



ISCOM 2016 SERIES

COMMAND MEMUAL

SOFTWARE VERSION—ISCOMOS 1.3

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Content

COMMAND MEMUAL.....	1
1 CHAPTER ONE PREFACE.....	1
1.1 COMPILATION PURPOSE	1
1.2 DOCUMENT STRUCTURE	1
1.3 DEFINITION.....	1
1.4 REFERENCE.....	1
2 CHAPTER TWO USAGE OF COMMAND –LINE.....	2
2.1 HARDWARE AND SOFTWARE ENVIRONMENT	2
2.2 COMMAND MODE.....	2
3 CHAPTER THREE COMMAND-LINE OF SYSTEM	3
3.1 ARP ADD.....	3
3.2 ARP TIMEOUT	3
3.3 CHINESE	4
3.4 CLEAR	5
3.5 CLEAR ARP	5
3.6 CLEAR INTERFACE PORT STATISTICS.....	6
3.7 CLEAR MAC-ADDRESS-TABLE	6
3.8 CLOCKSET	7
3.9 CONFIG.....	7
3.10 CREAT VLAN.....	8
3.11 DEBUG	9
3.12 DIR	10
3.13 DISABLE.....	10
3.14 DOWNLOAD.....	11
3.15 ENABLE.....	12
3.16 ENABLE PASSWORD.....	12
3.17 ENGLISH	13
3.18 ERASE	13
3.19 EXIT	14
3.20 FLOWCONTROL	14
3.21 HELP.....	15
3.22 HISTORY	16
3.23 HOSTNAME.....	16
3.24 IP ADDRESS.....	17
3.25 IP GATEWAY	18
3.26 IP IGMP-SNOOPING	18
3.27 IP IGMP-SNOOPING	19
3.28 IGMP-SNOOPING VLAN	20
3.29 IP IGMP-SNOOPING STATIC	21
3.30 IP IGMP-SNOOPING TIMEOUT	22

3.31	INTERFACE IP	22
3.32	INTERFACE PORT	23
3.33	LIST	23
3.34	LOGGING CONSOLE	24
3.35	LOGGING MONITOR	25
3.36	LOGGING HOST	26
3.37	LOGGING FILE	28
3.38	LOGGING ON	28
3.39	LOGGING TIME-STAMP	29
3.40	LOGGING RATE	30
3.41	LOGOUT	30
3.42	NAME	31
3.43	PVID	31
3.44	MAC-ADDRESS-TABLE AGING-TIME.....	32
3.45	MAC-ADDRESS-TABLE LEARNING.....	33
3.46	MAC-ADDRESS-TABLE STATIC	33
3.47	MIRROR BLOCK-NON-MIRROR.....	34
3.48	MIRROR DIVIDER.....	35
3.49	MIRROR FILTER	36
3.50	MIRROR MONITOR_PORT	37
3.51	MIRROR ON	37
3.52	MIRROR SOURCE_PORT	38
3.53	PASSWORD	39
3.54	QOS MAP PRIORITY QUEUE	39
3.55	QOS PORT	40
3.56	QOS TRUST	41
3.57	RATE-LIMIT PORT	41
3.58	REBOOT.....	42
3.59	RMON ALARM.....	43
3.60	RMON EVENT.....	44
3.61	RMON QUEUESIZE	45
3.62	SEARCH MAC-ADDRESS.....	45
3.63	SHOW AGING-TIME	46
3.64	SHOW ARP	46
3.65	SHOW CLOCK	47
3.66	SHOW INTERFACE PORT	47
3.67	SHOW INTERFACE VLAN	49
3.68	SHOW IP GATEWAY.....	49
3.69	SHOW IP IGMP-SNOOPING	50
3.70	SHOW LOGGING.....	51
3.71	SHOW MAC-ADDRESS-TABLE L2-ADDRESS	52
3.72	SHOW MAC-ADDRESS-TABLE MULTICAST.....	53
3.73	SHOW MAC-ADDRESS-TABLE STATIC	54
3.74	SHOW MAC-ADDRESS-TABLE STATIC	54
3.75	SHOW MIRRORING.....	55

3.76	SHOW MIRROR RULE	56
3.77	SHOW MONITOR SOURCE_PORT	56
3.78	SHOW QOS MAP	57
3.79	SHOW QOS PORT	57
3.80	SHOW QOS	58
3.81	SHOW RATE-LIMIT PORT	58
3.82	SHOW RMON ALARMS	59
3.83	SHOW RMON EVENTS	60
3.84	SHOW RMON HISTORY	60
3.85	SHOW RMON STATISTICS	61
3.86	SHOW RUNNING-CONFIG	62
3.87	SHOW SERVICE	63
3.88	SHOW SNMP	63
3.89	SHOW SNMP COMMUNITY	64
3.90	SHOW SNMP CONTACT	65
3.91	SHOW SNMP HOST	65
3.92	SHOW SNMP LOCATION	66
3.93	SHOW SNMP VIEW	66
3.94	SHOW STARTUP_CONFIG	67
3.95	SHOW STORM_CONTROL	68
3.96	SHOW SNTP	69
3.97	SHOW STP	69
3.98	SHOW SVL	71
3.99	SHOW TERMINAL	71
3.100	SHOW TRUNCK	72
3.101	SHOW VLAN STATIC	73
3.102	SHOW USER	73
3.103	SHOW VERSION	74
3.104	SHUTDOWN	75
3.105	SNMP-SERVER COMMUNITY	75
3.106	SNMP-SERVER CONTACT	76
3.107	SNMP-SERVER ENABLE TRAPS	77
3.108	SNMP-SERVER HOST	77
3.109	SNMP-SERVER LOCATION	78
3.110	SNMP-SERVER VIEW	78
3.111	SNTP BROADCAST CLIENT	79
3.112	SNTP SERVER	80
3.113	SPEED	80
3.114	SPEED AUTO-NEGOTIATE	81
3.115	STATE	81
3.116	STORM_CONTROL	82
3.117	STORM_CONTROL	83
3.118	STP	84
3.119	STP FORWARD-DELAY	85
3.120	STP HELLO-TIME	86

3.121	STP MAX-AGE	87
3.122	STP PATH-COST	87
3.123	STP PRIORITY	88
3.124	STP PRIORITY	89
3.125	SVL	90
3.126	TERMINAL HISTORY.....	90
3.127	TERMINAL TIME-OUT.....	91
3.128	TRANS-EAPOL	91
3.129	TRUNK	92
3.130	TRUNK-GROUP	93
3.131	UPLOAD.....	93
3.132	USER	94
3.133	USER LOGIN.....	95
3.134	USER PRIVILEGE.....	96
3.135	USER RADIUS.....	97
3.136	USER RADIUS-KEY.....	97
3.137	VLAN.....	98
3.138	VLAN SPACE	98
3.139	VLAN-ACCESS	100
3.140	WRITE	101

1 Chapter one Preface

1.1 Compilation purpose

The purpose of this user manual is to introduce command-line interface of ISCOMOS software. It comprehensively depicts command-line user interface of the software of ISCOMOS1.1 used by ISCOM2016 switch for users who use ISCON2016 and relevant ISCOMOS software.

1.2 Document structure

There are five chapters in this user manual:

Chapter 2: command-line usage

Introduce how to access, control and configure switch through the command-line of ISCOMOS software.

Chapter 3: command-line of system

Introduce ISCOMOS supported configuration commands in alphabetical order.

1.3 Definition

STP:	Spanning Tree Protocol
VLAN:	Virtual LAN
IGMP:	Internet Group Management Protocol
QoS:	Quality of Service
CoS:	Class of Service
InARP:	Inverse ARP
MBZ:	Must be Zero
MIB:	Management Information Base

1.4 Reference

《ISCOM2016 Series Switch Configuration Guide》

2 Chapter two Usage of command –line

2.1 Hardware and Software Environment

ISCOM2016 hardware environment: ISCOM2016 series switch panel

Software environment: ISCOMOS 1.1

2.2 Command Mode

Mode	Mode Description	Methods of Access Mode	Mode ID
Normal User Mode	Could configure basic information of terminal and display parameters under this mode	Log on switch, and input user name and password	Raisecom>
Privileged User Mode	Could configure basic information of switch, such as system time, switch name. Could not configure operating information of switch	Input ' enable ' and relevant password under normal user mode	Raisecom#
Global Configuration Mode	Could configure operating parameters of all switches	Input ' config ' under privileged user mode	Raisecom (configuration)#
Physical Layer interface mode	Configure physical interface parameters of switch	Input ' interface port portid ' mode under global mode	Raisecom (config-port)#
VLAN configuration mode	Could configure VLAN operation parameters under this mode	Input command of ' Vlan vlan_id ' under global mode.	Raisecom(config-g-vlan)#

3 Chapter three command-line of system

3.1 arp add

【Function Introductions】

Add new items to ARP mapping table.

Delete this operation with command of 'no arp add'

arp add ip-address mac-address

【Parameters Introductions】

- *ip-address* format: A.B.C.D;
- *mac-address* format: HHHH.HHHH.HHHH;

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

In the normal course of events, dynamic ARP protocol maintain ARP mapping table. ARP automatically search IP address mapping to MAC address resolution of Ethernet without administrators' intervention as per protocol. If require to add new items to static ARP table, operate ARP mapping table with manual configuration command. The IP address in static ARP table item must belong to layer 3 interface.

Use no arp add ip-address to delete static or dynamic APR table items.

【Notation of Command Output Message】

- set sucessfully!
If successfully add static MAC address, display above information.
- set fail!
If fail to add static MAC address, display above information.

【Usage Example】

- Add a static MAC address item. Configure MAC address, relevant to IP address 10.0.0.1, to 0050.8d4b.fd1e
Raisecom(config)#**arp add 10.0.0.1 0050.8d4b.fd1e**
- Delete items corresponding to IP address 10.0.0.1 in ARP mapping table
Raisecom(config)# **no arp add 10.0.0.1**

【Relevant Command】

Command	Description
clear arp	Clear all items in ARP address mapping table.
show arp	Display all items in ARP address mapping table.

3.2 arp timeout

【Function Introductions】

Configure the lifespan of dynamic ARP table item. ARP dynamic items will be deleted because of overrunning the time limit. Restore to default setting with command of 'no arp timeout'.

arp timeout secs**【Parameters Introductions】**

- *secs* - seconds, integer between 0-2147483.

【Default State】

The overtime of ARP dynamic table item is 1200 seconds.

【Command Mode】

Global configuration, Privileged users

【Guide】

Configure time limit of ARP dynamic table item with this command, viz, the maximum length of lifespan of resolved item. Items will be deleted because of overrunning time limit. If configure overtime to 0 second, ARP dynamic table item will be not aging.

【Notation of Command Output Message】

- set successfully!
If successfully configure parameters, display this information.
- set fail!
If fail to configure parameters, display this information.

【Usage Example】

- Configure the overtime of ARP dynamic table item as 1500 seconds.
Raisecom(config)# **arp timeout 1500**
- Restore to default overtime of ARP dynamic table item as 1200 seconds.
Raisecom(config)# **no arp timeout**

【Relevant Command】

Command	Description
clear arp	Delete all items in arp table
show arp	Display all items in arp table

3.3 Chinese

【Function Introductions】

Display help information of command line with Chinese.

Chinese**【Parameters Introductions】**

None

【Default State】

Display help information of command line with Chinese.

【Command Mode】

Original mode, Privileged configuration mode, Global configuration mode, VLAN configuration mode, Interface configuration mode, Normal user, Privileged user

【Guide】

Display chinese help information with this command. Enrich content of help information, and provide more clear help information for user.

【Notation of Command Output Message】

Successfully run this command.

【Usage Example】**chinese****【Relevant Command】**

Command	Description
english	Display help information of command line with English.

3.4 clear**【Function Introductions】**

Clear the screen with command of '**clear**'.

clear**【Parameters Introductions】**

None

【Command Mode】

Original mode, Privileged configuration mode, Global configuration mode, VLAN configuration mode, Interface configuration mode, Normal user, Privileged user

【Guide】

Clear the shown information on the screen with this command, and display next information from the first line

【Notation of Command Output Message】

None

【Usage Example】Raisecom> **clear****【Relevant Command】**

None

3.5 clear arp**【Function Introductions】**

Clear all items of ARP mapping table

clear arp**【Parameters Introductions】**

None

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged users.

【Guide】

Require to clear all items in ARP table in a certain cases with command of '**clear arp**'.

【Notation of Command Output Message】

- set successfully!
If successfully clear ARP table items, display above information.
- set fail!
If fail to clear ARP table items, display above information.

【Usage Example】

Clear ARP table:

Raisecom(config)#**clear arp**

【Relevant Command】

Command	Description
arp add	Add a static MAC address table item
show arp	Display all items of ARP mapping table

3.6 clear interface port statistics**【Function Introductions】**

Clear statistical information of port

clear interface port statistics

【Parameters Introductions】

- **clear** Clear
- **interface** Interface
- **port** Physical port
- **statistics** Statistical information

【Default State】

None

【Command Mode】

Ethernet physical interface configuration mode, Privileged users (Priority: 15)

【Guide】

Only users whose priority is 15 can use the command.

【Notation of Command Output Message】

- set successfully!
If successfully clear statistical information, display above information.
- set fail!
If fail to clear statistical information, display above information.

【Usage Example】

Clear statistical information of port 4:

Raisecom(config-port)# **clear interface port statistics**

3.7 clear mac-address-table**【Function Introductions】**

Delete dynamic/static MAC address in switch

clear mac-address-table [static]

【Parameters Introductions】

- **clear** Clear
- **mac-address-table** MAC address table
- **static** Static address

【Default State】

None

【Command Mode】

Global configuration mode, Privileged users (Priority: 15)

【Guide】

Only users whose priority is 15 can use the command.

【Notation of Command Output Message】

- set successfully!
If successfully delete MAC address, display above information.
- set fail!
If fail to delete MAC address, display above information.

【Usage Example】

Delete all dynamic MAC address

Raisecom(config)# **clear mac-address-table**

3.8 clockset**【Function Introductions】**

Modify system date and time with command of 'clockset'.

clockset <1-24> <0-60> <0-60> <2000-2199> <1-12> <1-31>

【Parameters Introductions】

- <1-24> hour;
- <0-60> minute;
- <0-60> second;
- <2000-2199> year;
- <1-12> month;
- <1-31> date;

【Command Mode】

Priviledge configuration mode, Priviledge user

【Guide】

Modify system date and time. Time will be saved in NVRAM and could not disappear because of power-off.

【Notation of Command Output Message】

set successfully.

Successfully run this command.

【Usage Example】

Raisecom# **clockset** 8 30 0 2003 9 30

Modify system time to 30th Sep, 2003, 8:30:00 with above command

【Relevant Command】

Command	Description
show clock	Display the current time of system

3.9 config**【Function Introductions】**

Access global configuration mode with command of 'config'.

config [terminal]

【Parameters Introductions】

terminal Configuration terminal

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

None

【Notation of Command Output Message】

set successfully.

Successfully run this command.

【Usage Example】

Raisecom#**config terminal**

【Relevant Command】

Command	Description
exit	Return to above command mode or exit log on state.
quit	Return to above command mode or exit log on state.

3.10 creat vlan

【Function Introductions】

Creat VLAN

`create vlan {1-4094} {active|suspend}`

【Parameters Introductions】

- `<1-4094>` VLAN ID list
- **active** Creat active VLAN
- **suspend** Creat suspended VLAN

【Default State】

Under default state, exist default VLAN in a system, viz. VLAN 1. All ports with untagged type exist in default VLAN 1, and VLAN IDs of those ports are all 1.

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

Users could creat VLANs at one time with this command, and determine whether created VLANs are active or not. However, created VLAN should be in the scope of VLAN field which are specified by command of '**vlan-space**'. Users could delete static VLAN in system with command of '**no vlan**'.

【Usage Example】

Creat VLAN 2, 3, 4, 5, 6, 100

Raisecom(config)# **create vlan** 2-6,100

【Relevant Command】

Command	Description
name	Name static VLAN.
state	Configure active state of static VLAN.
shutdown	Enable/disable static VLAN configuration.
pvid	Configure VLAN ID properties of ports.
vlan-space	Configure ID in PVID field.
vlan	Creat and enter VLAN configuration mode.
vlan-access	Configure VLAN access properties of port.
show vlan static	Display static VLAN configuration information

3.11 debug

【Function Introductions】

Open module debug switch with command of ‘**debug**’.

Close module debug switch with command of ‘**no debug**’.

[no] **debug** (**all** | **system** | **ospf** | **rip** | **gvrp** | **igmp-snooping** | **cli** | **driver** | **dhcp** | **snmp** | **stp** | **lACP** | **radius** | **dot1x** | **qos** | **rmon** | **sntp** | **telnet** | **arp** | **ip** | **config**)

【Parameters Introductions】

- **all** debug all functions
- **arp** arp debug
- **cli** cli debug
- **config** system config information
- **dhcp** dhcp debug
- **dot1x** dot1x debug
- **driver** driver debug
- **gvrp** gvrp debug
- **igmp-snooping** igmp-snooping debug
- **ip** ip debug
- **lACP** lACP debug
- **ospf** ospf debug
- **qos** qos debug
- **radius** radius debug
- **rip** rip debug
- **rmon** rmon debug
- **snmp** snmp debug
- **sntp** snmp debug
- **stp** stp debug
- **system** system debug
- **telnet** telnet debug

【Default State】

Enable config module.

Enable system module.

Disable others debug function.

【Command Mode】

Privilege configuration mode, Privileged user.

【Guide】

Enable debug function of a certain or all modules (‘**all**’ represents all modules and ‘**config module**’ denotes a module which could be recorded to ‘flash’ file system).

