWORD<br>● <config># enable secret encrypted PASSWORD |

### Example

```
G2540xs# configure
G2540xs(config)# enable secret encrypted testtest
G2540xs(config)# exit
G2540xs# show running-config
G2540xs# …
enable privilege 2 secret "OTE5ZTY4MmNhYzgyNWQ0MzBhNTgwZTg0MmZmMGJiYzQ="
enable secret "testtest"
vlan 2
 name "test0002"
vlan 3
 name "test0003"
vlan 5
 name "test_carrie"
voice-vlan oui-table 00:E0:BB "3COM"
voice-vlan oui-table 00:03:6B "Cisco"
voice-vlan oui-table 00:E0:75 "Veritel"
.......
```

## Telnet Command: end

Use this command to end current mode.

### Syntax Items

**end**

### Example

```
G2540xs# configure
G2540xs(config)#end
G2540xs#
```

## Telnet Command: errdisable

Use this command to enable the auto recovery timer for port error.

### Syntax Items

**errdisable recovery cause**
**errdisable recovery interval**

### Description

| Syntax Items | Description |
|---|---|
| *errdisable recovery cause* | Enable the auto recovery timer for port error disabled from ACL,all, ARP rate limit, STP BPDU guard, broadcast flooding, DHCP rate limit, port security, STP self-loop, unicast flooding, or unknown multicast flooding causes.<br>**Related Syntax:**<br>● <config># erridisable recovery cause < acl /all /arp-inspection /bpduguard /broadcast-flood /dhcp-rate-limit /psecure-violation /selfloop /unicast-flood /unknown-multicast-flood > |
| *errdisable recovery interval* | Set the recovery time of the error disabled port.<br><30-86400> - The default value is 300 seconds.<br>**Related Syntax:**<br>● <config># errdisable recovery interval <30-86400> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# errdisable recovery interval 600
G2540xs(config)#
```

## Telnet Command: exit

Use this command to exit current mode and return to previous mode/phase.

### Syntax Items

**exit**

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# exit
```

```
G2540xs#
```

## Telnet Command: gvrp

Use this command to enable the GVRP configuration. In default, the GVRP is disabled.

### Syntax Items

**gvrp**

### Example

```
G2540xs# configure
G2540xs(config)# gvrp
G2540xs(config)#
G2540xs(config)# exit
G2540xs# show gvrp
             GVRP    Status
             --------------------
   GVRP                        : Enabled
   Join time                   : 200 ms
   Leave time                  : 600 ms
   LeaveAll time               : 10000 ms
G2540xs#
```

## Telnet Command: hostname

Use this command to modify the network name of VigorSwitch.

### Syntax Items

**hostname**

### Description

| Syntax Items | Description |
|---|---|
| *hostname* | <word> - Enter a string as the network name for VigorSwitch.<br>**Related Syntax:**<br>● <config># hostname <word> |

### Example

```
G2540xs# configure
G2540xs(config)# hostname Switch_3F
Switch_3F(config)#
```

## Telnet Command: interface

Use this command to configure interface settings.

Before configuring, you have to access into next phase. See the following example:

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# interface GigabitEthernet 3
G2540xs(config-if)#
```

Or

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# interface range LAG 3
G2540xs(config-if-range)#
```

## Syntax Items

**interface 10GigabitEthernet**
**interface GigabitEthernet**
**interface VLAN**
**interface LAG**
**interface range**

## Description

| Syntax Items | Description |
|---|---|
| *interface 10GigabitEthernet* | <1-6> - Specify the number of 10GigabitEthernet device .<br>**Related Syntax:**<br>● <config># interface 10GigabitEthernet <1-6> |
| *interface GigabitEthernet* | <1-48> - Specify the number of Ethernet LAN port.<br>**Related Syntax:**<br>● <config># interface GigabitEthernet <1-48> |
| *interface VLAN* | <1-4094> - Specify a VLAN ID.<br>**Related Syntax:**<br>● <config># interface VLAN <1-4094> |
| *interface LAG* | <1-8> - Specify the number of LAG interface.<br>**Related Syntax:**<br>● <config># interface LAG <1-8> |
| *Interface range* | Specify an interface ranges for configuring detailed settings.<br>**Related Syntax:**<br>● <config># interface range GigabitEthernet <1-48><br>● <config># interface range LAG <1-8> |

## Example

```
G2540xs# configure
G2540xs(config)# interface LAG 1
G2540xs(config-if)#
```

Under `(config-if)#`, available sub-commands for LAN or LAG will be different. Below shows the items under Ethernet LAN:

<config-if># 10g-media
<config-if># back-pressure
<config-if># custom
<config-if># description
<config-if># device-check
<config-if># dos
<config-if># do
<config-if># dray_surveillence
<config-if># duplex
<config-if># eee
<config-if># end
<config-if># exit
<config-if># flowcontrol

<config-if># gvrp
<config-if># ip
<config-if># ipv6
<config-if>#loop-protection
<config-if># mac
<config-if># mvr
<config-if># no
<config-if># poe
<config-if># port-security
<config-if># power
<config-if># protected
<config-if># qos
<config-if># shutdown
<config-if># spanning-tree
<config-if># speed
<config-if># surveillance-vlan
<config-if># switchport
<config-if># vlan
<config-if># voice-vlan

## Description

| Syntax Items | Description |
|---|---|
| *10g-media* | It is used for configuring 10G media type.<br>dac100cm - Set the media type as 100cm DAC.<br>dac300cm - Set the media type as 300cm DAC.<br>dac500cm - Set the media type as 500cm DAC.<br>dac50cm - Set the media type as 50cm DAC.<br>fiber10g - Set the media type as 10G Fiber.<br>fiber1g - Set the media type as 1G Fiber.<br>none - Set the media type to NONE media.<br>**Related Syntax:**<br>● <config-if># 10g-media dac100cm<br>● <config-if># 10g-media dac300cm<br>● <config-if># 10g-media dac500cm<br>● <config-if># 10g-media dac50cm<br>● <config-if># 10g-media fiber10g<br>● <config-if># 10g-media fiber1g<br>● <config-if># 10g-media none |
| *back-pressure* | Enable back-pressure for the specified interface (Ethernet port/LAG port).<br>**Related Syntax:**<br>● <config-if># back-pressure |
| *custom* | <enable> - Enable the custom module configuration for the specified interface (Ethernet port/LAG port).<br>**Related Syntax:**<br>● <config-if># custom enable |
| *description* | Write a description for the specified interface (Ethernet port/LAG port).<br><WORD> - Enter a description (up to 32 characters).<br>**Related Syntax:**<br>● <config-if># descripton <WORD> |
| *device-check* | Perform a device check the specified interface (Ethernet port/LAG port).<br>ip-address<A.B.C.D> - Enter the IP address of the device. |

| | |
|---|---|
| | interval <120/15/30/60>– Check the device interval by entering the time value. Unit is second.<br>retry <1/3/5> - Enter the retry time during a checking period.<br>Failure-action <nothing/powercycle/poweroff> – Set the power cycle.<br>**Related Syntax:**<br>● <config-if># device-check ip-address <A.D.C.D> interval <120/15/30/60> retry <1/3/5> failure-action <nothing/powercycle/poweroff> |
| *dos* | Apply DoS to the specified interface (Ethernet port/LAG port). |
| *do* | Run execution commands in current mode. |
| *dray_surveillence* | Use this command to set the ONVIF throughput alert threshold.<br><16-1000000> - Specify a number as the alert threshold for egress /ingress throughput.<br>**Related Syntax:**<br>● <config-if>#dray_surveillence set threshold alert egress <16-1000000><br>● <config-if>#dray_surveillence set threshold alert ingress <16-1000000> |
| *duplex* | Apply the duplex configuration to the specified interface (Ethernet port/LAG port).<br><Auto> – Auto duplex configuration.<br><Full>– Force full duplex operation.<br><Half> – Force half-duplex operation.<br>**Related Syntax:**<br>● <config-if># duplex <auto/full/half> |
| eee | Apply the EEE configuration to the specified interface (Ethernet port only). |
| *end* | End current mode, change to enable mode and return to previous phase. |
| *exit* | Exit from current mode. |
| *flowcontrol* | Configure flow-control mode to the specified interface (Ethernet port/LAG port).<br><Auto> – Enable AUTO flow-control configuration.<br><Off> – Disable the force flow-control.<br><On> – Enable the force flow-control.<br>**Related Syntax:**<br>● <config-if># flowcontrol <auto/off/on> |
| *gvrp* | Apply the GVRP configuration to the specified interface (Ethernet port/LAG port).<br>registration-mode <fixed / forbidden / normal>- Set registration mode for GVRP. When registration-mode is fixed or forbidden, it will remove the dynamic port from VLAN.<br>vlan-creation-forbid – Do not remove dynamic port from VLAN.<br>**Related Syntax:**<br>● <config-if># gvrp registration-mode <fixed / forbidden / normal><br>● <config-if># gvrp vlan-creation-forbid |
| *ip* | Apply IP configuration to the specified interface (Ethernet port/LAG port).<br>acl <NAME> - Specify an ACL for packets. Enter the name of the ACL.<br>arp inspection rate-limit <1-48> – ARP inspection is to enable Dynamic ARP Inspection function. Set the rate limitation (1 – 50) on the interface. VigorSwitch will drop ARP packets after receives more |

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| | than configured rate of packets per second.<br>arp inspection trust – Use it to set trusted interface.<br>arp inspection validate dst-mac – It means the switch will drop ARP reply packets if arp-target-mac and ethernet-dst-mac are not matched.<br>arp inspection validate ip allow-zeros – The “allow-zeros” means the switch will not drop all zero IP address.<br>arp inspection validate src-mac – It means the switch will drop ARP requests and reply packets if arp-sender-mac and ethernet-source-mac are not matched.<br>conflict prevention bind-ip <A.B.C.D> -<br>conflict prevention port-type DHCP-Client –<br>conflict prevention port-type DHCP-Client has-server –<br>conflict prevention port-type DHCP-Server –<br>conflict prevention port-type DHCP-Server has-server –<br>conflict prevention port-type Multiple-Hosts –<br>conflict prevention port-type Multiple-Hosts has-server –<br>conflict prevention port-type Static-Binding –<br>conflict prevention port-type Static-Binding has-server -<br>dhcp snooping option – Use it to enable the function of inserting option82 content into the packet.<br>dhcp snooping option action <drop / keep / replace> - Use it to set the action (drop, keep or replace) when receiving packets with option82 content.<br>dhcp snooping option circuit-id <STRING> - Use it to set user-defined circuit-id string (1 to 63 characters).<br>dhcp snooping rate-limit <1-300> - Use it to set rate limitation on the interface.<br>dhcp snooping trust – Use it to set trusted interface.<br>dhcp snooping verify mac-address – Use it to verify MAC address function on the interface.<br>dhcp snooping vlan <1-4094> option circuit-id <STRING> - Set user-defined circuit-id string for specified VLAN ID.<br>igmp filter <1-128> - Use it to bind a profile for a port. Specify a profile ID.<br>igmp max-groups <0-256> - Use it to limit port learning max group number (0-256).<br>igmp max-groups action <deny/replace> - Use it to set the action (deny or replace) when the number of groups reach the limitation.<br>source binding max-entry <1-48> -<br>source binding max-entry no-limit -<br>source verify mac-and-ip – Use it to enable IP source guard function.<br>**Related Syntax:**<br>● <config-if># ip acl <NAME><br>● <config-if># ip arp inspection rate-limit <1-48><br>● <config-if># ip arp inspection trust<br>● <config-if># ip arp inspection validate dst-mac<br>● <config-if># ip arp inspection validate ip allow-zeros<br>● <config-if># ip arp inspection validate src-mac<br>● <config-if># ip conflict prevention bind-ip <A.B.C.D><br>● <config-if># ip conflict prevention port-type DHCP-Client<br>● <config-if># ip conflict prevention port-type DHCP-Client has-server<br>● <config-if># ip conflict prevention port-type DHCP-Server<br>● <config-if># ip conflict prevention port-type DHCP-Server has-server |

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| | • <config-if># ip conflict prevention port-type Multiple-Hosts<br>• <config-if># ip conflict prevention port-type Multiple-Hosts has-server<br>• <config-if># ip conflict prevention port-type Static-Binding<br>• <config-if># ip conflict prevention port-type Static-Binding has-server<br>• <config-if># ip dhcp snooping option<br>• <config-if># ip dhcp snooping option action <drop / keep / replace><br>• <config-if># ip dhcp snooping option circuit-id <STRING><br>• <config-if># ip dhcp snooping rate-limit <1-300><br>• <config-if># ip dhcp snooping trust<br>• <config-if># ip dhcp snooping verify mac-address<br>• <config-if># ip dhcp snooping vlan <1-4094> option circuit-id <STRING><br>• <config-if># ip igmp filter <1-128><br>• <config-if># ip igmp max-groups <0-256><br>• <config-if># ip igmp max-groups action <deny/replace><br>• <config-if># ip source binding max-entry <1-48><br>• <config-if># ip source binding max-entry no-limit<br>• <config-if># ip source verify mac-and-ip |
| *ipv6* | Apply IPV6 configuration to the specified interface (Ethernet port/LAG port).<br>acl <NAME> - Specify the ACL name for packets<br>mld <filter> – Set IPv6 filter for MLD configuration.<br>mld max-groups – Specify the number for maximum group.<br><0-256> - MLD snooping group number.<br>action <deny /replace> – Define the action to be performed when excessing the maximum group.<br>**Related Syntax:**<br>• <config-if># ipv6 acl <NAME><br>• <config-if># ipv6 mld filter<br>• <config-if># ipv6 mld max-groups <0-256><br>• <config-if># ipv6 mld max-groups action <deny / replace> |
| *lacp* | Apply LACP Configuration to the specified interface (Ethernet port/LAG port).<br><1-65535> - Set a number for IEEE 802.3 link aggregation port priority.<br><long/short> – Set long or short timeout value.<br>**Related Syntax:**<br>• <config-if># lacp port-priority <1-65535><br>• <config-if># lacp timeout <long/short> |
| *lag* | Apply Link Aggregation Group Configuration the specified interface (Ethernet port/LAG port).<br><1-8> - Specify LAG number.<br>**Related Syntax:**<br>• <config-if># lag <1-8> |

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| *lldp* | med location - Configure the LLDP MED location data. The “coordinate”, “civic-address”, “ecs-elin” locations are independent, so at most three location TLVs could be sent if their data are not empty.<br>med network-policy add / remove - Configure the LLDP MED network policy table. Add /remove a network policy entry that can be bind to ports.<br>med tlv-select - Configure LLDP MED TLVs selection. Available optional TLVs are network-policy, location, inventory and poe-pse.<br>tlv-select - Select LLDP TLVs to send.<br><civic-address> - The location is specified as civic address.<br><ADDR> - Range from 6 to 160 hexadecimal bytes.<br><Coordinate> - The location is specified as coordinates.<br><ADDR> - 16 hexadecimal bytes exactly.<br><ecs-elin> - The location is specified as ECS ELIN.<br><ADDR> - 10 to 25 hexadecimal bytes.<br><IDX_LIST> - Range from 1 to 32.<br><TLV> - LLDP optional TLV, pick from: port-desc, sys-name, sys-desc, sys-cap, mac-phy, lag, max-frame-size, management-addr.<br>pvid <disable/enable> - Enable or disable the TX optional-TLV 802.1 PVID.<br>vlan-name <add/remove> <2-4094> - Add/remove a selected VLAN. Enter the VLAN ID number.<br><rx> - Enable LLDP reception on interface.<br><tx> - Enable LLDP transmission on interface.<br>**Related Syntax:**<br>● <config-if># lldp med location <civic-address/coordinate/ecs-elin> <ADDR><br>● <config-if># lldp med network-policy add <IDX_LIST><br>● <config-if># lldp med network-policy remove <IDX_LIST><br>● <config-if># lldp med tlv-select <network-policy/location/inventory/poe-pse> <network-policy/location/inventory/poe-pse> <network-policy/location/inventory/poe-pse><br>● <config-if># lldp tlv-select <TLV/pvid/vlan-name><br>● <config-if># lldp tlv-select pvid <disable/enable><br>● <config-if># lldp tlv-select vlan-name <add/remove> <2-4094><br>● <config-if># lldp <rx/tx> |
| *Loop-protection* | Record the log, shutdown the port or follow the global |

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| | loop-protection settings for each port.<br>**Related Syntax:**<br>● <config-if># loop-protection action all<br>● <config-if># loop-protection action global<br>● <config-if># loop-protection action log<br>● <config-if># loop-protection action shutdown |
| *mac* | Specify an access control list for packets.<br>Before configuring, you have to create an ACL based on MAC address. For example,<br><config># mac acl CA_ACL<br><config-mac-acl>#<br><NAME> - Enter a name for ACL.<br>**Related Syntax:**<br>● <config-if># mac acl <NAME> |
| *mvr* | Make MVR configuration.<br>immediate - Enable MVR function.<br>type <receiver/source> - Specify MVR port type as receiver or source.<br>**Related Syntax:**<br>● <config-if># mvr immediate<br>● <config-if># mvr type <receiver/source> |
| *no* | Negate command. Such command can disable current setting of command executed and return to the factory setting of that command.<br>Example:<br><config-if> # no mvr<br>The operation will make mvr setting is default. Continue? [yes/no]:yes<br><config-if> #<br>**Related Syntax:**<br>● <config-if># no <command> |
| *poe* | Enable or disable the PoE port. |
| *port-security* | port-security - Enable the port security functionality. Default is disabled.<br>address-limit <1-256>- Enter the number as limitation for MAC address.<br>action <discard / forward / shutdown> – Speicfy an action to be performed.<br>**Related Syntax:**<br>● <config-if># port-security<br>● <config-if># port-security adderss-limit <1-256> action <discard / forward / shutdown> |
| *power* | Configure the inline power for the PoE device.<br>inline auto - Turn on the PoE device discovery protocol and apply the power to the devcie.<br>inline never - Turn off the PoE device power.<br>power-limit <15.4w/30w/MW> - Set the power limit for the PoE device.<br>priority <1-3/critical/high/low> - Set the priority of power application for the PoE device.<br>schedule-index - Specify the index number of the schedule profile.<br>**Related Syntax:** |

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| | ● <config-if># power inline auto<br>● <config-if># power inline never<br>● <config-if># power power-limit <15.4w/30w/MW><br>● <config-if># power priority <1-3/critical/high/low><br>● <config-if># power schedule-index |
| *protected* | Configure an interface to be a protected port.<br>**Related Syntax:**<br>● <config-if>#protected |
| *qos* | cos - Configure the default CoS value for an Ethernet port.<br><*0-7*> - Specify a CoS value for the selected interface. Default value is 0.<br>Remark - Configure remarking state of each port.<br>trust - Configure each port to trust state while the system is in "basic" mode. There are four trust types for a device to judge the appropriate queue of the packets.<br><cos> - Enable cos remarking.<br><dscp> - Enable DSCP remarking.<br><cos-dscp> - Enable cos and DSCP remarking.<br><precedence> - Enable IP precedence remarking.<br>**Related Syntax:**<br>● <config-if>#qos cos <0-7><br>● <config-if>#qos remark <cos/dscp/precedence><br>● <config-if>#qos trust <cos/cos-dscp/ dscp/precedence> |
| *rate-limit* | It is effective for Ethernet port only.<br>egress - Configure the egress port shaper.<br>ingress - Configure the ingress port shaper.<br>egress queue – Configure queue for egress port shaper.<br><0-1000000> - Enter a number as the average traffic rate in Kbps. It must be a multiple of 16.<br><16-1000000> - Enter a number as the average traffic rate in Kbps. It must be a multiple of 16.<br><1-8> - Specify a number as queue ID.<br>**Related Syntax:**<br>● <config-if># rate-limit egress <0-1000000><br>● <config-if># rate-limit egress queue <1-8> <16-1000000><br>● <config-if># rate-limit ingress <16-1000000> |
| *shutdown* | Disable the selected interface.<br>Example:<br>*(config)# interface gigabitethernet 3*<br>*(config-if)# shutdown*<br>*(config-if)# exit*<br>*(config)# exit*<br>*# show interface Gigabitethernet 3*<br>*GigabitEthernet3 is down*<br>**Related Syntax:**<br>● <config-if># shutdown |
| *spanning-tree* | Configure spanning-tree settings. |

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| | bpdu-filter - Set the BPDU-Filter for specified port.<br>bpdu-guard - Set the BPDU-Guard for specified port.<br>edge - Set the edge-port for specified port.<br>cost - Change an interface's spanning tree path cost.<br>link-type - Specify a link type for spanning tree protocol use.<br>mcheck - Set the mcheck for specified port to migrate.<br>mst - Set spanning-tree parameters of instance.<br>port-priority- Set the priority for specified instance.<br><0-200000000> - Specify a value of internal path cost (0 means Auto).<br><point-to-point> - The selected port will be treated as point-to-point.<br><shared> - The selected port will be treated as shared.<br><0-15> - Specify an instance ID.<br><0-240> - Specify a priority number for the selected port.<br>**Related Syntax:**<br>● <config-if># spanning-tree <bpdu-filter /bpdu-guard/ edge><br>● <config-if># spanning-tree cost <0-200000000><br>● <config-if># spanning-tree link-type <point-to-point/shared><br>● <config-if># spanning-tree mcheck<br>● <config-if># spanning-tree mst <0-15> cost <0-200000000><br>● <config-if># spanning-tree port-priority <0-240> |
| *speed* | Configure speed operation.<br><10/100/1000> - Force 10/100/1000 Mbps operation.<br><auto> - Enable Auto speed configuration.<br>**Related Syntax:**<br>● <config-if># speed<10/100/1000><br>● <config-if># speed auto |
| *Storm-control* | action - Select an action for storm control after exceeding the threshold.<br>broadcast level - Enable the storm control type of broadcast for the selected port.<br>unknown-multicast level - Enable the storm control type of unknown-multicast for the selected port.<br>unknown-unicast level- Enable the storm control type of unknown-unicast for the selected port.<br><drop> - Drop packets after exceeding storm control threshold.<br><shutdown> - Disable the port after exceeding storm control threshold.<br><1-1000000> - Specify the rate value.<br>**Related Syntax:**<br>● <config-if># storm-control action <drop/shutdown><br>● <config-if># storm-control broadcast level <1-1000000><br>● <config-if># storm-control unknown-multicast level <1-1000000><br>● <config-if># storm-control unknown-unicast level <1-1000000> |
| *surveillance-vlan* | cos - Set surveillance VLAN configuration.<br>mode - Set surveillance member port join mode. |

