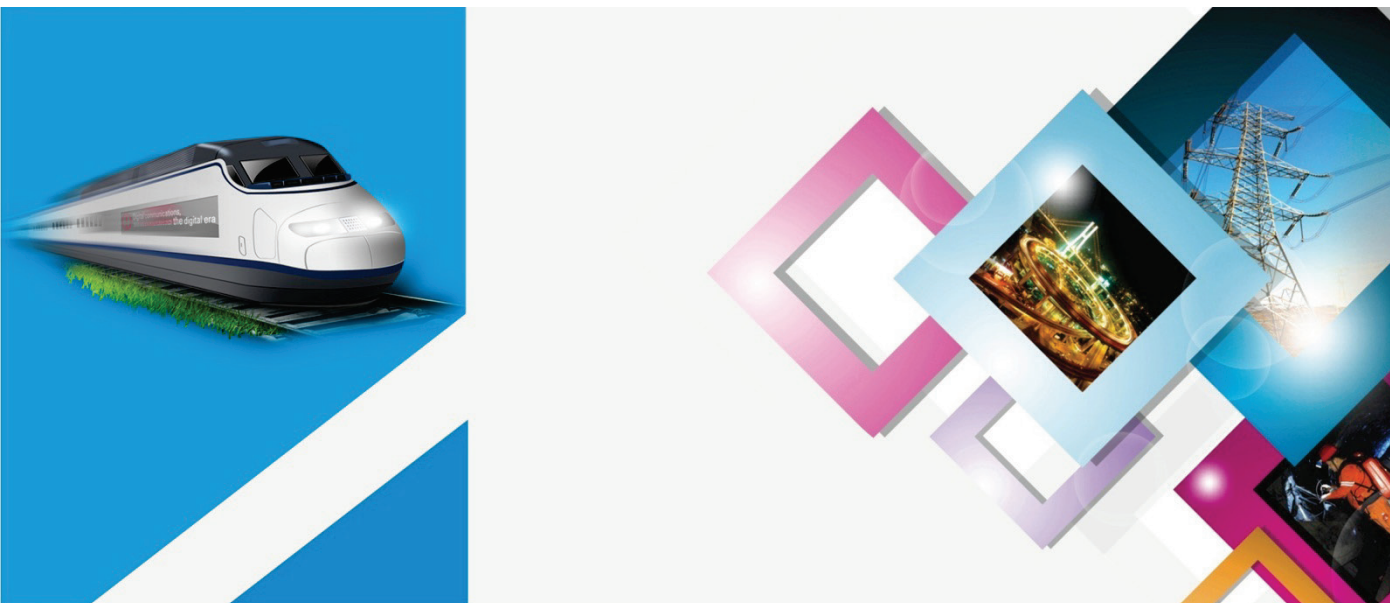




# Managed Industrial Ethernet Switch CLI User Manual

Version: 01

Issue Date: 2019-01-23

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## 3onedata Co., Ltd.

Headquarter address: 3/B, Zone 1, Baiwangxin High Technology Industrial Park, Song Bai Road,  
Nanshan District, Shenzhen, 518108, China  
Technology support: tech-support@3onedata.com  
Service hotline: +86-400-880-4496  
E-mail: sales@3onedata.com  
Fax: +86-0755-26703485  
Website: <http://www.3onedata.com>

## Preface

Managed Industrial Ethernet Switch CLI User Manual has introduced the following function of this series of switches:

- Command line configuration

## Readers

This manual mainly suits for engineers as follows:

- Network administrator responsible for network configuration and maintenance
- On-site technical support and maintenance staff
- Hardware engineer

## Text Format Convention

| Format             | Description                                                                                                                                                   |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ""                 | Words with "" represent the interface words. e.g.: "The port number".                                                                                         |
| >                  | Multi-level path is separated by ">". Such as opening the local connection path description: Open "Control Panel> Network Connection> Local Area Connection". |
| Light Blue Font    | Represent the words click to achieve hyperlink. Font color as: "Light blue".                                                                                  |
| About This Chapter | The "About This Chapter" section provides links to each section and corresponding principles / operating chapters in this chapter.                            |

## Icon Convention

| Format                                                                                     | Description                                                                                                  |
|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
|  Notice | Reminder the announcements in the operation, improper operation may result in data loss or equipment damage. |

| Format                                                                                    | Description                                                                                             |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
|  Warning | Pay attention to the notes on the mark, improper operation may cause personal injury.                   |
|  Note    | Make a necessary supplementary instruction for operation description.                                   |
|  Key     | Configuration, operation, or tips for device usage.                                                     |
|  Tips    | Pay attention to the operation or information to ensure success device configuration or normal working. |

## Port numbering in examples

The port numbers in this document are for illustration only and might be unavailable on your device.

## Revision Record

| Version NO. | Revision Date | Revision Description |
|-------------|---------------|----------------------|
| 01          | 2019-01-23    | Product release      |

# Content

|                                                                 |           |
|-----------------------------------------------------------------|-----------|
| <b>PREFACE .....</b>                                            | <b>1</b>  |
| <b>CONTENT .....</b>                                            | <b>I</b>  |
| <b>1 LOG IN TO THE CLI CONFIGURATION INTERFACE .....</b>        | <b>4</b>  |
| 1.1 SET UP THE CONFIGURATION ENVIRONMENT VIA CONSOLE PORT ..... | 4         |
| 1.2 SET UP THE CONFIGURATION ENVIRONMENT VIA TELNET .....       | 9         |
| 1.3 COMMAND LINE INTERFACE .....                                | 11        |
| 1.3.1 Online Help of Command Line .....                         | 11        |
| 1.3.2 Common Error Messages of Command Line .....               | 13        |
| 1.3.3 History Command .....                                     | 13        |
| 1.3.4 Regular Command .....                                     | 13        |
| <b>2 TFTP CONFIGURATION COMMAND .....</b>                       | <b>16</b> |
| 2.1 DISPLAY TFTP CONFIGURATION INFORMATION .....                | 16        |
| 2.2 TFTP CONFIGURATION .....                                    | 16        |
| <b>3 MANAGE CONFIGURATION COMMAND .....</b>                     | <b>18</b> |
| 3.1 NETWORK DIAGNOSTIC SETTINGS .....                           | 18        |
| 3.2 DISPLAY NETWORK ADDRESS OF THE DEVICE .....                 | 19        |
| 3.3 IP ADDRESS AND DEFAULT GATEWAY SETTINGS .....               | 19        |
| 3.4 SYSTEM TIMEOUT SETTINGS .....                               | 20        |
| 3.5 USER NAME AND PASSWORD SETTINGS .....                       | 20        |
| 3.6 RESTORE FACTORY DEFAULTS .....                              | 21        |
| <b>4 POE CONFIGURATION COMMAND .....</b>                        | <b>22</b> |
| 4.1 ACCESS TO THE POE CONFIGURATION VIEW .....                  | 22        |
| 4.2 DISABLE/ENABLE PORT POE FUNCTION .....                      | 23        |
| 4.3 CONFIGURE THE POE PARAMETERS OF PORT .....                  | 23        |
| 4.4 VIEW THE POE STATUS INFORMATION OF PORT .....               | 24        |
| <b>5 PORT CONFIGURATION COMMAND .....</b>                       | <b>26</b> |
| 5.1 PORT CONFIGURATION .....                                    | 26        |
| 5.1.1 Port Information Display .....                            | 26        |
| 5.1.2 DDM Information Display .....                             | 27        |
| 5.1.3 Port Enablement .....                                     | 28        |
| 5.1.4 Flow Control of Port .....                                | 28        |
| 5.1.5 Port Speed and Operating Mode .....                       | 29        |

|           |                                                     |           |
|-----------|-----------------------------------------------------|-----------|
| <b>6</b>  | <b>BANDWIDTH CONFIGURATION COMMAND.....</b>         | <b>30</b> |
| 6.1.1     | Bandwidth Display .....                             | 30        |
| 6.1.2     | Bandwidth Configuration.....                        | 31        |
| <b>7</b>  | <b>STORM CONFIGURATION COMMAND.....</b>             | <b>32</b> |
| 7.1       | DISPLAY BROADCAST STORM.....                        | 32        |
| 7.2       | CONFIGURATION OF STORM SUPPRESSION PARAMETERS ..... | 32        |
| 7.3       | ENABLEMENT OF STORM SUPPRESSION .....               | 33        |
| <b>8</b>  | <b>MULTIFILTE CONFIGURATION COMMAND .....</b>       | <b>34</b> |
| 8.1       | MULTICAST FILTERING TYPE.....                       | 34        |
| 8.2       | IGMP SNOOPING CONFIGURATION COMMAND .....           | 34        |
| 8.3       | GMRP CONFIGURATION COMMAND .....                    | 35        |
| <b>9</b>  | <b>MULTICAST CONFIGURATION COMMAND .....</b>        | <b>37</b> |
| 9.1       | DISPLAY MULTICAST FILTERING LIST.....               | 37        |
| 9.2       | ADD THE STATIC MULTICAST ADDRESS .....              | 37        |
| 9.3       | DELETE STATIC MULTICAST ADDRESS.....                | 38        |
| 9.4       | DISPLAY DEVICE INFORMATION.....                     | 39        |
| 9.5       | DEVICE INFORMATION CONFIGURATION .....              | 39        |
| 9.6       | CLEAR THE DEVICE INFORMATION.....                   | 39        |
| <b>10</b> | <b>VLAN CONFIGURATION COMMAND.....</b>              | <b>41</b> |
| 10.1      | VLAN TYPE CONFIGURATION AND DISPLAY .....           | 41        |
| 10.2      | PORT-BASED VLAN .....                               | 42        |
| 10.3      | IEEE802.1Q VLAN.....                                | 42        |
| <b>11</b> | <b>QOS CONFIGURATION COMMAND .....</b>              | <b>44</b> |
| 11.1      | QoS QUEUE MECHANISM CONFIGURATION .....             | 44        |
| 11.2      | DISPLAY QoS CONFIGURATION INFORMATION .....         | 45        |
| 11.3      | DSCP/TOS VALUE MAPPING .....                        | 45        |
| 11.4      | PRIORITY CONFIGURATION OF DEFAULT PORT .....        | 46        |
| <b>12</b> | <b>RING CONFIGURATION COMMAND.....</b>              | <b>47</b> |
| 12.1      | RING3 CONFIGURATION.....                            | 47        |
| 12.2      | RSTP CONFIGURATION.....                             | 48        |
| 12.3      | DISPLAY RSTP CURRENT STATUS INFORMATION .....       | 50        |
| <b>13</b> | <b>TRUNK CONFIGURATION COMMAND .....</b>            | <b>51</b> |
| 13.1      | PORT TRUNKING CONFIGURATION .....                   | 51        |
| 13.2      | PORT TRUNKING DISPLAY .....                         | 52        |
| <b>14</b> | <b>SECURITY CONFIGURATION COMMAND .....</b>         | <b>53</b> |
| 14.1      | MAC FILTERING CONFIGURATION .....                   | 53        |
| 14.2      | IP FILTERING CONFIGURATION .....                    | 55        |
| <b>15</b> | <b>ACCESS CONFIGURATION COMMAND.....</b>            | <b>57</b> |
| 15.1      | MAC PORT LOCK CONFIGURATION .....                   | 57        |
| 15.2      | DISPLAY THE LOCK INFORMATION OF MAC PORT .....      | 58        |
| <b>16</b> | <b>SNMP CONFIGURATION COMMAND.....</b>              | <b>59</b> |