【Notation of Command Output Message】

None

【Usage Example】

Raisecom#**debug all**

【Relevant Command】

Command	Description
logging	Configure system log

3.12 dir**【Function Introductions】**

Display file storage state of flash file system.

dir

【Parameters Introductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

None

【Notation of Command Output Message】

None

【Usage Example】

Raisecom#**dir**

Display following content with command of '**dir**'.

size	date	time	name

32	Dec-31-2000	00:00:14	duraBle.
32	Dec-31-2000	00:00:14	DURABLE.

【Relevant Command】

Command	Description
write	Save the current system configuration.
erase	Delete the specified file in flash file system.
download	Download system configuration file or start-up file
upload	Upload system configuration file or start-up file

3.13 disable**【Function Introductions】**

Exit Privileged configuration mode and restore to original mode with command of '**disable**'.

disable

【Parameters Introductions】

None

【Command Mode】

Privileged configuration mode, Privileged user

【Guide】

Exit Privileged configuration mode and restore to original mode with this command

【Notation of Command Output Message】

None

【Usage Example】

Raisecom#**disable**

【Relevant Command】

Command	Description
Enable	Access Privileged user mode from original mode.

3.14 download

【Function Introductions】

Download system configuration file or system boot file to flash file system with command of '**download**'.

download {system-boot|startup-config} {tftp | ftp}

【Parameters Introductions】

- **system-boot** system boot file
- **startup-config** system configuration file
- **tftp** download through tftp protocol
- **ftp** download through ftp protocol

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user

【Guide】

Download system configuration file or system boot file to a flash file system with this command. The download file will be valid automatically after restarting system. This command can be implemented with different file transport protocols. At present, this command supports **tftp** and **ftp** protocol. Should assure that already configure ftpserver or tftp server and connect the switch system with those server before using this command.

【Notation of Command Output Message】

- Read error.
Occur errors when read data from server.
- Invalid input tftp protocol port.
Input wrong protocol number.
- Invalid input file name
Input wrong file name.
- User name is empty!
Do not input ftp user name.
- User password is empty!
Do not input ftp user password

【Usage Example】

- Raisecom# **download system-boot ftp**
Please input server IP Address:1.0.0.1
Please input FTP User name:test
Please input FTP Password:test

Please input FTP Server File Name:system_boot.Z
 Download boot file from ftp server with ftp protocol.

- **Raisecom# download startup-config tftp**

Please input server IP Address:1.0.0.1

Please input TFTP port(default 69):

Please input TFTP Server File Name:start_config.conf

Download system configuration file from tftp server with tftp protocol.

【Relevant Command】

Command	Description
Upload	Upload system configuration file or boot file

3.15 enable

【Function Introductions】

Access Privileged user mode with command of '**enable**'

enable

【Parameters Introductions】

None

【Command Mode】

Original mode; Normal user

【Guide】

Access Privileged user mode from original mode.

【Notation of Command Output Message】

None

【Usage Example】

Raisecom>**enable**

Password:

【Relevant Command】

Command	Description
Enable password	Modify the password accessing privilege mode.
disable	Exit privileged user mode to original mode.

3.16 enable password

【Function Introductions】

Configure the password, with which user could access global configuration mode from original mode, with command of '**enable password**'.

Restore password to default setting with command of '**no enable password**'.

enable password (null|PASSWORD)

no enable password

【Parameters Introductions】

- **null** password is empty
- **PASSWORD** password character

【Default State】

Default password, from original mode to global configuration mode, is '123'.

【Command Mode】

Privileged configuration mode, Privileged user

【Guide】

Modify user password, accessing privileged configuration mode, with this command.

【Notation of Command Output Message】

None

【Usage Example】

Raisecom#**enable password 123**

Modify accessing Privileged mode password to “123”。

【Relevant Command】

Command	Description
enable	Access privileged mode from original mode
disable	Exit privileged user mode to original mode

3.17 English

【Function Introductions】

Display help information of command line with English.

english

【Parameters Introductions】

None

【Default State】

Display help information of command line with English.

【Command Mode】

Original mode, Privileged configuration mode, Global configuration mode, VLAN configuration mode, Interface configuration mode, Normal user, Privileged user

【Guide】

Display English help information with this command. Enrich content of help information, and provide more clear help information for user.

【Notation of Command Output Message】

set successfully.

Successfully run this command.

【Usage Example】

Raisecom>**english**

【Relevant Command】

Command	Description
chinese	Display help information of command line with chinese.

3.18 erase

【Function Introductions】

Delete the specified file in flash file system with command of ‘**erase**’.

erase [FILENAME]

【Parameters Introductions】

FILENAME Specified file in flash file system

【Default State】

Delete current system boot configuration file.

【Command Mode】

Privileged configuration mode, Privileged user

【Guide】

Delete the specified file in flash file system with this command. If the file is not specified, delete boot configuration storage file 'startup_config.conf' in system.

【Notation of Command Output Message】

- Erase current specified file successfully!
- Erase current specified file Fail!

【Usage Example】

Raisecom#**erase** *aaa*

Delete *aaa* file in flash file system.

【Relevant Command】

Command	Description
write	Save the current system configuration

3.19 exit**【Function Introductions】**

Return above command mode or exit log on state with command of '**exit**'.

exit

【Parameters Introductions】

None

【Command Mode】

Original mode, Privileged configuration mode, Global configuration mode, VLAN configuration mode, Interface configuration mode, Normal user, Privileged user

【Guide】

Exit log on state under original mode and privileged configuration mode with this command.

【Notation of Command Output Message】

None

【Usage Example】

Raisecom>**exit**

【Relevant Command】

Command	Description
quit	Return to above command mode or exit logi on state.

3.20 flowcontrol**【Function Introductions】**

Enable or disable flowcontrol function of physical port.

flowcontrol { on | off }

【Parameters Introductions】

- **on** Enable flowcontrol function
- **off** Disable flowcontrol function

【Default State】

Disable the flowcontrol function of physical port under default state.

【Command Mode】

Ethernet physical interface configuration mode, Privileged user (Priority 15)

【Guide】

Only users whose priority is 15 can use the command.

【Notation of Command Output Message】

- SUCCESS!
- This operation failed !

【Usage Example】

- Enable flowcontrol function of physical port
Raisecom(config-port)# **flowcontrol on**
- Disable flowcontrol function of physical port
Raisecom(config-port)# **flowcontrol off**

【Relevant Command】

Command	Description
show interface port [<i>portnumber</i>] flowcontrol	Display flow state of a certain or all physical ports.

3.21 help

【Function Introductions】

Display system help information with command of '**help**'.

help

【Parameters Introductions】

None

【Command Mode】

Original mode, Privileged configuration mode, Global configuration mode, VLAN configuration mode, Interface configuration mode, Normal user, Privileged user

【Guide】

Display help information of command line with this command.

【Notation of Command Output Message】

ISCOMOS software provides advanced help feature. If you need help, please press '?' on the command line at anytime.

If there is no any matched help information, the help list will be empty and you must backup until entering a '?' shows the available options.

Two styles of help are provided:

1. Full help is available when you are ready to enter a command argument (e.g. 'show?') and describes each possible argument.
2. Partial help is provided when an abbreviated argument is entered and you want to know what arguments match the input (e.g. 'show me?').

【Usage Example】

Raisecom>**help**

【Relevant Command】

None

3.22 history**【Function Introductions】**

Display command history with this command.

history

【Parameters Introductions】

None

【Default State】

Could store 20 commands in history memory.

【Command Mode】

Original mode, Privileged configuration mode, Global configuration mode, VLAN configuration mode, Interface configuration mode, Normal user, Privileged user

【Guide】

Display command history of each mode with this command.

【Notation of Command Output Message】

ter time-out 65535

enable

chin

enable

help

eng

【Usage Example】

Raisecom>**history**

【Relevant Command】

Command	Description
terminal history	Modify the memory number of history command inputted in console.

3.23 hostname**【Function Introductions】**

Configure system name used by current user with command of '**hostname**'.

Resore to default setting with command of '**no hostname**'.

hostname *HOSTNAME*

no hostname

【Parameters Introductions】

HOSTNAME New specified system name for user

【Default State】

The default setting of hostname is Raisecom.

【Command Mode】

Privileged configuration mode, Privileged user

【Guide】

It is convenient for various user to use different host name and for various host to use different host name to prompt by using this command.

【Notation of Command Output Message】

- HostName length must less than 16 !
- set successfully.

【Usage Example】

Raisecom#**hostname** *switch*

Modify host of the switch to 'switch'.

【Relevant Command】

None

3.24 ip address

【Function Introductions】

Configure IP address of current interface.

Delete IP address of current interface with command of '**no ip address**'.

ip address *ip-address [ip-mask] vlanlist*

no ip address *ip-address*

【Parameters Introductions】

- *ip-address* IP address, format: dotted decimal, eg:A.B.C.D
- *ip-mask* Network mask corresponding to network segment where interface located, format such as A.B.C.D
- *vlan-id* VLAN ID corresponding to layer 3 interface.

【Default State】

Do not configure IP address at current interface

【Command Mode】

Configuration mode of Ethernet layer 3 interface, Privileged user.

【Guide】

Configure IP address with this command. Should configure relevant VLAN interface firstly before configuring IP interface address. The IP address of interface should be Class A, B or C address.

【Notation of Command Output Message】

- set successfully.
- This interface already associated with VLAN 4.
- Invalid network mask.
- Invalid IP address or network mask.
- VLAN 2 already associated with interface 2(ifIndex: 1100003).
- 192.168.1.4 overlaps with interface 2(ifIndex: 1100003).

【Usage Example】

- Configure IP address of current interface to 192.168.1.2, and relevant VLAN ID to 2

```
Raisecom(config-ip)# ip address 192.168.1.2 255.255.255.0 2
```

- Delete IP address of current interface.

```
Raisecom(config-ip)# no ip address 192.168.1.2
```

【Relevant Command】

Command	Description
State	current VLAN is active
vlan-access	Add current interface to VLAN
show interface vlan	Show VLAN interface.

3.25 ip gateway

【Function Introductions】

Configure default gateway with command of '**ip gateway**'. Delete default gateway with command of '**no ip gateway**'.

```
ip gateway A.B.C.D
```

```
no ip gateway
```

【Parameters Introductions】

A, B, C, D IP address of default gateway

【Default State】

There is no any configuration of default gateway.

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

If a message required to transmit do not find router of destination network, the system could automatically transmit all messages to default gateway with this command.

【Notation of Command Output Message】

set successfully.

【Usage Example】

Configure gateway to 10.0.0.1

```
Raisecom(config)# ip gateway 10.0.0.1
```

Delete configuration of default gateway

```
Raisecom(config)# no ip gateway
```

【Relevant Command】

Command	Description
show ip gateway	Display system router information

3.26 ip igmp-snooping

【Function Introductions】

Enable IGMP Snooping with this command. Disable this function '**no ip igmp-snooping**'.

```
[ no ] ip igmp-snooping
```

【Parameters Introductions】

None

【Default State】

IGMP Snooping protocol is valid under default state.

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

If enable IGMP Snooping, All existent VLAN interface will enable IGMP Snooping. If disable the function, all existent VLAN interface will cancel the function.

【Notation of Command Output Message】

- Enable igmp snooping success
- Enable igmp snooping failure
- Disable igmp snooping success
- Disable igmp snooping failure

【Usage Example】

- Enable IGMP Snooping
ISCOM2016 (config)# **ip igmp-snooping**
- Disable IGMP Snooping
ISCOM2016 (config)#**no ip igmp-snooping**

【Relevant Command】

Command	Description
show ip igmp-snooping	Display IGMP Snooping configuration information.

3.27 ip igmp-snooping

【Function Introductions】

Enable IGMP snooping on VLAN with command of '**ip igmp-snooping**'. Disable IGMP snooping function on VLAN with command of '**no ip igmp-snooping**'.

ip igmp-snooping

[no] ip igmp-snooping

【Parameters Introductions】

None

【Default State】

After enabling IGMP Snooping, all VLAN will enable IGMP Snooping under default state.

【Command Mode】

VLAN configuration mode, Privileged user.

【Guide】

Enable IGMP snooping on VLAN with command of '**ip igmp-snooping**'. Disable IGMP snooping function on VLAN with command of '**no ip igmp-snooping**'.

【Notation of Command Output Message】

- Enable igmp snooping on VLAN 1 success
- Enable igmp snooping on VLAN 1 failure
- Disable igmp snooping on VLAN 1 success
- Disable igmp snooping on VLAN 1 failure

【Usage Example】

- Enable IGMP Snooping on VLAN 1.

Raisecom(config-vlan)# **ip igmp-snooping**

- Disable IGMP Snooping on VLAN 1.

Raisecom(config-vlan)#**no ip igmp-snooping**

【Relevant Command】

Command	Description
show ip igmp-snooping	Display IGMP Snooping configuration information.
show ip igmp-snooping vlan	Display IGMP Snooping configuration information on specified VLAN.

3.28 Igmp-snooping vlan

【Function Introduction】

Enable IGMP snooping on specified VLAN with command of '**ip igmp-snooping vlan**'. Disable IGMP snooping function on specified VLAN with command of '**no ip igmp-snooping vlan**'.

ip igmp-snooping vlan *vlanlist*

[no] ip igmp-snooping vlan *vlanlist*

【Parameters Introduction】

vlanlist—VLAN list: scope: 1-4094; format: {1-4094}, such as, 2-100, 120; the length of parameter: 50 characters.

【Default State】

After enabling IGMP Snooping, all VLAN will enable IGMP Snooping under default state.

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

Enable IGMP snooping on specified VLAN with this command. Disable IGMP snooping function on specified VLAN with command of '**no ip igmp-snooping vlan**'. If need to enable/disable IGMP Snoopings on multi VLAN at one time, could use this command.

【Notation of Command Output Message】

- Enable igmp snooping on VLAN 1-10 success
- Enable igmp snooping on VLAN 1-10 failure
- Disable igmp snooping on VLAN 1-10 success
- Disable igmp snooping on VLAN 1-10 failure

【Usage Example】

- Enable IGMP Snooping on VLAN 1-10,12, and 15.

Raisecom(config-vlan)# **ip igmp-snooping vlan 1-10, 12, 15**

- Disable IGMP Snooping on VLAN 1-10 and 12.

Raisecom(config-vlan)#**no ip igmp-snooping vlan 1-10, 12**

【Relevant Command】

Command	Description
show ip igmp-snooping	Display IGMP Snooping configuration information.

show ip igmp-snooping vlan	Display IGMP Snooping configuration information on specified VLAN.
-----------------------------------	--

3.29 ip igmp-snooping static

【Function Introductions】

Add one or one more layer 2 ports as the member of multicast group with this command

Cancel this configuration with command of '**no ip igmp-snooping static**'.

[no] ip igmp-snooping static *mac-address* **port** *portid*

【Parameters Introductions】

- *mac-address* Specify IP address of static state group, format: dotted decimal system, such as HHHH.HHHH.HHHH;
- *portid* Specify port number configured to static state router, scope: 1-16, type: character, format: 1-11, 15

【Default State】

None

【Command Mode】

VLAN configuration mode, Privileged user.

【Guide】

Add one or one more layer 2 ports as the member of multicast group with this command. And cancel this configuration with command of '**no ip igmp-snooping static**'. Ports in their parameters should be in the scope of specified VLAN, otherwise, port configurations are not valid.

【Notation of Command Output Message】

- The IP address isn't multicast IP address (D class)
- Join port 1 – 10 in a assigned group 224.8.8.8 on assigned VLAN 1 success
- Join port 1-10 in a assigned group 224.8.8.8 on assigned VLAN 1 failure
- Disable join port 1-10 in a assigned group 224.8.8.8 on assigned VLAN 1 success
- Disable join port 1 in a assigned group 224.8.8.8 on assigned VLAN 1 failure

【Usage Example】

- Following illustration specify how to add ports 1-10, 12 to a group of 224.8.8.8.

Raisecom(config-vlan)# **ip igmp snooping static 224.8.8.8 port 1-10,12**

- Following illustration specify how to delete port 1-10, 12 from group of 224.8.8.8.

Raisecom(config-vlan)# **no ip igmp snooping static 224.8.8.8 port 1-10,12**

【Relevant Command】

Command	Description
show ip-igmp snooping mrouter	Display multicast route port information of dynamic learning or manual configuration.
show mac-address-table multicast	Display multicast entities of switch or layer 2 specified

3.30 ip igmp-snooping timeout

【Function Introductions】

Configure overtime of IGMP snooping with this command. Restore to default setting with command of '**no ip igmp-snooping timeout**'.

ip igmp-snooping timeout *timeout*

[no] ip igmp-snooping timeout

【Parameters Introductions】

- *timeout*: Specify overtime, unit: second, scope:range from 30-3600 sec., type: integer.

【Default State】

Default overtime to 300 second.

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

Configure valid time of multicast route in IGMP Snooping with this command. If timer overrun time limit, delete multicast route.

【Notation of Command Output Message】

- Set igmp snooping aging success.
- Set igmp snooping aging failure.
- Set igmp snooping aging default success
- Set igmp snooping aging default failure

【Usage Example】

- Configure overtime of IGMP snooping to 3000 second.
Raisecom(config)# **ip igmp-snooping timeout 3000**
- Configure overtime of IGMP snooping to default setting.
Raisecom(config)# **no ip igmp-snooping timeout**

【Relevant Command】

Command	Description
show ip igmp-snooping	Display configuration information of IGMP Snooping.

3.31 interface ip

【Function Introductions】

Access IP interface mode.

interface ip <0-15>

【Parameters Introductions】

<0-15> IP interface No.

【Default State】

Do not configure address for all IP interface under default state.

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

Access IP interface configuration mode with command of '**interface ip**'.

【Usage Example】

Enter configuration mode of IP interface 4.

Raisecom (config)# **interface ip 4**

【Relevant Commmand】

Command	Description
ip address	Configure IP address of current interface.
show interface vlan	Display interface of layer 3

3.32 interface port**【Function Inroductions】**

Access physical interface mode.

interface port <1-26>

【Parmeters Inroductions】

<1-26> Physical interface No.

