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IES615-2DI series

Managed Industrial Ethernet Switches

CLI user manual

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IES615-2DI series CLI user manual

Statement

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Revision History

Version No.	Date	Reason
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Notes

In reading this manual, please pay attention to the following symbols,

Information necessary to explain

Special attention

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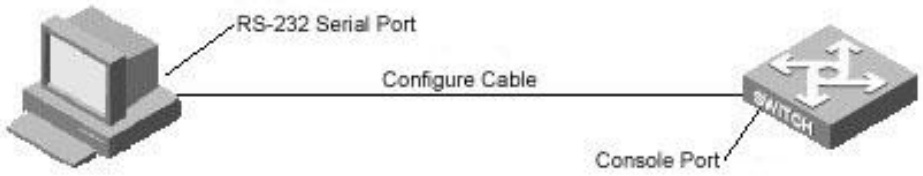
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Chapter 1 Login Ethernet Switch

1.1 Configuration through console port

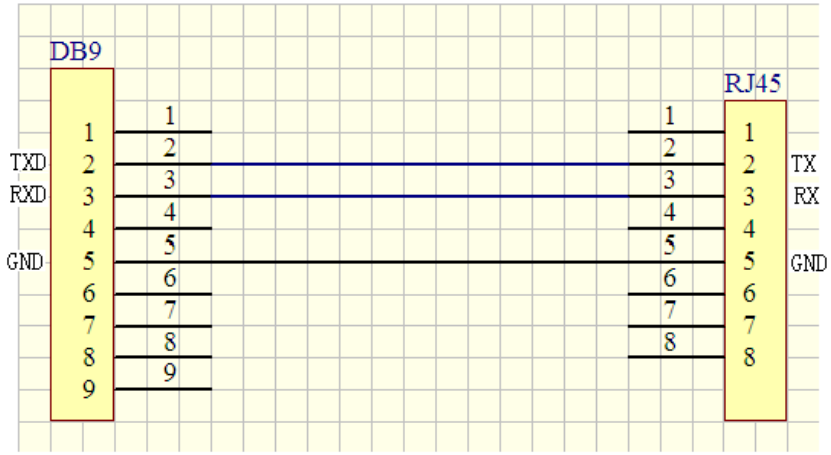
1. Connection switches to configure terminal

As shown in Figure 1.1.1, the establishment of the local configuration environment, only the computer serial cable and connected to the Console port of the Ethernet switch.



(Figure 1.1.1)

This cable is used for connecting the switch Console port and the external monitoring terminal equipment. One end is RJ45 eight core plug, the other end is the 9 hole plug (DB9). Console RJ45 the switch socket head, the cable inner connecting line diagram as shown below.



(Figure 1.1.2)

2. Configure terminal parameters

1) Turn the computer, on the Windows interface, click "Start/All Programs/Accessories/communication", run a terminal emulation program to create a new connection. The RS-232 port is connected to the computer. To take Hyper Terminal in Windows XP for example, as shown in Figure 1.1.3, type in a new name of the connection in a text box named "name", then click "OK" button.



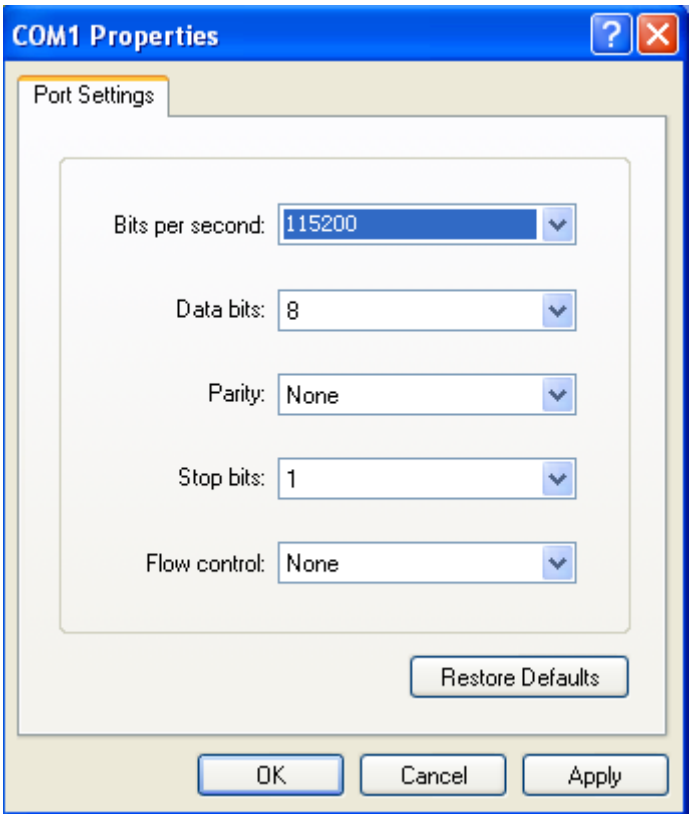
(Figure 1.1.3)

2) Choose connecting serial port. Choose connecting serial port under “Connect using”（pay attention to the chosen serial port is consistent with the port connected with the configuration cable），Click “OK”. As shown in Figure 1.1.4.



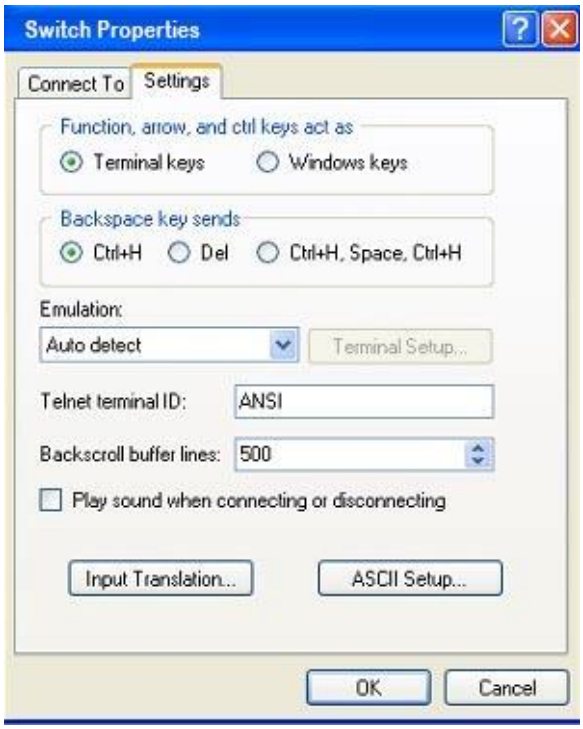
(Figure 1.1.4)

3) Set serial port parameters. As shown in Figure 1.1.5, set the “Bits per second” in the “Properties” of serial port is 115200bit/s， “Data bits” is 8， “parity” is None， “Stop Bits” is 1， “Flow Control” is None. Click “OK” button to enter to “Hyper Terminal” Window.



(Figure 1.1.5)

4) Hyper terminal attribute. In the Hyper Terminal window select [document / property / setting] into the attributes settings window. Select the terminal simulation of type VT100 or automatic detection, click < OK > button to return to the hyper terminal window.



(Figure 1.1.6)

5) For the switch power, power after the hyper terminal display Ethernet switch self-test information, after the prompt the user to type the carriage return, until the emergence of <user name> command prompt, this time to enter the correct username and password, enter the switch system mode can be configured, the specific configuration commands refer to the later chapters of the contents of the book in.

As the network pipeline connection than COM1, in step two must choose the corresponding COM port. Step three "bits per second" must choose 115200, otherwise cannot be displayed.

1.2 Configuration through Telnet

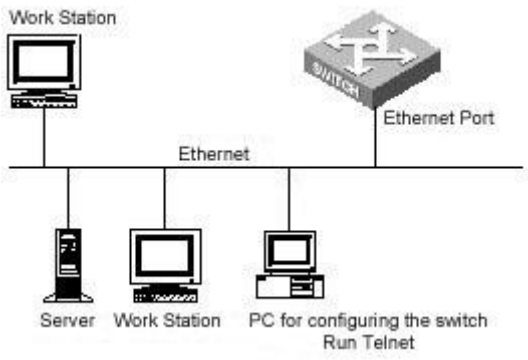
Terminal device use telnet connect to the switch through PC, the requirements are as follows:

1. The IP address of the switch can get it by search or modify (Use IP command under the system management view);

2. If PC and the switch in the same local area network, the IP address must in a same network segment, otherwise, PC and the switch must cross-router.

