



**RGOS<sup>®</sup>**

**NMX**

**V10.3(5b6)**

©2012

**Ruijie**  
Networks

**Ruijie** 锐捷网络

 锐捷网络

**Ruijie**

# RGOS®10.3(5b6)

'  
'  
'

**1.**

5

注意、说明

Courier New

5

**2.**

Arial

[x|y|...]  
//

**3.**

r 注意  
/



```
Ruijie(config)# alias ?
aaa-gs          AAA server group mode
acl             acl configure mode
bgp            Configure bgp Protocol
config         globle configure mode
.....

*

*command-alias=original-command

EXEC           "s"   "show"         "s?"
's'

Ruijie# s?
*s=show show start-chat start-terminal-service

EXEC           "sv"   "show version"

Ruijie# s?
*s=show *sv="show version" show start-chat
start-terminal-service

Ruijie# s?
show start-chat start-terminal-service

"ia"   "ip address"

Ruijie(config-if)# ia ?
A.B.C.D IP address
dhcp    IP Address via DHCP
Ruijie(config-if)# ip address

"ip address"
```

### show aliases

```

Ruijie# configure terminal
Ruijie(config)# alias config def-route ip route 0.0.0.0
0.0.0.0 192.168.1.1
Ruijie(config)# def-route?
*def-route="ip route 0.0.0.0 0.0.0.0 192.168.1.1"
Ruijie(config)# def-route?
% Unrecognized command.
Ruijie(config)# end
Ruijie# show aliases config
globe configure mode alias:
    def-route                ip route 0.0.0.0 0.0.0.0
192.168.1.1

```

<b>show aliases</b>	

## 1.2 privilege

**privilege**

**no**

**privilege** *mode* [**all**] {**level** *level* | **reset**} *command-string*

**no privilege** *mode* [**all**] [**level** *level*] *command-string*

*mode*

CLI

[**all**]

**level** *level*

0-15

**reset**

*command-string*

**privilege**

CLI

privilege ?	CLI
config	
exec	
interface	
ip-dhcp-pool	DHCP
keychain	KeyChain
keychain-key	KeyChain-key
time-range	Time-Range

CLI 1 "test" reload

```
Ruijie(config)# enable secret level 1 0 test
Ruijie(config)# privilege exec level 1 reload
```

1 CLI reload

```
Ruijie> reload ?
<cr>
```

reload 1 all  
1 reload

1

## 1.3 show aliases

EXEC

**show aliases****show aliases** [*mode*]*mode*

EXEC

EXEC

Ruijie# **show aliases exec**

exec mode alias:

h	help
p	ping
s	show
u	undebug
un	undebug

<b>alias</b>	

## 2.1

CLI

- ' **disable**
- ' **enable**
- ' **enable password**
- ' **enable secret**
- ' **password**
- ' **login**
- ' **login local**
- ' **login authentication**
- ' **username**
- ' **lock**
- ' **lockable**
- ' **telnet**
- ' **enable service**

### 2.1.1 disable

disable

**disable** [ *privilege-level* ]*privilege-level*

---

/ 说明:

**disable**

---

Ruijie# **disable 10**

<b>enable</b>	

## 2.1.2 enable

enable

## 2.1.3 enable password

**enable password**

**no**

**enable password [level *level*] {*password* | [0 | 7] *encrypted-password*}**

**no enable password**

<i>Password</i>	EXEC
<i>Level</i>	
<b>0 7</b>	0      7
<i>encrypted-password</i>	

```
'          1 26
'
```

r 注意:

EXEC

pw10

Ruijie(config)# **enable password** pw10

<b>enable secret</b>	

## 2.1.4 enable secret

**enable secret**

**no**

**enable secret** [*level level*] {*secret* | [**0** | **5**] *encrypted-secret*}

**no enable secret**

*Secret*

EXEC

```

15 password
security 15 password security
security password
security

```

pw10

Ruijie(config)# **enable secret 0 pw10**

<b>enable password</b>	

### 2.1.5 password

```

line line password
no line
password {password | [0|7] encrypted-password}
no password

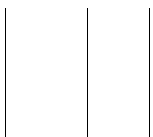
```

```

password line
0|7 0 7
encrypted-password