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| | <all> - QoS attributes are applied to all packets that are classified to the Surveillance VLAN.<br><src> - QoS attributes are applied only on packets from IP phones.<br><auto> - Make surveillance member port join voice VLAN automatically.<br><manual> - The administrator manually makes surveillance member port join voice VLAN.<br>**Related Syntax:**<br>● <config-if># surveillance-vlan cos <all/src><br>● <config-if># surveillance-vlan mode <auto/manual> |
| *switchport* | Set switching mode characteristics.<br>access vlan –Use it to set a native VLAN on the interface.<br>default-vlan tagged – Use it to make the selected port interface to become the default VLAN tagged member.<br>forbidden default-vlan – Use it to forbid the defult-vlan on the interface.<br>forbidden vlan - Use it to forbid a vlan on the interface.<br>hybrid accetable-frame-type – Use it to choose which type of frame will be accepted.<br>hybrid allowed – Use it to allow a VALN set on the interface.<br>hybrid ingress-filtering – Use it to enable VLAN ingress filter.<br>hybrid pvid – Use it to set PVID of the interface.<br>mode access - Use it to configure the selected port as the role of access. Only untagged frames will be accepted.<br>mode hybrid - Use it to configure the selected port as the role of hybrid. Support all functions defined in IEEE 802.1Q specification.<br>mode trunk uplink – Use it to configure the selected port as the role of trunk. It can recognize double tagging on the interface.<br>trunk allowed – Use it to allow a VALN on the interface.<br>trunk native – Use it to set a native VLAN on the interface.<br>tunnel vlan – Use it to set a Dot1q tunnel VLAN on the interface.<br>vlan tpid – Use it to set TPID on the interface.<br><1-4094> - Specify a VLAN ID.<br><add/remove> - Add or remove the allowed VLAN list.<br><all/tagged-only/untagged-only> - Specify an option for accepting all frames, only tagged frames or only untagged frames.<br><1-4094/all> - Specify a VLAN ID or all VLAN IDs.<br>< 0x8100 / 0x88A8 / 0x9100 / 0x9200> - Specify one tag-protocol-id.<br>**Related Syntax:**<br>● <config-if># switchport access vlan <1-4094><br>● <config-if># switchport default-vlan tagged<br>● <config-if># switchport forbidden default-vlan<br>● <config-if># switchport forbidden vlan <add/remove> <1-4094><br>● <config-if># switchport hybrid accetable-frame-type <all/tagged-only/untagged-only><br>● <config-if># switchport hybrid allowed vlan add <1-4094><br>● <config-if># switchport hybrid allowed vlan add <1-4094> <tagged/ untagged><br>● <config-if># switchport hybrid allowed vlan remove <1-4094><br>● <config-if># switchport hybrid ingress-filtering<br>● <config-if># switchport hybrid pvid <1-4094><br>● <config-if># switchport mode <access/hybrid><br>● <config-if># switchport mode trunk uplink<br>● <config-if># switchport trunk allowed vlan <add /remove> |

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| | <1-4094/all><br>● <config-if># switchport trunk native <1-4094><br>● <config-if># switchport tunnel vlan <1-4094><br>● <config-if># switchport vlan tpid < 0x8100/0x88A8 / 0x9100 / 0x9200> |
| *vlan* | mac-vlan group - Set a MAC-based VLAN configuration.<br>protocol-vlan group - Set a protocol-based VLAN configuration.<br><1-2147483647> - Specify a group ID to map.<br><1-4094> - Specify a VLAN ID.<br>**Related Syntax:**<br>● <config-if># vlan mac-vlan group <1-2147483647> vlan <1-4094><br>● <config-if># vlan protocol-vlan group<1-2147483647> vlan <1-4094> |
| *voice-vlan* | cos - Set voice VLAN configuration as COS mode.<br>mode - Set voice member port join mode.<br><all> - QoS attributes are applied on all packets that are classified to the Voice VLAN.<br><src> - QoS attributes are applied only on packets from IP phones.<br><auto> - Make voice member port join voice VLAN automatically.<br><manual> - The administrator manually makes voice member port join voice VLAN.<br>**Related Syntax:**<br>● <config-if># voice-vlan cos <all/src><br>● <config-if># voice-vlan mode <auto/manual> |

### Example

```
G2540xs# configure
G2540xs(config)# interface LAG 1
G2540xs(config-if)# speed 100
G2540xs(config-if)# backpressure
G2540xs(config-if)# lldp med location ecs-elin 112233445566778899AA
G2540xs(config-if)# vlan mac-vlan group 35 vlan 1000
G2540xs(config-if)#
```

## Telnet Command: ip

Use this command to create an IPv4 access list (ACL) which performs classification on layer 3 fields and enters ip-access configuration mode.

### Syntax Items

**ip acl**
**ip address**
**ip arp**
**ip conflict**
**ip default-gateway**
**ip dhcp**
**ip dns**
**ip forcedhttps**
**ip http**
**ip https**
**ip igmp**
**ip route**

**ip source**
**ip ssh**
**ip telnet**

## Description

| Syntax Items | Description |
|---|---|
| *ip acl* | acl <NAME> - Set the name of the access list (ACL) based on IPv4.<br>To configure detailed settings, enter the name of ACL to access into next level.<br><config>#ip acl <NAME><br>Then, available sub-command includes:<br><config-ip-acl>#deny<br><config-ip-acl>#do<br><config-ip-acl>#end<br><config-ip-acl>#exit<br><config-ip-acl>#permit<br><config-ip-acl>#sequence<br><config-ip-acl>#show |
| | Use the “deny” command to create deny rules for the IPv4 access list.<br><0-255/egp/hmp/icmp/igp/ipinip/ipv6 /ipv6:frag /ipv6:icmp /ipv6:rout / ip / l2tp /ospf /pim / rdp / rsvp /tcp /udp > - Specify the IP protocol number or enter the name of the protocol.<br><A.B.C.D>/<A.B.C.D> <A.B.C.D>/<A.B.C.D> - Specify the source and destination IPv4 addresses and subnet masks.<br>dscp <0-63> - Set the DSCP filtering by specifying a value for DSCP.<br>precedence <0-7> - Set the cos value and the cos mask for a packet.<br>shutdown – Disable the Ethernet interface.<br>any – Any IP address (as source or destination).<br>**Related Syntax:**<br>● <config-ip-acl >#deny <0-255> <A.B.C.D>/<A.B.C.D> <A.B.C.D>/<A.B.C.D> dscp <0-63><br>● <config-ip-acl >#deny <0-255> <A.B.C.D>/<A.B.C.D> <A.B.C.D>/<A.B.C.D> dscp <0-63> shutdown<br>● <config-ip-acl >#deny <0-255> <A.B.C.D>/<A.B.C.D> <A.B.C.D>/<A.B.C.D> precedence <0-7><br>● <config-ip-acl >#deny <0-255> <A.B.C.D>/<A.B.C.D> <A.B.C.D>/<A.B.C.D> precedence <0-7> shutdown<br>● <config-ip-acl >#deny <0-255> any <A.B.C.D>/<A.B.C.D> dscp <0-63><br>● <config-ip-acl >#deny <0-255> any <A.B.C.D>/<A.B.C.D> dscp <0-63> shutdown<br>● <config-ip-acl >#deny <0-255> any <A.B.C.D>/<A.B.C.D> precedence <0-7><br>● <config-ip-acl >#deny <0-255> any <A.B.C.D>/<A.B.C.D> precedence <0-7> shutdown<br>● <config-ip-acl >#deny <0-255> any any dscp <0-7><br>● <config-ip-acl >#deny <0-255> any any dscp <0-7> shutdown<br>● <config-ip-acl >#deny <0-255> any any precedence <0-7><br>● <config-ip-acl >#deny <0-255> any any precedence <0-7> shutdown |
| | Use the “do” command to run execution command in current mode.<br><SEQUENCE> -<br>**Related Syntax:**<br>● <config-ip-acl>#do <SEQUENCE> |

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| | Use the “end” command to finish current mode. Any changes in current mode will be saved.<br>**Related Syntax:**<br>● <config-ip-acl>#end |
| | Use the “exit” command to close the current CLI session or return to the previous mode without saving the settings.<br>**Related Syntax:**<br>● <config-ip-acl>#exit |
| | Use the “no sequence” command to delete any entry in management ACL.<br><1-2147483647>- Specify an index number of the ACL.<br>**Related Syntax:**<br>● <config-ip-acl>#no sequence <1-2147483647> |
| | Use the “sequence” command to deny or permit the ACL.<br><1-2147483647> - Enter the sequence of ACL entry. The sequence represents the priority of the ACE in the ACL.<br>**Related Syntax:**<br>● <config-ip-acl >#sequence <1-2147483647> deny<br>● <config-ip-acl >#sequence <1-2147483647> permit |
| | Use the “permit” command to create permit rules which bypass the packets meet the rule.<br><0-255/egp/hmp/icmp/igp/ipinip/ipv6 /ipv6:frag /ipv6:icmp /ipv6:rout / ip / l2tp /ospf /pim / rdp / rsvp /tcp /udp > - Specify the IP protocol number or enter the name of the protocol.<br><A.B.C.D>/<A.B.C.D> <A.B.C.D>/<A.B.C.D> - Specify the source and destination IPv4 addresses and subnet masks.<br>dscp <0-63> - Set the DSCP filtering by specifying a value for DSCP.<br>precedence <0-7> - Set the cos value and the cos mask for a packet.<br>Shutdown – Disable the Ethernet interface.<br>any – Any IP address (as source or destination).<br>**Related Syntax:**<br>● <config-ip-acl >#permit <0-255> <A.B.C.D>/<A.B.C.D> <A.B.C.D>/<A.B.C.D> dscp <0-63><br>● <config-ip-acl >#permit <0-255> <A.B.C.D>/<A.B.C.D> <A.B.C.D>/<A.B.C.D> dscp <0-63> shutdown<br>● <config-ip-acl >#permit <0-255> <A.B.C.D>/<A.B.C.D> <A.B.C.D>/<A.B.C.D> precedence <0-7><br>● <config-ip-acl >#permit <0-255> <A.B.C.D>/<A.B.C.D> <A.B.C.D>/<A.B.C.D> precedence <0-7> shutdown<br>● <config-ip-acl >#permit <0-255> any <A.B.C.D>/<A.B.C.D> dscp <0-63><br>● <config-ip-acl >#permit <0-255> any <A.B.C.D>/<A.B.C.D> dscp <0-63> shutdown<br>● <config-ip-acl >#permit <0-255> any <A.B.C.D>/<A.B.C.D> precedence <0-7><br>● <config-ip-acl >#permit <0-255> any <A.B.C.D>/<A.B.C.D> precedence <0-7> shutdown<br>● <config-ip-acl >#permit <0-255> any any dscp <0-7><br>● <config-ip-acl >#permit <0-255> any any dscp <0-7> shutdown<br>● <config-ip-acl >#permit <0-255> any any precedence <0-7><br>● <config-ip-acl >#permit <0-255> any any precedence <0-7> shutdown |

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| | Use the “show acl” command to list current status of the selected ACL. |
| *ip address* | Use this command to modify the administration IPv4 address.<br>adddress <A.B.C.D> - Specify the IPv4 addresses. This IP is required when the administer wants to access into VigorSwitch through Telnet, SSH, HTTP, HTTPS, SNMP and so on.<br>mask <A.B.C.D> - Specify the netmask of the IP address.<br>**Related Syntax:**<br>● <config>#ip address <A.B.C.D><br>● <config>#ip address <A.B.C.D> mask <A.B.C.D> |
| *ip arp* | Use this command to enable the function of dynamic ARP inspection.<br>vlan <1-4094> - Specify the VLAN ID number.<br>**Related Syntax:**<br>● <config>#ip arp inspection<br>● <config>#ip arp inspection vlan <1-4094> |
| *ip conflict* | Use this command to do IP conflict prevention.<br>lag - Enable/disable the function.<br><A.B.C.D> - Specify the IPv4 addresses.<br><1-6> - Specify a physical port (10G).<br><1-48> - Specify an Ethernet physical port.<br><1-8> - Specify a LAG port.<br><1-4094> - Specify a VLAN ID number.<br>**Related Syntax:**<br>● <config>#ip conflict detection<br>● <config>#ip conflict lag<br>● <config>#ip conflict prevention<br>● <config>#ip conflict prevention binding <A:B:C:D:E:F> vlan <1-4094> <A.B.C.D> interface 10GigabitEthernet <1-6> server<br>● <config>#ip conflict prevention binding <A:B:C:D:E:F> vlan <1-4094> <A.B.C.D> interface GigabitEthernet <1-48> server<br>● <config>#ip conflict prevention binding <A:B:C:D:E:F> vlan <1-4094> <A.B.C.D> interface LAG <1-8> server<br>● <config>#ip conflict prevention binding <A:B:C:D:E:F> vlan <1-4094> <A.B.C.D> 10GigabitEthernet <1-6> static<br>● <config>#ip conflict prevention binding <A:B:C:D:E:F> vlan <1-4094> <A.B.C.D> 2.5GigabitEthernet <1-48> static<br>● <config>#ip conflict prevention binding <A:B:C:D:E:F> vlan <1-4094> <A.B.C.D> LAG <1-8> static<br>● <config>#ip conflict prevention binding vlan <1-4094> <A.B.C.D> <A.B.C.D> interface 10GigabitEthernet <1-6> server<br>● <config>#ip conflict prevention binding vlan <1-4094> <A.B.C.D> <A.B.C.D> interface 10GigabitEthernet <1-6> static<br>● <config>#ip conflict prevention binding vlan <1-4094> <A.B.C.D> <A.B.C.D> interface GigabitEthernet <1-48> server<br>● <config>#ip conflict prevention binding vlan <1-4094> <A.B.C.D> <A.B.C.D> interface GigabitEthernet <1-48> static<br>● <config>#ip conflict prevention binding vlan <1-4094> <A.B.C.D> <A.B.C.D> interface LAG<1-8> server<br>● <config>#ip conflict prevention binding vlan <1-4094> <A.B.C.D> <A.B.C.D> interface LAG<1-8> static<br>● <config>#ip conflict prevention clear<br>● <config>#ip conflict prevention server-ip <A.B.C.D> interface |

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| | 10GigabitEthernet <1-6><br>● <config>#ip conflict prevention server-ip <A.B.C.D> interface GigabitEthernet <1-48><br>● <config>#ip conflict prevention server-ip <A.B.C.D> interface LAG <1-8> |
| *Ip default-gateway* | Use this command to modify default gateway address.<br>address <A.B.C.D> - Specify the IPv4 addresses.<br>**Related Syntax:**<br><config>#ip default-gateway <A.B.C.D> |
| *ip dhcp* | Use this command to enable DHCP client to get IP address from remote DHCP server.<br>database <flash/tftp/timeout/write-delay> - Write the database to FLASH or remote TFTP server. Set timeout interval for abortion. Set delay timer for writing to URL.<br><A.B.C.D> - Specify the IPv4 addresses.<br><HOSTNAME> - Enter the name of the host.<br><NAME> - Set a name for the backup file.<br><0-86400> - Enter a value. Unit is second.<br><15-86400> - Enter a value. Unit is second.<br>option – Configure DHCP-Option82 settings by specifying remote ID number.<br><STRING> - Enter a string (from 1 to 63 characters) for the DHCP option.<br>vlan – Configure VLAN settings.<br><1-4094> - Specify the VLAN ID number.<br>**Related Syntax:**<br>● <config>#ip dhcp snooping<br>● <config>#ip dhcp snooping database<br>● <config>#ip dhcp snooping database flash<br>● <config>#ip dhcp snooping database tftp <A.B.C.D><br>● <config>#ip dhcp snooping database tftp <HOSTNAME><NAME><br>● <config>#ip dhcp snooping database timeout <0-86400><br>● <config>#ip dhcp snooping database write-delay <15-86400><br>● <config>#ip dhcp snooping option remote-id <STRING><br>● <config>#ip dhcp snooping vlan <1-4094> |
| *ip dns* | Use this command to modify DNS server configuration.<br><A.B.C.D> - Specify the IP address as primary DNS server.<br><A.B.C.D> <A.B.C.D> - Sepcify two IP addresses as primary and secondary DNS server.<br><X:X:XX:X:X> - Specify the MAC address as primary DNS server.<br><X:X:XX:X:X><X:X::X:X> - Specify two MAC addresses as primary and secondary DNS server.<br>lookup – Enable the IP domain naming system lookup.<br>**Related Syntax:**<br>● <config>#ip dns <A.B.C.D><br>● <config>#ip dns <A.B.C.D> <A.B.C.D><br>● <config>#ip dns <X:X:XX:X:X><br>● <config>#ip dns <X:X:XX:X:X><X:X::X:X> |

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| | ● <config>#ip dns lookup |
| *ip forcedhttps* | Use this command to enable the function of forced HTTPS configuration.<br>**Related Syntax:**<br>● <config>#ip forcedhttps |
| *ip http* | Use this command to enable the function of HTTP configuration.<br>Session-timeout – Set the session timeout.<br><0-86400> - Set the timeout value. 0 means no timeout.<br>**Related Syntax:**<br>● <config>#ip http session-timeout <0-86400> |
| *ip https* | Use this command to enable the function of HTTPS configuration.<br>session-timeout – Set the session timeout.<br><0-86400> - Set the timeout value. 0 means no timeout.<br>tls version <tls1.2/tls1.3> - Set the TLS version.<br>**Related Syntax:**<br>● <config>#ip https session-timeout <0-86400><br>● <config>#ip https tls version <tls1.2/tls1.3> |
| *ip igmp* | Use this command to set IGMP profile and enable IGMP snooping function.<br>Profile – Set IGMP profile.<br><1-128> - Enter the index number of IGMP profile to access into next phase for configuring detailed settings.<br><A.B.C.D><A.B.C.D> - Specify the source and destination IPv4 addresses<br>action <deny/permit> - Specify the rule (deny/permit) for the IGMP profile.<br>snooping forward-method <dip/mac> - Set the forward method.<br>snooping report-suppression - Set the IGMP v1 or v2 report suppression.<br>snooping unknown-multicast action drop /flood/router-port- Set unknown multicast. The packets will be dropped, flood, or forwarded to the router ports.<br>snooping version <2/3> - Set the IGMP snooping operation version.<br>snooping vlan <VLAN-LIST>- Set a VLAN ID (1 to 4094) for the IGMP VLAN configuration.<br>forbidden-port 10GigabitEthernt <1 -4> / 2.5GigabitEthernt <1 -16> / LAG <1 - 8> - Specify an interface for the IPv4 forbidden port configuration.<br>immediate-leave - Enable the IGMP snooping immediate-leave function.<br>last-member-query-count <1-7>- Set a value as the Last Member Query Count.<br>last-member-query-interval <1-25> - Set the time interval.<br>querier - Enable the querier for the IGMP VLAN configuration.<br>querier <2/3> - Set the querier version (Version 2 or Version 3).<br>query-interval <30-18000> - Set the time interval for the query.<br>response-time <5-20> - Set the response time.<br>robustness-variable <1-7> - Set the robustness variable.<br>router learn pim-dvmrp - Enable the IGMP snooping router port learn by PIM, DVMRP and IGMP messages.<br>static-group <A.B.C.D> - Specify the IPv4 multicast address.<br>interfaces 10GigabitEthernt <1 - 6> / GigabitEthernt <1 - 48> / LAG <1 - 8> - Specify an interface.<br>static-port 10GigabitEthernt <1 - 6> / GigabitEthernt <1 - 48> / LAG <1 - 8> - Set the static port for an interface. |

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| | static-router-port 10GigabitEthernt <1 - 6> / GigabitEthernt <1 - 48> / LAG <1 - 8> - Set the static router port for an interface.<br>**Related Syntax:**<br>● <config>#ip igmp profile <1-128><br>● <config-igmp-profile># do<br>● <config-igmp-profile># end<br>● <config-igmp-profile># exit<br>● <config-igmp-profile># profile range ip <A.B.C.D><A.B.C.D><br>● <config-igmp-profile># profile range ip <A.B.C.D><A.B.C.D> action <deny/permit><br>● <config-igmp-profile># profile range ip <A.B.C.D> action <deny/permit><br>● <config-igmp-profile># show ip igmp profile <1-128><br>● <config>#ip igmp snooping<br>● <config>#ip igmp snooping forward-method <dip/mac><br>● <config>#ip igmp snooping report-suppression<br>● <config>#ip igmp snooping unknown-multicast action <drop / flood / router-port><br>● <config>#ip igmp snooping version <2/3><br>● <config>#ip igmp snooping vlan <VLAN-LIST> forbidden-port 10GigabitEthernt <1 - 6><br>● <config>#ip igmp snooping vlan <VLAN-LIST> forbidden-port GigabitEthernt <1 - 48><br>● <config>#ip igmp snooping vlan <VLAN-LIST> forbidden-port LAG <1 to 8><br>● <config>#ip igmp snooping vlan <VLAN-LIST> forbidden-router-port 10GigabitEthernt <1 - 6><br>● <config>#ip igmp snooping vlan <VLAN-LIST> forbidden-router-port GigabitEthernt <1 - 48><br>● <config>#ip igmp snooping vlan <VLAN-LIST> forbidden-router-port LAG <1 to 8><br>● <config>#ip igmp snooping vlan <VLAN-LIST> immediate-leave<br>● <config>#ip igmp snooping vlan <VLAN-LIST> last-member-query-count <1-7><br>● <config>#ip igmp snooping vlan <VLAN-LIST> last-member-query-interval <1-25><br>● <config>#ip igmp snooping vlan <VLAN-LIST> querier<br>● <config>#ip igmp snooping vlan <VLAN-LIST> querier version <2/3><br>● <config>#ip igmp snooping vlan <VLAN-LIST> query-interval <30-18000><br>● <config>#ip igmp snooping vlan <VLAN-LIST> response-time <5-20><br>● <config>#ip igmp snooping vlan <VLAN-LIST> robustness-variable <1-7><br>● <config>#ip igmp snooping vlan <VLAN-LIST> router learn pim-dvmrp<br>● <config>#ip igmp snooping vlan <VLAN-LIST> static-group <A.B.C.D> interfaces 10GigabitEthernt <1 - 6><br>● <config>#ip igmp snooping vlan <VLAN-LIST> static-group <A.B.C.D> interfaces GigabitEthernt <1 - 48><br>● <config>#ip igmp snooping vlan <VLAN-LIST> static-group <A.B.C.D> interfaces LAG <1- 8><br>● <config>#ip igmp snooping vlan <VLAN-LIST> static-port 10GigabitEthernt <1 - 6><br>● <config>#ip igmp snooping vlan <VLAN-LIST> static-port GigabitEthernt <1 - 48><br>● <config>#ip igmp snooping vlan <VLAN-LIST> static-port LAG <1-8><br>● <config>#ip igmp snooping vlan <VLAN-LIST> static-router-port 10GigabitEthernt <1 - 6><br>● <config>#ip igmp snooping vlan <VLAN-LIST> static-router-port GigabitEthernt <1 - 48><br>● <config>#ip igmp snooping vlan <VLAN-LIST> static-router-port LAG <1 to 8> |

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| *ip route* | Use this command to create a static route.<br><A.B.C.D> - Specify the source IPv4 address.<br>vlan <1-4094> - Specify the VLAN ID number.<br>mask <A.B.C.D> - Specify the subnet mask.<br>**Related Syntax:**<br>● <config>#ip route<br>● <config>#ip route <A.B.C.D><br>● <config>#ip route <A.B.C.D> gateway <A.B.C.D><br>● <config>#ip route <A.B.C.D> mask <A.B.C.D> gateway <A.B.C.D> |
| *ip source* | Use this command to create a static IP source binding entry.<br><A:B:C:D:E:F> - Enter the MAC address for the binding entry (e.g., 14:49:BC:44:A3:D7).<br>vlan <1-4094> - Specify the VLAN ID number.<br><A.B.C.D><A.B.C.D> - Specify the IPv4 addresses and the netmask address.<br><1-48> - Specify a physical port (GigabitEthernet port).<br><1-6> - Specify a physical port (10G GigabitEthernet port).<br><1-8> - Specify a LAG port.<br>**Related Syntax:**<br>● <config>#ip source binding <A:B:C:D:E:F> vlan <1-4094> <A.B.C.D> interface 10GigabitEthernet <1-6><br>● <config>#ip source binding <A:B:C:D:E:F> vlan <1-4094> <A.B.C.D> interface GigabitEthernet <1-48><br>● <config>#ip source binding <A:B:C:D:E:F> vlan <1-4094> <A.B.C.D> interface LAG <1-8><br>● <config>#ip source binding vlan <1-4094> <A.B.C.D> <A.B.C.D> interface 10GigabitEthernet <1-6><br>● <config>#ip source binding vlan <1-4094> <A.B.C.D> <A.B.C.D> interface GigabitEthernet <1-48><br>● <config>#ip source binding vlan <1-4094> <A.B.C.D> <A.B.C.D> interface LAG <1-8> |
| *ip ssh* | Use this command to generate the key files for SSH connection.<br><all/v1/v2> - Select the key files for SSH connection.<br>**Related Syntax:**<br>● <config>#ip ssh <all/v1/v2> |
| *ip telnet* | Use this command to enable telnet service.<br>**Related Syntax**:<br>● <config>#ip telnet |

### Example

```
G2540xs# configure
G2540xs(config)# ip acl market_1
G2540xs(config-ip-acl)#
G2540xs(config-ip-acl)# deny 20 192.168.2.55/255.255.255.0 192.168.2.85/255
G2540xs(config)# ip dhcp snooping database tftp draytek carrie_backup
```

## Telnet Command: ipv6

Use this command to create an IPv6 access list (ACL).