|           |                                                |           |
|-----------|------------------------------------------------|-----------|
| 16.1      | SNMP ENABLEMENT .....                          | 59        |
| 16.2      | SNMP TRAP CONFIGURATION .....                  | 60        |
| 16.3      | SNMP DISPLAY .....                             | 60        |
| <b>17</b> | <b>EMAIL CONFIGURATION COMMAND.....</b>        | <b>61</b> |
| 17.1      | CONFIGURE EMAIL ALARM INFORMATION .....        | 61        |
| 17.2      | DISPLAY EMAIL ALARM INFORMATION.....           | 62        |
| <b>18</b> | <b>ALARM CONFIGURATION COMMAND .....</b>       | <b>63</b> |
| 18.1      | CONFIGURE/DELETE ALARM.....                    | 63        |
| 18.2      | DISPLAY ALARM INFORMATION .....                | 64        |
| <b>19</b> | <b>STATISTICS CONFIGURATION COMMAND .....</b>  | <b>65</b> |
| 19.1      | PORT STATISTICS CONFIGURATION VIEW .....       | 65        |
| <b>20</b> | <b>MIRROR CONFIGURATION VIEW.....</b>          | <b>67</b> |
| 20.1      | PORT MIRRORING CONFIGURATION/DELETION .....    | 67        |
| 20.2      | DISPLAY PORT MIRRORING INFORMATION .....       | 68        |
| <b>21</b> | <b>TIME CONFIGURATION COMMAND .....</b>        | <b>69</b> |
| 21.1      | TIME CONFIGURATION .....                       | 69        |
| 21.2      | DISPLAY TIME CONFIGURATION VIEW .....          | 70        |
| <b>22</b> | <b>INFORMATION CONFIGURATION COMMAND .....</b> | <b>71</b> |
| 22.1      | DISPLAY DEVICE INFORMATION.....                | 71        |
| 22.2      | DEVICE INFORMATION CONFIGURATION .....         | 71        |
| 22.3      | CLEAR THE DEVICE INFORMATION.....              | 72        |
| <b>23</b> | <b>LLDP CONFIGURATION COMMAND.....</b>         | <b>73</b> |
| 23.1      | LLDP ENABLEMENT .....                          | 73        |
| 23.2      | DISPLAY LLDP INFORMATION .....                 | 73        |
| 23.3      | LLDP CONFIGURATION .....                       | 74        |
| <b>24</b> | <b>DHCP CONFIGURATION VIEW .....</b>           | <b>75</b> |
| 24.1      | DHCP ENABLEMENT .....                          | 75        |
| 24.2      | DHCP PARAMETERS CONFIGURATION.....             | 75        |



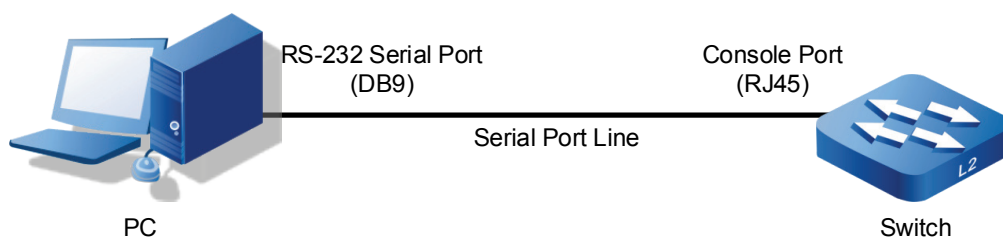
# 1 Log in to the CLI Configuration Interface

## 1.1 Set Up the Configuration Environment via Console Port

PC can log in to the command line interface of the device by being connected to the console port of the device.

### Operation Steps

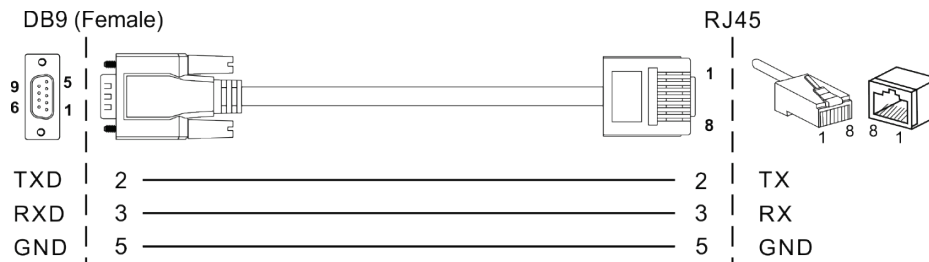
**Step 1** Connect the serial port of the computer to the console port of the device through a serial cable to establish a local configuration environment. The topological graph as follows.



1. Connect DB9 on the one end of the serial cable to the RS-232 serial port of PC.
2. Connect RJ45 on the other end of the serial cable to the console port of the device.

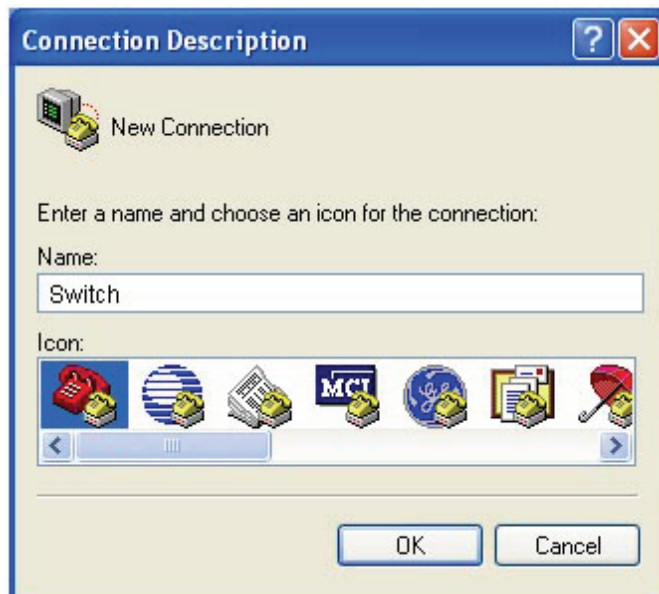
Notes:

Schematic diagram of the internal wiring of serial cable/communication cable is shown below.



**Step 2** Configure terminal parameters.

1. On the WinXP system interface, click "Start > Program > Accessories > Communication" to run the HyperTerminal program and create a new connection.
2. As shown in the figure below, enter the name of the new connection in the text box of "Name (N)" and click the button of "OK".



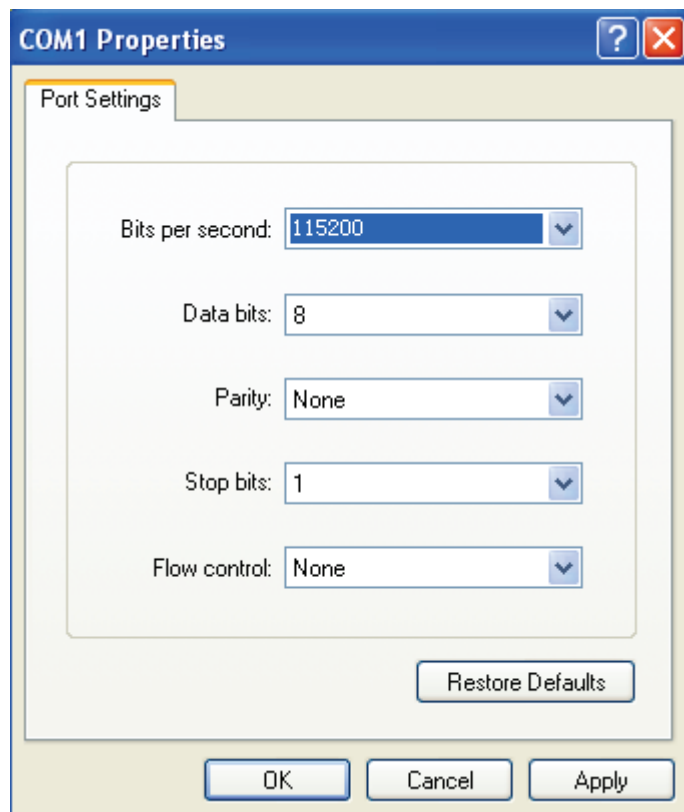
3. Select the serial port to be connected. As shown in the figure below, select the serial port to be connected in the drop-down list of "Connect using" and click the button of "OK".



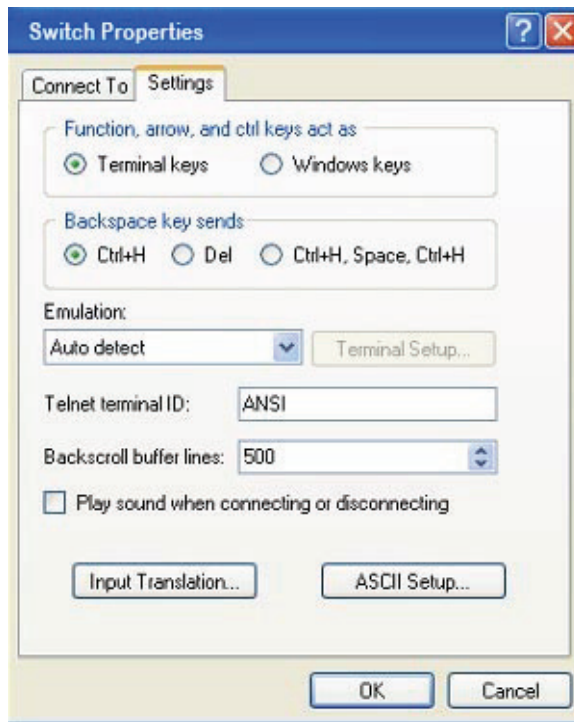
Note:

The selected serial port should be consistent with the serial port to which the cable used for device configuration is actually connected.

4. Configure the serial port parameters. In the properties dialog box of the serial port, configure baud rate as 115200, data bit as 8, parity as none, stop bit as 1, and data flow control as none. Click the button of "OK" to enter the window of "Hyper Terminal". As the figure below:



5. Configure the properties of HyperTerminal. In the window of "HyperTerminal", click "File > Properties > Settings" to enter the property settings window as shown in the following figure. Select the type of "Emulator" as VT100 or auto detect, and click the button of "OK" to return to the window of "HyperTerminal".



6. Power on the switch. The HyperTerminal will display the self-test information of the switch. After the self-test is finished, user can press the Enter key until the command prompt of "username" appears on the HyperTerminal, and then enter the correct username and password to enter the command line configuration interface of the switch.

**Step 3** End.



**Notice**

- If the serial cable is not connected to the COM1 port of PC, the serial port corresponding to the number 3 in step 2 must select the corresponding COM port.
- The number of "bits per second" corresponding to number 4 in step 2 must be 115200, otherwise it will not display properly.
- The configuration terminal in the operation steps adopts Windows XP system. The system comes with a HyperTerminal program. Win7, Win8, Win10 and other operating systems do not have the HyperTerminal program. Therefore, user needs to install a third-party serial debugging or terminal emulation software.

## 1.2 Set Up the Configuration Environment via Telnet

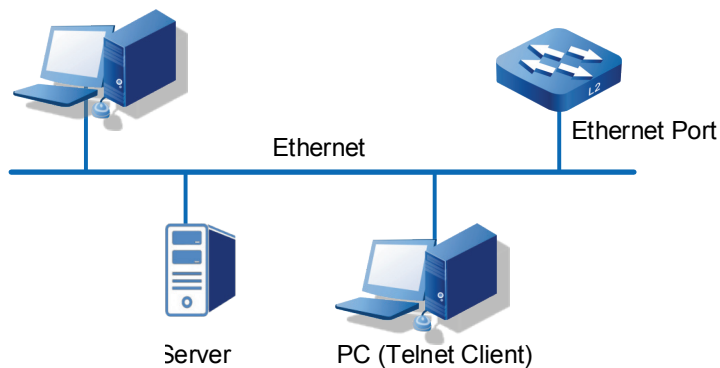
After the Telnet client logs in to the command line interface of the device, the client and device should meet the following conditions:

1. Configure the IP address of the device correctly on the switch.
2. If Telnet client and the device are in the same LAN, IP addresses of the device and the client must be in the same network segment. Otherwise, the Telnet client and device must be accessible via router.