```

line



line

```

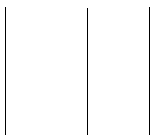
line red

```

```

Ruijie(config)# line vty 0
Ruijie(config-line)# password

```



--	--

## 2.1.6 login

```
AAA
    login          no
login
no login
```

line

```
AAA
    VTY  console
```

VTY

```
Ruijie(config)# no aaa new-model
Ruijie(config)# line vty 0
Ruijie(config-line)# password 0 normatest
Ruijie(config-line)# login
```

password	line

## 2.1.7 login local

```
AAA
    login local    no
login local
no login local
```

line

AAA

username

VTY

```
Ruijie(config)# no aaa new-model
Ruijie(config)# username test password 0 test
Ruijie(config)# line vty 0
Ruijie(config-line)# login local
```

username	

## 2.1.8 login authentication

AAA

AAA

**no****login authentication** {default | *list-name*}**no login authentication** {default | *list-name*}**default***list-name*

line

AAA

VTY

radius

```
Ruijie(config)# aaa new-model
Ruijie(config)# aaa authentication login default radius
Ruijie(config)# line vty 0
Ruijie(config-line)# login authentication default
```

<b>aaa new-model</b>	AAA
<b>aaa authentication login</b>	

## 2.1.9 username

username

**username** *name* {**nopassword** | **password** { *password* | [**0**]**7** *encrypted-password* }}

**username** *name* **privilege** *privilege-level*

**no username** *name*

*name*

*password*

**0****7**                      0              7

*encrypted-password*

*privilege-level*

---

r 注意:

7

7

7

---

15

Ruijie(config)# **username test privilege 15 password 0 pw15**

login local	

### 2.1.10 lock

EXEC lock

lock

1. lock

2.

Locked w#01GE7905!OUg9!5BX5

## 2.1.11 lockable

```

lockable
no lockable

```

line

```
EXEC lock
```

```

Ruijie(config)# line console 0
Ruijie(config-line)# lockable
Ruijie(config-line)# end
Ruijie# lock
Password: <password>
Again: <password>
Locked
Password: <password>
Ruijie#

```

lock	

## 2.1.12 telnet

```

telnet
EXEC
telnet
telnet host [port] [keyword]

```

*Host* IP  
*Port* TCP 23  
*Keyword*

<b>/source-interface</b>	telnet
<b>/vrf</b>	VRF

telnet

---

r 注意:

**/vrf** RSR

---

```

telnet 192.168.1.11
vlan 1 VRF vpn1
Ruijie# telnet 192.168.1.11 /source-interface vlan 1
/vrf vpn1

```

<b>Show session</b>	TTY
<b>Exit</b>	

### 2.1.13 enable service

SSH Server/Telnet Server/Web Server/Snmp Agent

**enable service**

```

enable service { ssh-sesrver | telnet-server | web-server | snmp-agent}

```

ssh-sesrver	SSH Server
telnet-server	Telnet Server
web-server	Http Server
snmp-agent	Snmp Agent

**no enable service**

**enable service ssh-sesrver, SSH Server**

```
Ruijie(Config) # enable service ssh-sesrver
```

<b>show service</b>	

## 2.2

```
' clock set  
' hostname  
' show clock  
' show running-config  
' show startup-config  
' reload  
' show reload  
' prompt  
' banner motd  
' banner login  
' speed  
' show line  
' write
```

## 2.2.1 clock set

.76 74 81e62E

LINE

---

*minutes*

*seconds*

10 min

LINE

LINE

```
line vty 0 5 30 :
```

```
Ruijie(config-line)# exec-timeout 5 30
```

### 2.2.3 hostname

**hostname**

**hostname** *name*

*name*

63

Ruijie

CHAP

BeiJingAgenda

```
Ruijie(config)# hostname BeiJingAgenda
```

```
BeiJingAgenda(config)#
```

## 2.2.4 session-timeout

```
LINE
session-timeout          no session-timeout      LINE
```

```
session-timeout minutes [seconds]
```

```
no session-timeout
```

```
minutes
```

```
seconds
```

```
0 min
```

```
LINE
```

```
LINE
```

```
LINE
```

```
line vty 0          5 30 :
```

```
Ruijie(config-line)# exec-timeout 5 30
```

## 2.2.5 show clock

```
show clock
```

```
show clock [detail]
```

```
detail
```

```
detail
```

**show clock**

```
Ruijie# show clock detail
clock: 2003-3-17 10:27:21
Clock read from calendar when system boot.
```

clock set	

**2.2.6 show running-config**

```
running-config show
show running-config
```

**2.2.7 show startup-config**

```
NVRAM
show startup-config
show startup-config
```

```
NVRAM
startup-config
```

**2.2.8 reload**

```
reload
reload [ text | in [
```

```
text          1-255
in [ hh: ] mm                24
at hh:mm
month          3      Mar
day           1  31
cancel
```