### Syntax Items

**ipv6 acl**

**ipv6 address**

**ipv6 autoconfig**

**ipv6 default-gateway**

**ipv6 dhcp**

**ipv6 mld**

## Description

| Syntax Items | Description |
|---|---|
| *ipv6 acl* | <NAME> - Set the name of the access list (ACL) based on IPv6.<br>To configure detailed settings, enter the name of ACL to access into next level.<br><config>#ipv6 acl <NAME><br>Then, available sub-command includes:<br><config-ipv6-acl>#deny<br><config-ipv6-acl>#do<br><config-ipv6-acl>#end<br><config-ipv6-acl>#exit<br><config-ipv6-acl>#no<br><config-ipv6-acl>#permit<br><config-ipv6-acl>#sequence<br><config-ipv6-acl>#show |
| | Use the “deny” command to create deny rules for the IPv4 access list.<br><0-255/icmp/ipv6/tcp /udp > - Specify the IP protocol number or enter the name of the protocol.<br><0-255/any> - Specify ICMPv6 number.<br><X:X::X:X>/<0-128> <X:X::X:X>/<0-128> - Specify the source/destination IPv6 addresses and subnet masks.<br>dscp <0-63> - Set the DSCP filtering by specifying a value for DSCP.<br>precedence <0-7> - Set the cos value and the cos mask for a packet.<br>shutdown – Disable the Ethernet interface.<br>any – Any IP address (as source or destination).<br><0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> - Set TCP port.<br>match-all <TCP_FLAG> - Set TCP flags. List of TCP flags that should occur. If a flag should be set, it is p refixed by "+".If a flag should be unset, it is prefixed by "-". Avai lable options are +urg, +ack, +psh, +rst, +syn, +fin, -urg, -ack, -psh, -rst, -syn and -fin.To define more than 1 flag - enter additional flags one after another without a space (example +syn-ack).<br><0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> - Set UDP port.<br>**Related Syntax:**<br>● <config-ipv6-acl >#deny <0-255> <X:X::X:X>/<0-128> <X:X::X:X>/<0-128><br>● <config-ipv6-acl >#deny <0-255> <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> dscp <0-63><br>● <config-ipv6-acl >#deny <0-255> <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> dscp <0-63> shutdown<br>● <config-ipv6-acl >#deny <0-255> <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> precedence <0-7><br>● <config-ipv6-acl >#deny <0-255> <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> precedence <0-7> shutdown<br>● <config-ipv6-acl >#deny <0-255> <X:X::X:X>/<0-128> |

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| | <X:X::X:X>/<0-128> shutdown<br>● <config-ipv6-acl >#deny <0-255> <X:X::X:X>/<0-128> any dscp <0-63><br>● <config-ipv6-acl >#deny <0-255> <X:X::X:X>/<0-128> any dscp <0-63> shutdown<br>● <config-ipv6-acl >#deny <0-255> <X:X::X:X>/<0-128> any precedence <0-7><br>● <config-ipv6-acl >#deny <0-255> <X:X::X:X>/<0-128> any precedence <0-7>shutdown<br>● <config-ipv6-acl >#deny <0-255> <X:X::X:X>/<0-128> any shutdown<br>● <config-ipv6-acl >deny icmp <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> <0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255/any> dscp <0-63><br>● <config-ipv6-acl >#deny icmp <X:X::X:X>/<0-128> <X:X::X:X>/<0-128><0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255/any> dscp <0-63> shutdown<br>● <config-ipv6-acl >#deny icmp <X:X::X:X>/<0-128> <X:X::X:X>/<0-128><0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255/any> precedence <0-7><br>● <config-ipv6-acl >#deny icmp <X:X::X:X>/<0-128> <X:X::X:X>/<0-128><0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255/any> precedence <0-7> shutdown<br>● <config-ipv6-acl >#deny icmp <X:X::X:X>/<0-128> <X:X::X:X>/<0-128><0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255/any> shutdown<br>● <config-ipv6-acl >#deny icmp <X:X::X:X>/<0-128> any <0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255 /any> dscp <0-63><br>● <config-ipv6-acl >#deny icmp <X:X::X:X>/<0-128> any <0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255 /any> dscp <0-63> shutdown<br>● <config-ipv6-acl >#deny icmp <X:X::X:X>/<0-128> any <0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255 /any> precedence <0-7><br>● <config-ipv6-acl >#deny icmp <X:X::X:X>/<0-128> any <0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255 /any> precedence <0-7> shutdown<br>● <config-ipv6-acl >#deny icmp <X:X::X:X>/<0-128> any <0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255 /any> shutdown<br>● <config-ipv6-acl >#deny ipv6 <X:X::X:X>/<0-128> |

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| | <X:X::X:X>/<0-128><br>● <config-ipv6-acl >#deny ipv6 <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> dscp <0-63><br>● <config-ipv6-acl >#deny ipv6 <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> dscp <0-63> shutdown<br>● <config-ipv6-acl >#deny ipv6 <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> precedence <0-7><br>● <config-ipv6-acl >#deny ipv6 <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> precedence <0-7> shutdown<br>● <config-ipv6-acl >#deny ipv6 <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> shutdown<br>● <config-ipv6-acl >#deny ipv6 <X:X::X:X>/<0-128> any dscp <0-63><br>● <config-ipv6-acl >#deny ipv6 <X:X::X:X>/<0-128> any dscp <0-63> shutdown<br>● <config-ipv6-acl >#deny ipv6 <X:X::X:X>/<0-128> any precedence <0-7><br>● <config-ipv6-acl >#deny ipv6 <X:X::X:X>/<0-128> any precedence <0-7>shutdown<br>● <config-ipv6-acl >#deny ipv6 <X:X::X:X>/<0-128> any shutdown<br>● <config-ipv6-acl >#deny ipv6 any <X:X::X:X>/<0-128><br>● <config-ipv6-acl >#deny ipv6 any <X:X::X:X>/<0-128> dscp <0-63><br>● <config-ipv6-acl >#deny ipv6 any <X:X::X:X>/<0-128> dscp <0-63> shutdown<br>● <config-ipv6-acl >#deny ipv6 any <X:X::X:X>/<0-128> precedence <0-7><br>● <config-ipv6-acl >#deny ipv6 any <X:X::X:X>/<0-128> precedence <0-7> shutdown<br>● <config-ipv6-acl >#deny ipv6 any <X:X::X:X>/<0-128> shutdown<br>● <config-ipv6-acl >#deny ipv6 any any<br>● <config-ipv6-acl >#deny ipv6 any any dscp <0-63><br>● <config-ipv6-acl >#deny ipv6 any any dscp <0-63> shutdown<br>● <config-ipv6-acl >#deny ipv6 any any precedence <0-7><br>● <config-ipv6-acl >#deny ipv6 any any precedence <0-7> shutdown<br>● <config-ipv6-acl >#deny ipv6 any any shutdown<br>● <config-ipv6-acl >#deny tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www><br>● <config-ipv6-acl >#deny tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> dscp <0-63><br>● <config-ipv6-acl >#deny tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> dscp <0-63> shutdown |

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| | • <config-ipv6-acl >#deny tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> match-all <TCP_FLAG> dscp <0-63><br>• <config-ipv6-acl >#deny tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> match-all <TCP_FLAG> dscp <0-63> shutdown<br>• <config-ipv6-acl >#deny tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> match-all <TCP_FLAG> precedence <0-7><br>• <config-ipv6-acl >#deny tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> match-all <TCP_FLAG> precedence <0-7> shutdown<br>• <config-ipv6-acl >#deny tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> match-all <TCP_FLAG> shutdown<br>• <config-ipv6-acl >#deny tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> precedence <0-7><br>• <config-ipv6-acl >#deny tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> precedence <0-7> shutdown<br>• <config-ipv6-acl >#deny tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / |

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| | smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> shutdown<br>● <config-ipv6-acl >#deny udp <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who><br>● <config-ipv6-acl >#deny udp <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> dscp <0-63><br>● <config-ipv6-acl >#deny udp <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> dscp <0-63> shutdown<br>● <config-ipv6-acl >#deny udp <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> dscp <0-63> precedence <0-7><br>● <config-ipv6-acl >#deny udp <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> dscp <0-63> precedence <0-7> shutdown<br>● <config-ipv6-acl >#deny udp <X:X::X:X>/<0-128> <0-65535> any |
| | Use the “do” command to run execution command in current mode.<br><SEQUENCE> -<br>**Related Syntax:**<br>● <config-ipv6-acl>#do <SEQUENCE> |
| | Use the “end” command to finish current mode. Any changes in current mode will be saved.<br>**Related Syntax:**<br>● <config-ipv6-acl>#end |
| | Use the “exit” command to close the current CLI session or return to the previous mode without saving the settings.<br>**Related Syntax:**<br>● <config-ipv6-acl>#exit |

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| | Use the “no sequence” command to delete any entry in management ACL.<br><1-2147483647>- Specify an index number of the ACL.<br>**Related Syntax:**<br>● <config-ip-acl>#no sequence <1-2147483647> |
| | Use the “permit” command to create permit rules which bypass the packets meet the rule.<br><0-255/icmp/ipv6/tcp /udp > - Specify the IP protocol number or enter the name of the protocol.<br><0-255/any> - Specify ICMPv6 number.<br><X:X::X:X>/<0-128> <X:X::X:X>/<0-128> - Specify the source/destination IPv6 addresses and subnet masks.<br>dscp <0-63> - Set the DSCP filtering by specifying a value for DSCP.<br>precedence <0-7> - Set the cos value and the cos mask for a packet.<br>shutdown – Disable the Ethernet interface.<br>any – Any IP address (as source or destination).<br><0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> - Set TCP port.<br>match-all <TCP_FLAG> - Set TCP flags. List of TCP flags that should occur. If a flag should be set, it is p refixed by "+".If a flag should be unset, it is prefixed by "-". Avai lable options are +urg, +ack, +psh, +rst, +syn, +fin, -urg, -ack, -psh, -rst, -syn and -fin.To define more than 1 flag - enter additional flags one after another without a space (example +syn-ack).<br><0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> - Set UDP port.<br>**Related Syntax:**<br>● <config-ipv6-acl >#permit <0-255> <X:X::X:X>/<0-128> <X:X::X:X>/<0-128><br>● <config-ipv6-acl ># permit <0-255> <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> dscp <0-63><br>● <config-ipv6-acl ># permit <0-255> <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> dscp <0-63> shutdown<br>● <config-ipv6-acl ># permit <0-255> <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> precedence <0-7><br>● <config-ipv6-acl ># permit <0-255> <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> precedence <0-7> shutdown<br>● <config-ipv6-acl ># permit <0-255> <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> shutdown<br>● <config-ipv6-acl ># permit <0-255> <X:X::X:X>/<0-128> any dscp <0-63><br>● <config-ipv6-acl ># permit <0-255> <X:X::X:X>/<0-128> any dscp <0-63> shutdown<br>● <config-ipv6-acl ># permit <0-255> <X:X::X:X>/<0-128> any precedence <0-7><br>● <config-ipv6-acl ># permit <0-255> <X:X::X:X>/<0-128> any precedence <0-7>shutdown<br>● <config-ipv6-acl ># permit <0-255> <X:X::X:X>/<0-128> any shutdown<br>● <config-ipv6-acl > permit icmp <X:X::X:X>/<0-128> |

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| | <X:X::X:X>/<0-128> <0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255/any> dscp <0-63><br>● <config-ipv6-acl ># permit icmp <X:X::X:X>/<0-128> <X:X::X:X>/<0-128><0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255/any> dscp <0-63> shutdown<br>● <config-ipv6-acl ># permit icmp <X:X::X:X>/<0-128> <X:X::X:X>/<0-128><0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255/any> precedence <0-7><br>● <config-ipv6-acl ># permit icmp <X:X::X:X>/<0-128> <X:X::X:X>/<0-128><0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255/any> precedence <0-7> shutdown<br>● <config-ipv6-acl ># permit icmp <X:X::X:X>/<0-128> <X:X::X:X>/<0-128><0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255/any> shutdown<br>● <config-ipv6-acl ># permit icmp <X:X::X:X>/<0-128> any <0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255 /any> dscp <0-63><br>● <config-ipv6-acl ># permit icmp <X:X::X:X>/<0-128> any <0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255 /any> dscp <0-63> shutdown<br>● <config-ipv6-acl ># permit icmp <X:X::X:X>/<0-128> any <0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255 /any> precedence <0-7><br>● <config-ipv6-acl ># permit icmp <X:X::X:X>/<0-128> any <0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255 /any> precedence <0-7> shutdown<br>● <config-ipv6-acl ># permit icmp <X:X::X:X>/<0-128> any <0-255 / any / destination-unreachable / echo-reply / echo-request / nd-na / nd-ns / packet-too-big/ parameter-problem/ router-advertisement / router-solicitation / time-exceeded> <0-255 /any> shutdown<br>● <config-ipv6-acl ># permit ipv6 <X:X::X:X>/<0-128> <X:X::X:X>/<0-128><br>● <config-ipv6-acl ># permit ipv6 <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> dscp <0-63><br>● <config-ipv6-acl ># permit ipv6 <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> dscp <0-63> shutdown<br>● <config-ipv6-acl ># permit ipv6 <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> precedence <0-7><br>● <config-ipv6-acl ># permit ipv6 <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> precedence <0-7> shutdown |

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| | • <config-ipv6-acl ># permit ipv6 <X:X::X:X>/<0-128> <X:X::X:X>/<0-128> shutdown<br>• <config-ipv6-acl ># permit ipv6 <X:X::X:X>/<0-128> any dscp <0-63><br>• <config-ipv6-acl ># permit ipv6 <X:X::X:X>/<0-128> any dscp <0-63> shutdown<br>• <config-ipv6-acl ># permit ipv6 <X:X::X:X>/<0-128> any precedence <0-7><br>• <config-ipv6-acl ># permit ipv6 <X:X::X:X>/<0-128> any precedence <0-7>shutdown<br>• <config-ipv6-acl ># permit ipv6 <X:X::X:X>/<0-128> any shutdown<br>• <config-ipv6-acl ># permit ipv6 any <X:X::X:X>/<0-128><br>• <config-ipv6-acl ># permit ipv6 any <X:X::X:X>/<0-128> dscp <0-63><br>• <config-ipv6-acl ># permit ipv6 any <X:X::X:X>/<0-128> dscp <0-63> shutdown<br>• <config-ipv6-acl ># permit ipv6 any <X:X::X:X>/<0-128> precedence <0-7><br>• <config-ipv6-acl ># permit ipv6 any <X:X::X:X>/<0-128> precedence <0-7> shutdown<br>• <config-ipv6-acl ># permit ipv6 any <X:X::X:X>/<0-128> shutdown<br>• <config-ipv6-acl ># permit ipv6 any any<br>• <config-ipv6-acl ># permit ipv6 any any dscp <0-63><br>• <config-ipv6-acl ># permit ipv6 any any dscp <0-63> shutdown<br>• <config-ipv6-acl ># permit ipv6 any any precedence <0-7><br>• <config-ipv6-acl ># permit ipv6 any any precedence <0-7> shutdown<br>• <config-ipv6-acl ># permit ipv6 any any shutdown<br>• <config-ipv6-acl ># permit tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www><br>• <config-ipv6-acl ># permit tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> dscp <0-63><br>• <config-ipv6-acl ># permit tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> dscp <0-63> shutdown<br>• <config-ipv6-acl >#deny tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> |

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| | match-all <TCP_FLAG> dscp <0-63><br>● <config-ipv6-acl ># permit tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> match-all <TCP_FLAG> dscp <0-63> shutdown<br>● <config-ipv6-acl ># permit tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> match-all <TCP_FLAG> precedence <0-7><br>● <config-ipv6-acl ># permit tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> match-all <TCP_FLAG> precedence <0-7> shutdown<br>● <config-ipv6-acl ># permit tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> match-all <TCP_FLAG> shutdown<br>● <config-ipv6-acl ># permit tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> precedence <0-7><br>● <config-ipv6-acl ># permit tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> precedence <0-7> shutdown<br>● <config-ipv6-acl ># permit tcp <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> <X:X::X:X>/<0-128> <0-65535 / PORT_RANGE / any / daytime / discard / domain / drip / echo / ftp / ftp-data / hostname / klogin / kshell / pop2 / pop3 / smtp / sunrpc / syslog / tacacs-ds / talk / telnet / time / whois / www> shutdown<br>● <config-ipv6-acl ># permit udp <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo |

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| | / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who><br>● <config-ipv6-acl ># permit udp <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> dscp <0-63><br>● <config-ipv6-acl ># permit udp <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> dscp <0-63> shutdown<br>● <config-ipv6-acl ># permit udp <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> dscp <0-63> precedence <0-7><br>● <config-ipv6-acl ># permit udp <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> <X:X::X:X>/<0-128> <0-65535/ PORT_RANGE / any / bootpc / bootps / discard / domain / echo / nameserver / netbios-ns / ntp / rip / snmp / snmptrap / sunrpc / syslog / tacacs-ds / talk / tftp / time / who> dscp <0-63> precedence <0-7> shutdown<br>● <config-ipv6-acl ># permit udp <X:X::X:X>/<0-128> <0-65535> any |
| | Use the “sequence” command to deny or permit the ACL.<br><1-2147483647> - Enter the sequence of ACL entry. The sequence represents the priority of the ACE in the ACL.<br>**Related Syntax:**<br>● <config-ipv6-acl >#sequence <1-2147483647> deny<br>● <config-ipv6-acl >#sequence <1-2147483647> permit |
| | Use the “show acl” command to list current status of the selected ACL. |
| *ipv6 address* | Use this command to modify the administration IPv6 address.<br>address <X:X::X:X> - Specify the IPv6 addresses. This IP is required when the administer wants to access into VigorSwitch through Telnet, SSH, HTTP, HTTPS, SNMP and so on.<br>prefix <0-128> - Specify the prefix length of the IPv6 address.<br>**Related Syntax:**<br>● <config>#ipv6 address <X:X::X:X> prefix <0-128> |
| *ipv6 autoconfig* | Use this command to enable IPv6 auto configuration feature. |
| *ipv6 default-gateway* | Use this command to modify default gateway address. |

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| | default-address <X:X::X:X> - Specify the IPv6 addresses of the gateway.<br>**Related Syntax:**<br>● <config>#ipv6 default-gateway <X:X::X:X> |
| *ipv6 mld* | Use this command to set MLD configuration.<br>profile <1-128> - Use it to enter profile configuration.<br>snooping – Use it to enable MLD snooping function.<br>forward-method <dip/mac> -<br>report-suppression – Use it to enable MLD snooping report-suppression function.<br>unknown-multicast action <drop/flood/router-port> - Use it to set unknown multicast action.<br>version <1/2> – Use it to change MLD support version.<br>vlan <1-4094> - Use it to enable MLD on VLAN. Specify a VLAN ID for configuration.<br>forbidden-port 10GigabitEthernet <1-6> - Specify a physical port.<br>forbidden-port GigabitEthernet <1-48> - Specify a physical port.<br>forbidden-port LAG <1-8> - Specify a LAG port.<br>forbidden-router-port GigabitEthernet <1-48> - Use it to add static forbidden router port. Specify a physical port.<br>forbidden-router-port LAG <1-8> - Use it to add static forbidden router port. Specify a LAG port.<br>immediate-leave – Use it to enable fastleave function.<br>last-member-query-count <1-7> - Use it to change how many query packets will send. Specify the last member query count. Default is 2.<br>last-member-query-interval <1-25> - Use it to set interval between each query packet. Specify the last member query interval. Default is 1.<br>query-interval <30-18000> - Use it to set interval between each query. Specify the query interval. Default is 125.<br>response-time <5-20> - Use it to set response time. Specify a time value. Default is 10.<br>robustness-variable <1-7> - Specify a robustness-variable value. Default is 2.<br>router learn pim-dvmrp – Use it to enable learning router port by rouing protocol packets (DVMRP).<br>static-group <X:X::X:X> interfaces gigabitethernet <1-48> - Use it to add a static group. Specify a physical port.<br>static-group <X:X::X:X> interfaces LAG <1-8> - Use it to add a static group. Specify a LAG port.<br>static-port gigabitethernet <1-48>- Use it to add static forwarding port. Specify a physical port.<br>static-port LAG <1-8>- Use it to add static forwarding port. Specify a LAG port.<br>static-router-port GigabitEthernet <1-48> - Use it to add static router port. All query packets wil forward to the specified port. Specify a physical port.<br>static-router-port LAG <1-8> - Use it to add static router port. All query packets wil forward to the specified port. Specify a LAG port.<br>**Related Syntax:**<br>● <config>#ipv6 mld profile <1-128><br><config-mld-profile># do<br><config-mld-profile># end<br><config-mld-profile># exit |