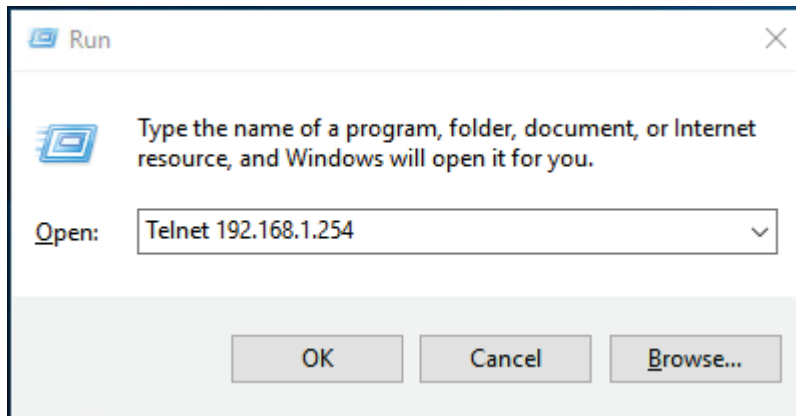
After meeting the above two points, user can log in to the switch through the Telnet client and configure the device.

### Operation Steps

**Step 1** As shown in the figure below, establish a configuration environment and connect the Ethernet port of the computer to the one of the device via the LAN.

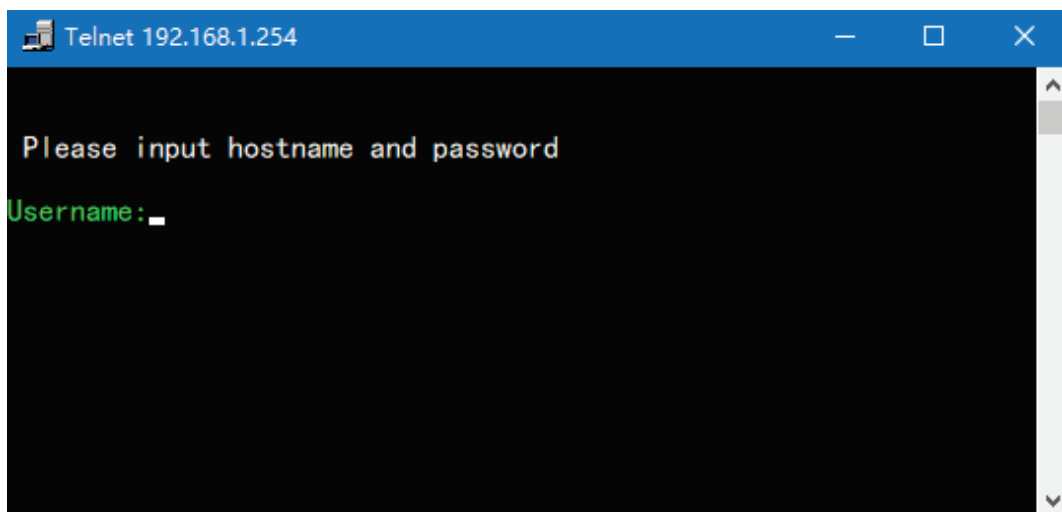


**Step 2** Run the Telnet client on the computer and enter the management IP address of the Ethernet port that connects the switch to the computer, as shown in the following figure.

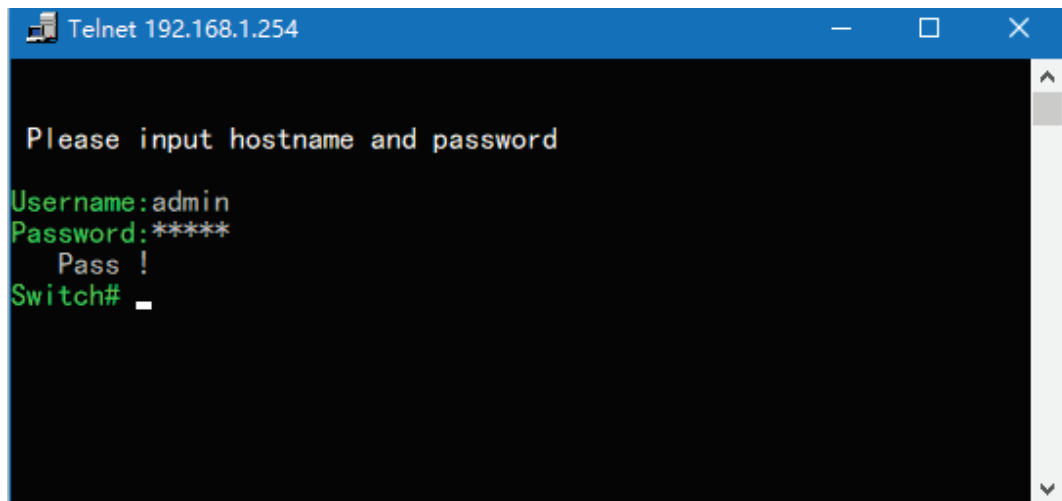
**Notes:**

- To configure the device via the command prompt interface of Win7/Win8/Win10 and other operating systems, user needs to enable the Telnet client in advance. User can check and enable it in the Windows function window under the path of "Control Panel > Programs and Features > Enable or Disable Windows Features". the instruction can be ignored if the Telnet client is enabled.
- The IP address of the device defaults to 192.168.1.254.

**Step 3** Click "OK" to initiate Telnet connection request, after successful connection, the interface will display "Please input hostname and password" as below.



**Step 4** Enter the correct user name and password. After the user name and password are verified, the interface will display "Pass!".As the figure below:



Notes:

For the default user name and password of the device, user can refer to the section "Logging in to the WEB Interface" in the "User Manual". The user name and password are generally admin by default. The user name and password of some industry-specific devices default to admin12345.

**Step 5** End.

## 1.3 Command Line Interface

The device provides command line interface and configuration command to user for the convenience of user configuration and management. Command line interface has the following features:

- Implement local configuration through the console port;
- Support maximum 10 saved history commands. Select saved history command information via up and down key;
- User can enter "help" or "?" for help at any time;
- Support Tab key intelligent completion while entering commands;
- Command line interpreter adopts partial matching to search the keyword, user only needs to enter conflict-free keyword, eg. As for config command, enter "conf" is OK.

### 1.3.1 Online Help of Command Line

The command line interface provides the following online help:



- Full help;
- Partial help.

## Full Help

1. In any view, enter <?> to get all the commands in the view and their brief description.

**Switch# ?**

|        |                                 |
|--------|---------------------------------|
| List   | --List commands of current menu |
| Help   | --Help commands of current menu |
| Quit   | --Quit from CLI                 |
| Exit   | --Exit from current menu        |
| Reboot | --Reboot switch                 |
| .....  |                                 |

2. Enter a command followed by a space-separated "?", and if the space are keywords, list all keywords and their brief descriptions.

**Switch(information)# show ?**

|         |                        |
|---------|------------------------|
| mac     | --Device MAC Address   |
| version | --Device version       |
| others  | --Device type,name,etc |

## Partial Help

1. Type a character string followed by <?> to list all commands that begin with the string.

Switch# M?

|             |       |                                       |
|-------------|-------|---------------------------------------|
| MultiFilter | <dir> | --Enter Multicast Filtering menu      |
| Multicast   | <dir> | --Enter static multicast filters menu |
| Mirror      | <dir> | --Enter port mirror menu              |
| Manage      | <dir> | --Enter system manage menu            |

2. Enter the first few letters of the command and press <Tab>. If the command corresponding to the entered letters is unique, the complete keyword will be displayed.

Switch# inf enter <Tab>

Switch# information

## 1.3.2 Common Error Messages of Command Line

As for the commands user enters, correctly conduct the commands that have passed grammar check, otherwise report error messages to user. And the common error messages as the chart below.

| English Error Messages | Error Reason                  |
|------------------------|-------------------------------|
| Invalid Command        | No command found              |
|                        | No keywords found             |
|                        | Incorrect parameter type      |
|                        | Parameter value out of bounds |
| Incomplete Command     | Input command is incomplete   |
| Too many parameters    | Too many input parameters     |

## 1.3.3 History Command

The command line interface provides a Doskey-like function to automatically save the history commands entered by user. User can call the history commands saved by the command line interface at any time and repeat the execution.

Access to the history commands:

| Operation                       | Key                   | Result                                                                           |
|---------------------------------|-----------------------|----------------------------------------------------------------------------------|
| Access previous history command | Up cursor key < ↑ >   | Take out the previous history command if there exists an earlier history command |
| Access next history command     | Down cursor key < ↓ > | Take out the next history command if there exists a later history command        |

## 1.3.4 Regular Command

Regular commands are the most frequently used commands. For the convenience of operation, the List, Help, Quit, Exit, and Reboot commands are arranged in all modes.

Regular Commands:

| Operation | Command | Description |
|-----------|---------|-------------|
|-----------|---------|-------------|

| Operation                                                                                  | Command | Description           |
|--------------------------------------------------------------------------------------------|---------|-----------------------|
| List the command names in this mode                                                        | List    | Carry out in any mode |
| List all commands in this mode and their help information                                  | Help    | Carry out in any mode |
| Return from the current mode to the login screen                                           | Quit    | Carry out in any mode |
| Go back to the previous level from the current mode and cannot return to the login screen. | Exit    | Carry out in any mode |
| Reboot the device                                                                          | Reboot  | Carry out in any mode |

## Configuration Examples

1. Return to the previous level from port configuration mode, enter the following bold command and press the Enter key.

```
Switch(Port) # exit
```

```
Switch#
```

2. To view the command format name in vlan setting mode, enter the following bold commands and press the Enter key.

```
Switch(Vlan) # list
```

```
List
```

```
Help
```

```
Quit
```

```
Exit
```

```
Reboot
```

```
Show vlantype
```

```
Enable
```

```
PVLANSetting <dir>
```

```
QVLANSetting <dir>
```

3. Restart the settings in the information view, enter the following bold commands and press the Enter key.

```
Switch(information) # reboot
```

```
Please waiting.....
```

```
Please input hostname and password
```

Username:

## 2 TFTP Configuration Command

Access to the TFTP configuration view.

| Operation                              | Command     | Description                 |
|----------------------------------------|-------------|-----------------------------|
| Access to the TFTP configuration view. | <b>TFTP</b> | Carry out under system view |

**Switch# TFTP**

Switch(TFTP) #

### 2.1 Display TFTP Configuration Information

Display TFTP configuration information.

| Operation                              | Command                 | Description               |
|----------------------------------------|-------------------------|---------------------------|
| Display TFTP configuration information | <b>Show TFTP_config</b> | Carry out under TFTP view |

### Configuration Examples

Display TFTP configuration information.

**Switch(TFTP) # show tftp\_config**

TFTP Server ip: 192.168.1.1

### 2.2 TFTP Configuration

TFTP configuration command.

| Operation | Command | Description |
|-----------|---------|-------------|
|-----------|---------|-------------|

| Operation                    | Command             | Description                                                      |
|------------------------------|---------------------|------------------------------------------------------------------|
| TFTP server address          | Server <ip_address> | <ip_address>: TFTP server IP address, for example, 192.168.1.254 |
| Upload configuration files   | Get <File_name>     | <File_name>: program name, such as xxxx.cfg.                     |
| Download configuration files | Put <File_name>     | <File_name>: program name, such as xxxx.cfg.                     |

# 3 Manage Configuration Command

Access to the system management view.

| Operation                            | Command       | Description                 |
|--------------------------------------|---------------|-----------------------------|
| Access to the system management view | <b>Manage</b> | Carry out under system view |

**Switch# manage**

Switch (Manage) #

## 3.1 Network Diagnostic Settings

Access to the command of system management view:

| Operation                   | Command                                                                                      | Description                                                                                                                                                                                                                                      |
|-----------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Network diagnostic settings | <b>Ping</b><br><IP_address><br><options><br><content><br><options><br><content><br><options> | <IP_address>;IP address, such as 192.168.1.254<br><options>;<br><ul style="list-style-type: none"> <li>-t;Time To Live</li> <li>-l;Data size</li> <li>-n;Number of echo requests to send</li> </ul> <content>; parameters matching with -t/-l/-n |

## Configuration Examples

The device with the Ping address of 192.168.5.117, packet size is 64, send out 2 packets.