10

```
Ruijie# reload in 10
Router will reload in 600 seconds.
```

## 2.2.9 show reload

**show**

```
reload
show reload
```

```
Ruijie# show reload
Reload scheduled in 595 seconds.
At 2003-12-29 11:37:42
Reload reason: test.
```

## 2.2.10 prompt

	no prompt	prompt
<b>prompt</b> <i>string</i>		
<i>string</i>		32

EXEC

```
rgnos
Ruijie(config)# prompt rgnos
Ruijie(config)# end
rgnos
```

## 2.2.11 banner motd

	no banner motd	banner motd
<b>banner motd</b> <i>c message c</i>		
<i>c</i>		
<i>message</i>		

```
Ruijie(config)
Ruijie(config)# banner motd $ hello,world $
```

## 2.2.12 banner login

**banner login**  
**no banner login**

9600

57600 bps

```
Ruijie(config)#  
Ruijie(config)# line console 0  
Ruijie(config-line)# speed 57600  
Ruijie(config-line)#
```

## 2.2.14 show line

### show line

**show line** [**console** *line-num* | **aux** *line-num* | **vty** *line-num* | *line-num*]

```
console  
aux      aux  
vty     vty  
line-num      line
```

### console

```
Ruijie# show line console 0  
CON      Type      speed  Overruns  
* 0      CON        9600   45927  
Line 0, Location: "", Type: "vt100"  
Length: 24 lines, Width: 79 columns
```

```

Special Chars: Escape Disconnect Activation
                ^^x    none    ^M
Timeouts:      Idle EXEC    Idle Session
                never      never
History is enabled, history size is 10.
Total input: 53564 bytes
Total output: 395756 bytes
Data overflow: 27697 bytes
stop rx interrupt: 0 times

```

## 2.2.15 write

### write

**write** [ *memory* | *network* | *terminal* ]

<i>memory</i>	running-config	NVRAM	copy
	running-config startup-config		
<i>network</i>		TFTP	copy
	running-config tftp		
<i>terminal</i>		<b>show running-config</b>	

### memory

```

Ruijie# write
Building configuration...
[OK]

```

<b>show running-config</b>	
<b>copy</b>	

---

.

## 3.1

CLI

---

### 3.1.2 copy tftp

tftp

tftp

**copy flash:** *filename* **tftp:***//location/filename*

**copy tftp:***//location/filename* **flash:** *filename*

---

## 4.1

- ' interface aggregateport
- ' interface fastEthernet
- ' interface vlan
- ' medium-type
- ' descriptionin
- ' shutdown
- ' speed
- ' duplex
- ' flowcontrol
- ' mtu
- ' clear counters
- ' clear interface
- ' switchport

### 4.1.1 interface aggregateport

no

**interface aggregateport** *port-number*

*port-number* *D@P*

---

```
Ruijie(config)# interface aggregateport 3
Ruijie(config-if)#
```

<b>show interfaces</b>	

### 4.1.2 interface fastEthernet

```
interface fastEthernet mod-num/port-num
```

```
mod-num/port-num /
```

```
no show interfaces
show interfaces fastEthernet
```

```
Ruijie(config)# interface fastEthernet 1/2
Ruijie(config-if)#
```

<b>show interfaces</b>	

### 4.1.3 interface vlan

```
virtual interface SVI switch
no
```

---

SVI.

**interface vlan** *vlan-id*

---

```
Ruijie(config)# interface gigabitethernet 1/1
Ruijie(config-if)# medium-type copper
```

<b>show interfaces</b>	

```
24SFP/12GT      12  SFP      12  10/100/1000M BASE-T
                                     SFP      10/100/1000M
BASE-T
```

#### 4.1.5 description

no

**description** *string*

**no description**

*string*

**show interfaces**

```
Ruijie(config)# interface gigabitethernet 1/1
Ruijie(config-if)# description GBIC-1
```

---

<b>show interfaces</b>	

## 4.1.6 shutdown

**no**

**shutdown**

**no shutdown**

Ap      SVI

**show interfaces**

Ap 1

Ruijie(config)# **interface aggregateport 1**

Ruijie(config-if)# **shutdown**

Ap 1

Ruijie(config)# **interface aggregateport 1**

Ruijie(config-if)# **no shutdown**

<b>clear interface</b>	
<b>show interfaces</b>	

---

/ 说明:

**no shutdown**

---

---

## 4.1.7 speed

**no**

<i>10</i>	10Mbps
<i>100</i>	100Mbps
<i>1000</i>	1000Mbps
<i>10G</i>	10Gbps
<i>auto</i>	

Ap

Ap

Ap

**show interfaces**

SFP

---

*auto*  
*full*  
*half*

**show interfaces**

Ruijie(config-if)# **duplex full**

<b>show interfaces</b>	

#### 4.1.9 flowcontrol

no

**flowcontrol {auto | off | on}**  
**no flowcontrol**

*auto*  
*off*  
*on*

**show interfaces**

---

1/1

```
Ruijie(config)# interface gigabitethernet 1/1  
Ruijie(config-if)# flowcontrol on
```

show interfaces	

#### 4.1.10 mtu

mtu

**Mtu num**

num 64 9216( 65536 )

1500

mtu

```
Ruijie(config)# interface gigabitethernet 1/1  
Ruijie(config-if)# mtu 9216
```

show interfaces	

#### 4.1.11 carrier-delay

carrier-delay

no

---

**carrier-delay** [ *seconds* ]

**no carrier-delay**

*seconds* 1 60

2

DCD

DCD Down Up

DCD

DCD

5

Ruijie(config)# **interface gigabitethernet 1/1**

Ruijie(config)# **carrier-delay 5**

#### 4.1.12 clear counters

**clear counters** [*interface-id*]

*interface-id*

**show interfaces**

**clear counters**

---

```
Ruijie# clear counters gigabitethernet 1/1
```

show interfaces	

### 4.1.13 clear interface

```
clear interface interface-id
```

*interface-id*

Switch Port,L2 Aggregate port ,Routed port,L3  
Aggregate port  
**shutdown no shutdown**

```
Ruijie# clear interface gigabitethernet 1/1
```

shutdown	

### 4.1.14 switchport

```
2 switchport  
3 no switchport  
switchport  
no switchport
```

switchport

2

3

2

Ruijie(config-if)# **switchport**

<b>show interfaces</b>	

2K IP

#### 4.1.15 switchport mode

switch port  
access port trunk port, 802.1Q **no**

**switchport mode {access | trunk}**

**no switchport mode**

<b>access</b>	switch port access port
<b>trunk</b>	switch port trunk port

switch port access

switch port

access

VLAN

---

**switchport access vlan**

VLAN

switch port trunk VLAN  
VLAN VLAN VLAN trunk port  
VLAN VLAN **switchport trunk**  
VLAN

Ruijie(config-if)# **switchport mode trunk**

<b>switchport access</b>	statics accessport VLAN
<b>switchport trunk</b>	trunkport native VLAN Trunk VLAN

#### 4.1.16 switchport access

access port VLAN  
**no** VLAN

**switchport access vlan** *vlan-id*  
**no switchport access vlan**

*vlan-id* VLAN ID

switch port access VLAN VLAN 1

VLAN ID VLAN ID  
VLAN VLAN  
VLAN ID VLAN  
trunkport

Ruijie(config)# **interface gigabitethernet** 1/1  
Ruijie(config-if)# **switchport access vlan** 2

---



---

LinkTrap                      Ap                      SVI                      Link                      SNMP  
 LinkTrap,

Link trap:

```
Ruijie(config)# interface gigabitEthernet 1/1
Ruijie(config-if)# no snmp trap link-status
```

Link trap:

```
Ruijie(config)# interface gigabitEthernet 1/1
Ruijie(config-if)# snmp trap link-status
```

Ruijie(config-if)# snmp trap link-status	link trap
Ruijie(config-if)# no snmp trap link-status	link trap

## 4.2

### 4.2.1 show interfaces

**show interfaces** [*interface-id*] [counters | description | status | switchport | trunk ]

*interface-id*                      aggregateport                      SVI  
 loopback  
*counters*  
*description*                      link  
*status*

---

## Aggregate Port

### 5.1

#### 5.1.1 port-group

```
Aggregate Port
Aggregate Port no
```

```
port-group port-group-number
no port-group
```

Aggregate Port

<i>port-group-number</i>	Aggregate Port Aggregate Port

```
AP VLAN trunk port
native VLAN AP
```

```
1/3 AP 3
```

```
Ruijie(config)# interface gigabitethernet 1/3
Ruijie(config-if)# port-group 3
```