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| | <config-mld-profile># profile range ipv6 <X:X::X:X> action <deny/permit><br><config-mld-profile># profile range ipv6 <X:X::X:X> <X:X::X:X><br><config-mld-profile># profile range ipv6 <X:X::X:X> <X:X::X:X> action <deny/permit><br><config-mld-profile># show<br>● <config>#ipv6 mld snooping<br>● <config>#ipv6 mld snooping forward-method <dip/mac><br>● <config>#ipv6 mld snooping report-suppression<br>● <config>#ipv6 mld snooping unknown-multicast action <drop/flood/router-port><br>● <config>#ipv6 mld snooping version <1/2><br>● <config>#ipv6 mld snooping vlan <1-4094><br>● <config>#ipv6 mld snooping vlan <1-4094> forbidden-port GigabitEthernet <1-48><br>● <config>#ipv6 mld snooping vlan <1-4094> forbidden-port LAG <1-8><br>● <config>#ipv6 mld snooping vlan <1-4094> forbidden-router-port GigabitEthernet <1-48><br>● <config>#ipv6 mld snooping vlan <1-4094> forbidden-router-port LAG <1-8><br>● <config>#ipv6 mld snooping vlan <1-4094> immediate-leave<br>● <config>#ipv6 mld snooping vlan <1-4094> last-member-query-count <1-7><br>● <config>#ipv6 mld snooping vlan <1-4094> last-member-query-interval <1-25><br>● <config>#ipv6 mld snooping vlan <1-4094> query-interval <30-18000><br>● <config>#ipv6 mld snooping vlan <1-4094> response-time <5-20><br>● <config>#ipv6 mld snooping vlan <1-4094> robustness-variable <1-7><br>● <config>#ipv6 mld snooping vlan <1-4094> router learn pim-dvmrp<br>● <config>#ipv6 mld snooping vlan <1-4094> static-group <X:X::X:X> interfaces gigabitethernet <1-48><br>● <config>#ipv6 mld snooping vlan <1-4094> static-group <X:X::X:X> interfaces LAG <1-8><br>● <config>#ipv6 mld snooping vlan <1-4094> static-port gigabitethernet <1-48><br>● <config>#ipv6 mld snooping vlan <1-4094> static-port LAG <1-8><br>● <config>#ipv6 mld snooping vlan <1-4094> static-router-port GigabitEthernet <1-48><br>● <config>#ipv6 mld snooping vlan <1-4094> static-router-port LAG <1-8> |
| *ipv6 mld* | Use this command to set MLD configuration.<br>profile <1-128> - Use it to enter profile configuration.<br>snooping – Use it to enable MLD snooping function.<br>forward-method <dip/mac> - Specify a method to forward the packets.<br>report-suppression – Use it to enable MLD snooping report-suppression function.<br>unknown-multicast action <drop/flood/router-port> - Use it to set unknown multicast action.<br>version <1/2> – Use it to change MLD support version.<br>vlan <1-4094> - Use it to enable MLD on VLAN. Specify a VLAN ID for |

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| | configuration.<br>forbidden-port 10GigabitEthernet <1- 6> - Specify a physical port.<br>forbidden-port GigabitEthernet <1- 48> - Specify a physical port.<br>forbidden-port LAG <1-8> - Specify a LAG port.<br>forbidden-router-port 10GigabitEthernet <1-6> - Use it to add static forbidden router port. Specify a physical port.<br>forbidden-router-port GigabitEthernet <1-48> - Use it to add static forbidden router port. Specify a physical port.<br>forbidden-router-port LAG <1-8> - Use it to add static forbidden router port. Specify a LAG port.<br>immediate-leave – Use it to enable fastleave function.<br>last-member-query-count <1-7> - Use it to change how many query packets will send. Specify the last member query count. Default is 2.<br>last-member-query-interval <1-25> - Use it to set interval between each query packet. Specify the last member query interval. Default is 1.<br>query-interval <30-18000> - Use it to set interval between each query. Specify the query interval. Default is 125.<br>response-time <5-20> - Use it to set response time. Specify a time value. Default is 10.<br>robustness-variable <1-7> - Specify a robustness-variable value. Default is 2.<br>router learn pim-dvmrp – Use it to enable learning router port by rouing protocol packets (DVMRP).<br>static-group <X:X::X:X> interfaces 10Gigabitethernet <1-6> - Use it to add a static group. Specify a physical port.<br>static-group <X:X::X:X> interfaces Gigabitethernet <1-48> - Use it to add a static group. Specify a physical port.<br>static-group <X:X::X:X> interfaces LAG <1-8> - Use it to add a static group. Specify a LAG port.<br>static-port 10Gigabitethernet <1-6> - Use it to add static forwarding port. Specify a physical port.<br>static-port Gigabitethernet <1-48> - Use it to add static forwarding port. Specify a physical port.<br>static-port LAG <1-8>- Use it to add static forwarding port. Specify a LAG port.<br>static-router-port 10GigabitEthernet <1-6> - Use it to add static router port. All query packets wil forward to the specified port. Specify a physical port.<br>static-router-port GigabitEthernet <1-48> - Use it to add static router port. All query packets wil forward to the specified port. Specify a physical port.<br>static-router-port LAG <1-8> - Use it to add static router port. All query packets wil forward to the specified port. Specify a LAG port.<br>**Related Syntax:**<br>● <config>#ipv6 mld profile <1-128><br>● <config-mld-profile># do<br>● <config-mld-profile># end<br>● <config-mld-profile># exit<br>● <config-mld-profile># profile range ipv6 <X:X::X:X> action <deny/permit><br>● <config-mld-profile># profile range ipv6 <X:X::X:X> <X:X::X:X><br>● <config-mld-profile># profile range ipv6 <X:X::X:X> <X:X::X:X> action <deny/permit><br>● <config-mld-profile># show<br>● <config>#ipv6 mld snooping<br>● <config>#ipv6 mld snooping forward-method <dip/mac><br>● <config>#ipv6 mld snooping report-suppression<br>● <config>#ipv6 mld snooping unknown-multicast action <drop/flood/router-port><br>● <config>#ipv6 mld snooping version <1/2><br>● <config>#ipv6 mld snooping vlan <1-4094><br>● <config>#ipv6 mld snooping vlan <1-4094> forbidden-port 10GigabitEthernet <1-6><br>● <config>#ipv6 mld snooping vlan <1-4094> forbidden-port |

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| | GigabitEthernet <1-48><br>● <config>#ipv6 mld snooping vlan <1-4094> forbidden-port LAG <1-8><br>● <config>#ipv6 mld snooping vlan <1-4094> forbidden-router-port 10GigabitEthernet <1-6><br>● <config>#ipv6 mld snooping vlan <1-4094> forbidden-router-port GigabitEthernet <1-48><br>● <config>#ipv6 mld snooping vlan <1-4094> forbidden-router-port LAG <1-8><br>● <config>#ipv6 mld snooping vlan <1-4094> immediate-leave<br>● <config>#ipv6 mld snooping vlan <1-4094> last-member-query-count <1-7><br>● <config>#ipv6 mld snooping vlan <1-4094> last-member-query-interval <1-25><br>● <config>#ipv6 mld snooping vlan <1-4094> query-interval <30-18000><br>● <config>#ipv6 mld snooping vlan <1-4094> response-time <5-20><br>● <config>#ipv6 mld snooping vlan <1-4094> robustness-variable <1-7><br>● <config>#ipv6 mld snooping vlan <1-4094> router learn pim-dvmrp<br>● <config>#ipv6 mld snooping vlan <1-4094> static-group <X:X::X:X> interfaces 10Gigabitethernet <1-6><br>● <config>#ipv6 mld snooping vlan <1-4094> static-group <X:X::X:X> interfaces Gigabitethernet <1-48><br>● <config>#ipv6 mld snooping vlan <1-4094> static-group <X:X::X:X> interfaces LAG <1-8><br>● <config>#ipv6 mld snooping vlan <1-4094> static-port 10Gigabitethernet <1-6><br>● <config>#ipv6 mld snooping vlan <1-4094> static-port Gigabitethernet <1-48><br>● <config>#ipv6 mld snooping vlan <1-4094> static-port LAG <1-8><br>● <config>#ipv6 mld snooping vlan <1-4094> static-router-port 10Gigabitethernet <1-6><br>● <config>#ipv6 mld snooping vlan <1-4094> static-router-port Gigabitethernet <1-48><br>● <config>#ipv6 mld snooping vlan <1-4094> static-router-port LAG <1-8> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# ipv6 mld snooping vlan 33
G2540xs(config)# ipv6 acl CA_v6
G2540xs(config-ipv6-acl)# deny 3 00:50::32:ff/24 00:50::78:aa/32
```

## Telnet Command: jumbo-frame

Use this command to modify the maximum frame size of jumbo frame.

### Syntax Items

**jumbo-frame**

### Description

| Syntax Items | Description |
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| *jumbo-frame* | Enable the function of jumbo frame. |

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| | Set the maximum frame size.<br><1518-10000> - The default value is 1522.<br>**Related Syntax:**<br>● <config># jumbo-frame<br>● <config># jumbo-frame <1518-10000> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# jumbo-frame 8000
G2540xs(config)#
```

## Telnet Command: lacp

Use this command to set the system priority of the switch.

### Syntax Items

**lacp**

**lacp system-priority**

### Description

| Syntax Items | Description |
|---|---|
| *lacp* | Enable the function. |
| *lacp system-priority* | It is used for selelcting a master switch between two devices. Lower system priority has higher priority. The device with higher priority value can determine which port is able to join LAG.<br><1-65535> - Specify the system priority value.<br>**Related Syntax:**<br>● <config># lacp<br>● <config># lacp system-priority <1-65535> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# lacp system-priority 1000
G2540xs(config)#
```

## Telnet Command: lag

LAG port can transmit packets to all ports for balancing the traffic loading. Use this command to change the load balance algorithm to src-dst-mac or src-dst-mac-ip as the Load Balance policy.

### Syntax Items

**lag load-balance**

### Description

| Syntax Items | Description |
|---|---|
| *lag load-balance* | LAG load balancing is based on source and destination MAC address and/or IP address.<br>**Related Syntax:** |

| | |
|---|---|
| | • <config># lag load-balance src-dst-mac<br>• <config># lag load-balance src-dst-mac-ip |

### Example

```
G2540xs# configure
G2540xs(config)# lag load-balance src-dst-mac
G2540xs(config)#
```

## Telnet Command: line

Use this command to select line configuration mode.

### Syntax Items

**line console**

**line ssh**

**line telent**

### Description

| Syntax Items | Description |
|---|---|
| *console/ssh/telnet* | Select console configuration mode.<br>To configure *detailed settings*, access into next level.<br><config>#line <console/ssh/telnet><br>console - Select the console line to configure. Then, available sub-commands are:<br><config-line>#do<br><config-line>#exec-timeout<br><config-line>#exit<br><config-line>#lhistory<br><config-line>#no<br><config-line>#password-thresh<br><config-line>#silent-time |
| | Select SSH line to configure. Then, available sub-commands are:<br><config-line>#do<br><config-line>#end<br><config-line>#exec-timeout<br><config-line>#exit<br><config-line>#password-thresh<br><config-line>#silent-time |
| | telnet - Select telnet line to configure. Then, available sub-commands are:<br><config-line>#do<br><config-line>#end<br><config-line>#exec-timeout<br><config-line>#exit<br><config-line>#password-thresh<br><config-line>#silent-time |
| *#do* | Use the “do” command to run execution command in current mode.<br><SEQUENCE> -<br>**Related Syntax:** |

| | |
|---|---|
| | <config-line>#do <SEQUENCE> |
| *#exec-timeout* | Use the “exec-timeout” to set the session timeout configuration.<br><0-65535> - Enter the number.<br>**Related Syntax:**<br><config-line>#exec-timeout <0-65535> |
| *#exit* | Use the “exit” command to close the current CLI session or return to the previous mode without saving the settings.<br>**Related Syntax:**<br><config-line>#exit |
| *#history* | Use the “history” command to specify the index number of history.<br><1-256> - Enter a number.<br>**Related Syntax:**<br><config-line>#history <1-256> |
| *#no* | Use the “no” command to negate line command.<br>**Related Syntax:**<br>● <config-line>#no enable<br>● <config-line>#no history<br>● <config-line>#no login |
| *#password-thresh* | Use the “password-thresh” command to set the login password intrusion threshold.<br><0-120> - Set a number of allowed password attempts. 0 means no threshold.<br>**Related Syntax:**<br><config-line>#password-thresh <0-120> |
| *#silent-time* | Use the “silent-time” command to set fail silent time.<br><0-65535> - Set the time to disable the console response.<br>**Related Syntax:**<br><config-line>#silent-time <0-65535> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# line telnet
G2540xs(config-line)#
```

## Telnet Command: lldp

Use this command to set LLDP function.

### Syntax Items

**lldp**

**lldp holdtime-multiplier**

**lldp lldpdu**

**lldp med**

**lldp reinit-delay**

**lldp tx-delay**

**lldp tx-interval**

## Description

| Syntax Items | Description |
|---|---|
| *lldp* | Enable the function of LLDP. |
| *lldp holdtime-multiplier* | Set the multiplier used for calculating the LLDP discovery packet hold time.<br><2-10> - Set the LLDP hold time multiplier.<br>**Related Syntax:**<br>● <config># lldp holdtime-multiplier <2-10> |
| *lldp lldpdu* | bridging - The LLDP packets will be bridging when LLDP is disabled.<br>filtering - The LLDP packets will be filtered and deleted when LLDP is disabled.<br>flooding - The LLDP packets will be flooded and forwarded to all interfaces when LLDP is disabled.<br>**Related Syntax:**<br>● <config># lldp lldpdu bridging<br>● <config># lldp lldpdu filtering<br>● <config># lldp lldpdu flooding |
| *lldp med* | med fast-start-repeat-count - Set the LLDP PDU fast start TX repeat count.<br>med network-policy - Set the LLDP MED network policy table.<br>med network-poicy voice auto - Enable the network policy voice auto mode.<br><1-10> - Set the fast start repeat count.<br><1-32> - Specify the index number of the policy.<br>app <guest-voice/ gust-voice-signaling / softphone-voice / streaming-video / video-conferencing / video-signaling / voice / voice-signaling> - Configure the application type for the policy.<br>vlan <1-4094> - Specify the VLAN ID.<br>vlan-type <tag/untag> - Set the VLAN tag status.<br>priority <0-7> - Specify the L2 priority.<br>dscp <0-63> - Specify the DSCP value.<br>**Related Syntax:**<br>● <config># lldp med fast-start-repeat-count <1-10><br>● <config># lldp med network-policy <1-32> app< guest-voice/ gust-voice-signaling / softphone-voice / streaming-video / video-conferencing / video-signaling / voice / voice-signaling > vlan <1-4094> vlan-type <tag/untag> priority <0-7> dscp <0-63><br>● <config># lldp med network-poicy voice auto |
| *lldp rinit-delay* | Set the LLDP re-initial delay to avoid LLDP generating too many PDU.<br><1-10> - Specify a number for LLDP server to initialize.<br>**Related Syntax:**<br>● <config># lldp rinit-delay <1-10> |
| *lldp tx-delay* | Set the delay time between the successful LLDP frame transmissions.<br><1-8191> - Enter the number of delay time.<br>Note that both tx-interval and tx-delay will affect the LLDP PDU TX time.<br>**Related Syntax:**<br>● <config># lldp tx-delay <1-8191> |

| | |
|---|---|
| *lldp tx-interval* | Set the LLDP TX interval.<br><5-32767> - Enter the interval in unit of second.<br>**Related Syntax:**<br>● <config># lldp tx-interval <5-32767> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# lldp holdtime-multiplier 5
G2540xs(config)#
```

## Telnet Command: logging

Use this command to set logging service on VigorSwitch.

### Syntax Items

**logging**

**logging buffered**

**logging console**

**logging file**

**logging host**

### Description

| Syntax Items | Description |
|---|---|
| *logging* | Enable the logging service. |
| *logging buffered* | Store the log message in the RAM. |
| *logging console* | Specify the logging level.<br><0-7> - Specify the logging level by entering a number (from EMEGR-DEBUG).<br>**Related Syntax:**<br>● <config># logging console<br>● <config># logging console severity <0-7> |
| *logging file* | Store the log message in the flash.<br><0-7> - Specify the logging level by entering a number (from EMEGR-DEBUG).<br>**Related Syntax:**<br>● <config># logging *file severity <0-7>* |
| *logging host* | Define the logging server.<br>host <A.B.C.D> - Enter an IP address of the remote (or local) server.<br>facility <local0-local7> - Specify the facility parameter for the syslog message.<br>port <1-65535> - Enter a number for the remote server. Default is 514.<br>severity <0-7> - Specify the logging level by entering a number (from EMEGR-DEBUG).<br><HOSTNAME> - Define a name as the host.<br>**Related Syntax:**<br>● <config>#logging host <A.B.C.D> facility <local0-local7><br>● <config>#logging host <A.B.C.D> port <1-65535> |

| | |
|---|---|
| | • <config>#logging host <A.B.C.D> port <1-65535> facility <local0-local7><br>• <config>#logging host <A.B.C.D> port <1-65535> severity <0-7> facility <local0-local7><br>• <config>#logging host <A.B.C.D> severity <0-7> facility <local0-local7><br>• <config>#logging host <HOSTNAME> facility <local0-local7><br>• <config>#logging host <HOSTNAME> port <1-65535><br>• <config>#logging host <HOSTNAME> port <1-65535> facility <local0-local7><br>• <config>#logging host <HOSTNAME> port <1-65535> severity <0-7> facility <local0-local7><br>• <config>#logging host <HOSTNAME> severity <0-7> facility <local0-local7><br>• <config>#logging host <X:X::X:X> facility <local0-local7><br>• <config>#logging host <X:X::X:X> port <1-65535><br>• <config>#logging host <X:X::X:X> port <1-65535> facility <local0-local7><br>• <config>#logging host <X:X::X:X> port <1-65535> severity <0-7> facility <local0-local7> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# logging host aa:00::1a:FF facility local1
```

## Telnet Command: logmail

Use this command to configure log mail.

### Syntax Items

**logmail active**
**logmail auth**
**logmail category**
**logmail encpassword**
**logmail encry**
**logmail password**
**logmail port**
**logmail receiver**
**logmail sender**
**logmail server**
**logmail username**

### Description

| Syntax Items | Description |
|---|---|
| *logmail active* | <disable/enable> - Enable or disable the function of log mail.<br>**Related Syntax:**<br>• <config># logmail active <disable/enable> |
| *logmail auth* | <disable/enable> - Enable or disable the function of SMTP server authentication.<br>**Related Syntax:**<br>• <config># logmail auth <disable/enable> |
| *logmail category* | <AAA, ACL, AUTHMGR,CABLE_DIAG, DAI, DHCP_SNOOPING, GVRP, |

| | |
|---|---|
| | IGMP_SNOOPING, IPSG, L2, LLDP, Mac-based, Mirror, MLD_SNOOPING, Platform, PM, POE, Port, PORT_SECURITY, QoS, Rate, SNMP, STP, Security, System, Surveillance, Trunk, UDLD, VLAN, CLEAR> - Specify one type for the logmail.<br>**Related Syntax:**<br>● <config># logmail category <AAA, ACL, AUTHMGR,CABLE_DIAG, DAI, DHCP_SNOOPING, GVRP, IGMP_SNOOPING, IPSG, L2, LLDP, Mac-based, Mirror, MLD_SNOOPING, Platform, PM, POE, Port, PORT_SECURITY, QoS, Rate, SNMP, STP, Security, System, Surveillance, Trunk, UDLD, VLAN, CLEAR> |
| *logmail encpassword* | Set SMTP encrypt authentication password.<br><PASSWORD> - Enter the password for SMTP server encrypt authentication.<br>**Related Syntax:**<br>● <config># logmail encpassword <PASSWORD> |
| *logmail encry* | <disable/ssltls/starttls> - Specify the encryption type for mail alert.<br>**Related Syntax:**<br>● <config># logmail encry <disable/ ssltls/starttls> |
| *logmail password* | <PASSWORD> - Enter the password for SMTP server authentication.<br>**Related Syntax:**<br>● <config># logmail password <PASSWORD> |
| *logmail port* | <0-65535>- Enter a port number.<br>**Related Syntax:**<br>● <config># logmail port <0-65535> |
| *logmail receiver* | Specify an address for receiving the alart mail.<br><ADDRESS> - Enter the email address of the receiver.<br>**Related Syntax:**<br>● <config># logmail receiver <ADDRESS> |
| *logmail sender* | Specify an address which sends out the alert mail.<br><ADDRESS> - Enter the email address of the sender.<br>**Related Syntax:**<br>● <config># logmail |
| *logmail server* | Set the IP address of the server.<br><ADDRESS> - Enter the IP address of the SMTP server.<br>**Related Syntax:**<br>● <config># logmail server <ADDRESS> |
| *logmail username* | <NAEM> - Enter the username authenticated by STMP server.<br>**Related Syntax:**<br>● <config># logmail username <NAME> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# logmail receiver carrie_ni@draytek.com
G2540xs(config)#
```

## Telnet Command: loop-protection

Use this command to set loop-protection.

### Syntax Items

**loop-protection action**
**loop-protection periodicTime**
**loop-protection state**

### Description

| Syntax Items | Description |
|---|---|
| *loop-protection action* | Specify an action to be taken when the loop is happened.<br><all/log/shutdown> - Specify one action to be executed.<br>**Related Syntax:**<br>● <config># loop-protection action <all/log/shutdown> |
| *loop-protection periodicTime* | Send the loop protection packets to the network hosts.<br><1-3> - Enter the number of the packet.<br>**Related Syntax:**<br><config># **Related Syntax:**<br>● <config># loop-protection periodicTime <1-3> |
| *loop-protection state* | <enable/disable> - Enable or disable the function of loop protection.<br>**Related Syntax:**<br>● <config># loop-protection state <enable/disable> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# loop-protection state enable
G2540xs(config)#
```

## Telnet Command: mac

Use this command to create a MAC access list.