Switch (Manage) # **ping 192.168.5.117 -l 64 -n 2**

```
Pinging 192.168.5.117 with 64 bytes of data:
Reply from 192.168.5.117: bytes=64 time<0ms TTL=64
Reply from 192.168.5.117: bytes=64 time<0ms TTL=64
Ping statistics for 192.168.5.117:
    Packets: Sent = 2, Received = 2, Lost = 0 (0.000000% loss).
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

## 3.2 Display Network Address of the Device

View the device IP, subnet mask, default gateway.

| Operation                                              | Command                 | Description                            |
|--------------------------------------------------------|-------------------------|----------------------------------------|
| Display the device IP, subnet mask and default gateway | <b>show net_address</b> | Carry out under system management view |

## Configuration Examples

View the device IP, subnet mask, default gateway.

```
Switch(Manage) # show net_address
Device gateway      : 192.168.1.1
Device mask address : 255.255.255.0
Device IP address   : 192.168.1.254
Device DNS address  : 202.96.134.133
```

## 3.3 IP Address and Default Gateway Settings

User can configure the device IP and default gateway address via the following commands.

| Operation                       | Command                | Description                                     |
|---------------------------------|------------------------|-------------------------------------------------|
| Device IP address configuration | IP <IP_address> <mask> | <IP_address>: IP address<br><mask>: subnet mask |
| Default gateway configuration   | Gateway <gateway>      | <gateway>: gateway address                      |



## Configuration Examples

Configure the device IP as 192.168.5.25, the subnet mask as 255.255.255.0, and the default gateway as 192.168.5.1.

```
Switch(Manage) # IP 192.168.5.25 255.255.255.0
[OK]
The Switch is rebooting.Please waiting.....
Switch(Manage) # gateway 192.168.5.1
[OK]
The Switch is rebooting.Please waiting.....
DHCP
```

## 3.4 System Timeout Settings

User can configure the system timeout via the following commands.

| Operation               | Command        | Description                                                                              |
|-------------------------|----------------|------------------------------------------------------------------------------------------|
| System Timeout Settings | Set <time_out> | <time_out>: system timeout, the value is [0-60], 0 means disabling the timeout function. |

## Configuration Examples

Configure the system timeout as 10 minutes.

```
SWitch (manage) # set 10
[OK]
```



Note

The system timeout is used to define the timeout period when no operation is performed after entering CLI settings mode. After the system timeout, it will automatically jump to the user mode and re-authenticates the user name and password.

## 3.5 User Name and Password Settings

User can configure the user name and password via the following commands.

| Operation | Command | Description |
|-----------|---------|-------------|
|-----------|---------|-------------|

|                        |                                   |                                                                                                                                                           |
|------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| User index             | Index {0 1 2}                     | {0 1 2} <ul style="list-style-type: none"> <li>• 0;Administrator</li> <li>• 1;Administrator or Observer</li> <li>• 2;Administrator or Observer</li> </ul> |
| Access level           | Limit {0 1}                       | {0 1}; <ul style="list-style-type: none"> <li>• 0;Observer</li> <li>• 1;Administrator</li> </ul>                                                          |
| Username configuration | Hostname <hostname>               | <hostname>: string of username                                                                                                                            |
| Password configuration | Password <password><br><password> | <password>: string of password                                                                                                                            |

## 3.6 Restore Factory Defaults

User can restore factory defaults of the device via the following commands.

| Operation                              | Command        | Description                                |
|----------------------------------------|----------------|--------------------------------------------|
| Restore factory defaults of the device | <b>Restore</b> | Carry out under the system management view |

## Configuration Examples

Restore factory defaults of the device

**Switch(manage) # restore**

Restore Settings or not ? (yes/no) yes //Press < Y> key

Wait...

# 4 PoE Configuration Command



This function is only supported by PoE products.

## 4.1 Access to the PoE Configuration View

PoE settings include:

- Disable/enable the port PoE function;
- Configure the port priority;
- View the POE status information of the port;
- Configure the maximum POE power and total POE power of the port.

Access to the command of POE settings view:

| Operation                       | Command    | Description                 |
|---------------------------------|------------|-----------------------------|
| Access to the POE settings view | <b>POE</b> | Carry out under system view |

## Configuration Examples

Access to the port configuration view, enter the following bold commands and press the enter key.

**Switch# Poe**

**Switch(PoE) # ?**

|      |                                 |
|------|---------------------------------|
| List | --List commands of current menu |
| Help | --Help commands of current menu |
| Quit | --Quit from CLI                 |

|                |                          |
|----------------|--------------------------|
| Exit           | --Exit from current menu |
| Reboot         | --Reboot switch          |
| Power          | --Power                  |
| Port_maxpower  | --Port max power         |
| MAX_Power      | --MAX Power              |
| Priority       | --Priority               |
| Show poe_state | --Show poe state         |

## 4.2 Disable/Enable Port POE Function

Access to the commands of resetting POE port and POE chip:

| Operation                        | Command                                | Description                                                                                                                      |
|----------------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Disable/enable port POE function | <i>Power {on off} &lt;portlist&gt;</i> | {on off}: <ul style="list-style-type: none"> <li>On: enable</li> <li>Off: disable</li> </ul> <portlist>: Port 1, 2, 3... or all. |

### Configuration Examples

Disable the POE function of port 2, enter the following bold command and press the Enter key.

**Switch(POE)# Power off 2**

[OK]

## 4.3 Configure the POE Parameters of Port

Access to the commands of configuring maximum power, priority and total POE power of the port:

| Operation                           | Command                                                                 | Description                                                       |
|-------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------|
| Configure the maximum power of port | <b>Port_maxpower</b><br><i>{10W 15W 30W}</i><br><i>&lt;portlist&gt;</i> | {10W 15W 30W}: port power.<br><portlist>: port 1, 2, 3... or all. |

| Operation                    | Command                                                                | Description                                                                                                                                                                                                |
|------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Configure the port priority; | <b>Priority</b><br><i>{high medium low}</i><br><i>&lt;portlist&gt;</i> | {high medium low};<br><ul style="list-style-type: none"> <li>High: high priority</li> <li>Medium: medium priority</li> <li>Low : low priority</li> </ul> <i>&lt;portlist&gt;</i> : port 1, 2, 3... or all. |
| Configure total POE power    | <b>MAX_Power</b> <i>&lt;Power&gt;</i>                                  | <i>&lt;Power&gt;</i> : total POE power value.                                                                                                                                                              |

## Configuration Examples

1. Configure the maximum power of port 2 to be 15w. Enter the following bold command and press the Enter key.

```
Switch(POE)# Port_maxpower 15w 2
[OK]
```

2. Configure the priority of port 5 to be high. Enter the following bold command and press the Enter key.

```
Switch(POE)# Priority high 5
[OK]
```

3. Set the total POE power value to 120w. Enter the following bold command and press the Enter key.

```
Switch(POE)# MAX_Power 120
[OK]
```

## 4.4 View the POE Status Information of Port

Access to the command of viewing the POE status information of port:

| Operation                               | Command                                      | Description                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------------------|
| View the POE status information of port | <b>Show poe_state</b><br><i>&lt;port&gt;</i> | <i>&lt;port&gt;</i> : port 1, 2, 3... or all. |

## Configuration Examples

View the POE status information of port 2, enter the following bold command and press the Enter key.

```
Switch(POE)# Show poe_state 2
Status : Disconnect
```

```
Class      : 0
Current    : 0.00
Current    : 0.00
Current    : 0.00
MAX Power: 30 W
Priority    : High
enable     : Disabled
```

# 5 Port Configuration Command

## 5.1 Port Configuration

Access to the port configuration view.

| Operation                             | Command     | Description                 |
|---------------------------------------|-------------|-----------------------------|
| Access to the port configuration view | <b>Port</b> | Carry out under system view |

```
Switch# Port
Switch(Port)#
```

### 5.1.1 Port Information Display

Port status and configuration information.

| Operation                              | Command                | Description                        |
|----------------------------------------|------------------------|------------------------------------|
| Port status information display        | Show state <portlist>  | <portlist>: port 1, 2, 3... or all |
| Port configuration information display | Show config <portlist> | <portlist>: port 1, 2, 3... or all |

## Configuration Examples

1. Display the status information of port 1.

```
Switch(Port)# show state 1
Speed      Port_status  Link_status  Interface_type
```

```
port 1 10M HALF LOS TX
```

2. Display the configuration information of port 1.

**Switch(Port) # show config 1**

```
Speed Mode Port_status Flow_contorl
Interface_type
port 1 Auto HALF Enable Disable TX
```

## 5.1.2DDM Information Display

DDM status information.

| Operation                          | Command        | Description                        |
|------------------------------------|----------------|------------------------------------|
| SFP DDM status information display | DDM <portlist> | <portlist>: port 1, 2, 3... or all |

## Configuration Examples

3. Display DDM information of port 1.

**Switch(Port) # DDM G1**

Common information:

```
Transceiver Type :SFP/SFP+
Compliance :10G BASE-LR
Connector Type :LC
WaveLength(nm) :1310
Transfer Distance(m) :10000(9um)
Digital Diagnostic Monitoring :YES
VendorName :OEM H900S013881
```

2018-12-25

Manufacture information:

```
Manu. Serial Number :H900S013881 2018-12-25
Manufacturing Date :2018-12-25
```

Diagnostic information:

```
Temperature(degree Celdius) :37
Temp High Threshold :85
Temp Low Threshold : -35
```



```

Voltage(V) :3.30
Voltage High Threshold(V) :3.48
Voltage Low Threshold(V) :3.10
Bias Current(mA) :27.03
Bias High Threshold(mA) :80.00
Bias Low Threshold(mA) :4.00
RX Power(dBM) :0.00
RX Power High Threshold(dBM) :-1.00
RX Power Low Threshold(dBM) :-14.40
TX Power(dBM) :-2.22
TX Power High Threshold(dBM) :-1.00
TX Power Low Threshold(dBM) :-6.00
[OK]

```

## 5.1.3 Port Enablement

The user can use the following command to enable or disable a port. By default, the port is enabled.

| Operation       | Command                            | Description                        |
|-----------------|------------------------------------|------------------------------------|
| Port enablement | switch <portlist> {enable disable} | <portlist>: port 1, 2, 3... or all |

## Configuration Examples

Disable port 1.

```

Switch(Port)# switch 1 disable
[OK]

```

## 5.1.4 Flow Control of Port

Enable or disable flow control of port.

| Operation | Command | Description |
|-----------|---------|-------------|
|-----------|---------|-------------|

| Operation                     | Command                     | Description                        |
|-------------------------------|-----------------------------|------------------------------------|
| Enable flow control of port   | Flow-con <portlist> enable  | <portlist>: port 1, 2, 3... or all |
| Disable flow control of port. | Flow-con <portlist> disable | <portlist>: port 1, 2, 3... or all |

## Configuration Examples

Enable flow control of port 2.

```
Switch(Port)# flow-con 2 enable
```

[OK]

### 5.1.5 Port Speed and Operating Mode

Configure port speed and duplex status.

| Operation                                   | Command                                           | Description                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Configure the speed and duplex mode of port | Mode <portlist><br>{10h 10f 100h 100f 1000h auto} | <portlist>: port 1, 2, 3... or all;<br>Mode: <ul style="list-style-type: none"> <li>• 10h: 10Mbps half duplex;</li> <li>• 10f: 10Mbps full duplex;</li> <li>• 100h: 100Mbps half duplex;</li> <li>• 100f: 100Mbps full duplex;</li> <li>• 1000f: 1000Mbps full duplex;</li> <li>• Auto: Auto-negotiation</li> </ul> |

## Configuration Examples

Configure the speed of port 3 to be 100 Mbps and its operating mode as half-duplex.