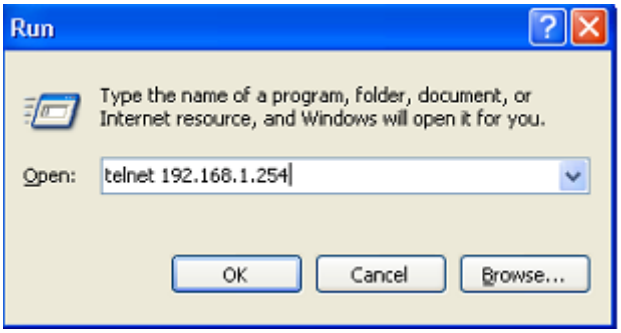
If satisfied these two requirements, can use telnet access to the switch, and then configure the switch.

1） Establish configuration environment, just connect PC's Ethernet port connect to the switch's Ethernet port through Local area network.



(Figure 1.2.1)

2） Run the Telnet program on the PC, need to input"Telnet+ Space+ switch's IP address" for checking, Figure 1.2.2 as follows:



(Figure 1.2.2)

3） Hit “Enter”, checkout successful and till PC show “Please input hostname and password”, ask user to input user name and password, default is admin, figure 1.2.3 as follows:



(Figure 1.2.3)

4） Use command to configure the switch and check the running statues, if need help, please input“?” at any time. Specific configuration command, please reference“Managed switch CLI user manual”.

1.3 Agreement

1. Command line format agreement table 1.3.1 as follow

Table 1.3.1

Format	Description
Bold	Key words of the command show by bold type.
italic	Parameter of the command show *italic type.*
[ ]	It shows part in “[]”is optical when command configuration is need.
{ x | y | ... }	It shows to pick up one from two or more items.
[x | y | ...]	It shows to pick up one or no one from two or more items.

2. Format agreement of figure interface Table 1.3.2 as follows:

Table 1.3.2

Format	Description
< >	“< >” shows press name, like ”click<OK>”
[ ]	“[ ]” shows windows name, menu name and data list. like “eject [create user]window”
/	Multilevel is separated by “/”. Like [file/create/folder] means[create] a [folder] under the menu of [file]

1.4 Command line port

The switch provides command lines port and its configuration for user's easy configuration and management. Command lines port includes the following features:

1. Local configuration through Console port;
2. Supports history command saving which means it can save 10 pieces. History commands can be selected by up and down key.
3. User can type in "help" or "?" to get some help;
4. Supports intelligent complement with Tab when commands input;
5. Command interpreter take the method of partial matching. User can type in conflict-free key words, such as config command, only need to type in conf.

1.4.1 View of Command Lines

The switch view of command lines aim at configuration of different functions. First of all, the switch establish connection, then confirmation of user name and password finished, after enter the correct user name and password, enter "help or ?" in "switch", enter into system view, Under the view of system, corresponding view appears after typing indifferent command.

Table 1.4.1 system view command list

View	Function	DOS Prompt	Enter	Quit
System View		Switch#		Quit and return to user login
Information	Show or modify device information, like software version, IP address, etc.	Switch (information)#	**Information**	Exit and return to the view of system
Serial server	Show or modify the COM setting and information	Serial(COM1)#	**Serial**	
Port Settings	Show or modify the port information, such as: duplex mode, port enable	Switch (Port)#	**Port**	
Bandwidth Management	Show or modify the bandwidth information, such as the inlet and outlet bandwidth settings etc.	Switch (Bandwidth)#	**Bandwidth**	
IGMP Snooping	Set IGMP snooping or IGMP query, show MAClist	Switch (Igmp)#	**IGMP**	
VLAN	View or modify the Vlan information, such as the addition of Vlan, PVID, port type etc.	Switch (Vlan)#	**Vlan**	

QoS	View or modify the Qos, Tos value, such as Qos, Tos etc.	Switch (QoS)#	**QoS**	
Rapid Ring	View or modify information such as the net ring, ring ID, ring port, RSTP information etc. View or modify the RSTP information	Switch (Ring)#	**Ring**	
Port Trunking	View or modify the port trunk information, such as the trunk port	Switch (Trunk)#	**Trunk**	
SNMP Configuration	SNMP enable configuration	Switch(Snmp)#	**Snmp**	
Relay Warning	View or modify the alarm information, such as power alarm, and port alarm.	Switch (Alarm)#	**Alarm**	
Port Statistics	Port to receive the frame and the total amount of data statistics	Switch(Statistics)#	**Statistics**	
Diagnosis	View or modify the mirror port information	Switch (mirror)#	**Mirror**	
Basic Settings	View or modify the settings information, such as the IP address, subnet mask, default gateway, the user password	Switch (manage)#	**Manage**	
Static Multicast Filtering	Show or modify static multicast address, like add static multicast address.	Switch (Multicast) #	**Multicast**	

1.4.2 Command lines online help

Command lines port provides the following online help:

- ✧ Total help;
- ✧ Partial help;

1. Total help

Type in a command and “?”, between there is a space, if key word is in this location, then type in all keywords and descriptions.

Example:

Switch(information)# ?

List --List commands of current menu

Help --Help commands of current menu

Quit	--Quit from CLI
Exit	--Exit from current menu
Reboot	--Reboot switch
Show mac	--Show device MAC Address
Show version	--Show device version
Show others	--Show device type,name,etc
Config	--Config device type,name,etc
Clean	--Clean device type,name,etc

2. Partial help

1）Type in a character string with <?>. It can show all commands beginning with this character string.

Example:

Switch# M?

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

2）Type in former letters of some key word of the command, press<Tab> key. If the letters are unique, it can show the completed key word.

Example:

Switch# inf+<Tab>

Switch# information

1.4.3 Frequent Incorrect Information of Command Lines

All commands typed by users, if it is certificated by grammar, it can run correctly, or users will be sent incorrect information. Frequent incorrect information is in table 1.4.3 as below:

Table 1.4.3 Frequent incorrect information

English incorrect information	Reason
Invalid Command	Command cannot be found.
	Key word cannot be found.
	The type of parameter is wrong.
	The parameter is beyond the border.
Incomplete Command	Command is not completed.
Too many parameters	Parameter is too much.

1.4.4 History command

Command lines port can provides the function similar to Dos key. It automatic save command lines that users types in, and users can use these history commands. Detailed operating please check table 1.4.4 as follows:

Table 1.4.4 access history command

Operating	Key	Result
Visit previous history command	Up <↑>	If it exists earlier command, it is taken out.
Visit next history command	Down <↓>	If it exists later command, it is taken out.

1.4.5 General Command

Regular command is the most frequently used commands, in order to facilitate the operation, the list and help, quit, exit and reboot command arrangements in all modes.

Table 1.4.5 general command

Operating	Key	Result
List commands of current menu	List	In any mode can be executed
Help commands of current menu	Help	
Quit from CLI	Quit	
Exit from current menu	Exit	
Reboot switch	Reboot	

CHAPTER 2 Device system based information configuration

Device information includes Device Type, Hardware Version, Device Name, Software Version, Device Description, Device SN and Contact Way. Among them, Hardware Version and Software Version can be only read, not modified.

2.1 Enter into the view of device information

Please check the view as figure 2.1.1

Table 2.1.1

Operating	Command	Description
Enter into the view of device information	**Information**	Run in the view of system

Switch# **information**

Switch(information)# **?**

List --List commands of current menu
Help --Help commands of current menu
Quit --Quit from CLI
Exit --Exit from current menu
Reboot --Reboot switch
Show mac --Show device MAC Address
Show version --Show device version
Show others --Show device type,name,etc
Config --Config device type,name,etc
Clean --Clean device type,name,et

2.2 Display device information

Please check the device information command as table 2.2.1

Table 2.2.1

Operating	Command	Description
Show system version	**show version**	Carry out under the view of device information
Show MAC address of device	**show mac**	Carry out under the view of device information
Show Device Type, Name, etc.	**show others**	Carry out under the view of device information
Configure device model, name etc	**config**	Carry out under the view of device information
Delete device model, name etc	**clean**	Carry out under the view of device information

Example: Enter into device information view, enter the bold type command as follows and enter return key

Switch# **information**

Switch(information)# show others
Device type MangedSwitch
Device name IndustrialSwitch
Description 5PORT
Serial number
Contact way

2.3 Configuration information

Please reference user configuration device information as table 2.3.1:

Table 2.3.1

Operating	Command	Description
Configure Device Type	**config –t** *type*	Type: configurable type, the length is between 1～16 characters
Configure Device Name	**config -n** *name*	Name: configurable name, the length is between1～16 characters
Configure Serial Number	**config -m** *number*	Number: configurable number, the length is between 1～28 characters
Configure Device Description	**config -p** *description*	Description: configurable description, the length is between 1～16 characters
Configure Contact information	**config -c** *contact*	Contact: Configure Contact way 1-28 bytes

Example: Configure device name as AB123, enter the bold type command as follows and enter return key:
Switch(information)# **config -n ABC123**
[OK]

2.4 Delete device information

Please reference table 2.4.1

Table 2.4.1

Operating	Command	Description
Delete Device Type	**Clean –t**	Carry out under the view of device information
Delete Device Name	**Clean -n**	Carry out under the view of device information
Delete Serial Number	**Clean -m**	Carry out under the view of device information
Delete Device Description	**Clean -p**	Carry out under the view of device information
Delete Contact information	**Clean -c**	Carry out under the view of device information

Example: Delete device name, enter the bold type command as follows and enter return key:

Switch(information)# **clean -n**

[OK]

Example: Delete Serial Number, enter the bold type command as follows and enter return key:

Switch(information)# **clean -m**

[OK]

Example: Delete Contact information, enter the bold type command as follows and enter return key:

Switch(information)# **clean -c**

[OK]

Chapter 3 Serial Configuration

Serial server support 4 port serial, each serial port included 2 mode configuration: based mode configuration and advanced mode configuration.