### Syntax Items

**mac acl**
**mac address-table**

### Description

| Syntax Items | Description |
|---|---|
| *mac acl* | <NAME> - Set the name of the access list (ACL).<br>To configure detailed settings, enter the name of ACL to access into next level.<br><config>#mac acl <NAME><br>Then, available sub-commands are:<br><config-mac-acl>#deny<br><config-mac-acl>#do<br><config-mac-acl>#end<br><config-mac-acl>#exit<br><config-mac-acl>#permit<br><config-mac-acl>#sequence |
| | Use the “deny” command to add deny rules for the MAC access list:<br><*A:B:C:D:E:F*>/<*A:B:C:D:E:F* ><*A:B:C:D:E:F*>/<*A:B:C:D:E:F*> - Specify the source and destination MAC addresses and subnet |

| | |
|---|---|
| | masks.<br>cos <0-7><0-7> - Set the cos value and the cos mask for a packet.<br><0x0600-0xFFFF> - Set the EtherType of the packet.<br>Shutdown – Disable the Ethernet interface.<br>vlan <1-4094> - Specify the VLAN ID of the packet.<br>any – Any MAC address.<br>**Related Syntax:**<br>● <config-mac-acl >#deny <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7><br>● <config-mac-acl >#deny <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#deny <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7> ethtype <0x0600-0xFFFF> shutdown<br>● <config-mac-acl >#deny <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7> shutdown<br>● <config-mac-acl >#deny <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> ethtype <0x0600-0xFFFF><br>● <config-mac-acl ># deny <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> ethtype <0x0600-0xFFFF> shutdown<br>● <config-mac-acl ># deny <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> shutdown<br>● <config-mac-acl >#deny any <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7><br>● <config-mac-acl >#deny any <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#deny any <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7> ethtype <0x0600-0xFFFF> shutdown<br>● <config-mac-acl >#deny any <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7> shutdown<br>● <config-mac-acl >#deny any any cos <0-7><0-7><br>● <config-mac-acl >#deny any any cos <0-7><0-7> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#deny any any cos <0-7><0-7> ethtype <0x0600-0xFFFF> shutdown<br>● <config-mac-acl >#deny any any cos <0-7><0-7> shutdown<br>● <config-mac-acl >#deny any any ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#deny any any ethtype <0x0600-0xFFFF> shutdown<br>● <config-mac-acl >#deny any any shutdown<br>● <config-mac-acl >#deny any any vlan <1-4094><br>● <config-mac-acl >#deny any any vlan <1-4094> cos <0-7><0-7><br>● <config-mac-acl >#deny any any vlan <1-4094> cos <0-7><0-7> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#deny any any vlan <1-4094> cos <0-7><0-7> ethtype <0x0600-0xFFFF> shutdown<br>● <config-mac-acl >#deny any any vlan <1-4094> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#deny any any vlan <1-4094> ethtype <0x0600-0xFFFF> shutdown<br>● <config-mac-acl >#deny any any vlan <1-4094> shutdown |
| | Use the “do” command to run execution command in current mode.<br><SEQUENCE> -<br>**Related Syntax:**<br>● <config-mac-acl>#do <SEQUENCE> |

| | |
|---|---|
| | Use the “end” command to finish current mode. Any changes in current mode will be saved.<br>**Related Syntax:**<br>● <config-mac-acl>#end |
| | Use the “exit” command to close the current CLI session or return to the previous mode without saving the settings.<br>**Related Syntax:**<br>● <config-mac-acl>#exit |
| | Use the “no sequence” command to delete any entry in management ACL.<br><1-65535>- Specify an index number of the ACL.<br>**Related Syntax:**<br>● <config-mac-acl>#no sequence <1-65535> |
| | Use the “permit” command to add permit rules which bypass the packets meet the rule.<br><*A:B:C:D:E:F*>/<*A:B:C:D:E:F* >- Specify the source and destination MAC addresses and subnet masks.<br>cos <0-7><0-7> - Set the cos value and the cos mask for a packet.<br><0x0600-0xFFFF> - Set the EtherType of the packet.<br>Shutdown – Disable the Ethernet interface.<br>vlan <1-4094> - Specify the VLAN ID of the packet.<br>any – Any MAC address.<br>**Related Syntax:**<br>● <config-mac-acl >#permit <A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7><br>● <config-mac-acl >#permit <A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#permit <A:B:C:D:E:F>/<A:B:C:D:E:F> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#permit <A:B:C:D:E:F>/<A:B:C:D:E:F> vlan <1-4094><br>● <config-mac-acl >#permit <A:B:C:D:E:F>/<A:B:C:D:E:F> vlan <1-4094>cos <0-7><0-7><br>● <config-mac-acl >#permit <A:B:C:D:E:F>/<A:B:C:D:E:F> vlan <1-4094>cos <0-7><0-7> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#permit <A:B:C:D:E:F>/<A:B:C:D:E:F> vlan <1-4094>ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#permit any <A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7><br>● <config-mac-acl >#permit any <A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7>ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#permit any <A:B:C:D:E:F>/<A:B:C:D:E:F> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#permit any <A:B:C:D:E:F>/<A:B:C:D:E:F> vlan <1-4094><br>● <config-mac-acl >#permit any <A:B:C:D:E:F>/<A:B:C:D:E:F> vlan <1-4094> cos <0-7><0-7><br>● <config-mac-acl >#permit any <A:B:C:D:E:F>/<A:B:C:D:E:F> vlan <1-4094> cos <0-7><0-7>ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#permit any <A:B:C:D:E:F>/<A:B:C:D:E:F> vlan <1-4094> ethtype <0x0600-0xFFFF> |
| | Use the “sequence” command to deny or permit the ACL.<br><1-2147483647> - Enter the sequence index ACE. The sequence represents the priority of the ACE in the ACL.<br><*A:B:C:D:E:F*>/<*A:B:C:D:E:F* >- Specify the source and destination MAC addresses and subnet masks.<br>cos <0-7><0-7> - Set the cos value and the cos mask for a packet. |

| | |
|---|---|
| | <0x0600-0xFFFF> - Set the EtherType of the packet.<br>shutdown – Disable the Ethernet interface.<br>vlan <1-4094> - Specify the VLAN ID of the packet.<br>any – Any MAC address.<br>**Related Syntax:**<br>● <config-mac-acl >#sequence <1-2147483647>deny <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7><br>● <config-mac-acl >#sequence <1-2147483647>deny <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#sequence <1-2147483647>deny <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7> ethtype <0x0600-0xFFFF> shutdown<br>● <config-mac-acl >#sequence <1-2147483647>deny <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7> shutdown<br>● <config-mac-acl >#sequence <1-2147483647>deny <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#sequence <1-2147483647>deny <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> ethtype <0x0600-0xFFFF> shutdown<br>● <config-mac-acl >#sequence <1-2147483647>deny <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> shutdown<br>● <config-mac-acl >#sequence <1-2147483647>deny any <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7><br>● <config-mac-acl >#sequence <1-2147483647>deny any <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#sequence <1-2147483647>deny any <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7> ethtype <0x0600-0xFFFF> shutdown<br>● <config-mac-acl >#sequence <1-2147483647>deny any <A:B:C:D:E:F>/<A:B:C:D:E:F ><A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7> shutdown<br>● <config-mac-acl >#sequence <1-2147483647>deny any any cos <0-7><0-7><br>● <config-mac-acl >#sequence <1-2147483647>deny any any cos <0-7><0-7> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#sequence <1-2147483647>deny any any cos <0-7><0-7> ethtype <0x0600-0xFFFF> shutdown<br>● <config-mac-acl >#sequence <1-2147483647>deny any any cos <0-7><0-7> shutdown<br>● <config-mac-acl >#sequence <1-2147483647>deny any any ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#sequence <1-2147483647>deny any any ethtype <0x0600-0xFFFF> shutdown<br>● <config-mac-acl >#sequence <1-2147483647>deny any any shutdown<br>● <config-mac-acl >#sequence <1-2147483647>deny any any vlan <1-4094><br>● <config-mac-acl >#sequence <1-2147483647>deny any any vlan <1-4094> cos <0-7><0-7><br>● <config-mac-acl >#sequence <1-2147483647>deny any any vlan <1-4094> cos <0-7><0-7> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#sequence <1-2147483647>deny any any vlan <1-4094> cos <0-7><0-7> ethtype <0x0600-0xFFFF> shutdown<br>● <config-mac-acl >#sequence <1-2147483647>deny any any |

| | |
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| | vlan <1-4094> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#sequence <1-2147483647>deny any any vlan <1-4094> ethtype <0x0600-0xFFFF> shutdown<br>● <config-mac-acl >#sequence <1-2147483647>deny any any vlan <1-4094> shutdown<br>● <config-mac-acl >#sequence <1-2147483647>permit <A:B:C:D:E:F>/<A:B:C:D:E:F> <A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7><br>● <config-mac-acl >#sequence <1-2147483647>permit <A:B:C:D:E:F>/<A:B:C:D:E:F> <A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#sequence <1-2147483647>permit <A:B:C:D:E:F>/<A:B:C:D:E:F> <A:B:C:D:E:F>/<A:B:C:D:E:F> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#sequence <1-2147483647>permit <A:B:C:D:E:F>/<A:B:C:D:E:F> <A:B:C:D:E:F>/<A:B:C:D:E:F> vlan <1-4094><br>● <config-mac-acl >#sequence <1-2147483647>permit <A:B:C:D:E:F>/<A:B:C:D:E:F> <A:B:C:D:E:F>/<A:B:C:D:E:F> vlan <1-4094> cos <0-7><0-7><br>● <config-mac-acl >#sequence <1-2147483647>permit <A:B:C:D:E:F>/<A:B:C:D:E:F> <A:B:C:D:E:F>/<A:B:C:D:E:F> vlan <1-4094> cos <0-7><0-7> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#sequence <1-2147483647>permit <A:B:C:D:E:F>/<A:B:C:D:E:F> <A:B:C:D:E:F>/<A:B:C:D:E:F> vlan <1-4094> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#sequence <1-2147483647>permit any <A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7><br>● <config-mac-acl >#sequence <1-2147483647>permit any <A:B:C:D:E:F>/<A:B:C:D:E:F> cos <0-7><0-7> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#sequence <1-2147483647>permit any <A:B:C:D:E:F>/<A:B:C:D:E:F> vlan <1-4094><br>● <config-mac-acl >#sequence <1-2147483647>permit any <A:B:C:D:E:F>/<A:B:C:D:E:F> vlan <1-4094> cos <0-7><0-7><br>● <config-mac-acl >#sequence <1-2147483647>permit any <A:B:C:D:E:F>/<A:B:C:D:E:F> vlan <1-4094> cos <0-7><0-7> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#sequence <1-2147483647>permit any <A:B:C:D:E:F>/<A:B:C:D:E:F> vlan <1-4094> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#sequence <1-2147483647>permit any any cos <0-7><0-7><br>● <config-mac-acl >#sequence <1-2147483647>permit any any cos <0-7><0-7> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#sequence <1-2147483647>permit any any ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#sequence <1-2147483647>permit any any vlan <1-4094><br>● <config-mac-acl >#sequence <1-2147483647>permit any any vlan <1-4094> cos <0-7><0-7><br>● <config-mac-acl >#sequence <1-2147483647>permit any any vlan <1-4094> cos <0-7><0-7> ethtype <0x0600-0xFFFF><br>● <config-mac-acl >#sequence <1-2147483647>permit any any vlan <1-4094> ethtype <0x0600-0xFFFF> |
| *mac address-table aging-time <10-630>* | Set the aging time for an entry remains in the MAC address table.<br>address-table static - Add a static address to the MAC address table to drop the packets with the specified source or destination MAC address.<br><10-630> - Unit is second. Default is 300.<br>static <A:B:C:D:E:F> - Enter the MAC address.<br>vlan <1-4094> - Specify the VLAN ID of the packet. |

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| | 10GigabitEthernet <1-6> - Specify a physical port.<br>gigabitEthernet <1-48> - Specify a physical port.<br>LAG <1-8> - Specify a LAG port.<br>**Related Syntax:**<br>● <config># mac address-table aging-time <10-630><br>● <config># mac address-table static <A:B:C:D:E:F> vlan <1-4094> drop<br>● <config># mac address-table static <A:B:C:D:E:F> vlan <1-4094> interfaces 10GigabitEthernet <1-6><br>● <config># mac address-table static <A:B:C:D:E:F> vlan <1-4094> interfaces GigabitEthernet <1-48><br>● <config># mac address-table static <A:B:C:D:E:F> vlan <1-4094> interfaces LAG <1-8> |

### Example

```
G2540xs# configure
G2540xs(config)# mac acl test_CA
G2540xs(config-mac-acl)# deny 00:50:00:7f:12:11/00:00:00:00:10:20
00:50:00:aa:bb:cc/00:00:00:00:12:00 cos 3 2 ethtype 0x0600
G2540xs(config-mac-acl)# deny any 00:50:00:7f:12:11/00:00:00:00:10:20 cos 5
6 ethtype 0x0600
G2540xs(config-mac-acl)# deny any
G2540xs(config)# mac address-table static 00:50:07:12:ff:aa vlan 300 drop
```

## Telnet Command: mail alert

Use this command to configure mail alert for various conditions.

### Syntax Items

**mailalert active**
**mailalert auth**
**mailalert devicecheck**
**mailalert encpassword**
**mailalert encry**
**mailalert hwmon**
**mailalert interval**
**mailalert ipconfilict**
**mailalert password**
**mailalert poestatus**
**mailalert port**
**mailalert portlink**
**mailalert portspeed**
**mailalert receiver**
**mailalert sender**
**mailalert server**
**mailalert sysrestart**
**mailalert throughputcheck**
**mailalert username**

### Description

| Syntax Items | Description |
|---|---|
| *mailalert active* | <disable/enable> - Enable or disable the function of mail alert.<br>**Related Syntax:**<br>● <config># mailalert active <disable/enable> |
| *mailalert auth* | <disable/enable> - Enable or disable the function of SMTP server |

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| | authentication.<br>**Related Syntax:**<br>● <config># mailalert auth <disable/enable> |
| *mailalert devicecheck* | <disable/enable> - Enable or disable the function of sending a mail alert when encountering a device check error.<br>**Related Syntax:**<br>● <config># mailalert devicecheck <disable/enable> |
| *mailalert encry* | Specify the encryption type for mail alert.<br><disable/ssltls/starttls> -<br>**Related Syntax:**<br>● <config># mailalert encry <disable/ ssltls/starttls> |
| *mailalert hwmon* | Send a mail alert when hardware monitor error.<br><disable/enable> - Enable or disable the function.<br>**Related Syntax:**<br>● <config># mailalert hwmon <disable/enable> |
| *mailalert interval* | Set the transmission interval for the mail alert.<br><1-60> - Unit is second.<br>**Related Syntax:**<br>● <config># mailalert interval <1-60> |
| *mailalert ipconflict* | <disable/enable> - Enable or disable the function of sending a mail alert if encountering the IP conflict.<br>**Related Syntax:**<br>● <config># mailalert ipconflict <disable/enable> |
| *mailalert password* | <PASSWORD> - Enter the password for SMTP server authentication.<br>**Related Syntax:**<br>● <config># mailalert password <PASSWORD> |
| *mailalert poestatus* | <disable/enable> - Enable or disable the function of sending a mail alert when PoE status is changed.<br>**Related Syntax:**<br>● <config># mailalert poestatus <disable/enable> |
| *mailalert port* | <0-65535>- Enter a port number.<br>**Related Syntax:**<br><config># mailalert port <0-65535> |
| *mailalert portlink* | <disable/enable> - Enable or disable the function of sending an alert when the port lnik status changes.<br>**Related Syntax:**<br>● <config># mailalert portlink <disable/enable> |
| *mailalert portspeed* | <disable/enable> - Enable or disable the function of sending an alert when the port link speed changes.<br>**Related Syntax:**<br>● <config># mailalert portspeed <disable/enable> |
| *mailalert receiver* | Specify an address for receiving the alart mail.<br><ADDRESS> - Enter the email address of the receiver.<br>**Related Syntax:**<br>● <config># mailalert receiver <ADDRESS> |
| *mailalert sender* | Specify an address which sends out the alert mail.<br><ADDRESS> - Enter the email address of the sender.<br>**Related Syntax:**<br>● <config># mailalert sender <ADDRESS> |
| *mailalert server* | Set the IP address of the server. |

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| | <ADDRESS> - Enter the IP address of the SMTP server.<br>**Related Syntax:**<br>● <config># mailalert server <ADDRESS> |
| *mailalert sysrestart* | <disable/enable> -Enable or disable the function of sending a mail alert when the system restarts.<br>**Related Syntax:**<br>● <config># mailalert sysrestart <disable/enable> |
| *mailalert throughputcheck* | <disable/enable> - Enable or disable the function of sending a mail alert when reaching the throughput threshold.<br>**Related Syntax:**<br>● <config># mailalert throughputcheck <disable/enable> |
| *mailalert username* | <NAEM> - Enter the username authenticated by STMP server.<br>**Related Syntax:**<br>● <config># mailalert username <NAME> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# mailalert receiver carrie_ni@draytek.com
```

## Telnet Command: management

Use this command to create a management access list and set configuration mode.

### Syntax Items

**management access-list**
**management access-class**

### Description

| Syntax Items | Description |
|---|---|
| *management access-list* | <NAME> - Enter the name of the access list.<br>To configure detailed settings, enter the name of ACL to access into next level.<br><config>#management access-list <NAME><br>Then, available sub-commands are:<br><config-macl>#deny<br><config-macl>#do<br><config-macl>#end<br><config-macl>#exit<br><config-macl>#permit<br><config-macl>#sequence |
| | Use the “deny” command to add deny rules for the management access list:<br>10GigabitEthernet <1-6> - Specify a physical port.<br>GigabitEthernet <1-48> - Specify a physical port.<br>LAG <1-8> - Specify a LAG port.<br>service <all/http/https/snmp/ssh/telnet> - Specify the servcie type.<br>ip <A.B.C.D>/<A.B.C.D> - Specify the source IP address with mask for the packets.<br>ipv6 <X:X::X:X>/<0-128> - Specify the source IPv6 address and prefix length of the packet. |

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| | **Related Syntax:**<br>● <config-macl>#deny interfaces 10GigabitEthernet <1-6> service <all/http/https/snmp/ssh/telnet><br>● <config-macl>#deny interfaces GigabitEthernet <1-48> service <all/http/https/snmp/ssh/telnet><br>● <config-macl>#deny interfaces LAG <1-8> service <all/http/https/snmp/ssh/telnet><br>● <config-macl>#deny ip <A.B.C.D>/<A.B.C.D> interfaces 10GigabitEthernet <1-6> service <all/http/https/snmp/ssh/telnet><br>● <config-macl>#deny interfaces GigabitEthernet <1-48> service <all/http/https/snmp/ssh/telnet><br>● <config-macl>#deny ip <A.B.C.D>/<A.B.C.D> interfaces LAG <1-8> service <all/http/https/snmp/ssh/telnet><br>● <config-macl>#deny ipv6 <X:X::X:X>/<0-128> interfaces 10GigabitEthernet <1-6> service <all/http/https/snmp/ssh/telnet><br>● <config-macl>#deny ipv6 <X:X::X:X>/<0-128> interfaces GigabitEthernet <1-48> service <all/http/https/snmp/ssh/telnet><br>● <config-macl>#deny ipv6 <X:X::X:X>/<0-128> interfaces LAG <1-8> service <all/http/https/snmp/ssh/telnet> |
| | Use the “do” command to run execution command in current mode.<br><SEQUENCE> -<br>**Related Syntax:**<br>● <config-macl>#do <SEQUENCE> |
| | Use the “end” command to finish current mode. Any changes in current mode will be saved.<br>**Related Syntax:**<br>● <config-macl>#end |
| | Use the “exit” command to close the current CLI session or return to the previous mode without saving the settings.<br>**Related Syntax:**<br>● <config-macl>#exit |
| | Use the “no sequence” command to delete any entry in management ACL.<br><1-65535>- Specify an index number of the ACL.<br>**Related Syntax:**<br>● <config-macl>#no sequence <1-65535> |
| | Use the “permit” command to add permit rules which bypass the packets meet the rule.<br>10GigabitEthernet <1-6> - Specify a physical port.<br>GigabitEthernet <1-48> - Specify a physical port.<br>LAG <1-8> - Specify a LAG port.<br>service <all/http/https/snmp/ssh/telnet> - Specify the servcie type.<br>ip <A.B.C.D>/<A.B.C.D> - Specify the source IP address with mask for the packets.<br>ipv6 <X:X::X:X>/<0-128> - Specify the source IPv6 address and prefix length of the packet.<br>**Related Syntax:**<br>● <config-macl>#permit interfaces 10GigabitEthernet <1-6> service <all/http/https/snmp/ssh/telnet><br>● <config-macl>#permit interfaces GigabitEthernet <1-48> service <all/http/https/snmp/ssh/telnet> |

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| | • <config-macl>#permit interfaces LAG <1-8> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#permit ip <A.B.C.D>/<A.B.C.D> interfaces 10GigabitEthernet <1-6> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#permit ip <A.B.C.D>/<A.B.C.D> interfaces GigabitEthernet <1-48> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#permit ip <A.B.C.D>/<A.B.C.D> interfaces LAG <1-8> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#permit ipv6 <X:X::X:X>/<0-128> interfaces 10GigabitEthernet <1-6> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#permit ipv6 <X:X::X:X>/<0-128> interfaces GigabitEthernet <1-48> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#permit ipv6 <X:X::X:X>/<0-128> interfaces LAG <1-8> service <all/http/https/snmp/ssh/telnet> |
| | Use the “sequence” command to deny or permit the ACL.<br><1-65535>- Specify an index number of the ACL.<br>10GigabitEthernet <1-6> - Specify a physical port.<br>GigabitEthernet <1-48> - Specify a physical port.<br>LAG <1-8> - Specify a LAG port.<br>service <all/http/https/snmp/ssh/telnet> - Specify the servcie type.<br>ip <A.B.C.D>/<A.B.C.D> - Specify the source IP address with mask for the packets.<br>ipv6 <X:X::X:X>/<0-128> - Specify the source IPv6 address and prefix length of the packet.<br>**Related Syntax:**<br>• <config-macl>#sequence <1-65535>deny interfaces 10GigabitEthernet <1-6> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#sequence <1-65535>deny interfaces GigabitEthernet <1-48> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#sequence <1-65535>deny interfaces LAG <1-8> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#sequence <1-65535>deny ip <A.B.C.D>/<A.B.C.D> interfaces 10GigabitEthernet <1-6> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#sequence <1-65535>deny ip <A.B.C.D>/<A.B.C.D> interfaces GigabitEthernet <1-48> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#sequence <1-65535>deny ip <A.B.C.D>/<A.B.C.D> interfaces LAG <1-8> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#sequence <1-65535>deny ipv6 <X:X::X:X>/<0-128> interfaces 10GigabitEthernet <1-6> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#sequence <1-65535>deny ipv6 <X:X::X:X>/<0-128> interfaces GigabitEthernet <1-48> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#sequence <1-65535>deny ipv6 <X:X::X:X>/<0-128> interfaces LAG <1-8> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#sequence <1-65535> permit interfaces 10GigabitEthernet <1-6> service <all/http/https/snmp/ssh/telnet> |

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| | • <config-macl>#sequence <1-65535> permit interfaces 10GigabitEthernet <1-48> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#sequence <1-65535> permit interfaces LAG <1-8> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#sequence <1-65535> permit ip <A.B.C.D>/<A.B.C.D> interfaces 10GigabitEthernet <1-6> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#sequence <1-65535> permit ip <A.B.C.D>/<A.B.C.D> interfaces GigabitEthernet <1-48> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#sequence <1-65535> permit t ip <A.B.C.D>/<A.B.C.D> interfaces LAG <1-8> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#sequence <1-65535> permit ipv6 <X:X::X:X>/<0-128> interfaces 10GigabitEthernet <1-6> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#sequence <1-65535> permit ipv6 <X:X::X:X>/<0-128> interfaces GigabitEthernet <1-48> service <all/http/https/snmp/ssh/telnet><br>• <config-macl>#sequence <1-65535> permit <X:X::X:X>/<0-128> interfaces LAG <1-8> service <all/http/https/snmp/ssh/telnet> |
| *management access-class* | Specify an ACL as active access-list.<br><NAME> - Enter the name of the access list.<br>**Related Syntax:**<br>• <config># management access-class <NAME> |

### Example