【Default State】

Do not configure all physical interface of system under default state.

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

Access configuration mode of physical interface with command of '**interface port**'.

【Usage Example】

Access configuration mode of physical interface 4.

Raisecom (config)# **interface port 4**

【Relevant Commmand】

Command	Description
show interface port	Display physical por information t

3.33 list**【Function Inroductions】**

Display all commands under the mode in the form of list with this command.

list

【Parmeters Inroductions】

None

【Command Mode】

Original mode, Privileged configuration mode, Global configuration mode, VLAN configuration mode, Interface configuration mode, Normal user, Privileged user.

【Guide】

Display parameter details of all commands under the mode state with this command.

【Notation of Command Output Message】

chinese

clear

enable
 english
 exit
 help
 history
 list
 quit
 terminal history <1-20>
 terminal time-out <0-65535>

【Usage Example】

Raisecom>**list**

【Relevant Commmand】

None

3.34 logging console

【Function Inroductions】

Configuration and startup will output log and parameter information to ‘**console**’.
 Close output direction of the log with command of ‘**no logging console**’.

logging console {<0-7> | **alerts** | **critical** | **debugging** | **emergencies** | **errors** | **informational** | **notifications** | **warnings**}

no logging console

【Parmeters Inroductions】

- <0-7> log grade
- **alerts** need to act immediately (grade=1)
- **critical** serious state (grade=2)
- **debugging** debug information (grade=7)
- **emergencies** system can not use (grade=0)
- **errors** error condition (grade=3)
- **informational** event notification (grade=6)
- **notification** normal event under crucial condition. (grade=5)
- **warnings** warning condition (grade=4)

【Default State】

Open the direction of ‘**console**’ log host.

Output grade is informational.

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

Output configuration to ‘**console**’ with this command.

Output log description to ‘**console**’

Keyword of grade	Grade	Description
emergencies	0	System cannot be used
alerts	1	Need to act immediately
critical	2	Serious event

errors	3	Error event
warnings	4	Warning event
notifications	5	Normal but crucial event
informational	6	Inform message
debugging	7	Debug information

【Notation of Command Output Message】

- Set successfully!
- Set fail!

【Usage Example】

Configure log grade to 'alter'. Output information, whose grade is less than or equal to log grade, to 'console'.

```
Raisecom(config)#logging console alerts
```

【Relevant Command】

Command	Description
Logging monitor	Enable output direction of log monitor.
logging host	Enable output direction of log host.
logging file	Enable output direction of log file.
logging on	Enable log function
logging time-stamp	Configure time stamp of log information
logging rate	Configure output speed of log
show logging	Display log information

3.35 logging monitor

【Function Introductions】

Configuration and startup will output log and parameter information to 'monitor'.

Close output direction of the log with command of 'no logging monitor'.

logging monitor {<0-7> | **alerts** | **critical** | **debugging** | **emergencies** | **errors** | **informational** | **notifications** | **warnings**}

no logging monitor

【Parameters Introductions】

- <0-7> log grade
- **alerts** need to act immediately (grade=1)
- **critical** serious state (grade=2)
- **debugging** debug information (grade=7)
- **emergencies** system can not use (grade=0)
- **errors** error condition (grade=3)
- **informational** event notification (grade=6)
- **notification** normal event under crucial condition. (grade=5)
- **warnings** warning condition (grade=4)

【Default State】

Open the direction of 'monitor' log host.

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

Output configuration to '**monitor**' with this command.

Output log description to '**monitor**'

Keyword of grade	Grade	Description
emergencies	0	System cannot be used
alerts	1	Need to act immediately
critical	2	Serious event
errors	3	Error event
warnings	4	Warning event
notifications	5	Normal but crucial event
informational	6	Inform message
debugging	7	Debug information

【Notation of Command Output Message】

- Set successfully!
- Set fail!

【Usage Example】

Configure '**monitor**' log grade to 'alter'. Output information, whose grade is less than or equal to log grade, to '**monitor**'.

```
Raisecom(config)#logging monitor alerts
```

【Relevant Command】

Command	Description
Logging console	Enable output direction of log console.
logging host	Enable output direction of log host.
logging file	Enable output direction of log file.
logging on	Enable log function
logging time-stamp	Configure time stamp of log information
logging rate	Configure output speed of log
show logging	Display log information

3.36 logging host

【Function Introductions】

Configuration and startup will output log and parameter information to '**log host**'.

Close output direction of the log with command of '**no logging host**'.

```
logging host A.B.C.D { local0 | local1 | local2 | local3 | local4 | local5 | local6 |
local7 } { <0-7> | alerts | critical | debugging | emergencies | errors |
informational | notifications | warnings }
```

```
no logging host A.B.C.D
```

【Parameters Introductions】

- **local0-local7** device name of log host
- **<0-7>** log grade
- **alerts** need to act immediately (grade=1)
- **critical** serious state (grade=2)
- **debugging** debug information (grade=7)
- **emergencies** system can not use (grade=0)
- **errors** error condition (grade=3)
- **informational** event notification (grade=6)
- **notification** normal event under crucial condition. (grade=5)
- **warnings** warning condition (grade=4)

【Default State】

No any configuration information for log host.

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

Output configuration to 'log host' with this command.

Output log description to '**log host**'

Keyword of grade	Grade	Description
emergencies	0	System cannot be used
alerts	1	Need to act immediately
critical	2	Serious event
errors	3	Error event
warnings	4	Warning event
notifications	5	Normal but crucial event
informational	6	Inform message
debugging	7	Debug information

【Notation of Command Output Message】

- Set successfully!
- Set fail!

【Usage Example】

Configure '**log host**' log grade to 'alter'. Output information, whose grade is less than or equal to log grade, to '**log host**'.

Raisecom(config)#**logging host 10.0.0.1 local7 alerts**

【Relevant Command】

Command	Description
Logging console	Enable output direction of log console.
logging monitor	Enable output direction of log monitor.
logging file	Enable output direction of log file.
logging on	Enable log function
logging time-stamp	Configure time stamp of log information
logging rate	Configure output speed of log
show logging	Display log information

3.37 logging file

【Function Introductions】

Configuration and startup will output log and parameter information to '**log host**'.

Close output direction of the log with command of '**no logging file**'.

logging file

no logging file

【Parameters Introductions】

None

【Default State】

Open the direction of log file.

Output module is 'config'.

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

Output configuring log information to '**flash**' file with this command.

【Notation of Command Output Message】

- Set successfully!
- Set fail!

【Usage Example】

Output record log information to file.

Raisecom(config)#**logging file**

【Relevant Command】

Command	Description
Logging console	Enable output direction of log console.
logging monitor	Enable output direction of log monitor.
logging file	Enable output direction of log file.
logging on	Enable log function
logging time-stamp	Configure time stamp of log information
logging rate	Configure output speed of log
show logging	Display log information

3.38 logging on

【Function Introductions】

Enable log function.

Disable log function with command of '**no logging on**'.

[no] logging on

【Parameters Introductions】

None

【Default State】

Enable log function.

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

Enable log function.

【Notation of Command Output Message】

- Set successfully!
- Set fail!

【Usage Example】

Enable log function.

Raisecom(config)#**logging on**

【Relevant Command】

Command	Description
logging console	Enable output direction of log console.
logging monitor	Enable output direction of log monitor.
logging file	Enable output direction of log file.
logging time-stamp	Configure time stamp of log information
logging rate	Configure output speed of log
show logging	Display log information

3.39 logging time-stamp

【Function Introductions】

Configure time stamp options of log information.

Restore to default value with command of '**no logging time-stamp**'.

logging time-stamp { standard | relative-start | null }

[no] logging time-stamp

【Parameters Introductions】

standard Standard time
relative-start Relative time of system startup
null Do not add time stamp

【Default State】

Use standard time

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

Configure time stamp information of system usage with this command.

Standard time mmm-dd-yyyy hh-mm-ss

Relative time hh-mm-ss

【Notation of Command Output Message】

- set successfully!
- set fail!

【Usage Example】

Enable log relative time

Raisecom(config)#**logging time-stamp relative-start**

【Relevant Command】

Command	Description
---------	-------------

Logging console	Enable output direction of log console.
logging monitor	Enable output direction of log monitor.
logging file	Enable output direction of log file.
logging rate	Configure output speed of log
show logging	Display log information

3.40 logging rate

【Function Introductions】

Configure transmission speed of log information.

Restore to default setting with command of '**no logging rate**'.

logging rate <1-65535>

no logging rate

【Parameters Introductions】

<1-65535> Transmitting log amount at each second

【Default】

Do not limit the transmission speed of log

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

Configure transmission speed of log information

【Notation of command output message】

Set successfully!

Set fail!

【Usage Example】

Configure the most transmitting amount of log to 100 at each second.

【Relevant Command】

Command	Description
Logging console	Enable output direction of log console.
logging monitor	Enable output direction of log monitor.
logging file	Enable output direction of log file.
logging time-stamp	Configure time stamp of log information
show logging	Display log information

3.41 logout

【Function Introductions】

Exit log on state with command of '**logout**'.

logout

【Parameters Introductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

Exit log on state with this command after finishing system configuration.
Suppose other users re-configure this switch, they should log on again.

【Notation of Command Output Message】

None

【Usage Example】

Raisecom#**logout**

【Relevant Commmand】

None

3.42 name

【Function Inroductions】

Configure static VLAN name.

name *WORD*

【Parmeters Inroductions】

WORD Name should not more than 80 characters.

【Default State】

Under default state,the name of system default VLAN(VLAN1) is ‘Default’, and other names of static VLAN is character string ‘VLAN’ by adding VLAN ID of four digit. For instance, name VLAN 1 default name as VLAN0001, and VALN4094 as VLAN4094

【Command Mode】

Static VLAN configuration mode, Privileged user.

【Notation of Command Output Message】

- Set successfully.
- Set fail.

【Usage Example】

Name VLAN 2 as ‘R&D’

Raisecom(config-vlan)# **name** *R&D*

【Relevant Commmand】

Command	Description
vlan	Enter static VLAN configuration mode.
state	Configure activity state of static VLAN.
shutdown	Disable/enable static VLAN configuration.
pvid	Configure port VLAN ID attribute of port
vlan-access	Configure VLAN access attribute of port
show vlan static	Diaplay configuration information of static VLAN

3.43 pvid

【Function Inroductions】

Configure port VLAN ID of port

pvid *<1-4094>*

【Parmeters Inroductions】

<I-4094> VLAN ID

【Default State】

The default VLAN ID (PVID) of all ports is 1.

【Command Mode】

Ethernet physical interface configuration mode, Privileged user.

【Guide】

When switch port receive untagged message, switch use this port PVID to fill default 802.1Q label, whose VLAN ID lable use this port PVID. Users can isolate network equipment without 802.1Q function through setting port PVID, viz. port VLAN.

【Notation of Command Output Message】

- VLAN *VID* not exist.
- Port *PORTID* not in vlan *VID*.
- Set successfully.
- Set failed.

【Usage Example】

Configure port PVID to 2

Raisecom(config-port)# **pvid 2**

【Relevant Command】

Command	Description
creat vlan	Creat one or more VLANs
name	Configure static VLAN name.
show vlan static	Diaplay configuration information of static VLAN
state	Configure activity state of static VLAN.
Shutdown vlan	Disable/enable static VLAN
vlan	Enter static VLAN configuration mode.
vlan-access	Configure VLAN access attribute of port
vlan-space	Configure ID in PVID field

3.44 mac-address-table aging-time

【Function Introductions】

Configure the aging time of MAC address.

Delete this operation with command of '**no mac-address-table aging-time**'.

mac-address-table aging-time { 0 | *time* }

no mac-address-table aging-time

【Parmeters Introductions】

- **aging-time** Aging time
- 0 Prohibit aging
- *Time* Aging time, unit: second, scope: 3-765

【Default State】

Default state of command

Aging time is 300 sec. under default state.

【Command Mode】

Global configuration mode, Privileged user (Priority: 15)

【Guide】

Only users whose priority is 15 can use the command.

【Notation of Command Output Message】

- SUCCESS!
- This operation failed!

【Usage Example】

- Configure aging time of MAC address to 100 seconds.
Raisecom(config)# **mac-address-table aging-time 100**
- Prohibit MAC address aging
Raisecom(config)# **mac-address-table aging-time 0**
- Restore aging time of MAC address to default value.
Raisecom(config)# **no mac-address-table aging-time**

【Relevant Command】

Command	Description
show aging-time	Display aging time of MAC address

3.45 mac-address-table learning

【Function Introductions】

Configure enabling and disabling of MAC address learning functions for physical port.

mac-address-table learning { enable | disable } port *port-number*

【Parameters Introductions】

- **enable** enabling learning function
- **disable** disabling learning function
- **port** physical port
- *port-number* physical port No., scope: 1-16

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

Only users whose priority is 15 can use the command.

【Notation of Command Output Message】

- SUCCESS!
- This operation failed!

【Usage Example】

- Disable MAC address learning function for port 5.
Raisecom(config)# **mac-address-table learning disable port 5**
- Enable MAC address learning function for port 5.
Raisecom(config)# **mac-address-table learning enable port 5**

【Relevant Command】

Command	Description
show interface port	Display a certain or all ports state

3.46 mac-address-table static

【Function Introductions】

Configure static MAC address,

Cancel this operation with command of '**no mac-address-table static**'.

[no] mac-address-table static HHHH.HHHH.HHHH vlan vlan_id port port-number

【Parameters Introductions】

- **static** Static address
- **HHHH.HHHH.HHHH** MAC address, input format: hexadecimal character dotted by every 4 characters.
- **vlan** VLAN;
- **vlan_id** VLAN ID, scope: 1-4094;
- **port** Physical port
- **port-number** Physical port No., scope: 1-16;

【Default State】

Do not configure static MAC address under default state.

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

Only users whose priority is 15 can use the command.

【Notation of Command Output Message】

- SUCCESS!
- ERROR! Port X is not in vlan Y!
- This static mac address has been set!
- No this static mac address
- Failed! Port X is DOWN!

【Usage Example】

- Set static MAC address binding with VLAN 1 for port 3
Raisecom(config)# **mac-address-table static 1234.abcd.0000 vlan 1 port 3**
- Delete static MAC address binding with VLAN 1 for port 3
Raisecom(config)# **no mac-address-table static 1234.abcd.0000 vlan 1 port 3**

【Relevant Command】

Command	Description
show mac-address-table static [port port-number vlan vlan_id]	Display static address of a certain or all ports or VLANs.

3.47 mirror block-non-mirror

【Function Introductions】

Enable the function of blocking non-mirror port flow.

Disable this function with command of '**no mirror block-non-mirror**'.

mirror block-non-mirror

no mirror block-non-mirror

【Parameters Introductions】

- **block-non-mirror** Block flow from non-mirror to monitor port

【Default State】

Default state of command

Disable the function of blocking non-mirror port flow under default state.

【Command Mode】

Global configuration mode, Privileged user (Priority: 15)

【Guide】

Only users whose priority is 15 can use the command.

【Notation of Command Output Message】

- The mirror is off, please let it on first!
- SUCCESS!
- This operation failed!

【Usage Example】

- Enable the function of blocking non-mirror port flow.
Raisecom(config)# **mirror block-non-mirror**
- Disable mirror function.
Raisecom (config)# **no mirror block-non-mirror**

【Relevant Commmand】

Command	Description
show mirroring	Display configuration state of mirror functions

3.48 mirror divider

【Function Inroductions】

Configure sample intervals of mirror.

Delete sample interval configuration of mirror with command of '**no mirror { ingress | egress } divider**'.

mirror { ingress | egress } divider <1-1023>

no mirror { ingress | egress } divider

【Parmeters Inroductions】

- **ingress** Mirror sample interval of uplink
- **egress** Mirror sample interval of downlink
- **divider** Copy packets, whose ratio of reciprocal of sample interval on mirror port, to monitor port.
- **1-1023** Amount of sample interval

【Default State】

Default state of command

Mirror sample intervals of uplink and downlink are all 1.

【Command Mode】

Global configuration mode, Privileged user (Priority: 15)

【Guide】

Only users whose priority is 15 can use the command.

【Notation of Command Output Message】

- The mirror is off, please let it on first!
- SUCCESS!
- This operation failed!

【Usage Example】

- Configure sample interval of uplink to 30
Raisecom(config)# **mirror ingress divider 30**

- Configure sample interval of downlink to 50
Raisecom(config)# **mirror egress divider 50**
- Delete mirror sample interval
Raisecom (config)# **no mirror ingress divider**
Raisecom (config)# **no mirror egress divider**

【Relevant Command】

Command	Description
show mirroring	Display configuration state of mirror functions

3.49 mirror filter

【Function Introductions】

Configure mirror filter rules.

Restore mirror filter rules to default configuration with command of '**no mirror { ingress | egress } filter**'.

**mirror { ingress | egress } filter { destination | source } mac
HHHH.HHHH.HHHH**

no mirror { ingress | egress } filter

【Parameters Introductions】

- **ingress** Mirror sample interval of uplink
- **egress** Mirror sample interval of downlink
- **destination** Destination MAC address
- **source** Original MAC address
- **HHHH.HHHH.HHHH** MAC address

【Default State】

Default state of command

Mirror all packets on mirror ports under default state.

【Command Mode】

Global configuration mode, Privileged user (Priority: 15)

【Guide】

Only users whose priority is 15 can use the command.

【Notation of Command Output Message】

- The mirror is off, please let it on first!
- SUCCESS!
- This operation failed!