```
Switch(Port)# mode 3 100h
```

[OK]

# 6 Bandwidth Configuration Command

Access to the bandwidth management view.

| Operation                                | Command          | Description                 |
|------------------------------------------|------------------|-----------------------------|
| Access to the bandwidth management view. | <b>Bandwidth</b> | Carry out under system view |

**Switch# bandwidth**

Switch(Bandwidth) #

## 6.1.1 Bandwidth Display

Commands for ingress and egress bandwidth display.

| Operation                               | Command                | Description                        |
|-----------------------------------------|------------------------|------------------------------------|
| View the data packet type of port limit | Show intype <portlist> | <portlist>: port 1, 2, 3... or all |
| View ingress bandwidth information      | Show inrate <portlist> | <portlist>: port 1, 2, 3... or all |
| View egress bandwidth information       | Show egrate <portlist> | <portlist>: port 1, 2, 3... or all |

## Configuration Examples

Display the ingress and egress bandwidth of port 1.

**Switch(Bandwidth) # show inrate 1**

port 1 egress bandwidth: unlimited

```
Switch(Bandwidth)# show egrate 1
port 1 egress bandwidth: unlimited
```

## 6.1.2 Bandwidth Configuration

Commands for ingress and egress bandwidth configuration.

| Operation                                    | Command                              | Description                                                                                                                                                                                                                           |
|----------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Configure the data packet type of port limit | Config intype <portlist> {0 1 2 3}   | <portlist>: port 1, 2, 3... or all;<br>{0 1 2 3};<br>0--all frames<br>1--broadcast, multicast, and unicast frames<br>2--broadcast and multicast<br>3--broadcast                                                                       |
| Configure ingress bandwidth                  | Config inrate <portlist> <bandwidth> | <portlist>: port 1, 2, 3... or all;<br><bandwidth>: 64k, 128k, 256k, 512k, 1M, 2M, 3M, 4M, 5M, 6M, 7M, 8M, 9M, 10M, 20M, 30M, 40M, 50M, 60M, 70M, 80M, 90M, 100M, 200M, 300M, 400M, 500M, 600M, 700M, 800M, 900M, 1000M, 0: unlimited |
| Configure egress bandwidth                   | Config egrate <portlist> <bandwidth> | <portlist>: port 1, 2, 3... or all;<br><bandwidth>: 64k, 128k, 256k, 512k, 1M, 2M, 3M, 4M, 5M, 6M, 7M, 8M, 9M, 10M, 20M, 30M, 40M, 50M, 60M, 70M, 80M, 90M, 100M, 200M, 300M, 400M, 500M, 600M, 700M, 800M, 900M, 1000M, 0: unlimited |

## Configuration Examples

Set the ingress speed of port 1 to 8M.

```
Switch (Bandwidth)# config inrate 1 8M
[OK]
```

Set the egress bandwidth of port 1 to unlimited.

```
Switch(Bandwidth)# config egrate 1 0
[OK]
```

# 7 Storm Configuration Command

Access to the configuration view of broadcast storm

| Operation                             | Command      | Description                     |
|---------------------------------------|--------------|---------------------------------|
| Access to the view of broadcast storm | <b>Storm</b> | Carry out under the system view |

Switch# **storm**

Switch(Storm)#

## 7.1 Display Broadcast Storm

Commands for displaying broadcast storm

| Operation                               | Command           | Description                                 |
|-----------------------------------------|-------------------|---------------------------------------------|
| Display the settings of broadcast storm | <b>Show storm</b> | Carry out under the view of broadcast storm |

## Configuration Examples

Display the broadcast storm

Switch(Storm)# **show storm**

Maximum rate : 30%

Limited type : Broadcast Only

## 7.2 Configuration of Storm Suppression Parameters

Configuration of the settings of broadcast storm

| Operation                                  | Command                                   | Description                                             |
|--------------------------------------------|-------------------------------------------|---------------------------------------------------------|
| Configure the value of broadcast storm     | <b>Config broadcast</b> <portlist> <rate> | <portlist>;1,2,3,... or all, <rate>;rate, unit;62.5kbps |
| Configure the unknown multicast parameters | <b>Config multicast</b> <portlist> <rate> | <portlist>;1,2,3,... or all, <rate>;rate, unit;62.5kbps |
| Configure the unknown unicast parameters   | <b>Config unicast</b> <portlist> <rate>   | <portlist>;1,2,3,...or all, <rate>;rate, unit;62.5kbps  |

## 7.3 Enablement of Storm Suppression

Configuration commands for enabling and disabling storm suppression.

| Operation                        | Command                                   | Description                                                                                                                    |
|----------------------------------|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Enable/disable storm suppression | <b>Enable</b> <portlist> {enable disable} | <portlist>;1,2,3,...or all, {enable disable};<br><ul style="list-style-type: none"> <li>• Enable</li> <li>• Disable</li> </ul> |

# 8 MultiFiltr Configuration Command

Access to the view of multicast filtering

| Operation                                               | Command            | Description                     |
|---------------------------------------------------------|--------------------|---------------------------------|
| Access to the view of multicast filtering configuration | <b>MultiFilter</b> | Carry out under the system view |

```
Switch# multiFilter
Switch(MultiFilter)#
```

## 8.1 Multicast Filtering Type

Configuration of multicast filtering type

| Operation                                 | Command            | Description                                                                                     |
|-------------------------------------------|--------------------|-------------------------------------------------------------------------------------------------|
| Configure the type of multicast filtering | <b>Choice{0 1}</b> | {0 1};<br><ul style="list-style-type: none"> <li>• 0;IGMP Snooping</li> <li>• 1;GMRP</li> </ul> |

### Configuration Examples

```
IGMP snooping filtering
Switch(MultiFilter)# choice 0
[OK]
```

## 8.2 IGMP Snooping Configuration Command

IGMP snooping configuration.

| Operation                          | Command                    | Description                                     |
|------------------------------------|----------------------------|-------------------------------------------------|
| Configure IGMP snooping enablement | Set IGMP {enable disable}  | {enable disable};<br>• Enable<br>• Disable      |
| Configure IGMP query enablement    | Set query {enable disable} | {enable disable};<br>• Enable<br>• Disable      |
| Configure the IGMP query interval. | Query <time>               | <time>;60-300s                                  |
| Display IGMP information           | <b>Show IGMP</b>           | Carry out under the view of multicast filtering |

## Configuration Examples

Enable IGMP snooping, enable IGMP query, set the query interval to 125s, display IGMP information.

```
Switch(MultiFilter)# set igmp enable
[OK]
Switch(MultiFilter)# set query enable
[OK]
Switch(MultiFilter)# config Query 125
[OK]
Switch(MultiFilter)# show MAClist
IGMP Snooping query time 125 seconds
[ 1] MAC List: 01-00-5E-00-00-FB Port: 1
```

## 8.3 GMRP Configuration Command

GMRP configuration command

| Operation                 | Command                          | Description                                     |
|---------------------------|----------------------------------|-------------------------------------------------|
| Configure GMRP enablement | <b>Set GMRP</b> {enable disable} | {enable disable};<br>• Enable<br>• Disable      |
| Configure GMRP port       | <b>Config Query</b> <portlist>   | <portlist>; 1,2,3,...or all                     |
| Display GMRP information  | <b>Show GMRP</b>                 | Carry out under the view of multicast filtering |



## Configuration Examples

Enable GMRP

```
Switch(MultiFilter)# set gmrp enable  
[OK]
```

# 9 Multicast Configuration Command

Access to the static multicast filtering view

| Operation                   | Command          | Description                     |
|-----------------------------|------------------|---------------------------------|
| Enter static multicast view | <b>Multicast</b> | Carry out under the system view |

```
Switch# multicast
```

```
Switch(Multicast)#
```

## 9.1 Display Multicast Filtering List

Commands for static multicast address display

| Operation                                  | Command               | Description                        |
|--------------------------------------------|-----------------------|------------------------------------|
| Display static multicast filtering address | <b>Show multicast</b> | Carry out under the multicast view |

## Configuration Examples

Displays information about the static address table

```
Switch(Multicast)# show multicast
```

```
( 1) MAC : 01-22-33-44-55-66
```

```
PORT: 1,2,3
```

## 9.2 Add the Static Multicast Address

Commands for multicast address addition:

| Operation                 | Command                     | Description                                                                                                                                     |
|---------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Add the multicast address | Add <macaddress> <portlist> | <macaddress>: multicast address, the format is XY-XX-XX-XX-XX-XX or XY.XX.XX.XX.XX.XX, X is any hexadecimal number <portlist>;1, 2, 3... or all |

## Configuration Examples

Add the multicast address 01-22-33-44-55-66, and its member ports are 1, 2, 3.

```
Switch(Multicast) # add 01.22.33.44.55.66 1-3
```

[OK]

## 9.3 Delete Static Multicast Address

Commands for multicast address deletion.

| Operation                    | Command       | Description                          |
|------------------------------|---------------|--------------------------------------|
| Delete the multicast address | Delete <1-15> | <1-15>: multicast address entry 1-15 |

## Configuration Examples

Delete the static multicast address entry 1.

```
Switch(Multicast) # delete 1
```

[OK] Information configuration command

Access to the device information view:

| Operation                             | Command            | Description                     |
|---------------------------------------|--------------------|---------------------------------|
| Access to the device information view | <b>Information</b> | Carry out under the system view |

```
Switch# information
```

```
Switch(information) #
```

## 9.4 Display Device Information

Commands for the device information display.

| Operation                           | Command             | Description                                 |
|-------------------------------------|---------------------|---------------------------------------------|
| Display the system version          | <b>show version</b> | Carry out under the device information view |
| Display MAC address of the device   | <b>show mac</b>     | Carry out under the device information view |
| Display the device model, name etc. | <b>show others</b>  | Carry out under the device information view |

## 9.5 Device Information Configuration

Configure the device information, including device type, name, description and contact information.

| Operation                        | Command                      | Description                                                                                                                                                                                                         |
|----------------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Device information configuration | Config <options><br><string> | <options>: <ul style="list-style-type: none"> <li>• -t: device type</li> <li>• -n: device name</li> <li>• -p: device description</li> <li>• -c: contact information</li> <li>• &lt;string&gt;: parameter</li> </ul> |



Notice

The input type should conform to the type of GB2312 encoding, otherwise a display error will occur.

## 9.6 Clear the Device Information

Clear the device information, including device type, name, number, description and contact information.

| Operation | Command | Description |
|-----------|---------|-------------|
|-----------|---------|-------------|

| Operation                    | Command         | Description                                                                                                                                                               |
|------------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Clear the device information | Clean <options> | <options>: <ul style="list-style-type: none"><li>• -t: device type</li><li>• -n: device name</li><li>• -p: device description</li><li>• -c: contact information</li></ul> |

# 10 Vlan Configuration Command

Access to the Vlan configuration view:

| Operation                             | Command     | Description                 |
|---------------------------------------|-------------|-----------------------------|
| Access to the Vlan configuration view | <b>Vlan</b> | Carry out under system view |

**Switch# vlan**

Switch (VLAN) #

## 10.1 VLAN Type Configuration and Display

Commands for VLAN type configuration and display.

| Operation                           | Command              | Description                                                                                           |
|-------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------|
| Access to the Vlan information view | <b>Show vlantype</b> | Carry out under VLAN view                                                                             |
| Select Vlan type                    | <b>Enable {0 1}</b>  | {0 1}:<br><ul style="list-style-type: none"> <li>0: Port-based VLAN</li> <li>1:802.1Q VLAN</li> </ul> |

### Configuration Examples

Enable port VLAN and display the VLAN type.

**Switch (VLAN) # enable 0**

Based on port VLAN is enable!

[OK]

Tip: This configuration will be validated after restarting

**Switch (VLAN) # show vlantype**

Based on port VLAN is enable!

## 10.2 Port-based VLAN

Access to the port VLAN view.

| Operation      | Command             | Description               |
|----------------|---------------------|---------------------------|
| Port Vlan view | <b>PVLANSetting</b> | Carry out under VLAN view |

**Switch (VLAN) # PVLANSetting**

Switch (PortVlan) #

Port VLAN configuration.

| Operation             | Command               | Description                                                        |
|-----------------------|-----------------------|--------------------------------------------------------------------|
| Add Vlan              | Add <item> <portlist> | <item>: VLAN ID range 1-4094<br><portlist>: port 1, 2, 3... or all |
| Delete Vlan           | Delete <items>        | <items>: 1, 4, 5-4094 or all                                       |
| View Vlan information | Show vlan<items>      | <items>: 1, 4, 5-4094 or all                                       |

## Configuration Examples

Add VLAN 2 and the port members are port 2 and port 3.

**Switch (PortVlan) # add 2 2,3**

[OK]

## 10.3 IEEE802.1Q VLAN

Access to the 802.1Q VLAN view.

| Operation        | Command             | Description               |
|------------------|---------------------|---------------------------|
| 802.1Q VLAN view | <b>QVLANSetting</b> | Carry out under VLAN view |

**Switch (Vlan) # qVLANSetting**

Switch (QVlan) #

802.1Q VLAN configuration.

| Operation | Command | Description |
|-----------|---------|-------------|
|-----------|---------|-------------|

| Operation               | Command                               | Description                                                                                                                                                                                               |
|-------------------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Configure the port type | Config type <portlist> {Trunk Access} | <portlist>: port 1, 2, 3... or all<br>{Trunk Access}:<br><ul style="list-style-type: none"> <li>Trunk: keep the VID unchanged</li> <li>Access: replace the ID inside with the port default VID</li> </ul> |
| Pvid settings           | config pvid <portlist> <pvid>         | <portlist>: port 1, 2, 3... or all, 0 means CPU port<br><pvid>:1-4094                                                                                                                                     |
| Add Vlan                | Add <vid> <portlist> <typelist>       | <vid>:1-4094<br><portlist>: port 1, 2, 3... or all, 0 means CPU port<br><typelist>:<br><ul style="list-style-type: none"> <li>M:UnModified</li> <li>U:UnTagged</li> <li>T:Tagged</li> </ul>               |
| Delete Vlan             | Delete <vidlist>                      | <vidlist>: 1-4094 or all                                                                                                                                                                                  |
| View Vlan information   | Show vlan <vidlist>                   | <vidlist>: 1-4094 or all                                                                                                                                                                                  |
| View port pvid          | Show pvid <portlist>                  | <portlist>: port 1, 2, 3... or all, 0 means CPU port                                                                                                                                                      |
| 查看 VLAN 标识替换配置          | <b>Show replace</b>                   | 在 802.1Q VLAN 视图下执行                                                                                                                                                                                       |

## Configuration Examples

Add VLAN 3, port 2-3, member type of UnModified.

**Switch(QVlan) # add 3 2-3 M**