```
G2540xs # configure
G2540xs(config)#
G2540xs(config)# management access-list CA_ACL
G2540xs(config-macl)# deny ip 192.168.2.56/255.255.255.0 interfaces
gigabitethernet 3 service telnet
G2540xs(config-macl)#
G2540xs(config-macl)# deny ipv6 00:50::7f:3b/24
```

## Telnet Command: management-vlan

Use this command to set VLAN ID for management VLAN.

### Syntax Items

**management-vlan vlan**

### Description

| Syntax Items | Description |
|---|---|
| *management-vlan vlan* | Set the management VLAN ID.<br><1-4094>- Specify the VLAN ID number of management VLAN.<br>**Related Syntax:**<br>• <config># management-vlan vlan <1-4094> |

### Example

```
G2540xs# configure
G2540xs(config)#
```

```
G2540xs(config)# management-vlan vlan 200
VLAN 200: VLAN does not exist
G2540xs(config)#
```

## Telnet Command: mirror

Use this command to set the source / destination interface of a port mirror session.

### Syntax Items

**mirror session**

### Description

| Syntax Items | Description |
|---|---|
| *mirror session* | Set the destination interface of a port mirror session.<br>10GigabitEthernet <1-6> - Specify a physical port as the SPAN destination.<br><1-4> - Specify the mirror session ID number.<br>GigabitEthernet <1-48> - Specify a physical port as the SPAN destination.<br>allow-ingress – Enable the ingress traffic forwarding.<br><both/rx/tx> - Specify the mirror direction, TX only, RX only or TX and RX.<br>**Related Syntax:**<br>● <config># mirror session <1-4> destination interface 10GigabitEthernet <1-6> allow-ingress<br>● <config># mirror session <1-4> destination interface GigabitEthernet <1-48> allow-ingress<br>● <config># mirror session <1-4> source interfaces 10GigabitEthernet <1-6> <both/rx/tx><br>● <config># mirror session <1-4> source interfaces GigabitEthernet <1-48> <both/rx/tx> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# mirror session 3 destination interface GigabitEthernet 3
allow
G2540xs(config)#
G2540xs(config)# mirror session 3 source interfaces LAG 3 both
G2540xs(config)#
```

## Telnet Command: mvr

Use this command to enable MVR function and configure related settings.

### Syntax Items

**mvr**
**mvr group**
**mvr mode**
**mvr query-time**
**mvr vlan**

### Description

| Syntax Items | Description |
|---|---|
| *mvr* | Enable MVR function.<br>**Related Syntax:**<br>● <config># mvr |
| *mvr group* | Set MVR group address.<br><A.B.C.D> - Enter an IP address.<br><1-128> - Specify a number for contiguous series of IPv4 multicast address.<br>**Related Syntax:**<br>● <config># mvr group <A.B.C.D><1-128> |
| *mvr mode* | Set MVR mode as compatible or dynamic.<br><compatible> - The switch does not support IGMP dynamic joins on the source ports.<br><dynamic> - The switch supports MVR membership on the source ports.<br>**Related Syntax:**<br>● <config># mvr mode <compatible/dynamic> |
| *mvr query-time* | Set query response time for MVR.<br><1-10> - Specify the response time (second).<br>**Related Syntax:**<br>● <config># mvr query-time <1-10> |
| *mvr vlan* | Set a VLAN ID for MVR.<br><1-4094> - Specify the existed static VLAN ID.<br>**Related Syntax:**<br>● <config># mvr vlan <1-4094> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# mvr group 192.168.2.33
The operation will delete the MVR VLAN groups include static MVR groups.Continue
? [yes/no]:y
Input Parameter Error
G2540xs(config)#
```

## Telnet Command: no

Use this command to disable specific command.

### Syntax Items

**no** <*command*>

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# no port-security
G2540xs(config)#
```

## Telnet Command: openvpn

Use this command to enable/disable the OpenVPN tunnel.

### Syntax Items

**openvpn enable**

**openvpn disable**

**openvpn filename**

### Description

| Syntax Items | Description |
|---|---|
| *enable* | Enable the OpenVPN tunnel. |
| *disable* | Disable the OpenVPN tunnel. |
| *filename* | <NAME> - Define a name for OpenVPN configuration.<br>**Related Syntax:**<br>● <config># openvpn filename <NAME> |

### Example

```
G2540xs# configure
G2540xs(config)# openvpn enable
killall: openvpn: no process killed
G2540xs(config)#
```

## Telnet Command: poe

Use this command configure settings for PoE device.

### Syntax Items

**poe mode**

**poe schedule**

### Description

| Syntax Items | Description |
|---|---|
| *poe mode* | auto - VigorSwitch determines the power watts for PoE device based on actual demand.<br>manual - VigorSwitch will supply actual power demand for the PoE device and reserved PD class power for the PoE device.<br>none - VigorSwitch does not supply any power for the PoE device.<br>**Related Syntax:**<br>● <config># poe mode auto<br>● <config># poe mode manual<br>● <config># poe mode none |
| *poe schedule* | Specify a schedule for PoE device.<br>global-enable -<br>index <1-24> - Specify the index number of the schedule profiles.<br>**Related Syntax:**<br>● <config># poe schedule global-enable |

| | |
|---|---|
| | • <config># poe schedule index <1-24> |

### Example

```
G2540xs(config)# poe mode auto
[cmd_poe_mode_set]: This model does not support POE
FAILED
G2540xs(config)#
```

## Telnet Command: port-security

Use this command to enable the function of port security.

### Syntax Items

**port-security**

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# port-security
G2540xs(config)#
```

## Telnet Command: qos

Use this command to configure QoS settings.

### Syntax Items

**qos**
**qos map**
**qos queue**
**qos trust**

### Description

| Syntax Items | Description |
|---|---|
| *qos* | Enable the quality of service based on basic trust type to assign the queue for packets.<br>**Related Syntax:**<br>• <config># qos |
| *qos map* | map cos-queue - Set the CoS to queue map.<br>map dscp-queue - Set the DSCP to queue map.<br>map precedence-queue - Set the IP Precedence to queue map.<br>map queue-cos - Modify the queue to CoS map.<br>map queue-dscp - Modify the queue to DSCP map.<br>map queue-precedence - Modify the queue to IP precedence map.<br><1-8> - Specify the queue number for the following CoS values mapped.<br><1-8> - Specify the queue number to which the DSCP value shall correspond.<br><1-8> - Specify the queue number to which the IP precedence value shall correspond.<br><0-7> - Enter the cos value to which the queue ID shall correspond.<br><0-7> - Enter the DSCP value to which the queue ID shall |

| | |
|---|---|
| | correspond.<br><0-7> - Enter the IP precedence value to which the queue ID shall correspond.<br>**Related Syntax:**<br>● <config># qos map cos-queue SEQUENCE to <1-8><br>● <config># qos map dscp-queue SEQUENCE to <1-8><br>● <config># qos map precedence-queue SEQUENCE to <1-8><br>● <config># qos map queue-cos SEQUENCE to <0-7><br>● <config># qos map queue-dscp SEQUENCE to <0-7><br>● <config># qos map queue-precedence SEQUENCE to <0-7> |
| *qos queue* | queue strict-priority-num - Set the number of strict priority queue.<br>queue weight SEQUENCE - Set the number of non-strict priority queue.<br><0-8> - Specify the queue number.<br><weight1-weight8> <1-127> - Specify a number (1~127) representing queue weight value.<br>**Related Syntax:**<br>● <config># qos queue strict-priority-num <0-8><br>● <config># qos queue weight SEQUENCE <weight1 – weight8> <1-127> |
| *qos trust* | Set the trust type, cos, for the device to judge the appropriate queue of the packets.<br>**Related Syntax:**<br>● <config># qos trust <cos/cos-dscp/ dscp/ip-precedence> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# qos map cos-queue SEQUENCE to 3
G2540xs(config)#
```

## Telnet Command: radius

Use this command to configure settings for RADIUS server.

### Syntax Items

**radius default-config**

**radius host**

### Description

| Syntax Items | Description |
|---|---|
| *radius default-config* | Key <RADIUSKEY> - Specify key string for RADIUS server.<br>Retransmit <1-10> - Specify the retransmit times (from 1 to 10) for RADIUS server.<br>Timeout <1-30> - Specify the time out value (from 1 to 30) for RADIUS server.<br>**Related Syntax**:<br>● <config># radius default-config key <RADIUSKEY><br>● <config># radius default-config key <RADIUSKEY> retransmit <1-10><br>● <config># radius default-config key <RADIUSKEY> retransmit <1-10> timeout <1-30><br>● <config># radius default-config retransmit <1-10> |

| | |
|---|---|
| | ● <config># radius default-config retransmit <1-10> timeout <1-30><br>● <config># radius default-config timeout <1-30> |
| *radius host* | host <HOSTNAME> - Specify a domain name or IP address for RADIUS server host.<br>auth-port <0~65535> - Speicfy a UDP port number for RADIUS server.<br>key <RADIUSKEY> - Specify key string for RADIUS server.<br>priority <0~65535> - Specify the priority for RADIUS server.<br>retransmit <1-10> - Specify the retransmit times (from 1 to 10) for RADIUS server.<br>timeout <1-30> - Specify the time out value (from 1 to 30) for RADIUS server.<br>type <802.1x / all / login> - Choose the usage type for 802.1X authentication, or login, or both 802.1X authentication and login of RADIUS type.<br>**Related Syntax:**<br>● <config># radius host <HOSTNAME> auth-port <0~65535><br>● <config># radius host <HOSTNAME> auth-port <0~65535> key <RADIUSKEY><br>● <config># radius host <HOSTNAME> auth-port <0~65535> key <RADIUSKEY> priority <0~65535><br>● <config># radius host <HOSTNAME> auth-port <0~65535> key <RADIUSKEY> priority <0~65535> retransmit <1-10><br>● <config># radius host <HOSTNAME> auth-port <0~65535> key <RADIUSKEY> priority <0~65535> retransmit <1-10> timeout <1-30> type <802.1x / all / login><br>● <config># radius host <HOSTNAME> key <RADIUSKEY><br>● <config># radius host <HOSTNAME> key <RADIUSKEY> priority <0~65535><br>● <config># radius host <HOSTNAME> key <RADIUSKEY> priority <0~65535> retransmit <1-10><br>● <config># radius host <HOSTNAME> key <RADIUSKEY> priority <0~65535> retransmit <1-10> timeout <1-30><br>● <config># radius host <HOSTNAME> key <RADIUSKEY> priority <0~65535> retransmit <1-10> timeout <1-30> type <802.1x / all / login><br>● <config># radius host <HOSTNAME> priority <0~65535><br>● <config># radius host <HOSTNAME> priority <0~65535> retransmit <1-10><br>● <config># radius host <HOSTNAME> priority <0~65535> retransmit <1-10> timeout <1-30><br>● <config># radius host <HOSTNAME> priority <0~65535> retransmit <1-10> timeout <1-30> type <802.1x / all / login><br>● <config># radius host <HOSTNAME> retransmit <1-10><br>● <config># radius host <HOSTNAME> retransmit <1-10> timeout <1-30><br>● <config># radius host <HOSTNAME> retransmit <1-10> timeout <1-30> type <802.1x / all / login><br>● <config># radius host <HOSTNAME> timeout <1-30><br>● <config># radius host <HOSTNAME> timeout <1-30> type <802.1x / all / login><br>● <config># radius host <HOSTNAME> type <802.1x / all / login> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# radius default-config key 123456789 retransmit 3 timeout 10
G2540xs(config)# radius host radius auth-port 3000
```

## Telnet Command: schedule

Use this command to set schedule.

## Syntax Items

**schedule index**

## Description

| Syntax Items | Description |
|---|---|
| *schedule index* | Specify an index number for configuring detailed settings of a schedule profile.<br><1-15> - Enter a number to select a schedule profile.<br><DESCRIPTION> - Give a brief description for such profile.<br>cycle-days - The action applied with the schedule will take place every few days.<br>monthly-date - The action applied with the schedule will take place in specified day within a month.<br>once - The action applied with the schedule will take place for one time.<br>weekdays - The action applied with the schedule will take place on a certain day within a week.<br><1-31> - Enter a number to make action repeat.<br><apr / aug / dec / feb /jan / jul / jun /jul / mar / may / nov / oct / sep > - Represent month of April, August, December, February, January, July, June, March, May, November, October, and September.<br><sun /mon /tue /wed / thu / fri / sat> - Represent Sunday, Monday, Tuesday, Wednesday, Thursday, Friday and Saturday.<br><1-31> - Enter a number as the start date within a month.<br><2000-2035> - Enter the number as the year of start date.<br><HH:MM> - Enter the hours and the miniutes.<br><on/off> - Enable (on) or disable (off) the action applied with such profile.<br>**Related Syntax:**<br>● <config># schedule index <1-15> description <DESCRIPTION><br>● <config># schedule index <1-15> how-often cycle-days <1-31> start-date <apr / aug / dec / feb /jan / jul / jun / mar / may / nov / oct / sep > <1-31> <2000-2035> start-time <HH:MM> duration <HH:MM> action <on/off><br>● <config># schedule index <1-15> how-often monthly-date <1-31> start-date <apr / aug / dec / feb /jan / jul / jun / mar / may / nov / oct / sep > <1-31> <2000-2035> start-time <HH:MM> duration <HH:MM> action <on/off><br>● <config># schedule index <1-15> how-often once start-date<apr / aug / dec / feb /jan / jul / jun / mar / may / nov / oct / sep > <1-31> <2000-2035> start-time <HH:MM> duration <HH:MM> action <on/off><br>● <config># schedule index <1-15> how-often weekdays <sun /mon /tue /wed / thu / fri / sat> start-date <apr / aug / dec / feb /jan / jul / jun / mar / may / nov / oct / sep > <1-31> <2000-2035> start-time <HH:MM> duration <HH:MM> action <on/off> |

## Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# schedule index 1 how-often cycle-days 3 start-date jan 1 2023
start-time 08:01 duraton 17:30 action on
G2540xs(config)# schedule index 2 how-often weekdays sun start-date may 11 2019
```

```
start-time 02:10 duration 12:10 action on
G2540xs(config)#
```

## Telnet Command: sflow

Use this command to configure sflow profile.