【Usage Example】

- Configure uplink mirror filter rule: Only packets, whose original MAC address are equal to 0050.8D54.BE64, could be mirrored
Raisecom(config)# **mirror ingress filter source mac 0050.8D54.BE64**
- Configure downlink mirror filter rule: Only packets, whose original MAC address are equal to 0050.8D54.BE64, could be mirrored.
Raisecom(config)# **mirror egress filter destination mac 0050.8D54.BE64**
- Restore mirror filter rule to default setting
Raisecom (config)# **no mirror ingress filter**
Raisecom (config)# **no mirror egress filter**

【Relevant Command】

Command	Description
show mirroring	Display configuration state of mirror functions

3.50 mirror monitor_port**【Function Introductions】**

Configure monitor port with mirror function.

Delete this operation with command of '**no mirror monitor_port**'.

mirror monitor_port *port_number*

no mirror monitor_port

【Parameters Introductions】

- **monitor_port** Monitor port
- *port_number* Physical port No., scope: 1-16

【Default State】

Default state of command,

Configure port 1 to monitor port under default state.

【Command Mode】

Global configuration mode, Privileged user (Priority: 15)

【Guide】

Only users whose priority is 15 can use the command.

【Notation of Command Output Message】

- The monitor port has been set ,please clear it !
- The port X has been set to be mirror port !
- SUCCESS !
- No mirror-to port!

【Usage Example】

- Configure port 5 to monitor port with mirror function.
Raisecom(config)# **mirror monitor_port 5**
- Restore to default monitor port
Raisecom(config)# **no mirror monitor**

【Relevant Command】

Command	Description
show mirroring	Display configuration state of mirror functions

3.51 mirror on**【Function Introductions】**

Enable mirror function.

Disable mirror function with command of '**no mirror on**'.

mirror on

no mirror on

【Parameters Introductions】

- **on** Enable mirror function.

【Default State】

Default state of command,

Disable mirror function under default state.

【Command Mode】

Global configuration mode, Privileged user (Priority: 15)

【Guide】

Only users whose priority is 15 can use the command.

【Notation of Command Output Message】

- SUCCESS!
- This operation failed !

【Usage Example】

- Enable mirror function.
Raisecom(config)# **mirror on**
- Disable mirror function
Raisecom (config)# **no mirror on**

【Relevant Commmand】

Command	Description
show mirroring	Display configuration state of mirror functions

3.52 mirror source_port

【Function Inroductions】

Configure mirror port with mirror functions and mirror rules.

Delete this operation with command of '**no mirror source_port**'.

mirror source_port *port_number* { **ingress** | **egress** | **both** }

no mirror source_port *port_number*

【Parmeters Inroductions】

- **source_port** Mirror port
- *port_number* Physical port, scope: 1-16, use ',' and '-' for multiport input.
- **Ingress** Configure packet mirror for port which data flows in
- **egress** Configure packet mirror for port which data flows out
- **both** Configure packet mirror for port which data flows in and out

【Default State】

Do not set mirror rule, under default state,

【Command Mode】

Global configuration mode, Privileged user (Priority: 15)

【Guide】

Only users whose priority is 15 can use the command.

【Notation of Command Output Message】

- The mirror is off ,please let it on first!
- The port list wrong!
- Wrong! The port X is monitor port!
- SUCCESS !
- This operation id failed
- The port %d has not been mirror!

【Usage Example】

- Configure physical port from 1 to 5 to uplink mirror port.
Raisecom(config)# **mirror source_port 1-5 ingress**

- Delete uplink mirror for port 2
Raisecom(config)# **no mirror source_port 2 ingress**
- Delete all mirror setting
Raisecom(config)# **no mirror all**

【Relevant Command】

Command	Description
show mirroring	Display configuration state of mirror functions

3.53 password

【Function Introductions】

Modify log on password of current user with command of '**password**'.

password

【Parameters Introductions】

None.

【Default State】

The default user log on password of Raisecom switch is 'Raisecom'.

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

Modify log on password of current user with this command

【Notation of Command Output Message】

- Set successfully.
- Set fail!
- Password not same!

【Usage Example】

Raisecom#**password**

Please input password:xxxx

Please input again:xxxx

Do not display what password is.

【Relevant Command】

Command	Description
user privilege	Set user rights

3.54 qos map priority queue

【Function Introductions】

Configure the mapping relationship between priority and output queue.

Restore to default mapping relationship with command of '**no qos map**'.

qos map { **cos** | **tos** } *priority queue* { **high** | **highest** | **low** | **lowest** }

no qos map { **cos** | **tos** } *priority*

【Parameters Introductions】

- **cos** 802.1p priority
- **tos** TOS priority
- **high** The second highest priority queue
- **highest** The highest priority queue
- **low** The second lowest priority queue

- **lowest** The lowest priority queue
- *priority* COS and TOS priority, integer from 0 to 7

【Default State】

COS and TOS priority (0-7) are mached with queue 0 under default state.

【Command Mode】

Global configuration mode, Privileged user

【Guide】

Require to assure the trust type of current QoS is equal to to-be-configured priority type before configuring match relationship.

【Notation of Command Output Message】

- Set COS priority matching to the specified priority queue successfully.
- Set TOS priority matching to the specified priority queue successfully.
- Set COS priority *priority* matching to priority queue *num* failed.
- Set TOS priority *priority* matching to priority queue *num* failed.
- Set default qos mapping rule between COS and priority queue successfully.
- Set default qos mapping rule between TOS and priority queue successfully.
- Set default qos mapping rule: COS priority *priority* to lowest queue failed.
- Set default qos mapping rule: TOS priority *priority* to lowest queue failed.

【Usage Example】

- Configure the mapping relationship between COS 7 and queue 'high'.
Raisecom (config)# **qos map cos 7 queue high**
- Restore the mapping relationship between TOS 7 and queue to default state.
Raisecom (config)# **no qos map tos 3**

【Relevant Commmand】

Command	Description
Qos trust	Configure the kinds of priority, which match with output queue.
show qos map	Display the matching relationship between COS or TOS priority and output queue.

3.55 qos port

【Function Inroductions】

Configure to 802.1p priority for specified port. Restore to default setting with command of 'no qos port'.

qos port { *portist* | **all** } **default-prio** *priority*

no qos port { *portist* | **all** }

【Parmeters Inroductions】

- <1-7> 802.1p priority
- *portist* Port No., if configure mutli ports at one time, could connect continuous port number with ',' or '-'.
- **all** all ports

【Command Mode】

Gobal configuration mode, Privileged user

【Guide】

the default 802.1p priority for all ports are all zero.

【Notation of Command Output Message】

- On port *portnum* ,set COS priority *priority* failed..
- Set default COS priority for the specified port successfully.

【Usage Example】

- Configure 802.1p priority of port 3 to 1.
Raisecom(config)# **qos port 3 default-cos 1**
- Restore 802.1p priority of port 4 to default value as zero.
Raisecom (config)# **no qos port 4**

【Relevant Command】

Command	Description
show qos port	Display the 802.1 priority configuration information of specified port or all ports

3.56 qos trust

【Function Introductions】

Configure match between priority and queue based on priority types.
Restore to default setting with command of ‘**no qos trust**’.

qos trust { cos | tos | all }

no qos trust { cos | tos | all }

【Parameters Introductions】

- **cos** depend on 802.1p priority
- **tos** depend on TOS priority
- **all** COS and TOS are valid at same time

【Command Mode】

Global configuration mode, Privileged user

【Guide】

Default setting is COS. If all are simultaneously valid, TOS is main priority.

【Notation of Command Output Message】

- Set trusting type for priority mapping to queue successfully.
- Set trusting type for priority mapping to queue failed.

【Usage Example】

- Configure trust COS priority
Raisecom (config)# **qos trust cos**
- Configure the function of closing trust TOS priority
Raisecom(config)# **no qos trust tos**

【Relevant Command】

Command	Description
show qos	Display QoS configuration

3.57 rate-limit port

【Function Introductions】

Configure the bandwidth threshold of physical port

rate-limit port *portlist* ingress kbitps egress kbitps

no rate-limit port { *portlist* | all } { ingress | egress }

【Parameters Introductions】

- **port** Physical port.
- *portlist* Physical port, scope: 1-16.
- **ingress** Uplink direction of physical port.
- **egress** Downlink direction of physical port
- *kbitps* Configured rate value, unit: Kbps, Scope: 64-102400. If *kbitps* ≤ 1.792MB, configure pace to 64KB and value which could be configured is 64KB, 128KB, 192KB, ..., 1.792MB. If *kbitps* > 1.792MB, configure pace is 1MB and the value which could be configured is 2MB, 3MB, 4MB, ..., 100MB. If configured value are between the two certain values, should select up threshold, for instance, configure speed to 70KB, but the value written to hardware is 128KB.

【Default State】

Default state of command

Do not configure bandwidth threshold of physical port.

【Command Mode】

Global configuration mode, Privileged user

【Guide】

Only users whose priority is 15 can use the command.

【Notation of Command Output Message】

- SUCCESS!
Actual ingress rate : X KB; Actual egress rate : Y KB
- Faild to set rate limit of port X!

【Usage Example】

- Configure the uplink rate to 5Mbps and downlink rate to 10Mbps
Raisecom(config)# **rate-limit port 5 ingress 5120 egress 10240**
- Cancel the bandwidth limit of port 5.
Raisecom(config)# **no rate-limit port 5**

【Relevant Commmand】

Command	Description
show rate-limit port [<i>portlist</i>]	Display up/downlink bandwidth limits of a certain or all the port.

3.58 reboot

【Function Inroductions】

Rrestore to default settings of switch with command of '**reboot**'.

reboot

【Parmeters Inroductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

Restart switch with this command. Require to type 'yes' to confirm this operation.

【Notation of Command Output Message】

None

【Usage Example】

```
Raisecom#reboot
Please input 'yes' to confirm: yes
Rebooting ...
```

【Relevant Command】]

None

3.59 rmon alarm**【Function Introductions】**

Add 'rmon alarm' table unit with this command.

Delete table unit with command of '**no rmon alarm**'.

```
rmon alarm <1-512> MIBVAR <2-2000000> { delta | absolute }
rising-threshold <1-65535>1 [<1-65535>2] falling-threshold <1-65535>3
[<1-65535>4] owner STRING
no rmon alarm <1-512>
```

【Parameters Introductions】

- <1-512> Index of Alarm table.
- *MIBVAR* MIB variable of remote control
- <2-2000000> Check cycle for MIB variable (unit: second)
- **delta** Check among the variations of MIB variable.
- **absolute** Check the absolute value of variations of MIB variable.
- **rising-threshold** Up threshold of MIB variable.
- <1-65535>₁ Up threshold value of MIB variable.
- <1-65535>₂ Events index corresponding to down threshold.
- **falling-threshold** Down threshold of MIB variable.
- <1-65535>₃ Down threshold value of MIB variable.
- <1-65535>₄ Events index corresponding to down threshold.
- **owner** Owner corresponding to Alarm table
- *STRING* Character string of owner

【Default State】

No configuration of Alarm table.

【Command Mode】

Global configuration mode, Privileged user

【Guide】

The format of MIBVAR should be dotted decimal system. MIBVAR should be valid and controllable MIB variable, otherwise ayatem could not be controlled

【Notation of Command Output Message】

- ERROR MIB Variable !!
- Set successfully.
- Set fail.

【Usage Example】

```
Raisecom(config)# rmon alarm 10 1.3.6.1.2.1.2.2.1.20.1 20 delta
rising-threshold 15 1 falling-threshold 1 owner jjohnson
```

The command is used to configure RMON alarm 10, and to inspect MIB variable 1.3.6.1.2.1.2.2.1.20.1. Check the rising or falling of the variable every 20 seconds

once. If it have rise by 15, such as from 10000 to 10015, alarm will be triggered immediately .

【Relevant Commmand】

Command	Description
rmon	Enable rmon on the interface.
show rmon alarm	Display the rmon alarm table.

3.60 rmon event

【Function Inroductions】

Add 'RMON event' table units with command of '**rmon event**'.

Delete the table units with command of '**no rmon event**'.

rmon event <I-65535> [**log**] [**trap** *COMMUNITY*] [**description** *STRING*]
[**owner** *STRING*]

no rmon event <I-65535>

【Parmeters Inroductions】

- <I-65535> Index of RMON Event table.
- **log** Whether do log or not when events are triggerd.
- **trap** Transmit the community name of trap.
- *COMMUNITY* Community name.
- **description** Description of character string.
- *STRING* Character string.
- **owner** Owner
- *STRING* Character string of owner

【Default State】

The default community name is 'public'.

The default decription of character string is 'null'.

The default owner is 'config'.

【Command Mode】

Global configuration mode, Privileged user

【Guide】

Add and set event attribute with this command.

【Notation of Command Output Message】

- Community name is too long !
- Description is too long ! !
- Owner name is too long !
- Set successfully.
- Set fail.

【Usage Example】

Raisecom(config)#**rmon event 1 trap private**

【Relevant Commmand】

Command	Description
Show rmon event	Display RMON EVENT table items.

3.61 rmon queuesize

【Function Introductions】

Configure the size of rmon queue with command of '**rmon queuesize**'.

rmon queuesize <60-65535>

no rmon queuesize

【Parameters Introductions】

<60-65535> Configure the size of rmon queue

【Default State】

The size of default queue is 100.

【Command Mode】

Global configuration mode, Privileged user

【Guide】

Configure the size of rmon queue.

【Notation of Command Output Message】

Set successfully.

【Usage Example】

Configure the size of ROM queue to 200

Raisecom(config)# **rmon queuesize 200**

【Relevant Command】

None

3.62 search mac-address

【Function Introductions】

Display state information of a certain MAC address in a switch.

search mac-address *HHHH.HHHH.HHHH* **vlan** *vlan_id*

【Parameters Introductions】

- **mac-address** MAC address
- *HHHH.HHHH.HHHH* MAC address, input format: dotted heximal character string which are dotted by every four character.
- **Vlan** **VLAN**
- *Vlan_id* VLAN ID, scope: 1-4094

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user (priority 5)

【Guide】

Only privileged user whose priority is more than or equal 5 can use the command.

【Notation of Command Output Message】

- MAC address Port number VLAN ID layer 2 symbol
- No this mac address in the switch!

【Usage Example】

- Display static MAC address

Raisecom# **search mac-address** 1234.1234.1234 **vlan** 1

【Relevant Command】

命令 Command	描述 Description
show mac-address-table l2-address [port <i>port-number</i> vlan <i>vlan_id</i>]	Display layer 2 MAC addresses of all or a certain physical port/ VLAN

3.63 show aging-time

【Function Introductions】

Display aging time of MAC address.

show aging-time

【Parameters Introductions】

aging-time Aging time of MAC address

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user (priority 5)

【Guide】

Only privileged user whose priority is more than or equal 5 can use the command.

【Notation of Command Output Message】

- The age timer value is : seconds.
- Now auto-aging is disable!
- This operation failed !

【Usage Example】

- Display current aging time.
Raisecom# **show aging-time**

【Relevant Command】

Command	Description
mac-address-table aging-time {0 <i>time</i> }	Configure aging time of MAC address
no mac-address-table aging-time	Restore aging time of mac address to default value

3.64 show arp

【Function Introductions】

Display all items of ARP mapping table.

show arp

【Parameters Introductions】

None

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

Check all items of ARP address mapping table with this command. Each item

includes IP address, relevant MAC address and the its type information.

【Notation of Command Output Message】

Set sucessfully!

show ARP table:

IP Address	MAC Address	Type
10.0.0.5	0050.8d4b.fd1e	static
10.0.0.6	0050.0a3c.ac2e	dynamic
10.0.0.7	0050.1c4e.15a7	dynamic

【Usage Example】

Display ARP list

Raisecom#show **arp**

【Relevant Commmand】

Command	Description
arp add	Add a static MAC address item.
clear arp	Clear all the items in ARP address mapping table.

3.65 show clock

【Function Inroductions】

Display current system time with command of '**show clock**'.

show clock

【Parmeters Inroductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

Display current system time with this command (GMT+8).

【Notation of Command Output Message】

None

【Usage Example】

Raisecom#**show clock**

The switch current system Time is : Sep-30-2003 00:28:07

【Relevant Commmand】

Command	Description
clockset	Set current system time

3.66 show interface port

【Function Inroductions】

Display a certain or all the prot status.

show interface port [*port-number*] [**statistic** | **flowcontrol**]

【Parmeters Inroductions】

- **interface** Interface
- **port** Physical port
- *port-number* Physical port No., scope: 1-16

- **statistic** Statistic information.
- **flowcontrol** Flowcontrol function

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user (priority 5)

【Guide】

Only privileged user whose priority is more than or equal 5 can use the command.

【Notation of Command Output Message】

- Information of port status:
port No. Linkstatus speed-duplex flowcontrol Mac-learning

- Statistics for the interface of switch:
port No: X

InOctets:
InUcastPkts:
InMulticastPkts:
InBroadcastPkts:
OutOctets:
OutUcastPkts:
OutMulticastPkts:
OutBroadcastPkts:
DropEvents:
CRCAlignErrors:
UndersizePkts:
OversizePkts:
Fragments:
Jabbers:
Collisions:
- Flowcontrol of port:
port No. flowcontrol

【Usage Example】

- Display status port 5
Raisecom# **show interface port 5**
- Display the statistic information of port 5
Raisecom# **show interface port 5 statistic**
- Display the flowcontrol state of all the ports.
Raisecom# **show interface port flowcontrol**

【Relevant Command】

Command	Description
speed { 10 100 } duplex { full-duplex half-duplex }	Configure port rate and duplex mode
speed auto-negotiate	Configure port rate to auto-negotiate.
flowcontrol { on off }	Enable/disable flowcontrol of physical port.
mac-address-table learning	Enable/disable mac-address-table learning

{ **enable|disable** } **port** *port-number* fuction of physical port.

3.67 show interface vlan

【Function Inroductions】

Display the status of all IP interface.

show interface vlan

【Parmeters Inroductions】

None

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user(priority 5).

【Guide】

Only privileged user whose priority is more than or equal 5 can use the command.