Based mode: Support 0~4 sessions(option), working mode: TCP Client, TCP Server, UDP and TcpAuto.

Advanced mode: Support 0~4 sessions(option), working mode: TCP Server, UDP.

3.1 Enter into serial configuration view

Please reference table 3.1.1

Table 3.1.1

Operating	Command	Description
Enter into serial configuration view	**Serial**	Carry out under the view of device information
Enter into serial information configuration	**Com** *<port>*	*<port>*: Option port number 1, 2, 3, 4

Example: Enter into serial configuration view, enter the bold type command as follows and enter return key:

Serial(COM1)# **?**

```
List                --List commands of current menu
Help                --Help commands of current menu
Quit                --Quit from CLI
Exit                --Exit from current menu
Reboot              --Reboot switch
Show config         --Show COM config information
Show link           --Show COM link state information
Show err            --Show COM send err data
Clear err           --Clear COM send err counter
Com1                --Enter serial com1 setting menu
Com2                --Enter serial com2 setting menu
Config              --Config serial
Set Packs_bytes     --COM set
Set Packs_time      --COM set
Set Com_mode        --COM set
Set OneToMulti      --COM set
Set TCP_C           --COM set
Set UDP             --COM set
Set TCP_S           --COM set
Set TCP_A           --COM set
Set Session_multi   --COM set
Set TCP_S_multi     --COM set
```

Set UDP_multi --COM set

3.2 Display serial information

Please check the table 3.2.1

Table 3.2.1

Operating	Command	Description
Display information of serial connection statues	**Show link** *<port_list>*	*<port_list>*: Choice the port number of serial 1、2、3、 4 or all optional
Statistics incorrect information of the serial	**Show err** *<port_list>*	*<port_list>*: Choice the port number of serial 1、2、3、 4 or all optional
Display serial configuration information	**Show config**<port_list>	*<port_list>*: Choice the port number of serial 1、2、3、 4 or all optional

Example: Display COM1 connection statue, enter the bold type command as follows and enter return key:

Serial(COM1)# **show link 1**

COM<1>

Session<1>

Session mode: TCP server

Local port: 30000

Dest ip: 192.168.1.134

Local port: 4904

Session<2>

Session<3>

Session<4>

Example: Statistics COM1 incorrect information, enter the bold type command as follows and enter return key:

Serial(COM1)# **show err 1**

COM<1>

COM err: 0 bytes

Session<1>

ch err: 0 bytes

Session<2>

ch err: 0 bytes

Session<3>

ch err: 0 bytes

Session<4>

ch err: 0 bytes

Example: Display COM1 configuration information, enter the bold type command as follows and enter return key:

Serial(COM1)# **show config 1**

COM<1>

Buadrate: 115200(bps)
Data bit: 8(bits)
Parity bit: NONE(bits)
Stop bit: 1(bits)
Packs bytes: 200(bytes)
Packs time space: 20(ms)
COM work mode: RS232
Session Option: OneToOne
Session<1>
State: Enable
Session mode: TCP server
local port: 30000
heartbeat interval: 0(S)
TCP link TimeOut: 300(S)
RealCom: Disable
Session<2>
State: Disable
Session mode: TCP server
local port: 30001
heartbeat interval: 0(S)
TCP link TimeOut: 300(S)
RealCom: Disable
Session<3>
State: Disable
Session mode: TCP server
local port: 30002
heartbeat interval: 0(S)
TCP link TimeOut: 300(S)
RealCom: Disable
Session<4>
State: Disable
Session mode: TCP server
local port: 30003

heartbeat interval: 0(S)

TCP link TimeOut: 300(S)

RealCom: Disable

3.3 Clear serial incorrect information

Please check table 3.3.1

Table 3.3.1

Operating	Command	Description
Clear serial incorrect information	**clear err**<*port_list*>	<*port_list*>: Choice the port number of serial 1、2、3、 4 or all optional

3.4 Serial parameter configuration

Please check table 3.4.1

Table 3.4.1

Operating	Command	Description
Configuration serial parameter	**config <***Baudrate***>** <*parity*> <*Databits*> <*stopbits*>	<*Baudrate*>: {300,600,1200,2400,4800,9600,19200,38400,57600,115200} <*parity*>: 0 --None 1 --Odd 2 --Even 3 --Mark 4 --Space <*Databits*>: 0 --5bits 1 --6bits 2 --7bits 3 --8bits <*stopbits*>: 0 --1bit 1 --2bits
Configuration serial data frames	**Set packs_bytes** <*Packs_bytes*>	<*Packs_bytes*>: data frames range1-1460(byte)
Configuration serial character time space	**Set packs_time** <*Packs_time*>	<*Packs_time*>: Character time space 1~500*ms*
Configuration serial working mode	**Set Com_mode** <*Com_mode* >	< *Com_mode* >: working mode 0 RS-232 1 RS-422 2 RS-485

Example: Configuration COM2 parameter, baud rate: 300bps, parity: ODD, data bits: 6 bits, stop bits: 2bits, enter the bold type command as follows and enter return key:

Serial(COM2)# **config 300 1 1 1**

[OK]

Example: Configuration data frames is 300 bytes, enter the bold type command as follows and enter

return key:

Serial(COM2)# **set Packs_bytes 300**

[OK]

Example: Configuration character time space: 100ms, enter the bold type command as follows and enter return key:

Serial(COM2)# **set Packs_time 100**

[OK]

Example: Configuration working mode is RS422, enter the bold type command as follows and enter return key:

Serial(COM2)# **set Com_mode 2**

[OK]

3.5 Working mode parameter configuration

Please check table 3.5.1

Table 3.5.1

Operating	Command	Description
Working mode configuration	**Set OneToMulti** *<OneToMulti>*	*<OneToMulti>*： 0 --OneToOne Based mode 1 --OneToMulti Advanced mode
TCP UDP mode configuration information	**Set UDP** *<session_list>* *<enable>* *<local_port>* *<dns>* *<dest_addr>* *<dest_port>* *<RealCom>*	*<session_list>*：Session choice. 1,2,3,4 or all optional *<enable>*：Open session or not 0 --disable 1 --Enable *<local_port>*： Local port, range{1-65535} *<dns>*：Open DNS or not 0 --disable 1 --Enable *<dest_addr>*：IP configuration ip or domain *<dest_port>:*Destination port, range{1-65535} *<RealCom>*：Virtual COM port or not 0 --disable 1 -Enable

Operating	Command	Description
TCP Client mode configuration information	**Set TCP_C** <*session_list*><*enable*> <*local_port*><*dns*><*dest_addr*> <*dest_port*><*link_mode*><*heartbeat*><*TCP_timeout*><*realCom*>	<*session_list*>：Session choice. 1,2,3,4 or all optional <*enable*>：Open session or not 0 --disable 1 --Enable <*local_port*>：Local port, range{1-65535} <*dns*>：Open DNS or not 0 --disable 1 --Enable <*dest_addr*>：IP configuration ip or domain <*dest_port*>:Destination port, range{1-65535} <*link_mode*>：*connection mode* 0 --data active 1 --link_now <*heartbeat*>：heartbeat time{0-65535(S)} <*TCP_timeout*>：Timeout{0-65535(S)} <*RealCom*>：Virtual COM port or not 0 --disable 1 -Enable
TCP server mode configuration information	**Set TCP_S** <*session_list*><*enable*><*local_port*><*heartbeat*><*TCP_timeout*> <*realCom*>	<*session_list*>：Session choice. 1,2,3,4 or all optional <*enable*>：Open session or not 0 --disable 1 --Enable <*local_port*>：Local port, range{1-65535} <*heartbeat*>：heartbeat time{0-65535(S)} <*TCP_timeout*>：Timeout{0-65535(S)} <*RealCom*>：Virtual COM port or not 0 --disable 1 -Enable