```

VID          :    3
Port_cpu     : ----
port 1       : ----
port 2       : UnModified
port 3       : UnModified
...
[OK]
```



# 11 QoS Configuration Command

Access to the QoS configuration view.

| Operation                            | Command    | Description                 |
|--------------------------------------|------------|-----------------------------|
| Access to the QoS configuration view | <b>QoS</b> | Carry out under system view |

**Switch# QoS**

Switch(QoS) #

## 11.1 QoS Queue Mechanism Configuration

Commands for QoS queue mechanism configuration.

| Operation                         | Command        | Description                                                                                                                                            |
|-----------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| QoS queue mechanism configuration | Queuingm {0 1} | {0 1}; <ul style="list-style-type: none"> <li>• 0: weighted average scheduling algorithm</li> <li>• 1: strict priority scheduling algorithm</li> </ul> |

### Configuration Examples

Set the QoS queue mechanism to weighted average scheduling algorithm (8:4:2:1).

**Switch(QoS) # queuingm 0**

[OK]

## 11.2 Display QoS Configuration Information

Users can view QoS information via the following commands.

| Operation                          | Command                 | Description                                |
|------------------------------------|-------------------------|--------------------------------------------|
| View QoS queue mechanism           | <b>Show queuingm</b>    | Carry out under QoS view                   |
| View CoS value mapping             | Show cos <coslist>      | <coslist>:cos mapping value, 0, 1, 2-7     |
| View ToS value mapping             | Show tos <dscplist>     | <dscplist>: Dscp mapping value, 1, 2, 3-64 |
| View the ToS/CoS enablement status | Show state <portlist>   | <portlist>: port 1, 2, 3... or all         |
| View the priority of default port  | Show default <portlist> | <portlist>: port 1, 2, 3... or all         |

## 11.3 Dscp/Tos Value Mapping

The user can configure the Dscp/cos value mapping via the following commands.

| Operation                        | Command                                      | Description                                                                                                                                                                         |
|----------------------------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cos value mapping configuration  | Configcos <coslist><br><classlist>           | <coslist>: CoS mapping value, 0, 1, 2-7<br><classlist>:<br><ul style="list-style-type: none"> <li>• L:low</li> <li>• N: normal</li> <li>• M:medium</li> <li>• H:high</li> </ul>     |
| Dscp value mapping configuration | Config <b>dscp</b><br><dscplist> <classlist> | <dscplist>: ToS mapping value, 1, 2, 3-64<br><classlist>:<br><ul style="list-style-type: none"> <li>• L:low</li> <li>• N: normal</li> <li>• M: medium</li> <li>• H: high</li> </ul> |

## Configuration Examples

1. Set the priority queues corresponding to 0, 2, 5, and 7 of the CoS value to Low, Normal, Medium and High.

```
Switch(QoS)# config cos 0,2,5,7 1,n,m,h
CoS value:0   priority:Low
CoS value:2   priority:Normal
CoS value:5   priority:Medium
CoS value:7   priority:High
```

2. Set the priority queues corresponding to 1, 17, 42, and 62 of the Dscp value to Low, Medium, High and Normal.

```
Switch(QoS)# config dscp 1,17,42,62 1,m,h,n
DSCP ( 1 ) :Low      DSCP (17) :Medium   DSCP (42) :High
DSCP (62) :Normal
```

## 11.4 Priority Configuration of Default Port

User can configure the default port priority via the following commands.

| Operation                              | Command                              | Description                                                |
|----------------------------------------|--------------------------------------|------------------------------------------------------------|
| Priority configuration of default port | Default priority<br><portlist> <0-7> | <portlist>: port 1, 2, 3... or all<br><0-7>: port priority |

## Configuration Examples

Set the default priority of port 1 to 3.

```
Switch(QoS)# default priority 1 3
[OK]
```

# 12 Ring Configuration Command

Access to the ring configuration view.

| Operation                             | Command     | Description                 |
|---------------------------------------|-------------|-----------------------------|
| Access to the ring configuration view | <b>ring</b> | Carry out under system view |

```
Switch# ring
Switch(Ring) #
```

## 12.1 Ring3 Configuration

After enable Ring3, user can configure Ring3 via the following commands.

| Operation       | Command                                                     | Description                                                                                                                                                                                                                                                                                                                                                         |
|-----------------|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Configure ring3 | Config ring3 {1 2} <id><br><LoopType> <port><br><hellotime> | <p>{1 2}: 1 means ring group 1, 2 means ring group 2</p> <p>&lt;id&gt;: it represents the ring network ID, the value is 0-255</p> <p>&lt;LoopType&gt;:</p> <ul style="list-style-type: none"> <li>0: Single</li> <li>1: Couple</li> <li>2: chain</li> <li>3: Daul_homing</li> </ul> <p>&lt;portlist&gt;: ring port</p> <p>&lt;hellotime&gt;: the value is 0-300</p> |

| Operation    | Command                                     | Description                                                                                                                                                                                                                                      |
|--------------|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Modify ring3 | Modify ring3 {1 2}<br><options> <parameter> | {1 2}: 1 means ring group 1, 2 means ring group 2<br><options>:<br>-h: Hellotime, range [0-300]*100ms<br>-i: Ring ID, range 0-255<br>-t: ring type, {0 1 2 3}<br>-p: ring port<br>-s: ring status, {enable or disable}<br><parameter>: parameter |

## Configuration Examples

Configure port 3 and 4 as the ring port of the first group in Ring 3, ring ID as 1, hellotime as 0, and the ring type as Couple.

```
Switch(Ring)#Open 3 //enable Ring3
[OK]
```

Tip: This configuration will be validated after restarting

```
Switch(Ring)#config ring3 1 1 1 3,4 0 //Configure port 7,8 as Ring3,
ring type is Couple
[OK]
```

Tip: This configuration will be validated after restarting

## 12.2 RSTP Configuration

After enable RSTP, user can configure RSTP via the following commands.

| Operation             | Command                                                             | Description                                                                                                                                                                                                                                                                           |
|-----------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Configure RSTP status | Config rstp_state<br><priority> <hellotime><br><delaytime> <maxage> | <priority>:RSTP priority<br>{0 4096 8192 12288 16384 20480 24576 28672 32768 36864 40960 45056 49152 53248 57344 61440}<br><hellotime>: polling interval, the range is 1-10s<br><delaytime>: forward delay time, the range is 4-30s<br><maxage>: address lifetime, the range is 6-40s |

| Operation                     | Command                                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Modify RSTP status parameters | Modify rstp_s <options> <parameter>       | <p>&lt;options&gt;:</p> <ul style="list-style-type: none"> <li>-p: priority<br/>{0 4096 8192 12288 16384 20480 24576 28672 32768 36864 40960 45056 49152 53248 57344 61440}</li> <li>-h: polling interval, the range is 1-10s</li> <li>-d: forward delay time, the range is 4-30s</li> <li>-m: address lifetime, the range is 6-40s</li> </ul> <p>&lt;parameter&gt;: parameter</p>                                                                                                                                         |
| Modify RSTP port parameters   | Modify rstp_p<port> <options> <parameter> | <p>&lt;port&gt;: RSTP port</p> <p>&lt;options&gt;:</p> <ul style="list-style-type: none"> <li>-c: port path cost, the range is 0-200000000</li> <li>-p: port priority, the range is {0 16 32 48 64 80 96 112 128 144 160 176 192 208 224 240}</li> <li>-t: point-to-point network connection, the value is {no yes auto}</li> <li>-e: directly connected to the terminal, the value is {no yes}</li> <li>-a: participate in the spanning tree or not, the value is {no yes}</li> </ul> <p>&lt;parameter&gt;: parameter</p> |

## Configuration Examples

1. Configure the path cost of RSTP port 1 as 2000.

```
Switch(Ring) # modify rstp_p 1 -c 2000
```

```
[OK]
```

Tip: This configuration will be validated after restarting

2. Configure the switch priority of rstp as 4096

```
Switch(Ring)# modify rstp_s -p 4096
```

```
[OK]
```

Tip: This configuration will be validated after restarting

## 12.3 Display RSTP Current Status Information

After configure RSTP, user can view the current status of Rstp via the following commands.

| Operation                               | Command            | Description                   |
|-----------------------------------------|--------------------|-------------------------------|
| Display RSTP current status information | <b>RSTP Status</b> | Carry out under the ring view |

# 13 Trunk Configuration Command

Access to the port trunking view.

| Operation                        | Command      | Description                 |
|----------------------------------|--------------|-----------------------------|
| Access to the port trunking view | <b>trunk</b> | Carry out under system view |

**Switch# trunk**

Switch (Trunk) #

## 13.1 Port Trunking Configuration

Users can configure the port trunking via the following commands.

| Operation                   | Command                           | Description                                                                                         |
|-----------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------|
| Port trunking configuration | Config <trunkgroup><br><portlist> | <trunkgroup>: trunk group 1, 2, 3, 4<br><portlist>: trunk port 1, 2, 3... or all                    |
| Delete port trunking        | Clean <trunkgroup>                | <trunkgroup>: 1, 2, 3, 4 respectively represent trunk groups 1, 2, 3, 4; all means all trunk groups |

## Configuration Examples

Configure ports 2 and 3 as trunk group 1.

**Switch (Trunk) # config 1 2,3**

[OK]



## 13.2 Port Trunking Display

User can view the configuration information of port trunking via the following commands.

| Operation                                               | Command              | Description                                                                                         |
|---------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------------------------|
| Display the configuration information of port trunking. | Show<br><trunkgroup> | <trunkgroup>: 1, 2, 3, 4 respectively represent trunk groups 1, 2, 3, 4; all means all trunk groups |

### Configuration Examples

View the port trunking information of trunk group 1.