【Notation of Command Output Message】

ifIndex	IP Address	NetMask	Vid	Status	Desc
01100003	192.168.1.2	255.255.255.0	2	active	
01100005	2.0.0.1	255.0.0.0	4	active	

【Usage Example】

Display the status of IP port.

Raisecom# **show interface vlan**

【Relevant Commmand】

Command	Description
ip address	Set IP address of current interface.

3.68 show ip gateway

【Function Inroductions】

Display configured default gateway of switch with command of ‘**show ip address**’.

show ip gateway

【Parmeters Inroductions】

None

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user(priority 5).

【Guide】

Display configured default gateway of switch.

【Notation of Command Output Message】

None

【Usage Example】

Raisecom#show ip gateway

the default gateway of this switch is:

0.0.0.0[0.0.0.0],via 10.0.0.1

The total number of gateways showed is 1

【Relevant Commmand】

Command	Description
ip gateway A, B, C, D	Configure default gateway

3.69 show ip igmp-snooping

【Function Inroductions】

Display port information of multicast router by dymatic learned or manual configured, or IGMAP Snooping configuration information.

show ip igmp-snooping [mrouter] [vlan vlanid]

【Parmeters Inroductions】

- **mrouter** Display port information of multicast router by dymatic learned or manual configured (optional)
- **vlanid** VLAN ID (optional), scope: 1-4094 (optional)

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user(priority 5).

【Guide】

- **show ip igmp-snooping:** Display IGMP Snooping and each VLAN state.
- **show ip igmp-snooping mrouter:** Display port information of multicast router by dymatic learned or manual configured.
- **show ip igmp-snooping vlan vlanid:** Display specified VLAN state.
- **show ip igmp-snooping mrouter vlan vlanid:** Display multicast router port information of specified VLAN

If do not specify VLAN, display all VLAN information

【Notation of Command Output Message】

None

【Usage Example】

- Display IGMP Snooping configuration information,
ISCOM2016# **show ip igmp-snooping**
igmp snooping is globally Disabled
igmp snooping aging time is 300(s)
IGMP snooping isn't enabled on any Vlan.

- Display multicast router information of all VLANs,
ISCOM2016# **show ip igmp-snooping mrouter**

Group Addr	Port	Vid	Age	Type
224.8.8.8	1	1	270	REPORTv2
224.8.8.9	2	2	260	REPORTv2

- Display IGMP Snooping configuration information of VLAN 1,

```
ISCOM2016# show ip igmp-snooping vlan 1
```

```
igmp snooping is globally Disabled
igmp snooping aging time is 300(s)
IGMP snooping is disabled on this Vlan.
```

- Display IGMP Snooping multicast router information of VLAN 1,

```
ISCOM2016#show ip igmp-snooping mrouter vlan 1
```

Group Addr	Port	Vid	Age	Type
224.8.8.8	1	1	270	REPORTv2

【Relevant Commmand】

None

3.70 show logging

【Function Inroductions】

Display logging file.

show logging [file]

【Parmeters Inroductions】

file Display logging information stored in file.

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

With this command, display the configuration information of logging file, or log information stored in file.

【Notation of Command Output Message】

Display logging information

```
Raisecom#show logging
```

```
Syslog logging: enable, 0 messages dropped, messages rate-limited 0 per sec
```

```
Console logging: enable, level=debug ,22 Messages logged
```

```
Monitor logging: disable, level=info ,0 Messages logged
```

```
Time-stamp logging messages: enable
```

Log host Information:

Target Address	Level	Facility	Sent	Drop
192.168. 1. 9	debug	local7	11	11
192.168. 1.185	debug	local7	11	11

Display information stored in logging file.

```
Raisecom#show logging file
```

```
Logging information in file
```

```
DEC-31-1999 00:04:45 SYS-1-START-A:System startup
```



```

DEC-31-1999 00:16:40 SYS-1-START-A:System startup
DEC-31-1999 03:54:37 SYS-1-START-A:System startup
DEC-31-1999 05:24:22 SYS-1-WRITE-A:Write system configuration
DEC-31-1999 04:02:35 SYS-1-START-A:System startup
DEC-31-1999 05:34:36 SYS-1-WRITE-A:Write system configuration
DEC-31-1999 05:37:41 SYS-1-WRITE-A:Write system configuration

```

【Usage Example】

Display log file stored in files

Raisecom#**show logging file**

【Relevant Command】

Command	Description
logging console	Enable output direction of logging console.
logging monitor	Enable output direction of logging monitor.
logging file	Enable output direction of logging file.
logging time-stamp	Set time-stamp option of log information.

3.71 show mac-address-table l2-address**【Function Introductions】**

Display layer 2 address of all or a certain physical ports/VLANs

show mac-address-table l2-address [port *port-number*]

【Parameters Introductions】

- **mac-address-table** MAC address table
- **l2-address** Layer 2 MAC address
- **port** Physical port.
- *port-number* Physical port number, scope: 1-16.

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user (priority 5)

【Guide】

Only privileged user whose priority is more than or equal 5 can use the command.

【Notation of Command Output Message】

- Information of layer 2 address in the switch:
MAC address. Port number. VLAN identifier. layer 2 flags

【Usage Example】

Display all MAC address

Raisecom# **show mac-address-table l2-address**

【Relevant Command】

Command	Description
search mac-address <i>HHHH.HHHH.HHHH</i>	Check state information of MAC address HHHH.HHHH.HHHH in switch

3.72 show mac-address-table multicast

【Function Introductions】

Display layer 2 entity of switch or specified VLAN with this command.

show mac-address-table multicast [vlan *vlan-id*] [count]

【Parameters Introductions】

- **count** Only display all numbers (optional).
- **vlan *vlanid*** VLAN ID(optional),range from 1 to 4094

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

show mac-address-table multicast: display all VLAN layer 2 multicast router information of switch

show mac-address-table multicast vlan *vlan-id*: display specified VLAN layer 2 multicast router information of switch.

show mac-address-table multicast count: display all VLAN layer 2 multicast counter information of switch

show mac-address-table multicast vlan *vlan-id* count: display specified VLAN layer 2 muticast count information of switch.

If do not specify VLAN, display all VLAN layer 2 multicast router information.

【Notation of Command Output Message】

None

【Usage Example】

- Display all VLAN layer 2 multicast router information

```
Raisecom#show mac-address-table multicast
```

```
VLAN ID    IP Group Address    port
```

```
-----
```

```
1          224.8.8.8          1,2,3
```

```
2          236.1.1.1          4,5,6
```

- Display layer 2 multicast router information of VLAN 1.

```
Raisecom#show mac-address-table multicast vlan 1
```

```
VLAN ID    IP Group address    port
```

```
-----
```

```
1          224.8.8.8          1,2,3
```

- Display all VLAN layer 2 multicast router count information.

```
Raisecom#show mac-address-table multicast count
```

```
VLAN ID    IP Group address    port
```

```
-----
```

```
1          224.8.8.8          1,2,3
```

```
2          236.1.1.1          4,5,6
```

```
Multicast Mac Entries for all vlans: 2
```

- Display layer 2 multicast router counter information of VLAN 2.

```
Raisecom#show mac-address-table multicast vlan 2 count
```

VLAN ID	IP Group address	port
2	236.1.1.1	4,5,6

Multicast Mac Entries for all vlans: 1

【Relevant Command】

Command	Description
ip igmp snooping static	Add a layer 2 port as multicast member.

3.73 show mac-address-table static

【Function Introductions】

Display MAC address added in all or ascertain physical port.

show mac-address-table static [**port** *port-number* | **vlan** *vlan_id*]

【Parameters Introductions】

- **mac-address-table** MAC address table
- **static** Static address.
- **port** Physical port.
- *port-number* Physical port number, scope: 1-16.
- **vlan** VLAN
- *vlan_id* VLAN ID, scope: 1-4094

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user(priority 5).

【Guide】

Only privileged user whose priority is more than or equal 5 can use the command.

【Notation of Command Output Message】

- Information of static mac address in switch:
- | port No. | VLAN ID | static MAC Addr |
|----------|---------|-----------------|
| ----- | | |

【Usage Example】

Display static MAC address.

Raisecom# **show mac-address-table static**

【Relevant Command】

Command	Description
[no] mac-address-table static <i>HHHH.HHHH.HHHH</i>	Set static MAC address, and use no to delete it.
vlan <i>vlan_id</i> port <i>port-number</i>	

3.74 show mac-address-table static

【Function Introductions】

Display MAC address quantity of each port

show mac-address-table threshold

【Parameters Introductions】

- **mac-address-table** MAC address table

- threshold MAC address quantity threshold

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user (priority 5).

【Guide】

Only privileged user whose priority is more than or equal 5 can use the command.

【Notation of Command Output Message】

- Information of port threshold:
port No. MAC-threshold

【Usage Example】

Display port MAC address quantity threshold

Raisecom# **show mac-address-table threshold**

【Relevant Command】

Command	Description
[no] mac-address-table threshold value	Configure port MAC address quantity threshold
[no] mac-address-table { all portlist } threshold value	Configure port MAC address quantity threshold

3.75 show mirroring

【Function Introductions】

Display circumstances some parts or all configured mirror rules.

show mirroring

【Parameters Introductions】

None

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user (priority 5).

【Guide】

Only privileged user whose priority is more than or equal 5 can use the command.

【Notation of Command Output Message】

- The mirror is off !
- The mirror is on !
- The monitor port : X
- The current status of blocking non-mirror : disable
- The current status of blocking non-mirror : enable
- -----The ingress mirroring rule-----
- The current config of ingress filter : X
- The ingress mirror divider : X
- The ingress mirror port : X
- No ingress mirror port!

- The ingress MAC address is : HHHH.HHHH.HHHH
- -----The egress mirroring rule-----
- The current config of egress filter : X
- The egress mirror divider : X
- The egress mirror port : X
- No egress mirror port!
- The egress MAC address is : HHHH.HHHH.HHHH

【Usage Example】

Display configuration circumstances for mirror function.

Raisecom# **show mirroring**

【Relevant Command】

Command	Description
no mirror all	Delete all morrorig setting

3.76 show mirror rule

【Function Introductions】

Display current configured mirror rules

show mirror rule

【Parameters Introductions】

rule mirror rules

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user (priority 5).

【Guide】

Only privileged user whose priority is more than or equal 5 can use the command.

【Notation of Command Output Message】

- The mirror is on!
- The mirror is off!
- No mirror rule!
- The monitor rule: X

【Relevant Command】

Command	Description
mirror rule {ingress egress both}	Configure mirror rules

3.77 show monitor source_port

【Function Introductions】

Display circumstances of some parts or all configured mirror rule

show mirror [source_port port-number]

【Parameters Introductions】

- **source_port** Mirrored port
- *port-number* Mirrored port No., scope 1-24, use '-' and ',' to input

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user (priority 5).

【Guide】

Only privileged user whose priority is more than or equal 5 can use the command.

【Notation of Command Output Message】

- The mirror is on!
- The mirror is off
- The port list wrong!
- Mirror source port : xxx
- No mirror source port!

【Usage Example】

Display configured mirror rule for port 5

Raisecom# **show mirror source_port 5**

【Relevant Command】

Command	Description
mirror source_port <i>port_number</i>	Set mirror rules
no mirror source_port <i>port_number</i>	Delete a mirror rule
no mirror monitor_port	Delete all mirror configurations

3.78 show qos map**【Function Introductions】**

Display match relationship between priority and queue

show qos map { *cos* | *tos* }

【Command Mode】

Privileged user mode, Normal user, Privileged user.

【Guide】

Display match relationship between COS or TOS priority and queue with this command

【Notation of Command Output Message】

Get priority *priority* matching cos queue failed .

【Usage Example】

Display match relationship between COS priority and queue

Raisecom# **show qos map cos**

【Relevant Command】

Command	Description
qos map	Configure mapping relationship between priority and output queue.
no qos map	Restore mapping relationship between priority and output queue to default state.

3.79 show qos port**【Function Introductions】**

Display default priority (802.1p) of all ports

show qos port**【Parameters Introductions】**

None

【Command Mode】

Privileged user mode, Normal user, Privileged user

【Guide】

Display port No. and relevant 802.1p priority.

【Usage Example】

Display input priority control mode for all current ports

Raisecom# **show qos port****【Relevant Command】**

Command	Description
qos port	Configure default priority (802.1p) of specified port.

3.80 show qos**【Function Introductions】**

Display QoS configuration

show qos**【Command Mode】**

Privileged user mode, Privileged user

【Guide】

Display QoS configuration

【Notation of Command Output Message】

Displaying content include following;

- Match relationship between COS or TOS priority and queue
- Port 802.1p priority
- Matched trust type between priority and queue

【Usage Example】

Display QoS configuration

Raisecom # **show qos****【Relevant Command】**

Command	Description
qos map	Configure mapping relationship between priority and output queue
qos port	Configure default priority (802.1p) of specified port.
qos trust	Set the types of priority which match with output queue.

3.81 show rate-limit port**【Function Introductions】**

Display configuration state of bandwidth threshold.

show rate-limit port [*portlist*]**【Parameters Introductions】**

- *portlist* Physical port No., scope: 1-16

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user (priority 5)

【Guide】

Only privileged user whose priority is more than or equal 5 can use the command.

【Notation of Command Output Message】

- Information of rate limit for port:
port No. rate-limit (kbps) out-rate (kbps)

【Usage Example】

- Display bandwidth control information of all physical ports.
Raisecom# **show rate-limit port**

【Relevant Command】

Command	Description
rate-limit port <i>porlist</i> ingress kbitps egress <i>kbitp</i>	Set port bandwidth threshold

3.82 show rmon alarms

【Function Introductions】

Display information of rmon alarm table with command of '**show rmon alarm**'.
show rmon alarms

【Parameters Introductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

None

【Notation of Command Output Message】

Please look up RFC 1757 for the detailed information of rmon alarms table.

【Usage Example】

```
Raisecom#show rmon alarms
Alarm 10 is Active, Owned by jjhshen
Monitors 1.3.6.1.2.1.2.2.1.20 every 20 seconds
Taking delta samples, last value was 0
Rising threshold is 15, assigned to event 1
Falling threshold is 1, assigned to event 0
On startup enable rising or falling alarm
```

【Relevant Command】

Command	Description
show rmon events	Display information of romon events table
show rmon history	Display information of rmon history table.
show rmon statistics	Dispaly information of rmon statistics table

3.83 show rmon events

【Function Introductions】

Display information of rmon events table with command of ‘**show rmon events**’.

show rmon events

【Parameters Introductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Notation of Command Output Message】

Please look up RFC 1757 for the detailed information of rmon alarms table.

【Notation of Command Output Message】

None

【Usage Example】

Raisecom#**show rmon event**

Event 2 is active, owned by this

Description is eee.

Event firing causes log and trap ,last send 0:0:0.

【Relevant Command】

Command	Description
show rmon history	Display information of rmon history table.
show rmon statistics	Dispaly information of rmon statistics table
show rmon alarm	Display information of romon alarm table

3.84 show rmon history

【Function Introductions】

Display information of rmon history table with command of ‘**show rmon history**’.

show rmon history

【Parameters Introductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Notation of Command Output Message】

Please look up RFC 1757 for the detailed information of rmon history table.

【Notation of Command Output Message】

None

【Usage Example】

Raisecom#**show rmon history**

Entry 1 is active, and owned by manager1

Monitors ifEntry.1.1 every 30 seconds

Requested # of time intervals, ie buckets, is 5

Granted # of time intervals, ie buckets, is 5

Sample # 14 began measuring at 00:11:00

Received 38346 octets, 216 packets,
 0 broadcast and 80 multicast packets,
 0 undersized and 0 oversized packets,
 0 fragments and 0 jabbers,
 0 CRC alignment errors and 0 collisions.
 # of dropped packet events is 0
 Network utilization is estimated at 10

【Relevant Command】

Command	Description
show rmon statistics	Display information of rmon statistics table
show rmon alarm	Display information of romon alarm table
show rmon events	Display information of romon events table

3.85 show rmon statistics

【Function Introductions】

Display information of rmon statistics table with command of '**show rmon statistics**'.

show rmon statistics

【Parameters Introductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Notation of Command Output Message】

Please look up RFC 1757 for the detailed information of rmon statistics table.

【Notation of Command Output Message】

None

【Usage Example】

```
Raisecom#show rmon statistics
Interface 2 is active, and owned by monitorEtherStats
Monitors 1.3.6.1.2.1.2.2.1.1.17825795(ifEntry.1.17825795),which has
Received 0 octets, 0 packets,
0 broadcast and 0 multicast packets,
0 undersized and 0 oversized packets,
0 fragments and 0 jabbers,
0 CRC alignment errors and 0 collisions.
# of dropped packet events (due to lack of resources): 0
# of packets received of length (in octets):
64: 0, 65-127: 0, 128-255: 0,
256-511: 0, 512-1023: 0, 1024-1518:0
```

【Relevant Command】

Command	Description
show rmon history	Display information of rmon history table.
show rmon alarm	Display information of romon alarm table
show rmon events	Display information of romon events table

3.86 show running-config

【Function Introductions】

Display configuration information of current system with command of '**show running-config**'.

show running-config

【Parameters Introductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

Display configuration information of current system. '!' in displayed information denotes note. Could restore the configuration information to '**flash**' through the command of '**write**'.

【Notation of Command Output Message】

None

【Usage Example】

```
Raisecom# show running-config
System current configuration:
!command in view_mode
terminal time-out 65535
!
!command in enable_mode
!
!command in vlan configuration mode
!
!command in port_mode
!
!command in aggregator mode
!
!command in ip interface mode
!
!command in rip_mode
!
!command in ospf_mode
!
!command in config_mode
!
```

【Relevant Command】

Command	Description
show startup-config	Display configuration information of system startup.
download	Download system configuration files or boot files.
upload	Upload configuration files or boot files.
write	Store current system configuration

3.87 show service

【Function Introductions】

Display running status of current service with command of '**show service**'.

show service

【Parameters Introductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

Display running status of current service or of a certain system service. with command of '**show service**'.