### Syntax Items

**sflow profile**

### Description

| Syntax Items | Description |
|---|---|
| *sflow profile* | profile <1-8> - Enter the ID number (1 to 8) of the profile.<br>rate <0-65535> - Set the sampling rate for the sFlow profile. 0 means to disable the sampling rate.<br>interval <0-65535> - Set the time interval for the sFlow profile.<br>collector <HOSTNAME> - Set the collector hostname.<br>data_sources interfaces 10GigabitEthernet <1-6> - Speicfy the LAN port.<br>data_sources interfaces GigabitEthernet <1-48> - Speicfy the LAN port.<br>port <0-65535> - Set the TCP/UDP port number for the profile.<br>Related Syntax:<br>● <config># sflow profile <1-8> rate <0-65535> interval <0-65535> collector <HOSTNAME> data_sources interfaces 10GigabitEthernet <1-6><br>● <config># sflow profile <1-8> rate <0-65535> interval <0-65535> collector <HOSTNAME> data_sources interfaces GigabitEthernet <1-48><br>● <config># sflow profile <1-8> rate <value> interval <0-65535> collector <HOSTNAME> port <0-65535> data_sources interfaces 10GigabitEthernet <1-6><br>● <config># sflow profile <1-8> rate <value> interval <0-65535> collector <HOSTNAME> port <0-65535> data_sources interfaces GigabitEthernet <1-48> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)#sflow profile 3 rate 2558 interval 9600 collector sHost
data_sources interfaces 10GigabitEthernet 2
G2540xs(config)#
```

## Telnet Command: snmp

Use this command to define SNMP community.

### Syntax Items

**snmp community**
**snmp engineid**
**snmp group**
**snmp host**
**snmp trap**
**snmp user**
**snmp view**

### Description

| Syntax Items | Description |
|---|---|
| *snmp community* | snmp community - Set community name for SNMP v1 and v2, and access group name.<br>Available parameters for SNMP community:<br><NAME> after community - Enter a string (maximum length: 20 characters) as community name.<br><NAME> after group - Enter a string (maximum length: 30 characters) as access group.<br>ro - Set the community as read only.<br>rw - Set the community as read and write.<br>**Related Syntax:**<br>● <config># snmp community <NAME> group <NAME><br>● <config># snmp community <NAME> ro<br>● <config># snmp community <NAME> rw<br>● <config># snmp community <NAME> view <NAME> ro<br>● <config># snmp community <NAME> view <NAME> rw |
| *snmp engineid* | snmp engineid - Set the remote host for SNMP engine.<br>default - Reset to default setting of engine ID for SNMP server.<br><ENGINEID> - Such number must be 10 ~ 64 hexadecimal.<br><A.B.C.D> - Enter the IP address of the remote SNMP server.<br><HOSTNAME> - Enter the host name of the remote SNMP server.<br><X:X::X:X> - Enter the IPv6 address for remote SNMP server.<br>**Related Syntax:**<br>● <config># snmp engineid <ENGINEID><br>● <config># snmp engineid default<br>● <config># snmp engineid remote <A.B.C.D> <ENGINEID><br>● <config># snmp engineid remote <HOSTNAME> <ENGINEID><br>● <config># snmp engineid remote <X:X::X:X><ENGINEID> |
| *snmp group* | snmp group - Set the SNMP group.<br><NAME> - Specify the name of SNMP group.<br>version <1/2c/3> - Specify the version of SNMP service.<br><auth/noauth/priv> - Specify the packet authentication mode. “auth” means to perform packet authentication without encryption. It is applicable for SNMPv3 only. “noauth” means no packet authentication performed. “priv” means to perform packet authentication with encryption and also it is applicable for SNMPv3 only.<br>read-view <NAME> - Set the view name to enable agent configuration.<br>notify-view <NAME> - Set the view name to send only trap included in SNMP view for notification.<br>write-view <NAME> - Set the view name to enable viewing.<br>**Related Syntax:**<br>● <config># snmp group <NAME> version <1/2c/3> <auth/noauth/priv> read-view <NAME><br>● <config># snmp group <NAME> version <1/2c/3> <auth/noauth/priv> read-view <NAME> notify-view <NAME><br>● <config># snmp group <NAME> version <1/2c/3> <auth/noauth/priv> read-view <NAME> notify-view <NAME> write-view <NAME> |
| *snmp host* | snmp host - Set a host to receive SNMP notifications.<br><A.B.C.D> - Enter the IPv4/IPv6 address or host name of the receipt.<br>version <1/2c/3> - Specify the version of SNMP service. |

| | |
|---|---|
| | <NAME> - Set the community name sent with the notification.<br>udp-port <1-65535> - Set the UDP port number.<br>timeout <1-300> - Set the timeout of V2c informs.<br>retries <1-255> - Enter the retry counter of V2c informs.<br><br>**Related Syntax:**<br>Set a host to receive SNMP notifications.<br>● <config># snmp host <A.B.C.D> <NAME> retries <1-255><br>● <config># snmp host <A.B.C.D> <NAME> timeout <1-300> retries <1-255><br>● <config># snmp host <A.B.C.D> <NAME> udp-port <1-65535> retries <1-255><br>● <config># snmp host <A.B.C.D> <NAME> udp-port <1-65535> timeout <1-300> |
| | Set a host to receive SNMP notifications. Notification type is informs.<br>● <config># snmp host <A.B.C.D> informs <NAME> retries <1-255><br>● <config># snmp host <A.B.C.D> informs <NAME> timeout <1-300><br>● <config># snmp host <A.B.C.D> informs <NAME> timeout <1-300> retries <1-255><br>● <config># snmp host <A.B.C.D> informs <NAME> udp-port <1-65535><br>● <config># snmp host <A.B.C.D> informs <NAME> udp-port <1-65535> retries <1-255><br>● <config># snmp host <A.B.C.D> informs <NAME> udp-port <1-65535> timeout <1-300><br>● <config># snmp host <A.B.C.D> informs <NAME> udp-port <1-65535> timeout <1-300> retries <1-255><br>● <config># snmp host <A.B.C.D> informs version <1/2c/3><br>● <config># snmp host <A.B.C.D> informs version <1/2c/3><NAME> retries <1-255><br>● <config># snmp host <A.B.C.D> informs version <1/2c/3><NAME> timeout <1-300><br>● <config># snmp host <A.B.C.D> informs version <1/2c/3><NAME> timeout <1-300> retries <1-255><br>● <config># snmp host <A.B.C.D> informs version <1/2c/3><NAME> udp-port <1-65535><br>● <config># snmp host <A.B.C.D> informs version <1/2c/3><NAME> udp-port <1-65535> retries <1-255><br>● <config># snmp host <A.B.C.D> informs version <1/2c/3><NAME> udp-port <1-65535> timeout <1-300><br>● <config># snmp host <A.B.C.D> informs version <1/2c/3><NAME> udp-port <1-65535> timeout <1-300> retries <1-255> |
| | Set a host to receive SNMP notifications. Notification type is traps.<br>● <config># snmp host <A.B.C.D> traps <NAME><br>● <config># snmp host <A.B.C.D> traps <NAME> retries <1-255><br>● <config># snmp host <A.B.C.D> traps <NAME> timeout <1-300><br>● <config># snmp host <A.B.C.D> traps <NAME> timeout <1-300> retries <1-255><br>● <config># snmp host <A.B.C.D> traps version <1/2c/3><NAME> retries <1-255><br>● <config># snmp host <A.B.C.D> traps version <1/2c/3><NAME> timeout <1-300> retries <1-255><br>● <config># snmp host <A.B.C.D> traps version <1/2c/3><NAME> udp-port <1-65535> |

| | |
|---|---|
| | ● <config># snmp host <A.B.C.D> traps version <1/2c/3><NAME> udp-port <1-65535> retries <1-255><br>● <config># snmp host <A.B.C.D> traps version <1/2c/3><NAME> udp-port <1-65535> timeout <1-300><br>● <config># snmp host <A.B.C.D> traps version <1/2c/3><NAME> udp-port <1-65535> timeout <1-300> retries <1-255> |
| | ● <config># snmp host <A.B.C.D> version <1/2c/3><NAME> retries <1-255><br>● <config># snmp host <A.B.C.D> version <1/2c/3><NAME> timeout <1-300><br>● <config># snmp host <A.B.C.D> version <1/2c/3><NAME> timeout <1-300> retries <1-255><br>● <config># snmp host <A.B.C.D> version <1/2c/3><NAME> udp-port <1-65535><br>● <config># snmp host <A.B.C.D> version <1/2c/3><NAME> udp-port <1-65535> retries <1-255><br>● <config># snmp host <A.B.C.D> version <1/2c/3><NAME> udp-port <1-65535> timeout <1-300><br>● <config>#snmp host <A.B.C.D> version <1/2c/3><NAME> udp-port <1-65535> timeout <1-300> retries <1-255> |
| | ● <config># snmp host HOSTNAME <NAME><br>● <config># snmp host HOSTNAME <NAME> retries <1-255><br>● <config># snmp host HOSTNAME <NAME> timeout <1-300><br>● <config># snmp host HOSTNAME <NAME> timeout <1-300> retries <1-255><br>● <config># snmp host HOSTNAME <NAME> udp-port <1-65535><br>● <config># snmp host HOSTNAME <NAME> udp-port <1-65535> retries <1-255><br>● <config># snmp host HOSTNAME <NAME> udp-port <1-65535> timeout <1-300><br>● <config># snmp host HOSTNAME <NAME> udp-port <1-65535> timeout <1-300> retries <1-255> |
| | ● <config># snmp host HOSTNAME informs <NAME><br>● <config># snmp host HOSTNAME informs <NAME> retries <1-255><br>● <config># snmp host HOSTNAME informs <NAME> timeout <1-300><br>● <config># snmp host HOSTNAME informs <NAME> retries <1-255> timeout <1-300> retries <1-255><br>● <config># snmp host HOSTNAME informs <NAME> udp-port <1-65535><br>● <config># snmp host HOSTNAME informs <NAME> udp-port <1-65535> retries <1-255><br>● <config># snmp host HOSTNAME informs <NAME> udp-port <1-65535> timeout <1-300><br>● <config># snmp host HOSTNAME informs <NAME> udp-port <1-65535> timeout <1-300> retries <1-255> |
| | ● <config># snmp host HOSTNAME traps <NAME><br>● <config># snmp host HOSTNAME traps <NAME> retries <1-255><br>● <config># snmp host HOSTNAME traps <NAME> timeout <1-300><br>● <config># snmp host HOSTNAME traps <NAME> timeout <1-300> retries <1-255><br>● <config># snmp host HOSTNAME traps <NAME> udp-port <1-65535><br>● <config># snmp host HOSTNAME traps <NAME> udp-port <1-65535> retries <1-255><br>● <config># snmp host HOSTNAME traps <NAME> udp-port <1-65535> timeout <1-300> |

| | |
|---|---|
| | • <config># snmp host HOSTNAME traps <NAME> udp-port <1-65535> timeout <1-300> retries <1-255><br>• <config># snmp host HOSTNAME traps version <1/2c/3> <NAME> retries <1-255><br>• <config># snmp host HOSTNAME traps version <1/2c/3> <NAME> timeout <1-300><br>• <config># snmp host HOSTNAME traps version <1/2c/3> <NAME> timeout <1-300> retries <1-255><br>• <config># snmp host HOSTNAME traps version <1/2c/3> <NAME> udp-port <1-65535><br>• <config># snmp host HOSTNAME traps version <1/2c/3> <NAME> udp-port <1-65535> retries <1-255><br>• <config># snmp host HOSTNAME traps version <1/2c/3> <NAME> udp-port <1-65535> timeout <1-300><br>• <config># snmp host HOSTNAME traps version <1/2c/3> <NAME> udp-port <1-65535> timeout <1-300> retries <1-255><br>• <config># snmp host HOSTNAME version <1/2c/3> <NAME><br>• <config># snmp host HOSTNAME version <1/2c/3> <NAME> retries <1-255><br>• <config># snmp host HOSTNAME version <1/2c/3> <NAME> timeout <1-300><br>• <config># snmp host HOSTNAME version <1/2c/3> <NAME> timeout <1-300> retries <1-255><br>• <config># snmp host HOSTNAME version <1/2c/3> <NAME> udp-port <1-65535><br>• <config># snmp host HOSTNAME version <1/2c/3> <NAME> udp-port <1-65535> retries <1-255><br>• <config># snmp host HOSTNAME version <1/2c/3> <NAME> udp-port <1-65535> timeout <1-300><br>• <config># snmp host HOSTNAME version <1/2c/3> <NAME> udp-port <1-65535> timeout <1-300> retries <1-255> |
| | • <config># snmp host <X:X::X:X> <NAME><br>• <config># snmp host <X:X::X:X> <NAME> retries <1-255><br>• <config># snmp host <X:X::X:X> <NAME> retries <1-255> timeout <1-300><br>• <config># snmp host <X:X::X:X> <NAME> retries <1-255> timeout <1-300> retries <1-255><br>• <config># snmp host <X:X::X:X> <NAME> udp-port <1-65535><br>• <config># snmp host <X:X::X:X> <NAME> udp-port <1-65535> retries <1-255><br>• <config># snmp host <X:X::X:X> <NAME> udp-port <1-65535> timeout <1-300><br>• <config># snmp host <X:X::X:X> <NAME> udp-port <1-65535> timeout <1-300> retries <1-255><br>• <config># snmp host <X:X::X:X> informs <NAME><br>• <config># snmp host <X:X::X:X> informs <NAME> retries <1-255><br>• <config># snmp host <X:X::X:X> informs <NAME> timeout <1-300><br>• <config># snmp host <X:X::X:X>informs <NAME> retries <1-255> timeout <1-300> retries <1-255><br>• <config># snmp host <X:X::X:X> informs <NAME> udp-port <1-65535><br>• <config># snmp host <X:X::X:X> informs <NAME> udp-port <1-65535> retries <1-255><br>• <config># snmp host <X:X::X:X> informs <NAME> udp-port <1-65535> timeout <1-300><br>• <config># snmp host <X:X::X:X> informs <NAME> udp-port <1-65535> timeout <1-300> retries <1-255><br>• <config># snmp host <X:X::X:X> traps <NAME><br>• <config># snmp host <X:X::X:X> traps <NAME> retries <1-255> |

| | |
|---|---|
| | ● <config># snmp host <X:X::X:X> traps <NAME> timeout <1-300><br>● <config># snmp host <X:X::X:X> traps <NAME> timeout <1-300> retries <1-255><br>● <config># snmp host <X:X::X:X> traps <NAME> udp-port <1-65535><br>● <config># snmp host <X:X::X:X> traps <NAME> udp-port <1-65535> retries <1-255><br>● <config># snmp host <X:X::X:X> traps <NAME> udp-port <1-65535> timeout <1-300><br>● <config># snmp host <X:X::X:X> traps <NAME> udp-port <1-65535> timeout <1-300> retries <1-255><br>● <config># snmp host <X:X::X:X> version <1/2c/3> <NAME><br>● <config># snmp host <X:X::X:X> version <1/2c/3> <NAME> retries <1-255><br>● <config># snmp host <X:X::X:X> version <1/2c/3> <NAME> timeout <1-300><br>● <config># snmp host <X:X::X:X> version <1/2c/3> <NAME> timeout <1-300> retries <1-255><br>● <config># snmp host <X:X::X:X> version <1/2c/3> <NAME> udp-port <1-65535><br>● <config># snmp host <X:X::X:X> version <1/2c/3> <NAME> udp-port <1-65535> retries <1-255><br>● <config># snmp host <X:X::X:X> version <1/2c/3> <NAME> udp-port <1-65535> timeout <1-300><br>● <config># snmp host <X:X::X:X> version <1/2c/3> <NAME> udp-port <1-65535> timeout <1-300> retries <1-255> |
| *snmp trap* | snmp trap - Send the SNMP traps.<br>auth – Enable the SNMP authentication failure trap.<br>cold-start – Enable the SNMP cold startup failure trap.<br>linkUpDown – Enable the SNMP link up and down failure trap.<br>wort-security – Enable the SNMP port security trap.<br>Warm-start – Enable the SNMP warm startup failure trap.<br>**Related Syntax:**<br>● <config># snmp trap <auth / cold-start / linkUpDown / port-security / warm-start> |
| *snmp user* | snmp user - Set SNMP user account.<br><username> - Specify a name of SNMP user.<br><groupNAME> - Sepcify a name of SNMP group.<br>auth <md5/sha> - Specify the authentication mode, md5 or sha.<br><AUTHPASSWD> - Enter the password for the md5/sha mode.<br>Pri <PRIVPASSWD> - Enter a password as a privacy key.<br>**Related Syntax:**<br>● <config># snmp user <username> <groupNAME><br>● <config># snmp user <username> <groupNAME> auth <md5/sha> <AUTHPASSWD><br>● <config># snmp user <username> <groupNAME> auth <md5/sha> <AUTHPASSWD> priv <PRIVPASSWD> |
| *snmp view* | snmp view - Set the SNMP view.<br><NAME> - Enter the SNMP view name.<br>Subtree <OID> - Specify the ASN.1 subtree object identifier (OID).<br>oid-mask <mask/all> **-** Speicfy the OID mask, or use all for all masks.<br>viewtype <exluded/included> **-** Let the selected MIBs include or exclude in the SNMP view.<br>**Related Syntax:** |

| | |
|---|---|
| | ● <config># snmp view <NAME> subtree <OID> oid-mask <mask> viewtype <excluded/included> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# snmp engineid remote 192.168.2.38 00036D001188
G2540xs(config)# snmp engineid remote 00:50::16:88 00036D002288
G2540xs(config)# snmp host 192.168.2.89 CAR_community udp-port 1500 timeout
200
G2540xs(config)# snmp host 192.168.2.88 informs version 2c CAR_community
udp-port 3000 timeout 180 retries 35
G2540xs(config)# snmp host 192.168.2.88 traps version 2c CAR_traps udp-port
6500 timeout 60 retries 2
G2540xs(config)# snmp host 192.168.2.88 version 2c CAR_version udp-port 3000
timeout 60 retries 2
G2540xs(config)# snmp host HOSTNAME CAR_host udp-port 3000 timeout 60 retries
G2540xs(config)# snmp host HOSTNAME informs HA_informs udp-port 3000 timeout
60 retries 2
G2540xs(config)# snmp host HOSTNAME version 2c HT_verstion udp-port 3000
timeout 60 retries 2
G2540xs(config)# snmp user CA_user_1 CA_group_1 auth md5 CA12345678 priv
PR12345678
G2540xs(config)# snmp view CAR_community subtree 10 oid-mask 9 viewtype
included
G2540xs(config)#
```

## Telnet Command: sntp

Use this command to configure settings for remote SNTP server.

### Syntax Items

**sntp host**

### Description

| Syntax Items | Description |
|---|---|
| *sntp host* | Set the remote SNTP server by specifying IP address or hostname.<br><HOSTNAME> - Enter the IP address or hostname of SNTP server.<br><1-65535> - Specify the port number for the SNTP server.<br>**Related Syntax:**<br>● <config># sntp host <HOSTNAME><br>● <config># sntp host <HOSTNAME>> port <1-65535> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# sntp host KEY1245 port 3000
G2540xs(config)#
```

## Telnet Command: spanning-tree

Use this command to configure settings for spanning-tree.

## Syntax Items

**spanning-tree**
**spanning-tree bpdu**
**spanning-tree forward-delay**
**spanning-tree hello-time**
**spanning-tree max-hops**
**spanning-tree maximum-age**
**spanning-tree mode**
**spanning-tree mst**
**spanning-tree pathcost**
**spanning-tree priority**
**spanning-tree tx-hold-count**

## Description

| Syntax Items | Description |
|---|---|
| *spanning-tree* | Enable the function of spanning-tree.<br>**Related Syntax:**<br>● <config># spanning-tree |
| *spanning-tree bpdu* | Filter/flood the BPDU packets.<br><filtering> - Packets will be filtered when STP is disabled on specified interface.<br><flooding> - Packets will be flooded to all interfaces with STP disabled and flooding mode.<br>**Related Syntax:**<br>● <config># spanning-tree bpdu<filtering/flooding> |
| *spanning-tree forward-delay* | Set the STP forward delay time.<br><4-30> - Default value is 15 (seconds).<br>**Related Syntax:**<br>● <config># spanning-tree forward-delay <4-30> |
| *spanning-tree hello-time* | Set the hello time interval to broadcast the message to other bridges.<br><1-10> - Default value is 2 (seconds).<br>**Related Syntax:**<br>● <config># spanning-tree hello-time <1-10> |
| *spanning-tree max-hops* | Set the number of hops for BPDI packets to be forwarded in the MSTP region.<br><1-40> - Default value is 20 (seconds).<br>**Related Syntax:**<br>● <config># spanning-tree max-hops <1-40> |
| *spanning-tree maximum-age* | Set the time interval for VigorSwitch to wait without receiving the configuration message.<br><6-40> - Default value is 20 (seconds).<br>**Related Syntax:**<br>● <config># spanning-tree maximum-age <6-40> |
| *spanning-tree mode* | <mstp/rstp/stp> - Specify the operation mode for spanning tree, such as multiple spanning tree (MSTP), rapid spanning tree (RSTP) or spanning tree (STP).<br>**Related Syntax:** |

| | |
|---|---|
| | • <config># spanning-tree mode <mstp/rstp/stp> |
| *spanning-tree mst* | *spanning-tree mst* - Configure port priority settings for MST.<br><0-15> - Specify the instance ID.<br><0-61440> - Set the priority for the specified instance ID.<br>**Related Syntax:**<br>• <config># spanning-tree mst <0-15> priority <0-61440> |
| | spanning-tree mst configuration - Access into the MSTP configuration mode. To configure detailed settings, access into next level.<br><config># spanning-tree mst configuration<br><config-mst>#<br>Then, available sub-commands are:<br><config-mst>#do<br><config-mst># end<br><config-mst># exit<br><config-mst># instance<br><config-mst># name<br><config-mst># no<br><config-mst># revision<br>do <SEQUENCE> - Enter the action to be performed.<br>end - End current mode.<br>exit - Exit from current mode.<br>instance <0-15> vlan <1-4094> - Specify the instance ID number and VLAN ID number.<br>name <NAME> - Set a name of MST configuration.<br>no - Set to default setting.<br>revision <0-65535> - Set revision level. |
| *spanning-tree pathcost* | Set the path-cost method for spanning tree.<br><long/short> - Long means the path cost ranging from 1 to 200000000; short means the path cost ranging from 1 to 65535.<br>**Related Syntax:**<br>• <config># spanning-tree pathcost method <long/short> |
| *spanning-tree priority* | Set the priority for the specified instance ID.<br><0-61440> - The number must be multiple of 4096.<br>**Related Syntax:**<br>• <config># spanning-tree priority <0-61440> |
| *spanning-tree tx-hold-count* | Set the maximum number of packets transmission per second.<br><1-10> - Valid range is from 1 to 10.<br>**Related Syntax:**<br>• <config># spanning-tree tx-hold-count <1-10> |

## Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# spanning-tree forward-delay 20
G2540xs(config)#
G2540xs(config)# spanning-tree maximum-age 38
G2540xs(config)#
G2540xs(config)# spanning-tree tx-hold-count 3
G2540xs(config)#
```

## Telnet Command: start-up

Use this command to restart ICP status after rebooting VigorSwitch.

### Syntax Items

**start-up icp**

### Description

| Syntax Items | Description |
|---|---|
| *start-up icp* | **Related Syntax:**<br>● <config># start-up icp enable |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# start-up icp enable
G2540xs(config)#
```

## Telnet Command: storm-control

Use this command to configure settings for Storm Control.

### Syntax Items

**storm-control ifg exclude**
**storm-control ifg include**
**storm-control unit bps**
**storm-control unit pps**

### Description

| Syntax Items | Description |
|---|---|
| *storm-control ifg exclude* | Exclude the preamble and IFG (inter frame gap) into the calculating.<br>**Related Syntax:**<br>● <config># storm-control ifg exclude |
| *storm-control ifg include* | Include the preamble and IFG (inter frame gap) into the calculating.<br>**Related Syntax:**<br>● <config># storm-control ifg include |
| *storm-control unit bps* | Change the unit of calculating method for storm-control.<br>bps - Calculate the storm control rate by octet-based.<br>**Related Syntax:**<br>● <config># storm-control unit bps |
| *storm-control unit pps* | Change the unit of calculating method for storm-control.<br>pps - Calculate the storm control rate by packet-based.<br>**Related Syntax:**<br>● <config># storm-control unit pps |

### Example

```
G2540xs# configure
```

```
G2540xs(config)#
G2540xs(config)# storm-control ifg exclude
G2540xs(config)#
G2540xs(config)# storm-control unit bps
G2540xs(config)#
```

## Telnet Command: surveillance-vlan

Use this command to configure settings for surveillance-VLAN.

### Syntax Items

**surveillance-vlan**
**surveillance-vlan aging-time**
**surveillance-vlan cos**
**surveillance-vlan oui-table**
**surveillance-vlan vlan**

### Description

| Syntax Items | Description |
|---|---|
| *surveillance-vlan* | Enable the function of surveillance VLAN on VigorSwitch.<br>**Related Syntax:**<br>● <config># surveillance-vlan |
| *surveillance-vlan aging-time* | Set the aging time for surveillance VLAN.<br><30-65536> - Enter a value as aging time.<br>**Related Syntax:**<br>● <config># surveillance-vlan aging-time <30-65536> |
| *surveillance-vlan cos* | Set the class of service (0~7) for surveillance VLAN.<br><0-7>- Enter a number.<br>**Related Syntax:**<br>● <config># surveillance-vlan cos <0-7> remark |
| *surveillance-vlan oui-table* | Enable OUI surveillance VLAN configuration for specified interface.<br><A:B:C> - Enter the OUI address (e.g., 00:50:12).<br><DESCRIPTION> - Enter a string to briefly explain the surveillance VLAN.<br>**Related Syntax:**<br>● <config># surveillance-vlan oui-table <A:B:C> <DESCRIPTION> |
| *surveillance-vlan vlan* | Specify a VLAN profile as surveillance VLAN.<br><2-4094> - Specify the surveillance VLAN ID.<br>**Related Syntax:**<br>● <config># surveillance-vlan vlan <2-4094> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)#
G2540xs(config)# surveillance-vlan aging-time 60
G2540xs(config)#
G2540xs(config)# surveillance-vlan oui-table 00:50:12 fortestonly
G2540xs(config)#
```

## Telnet Command: system

Use this command to modify the contact information of VigorSwitch.

### Syntax Items

**system contact**

**system location**

**system name**

### Description

| Syntax Items | Description |
|---|---|
| *system contact* | <CONTACT> - Enter a string (maximum length: 256 characters).<br>**Related Syntax:**<br>● <config># system contact <CONTACT> |
| *system location* | <LOCATION> - Specify the location of the host.<br>**Related Syntax:**<br>● <config># system location <LOCATION> |
| *system name* | <NAME> - Change the name of the system. The default name is “G2540xs”.<br>**Related Syntax:**<br>● <config># system name <NAME> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# system contact callMIS
G2540xs(config)#
G2540xs(config)# system location DrayTek
G2540xs(config)# system name UPDATEFRIM
UPDATEFRIM(config)#
```

## Telnet Command: tacacs

Use this command to configure TACACS+ server.

### Syntax Items

**tacacs default-config**

**tacacs host**

### Description

| Syntax Items | Description |
|---|---|
| *tacacs default-config* | Set the default parameters for the TACACS+ server.<br>Modify the default parameters of server key and timeout setting for the TACACS+ server.<br><TACPLUSKEY> - Enter a string as the TACACS+ server key.<br><1-30> - Enter a value as the TACACS+ server timeout.<br>**Related Syntax:**<br>● <config># tacacs default-config |

| | |
|---|---|
| | • <config># tacacs default-config key <TACPLUSKEY><br>• <config># tacacs default-config key <TACPLUSKEY> timeout <1-30> |
| *tacacs host* | Set host name for the TACACS+ server or set host name, server key and priority for the TACACS+ server.<br><HOSTNAME> - Enter the host name of the TACACS+ server.<br><TACPLUSKEY> - Enter a string as the TACACS+ server key.<br><0-65535> - Enter a value as server priority in server group.<br><1-30> - Enter a timeout setting.<br>**Related Syntax:**<br>• <config># tacacs host <HOSTNAME><br>• <config># tacacs host <HOSTNAME> key <TACPLUSKEY><br>• <config># tacacs host <HOSTNAME> key <TACPLUSKEY> priority <0-65535><br>• <config># tacacs host <HOSTNAME> key <TACPLUSKEY> priority <0-65535> timeout <1-30> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# tacacs default-config key tce00056 timeout 25
G2540xs(config)#
G2540xs(config)# tacacs host carrie02 key TA012345 priority 3000 timeout 10
G2540xs(config)#
```

## Telnet Command: tr069

Use this command to configure parameter settings of TR-069.