```
Switch(Trunk)# show 1
```

```
Group: 1
state: enable
```

# 14 Security Configuration Command

Access to the Security view

| Operation                                 | Command  | Description                     |
|-------------------------------------------|----------|---------------------------------|
| Access to the Security configuration view | Security | Carry out under the system view |

```
Switch# Security
```

```
Switch(Security) #
```

## 14.1 MAC Filtering Configuration

Access to the command of MAC filtering configuration

| Operation                                      | Command    | Description                       |
|------------------------------------------------|------------|-----------------------------------|
| Access to the MAC filtering configuration view | MAC_Filter | Carry out under the Security view |

```
Switch(Security) # MAC_Filter
```

```
Switch(MAC_Filter) #
```

MAC filtering configuration:

| Operation | Command | Description |
|-----------|---------|-------------|
|-----------|---------|-------------|

| Operation                         | Command                                                                                         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enablement of MAC filtering entry | <b>Enable</b><br><b>{blacklist whitelist forbidden}</b>                                         | <b>{blacklist whitelist forbidden}</b> :<br><ul style="list-style-type: none"> <li>Blacklist</li> <li>Whitelist</li> <li>Forbidden</li> </ul>                                                                                                                                                                                                                                                                                                                    |
| Display MAC filtering entry       | <b>Show Filter</b>                                                                              | Display the status of MAC filtering entry, it will display after enabled.                                                                                                                                                                                                                                                                                                                                                                                        |
| Add MAC filtering entry           | <b>Add_entry &lt;port_list&gt;</b><br><b>{source destination both} &lt;SA DA&gt; &lt;DA&gt;</b> | <b>&lt;port_list&gt;; port 1, 2, 3... or all</b><br><b>{source destination both};</b> <ul style="list-style-type: none"> <li>Source: source MAC address</li> <li>Destination;destination MAC address</li> <li>Both;source MAC address and destination MAC address</li> </ul> <b>&lt;SA DA&gt;;</b> <ul style="list-style-type: none"> <li>SA: source address, format:<br/>XX-XX-XX-XX-XX-XX</li> <li>DA:destination address,format::XX-XX-XX-XX-XX-XX</li> </ul> |
| Delete MAC filtering entry        | <b>Delete_entry &lt;index&gt;</b>                                                               | <b>&lt;index&gt;;1,2,3...</b>                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## Configuration Examples

1)Display the MAC filtering status

Switch(MAC\_Filter)# show filter

Whitelist Enable

----- [OK]

2)Add MAC filtering entry

Switch(MAC\_Filter)# ADD\_Entry 1 Destination 11-22-33-01-03-16

[OK]

## 14.2 IP Filtering Configuration

Access to the command of IP filtering configuration

| Operation                                     | Command   | Description                       |
|-----------------------------------------------|-----------|-----------------------------------|
| Access to the IP filtering configuration view | IP_Filter | Carry out under the Security view |

```
Switch(Security)# IP_Filter
```

```
Switch(IP_Filter)#
```

IP filtering configuration

| Operation                     | Command                                                                                         | Description                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP filtering entry enablement | <b>Enable</b><br>{blacklist whitelist forbidden}                                                | <b>{blacklist whitelist forbidden}:</b> <ul style="list-style-type: none"> <li>Blacklist</li> <li>Whitelist</li> <li>Forbidden</li> </ul>                                                                                                                                                                                                                                                            |
| Display IP filtering entry    | <b>Show Filter</b>                                                                              | Display the status of IP filtering entry, it will display after enabled.                                                                                                                                                                                                                                                                                                                             |
| Add IP filtering entry        | <b>Add_entry &lt;port_list&gt;</b><br><b>{source destination both} &lt;SA DA&gt; &lt;DA&gt;</b> | <b>&lt;port_list&gt;;</b> port 1, 2, 3... or all<br><b>{source destination both};</b> <ul style="list-style-type: none"> <li>Source: source IP address</li> <li>Destination; Destination IP address</li> <li>Both;source IP address and destination IP address</li> </ul> <b>&lt;SA DA&gt;;</b> <ul style="list-style-type: none"> <li>SA: source address</li> <li>DA:destination address</li> </ul> |
| Delete IP filtering entry     | <b>Delete_entry &lt;index&gt;</b>                                                               | <b>&lt;index&gt;;1, 2, 3...</b>                                                                                                                                                                                                                                                                                                                                                                      |

### Configuration Examples

1)IP filtering enablement

```
Switch(IP_Filter)# enable whitelist
```

```
[OK]
```

2)Delete IP filtering entry

Switch(IP\_Filter)# delete\_entry 1

[OK]

# 15 Access Configuration Command

Access to the view of access control

| Operation                        | Command       | Description                     |
|----------------------------------|---------------|---------------------------------|
| Access to the MAC port lock view | <b>Access</b> | Carry out under the system view |

Switch# **access**

Switch (Access) #

## 15.1 MAC Port Lock Configuration

Command for MAC port lock configuration

| Operation                        | Command                              | Description                                                                                                                |
|----------------------------------|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Add MAC port lock information    | <b>Add</b><br><macaddress><br><port> | <macaddress> : unicast MAC address, format:<br>XX.XX.XX.XX.XX.XX or<br>XX-XX-XX-XX-XX-XX.<br><portlist>;1, 2, 3... or all, |
| Delete MAC port lock information | <b>Delete</b> <1-16>                 | <1-16>; <b>entry in the</b> MAC port lock information                                                                      |

### Configuration Examples

1) Add the lock information of a MAC port

Switch (Access) # **add 02.00.00.00.00.02 2**

MAC address: 02.00.00.00.00.02 Port: 2

[OK]

2) Delete the lock information of a MAC port

Switch (Access) # **delete 2**

[OK]

## 15.2 Display the lock information of MAC port

Display the lock information of MAC port

| Operation                         | Command          | Description                                |
|-----------------------------------|------------------|--------------------------------------------|
| Display the lock view of MAC port | <b>Show lock</b> | Carry out under the view of access control |

### Configuration Examples

Display the lock information of MAC port

Switch (Access) # **show lock**

|     |                   |      |
|-----|-------------------|------|
| Num | MAC address       | PORT |
| 1   | 00-00-00-00-01-01 | 5    |

# 16 SNMP Configuration Command

Access to the SNMP configuration view

| Operation                              | Command     | Description                     |
|----------------------------------------|-------------|---------------------------------|
| Access to the SNMP configuration view. | <b>SNMP</b> | Carry out under the system view |

```
Switch# snmp
Switch(Snmp)# ?
```

## 16.1 SNMP Enablement

Commands for SNMP enablement configuration

| Operation    | Command           | Description                   |
|--------------|-------------------|-------------------------------|
| Enable SNMP  | <b>OPEN SNMP</b>  | Carry out under the SNMP view |
| Disable SNMP | <b>CLOSE SNMP</b> |                               |

## Configuration Examples

Enable the SNMP function.

```
Switch(Snmp)# open snmp
SNMP configuration :Enable
SNMP_ver : V1/V2
Read_only : public
Read/Write: private
Gateway : 192.168.1.1
[OK]
```



## 16.2 SNMP TRAP Configuration

Command for community name configuration

| Operation                                        | Command                                | Description                                                                                                                                         |
|--------------------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Configure the Snmp reading and writing community | <b>Config community</b> {0 1} <string> | {0 1};<br><ul style="list-style-type: none"> <li>0;read - only community name</li> <li>1;read - write community name</li> </ul> <string>;parameters |

## 16.3 SNMP Display

Commands for SNMP display.

| Operation                | Command          | Description                   |
|--------------------------|------------------|-------------------------------|
| Display SNMP information | <b>SHOW SNMP</b> | Carry out under the SNMP view |

### Configuration Examples

Display SNMP information:

**Switch (Snmp) #show**

Switch(Snmp)# SHOW SNMP

SNMP configuration :Enable

SNMP\_ver : V1/V2

Read\_only : public

Read/Write: private

# 17 Email Configuration Command

Access to the Email alarm configuration view

| Operation                                    | Command      | Description                     |
|----------------------------------------------|--------------|---------------------------------|
| Access to the Email alarm configuration view | <b>Email</b> | Carry out under the system view |

```
Switch# email
Switch (Email) #
```

## 17.1 Configure Email Alarm Information

Configure Email alarm information

| Operation                   | Command                                   | Description                                            |
|-----------------------------|-------------------------------------------|--------------------------------------------------------|
| Email alarm enablement      | <b>Set email</b> {enable disable}         | {enable disable};<br>• Enable<br>• Disable             |
| E-mail server address       | <b>Set Server</b> <mail-server>           | <mail-server>; E-mail server address                   |
| Recipient address           | <b>Set recipient</b> <mail-address>       | <mail-address>; Recipient address                      |
| Sender address and password | <b>Set send</b> <mail-address> <password> | <mail-address>; Sender address<br><password>; password |

| Operation                   | Command                             | Description                                                                                                                                                                                    |
|-----------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| E-mail interval time        | <b>Set interval</b> {0 1 2 4 12 24} | {0 1 2 4 12 24};<br><ul style="list-style-type: none"> <li>• 0;any time</li> <li>• 1;1 hour</li> <li>• 2;2 hours</li> <li>• 4;4 hours</li> <li>• 12;12 hours</li> <li>• 24;24 hours</li> </ul> |
| Send the system test E-mail | <b>send email</b>                   | Display the E-mail sending status information                                                                                                                                                  |

## Configuration Examples

Enable Email alarm function

```
Switch (Email) # set email enable
[OK]
```

## 17.2 Display Email Alarm Information

Display E-mail alarm information view

| Operation                             | Command           | Description                     |
|---------------------------------------|-------------------|---------------------------------|
| Display E-mail alarm information view | <b>Show email</b> | Carry out under the system view |

## Configuration Examples

Display E-mail alarm information

```
Switch (Email) # show email
Email alarm : Enable
Email server : smtp.163.com
Recipient :
Send address :
Send Password: *****
Mail time interval: Anytime
```

# 18 Alarm Configuration Command

Access to the alarm configuration view

| Operation                              | Command      | Description                 |
|----------------------------------------|--------------|-----------------------------|
| Access to the alarm configuration view | <b>Alarm</b> | Carry out under system view |

**Switch# alarm**

Switch (Alarm) #

## 18.1 Configure/Delete Alarm

Users can configure alarm via the following commands.

| Operation             | Command                                | Description                                                                                                                                                                                                                                                                                  |
|-----------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Relay alarm           | <b>Relay</b> Type{0 1}                 | {0 1};<br><ul style="list-style-type: none"> <li>0: disable</li> <li>1: enable</li> </ul>                                                                                                                                                                                                    |
| Configure power alarm | Power relay <powerID> {enable disable} | <powerID>;<br><ul style="list-style-type: none"> <li>1: it represents the first power supply;</li> <li>2: it represents the second power supply;</li> <li>All: All power supplies</li> </ul> {enable disable};<br><ul style="list-style-type: none"> <li>Enable;</li> <li>Disable</li> </ul> |

| Operation                  | Command                                | Description                                                                                                                               |
|----------------------------|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Configure port alarm       | Port relay <portlist> {enable disable} | <portlist>: port 1, 2, 3... or all<br>{enable disable};<br><ul style="list-style-type: none"> <li>• Enable;</li> <li>• Disable</li> </ul> |
| Disable the alarm messages | <b>Close alarm</b>                     | Carry out under alarm view                                                                                                                |

## Configuration Examples

1. Enable alarm for ports 1, 3, 5 and 7.

```
Switch(Alarm)# port relay 1,3,5,7 enable
[OK]
```

2. Disable alarm.