Operating	Command	Description
TCP AUTO mode configuration information	**Set TCP_A** *<session_list><enable><local_port> <dns><dest_addr><dest_port> <link_mode> <heartbeat><TCP_timeout><realCom>*	*<session_list>：Session choice. 1,2,3,4 or all optional* *<enable>：Open session or not* *0 --disable* *1 --Enable* *<local_port>：Local port, range{1-65535}* *<dns>：Open DNS or not* *0 --disable* *1 --Enable* *<dest_addr>：IP configuration ip or domain* *<dest_port>:Destination port, range{1-65535}* *<link_mode>：connection mode* *0 --data active* *1 --link_now* *<heartbeat>：heartbeat time{0-65535(S)}* *<TCP_timeout>：Timeout{0-65535(S)}* *<RealCom>：Virtual COM port or not* *0 --disable* *1 -Enable*
Advanced working mode	**Set Session_multi** *<net_mode>*	*<net_mode>：Working mode* *1 --TCP server* *2 --UDP*
Advanced TCP Server working mode	**Set TCP_S_multi** *<local_port> <heartbeat> <TCP_timeout> <RealCom>*	*<local_port>：Local port, range{1-65535}}* *<heartbeat>：heartbeat time{0-65535(S)}* *<TCP_timeout>：Timeout{0-65535(S)}* *<RealCom>：Virtual COM port or not* *0 --disable* *1 -Enable*

Operating	Command	Description
Advanced UDP working mode	**Set UDP_multi** *<session_list> <local_port> <dns> <dest_addr> <dest_addr_end> <dest_port> <RealCom>*	*<session_list>：Session choice. 1,2,3,4 or all optional* *<local_port>：Local port, range{1-65535}* *<dns>：Open DNS or not* *0 --disable* *1 --Enable* *<dest_addr>：IP configuration ip or domai* *<dest_addr_end>：IP configuration over* *<dest_port>:Destination port, range{1-65535}* *<link_mode>：connection mode* *0 --data active* *1 --link_now* *<heartbeat>：heartbeat time{0-65535(S)}* *<TCP_timeout>：Timeout{0-65535(S)}* *<RealCom>：Virtual COM port or not* *0 --disable* *1 -Enable*

Example: Configuration working mode is advanced, enter the bold type command as follows and enter return key:

Serial(COM2)# **set oneToMulti 1**

[OK]

Example: Configuration “session:1, working mode: UDP, local port: 5555, disable DNS, IP address:192.168.1.55, destination port: 4444, disable virtual COM port”, enter the bold type command as follows and enter return key:

Serial(COM2)# **set UDP 1 1 55555 0 192.168.1.55 44444 0**

[OK]

Example: Configuration“ session: 1, local port: 3333, diable DNS, IP address: 192.168.17.11, destination port: 2222, connection mode: link now, heartbeat time: 0, Timeout: 20s, virtual COM port disable”, enter the bold type command as follows and enter return key:

Serial(COM2)# **set tCP_C 1 1 33333 0 192.168.17.11 22222 1 0 20 0**

[OK]

Example: COM2 in advanced mode, configuration working mode: TCP server, session: 4, enter the bold type command as follows and enter return key:

Serial(COM2)# **SET session_multi 1 4**

[OK]

Example: COM2 in advanced mode, configuration destination port:2000, heart time: 0s, timeout: 30s, Virtual COM port disable, enter the bold type command as follows and enter return key:
Serial(COM2)# **set TCP_S_multi 2000 0 30 0**
[OK]

Example: COM2 in advanced mode, session: 1, destination: 1000, DNS disable, IP address from 192.168.17.11 to 192.168.17.254, destination port: 2000, virtual COM port disable, enter the bold type command as follows and enter return key:Serial(COM2)# **set UDP_multi 1 1000 0 192.168.17.11 192.168.17.254 2000 0**
[OK]

Chapter 4 Port Configuration

Port information including link state (link or LOS), the port state (full or half), rate mode (automatic negotiation, 10Mbps, 100Mbps), interface type (electric or optical), flow control, port is enabled.

4.1 Port information

The Ethernet port characteristics of the switches support:
10/100Base-Tx Ethernet port can operate in half duplex, full duplex, auto negotiation mode. Support MDI/MDIX adaptive, and able to negotiate with other network devices, automatic selection of the most appropriate way of working and rate, which greatly simplifies the configuration and management system; 100Base-FX port, rate of 100Mbps, working in full duplex mode, flow control can be set.
Enter the port configuration view
Table 4.1.1 to enter the port configuration view:

Table 4.1.1

Operating	Command	Description
Enter the port configuration view	**port**	In view of the system under the

Switch# **port**
Switch(port)# **?**

List	--List commands of current menu
Help	--Help commands of current menu
Quit	--Quit from CLI
Exit	--Exit from current menu
Reboot	--Reboot switch
Show state	--Show port state information
Show config	--Show port config information
Switch	--Set enable state for the port
Flow-con	--Set flow control for the port
Mode	--Set the rate,duplex for the port

4.2 Display port configuration information

Table 4.2.1 shows the command port configuration information:

Table 4.2.1

Operating	Command	Description
Display port state information	**Show state** *<portlist>*	<portlist>：1,3 or all
Display port configuration information	**Show config** *<portlist>*	<portlist>：1,3 or all

Example: display port state information 3, 4, 5

Switch(Port)# show state 3,4,5

	Speed	Port_status	Link_status	Interface_type
port 3	10M	HALF	LOS	TX
port 4	10M	HALF	LOS	TX
port 5	100M	FULL	Link	TX

4.3 Port configuration

Port configuration including:

1 To enable or disable the port;

2 Configure the port speed and duplex mode;

3 The allocation of port flow control;

4 Remove the statistics information of port frame;

4.4 To enable or disable the port

The user can use the following command to open or close the port. By default, the port is enabled.

Table 4.4.1 to enable or disable the port:

Table 4.4.1

Operating	Command	Description
Disable port	**switch** <*portlist*> **disable**	<portlist>：1, 3 or all
Enable port	**switch** <*portlist*> **enable**	

Example: 3, 4 closed port

Switch（Port）# **switch 3，4 disable**

[OK]

4.5 Configure the port speed and duplex mode

Table 4.5.1 configure the port speed and duplex.

Table 4.5.1

Operating	Command	Description
Configure the port speed and duplex mode	**Mode** <*portlist*> {10h|10f|100h|100f|auto}	<portlist>：1,3 or all mode： 10h, 10Mbps Half duplex 10f, 10Mbps Full duplex 100h, 100Mbps Half duplex 100f, 100Mbps Full duplex Auto: Automated negotiation

Example: Rate of 3, 4, 5 100Mbps full duplex port configuration

Switch（Port）# **Mode 3-5 100f**

[OK]

4.6 Configure the port flow control

Table 4.6.1 to enable or disable the port flow control:

Table 4.6.1

Operating	Command	Description
Enable port flow control	**Flow-con** <*portlist*> enable	<portlist>：1,3 or all
Disable port flow control	**Flow-con** <*portlist*> disable	<portlist>：1,3 or all

Example: open port 3, 4, 5 flow control

Switch （Port）# **flow-con 3,4,5 enable**

[OK]

Chapter 5 Bandwidth Management

5.1 Enter rate management view

Bandwidth allocation including:

1. Entrance velocity distribution;
2. The outlet velocity distribution;
3. Check the entrance rate configuration information;
4. Check the export rate of configuration information;

Table 5.1.1 in bandwidth management view:

Operating	Command	Description
bandwidth management	**Bandwidth**	In view of the system under

Switch# **bandwidth**
Switch(Bandwidth)# **?**

List	--List commands of current menu
Help	--Help commands of current menu
Quit	--Quit from CLI
Exit	--Exit from current menu
Reboot	--Reboot switch
Set bandwidth	--Set bandwidth enable
Show inrate	--Show port ingress bandwidth
Show egrate	--Show port egress bandwidth
Config inrate	--Config port inress Bandwidth
Config egrate	--Config port egress Bandwidth

5.2 Enable and Disable Bandwidth

Table 5.2.1 in bandwidth enabled view:

Table 5.2.1

Operating	Command	Description
Enable bandwidth	**Set bandwidth enable**	In view of the system under
Disable bandwidth	**Set bandwidth disable**	In view of the system under

Example: set bandwidth enable

Switch(Bandwidth)# **Set bandwidth enable**

[OK]

5.3 Egress bandwidth configuration

By default, the egress bandwidths not limit.