【Notation of Command Output Message】

None

【Usage Example】

Raisecom#**show service**

The switch system service information

The Qos Service ON

The Filter Service ON

The Storm control Service ON

The Authentication Service ON

The IGMP Snooping Service ON

The STP Service ON

The RIP protocol Service ON

The OSPF protocol Service ON

The PIM-DM protocol Service ON

The PIM-SM protocol Service ON

【Relevant Command】

None

3.88 show snmp

【Function Introductions】

Display information of sending and receiving snmp message with command of '**show snmp**'..

show snmp

【Parameters Introductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

With this command, display the quantity statistics of messages received and sent by **SNMP agent**.

【Notation of Command Output Message】

None

【Usage Example】

Raisecom#**show snmp**

SNMP Information

SNMP packets input:36

The total number of Unsupported SNMP version SNMP PDUs: 0

The total number of Unknown SNMP community name SNMP PDUs: 0

The total number of SNMP community not allowed operation SNMP PDUs: 0

The total number of ASN.1 or BER errors SNMP PDUs: 0

The total number of too big SNMP PDUs: 0

The total number of name error SNMP PDUs: 0

The total number of bad value SNMP PDUs: 0

The total number of ReadOnly SNMP PDUs: 0

The total number of GenErrs SNMP PDUs: 0

The total number of Get-Request and Get-Next PDUs MIB objects SNMP PDUs: 0

The total number of Set-Request MIB objects SNMP PDUs: 0

The total number of Get-Request MIB objects SNMP PDUs: 0

The total number of Getnext-Request MIB objects SNMP PDUs: 0

The total number of Set-Request MIB objects SNMP PDUs: 0

The total number of Get-Response PDUs SNMP PDUs: 0

The total number of Received Traps SNMP PDUs: 0

SNMP packets output:0

The total number of error name SNMP PDUs: 0

The total number of too big SNMP PDUs: 0

The total number of bad value SNMP PDUs: 0

The total number of Gen Errs SNMP PDUs: 0

The total number of Get request SNMP PDUs: 0

The total number of Get-next SNMP PDUs: 0

The total number of Set Request SNMP PDUs: 0

The total number of Get Responses SNMP PDUs: 0

The total number of Trap SNMP PDUs: 0

【Relevant Command】

None

3.89 show snmp community**【Function Introductions】**

Display community information of snmp protocol with command of '**show snmp community**'.

show snmp community

【Parameters Introductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

Display community information of snmp protocol with command of '**show snmp community**'.

【Notation of Command Output Message】

None

【Usage Example】

Raisecom#**show snmp community**

SNMP community Information

Index	Community Name	View Name	Permission
1	public	internet	rw

【Relevant Command】

Command	Description
snmp community	Set snmp community information.
show snmp view	Display snmp view information

3.90 show snmp contact

【Function Introductions】

Display SNMP contact information with command of '**show snmp contact**'.

show snmp contact

【Parameters Introductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

Display SNMP contact information .

【Notation of Command Output Message】

None

【Usage Example】

Raisecom#**show snmp contact**

Contact Information: support@Raisecom.com

【Relevant Command】

Command	Description
snmp-server contact	Set SNMP contact information.

3.91 show snmp host

【Function Introductions】

Display trap server host information of SNMP.

show snmp host

【Parameters Introductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

With this command, check ip address of trap server and the parameter setting state of trap server.

【Notation of Command Output Message】

None

【Usage Example】

Raisecom#**show snmp host**

IP Address	Version	Community	Port	Tags
20.0.0.1	V2	public	163	snmp
20.0.0.2	V1	public	162	bridge config interface snmp rmon ospf

【Relevant Command】

Command	Description
snmp host	Set trap server of snmp

3.92 show snmp location

【Function Introductions】

Display the location information of snmp with command of '**show snmp location**'.

show snmp location

【Parameters Introductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

Display the location information of snmp.

【Notation of Command Output Message】

None

【Usage Example】

Raisecom#**show snmp location**

Device location : world china raisecom

【Relevant Command】

Command	Description
snmp location	Set location information of snmp

3.93 show snmp view

【Function Introductions】

Display the view information of snmp with command of '**show snmp view**'.

show snmp view

【Parameters Introductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

Display the view information of snmp.

【Notation of Command Output Message】

None

【Usage Example】

Raisecom#**show snmp view**

SNMP View Information

Index	View Name	OID Tree	Type
0	system	1.3.6.1.2.1.1	include
1	internet	1.3.6	include

【Relevant Command】

Command	Description
show snmp community	Display SNMP community information.
snmp view	Set SNMP view information.

3.94 show startup_config

【Function Introductions】

Display stored startup-configuration information with command of '**show startup_config**'.

【Parameters Introductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

Display stored startup-configuration information with this command. This information could be refreshed through the way of '**write**' or download, or be deleted with command of '**erase**', or be stored through upload.

【Notation of Command Output Message】

None

【Usage Example】

Raisecom#**show startup-config**

!command in view_mode

!

!command in enable_mode

!

!command in vlan configuration mode

!

!command in port_mode

!

!command in aggregator mode

!

!command in ip interface mode

!

!command in rip_mode


```

!
!command in ospf_mode
!
!command in config_mode
snmp-server host 20.0.0.1 v2 public udp-port 163snmp
snmp-server host 20.0.0.2 v1 public
!
!NEVER change the NOTATION
!end

```

【Relevant Commmand】

Command	Description
show startup-config	Display system startup configuration information
download	Download system file of startup file.
upload	Upload system configuration file or startup file.
write	Store current system configuration.
erase	Delete specified file in system

3.95 show storm_control

【Function Inroductions】

Display storm-control configuration information of all or a certain physical port.

show storm_control [*portlist*]

【Parmeters Inroductions】

portlist Physical port No. list

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user (pirority 5)

【Guide】

Only privileged user whose priority is more than or equal 5 can use this command.

【Notation of Command Output Message】

Status of storm control:

port No. Bcast Mcast DLF burst(Kbyte/s) ratio

【Usage Example】

Display storm control setting information of all ports

Raisecom# **show storm_control**

【Relevant Commmand】

Command	Description
[no] storm_control { broadcast multicast dlf all }	Set enabling state of storm-control at a port.
storm_control burst <i>burst ratio ratio</i>	Set numeral value of storm-control.

3.96 show sntp

【Function Introductions】

Display log information

show sntp

【Parameters Introductions】

None

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user

【Guide】

Display log information of sntp with this command.

【Notation of Command Output Message】

Raisecom#show sntp

SNTP configuration information

SNTP server address:192.168.1.169

SNTP server Stratum Version Last Receive

【Usage Example】

Display log information stored in file.

Raisecom# **show storm_control**

【Relevant Command】

Command	Description
sntp server	Automatically learn system time from sntp server
sntp broadcast client	Configure device to detector of sntp message

3.97 show stp

【Function Introductions】

Display active status and configuration of spanning tree protocol.

show stp

【Command Mode】

Privileged configuration mode, privileged user.

【Guide】

Display active status and configuration of spanning tree protocol.

【Notation of Command Output Message】

Command reactor as following. In title column:

The 1st row,

Show system ID of root bridge and self bridge respectively after typing command of RootID and BridgeID (bridge priority + MAC address).

Show the cost from self-bridge to root-bridge after typing command of Root Cost.

The 2nd row,

Display whether enable STP, whether enable fast connecting and change times of topology monitored by STP in turn.

The 3rd row,

Display public information of STP field, including public value of max-age, forward-delay, hello-time

The 4th row,

Display self-birdge value of max-age, forward-delay, hello-time

Dispalyed content of sub-column:

The 1st column,

Port number

The 2nd column,

Port state of portState and ST, including five states, such as, 'DISABLED', 'LISTENING', 'LEARNING', 'FORWARDING', 'BLOCKING'

The 3rd column,

State stands for current loacation of ports, 'D' for specified port, 'R' for root port, 'B' for BLOCKING port.

The 4th column,

Pcost stands for path-cost, viz. the cost of self-port.

The 5th column,

Dcost: If specify port, the value is the cost from root-bridge to self-bridge. Otherwise, iit is the cost from specified port of connected network (connect with this port) to root-bridge.

The 6th column,

Priority: Priority of STP port.

The 7th column,

portF: Whether enable port fast function.

The 8th column,

Protocol: Whether enable STP prorotol on its port

RootID: 8000004047000000 BridgeID: 8000004047000000 Root Cost = 0

Spanning Tree ENABLED fastUplink DISABLED Top. Change = 0

STP Domain : Max Age = 20, Forward Delay = 15, Hello Time = 2

Bridge Info : Max Age = 20, Forward Delay = 15, Hello Time = 2

port	portState	state	Pcost	Dcost	Priority	portF	Protocol
1	DISABLED	D	19	0	128	OFF	Enabled
2	DISABLED	D	19	0	128	OFF	Enabled
3	DISABLED	D	19	0	128	OFF	Enabled
4	DISABLED	D	19	0	128	OFF	Enabled
5	DISABLED	D	19	0	128	OFF	Enabled
6	DISABLED	D	19	0	128	OFF	Enabled
7	DISABLED	D	19	0	128	OFF	Enabled
8	DISABLED	D	19	0	128	OFF	Enabled
9	DISABLED	D	19	0	128	OFF	Enabled
10	DISABLED	D	19	0	128	OFF	Enabled
11	DISABLED	D	19	0	128	OFF	Enabled
12	DISABLED	D	19	0	128	OFF	Enabled
13	DISABLED	D	19	0	128	OFF	Enabled
14	DISABLED	D	19	0	128	OFF	Enabled
15	DISABLED	D	19	0	128	OFF	Enabled

16	DISABLED	D	19	0	128	OFF	Enabled
【Relevant Command】							
Command	Description						
stp	Enable/disable spanning tree						
stp priority	Set system or port priority of spanning tree protocol.						
stp forward-delay	Set forward-delay of spanning tree protocol.						
stp hello-time	Set hello-time of spanning tree protocol.						
stp path-cost	Set the path cost of spanning tree protocol.						

3.98 show svl

【Function Introductions】

Display configuration information of shared VLAN function

show svl

【Parameters Introductions】

- **svl** Share VLAN functions

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user (priority 5)

【Guide】

Only privileged users whose priority is more than or equal 5 can use the command.

【Notation of Command Output Message】

- The SVL mode is enable!
- The SVL mode is disable!

【Usage Example】

Display configuration circumstances of current SVL

Raisecom# **show svl**

【Relevant Command】

Command	Description
svl { enable disable }	Set enabling/disabling function of shared VLAN mode

3.99 show terminal

【Function Introductions】

Display terminal information of system with command of '**show terminal**'.

show terminal

【Parameters Introductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

With the command, check usage state of system terminal, including one console

and five telnet consoles.

【Notation of Command Output Message】

None

【Usage Example】

Raisecom#**show terminal**

terminal	state	time-out	user
console	active	600sec	Raisecom
telnet-1	inactive	-	-
telnet-2	inactive	-	-
telnet-3	inactive	-	-
telnet-4	inactive	-	-
telnet-5	inactive	-	-

【Relevant Commmand】

None

3.100 show trunk

【Function Inroductions】

Display whether enable convergence links, all current convergence groups, configured group member ports and crrent valid member ports.

show trunk

【Parmeters Inroductions】

None

【Default】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

Display whether enabled convergence links, all current convergence groups, configured group member ports and crrent valid member ports are port list whose state is UP in configured member ports.

【Notation of Command Output Message】

trunk is enable	trunk group ID	member port list	current efficient port list
	3	1,4-6,8	1,4

【Usage Example】

Display whether enable convergence links, all current convergence groups, configured group member ports and crrent valid member ports.

Raisecom# **show trunk**

【Relevant Commmand】

Command	Description
trunk	Enable or disable link convergence function
trunk-group	Add a convergence group

3.101 show vlan static

【Function Introductions】

Display configuration information of static VLAN

show vlan static [{1-4094}]

【Parameters Introductions】

{1-4094} VLAN ID list

【Command Mode】

Privileged user mode, Privileged user

【Guide】

Display configuration information of all static VLANs, including active and suspended

【Notation of Command Output Message】

*** Static VLAN X Configuration ***

VLAN name: Default

VLAN member ports: 0-25

VLAN untagged ports: 0-25

VLAN forbidden ports: n/a

VLAN active state: Active

X: VLAN ID

The 2nd row displays static VLAN name

The 3rd row displays member port list of static VLAN

The 4th row displays untagged port list of static VLAN

The 5th row displays current active state of static VLAN

【Relevant Command】

Command	Description
vlan	Enter static VLAN configuration mode;
name	Set static VLAN name
state	Set the active state of static VLAN
shutdown vlan	Enable/disable static VLAN
pvid	Set port VLAN
Pvid-space	Set ID in PIVD field
vlan-access	Set access priority of static VLAN

3.102 show user

【Function Introductions】

Display user information stored in system with command of **'show user'**.

show user

【Parameters Introductions】

None

【Command Mode】

Privileged configuration mode, Privileged user

【Guide】

With this command, check how many users can login the system. The information

of users is stored in the file of 'usertable.conf'. Users could delete the file for restoring system to default user state with command of 'erase'.

【Notation of Command Output Message】

None

【Usage Example】

Raisecom#**show user**

```
User name          priority
-----
Raisecom           15
factory            15
```

【Relevant Command】

Command	Description
user	Configure user information
user privilege	Configure priority of privilege user

3.103 show version

【Function Introductions】

Display system version with command of 'show version'.

【Parameters Introductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

Display software and hardware version with the command.

【Notation of Command Output Message】

None

【Usage Example】

RaiseCom Operating System Software
Copyright(c) 2001-2003 by Raisecom Science & Technology CO., LTD.

```
Product name: iscom2016
Software RaiseComOS. Version 1.1.1.20040611. (Compiled Jun 11 2004,
12:03:59)
HardWare iscom2016. Version Rev.A
System MacAddress is :000e.5e14.a431
iscom2016 with
16M bytes DRAM
2 M bytes Flash Memory
```

Switch uptime is 0 days, 1 hours, 46 minutes

【Relevant Command】

None

3.104 shutdown

【Function Introductions】

Close physical port.

Open the port with command of 'no shutdown'.

shutdown

no shutdown

【Parameters Introductions】

None

【Default State】

The port is open in default state

【Command Mode】

Ethernet physical interface configuration mode, Privileged user (priority 15)

【Guide】

Only users whose priority is 15 can use the command.

【Notation of Command Output Message】

- SUCCESS!
- This operation failed !

【Usage Example】

- Close physical port 5
Raisecom(config-port)# **shutdown**
- Open physical port 5
Raisecom(config-port)# **no-shutdown**

【Relevant Command】

Command	Description
show interface port [<i>port-number</i>]	Display a certain or all physical port state

3.105 snmp-server community

【Function Introductions】

Configure community name, relevant view and access-priority.

[no] snmp-server community *community-name* [view *view-name*] { **ro** | **rw** }

【Parameters Introductions】

- *community-name* Assign community name: type: character string, the length should not over 32
- view *view-name* View name: the length should not over 32
- **ro** Specify access priority of the community as read-only
- **rw** Specify access priority of the community as read-write.

【Default State】

Community name as public has read-only priority for view internet.

【Command Mode】

Global configuration mode, Privileged user mode

【Guide】

In order to protect itself and MIB away from unprivileged access, SNMP Agent affords community conception. SNMP Agent assign to-be-certified access users to community. Each community has a unique community name, which should be

used by all Get and Set operations in administrative station of this community. SNMPv1 and SNMPv2 both adopt community name authentication. SNMP messages, which do not coincide with community name, will be discarded. Different community has two types of priority such as read-only or read-write. The community possessing read-write priority can not only check device information, but also configure device. However, the community possessing read-only priority can only check device information.

With this command, could assign view, which is relevant to community. The community only access MIB variable in view that are assigned by switch. If do not type key word 'view', community name are relevant to default view 'internet'.

【Notation of Command Output Message】

- Set successfully!
- Community name is too long(less than 32)
- View name is too long(less than 32)
- No so many space for create community (less equal 8)
- Set fail!

【Usage Example】

- Define community name as 'raisecom', which are relevant to default view 'internet', and have both read and write priority.
Raisecom(config)# **snmp-server community** raisecom **rw**
- Define community name as 'raisecom', which are relevant to default view 'internet', and have read-only priority.
Raisecom(config)# **snmp-server view** mib2 1.3.6.1.2.1 **included**
Raisecom(config)#**snmp-server community** guest **view** mib2 **ro**

【Relevant Command】

Command	Description
snmp-server view	Set a view.
show snmp community	Display all communities
show snmp view	Display all views

3.106 snmp-server contact

【Function Introductions】

Configure network administrator ID and their contact information

[no] snmp-server contact *sysContact*

【Parameters Introductions】

- *sysContact* Assign network administrator ID and their contact information, type: character string.

【Default State】

Under default state, the way of contact is <mailto:support@Raisecom.com>

【Command Mode】

Global configuration mode, Privileged user mode.

【Guide】

The information includes the contact information of network administrator so that users could contact with administrator if maintain work is required.

【Notation of Command Output Message】

- Set successfully!
- Set fail!

【Usage Example】

Configure contact information to service@raisecom.com:
 Raisecom(config)# snmp-server contact service@raisecom.com

【Relevant Command】

Command	Description
show snmp contact	Display network administrator ID and their contact information

3.107 snmp-server enable traps

【Function Introductions】

Enable function of sending trap from snmp

[no] snmp-server enable traps [snmp | if | ospf | lACP | stp]

【Parameters Introductions】

- **snmp** snmp protocol trap
- **if** interface trap
- **ospf** ospf protocol trap
- **lACP** lACP protocol trap
- **stp** stp protocol trap

【Default State】

None

【Command Mode】

Global configuration mode, Privileged user mode

【Guide】

Permit or prohibit that switch sends trap. If permit sending trap message and occur serious events in device, send SNMP TRAP message to trap target host.