### Syntax Items

**tr069 acsPwd**
**tr069 acsUsername**
**tr069 acsurl**
**tr069 cpeEnable**
**tr069 cpePwd**
**tr069 cpeUsername**
**tr069 cpeport**
**tr069 get**
**tr069 healthlinkstatus**
**tr069 healthpoewarning**
**tr069 healthspeedstatus**
**tr069 periodicInfo**
**tr069 periodicTime Time**
**tr069 set**
**tr069 ssl**
**tr069 stun**
**tr069 stunMAXkeepalive**
**tr069 stunMINkeepalive**
**tr069 stunaddr**
**tr069 stunport**
**tr069 tls**

### Description

| Syntax Items | Description |
|---|---|

| | |
|---|---|
| *tr069 acsPwd* | <PASSWORD> - Enter the password used for registering to VigorACS server.<br>**Related Syntax:**<br>● <config># tr069 acsPwd<PASSWORD> |
| *tr069 acsUsername* | <NAME> - Enter the username used for registering to VigorACS server.<br>**Related Syntax:**<br>● <config># tr069 acsUsername<NAME> |
| *tr069 acsurl* | <ADDRESS> - Enter the URL for VigorACS server.<br>**Related Syntax:**<br>● <config># tr069 acsurl <ADDRESS> |
| *tr069 cpeEnable* | <disable/enable> - Enter Enable for VigorACS controlling such CPE through the Internet.<br>**Related Syntax:**<br>● <config># tr069 cpeEnable <disable/enable> |
| *tr069 cpePwd* | <PASSWORD> - Enter the password that VigorACS server can use it to authenticate and control the CPE device.<br>**Related Syntax:**<br>● <config># tr069 cpePwd <PASSWORD> |
| *tr069 cpeUsername* | <NAME> - Enter the username that VigorACS server can use it to authenticate and control the CPE device.<br>**Related Syntax:**<br>● <config># tr069 cpeUsername <NAME> |
| *tr069 cpeport* | <0-65535> - Enter the port number for CPE.<br>**Related Syntax:**<br>● <config># tr069 cpeport <0-65535> |
| *Tr069 get* | Display the parameter settings for TR-069.<br>**Related Syntax:**<br>● <config># tr069 get PARM<br>● <config># tr069 get PARM INPUT |
| *tr069 healthlinkstatus* | Perform the health check for the link status of specified interface(s).<br><PORTLIST> - Specify the interface, such as GE1, GE3-GE5 and so on.<br>**Related Syntax:**<br>● <config># tr069 healthlinkstatus <PORTLIST> |
| *tr069 healthpoewarning* | Perform the health check for PoE port warning status.<br><PORTLIST> - Specify the interface, such as GE1, GE3-GE5 and so on.<br>**Related Syntax:**<br>● <config># tr069 healthpoewarning <PORTLIST> |
| *tr069 healthspeedstatus* | Perform the health check for link speed status of specified interface(s).<br><PORTLIST> - Specify the interface, such as GE1, GE3-GE5 and so on.<br>**Related Syntax:**<br>● <config># tr069 healthspeedstatus <PORTLIST> |

| | |
|---|---|
| *tr069 periodicInfo* | <disable/enable> - Enter Enable to activate periodic information setting.<br>**Related Syntax:**<br>● <config># tr069 periodicInfo <disable/enable> |
| *tr069 periodicTime TIME* | Update the CPE information to VigorACS server.<br>**Related Syntax:**<br>● <config># tr069 periodicTime TIME |
| *tr069 set* | Set the parameter settings for TR-069.<br>**Related Syntax:**<br>● <config># tr069 set PARM |
| *tr069 ssl* | <disable/enable> - Enter Enable to enable CPE management protocol with SSL.<br>**Related Syntax:**<br>● <config># tr069 ssl <disable/enable> |
| *tr069 stun* | <disable/enable> - Enter Enable to enable CPE management protocol with STUN server.<br>**Related Syntax:**<br>● <config># tr069 stun <disable/enable> |
| *tr069 stunMAXkeepalive* | Set the maximum time period for CPE to send the binding request to VigorACS server.<br><0-65535> - Enter a number.<br>**Related Syntax:**<br>● <config># tr069 stunMAXkeepalive <0-65535> |
| *tr069 stunMINkeepalive* | Set the minimum time period for CPE to send the binding request to VigorACS server.<br><0-65535> - Enter a number.<br>**Related Syntax:**<br>● <config># tr069 stunMINkeepalive <0-65535> |
| *tr069 stunaddr* | <ADDRESS> - Enter the URL/IP address of STUN server.<br>**Related Syntax:**<br>● <config># tr069 stunaddr <ADDRESS> |
| *tr069 stunport* | <0-65535> - Set the port number for STUN server.<br>**Related Syntax:**<br>● <config># tr069 stunport <0-65535> |
| *tr069 tls* | <tlsl.2/tls1.3> - Set the TLS version (2 or 3) for VigorSwitch.<br>**Related Syntax:**<br>● <config># tr069 tls version <tlsl.2/tls1.3> |

## Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# tr069 stunaddr 192.168.3.99
G2540xs(config)#
```

## Telnet Command: udld

Use this command to set the time interval of UniDirectional Link Detection (UDLD) sent message.

### Syntax Items

**udld**

### Description

| Syntax Items | Description |
|---|---|
| *udld message time* | <1-90> - Specify a time interval for sending message.<br>**Related Syntax:**<br>● <config>#udld message time <1-90> |

### Example

```
G2540xs# configure
G2540xs(config)# udld message time 35
G2540xs(config)#
```

## Telnet Command: username

Use this command to add a new user account or edit an existing user account.

### Syntax Items

**username**

### Description

| Syntax Items | Description |
|---|---|
| *username* | privilege - Set a user account with the privilege of admin, user or customized level.<br>secret - Set a user account with unencrypted password.<br>secret encrypted - Set a user account with encrypted password.<br><WORD> - Enter the name (0~32 characters) of the local user profile.<br><admin/ user> - Specify the privilege level to be admin (privilege 15) / user (privilege 1).<br><PASSWORD> - Enter a string as the password for the local user.<br>**Related Syntax:**<br>● <config># username <WORD> privilege <admin/user> secret <PASSWORD><br>● <config># username <WORD> secret <PASSWORD><br>● <config># username <WORD> secret encrypted <PASSWORD> |

### Example

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# username carrie_1 privilege admin secret md123456
G2540xs(config)#
G2540xs(config)# username carrie_1 secret encrypted ca123456
Old password: ********
```

```
G2540xs(config)#
```

## Telnet Command: vlan

Use this command to configure detailed settings for VLAN profile.

Before configuring, you have to access into next phase. See the following example:

```
G2540xs# configure
G2540xs(config)#
G2540xs(config)# vlan 3
G2540xs(config-vlan)#
```

### Syntax Items

**vlan vlan-list**
**vlan mac-vlan group**
**vlan protocol-vlan group**

### Description

| Syntax Items | Description |
|---|---|
| *vlan* | Specify the index number of VLAN profile. To configure detailed settings, access into next level.<br><vlan-list> - The available range is 1 to 4094.<br><config># vlan 33<br><config-vlan>#<br>Then, available sub-commands are:<br><config-vlan>#do<br><config-vlan>#end<br><config-vlan>#exit<br><config-vlan>#name |
| | Use the “do” command to run execution command in current mode.<br><SEQUENCE> -<br>**Related Syntax:**<br>● <config-vlan>#do <SEQUENCE> |
| | Use the “end” command to finish current mode. Any changes in current mode will be saved.<br>**Related Syntax:**<br>● <config-vlan>#end |
| | Use the “exit” command to close the current CLI session or return to the previous mode without saving the settings.<br>**Related Syntax:**<br>● <config-macl>#exit |
| | Use the “name” command to add a VLAN profile.<br><string> - Enter the name of the VLAN profile.<br>**Related Syntax:**<br>● <config-vlan>#name <string> |
| *vlan mac-vlan group* | Create a MAC-vlan group.<br><1-2147483647> - Specify a group ID.<br><A:B:C:D:E:F> - Enter the MAC address to be mapped.<br><9-48> - Enter a number representing the subnet mask.<br>**Related Syntax:**<br>● <config># vlan mac-vlan group <1-2147483647> <A:B:C:D:E:F> |

| | |
|---|---|
| | mask <9-48> |
| *vlan protocol-vlan group* | Create a protocol VLAN group with specified protocol type and value.<br><1-8> - Enter a number to specify a VLAN group.<br><Ethernet_ii/ 11c_other/snap_1042> - Specify a frame type by entering Ethernet_ii, 11c_other or snap_1042.<br><value> - Enter a value (0x0600~0xFFFE).<br>**Related Syntax:**<br>● <config># vlan protocol-vlan group <1-8> frame-type <Ethernet_ii/ 11c_other/snap_1042> protocol-value <value> |

### Example

```
G2540xs# configure
G2540xs(config)# vlan 3
G2540xs(config-vlan)#
G2540xs(config-vlan)# name vlan_friends
G2540xs(config-vlan)#
…
G2540xs(config)# vlan mac-vlan group 33 00:50:17:22:12:ff mask 10
G2540xs(config)# vlan group 1 frame-type ethernet_ii protocol-value 0x0600
G2540xs(config)#
```

## Telnet Command: voice-vlan

Use this command to enable voice VLAN and configure settings for voice VLAN.

### Syntax Items

**voice-vlan aging-time**
**voice-vlan cos**
**voice-vlan oui-table**
**voice-vlan vlan**

### Description

| Syntax Items | Description |
|---|---|
| *voice-vlan aging-time* | Set the voice VLAN aging timeout interval.<br><30-65536> - The unit is minute. Default is 1440 (minutes).<br><string> - Enter the name of the VLAN profile.<br>**Related Syntax:**<br>● <config># voice-vlan aging-time <30-65536> |
| *voice-vlan cos* | Set the voice VLAN cos value and remark function.<br>Specify the class of service for voice VLAN.<br><0-7> - CoS value. Default is 6. Remark is disabled.<br>remark – L2 user priority is remarked with the CoS value.<br>**Related Syntax:**<br>● <config># voice-vlan cos <0-7> remark |
| *voice-vlan oui-table* | Add or remove the selected OUI to/from the OUI table. In default, there are 8 OUI addresses.<br><A:B:C> - Enter the OUI address.<br><DESCRIPTION> - Enter a brief description for the specified MAC address to the voice VLAN OUI table.<br>**Related Syntax:** |

| | |
|---|---|
| | ● <config># voice-vlan cos <0-7> remark |
| *voice-vlan vlan* | Set the VLAN identifier of the voice VLAN.<br><2-4094> - Enter the number of VLAN ID.<br>**Related Syntax:**<br>● <config># voice-vlan vlan <2-4094> |

## Example

```
G2540xs# configure
G2540xs(config)# voice-vlan aging-time 1000
G2540xs(config)#
G2540xs(config)# voice-vlan oui-table 22:30:ff test_01
G2540xs(config)#
G2540xs(config)# voice-vlan oui-table 00:01:E2 STAMP
G2540xs(config)# exit
G2540xs# show voice-vlan interfaces gigabitEthernet 1
Voice VLAN Aging    : 1000 minutes
Voice VLAN CoS      : 6
Voice VLAN 1p Remark: disabled

OUI table
   OUI MAC    |   Description
--------------+-----------------
   00:E0:BB   | 3COM
   00:03:6B   | Cisco
   00:E0:75   | Veritel
   00:D0:1E   | Pingtel
   00:01:E3   | Siemens
   00:60:B9   | NEC/Philips
   00:0F:E2   | H3C
   00:09:6E   | Avaya
   22:30:FF   | test_01
   00:01:E2   | STAMP

  Port | State    | Port Mode   | Cos Mode
-------+----------+-------------+-----------
gi1    | Disabled |    Auto     | Src
G2540xs#
```

# Telnet Command: webhook

Use this command to enable or disable the webhook service.

## Syntax Items

**webhook active**

**webhook host**

**webhook interval**

**webhook keep**

## Description

| Syntax Items | Description |
|---|---|
| *webhook active* | <enable/disable> - Enable or disable the webhook application.<br>**Related Syntax:**<br>● <config># webhook active <enable/disable> |
| *webhook host* | Specify the destination (URL, domain name, IP address) to receive the data transferred by VigorSwitch. |

| | |
|---|---|
| | ip <ADDRESS> - Enter the IP address of the destination.<br>path <PATH> - Enter the path string (part of the composition of the URL) of the destination.<br>port <number> - Enter a port number.<br>service <http/https> - Specify the protocol (http or https) of the destination.<br>url <domain name> - Enter the domain name (e.g., draytek.com) of the destination. Note that it is not necessary to enter this information if IP address has been set first.<br>**Related Syntax:**<br>● <config># webhook host ip <ADDRESS><br>● <config># webhook host path <PATH><br>● <config># webhook host port <number><br>● <config># webhook host service <http/https><br>● <config># webhook host url <domain name> |
| *webhook interval* | <1-60> - Set the transmission interval (unit is minute).<br>**Related Syntax:**<br>● <config># webhook interval <1-60> |
| *webhook keep* | setings <enable/disable> - Enable or disable the function of keep webhook settings.<br>**Related Syntax:**<br>● <config># webhook keep setings <enable/disable> |

## Example

```
G2540xs# configure
G2540xs(config)# webhook host service https
G2540xs(config)# webhook host url www.demo.com
G2540xs(config)# webhook host path Draytek/demo
G2540xs(config)# webhook host port 443
G2540xs(config)# webhook interval 2
```

## XII-2-4 Copy Configuration

Use this command to upgrade firmware image, configuration file, syslog file, language file and security certificate.

### Syntax Items

**copy flash://**

**copy tftp://**

**copy backup-config**

**copy running-config**

**copy startup-config**

### Description

| Syntax Items | Description |
|---|---|
| *copy flash://* | **Related Syntax:**<br>● # copy flash:// flash://<br>● # copy flash:// tftp:// |
| *copy running-config* | startup-config - Copy the running configuration file to startup configuration.<br>tftp://- Copy the running configuration file to remote TFTP server with a filename.<br><IP address> - Enter the IP address of TFTP sever.<br><filename> - Create a name to save the configuration file.<br>**Related Syntax:**<br>● # copy running-config backup-config<br>● # copy running-config startup-config<br>● # copy running-config tftp:// |
| *copy startup-config* | running-config - Copy the startup configuration file to the running configuration.<br>tftp://- Copy the startup configuration file to remote TFTP server with a filename.<br><IP address> - Enter the IP address of TFTP sever.<br><filename> - Create a name to save the configuration file.<br>**Related Syntax:**<br>● # copy startup-config backup-config<br>● # copy startup-config running-config<br>● # copy startup-config tftp:// |
| *copy* tftp:// | Backup-config - Get the backup configuration from specified TFTP server.<br>running-config - Get the running configuration from specified TFTP server.<br>startup-config - Get the startup configuration from specified TFTP server.<br>**Related Syntax:**<br>● # copy tftp:// flash://<br>● # copy tftp:// startup-config<br>● # copy tftp:// tftp:// |

### Example

```
G2540xs# copy running-config tftp://172.16.3.8/test_carrie.cfg
Uploading file. Please wait...
Save configuration done.
G2540xs# copy startup-config tftp://172.16.3.8/test_da.cfg
Uploading file. Please wait...
Save configuration done.
G2540xs#
```

## XII-2-5 Delete Configuration

Use this command to delete a file from the FLASH file system or restore the factory default settings of VigorSwitch.

### Syntax Items

**delete flash:// startup-config**

**delete startup-config**

### Description

| Syntax Items | Description |
|---|---|
| *delete flash://startup-config* | Delete the startup configuration file in FLASH file system.<br>**Related Syntax:**<br>● # delete flash://startup-config |
| *delete system* | Delete the firmware image0/image1 stored in FLASH file system. <image0/image1> -<br>**Related Syntax:**<br>● # delete system <image0/image1> |

### Example

```
G2540xs# delet flash://startup-config
Delete flash://startup-config [y/n] y
Do you want to reload the system to take effect? [y/n] y
…
```

## XII-2-6 Disable Configuration

All commands used will be divided into EXEC mode and Privileged EXEC mode. This command is to turn off privileged mode command.

Default privilege level is 15 if no privilege level is specified on enable command.

Default privilege level is 1 if no privilege level is specified on disable command.

### Syntax Items

**disable**

### Description

| Syntax Items | Description |
|---|---|
| disable | <1-14> - Enter a number to specify the privilege level.<br>**Related Syntax:**<br>● # disable <1-14> |

### Example

```
G2540xs# disable ?
  <1-14>  Privilege level
  <cr>
G2540xs# disable 3
G2540xs#
```

## XII-2-7 End Configuration

Use this command to end current mode.

### Syntax Items

**end**

### Example

```
G2540xs(config)# interface GigabitEthernet 3
G2540xs(config-if)# end
G2540xs#
```

## XII-2-8 Exit Configuration

Use this command to close current CLI session or return to previous mode.

### Syntax Items

**exit**

### Example

```
G2540xs(config)# interface GigabitEthernet 3
G2540xs(config-if)# exit
G2540xs(config)#
```

## XII-2-9 Hardware-Monitor Configuration

Use this command to execute the hardware fan test.

### Syntax Items

**hardware-monitor fan-test**

### Example

```
G2540xs# hardware-monitor fan-test
Test Start...
Fan1 Success
Fan2 Success
Fan3 Success
Test Done.
G2540xs#
```

## XII-2-10 Ping Configuration

Use this command to send ICMP ECHO_REQUEST to network hosts.

### Syntax Items

**ping**

### Description

| Syntax Items | Description |
|---|---|
| *ping* | <HOSTNAME> - Enter an IPv4/IPv6 address or a domain name to ping.<br>count <1-999999999> - Specify the number of repetitions of ping operation.<br>**Related Syntax:**<br>● # ping <HOSTNAME> count <1-999999999> |

### Example

```
G2540xs# ping 192.168.1.11 count 3
PING 192.168.1.11 (192.168.1.11): 56 data bytes
64 bytes from 192.168.1.11: icmp_seq=0 ttl=64 time=0.0 ms
64 bytes from 192.168.1.11: icmp_seq=1 ttl=64 time=0.0 ms
64 bytes from 192.168.1.11: icmp_seq=2 ttl=64 time=0.0 ms

--- 192.168.1.11 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 0.0/0.0/0.0 ms
G2540xs#
```

## XII-2-11 Reboot Configuration

Use this command to perform a cold restart of VigorSwitch.

### Syntax Items

**reboot**

### Example

```
G2540xs# reboot
G2540xs#
```

## XII-2-12 Renew Configuration

Use this command to renew DHCP Snooping database from backup file.

### Syntax Items

**renew ip dhcp snooping database**

### Example

```
G2540xs# renew ip dhcp snooping database
G2540xs#
```

## XII-2-13 Restore-defaults Configuration

Use this command to restore the factory default settings for the system or for the selected port.

### Syntax Items

**restore-defaults**

### Description

| Syntax Items | Description |
|---|---|
| *restore-defaults* | <1-6> - Enter the number of LAN port (10G).<br><1-48> - Enter the number (1 to 48) of LAN port.<br><1-8> - Enter the number of LAG port.<br>**Related Syntax:**<br>● # restore-defaults<br>● # restore-defaults interfaces 10GigabitEthernet <1-6><br>● # restore-defaults interfaces GigabitEthernet <1-48><br>● # restore-defaults interfaces LAG <1-8> |

### Example

```
G2540xs# restore-defaults interfaces gigabitethernet 3
Interface gi3: restore factory defaults.
```

```
G2540xs#
G2540xs# restore-default
System: restore factory defaults. Do you want to reboot now? (y/n)y
```

## XII-2-14 Save Configuration

Use this command to save configuration and activate the settings.

Note that this command has the same effect as "copy running-config startup-config".

### Syntax Items

**save**

### Example

```
G2540xs# save
Success
G2540xs#
```

## XII-2-15 Show Configuration

After finished the command setting, use this command to display the configuration for all commands.

### Syntax Items

**show** <command>

### Example

```
G2540xs# show acl utilization
Type: sys                        usage: 256
Type: IPSG                       usage: 128
Type: Auth                       usage: 128
G2540xs#
G2540xs#
G2540xs# show arp
Address          HWtype  HWaddress          Flags Mask        Iface
192.168.1.55     ether   00:1D:AA:F0:26:08   C                 eth0
192.168.1.10     ether   00:05:5D:E4:D8:EE   C                 eth0
G2540xs# show voice-vlan interfaces gigabitethernet 3
Voice VLAN Aging    : 1440 minutes
Voice VLAN CoS      : 6
Voice VLAN 1p Remark: disabled

OUI table
   OUI MAC    |   Description
--------------+-----------------
   00:E0:BB   | 3COM
   00:03:6B   | Cisco
   00:E0:75   | Veritel
```

```
   00:D0:1E   | Pingtel
   00:01:E3   | Siemens
   00:60:B9   | NEC/Philips
   00:0F:E2   | H3C
   00:09:6E   | Avaya

  Port | State    | Port Mode   | Cos Mode
-------+----------+-------------+-----------
gi3    | Disabled |    Auto     | Src
G2540xs#
```

## XII-2-16 SSL Configuration

Use this command to generate security certificate files such as RSA, DSA.

After entering the command of SSL, follow the onscreen questions to give the required information.

### Syntax Items

**ssl**

### Example

```
G2540xs# ssl
Generating a 1024 bit RSA private key
.........................................++++++
.........................++++++
writing new private key to '/mnt/ssh/ssl_key.pem_tmp'
-----
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a D
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
-----
Country Name (2 letter code) [AU]:tw
State or Province Name (full name) [Some-State]:hs
Locality Name (eg, city) []:hschu
Organization Name (eg, company) [Internet Widgits Pty Ltd]:draytek
Organizational Unit Name (eg, section) []:marketing
Common Name (e.g. server FQDN or YOUR name) []:draytek
Email Address []:carrie_ni@draytek.com
G2540xs#
```

## XII-2-17 Terminal Configuration

Use this command to set the maximum line number that the terminal is able to print.

### Syntax Items

**terminal**

### Syntax Description

| Syntax Items | Description |
|---|---|
| *terminal* | <0-24> - Enter the length value. 0 means no limit.<br>**Related Syntax:**<br>● # terminal length <0-24> |

### Example

```
G2540xs# terminal length 15
G2540xs# show running-config
……
```

## XII-2-18 Traceroute Configuration

Use this command to execute network trace route diagnostic.

### Syntax Items

**traceroute**

### Syntax Description

| Syntax Items | Description |
|---|---|
| traceroute | <HOSTNAME>- Enter the IP address or the hostname of the device for VigorSwitch to perform traceroute diagnostic.<br>**Related Syntax:**<br>● # traceroute <HOSTNAME> |

### Example

```
G2540xs# traceroute 192.168.1.224
traceroute to 192.168.1.224 (192.168.1.224), 30 hops max, 40 byte packets
 1  192.168.1.224 (192.168.1.224)  0 ms  0 ms  0 ms
G2540xs#
```

## XII-2-19 UDLD Configuration

Use this command to reset all interfaces disabled by the UniDirectional Link Detection (UDLD) and make data traffic begin passing through the interfaces again.

### Syntax Items

**udld**

### Syntax Description

| Syntax Items | Description |
|---|---|
| Udld | Enter the IP address or the hostname of the device for VigorSwitch |

| | |
|---|---|
| | to perform traceroute diagnostic.<br>**Related Syntax:**<br>● # udld reset |

## Example

```
G2540xs# udld reset
G2540xs#
```

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