Table 5.3.1 Egress bandwidth configuration:

Table 5.3.1

Operating	Command	Description
Egress bandwidth	**Config egrate** *<portlist>* < Bandwidth >	<portlist>：1,3 or all <Bandwidth>： (1M,2M,3M,4M,5M,10M,20M,30M,40M,50M,60M,70M,80M,90M,100M) 0: unlimited

Example: set the 1 port of egress bandwidth is 80M
Switch (Bandwidth) # config egrate 1 80M
[OK]
Example: set port egress bandwidth limit 0
Switch (Bandwidth) # config egrate 1 0
[OK]

5.4 Ingress bandwidth configuration

By default, Ingress bandwidth does not limit.
Table 5.4.1 Ingress bandwidth configuration:

Table 5.4.1

Operating	Command	Description
Ingress bandwidth	**Config inrate** *<portlist>* *<bandwidth>*	<portlist>：1,3 or all <Bandwidth>： (1M,2M,3M,4M,5M,10M,20M,30M,40M,50M,60M,70M,80M,90M,100M) 0: unlimited

Example: set the 2 and 5 port of Ingress bandwidth is 50M.
Switch(Bandwidth)# **Config inrate 2,5 50m**
[OK]

5.5 Displays the bandwidth configuration information

Table 5.5.1 shows the bandwidth allocation information command:

Table 5.5.1

Operating	Command	Description
Display Ingress bandwidth information	**Show inrate** *<portlist>*	<portlist>：1,3 or all
Display Egress bandwidth information	**Show egrate** *<portlist>*	<portlist>：1,3 or all

Example: display port Ingress bandwidth information 2
Switch(Bandwidth)# **Show inrate 2**
port 2 egress bandwidth: 3M

Chapter 6 IGMP

6.1 The contents of IGMP configuration

The IGMP configuration including:
1. Enable IGMP snooping
2. Enable the IGMP query
3. The query time setting
4. Check the MAC address table

Table 6.1.1 into IGMP view command：

Table 6.1.1

Operating	Command	Description
In view of the IGMP	**IGMP**	To perform the operation in the system.

Switch# **igmp**
Switch(Igmp)# **?**

List	--List commands of current menu
Help	--Help commands of current menu
Quit	--Quit from CLI
Exit	--Exit from current menu
Reboot	--Reboot switch
Set igmp	--IGMP Snooping set
Set query	--IGMP Snooping query set
Query	--Query time set
Show MAClist	--Show MAC address table

6.2 IGMP snooping mode enable

Table 6.2.1 IGMP snooping enable configuration:

Table 6.2.1

Operating	Command	Description
IGMP snooping enable set	**Set igmp**{enable|disable}	

Example:

Switch(IGMP)# **Set igmp enable**

[OK]

6.3 IGMP query mode enable

Table 6.3.1 IGMP query enable configuration:

Table 6.3.1

Operating	Command	Description
IGMP query enable set	**Set query**{enable|disable}	

Example:

Switch(IGMP)# **Set query enable**

[OK]

6.4 Set IGMP query time

Table 6.4.1 set IGMP query time:

Table 6.4.1

Operating	Command	Description
IGMP query time setting	**query**{time}	Time: 60-1000

Example:

Switch(IGMP)# **Query 125**

[OK]

6.5 Check the MAC address table

Table 6.5.1 Check the MAC address table command:

Table 6.5.1

Operating	Command	Description
Check the MAC address table	**Show MAClist**	

Example:

Switch(Igmp)# show MAClist

IGMP Snooping query time 125 seconds

[1] MAC List: 01-00-5E-00-00-FB Port: 5

[2] MAC List: 01-00-5E-00-00-FC Port: 5

[3] MAC List: 01-00-5E-7F-FF-FA Port: 5,6

[4] MAC List: 01-00-5E-00-00-FD Port: 5

Chapter 7 VLAN

7.1 Introduction to VLAN

VLAN (Virtual Local Area Network) is a virtual local area network, is a kind of device by LAN logical rather than physical division into a network, in order to achieve the virtual group technology.

VLAN technology allows network administrators to one physical LAN logic into different broadcast domains (or virtual LAN, VLAN), each VLAN contains a set of computer workstations have the same needs, have the same properties and physical form on LAN. But because it is logical rather than physical partition, so each workstation with a VLAN does not need to be placed in the same physical space, namely the workstation does not necessarily belong to the same physical LAN segment. Within a VLAN broadcast and unicast traffic will not be forwarded to the other VLAN, helps to control the flow, reduce equipment investment, simplifying the management of network, improve network security.

The switch supports 802.1Q VLAN and port based VLAN (Port-based VLAN).

7.2 The contents of VLAN configuration

The VLAN configuration including:

1, show current VLAN type

2, VLAN Enable

3, configure the ports of Vlan information

4, the configuration of 802.1Q Vlan information

First of all to enter the Vlan configuration views.

Table 7.2.1 to enter the VLAN configuration view:

Table 7.2.1

Operating	Command	Description
In view of the VLAN	**Vlan**	To perform the operation in the system.

Switch# **vlan**

Switch(Vlan)# **?**

List	--List commands of current menu
Help	--Help commands of current menu
Quit	--Quit from CLI
Exit	--Exit from current menu
Reboot	--Reboot switch
Show vlan	--Show current VLAN type
Enable	--VLAN Enable

Show items --Show current VLAN type items
Add pvlan --Add PORT VLAN items
Config pvid --Set IEEE 802.1Q VLAN vid for the port
Add qvlan --Add IEEE 802.1Q VLAN items
Delete pvlan --Delete PORT VLAN items
Delete qvlan --Delete IEEE 802.1Q VLAN items

7.3 Vlan information view

Table 7.3.1 into the VLAN information view:

Operating	Command	Description
Show 802.1Q VLAN items	**Show vlan**	To perform the operation in the VLAN.
Show port VALN	**Show items** <vidlist>	-<vidlist>：1,4,5-4094 or all

Example: show all Port-VLAN information.

Switch(Vlan)# **show items all**

Port VLAN is enable!

VID PORT

1 1 2 3 4 5

Example: show 802.1Q VLAN information.

Switch(Vlan)# **show vlan**

802.1Q VLAN is enable!

VLAN replace:The VID is unchanged!

Port 1 PVID: 1

Port 2 PVID: 1

Port 3 PVID: 1

Port 4 PVID: 1

Port 5 PVID: 1

7.4 VLAN Enable

Table 7.4.1 to enable VLAN function:

Operating	Command	Description
VLAN enable	Enable{0|1}	0: Port-VLAN 1: 802.1Q VLAN

Switch(Vlan)# **enable 0**

PORT VLAN is enable!

[OK]

Tip: This configuration will be validated after restarting

7.5 Enter the port configuration view based on Port-VLAN

Table 7.5.1 to enter the port configuration view based on Port-VALN:

Operating	Command	Description
Add Vlan	**Add** <*vid*> <*portlist*> <*typelist*>	<vid>：VLAN ID:1-4095 <portlist>：1,3,5-10 or all 0 --CPU port <typelist>： UnModified | UnTagged | Tagged
Delete Vlan	**Delete pvlan** <vidlist>	<vidlist>：1,4,5-4094 or all

Example: add VLAN of 2, a member of the port in 2, 3, 4, Untagged

Switch(Vlan)# Add 2 2,3,4, U

VID : 2

Port_cpu : ----

port 1 : ----

port 2 : UnTagged

port 3 : UnTagged

port 4 : UnTagged

port 5 : ----

Tip: This configuration will be validated after restarting

Example: delete port-VLAN that VID is 2

Switch(Vlan)# **Delete qvlan 2**

[OK]

Tip: This configuration will be validated after restarting

7.6 Enter configuration view based on 802.1QVlan

Table 7.6.1 into the 802.1Q Vlan configuration based view:

Operating	Command	Description
Pvid setting	**config pvid** <*portlist*> <*pvid*>	<portlist>：1,3 or all 0 --CPU port <pvid> ：1-4094
Add VLAN	**Add qvlan** <vid> <portlist> <typelist>	<vid>：1-4094 <portlist>：1,、2、3 or all <typelist>：m UnModified u |UnTagged |
Detele VLAN	**Delete** *qvlan*	<vidlist>：1,4,5-4095 or all

Example: setting port 2 PVID is 3

Switch(Vlan)# **Config pvid 2 3**

[OK]

Tip: This configuration will be validated after restarting

Example: add vlan 2, Port members for the 2, 4 port types were UnModified, untagged

Switch(Vlan)# **Add qvlan 2 2,4 m,u**

[OK]

Tip: This configuration will be validated after restarting

Example: detele VID 6 of the Q-VLAN

Switch(Vlan)# **Delete qvlan 6**

[OK]

Tip: This configuration will be validated after restarting

Chapter 8 Static Multicast filtering view

8.1 Enter the multicast filtering view

Static multicast configuration includes:

1. Add static multicast address;
2. Delete the multicast address;
3. Display the multicast address;

Table 8.1.1 into the static multicast view command:

Operating	Command	Description
In view of the configuration of multicast filtering	**Multicast**	To perform the operation in the system.

Switch# **Multicast**

Switch**(Multicast)**# **?**

List	--List commands of current menu
Help	--Help commands of current menu
Quit	--Quit from CLI
Exit	--Exit from current menu
Reboot	--Reboot switch
Show multicast	--Display multicast items
Delete	--Delete multicast items
Add	--Add multicast items

8.2 Add /Delete static multicast address

User can use the following commands to add/delete static multicast address.