【Notation of Command Output Message】

- Set successfully!
- Set fail!

【Usage Example】

Permit sending trap message of ospf protocol
 Raisecom(config)# **snmp-server enable traps ospf**

【Relevant Command】

Command	Description
snmp-server host	Set target host of trap

3.108 snmp-server host

【Function Introductions】

Add or delete IP address of trap target host

[no] snmp-server host ip-address [host-name] [udp-port port-id]

【Parameters Introductions】

- *ip-address* IP address of trap target host, format: dotted decimal system
- *host-name* Trap target host name
- *port-id* Udp port No. for receiving trap message at target host

【Default State】

Target host list is empty in default state.

【Command Mode】

Global configuration mode, Privileged user mode

【Guide】

Should set IP address of trap target host before permitting to send trap message from system. If do not input host name, the default setting is Notify1, Notify2. If do not set udp receiving port No., default setting is 162.

【Notation of Command Output Message】

- Set successfully!
- Set fail!

【Usage Example】

Set IP address of target host sending trap message as 10.0.0.1 and host name as receiveTrap.

Raisecom(config)# **snmp-server host** 10.0.0.1 name receiveTrap

【Relevant Command】

Command	Description
show snmp host	Display all trap target host.

3.109 snmp-server location

【Function Introductions】

Set description of switch physical location.

[no] snmp-server location sysLocation

【Parameters Introductions】

sysLocation Assign switch physical location, type: character string

【Default State】

The sysLocation is empty in default state

【Command Mode】

Global configuration mode, Privileged user mode.

【Guide】

To make network administrator easier to locate switch soon, should check description of switch physical location.

【Notation of Command Output Message】

- Set successfully!
- Set fail!

【Usage Example】

Set switch physical location as HaiTaiEdifice8th

Raisecom(config)# **snmp-server location** HaiTaiEdifice8th

【Relevant Command】

Command	Description
show snmp location	Display information of switch physical location

3.110 snmp-server view

【Function Introductions】

Add a snmp-server view.

[no] snmp-server view view-name oid-tree {**included** | **excluded**}

【Parameters Introductions】

- *view-name* View name, length is not more than 32 bits character string.
- *oid-tree* OID tree, length is not more than 32 bits.
- **included** MIB variable in OID tree.
- **excluded** MIB variable out of OID tree.

【Default State】

The default view is internet, including all MIB variables in the tree of 1.3. 6.

【Command Mode】

Global configuration mode, Privileged user mode

【Guide】

SNMPv3 defines access control model based on view. Users could define a view with the command. Set match relationship between community and view with command of ‘snmp-server community’, which makes specified community have specified access priority and accessed or configured switch in its relevant view

【Notation of Command Output Message】

- Set successfully!
- Name too long !
- Oid tree Name too long !
- Oid tree Name NOT correct !
- Create View fail!

【Usage Example】

Create view ‘mib2’, including all MIB variable in the tree of 1.3.6.1.2.1
 Raisecom(config)#**snmp-server view mib2 1.3.6.1.2.1 included**

【Relevant Command】

Command	Description
snmp-server community	Set a snmp community name.
show snmp view	Display all views

3.111 snmp broadcast client**【Function Introductions】**

Configure current device to detector of snmp message.

[no] snmp broadcast client

【Parameters Introductions】

None

【Default State】

Do not enable this function

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

Configure current device to detector of snmp message with the command.
 Set the time as system time after detecting snmp messages.

【Notation of Command Output Message】

- Set successfully!
- Set fail!

【Usage Example】

Configure current device to detector of snmp message.

Raisecom(config)#**sntp broadcast client**

【Relevant Command】

Command	Description
sntp server	Actively learn system time from sntp server

3.112 sntp server

【Function Introductions】

Actively learn system time from sntp server.

sntp server A.B.C.D

【Parameters Introductions】

A.B.C.D sntp IP address of server

【Default State】

Do not enable this function.

【Command Mode】

Global configuration mode, Privileged user

【Guide】

Actively learn system time from sntp server with the command.

Set the time as system time after detecting sntp messages.

【Notation of Command Output Message】

- Set successfully!
- Set fail!

【Usage Example】

Configure learning time information from sntp server of current device

Raisecom(config)#**sntp server 10.0.0.1**

【Relevant Command】

Command	Description
sntp broadcast client	Configure device to detector of sntp message

3.113 speed

【Function Introductions】

Set port rate and its duplex mode.

speed { 10 | 100 } duplex { full-duplex | half-duplex }

【Parameters Introductions】

- **10** Speed: 10Mbps
- **100** Speed: 100Mbps
- **duplex** Duplex mode
- **full-duplex** Full duplex mode
- **half-duplex** Half duplex mode

【Default State】

- Port speed is auto-negotiated in default state.
- Duplex mode is auto-negotiate in default state.

【Command Mode】

Ethernet interface configuration mode, Privileged user (priority 15)

【Guide】

Only user whose priority is 15 can use the command.

【Notation of Command Output Message】

- SUCCESS!
- This operation failed!

【Usage Example】

Configure speed of physical port 4 to 10Mbps, duplex mode to half duplex mode
 Raisecom(config-port)# **speed 10 duplex half-duplex**

【Relevant Command】

Command	Description
speed auto-negotiate	Configure port speed to auto-negotiation.
show interface port [<i>port-number</i>]	Display a certain or all ports state

3.114 speed auto-negotiate

【Function Introductions】

Configure port speed to auto-negotiation.

speed auto-negotiate

【Parameters Introductions】

auto-negotiate

【Default State】

Port speed is auto-negotiated in default state.

【Command Mode】

Ethernet physical interface configuration mode, Privileged user.

【Guide】

Only user whose priority is 15 can use the command.

【Notation of Command Output Message】

- SUCCESS!
- This operation failed !

【Usage Example】

Configure speed of physical port 5 to auto-negotiation.
 Raisecom(config-port)# **speed auto-negotiate**

【Relevant Command】

Command	描述 Description
speed { 10 100 } duplex { full-duplex half-duplex }	Set port speed and duplex mode.
show interface port	Display a certain or all ports state

3.115 State

【Function Introductions】

Set the active state of static VLAN

state { active | suspend }

【Parameters Introductions】

- **active** Set static VLAN as active state
- **suspend** Set static VLAN as suspended state

【Default State】

The static VLAN is in suspended state under default state.

【Command Mode】

Configurartion mode of static VLAN, Privileged user.

【Guide】

All configurations of static VLAN are merely valid after enable the VLAN.If static VLAN is in suspended state, users can configure the VLAN, such as delete/add port, set VLAN name and so on. System will remain the configurations. Once the VLAN is enabled, the configurations are valid in system

【Notation of Command Output Message】

- Set successfully.
- Set fail.
- Default vlan is always active.

【Usage Example】

Set VLAN 2 as active state and exit VLAN configuration mode;
 Raisecom(config-vlan)# **state active**
 Raisecom(config-vlan)# **exit**
 Raisecom(config)#

【Relevant Command】

Command	Description
vlan	Enter configuration mode of static VLAN
name	Set static VLAN name
shutdown	Enable/disable configuration of static VLAN
pvid	Set priority of port VLAN ID
pvid-space	Set ID of PVIS field
vlan-access	Set VLAN access priority of port
show vlan static	Display configuration information of static VLAN

3.116 storm_control**【Function Inroductions】**

Set global storm control parameters for broadcast, multicast and destination failed packets.

Cancel the operations with command of '**no storm_control**'.

storm_control { **broadcast** | **multicast** | **dlf** }

[**no**] **storm_control** { **broadcast** | **multicast** | **dlf** | **all** }

storm_control burst *burst ratio ratio*

【Parmeters Inroductions】

- **broadcast** Broadcast packet.
- **multicast** Multicast packet.
- **dlf** Destination failed packet
- **all** Broadcast, multicast and destination failed packet
- **brust** Peek value
- *brust* Speed at peek value, unit: Kbps, and the value that may take is 2, 4, 6 and 8
- **ratio** Occupied bandwidth ratio of configured data packets
- *ratio* Occupied bandwidth ratio of configured data packets, and

the value that may take is 3, 5, 10 and 20

【Default State】

Disable storm control for all ports under default state

【Command Mode】

Ethernet physical interface configuration mode, Privileged user (priority 15)

【Guide】

Only users whose priority is 15 can use the command.

【Notation of Command Output Message】

- SUCCESS!
- This operation failed !

【Usage Example】

- Enable storm-control of broadcast for port 4
Raisecom(config-port)# **storm_control broadcast**
- Disable storm-control of multicast for port 4
Raisecom(config-port)# **no storm_control multicast**
- Configure peek value of storm control for port 4 to 4KBps, and occupied percent is 5%
Raisecom(config-port)# **storm_control burst 4 ratio 5**

【Relevant Command】

Command	Description
show storm_control [<i>portlist</i>]	Display configuration information of storm control for all or a certain physical port.

3.117 storm_control

【Function Introductions】

Set storm control parameters for broadcast, multicast and destination failed packets based on port.

Cancel the operations with command of '**no storm_control**'.

storm_control { **all** | *portlist* } { **broadcast** | **multicast** | **dlf** }

[**no**] **storm_control** { **all** | *portlist* } { **broadcast** | **multicast** | **dlf** | **all** }

storm_control { **all** | *portlist* } **burst** *burst* **ratio** *ratio*

【Parameters Introductions】

- **all** All physical ports
- *portlist* Physical port number list
- **broadcast** Broadcast packet.
- **multicast** Multicast packet.
- **dlf** Destination failed packet
- **all** Broadcast, multicast and destination failed packet
- **brust** Peek value
- *brust* Speed at peek value, unit: Kbps, and the value that may take is 2, 4, 6 and 8
- **ratio** Occupied bandwidth ratio of configured data packets
- *ratio* Occupied bandwidth ratio of configured data packets, and the value that may take is 3, 5, 10 and 20

【Default State】

Disable storm control for all ports under default state

【Command Mode】

Ethernet physical interface configuration mode, Privileged user (priority 15)

【Guide】

Only users whose priority is 15 can use the command.

【Notation of Command Output Message】

- SUCCESS!
- This operation failed !

【Usage Example】

- Enable storm-control of broadcast for all ports
Raisecom(config)# **storm_control all broadcast**
- Disable storm-control of multicast for port 4
Raisecom(config)# **no storm_control 4 multicast**
- Set peek value of storm control for all ports as 4KBps, and percent of occupation as 5%
Raisecom(config-port)# **storm_control all burst 4 ratio 5**

【Relevant Command】

Command	Description
show storm_control [<i>portlist</i>]	Display configuration information of storm control for all or a certain physical port.

3.118 stp

【Function Introductions】

Enable/disable 802.1D spanning tree protocol.

stp {enable | disable}

【Parameters Introductions】

- **enable** Enable spanning tree
- **disable** Disable spanning tree

【Default State】

Enable spanning tree protocol of switch under default state.

【Command Mode】

Global configuration mode or physical interface configuration mode, Privileged user

【Guide】

Spanning tree protocol can avoid appearing network-loop in system, but will occupy CUP. Users can enable or disable it as per real application situation.

【Notation of Command Output Message】

- Set successfully.
- Set fail.

【Usage Example】

- Disable spanning tree protocol
Raisecom(config)# **stp disable**
- Disable spanning tree protocol
Raisecom(config)# **stp enable**
- Disable spanning tree protocol at relevant port under physical interface configuration mode
Raisecom(config-aggregator)# **stp disable**

【Relevant Command】

Command	Description
show stp	Display active state and configuration information of spanning tree protocol.
stp priority	Set system priority, or port priority (global configuration mode), or port priority (physical interface configuration mode) of spanning tree protocol
stp hello-time	Set hello-time of spanning tree protocol.
stp forward-delay	Set forward-delay of spanning tree protocol.
stp max-age	Set max-age of spanning tree protocol.
stp path-cost	Set the path cost of spanning tree protocol.

3.119 stp forward-delay**【Function Introductions】**

Set forward-delay of spanning tree protocol, viz. delay time changing from spanning tree protocol to bridge port state.

stp forward-delay <4-30>

no stp forward-delay

【Parameters Introductions】

<4-30> Delay time changing from spanning tree protocol to bridge port state, unit: second

【Default State】

Forward-delay of spanning tree protocol is 15 seconds in default state.

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

To avoid appearing temporary circulation, spanning tree protocol need to wait for a while before changing port state. The waiting time is controlled by forward-delay. Users can adjust the value as per real situation. If network topology does not frequently vary, users could decrease the value, whereas increase the value. Restore to default setting with command of '**no stp forward-delay**'.

【Notation of Command Output Message】

- Set successfully.
- Set fail.

【Usage Example】

Configure forward-delay of spanning tree protocol to 10 seconds.

Raisecom(config)# **stp forward-delay 10**

【Relevant Command】

Command	Description
show stp	Display active status and configuration information of spanning tree protocol
stp	Enable/disable spanning tree protocol
stp priority	Set the system priority or port priority of spanning tree

	procotol.
stp forward-delay	Set forward-dealy of spanning tree procotol
stp hello-time	Set hello-time of spanning tree procotol.
stp path-cost	Set the path cost of spanning tree procotol

3.120 stp hello-time

【Function Inroductions】

Set hello-time of spanning tree procotol, viz. time interval sending bridge configuration information

stp hello-time <1-10>

no stp hello-time

【Parmeters Inroductions】

<1-10> Time interval sending bridge configuration information, unit: second.

【Default State】

Hello-time of spanning tree procotol is 2 seconds in default.

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

The default time interval sending BPDU is 2 seconds. Users can adjust the value as per real situation. If lost rate of configuration information is very high, user could shorten the value to strengthen spanning tree procotol. increasing the value will decrease the occupation of CPU. Restore to default value with command of '**no stp hello-time**'.

【Notation of Command Output Message】

- Set successfully.
- Set fail.

【Usage Example】

- Set hello-time of spanning tree procotol as 3 seconds.
Raisecom(config)# **stp hello-time 3**
- Restore hello-time of spanning tree procotol to 2 seconds (default value).
Raisecom(config)# **no stp hello-time**

【Relevant Commmand】

Command	Description
show stp	Dispaly active status and configuration information of spanning tree procotol
stp	Enable/disable spanning tree procotol
stp priority	Set the system priority or port priority of spanning tree procotol.
stp forward-delay	Set forward-dealy of spanning tree procotol
stp max-age	Set max-age of spanning tree procotol.
stp path-cost	Set the path cost of spanning tree procotol

3.121 stp max-age

【Function Introductions】

Set max-age of spanning tree protocol, viz. maximum existence time of bridge configuration information.

stp max-age <6-40>

no stp max-age

【Parameters Introductions】

<6-40> Maximum existence time of bridge configuration information, unit: second

【Default State】

Max-ages of spanning tree protocol is 20 seconds in default state.

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

The bridge configuration information, used by spanning tree protocol, has life cycle. If it is overtime, spanning tree protocol will calculate spanning tree again. If the time is too short, calculation is frequency. Otherwise, If the time is too long, spanning tree protocol could not adapt to the change of network topology. Restore to default value with command of ‘**no stp max-age**’.

【Notation of Command Output Message】

- Set successfully.
- Set fail.

【Usage Example】

- Set max-age of spanning tree protocol as 30 seconds.
Raisecom(config)# **stp max-age 30**
- Restore max-age of spanning tree protocol to 20 seconds (default value).
Raisecom(config)# **no stp max-age**

【Relevant Command】

Command	Description
show stp	Display active status and configuration information of spanning tree protocol
stp	Enable/disable spanning tree protocol
stp priority	Set the system priority or port priority of spanning tree protocol.
stp forward-delay	Set forward-delay of spanning tree protocol
stp hello-time	Set hello-time of spanning tree protocol.
stp path-cost	Set the path cost of spanning tree protocol

3.122 stp path-cost

【Function Introductions】

Set path cost of spanning tree protocol.

stp path-cost <1-65535>

no stp path-cost

【Parameters Introductions】

<1-65535> Path cost of spanning tree protocol.

【Default State】

In general, path cost is based on its physical properties. The default states are as following,

- 10Mbps for 100
- 100Mbps for 19
- 1000Mbps for 4

【Command Mode】

Physical interface configuration mode, Privileged user

【Guide】

If STP (spanning tree protocol) calculate ST (spanning tree), require to choose root port and designated port. The lower cost of the port is, the more easily it is chosen as root port or designated port.

【Notation of Command Output Message】

- Set successfully.
- Set fail.

【Usage Example】

- Set path cost of spanning tree protocol as 30 seconds.
Raisecom(config)# **stp path-cost 30**

【Relevant Command】

Command	Description
show stp	Display active status and configuration information of spanning tree protocol
stp	Enable/disable spanning tree protocol
stp priority	Set the system priority or port priority of spanning tree protocol.
stp forward-delay	Set forward-delay of spanning tree protocol
stp hello-time	Set hello-time of spanning tree protocol.

3.123 stp priority

【Function Introductions】

Set system priority of STP (spanning tree protocol) in global configuration mode.

stp priority <1-65535>

no stp priority

【Parameters Introductions】

<1-65535> System priority of STP

【Default State】

System priority of STP is 32768 in default.

【Command Mode】

Global configuration mode, Privileged user.

【Guide】

STP chooses root bridge as per system ID to decide priority. The smaller system ID is, the higher priority is, and the easier it is chosen as root bridge. System ID

comprises of 8 bytes, among of which the 2 highest network sequence bytes is system priority, the next 6 bytes is MAC address. Therefore, system priority decide system ID number . Restore to default system priority with command of '**no stp priority**'.

【Notation of Command Output Message】

- Set successfully.
- Set fail.