```
Switch(Alarm)# close alarm
[OK]
```

## 18.2 Display Alarm Information

Users can view alarm information via the following commands.

| Operation                       | Command              | Description                                                                                                                                                                                        |
|---------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Display relay alarm information | <b>Show type</b>     | Carry out under alarm view                                                                                                                                                                         |
| Display power alarm information | Show power <powerID> | <powerID>;<br><ul style="list-style-type: none"> <li>• 1: it represents the first power supply;</li> <li>• 2: it represents the second power supply;</li> <li>• All: all power supplies</li> </ul> |
| Display port alarm information  | Show port <portlist> | <portlist>: port 1, 2, 3... or all                                                                                                                                                                 |

## Configuration Examples

View port alarm information.

```
Switch(Alarm)# show type
Relay type: open
```

# 19 Statistics Configuration Command

Access to the port statistics configuration view

| Operation                          | Command           | Description                 |
|------------------------------------|-------------------|-----------------------------|
| Access to the port statistics view | <b>Statistics</b> | Carry out under system view |

**Switch# statistics**

Switch (Statistics) #

## 19.1 Port Statistics Configuration View

Port statistics configuration

| Operation                                | Command                    | Description                           |
|------------------------------------------|----------------------------|---------------------------------------|
| Count the port frame number and type     | Show frames <port>         | <portlist>: port 1, 2, 3... or all    |
| Clean the number of statistical frames   | <b>Clean frames</b>        | Carry out in the port statistics view |
| Total flow of statistical port           | <b>Show traffic</b> <port> | <portlist>;1,2,3,...or all            |
| Clear the total flow of statistical port | <b>Clean traffic</b>       | Carry out in the port statistics view |
| Display MAC address table information    | <b>Show mac</b> <port>     | <portlist>;1,2,3,...or all            |

## Configuration Examples

1)Count the frame number and type of port 5.

Switch(Statistics)# **show frames 5**

|              |       |               |      |
|--------------|-------|---------------|------|
| InUnicasts   | 2386  | OutUnicasts   | 3534 |
| InMulticasts | 12915 | OutMulticasts | 149  |
| InBroadcasts | 26715 | OutBroadcasts | 37   |
| InDrop       | 0     | OutDrop       | 0    |
| InPause      | 0     | OutPause      | 0    |
| Undersize    | 0     | Collisions    | 2    |
| Oversize     | 0     | Multiple      | 1    |
| Fragments    | 0     | Late          | 0    |
| Jabber       | 0     | Conflict      | 0    |
| SysbolErr    | 0     | ResBusy       | 0    |

2)Display the total flow of port 5.

Switch(Statistics)# **show traffic 5**

|           |         |
|-----------|---------|
| Tx        | 2985150 |
| Rx        | 5209616 |
| Unicast   | 6260    |
| Multicast | 13165   |
| Broadcast | 26838   |
| Error     | 2       |

# 20 Mirror Configuration View

Access to the port mirror configuration view

| Operation                                    | Command       | Description                 |
|----------------------------------------------|---------------|-----------------------------|
| Access to the port mirror configuration view | <b>Mirror</b> | Carry out under system view |

**Switch# mirror**

Switch(Mirror) #

## 20.1 Port Mirroring Configuration/Deletion

Users can configure/delete port mirroring via the following commands.

| Operation                           | Command                                             | Description                                                         |
|-------------------------------------|-----------------------------------------------------|---------------------------------------------------------------------|
| Configure the ingress mirror        | <b>Config Ingress</b><br><b>&lt;mirror_port&gt;</b> | <mirror_port >; it represents the mirror port 1, 2, 3 ... or all    |
| Configure the egress mirror         | <b>Config Egress</b> <mirror_port>                  | <mirror_port >;it represents the mirror port 1, 2,3 ... or all      |
| Configure the collection port       | <b>Config Collect</b><br><b>&lt;mirror_port&gt;</b> | <mirror_port >;it represents the collection port 1, 2, 3 ... or all |
| Delete the mirror information       | <b>Close mirror</b>                                 | Carry out under the view of port mirroring                          |
| Clear the data of ingress mirroring | <b>Clean Ingress</b>                                | Carry out under the view of port mirroring                          |



| Operation                          | Command             | Description                                |
|------------------------------------|---------------------|--------------------------------------------|
| Clear the data of egress mirroring | <b>Clean Egress</b> | Carry out under the view of port mirroring |

## 20.2 Display Port Mirroring Information

Commands for viewing the mirroring information:

| Operation                         | Command            | Description                          |
|-----------------------------------|--------------------|--------------------------------------|
| Display the mirroring information | <b>Show mirror</b> | Carry out in the port mirroring view |

### Configuration Examples

View the port mirroring information.

**Switch (Mirror) #show mirror**

Mirror portlist: 1,2

Collect port : 3

# 21 Time Configuration Command

Access to the time configuration view

| Operation                              | Command     | Description                     |
|----------------------------------------|-------------|---------------------------------|
| Access to the time configuration view. | <b>Time</b> | Carry out under the system view |

**Switch# time**

Switch(Time)#

## 21.1 Time Configuration

Command for time configuration

| Operation                     | Command                         | Description                                                                                                                                                                     |
|-------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Time configuration enablement | <b>Time</b><br>{enable disable} | {enable disable};<br><ul style="list-style-type: none"> <li>• Enable</li> <li>• Disable</li> </ul>                                                                              |
| World time zone selection     | Zone <time-zone>                | <time-zone>: World time zone,<br>{-12 -11 -10 -9 -8 -7,1 -7,2 -6,1 -6,2 -5,1 -5,2 -4,1 -4,2 -3,1 -3,2 -2 -1 0,1 0,2 1,1 1,2 2,1 2,2 3 4 5 6 7 8,1 8,2 9 10,1 10,2 11 12,1 12,2} |
| NTP server address            | Server <serveraddr>             | <serveraddr>: NTP server address                                                                                                                                                |

## Configuration Examples

Set the mapping value of the world time zone to +8,1.

**Switch(Time)# zone +8,1**

[OK]

## 21.2 Display Time Configuration View

Display time configuration information.

| Operation                              | Command          | Description                   |
|----------------------------------------|------------------|-------------------------------|
| Display time configuration information | <b>Show time</b> | Carry out under the time view |

## Configuration Examples

Display the time configuration information.

Switch(Time)# **show time**

Time anable : Enable

Time zone : 8

NTP server : time-a.nist.gov

System time : time-a.nist.gov

# 22 Information Configuration Command

Access to the device information view:

| Operation                             | Command            | Description                     |
|---------------------------------------|--------------------|---------------------------------|
| Access to the device information view | <b>Information</b> | Carry out under the system view |

**Switch# information**

Switch(information) #

## 22.1 Display Device Information

Commands for the device information display.

| Operation                           | Command             | Description                                 |
|-------------------------------------|---------------------|---------------------------------------------|
| Display the system version          | <b>show version</b> | Carry out under the device information view |
| Display MAC address of the device   | <b>show mac</b>     | Carry out under the device information view |
| Display the device model, name etc. | <b>show others</b>  | Carry out under the device information view |

## 22.2 Device Information Configuration

Configure the device information, including device type, name, description and contact information.

| Operation                        | Command                      | Description                                                                                                                                                                                                         |
|----------------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Device information configuration | Config <options><br><string> | <options>: <ul style="list-style-type: none"> <li>• -t: device type</li> <li>• -n: device name</li> <li>• -p: device description</li> <li>• -c: contact information</li> <li>• &lt;string&gt;: parameter</li> </ul> |



Notice

The input type should conform to the type of GB2312 encoding, otherwise a display error will occur.

## 22.3 Clear the Device Information

Clear the device information, including device type, name, number, description and contact information.

| Operation                    | Command         | Description                                                                                                                                                                    |
|------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Clear the device information | Clean <options> | <options>: <ul style="list-style-type: none"> <li>• -t: device type</li> <li>• -n: device name</li> <li>• -p: device description</li> <li>• -c: contact information</li> </ul> |

# 23 LLDP Configuration Command

Access to the LLDP view

| Operation                             | Command     | Description                 |
|---------------------------------------|-------------|-----------------------------|
| Access to the LLDP configuration view | <b>LLDP</b> | Carry out under system view |

**Switch# lldp**

Switch(Lldp) #

## 23.1 LLDP Enablement

Enable/disable LLDP configuration commands.

| Operation           | Command      | Description                                                                              |
|---------------------|--------------|------------------------------------------------------------------------------------------|
| Enable/disable LLDP | Enable {0 1} | {0 1};<br><ul style="list-style-type: none"> <li>• Enable</li> <li>• Disabled</li> </ul> |

## 23.2 Display LLDP information

Display LLDP information.

| Operation                  | Command                 | Description                                    |
|----------------------------|-------------------------|------------------------------------------------|
| Display LLDP configuration | <b>Show LLDP_config</b> | Carry out under the view of LLDP configuration |

| Operation                         | Command               | Description                                    |
|-----------------------------------|-----------------------|------------------------------------------------|
| Display LLDP neighbor information | <b>Show neighbors</b> | Carry out under the view of LLDP configuration |

## 23.3 LLDP Configuration

LLDP configuration commands.

| Operation               | Command                                                                 | Description                                                                                                                                                               |
|-------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Send LLDP configuration | <b>Config</b><br><Tx_Interval_setting>                                  | <Tx_Interval_setting>;Tx Interval [5-32768]                                                                                                                               |
| Port configuration      | <b>Port &lt;portlist&gt;</b><br>{0:Disable 1:Rx_Tx 2:Tx_Only 3:Rx_Only} | <portlist>; 1,2,3,.....或 all<br>{0 1 2 3};<br><ul style="list-style-type: none"> <li>• 0;Disabled</li> <li>• 1;Rx Tx</li> <li>• 2;Tx only</li> <li>• 3;Rx only</li> </ul> |

# 24 DHCP Configuration View

Access to the DHCP configuration view

| Operation                             | Command     | Description                     |
|---------------------------------------|-------------|---------------------------------|
| Access to the DHCP configuration view | <b>DHCP</b> | Carry out under the system view |

Switch# **DHCP**

Switch (DHCP) #

## 24.1 DHCP Enablement

Enable/disable DHCP configuration command

| Operation           | Command      | Description                                                                          |
|---------------------|--------------|--------------------------------------------------------------------------------------|
| Enable/disable LLDP | Enable {0 1} | {0 1};<br><ul style="list-style-type: none"> <li>Disabled</li> <li>Enable</li> </ul> |

## 24.2 DHCP Parameters Configuration

Configure the DHCP information

| Operation                   | Command                          | Description                       |
|-----------------------------|----------------------------------|-----------------------------------|
| Set the default domain name | <b>Domain name</b> <domain name> | <domain name>;default domain name |



| Operation               | Command                            | Description                                 |
|-------------------------|------------------------------------|---------------------------------------------|
| Set the default gateway | <b>Default gw</b> <Default gw>     | <Default gw>;default gateway                |
| Set DNS1 address        | <b>Dns1 address</b> <Dns1 address> | <Dns1 address>;DNS1 address                 |
| Set DNS2 address        | <b>Dns2 address</b> <Dns2 address> | <Dns2 address>; DNS2 address                |
| Set the lease time      | <b>Config Lease</b> <time>         | <time>; valid time, optional 1-360 hours.   |
| Add                     | <b>Add</b> <IP_Address> <port>     | <IP_Address>;IP address <port>;address port |
| Delete                  | <b>Delete</b> <IP_Address>         | <IP_Address>;IP address                     |

## Configuration Examples

Set the DHCP lease time

```
Switch(DHCP)# config lease 1
[OK]
```



## 3onedata Co., Ltd.

Headquarter Address: 3/B, Zone 1, Baiwangxin High Technology Industrial Park, Xili, Nanshan District, Shenzhen

Technical support: [tech-support@3onedata.com](mailto:tech-support@3onedata.com)

Hotline: +86-400-880-4496

Official website: <http://www.3onedata.com>