Multicast address add/delete command:

Operating	Command	Description
Add multicast address	**Add** *<macaddress>* *<portlist>*	<macaddress>: multicast address, format is XY-XX-XX-XX-XX-XX, X is any hex number <portlist>: Port 1,2,3 or all
Delete multicast address	**Delete** *<1-15>*	

Example: Add multicast address 01-22-33-44-55-66, its port members are Port 1, 2, 3.

Multicast_filters# **add 01-22-33-44-55-66 1,2,3**

MAC: 01-22-33-44-55-66 Port: 1,2,3

[OK]

8.3 Configuration of showing static multicast address

User can use the following commands to check static multicast address.

Table 8.3.1 Shows static multicast address command:

Operating	Command	Description
Show static multicast filtrated address	**Show multicast**	Run in view of multicast

Switch(Multicast)# **Show multicast**

（1） MAC: 01-22-33-44-55-66 Port: 1, 2, 3

Chapter 9 QoS

9.1 Enter the multicast filtering view

QoS configuration includes:

1. Enable Tos, Cos
2. Qos queue mechanism settings（8:4:2:1, high priority first）
3. Cos/Tos value mapping
4. Default port priority
5. Show configuration information of QoS

Table 9.1.1 to enter the Qos configuration view:

Operating	Command	Description
Enter the Qos configuration view	**QoS**	To perform the operation in the system.

Switch# **qos**
Switch(QoS)# **?**

List	--List commands of current menu
Help	--Help commands of current menu
Quit	--Quit from CLI
Exit	--Exit from current menu
Reboot	--Reboot switch
Show queuingm	--Show Queue mechanism
Show state	--Show ToS,CoS enable state
Show default	--Show port default priority
Show cos	--show CoS mapping
Show tos	--show ToS mapping
Queuingm	--Set Queue mechanism
Check	--Set ToS,CoS enable state
Default priority	--Set port default priority
Config cos	--Set CoS mapping
Config tos	--Set ToS mapping

9.2 Enable Dscp / Cos

The user can use the following command to set the Dscp, Cos enabled.

Table 8.2.1 to DScp/Cos

Operating	Command	Description
Check Tos/Cos	**check** <*portlist*> {0|1|2|3}	<portlist>: Port 1, 2, 3-5 0: Forbid; 1: use ToS; 2: use CoS; 3: all use

Example: Use CoS of Port 1, 3, 4

Switch (QoS)# **check 1, 3, 4 2**

[OK]

Example: Use ToS of Port 2, 3, 5

Switch (QoS)# **check 2, 3, 5 1**

[OK]

9.3 QoS queue configuration

The user can use the following command to configure the QoS queue mechanism.

Table 9.3.1 QoS queue configuration:

Operating	Command	Description
QoS Queue configuration	**Queuingm** {0|1}	0: weight ratio (8:4:2:1) 1: high priority priority

Example: set the QoS queue mechanism to weight ratio (8:4:2:1)

Switch (QoS) # **queuingm 0**

[OK]

9.4 The value of Dscp/Tos mapping

The user can use the following command to configure the Dscp/cos value map

Table 9.4.1 Dscp/cos mapping configuration command:

Operating	Command	Description
The value of Cos mapping	**Config cos** <*coslist*> <*classlist*>	<coslist>：CoS Mapping value，0，1，2-7 <classlist>：The priority queue L: low; N: normal; M: medium; H: high
The value of Dscp mapping	**Config tos** <*dscplist*> <*classlist*>	<dscplist>：ToS Mapping value，1，2，3-64 <classlist>：The priority queue L: low; N: normal; M: medium; H: high

Example: set the CoS value of 0, 2, 5, 7 respectively corresponding to the priority queue for Low, Normal, Medium, High

Switch(QoS)# config cos 0,2,5,7 l,n,m,l

CoS value:0 priority:Low

CoS value:2 priority:Normal

CoS value:5 priority:Medium

CoS value:7 priority:Low

9.5 The default port priority allocation

The user can configure a default port priority to use the following command.

Table 9.5.1 the default port priority allocation:

Operating	Command	Description
The default port priority allocation	**Default priority** *<portlist> <0-3>*	<portlist>：port 1，2，3 or all *<0-3>* ： Port priority

Example: set the default priority port 1 was 3

Switch(QoS) # **default priority 1 3**

port1 default priority : 3

9.6 Qos configuration information

Users can use the following command to view the QoS information.

Table 9.6.1 view the Qos command:

Operating	Command	Description
To view the QoS queue mechanism	**Show queuingm**	
To view the CoS value map	**Show cos** *<coslist>*	<coslist>：CoS Mapping value，0，1，2-7
To view the ToS value map	**Show Tos** *<dscplist>*	<dscplist>：Dscp Mapping value，1，2，3-64
To view the ToS/CoS enabled state	**Show state** *<portlist>*	<portlist>：port 1，2，3 or all
To view the default port priority	**Show default** *<portlist>*	<portlist>：port 1，2，3 or all

Switch(QoS)# **Show queuingm**

Queue mechanism:Weighted Fair(8:4:2:1)

Switch(QoS)# **Show state all**

port 1: ToS and CoS forbid

port 2: ToS and CoS forbid

port 3: ToS and CoS forbid

port 4: ToS and CoS forbid

port 5: ToS and CoS forbid

Switch(QoS)# **Show default 2**

port 2 default priority: 0

Switch(QoS)# **Show cos 5**

CoS value:5 priority:Medium

Switch(QoS)# **Show tos 52**

DSCP(52):High

Chapter 10 Ring configuration

10.1 Enter the ring network configuration view

The ring network configuration including:

1. The Ring3 configuration;
2. Ring network information view;
3. The RSTP configuration
4. RSTP state information view

Table 10.1.1 into the ring network configuration view:

Operating	Command	Description
Enter the ring network configuration view	**ring**	To perform the operation in the system.

Example: display the current network information

Switch# **ring**

Switch(Ring)# **?**

List	--List commands of current menu
Help	--Help commands of current menu
Quit	--Quit from CLI
Exit	--Exit from current menu
Reboot	--Reboot switch
Show ring	--Show current ring config
Enable	--Enable Ring
Disable Ring	--Disable Ring
Modify rstp_state	--Modify RSTP State parameter
Config rstp_state	--Config RSTP State
Modify rstp_port	--Modify RSTP Port parameter
Rstp status	--Show rstp status informaiton
Config rstp_port	--Config RSTP Port
Modify ring3	--Modify Ring III parameter
Config ring3	--Config Ring III
Close ring3	--Close Ring III

10.2 Ring network state information view

Table 10.2.1 into the show ring network state information view:

Operating	Command	Description
Enter the ring network state information view	**Show ring**	To perform the operation in the system.

Switch(Ring)# **show ring**

Ring III Enable

Group:1 ID: 1 port:1,2 type: Single Hello_time: 0*100ms state:Disable

Group:2 ID: 2 port:4,5 type: Single Hello_time: 0*100ms state:Disable

10.3 To enable or disable the ring

Users can use the following command to set the ring network enabled, 10.3.1 ring network to set command:

Operating	Command	Description
Ring opening	**Enable**{3|4}	3: Enable Ring3 4: Enable RSTP
Ring close	**Disable**	

Switch(Ring)# **enable 4**

[OK]

Tip: This configuration will be validated after restarting

Switch(Ring)# Disable Ring

[OK]

Tip: This configuration will be validated after restarting

10.4 The Ring3 configuration

Ring3 enabled, can use the following command to set the Ring3.

Table 10.4.1 Ring3 to set and modify:

Operating	Command	Description
Configuration Ring3	**Config ring3** {1|2} <id> <LoopType> <port> <hellotime>	{1|2} ： 1 ring group 1, 2 ring group 2 <id> ： Said the ring network identification, value of [0-255] <LoopType>：0: Single 1: Couple 2: chain 3: Dual_homing <portlist>：Ring network port <hellotime>：value of [0-300]

Operating	Command	Description
Modify ring3	**Modify ring3** {1|2} <options> <parameter>	{1|2} ： 1 ring group 1, 2 ring group 2 <options>： -H: on behalf of Hellotime, [0-300] -i: ring network identification, 0-255 -t; ring type: 0: Single 1: Couple 2: chain 3: Dual_homing -p: ring network port -s: enable/disable <parameter> ： And the parameter matching -h|-i|-t|-p|-s
Close Ring 3	**Close ring3** {1|2}	1: Ring network group 1 2: Ring network group 2

Example: configuration Ring3 port 1 and 2 in ring group 1, ring ID 1, hellotime is 0, the ring type couple;

Switch(Ring)# **Config ring3 1 1 1 1,2 0**

[OK]

Tip: This configuration will be validated after restarting

Example: to modify the second groups in the Ring3 ring network ports for 4, 5;

Switch(Ring)# **Modify ring3 2 -p 4,5**

[OK]

Tip: This configuration will be validated after restarting

Example: close ring 3 group1;

Switch(Ring)# **Close ring3 1**

[OK]

Tip: This configuration will be validated after restarting

10.7 The RSTP configuration

RSTP enabled, can use the following command to set the RSTP.