【Usage Example】

Set system priority of STP as 10:
 Raisecom(config)# **stp priority 10**

【Relevant Command】

Command	Description
show stp	Dispaly active status and configuration information of spanning tree procotol
stp	Enable/disable spanning tree procotol
stp hello-time	Set hello-time of spanning tree procotol.
stp forward-delay	Set forward-dealy of spanning tree procotol
stp max-age	Set max-age of spanning tree procotol.
stp path-cost	Set the path cost of spanning tree procotol

3.124 stp priority

【Function Inroductions】

Set port priority of STP in Ethernet layer 2 interface configuration mode.

stp priority <1-255>

no stp priority

【Parmeters Inroductions】

<1-255> Port priority of STP

【Default State】

Port priority of STP is 128 in default state.

【Command Mode】

Physical interface configuration mode, Privileged user.

【Guide】

When STP calculate ST, need to choose root and designated port. The lower port priority is, the easier it is chosen as root port or designated port. Users can purposely control STP to select given port as root port or designated port by setting port priority. Restore to default value in physical interface configuration mode with command of '**no stp priority**'.

【Notation of Command Output Message】

- Set successfully.
- Set fail.

【Usage Example】

Set port priority of STP as 100
 Raisecom(config-aggregator)# **stp priority 100**

【Relevant Command】

Command	Description
show stp	Display active status and configuration information of spanning tree protocol
stp	Enable/disable spanning tree protocol
stp priority	Set the system priority or port priority of spanning tree protocol.
stp hello-time	Set hello-time of spanning tree protocol.
stp forward-delay	Set forward-delay of spanning tree protocol
stp path-cost	Set the path cost of spanning tree protocol

3.125 svl**【Function Introduction】**

Enable/disable shared VLAN mode.

svl { enable | disable }

【Parameters Introduction】

- **enable** Enable SVL function
- **disable** Disable SVL function

【Default State】

Disable SVL function user default state

【Command Mode】

Global configuration mode, Privileged user (priority 15)

【Guide】

Only users whose priority is 15 can use the command.

【Notation of Command Output Message】

- SUCCESS!
- This operation failed !

【Usage Example】

- Enable SVL function.
Raisecom(config)# **svl enable**
- Disable SVL function.
Raisecom(config)# **svl disable**

【Relevant Command】

Command	Description
show svl	Display configuration information of shared VLAN function.

3.126 terminal history**【Function Introduction】**

Modify memory number of history commands input by console.

terminal history <1-20>

【Parameters Introduction】

- **history** Configuration information of terminate history commands
- **<1-20>** History command number input by terminal

【Default State】

Memory number of history commands input by console is 20

【Command Mode】

Original mode, Normal user, Privileged user

【Guide】

With the command, modify memory number of history commands input by console, which make history command more clear.

【Notation of Command Output Message】

- Set successfully.

【Usage Example】

Raisecom>**terminal history 10**

【Relevant Command】

Command	Description
history	Display history commands of the console

3.127 terminal time-out

【Function Introductions】

Modify configuration information when console logout because of its overtime.

terminal time-out <0-65535>

【Parameters Introductions】

- **time-out** Configuration information when terminal logout because of its overtime.
- <0-65535> Overtime when terminal is free (unit: second)

【Default State】

The overtime of the console is 600 seconds, after that it will logout.

【Command Mode】

Original mode, Normal user, Privileged user

【Guide】

With the command, modify configuration information when console logout because of its overtime.

【Notation of Command Output Message】

- Set successfully.

【Usage Example】

Raisecom> **terminal time-out 1000**

【Relevant Command】

Command	Description
show terminal	Display terminal information.

3.128 trans-eapol

【Function Introductions】

Configure port of transferring DOTIX message.

Prohibit this function with command of '**no trans-eapol**'.

trans-eapol *portlist*

no trans-eapol

【Parameters Introductions】

- *portlist* Port number. If configure one more ports, use ‘,’ and ‘-’ to connect continuous ports with integer from 1 to 16

【Command Mode】

Global configuration mode, Privileged user

【Guide】

Do not transfer DOTIX message if default all ports

【Notation of Command Output Message】

- Set transmission EAPOL packet on the port *portnum* failed.
- Set transmission EAPOL packet on the specified port successfully.

【Usage Example】

- Set transfer port as 3, 4
- Raisecom(config)# **trans-eapol 3, 4**
- Prohibit transfer function
- Raisecom (config)# **no trans-eapol**

【Relevant Command】

Command	Description
show running	Display all currently valid configuration information

3.129 trunk

【Function Introductions】

Enable or disable link convergence function.

trunk {enable|disable}

【Parameters Introductions】

Parameter Name	Introduction
enable	Enable link convergence function.
disable	Disable link convergence function.

【Command Mode】

Privileged configuration mode, Privileged user

【Guide】

Enable or disable link convergence function with this command.

【Notation of Command Output Message】

- Set success
- Set fail

【Usage Example】

- Enable link convergence function
Raisecom(config)# trunk enable
- Disable link convergence function.
Raisecom(config)# trunk disable

【Relevant Command】

Command	Description
show trunk	Display whether enable convergence links, all current convergence groups, configured group member ports and current valid member ports.

3.130 trunk-group

【Function Introductions】

Add a convergence group.

Cancel this operation with command of ‘**no trunk-group**’.

trunk-group *trunk-group-id portlist*

no trunk-group *trunk -group-id*

【Parameters Introductions】

- *trunk-group* Convergent group ID (selected value: 1-8)
- *portlist* port number of group member (format: 1-3, 5)

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user

【Guide】

Create a link convergent group with this command. Ports specified by *portlist* are converged to a convergent port.

Cancel specified convergent group with command of ‘**no trunk-group trunk-group-id**’.

【Notation of Command Output Message】

- Set success
- Set fail
- All input port number should belong to either 1-8 or 9-16, can not span the two range.
- Port 1-8 must belong to trunk group 1-4.
- Port 9-16 must belong to trunk group 5-8.
- Port 3 has been in trunk group 2

【Usage Example】

- Create convergent group 3 including 1, 4, 5, 6 and 8
Raisecom(config)#trunk-group 3 1,4-6,8
- Delete convergent group 3
Raisecom(config)#no trunk-group 3

【Relevant Command】

Command	Description
show trunk	Display whether enable convergence links, all current convergence groups, configured group member ports and current valid member ports.

3.131 upload

【Function Introductions】

Upload system configuration file or system boot file to ftp or tftp server.

upload {**system-boot** | **startup-config**} {**tftp** | **ftp**}

【Parameters Introductions】

- **system-boot** System boot file
- **startup-config** System configuration file
- **tftp** Download file through tftp protocol
- **ftp** Download file through ftp protocol

【Default State】

None

【Command Mode】

Privileged configuration mode, Privileged user

【Guide】

Upload system configuration file or system boot file to ftp or tftp server with this command for backup. This command can be implemented with different file transport protocols. At present, this command supports **tftp** and **ftp** protocol. Should assure that already configured ftpserver or tftp server and connect the switch system with those server before using this command.

【Notation of Command Output Message】

- Read error.
- Invalid input tftp protocol port.
- Invalid input file name.
- User name is empty!
- User password is empty!

【Usage Example】

- Raisecom# **upload system-boot ftp**
Please input server IP Address:1.0.0.1
Please input FTP User name:test
Please input FTP Password:test
Please input FTP Server File Name:system_boot.Z
Download boot file from ftp server trough ftp protocol.
- Raisecom# **upload startup-config tftp**
Please input server IP Address:1.0.0.1
Please input TFTP port(default 69):
Please input TFTP Server File Name:start_config.conf
Download system configuration file from tftp server trough tftp protocol.

【Relevant Command】

Command	Description
download	Download system configuration file or boot file

3.132 user

【Function Introductions】

Add user and set user password.

Cancel this operation with command of 'no user'.

user *USERNAME* **password** { **no-encryption** | **md5** } *PASSWORD*
no user *USERNAME*

【Parameters Introductions】

- *USERNAME* Username
- **password** Password

- **no-encryption** Plain Text Password without encryption
- **md5** Password with MD5 encryption
- **PASSWORD** Password information

【Default State】

- Add user's default hostname as Raisecom. Modify it with command of '**hostname**'.
- Add user's default priority as 15. Modify it with command of '**user privilege**'.
- Add user's default 'enable password' as raisecom. Modify it with command of '**enable password**'.

【Command Mode】

Privileged configuration mode, Privileged user (priority 15)

【Guide】

Preserve at least one user whose priority is 15 in system user database.

Only users whose priority is 15 can use the command.

【Notation of Command Output Message】

- You have no enough right to change user information !
- Set sucessfully!
- Set fail!

【Usage Example】

- Add a user whose ID is abc and password is 123.
Raisecom# **user abc password no-encrypt 123**
- Delete a user whose ID is abc.
Raisecom# **no user abc**

【Relevant Commmand】

Command	Description
hostname	Modify hostname specified by special user.
user privilege	Modify user's priority
enable password	Modify enable password
password	Modify password of current user

3.133 user login

【Function Inroductions】

Set authentication mode of user login.

user login { local-user | radius-user | all }

【Parmeters Inroductions】

- **local-user** Verify user's identity with local user configuration file.
- **radius-user** Verify user's identity from RADIUS server
- **all** Verify user through local configuration file. If it do not pass, go to RADIUS server to verify

【Default State】

Use local user configuration file in default state.

【Command Mode】

Privileged configuration mode, Privileged user (priority 15).

【Guide】

ENABLE password of verified user based on RADIUS is 123, hostname is

Raisecom, tip is Enter keyboard in default state, and default priority is 15.

【Notation of Command Output Message】

- Set User Login Method failed.
- Set User Login Method successfully.

【Usage Example】

- Set way of user login authentication as ALL
Raisecom# **user login all**
- Set way of user login authentication as local user
Raisecom# **user login local-user**

【Relevant Command】

Command	Description
user radius	Set the IP address of RADIUS server based on RADIUS authentication.
user radius-key	Set the shared key between user and server when RADIUS authentication is used.

3.134 user privilege

【Function Introductions】

Set priority of special users with command of ‘**user privilege**’.

user USERNAME privilege <1-15>

【Parameters Introductions】

- *USERNAME* User name
- *<1-15>* User priority

【Default State】

The default priority of users is 15.

【Command Mode】

Privileged configuration mode, Privileged user (Users with priority 15 can carry out the command)

【Guide】

If hope that is restricted, this command is used to forbidden user to carry out some commands. When the priority of a user is not more than 5, the user will become normal user from privileged user. In order to avoid that users set low priority for them so that they fail to carry out all the commands, users can not change the priority of logined user. Therefore, preserve at least one user whose priority is 15.

【Notation of Command Output Message】

- Set successfully.
- Can not change user privilege!
- You have no enough right to change user information!

【Usage Example】

Set priority of user abc as 4
Raisecom# **user abc privilege 4**

【Relevant Command】

Command	Description
---------	-------------

user	Add user and set his password.
show user	Display user information

3.135 user radius

【Function Introductions】

Set the IP address of server based on RADIUS authentication.

user radius *ip-address*

【Parameters Introductions】

- *ip-address* IP address of RADIUS server, format: dotted decimal system, e.g. A, B, C, D

【Command Mode】

Privileged configuration mode, Privileged user (priority 15)

【Guide】

ENABLE password of verified user based on RADIUS is 123, hostname is Raisecom, tip is Enter keyboard in default state, and default priority is 15.

【Notation of Command Output Message】

- Invalid parameters.
- Set Radius Server IP Address failed.
- Set Radius Server IP Address successfully.

【Usage Example】

Set RADIUS server address as 192.168.98.2

Raisecom # **user radius** 192.168.98.2

【Relevant Command】

Command	Description
user login	Set the way of user login authentication
user radius-key	Set the shared key between user and server when RADIUS authentication is used.

3.136 user radius-key

【Function Introductions】

Set the shared key between user and server when RADIUS authentication is used.

user radius-key *string*

【Parameters Introductions】

- *key* Shared key

【Command Mode】

Privileged configuration mode, Privileged user (priority 15)

【Guide】

ENABLE password of verified user based on RADIUS is 123, hostname is Raisecom, tip is Enter keyboard in default state, and default priority is 15.

【Notation of Command Output Message】

- Set radius server key failed.
- Set radius acctserver key successfully.

【Relevant Command】

Command	Description
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user login	Set the way of user login authentication
user radius	Set the IP address of RADIUS server based on RADIUS authentication.

3.137 vlan

【Function Introductions】

Create VLAN or enter static VLAN mode.

vlan <1-4094>

no vlan {all | <1-4094>}

【Parameters Introductions】

- <1-4094> VLAN ID
- all All the static VLAN except for default VLAN(VLAN ID is 1).
- {2-4094} VLAN ID list

【Default State】

In default state, VLAN 1 is available in system. All ports are available in default VLAN 1, and their port VLAN IDs are 1.

【Command Mode】

Global configuration mode, Privileged user

【Guide】

Enter configuration mode of static VLAN with command of '**vlan**'. If specified VLAN is not existent, system will create it automatically. The new static VLAN is in suspended state. User must activate its configuration in VLAN configuration mode and exit VLAN configuration mode. After that, the specified VLAN is valid in system. The created VLAN should be in the field built through command of '**valn-space**'.

Delete static VLAN in system with command of '**no vlan**'.

【Usage Example】

- Enter configuration mode of static VLAN 4094.
Raisecom(config)# **vlan 4094**
- Delete VLAN 2 from system.
Raisecom(config)# **no vlan 2**

【Relevant Command】

Command	Description
name	Name static VLAN.
pvid	Set the port attribute of port VLAN ID.
state	Set active state of static VLAN.
shutdown	Disable/enable static VLAN configuration
show vlan static	Display configuration information of static VLAN.
vlan-access	Set the VLAN access attribute of port.
vlan-space	Set ID in PVID space

3.138 vlan space

【Function Introductions】

Set VLAN space

vlan-space space-id**【Parameters Introductions】***space-id* space: 0-7**【Default State】**

Space ID is 0 in default state

【Command Mode】

Global configuration mode, Privileged user (priority 15)

【Guide】

VLAN is divided to 8 spaces, shown as below table,

ID in PVID space	To-be-determined PVID scope
0	0-511
1	512-1023
2	1024-1535
3	1536-2047
4	2048-2559
5	2560-3071
6	3072-3583
7	3584-4095

Set ID in VLAN space with this command. Port VLAN ID, configured by command of '**pvid**' under created VLAN and port configuration mode, should be in the scope of specified space. After modifying ID of VLAN space, restore port PVID to the minimum value plus by 1. Meanwhile, system adjust default VLAN ID, plus one for minimum value in VLAN space and delete all VLANs in former system. For example, if ID in VLAN space is changed from 1 to 2, PVIDs of all ports are modified to 1025.

【Notation of Command Output Message】

- Warning! All vlan configuration will be lost after this operation. Default vlan will change to %d, and all ports' pvid will change to %d
Please input 'yes' to confirm:
- Set successfully
- Set failed.

【Usage Example】

- Set ID in VLAN space as 1
Raisecom(config)# **vlan-space 1**
- Restore to default ID in VLAN space
Raisecom(config)# **no vlan-space**

【Relevant Command】

Command	Description
creat vlan name	Creat a or one more VLANs Name static VLAN.
pvid	Set the port attribute of port VLAN ID.
state	Set active state of static VLAN.
shutdown	Disable/enable c static VLAN onfiguration

show vlan static	Display configuration information of static VLAN.
vlan	Enter configuration mode of static VLAN
vlan-access	Set the VLAN access attribute of port.

3.139 vlan-access

【Function Introductions】

Set VLAN access attribute of a port.

vlan-access {all | {1-4094}} {tagged | untagged }

no vlan-access {all | {1-4094}}

【Parameters Introductions】

- **all** All VLANs
- **{1-4094}** VLAN ID list
- **tagged** Access type of tagged vlan. VLAN frames transmitted from the port should take tag information.
- **untagged** Access type of untagged valn, VLAN frames transmitted from the port does not take tag information.

【Default State】

In default state, all ports with untagged type exist in default VLAN (VLAN ID is 1).

【Command Mode】

Ethernet physical interface configuration mode, Privileged user.

【Guide】

If the network device connected with switch port cannot identify 802.1Q frame, could configure port to untagged access type relative to PVID. Whereas, If the network device connected with switch port can identify 802.1Q frame, could configure port to tagged access type.

Delete access attribute of static VLAN of port with command of '**no vlan-access**'.

【Notation of Command Output Message】

- Static vlan *VID* not exist.
Set successfully.
Set failed.

【Usage Example】

- Add port in untagged form to VLAN 2
Raisecom(config-port)# **vlan-access 2 untagged**
- Delete static VLAN attribute of all ports.
Raisecom(config-port)# **no vlan-access all**
- Delete port access attribute for static VLAN 2、 3、 6、 7、 8.
Raisecom(config-port)# **no vlan-access 2,3,6-8**

【Relevant Command】

Command	Description
vlan	Enter configuration mode of static VLAN
name	Name static VLAN.
pvid	Set the port attribute of port VLAN ID.
pvid-space	Set ID in PVID space

state	Set active state of static VLAN.
shutdown	Disable/enable c static VLAN onfiguration
show vlan static	Display configuration information of static VLAN.
show vlan static	Dispaly all configuration information of currently active VLAN

3.140 write

【Function Inroductions】

Save configuration information of current system with command of '**write**'.

【Parmeters Inroductions】

None

【Command Mode】

Privileged configuration mode, Privileged user.

【Guide】

Save configuration information of current system with this command. Could carry out the saved system command automatically after restarting system, and do not need to re-configure the switch.

【Notation of Command Output Message】

- Save current configuration successfully!
- Save current configuration Fail!

【Usage Example】

Raisecom#**write**

【Relevant Commmand】

Command	Description
show startup-config	Display boot configuration information of system.
download	Download system configuration file or boot file.
upload	Upload system configuration file or boot file.
erase	Delete specified file in system