Table 10.7.1 RSTP to set and modify.

Operating	Command	Description
The configuration of RSTP	**Config rstp_state** <priority><hellotime> <delaytime> <maxage>	<priority> --RSTP priority {0|4096|8192|12288|16384|20480 |24576|28672|32768|36864|40960| 45056|49152|53248|57344|61440} <hellotime> --RSTP hellotime Range [1-10]s <delaytime> --RSTP delaytime Range [4-30]s <maxage> --RSTP maxage Range [6-40]s
	Config rstp_port{1|2|3|4|5 } <pathcost> <portpriority> <p2p> <edge><enable>	<pathcost> --Port pathcost Range [0-200000000] <portpriority> --Port portpriority {0|16|32|48|64|80|96|112|128|144|160| 176|192|208|224|240} <p2p> --Port p2p {no|yes|auto} <edge> --Port edge {0 |1} 0:no; 1:yes <enable> --Port enable {0|1} 0:no; 1:yes
Modify the RSTP port	**Modify rstp _state** <options> <parameter>	<options> -P --modify priority {0|4096|8192|12288|16384|20480| 24576|28672|32768|36864|40960|45056| 49152|53248|57344|61440} -h --modify hellotime Range [1-10]s -d --modify delaytime Range [4-30]s -m --modify maxage Range [6-40]s Parameter：-p/-h/-d/-m parameter
	Modify rstp_port{1|2|3|4|5 }<options> <parameter>	<options> -c --modify pathcost Range [0-200000000] -p --modify portpriority {0|16|32|48|64|80|96|112|128| 144|160|176|192|208|224|240} -t --modify p2p {no|yes|auto} -e --modify edge {0|1} 0:no; 1:yes -a --modify enable {0|1} 0:no; 1:yes

Example: RSTP port configuration

Switch(Ring)# **Config rstp_state 4096 2 5 8**
[OK]
Tip: This configuration will be validated after restarting
Switch(Ring)# **Modify rstp_state -p 8192**
[OK]
Tip: This configuration will be validated after restarting

Switch(Ring)# **Config rstp_port** 1 20000 128 auto yes yes
[OK]
Tip: This configuration will be validated after restarting

Switch(Ring)# **Modify rstp _port –c 30000**
[OK]
Tip: This configuration will be validated after restarting

10.8 Show RSTP information

Operating	Command	Description
Show RSTP	**Rstp status**	Carry out in RSTP view

Switch(Ring)# **Rstp status**
This ID : 8192:00226F026FA7 Root ID : 8192:00226F026FA7
Root Port : NULL Root port path cost : 0

Port	Priority	Path cost	P2P	Edge	Network	Roles	Forwarding
00	64	300	Y	N	Rapid	Disabled	Disabled
01	128	2000000	N	N	Rapid	Designated	Forwading
02	128	200000000	Y	N	Rapid	Disabled	Disabled
03	128	0	Y	N	Rapid	Disabled	Enabled
04	128	0	Y	N	Rapid	Disabled	Enabled

Chapter 11 Trunk configuration

11.1 Enter the port Trunk view

1. Port Trunk configuration includes:
2. Port trunk configuration;
3. Delete port information fusion;
4. Port trunk information view;

Table 11.1.1 to enter the port trunk view:

Operating	Command	Description
Enter the port trunk configuration view	**trunk**	To perform the operation in the system.

Switch# **trunk**

Switch(Trunk)# **?**

List --List commands of current menu
Help --Help commands of current menu
Quit --Quit from CLI
Exit --Exit from current menu
Reboot --Reboot switch
Show --Show Port Trunking
Clean --Clean Trunking group
Config --Set Port Trunking

11.2 Port trunk configuration / delete

The user can use the following command to configure / delete the port trunking

Table 11.2.1 trunking configuration / delete command:

Operating	Command	Description
Configuration trunk	**Config** {1|2} *<portlist>*	{1|2}： 1, 2 respectively mean trunk group1, 2 <portlist>：trunk port 1，2，3 or all
Delete trunk	**Clean {1|2|all}**	{1|2|all}：1, 2 respectively mean trunk group1, 2 all：All trunk group

Example: set the port 1, 2 for the trunk group 1

Switch（Trunk）# **config 1 1,2**

[OK]

11.3 Display port trunk configuration information

The user can use the following command to view port trunk configuration information.

Table 11.3.1 view port trunk configuration command:

Operating	Command	Description
Display port trunk configuration information	**Show** {|1|2|all}	{|1|2|all} 1, 2 respectively mean trunk group1, 2 all：All trunk group

Switch(Trunk)# **show all**

Group: 1 state: Enable Port: 1,2
Group: 2 state: Enable Port: 3,5

Chapter 12 The SNMP configuration

12.1 Configure the view into the SNMP

The Snmp configuration including:
1. Close the Snmp
2. To view the Snmp configuration information
3. The Snmp configuration
Table 12.1.1 to enter the Snmp configuration view:

Operating	Command	Description
enter the Snmp configuration view	**Snmp**	To perform the operation in the system

Switch# **snmp**

Switch(Snmp)# **?**

List --List commands of current menu
Help --Help commands of current menu
Quit --Quit from CLI
Exit --Exit from current menu
Reboot --Reboot switch
Close --Turn off the snmp
Show --Show the snmp status
Config --Set the snmp

12.2 Enable the SNMP information

Table 12.2.1 to enter the Snmp command information view:

Operating	Command	Description
Show Snmp information	**Show**	To perform the operation in the system
Close snmp	**Close**	

Switch(Snmp)# Show

The only read community name:public
The read or write community name:private
The SNMP gateway:192.168.1.1

12.3 The SNMP configuration view

The user can configure the SNMP using the following command

Table 12.3.1 SNMP configuration command:

Operating	Command	Description
The configuration read and write Snmp community	**Config** *<orcomm>* *<rwcomm>* *<snmpgw>*	*<orcomm>* --only read community name such as public *<rwcomm>* --read or write community name such as private *<snmpgw>* : The gateway address

Switch(Snmp)# Config public private 192.168.1.1

[OK]

Chapter 13 Alarm configuration

13.1 Enter the alarm information view

Alarm configuration including:

1. Power alarm;
2. Port alarm;
3. Delete alarm information;
4. Alarm information view;

Table 13.1.1 enter the alarm configuration view:

Operating	Command	Description
Enter the alarm configuration view	**Alarm**	To perform the operation in the system

Switch# **alarm**

Switch(Alarm)# **?**

List	--List commands of current menu
Help	--Help commands of current menu
Quit	--Quit from CLI
Exit	--Exit from current menu
Reboot	--Reboot switch
Close alarm	--Turn off the alarm
Show type	--Show Relay type
Show power	--Show Power alarm status
Show port	--Show Port alarm status
Type	--Set relay type
Power relay	--Set power alarm
Port relay	

13.2 Alarm configuration / delete

The user can use the following command to configure alarm

Table 13.2.1 alarm configuration command:

Operating	Command	Description
Configure port alarm	**Port relay** *<portlist>* **{enable|disable}**	<portlist>：Alarm ports 1，2，3 or all
Configuration power alarm	**Power relay** {1|2|all} **{enable|disable}**	{1|2|all}：Show the way power alarm 1：The first power supply； 2：The second way power
To turn off the alarm information	**Close alarm**	In view of the alarm
type of Relay output configuration	**Type** {0|1}	{0|1}: type of relay output 0: OFF; 1: ON

Example: Open Ports 1, 3, 5alarm

Switch（Alarm）# **port relay 1,3,5 enable**

[OK]

Example: power off warning

Switch（Alarm）# **close alarm**

[OK]

13.3 Display the alarm information

The user can use the following command to view the alarm information

Table 13.3.1 view the alarm information command:

Operating	Command	Description
Show power alarm information	**Show power** {1|2|all}	{1|2|all}：Show the way power alarm 1： The first power supply； 2： The second way power Only applicable to DC
Show port alarm information	**Show port** <*portlist*>	<portlist>：Alarm ports 1，2，3 or all
Show alarm output type	**Show type**	Run in view of alarm

Example: set the alarm information port

Switch(Alarm)# show port all

Port 1 Alarm status: Disable [LOS]

Port 2 Alarm status: Disable [LOS]

Port 3 Alarm status: Disable [LOS]

Port 4 Alarm status: Disable [LOS]

Port 5 Alarm status: Disable [Link]

``````
``````

Chapter 14 Port Statistics

14.1 Enter the port statistical configuration view

Port statistics:

1. Statistics port number and type
2. Clean up the count the number of frames
3. Statistics port flow
4. Clean up the total flow
5. The MAC address table

Table 14.1.1 to enter the port statistical configuration view:

Operating	Command	Description
Enter the port statistical view	**Statistics**	To perform the operation in the system

14.2 Port Statistics configuration view

Table 14.2.1 to enter the port statistical configuration view

Operating	Command	Description
Statistics port number and type	**Show frames <port>**	<port> 1-5
Clean up the count the number of frames	**Clean frames**	

Example: the port number and types of statistics 2

Switch(Statistics)# **Show frames 2**

TxOctets 3228
TxDropPkts 0
TxBroadcastPkts 0
TxMulticastPkts 0
TxUnicastPkts 43
TxCollisions 0
TxSingleCollision 0
TxMultiple Collision 0
TxDeferredTransmit 0
TxLateCollision 0
TxExcessiveCollision 0
TxFrameInDisc 0
TxPausePkts 0

RxOctets 4665

```
RxUndersizePkts          0
RxPausePkts              0
Pkts64Octets             62
Pkts65to127Octets        5
Pkts128to255Octets       1
Pkts256to511Octets       0
Pkts512to1023Octets      0
Pkts1024toMaxPktOctets   0
RxOversizePkts           0
RxJabbers                0
RxAlignmentErrors        0
RxFCSErrors              0
RxGoodOctets             4665
RxDropPkts               0
RxUnicastPkts            39
RxMulticastPkts          0
RxBroadcastPkts          29
RxSAChanges              0
RxFragments              0
JumboPkt                 0
RXSymbolError            0
InRangeErrors            0
```

Switch(Statistics)# **Clean frames**

[OK]

Chapter 15 Port mirroring

15.1 Enter the port mirroring view

Port mirroring configuration includes:
1. Port mirroring configuration;
2. Delete port mirroring;
3. View port mirroring;

Table 15.1.1 to enter the port mirroring configuration view:

Operating	Command	Description
Enter the port mirroring configuration view	**Mirror**	To perform the operation in the system

Switch# **mirror**

Switch(Mirror)# **?**

List	--List commands of current menu
Help	--Help commands of current menu
Quit	--Quit from CLI
Exit	--Exit from current menu
Reboot	--Reboot switch
Show mirror	--Show port mirror
Close mirror	--Close port mirror
Config	--Set port mirror

15.2 Port mirroring configuration / delete

The user can use the following command to port mirroring configuration / delete.
Table 15.2.1 port mirroring configuration / delete command:

Operating	Command	Description
Port mirroring configuration	**Config** <mirror_port> <port> {1|2|3}	{1|2|3}：Data type 1 --all data 2 --Ingress data only 3 --Egress data only < *mirror_port* >：Mirror port 1，2，3-5 <port>：Acquisition port
Port mirroring delete	**Close mirror**	In view of the port mirroring

Example: the allocation of port 3 to collect all the data ports 1 and 2.

Switch(Mirror)# **Config** 1,2 3 1

[OK]

15.3 Display port mirroring information

Table 15.3.1 view port mirroring information command:

Operating	Command	Description
Display port mirroring information	**Show mirror**	In view of the port mirroring

Switch(Mirror)# **Show mirror**

Mirror_portlist:1 collect_port:2 Date type:all data

Chapter 16 System management

16.1 Enter the System management configuration view

System management includes:
1. System timeout;
2. The default gateway, IP address configuration;
3. The user name, password configuration;
4. Device IP, subnet mask, default gateway, see;
5. Restore factory settings;
6. Upload, download the configuration file
7. The system upgrade

Table 16.1.1 into the system management view commands:

Operating	Command	Description
In view of system management	**Manage**	To perform the operation in the system

Switch# **manage**

Switch(Manage)# **?**

List	--List commands of current menu
Help	--Help commands of current menu
Quit	--Quit from CLI
Exit	--Exit from current menu
Reboot	--Reboot switch
Ip	--Set ip address and subnet mask
Set	--Set Console Overtime
Show net_address	--Show Internet address
Restore	--Reset to factory default
Hostname	--Set hostname
Password	--Set password
Gateway	--Set gateway
DNS	--Set DNS Server
DHCP	--Config DHCP

16.2 System timeout

Users can use the following command to set the system time

Table 16.2.1 system timeout command:

Operating	Command	Description
System timeout setting	**Set** <*time_out*>	<time_out>：The system timeout, value of [0-60], the unit minute, a default timeout value of 5 minutes; 0 --Close timeout function

Example: set the system time is 10 minutes

Switch (manage)# **set 10**

[OK]

The system is used to define the time, when to enter the CLI configuration mode, do not do any operation timeout. The system after a timeout will automatically jump to the user mode, the new username and password authentication.

16.3 IP address and default gateway setting

The user can set the following command equipment IP, default gateway address

Table 16.3.1 device IP address, default gateway address setting:

Operating	Command	Description
The device IP address configuration	**Ip** <*A.B.C.D*> <*A1.B1.C1.D1*>	<A.B.C.D>：ip address <A1.B1.C1.D1>：The subnet mask
The default gateway configuration	**Gateway** <*A.B.C.D*>	<A.B.C.D>：The gateway address

Example: the equipment configuration for 192.168.254 IP 255.255.255.0, subnet mask, default gateway for 192.168.1.1

Switch(Manage)# **ip 192.168.1.254 255.255.255.0**

[OK]

Switch(Manage)# **gateway 192.168.1.1**

[OK]

16.4 User name, password settings

The user can set the user name, password following command

Table 16.4.1 user name, password settings:

Operating	Command	Description
User name setting	**Hostname** <*hostname*>	<hostname>：The user name string
User password setting	**Password** <*password*> <*password*>	<password>：The user password string

16.5 Display device IP, subnet mask, default gateway

The following command to check the equipment available to the user IP, subnet mask, default gateway

Table 16.5.1 devices IP, subnet mask, default gateway.

Operating	Command	Description
Show device IP, subnet mask, default gateway	**show net_address**	To perform the operation in the system manage

Example: check the equipment IP, subnet mask, default gateway address

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

16.6 Restore factory settings

The user can restore to factory settings following command equipment

Table 16.6.1 restores factory settings command:

Operating	Command	Description
Restore the device to factory settings	**Restore**	To perform the operation in the system manage

Example: To restore the device to factory settings

Switch（manage）# **restore**

Restore Settings or not ? (yes/no) yes //Y

Wait..

16.7 The address of the DNS server settings

Table 16.7.1 address of the DNS server setup command.

Operating	Command	Description
DNS server	**DNS**<*server*>	To perform the operation in the system manage

Switch(Manage)# **DNS 202.96.134.133**

16.8 Obtain an IP address automatically set

Table 16.8.1 DHCP enable setting.

Operating	Command	Description
DHCP enable setting	**DHCP***{enable/disable}*	To perform the operation in the system manage

Switch(Manage)# **DHCP enable**

Switch(Manage)# **DHCP disable**

16.9 Upload, download the configuration file

Through the super terminal, users can upload and download the configuration file, the following command

Table 16.9.1 upload, download the configuration file.

Operating	Command	Description
Upload configuration file	**Upload**	File suffix (.Cfg)
To download the configuration file	**Download**	File suffix (.Cfg)

To download the configuration file as follows:

1. Enter the command:

Switch (manage) # download

Please select file path and ready to receive file.

Or press [Esc] to quit.

2. Super terminal and to select file folder

[transfer] →[To receive the file] →[browse] →[Select the folder] →[Users want to download folder] →[OK] → [Use receiving protocol] →[Xmodem] →[Receive] →[To receive the file name] →[The user to save the file name, the suffix.Cfg]] →[OK]

Upload configuration steps are as follows

1. Enter the command:

System_manage# upload

Please send configuration file, or press [Esc] to quit .

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Explain: From the input upload command and the emergence of the first C start, no operation in 2 minutes, the system will automatically exit

2. Super terminal and choose to upload the configuration file, the suffix.Cfg

[transfer] →[Send the file] →[browse] →[Select the folder] →[Users to upload the configuration

file] →[OPEN] → [Use receiving protocol] →[Xmodem]→[Send]

16.10 The system upgrade

Through the super terminal, users can upgrade the following command file system (Before the upgrade, please confirm the correctness of the file)

Table 16.10.1 system upgrade.

Operating	Command	Description
The system upgrade	**Upgrade**	File suffix (.Bin)

The following steps to upgrade the system file

1. Enter the command:

Switch(manage)# upgrade

Please send upgrade file, or press [Esc] to quit .

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2. Configure HyperTerminal and choose to upload the file, the suffix (.bin)

[Transfer] →[Send the file] →[browse] →[Select the folder] →[Users want to upgrade the configuration file] →[Open] →[The use of Transfer protocol] →[Xmodem] →[Send]