#### 5.1.2 aggregateport load-balance

```
AP no
```

**aggregateport load-balance {dst-mac | src-mac | src-dst-mac |  
dst-ip | src-ip | ip }**

**no aggregateport load-balance**

<b>dst-mac</b>	AP                      MAC MAC MAC
<b>src-mac</b>	AP                      MAC MAC MAC
<b>ip</b>	IP                      IP IP——                      IP IP——                      IP
<b>dst-ip</b>	AP                      IP IP IP
<b>src-ip</b>	AP                      IP IP IP

<b>show aggregateport</b> load-balance	aggregateport

## 5.2

### 5.2.1 show aggregateport

aggregateport

**show aggregateport** {[*aggregate-port-number*] **summary** |  
**load-balance**}

aggregate-port-number	Aggregate Port
load-balance	
summary	

<b>aggregateport load-balance</b>	AP

# VLAN

## 6.1

### 6.1.1 vlan

VLAN no

VLAN

**vlan** *vlan-id*

**no vlan** *vlan-id*

<i>vlan-id</i>	VLAN ID VLAN VLAN 1

**end** **Ctrl+C**

**exit**

Ruijie(config)# **vlan 1**

Ruijie(config-vlan)#

<b>show vlan</b>	VLAN

### 6.1.2 name

VLAN no

**name** *vlan-name*

**no name**

<i>vlan-name</i>	VLAN

VLAN

VLAN

**show vlan**            *vlan*

```
Ruijie(config)# vlan 10
Ruijie(config-vlan)# name vlan10
```

<b>sho vlan</b>	VLAN

### 6.1.3 switchport mode

access port            trunk port,            switch port            802.1Q            no

**sitchport mode** {*access* | *trunk*}

**no sitchport mode**

--	--

**access**

```
switch port      access      VLAN
      switchport access vlan      VLAN

switch port      trunk      VLAN
      VLAN      VLAN      trunk port
VLAN      VLAN      switchport trunk
      VLAN
```

```
Ruijie(config-if)# switchport mode trunk
```

trunkport

```
Ruijie(config)# interface gigabitethernet 1/1
Ruijie(config-if)# switchport access vlan 2
```

<b>switchport mode</b>	switch port
<b>switchport trunk</b>	trunkport native VLAN Trunk VLAN

### 6.1.5 switchport trunk

trunkport native VLAN Trunk VLAN  
no trunk

**switchport trunk {allowed vlan { all | [add | remove | except] vlan-list } | native vlan vlan-id}**

**no switchport trunk {allowed vlan | native vlan }**

	Trunk VLAN
	vlan-list VLAN
	VLAN VLAN ID VLAN
	ID - 10-20
	1-10,20-25,30,33
	all VLAN
<b>allowed vlan vlan-list</b>	VLAN VLAN
	add VLAN VLAN
	remove VLAN VLAN
	except VLAN
	VLAN VLAN
<b>native vlan vlan-id</b>	Native VLAN

VLAN all Native VLAN VLAN 1

**Native VLAN**

```

Trunk          native VLAN      native VLAN
              UNTAG            VLAN
VLAN ID       IEEE 802.1Q      PVID      native
VLAN ID       Trunk          native VLAN
              UNTAG
    
```

**VLAN**

```

Trunk          VLAN 1 4094
              Trunk      VLAN      VLAN
Trunk
    
```

**show interfaces switchport**

```

VLAN 2      1/15
    
```

```

Ruijie(config)# interface fastethernet 1/15
Ruijie(config-if)# switchport trunk allowed vlan remove
2
Ruijie(config-if)# end
Ruijie# show interfaces fastethernet1/15 switchport
Switchport is enabled
Mode is trunk port
Access vlan is 1,Native vlan is 1
Protected is disabled
Vlan lists is
1,3-4094
    
```

<b>show interfaces</b>	
<b>switchport access</b>	statics accessport VLAN



<b>name</b>	VLAN
<b>switchport access</b>	Vlan

# MAC

## 7.1

```
' mac-address-table aging-time
' clear mac-address-table dynamic
' clear mac-address-table filtering
' clear mac-address-table static
' mac-address-table static
' mac-address-table filtering
' mac-address-table notification
' nmp trap mac-notification
' address-bind
' mac-manage-learning uniform
' mac-manage-learning uniform learning-synchronization
' mac-manage-learning dispersive
```

### 7.1.1 mac-address-table aging-time

no

```
mac-address-table aging-time seconds
```

```
no mac-address-table aging-time
```

*seconds*

300

```
show mac-address-table aging-time
```

```
show mac-address-table dynamic
```

```
Ruijie(config)# mac-address-table aging-time 150
```

<b>show mac-address-table aging-time</b>	
<b>show mac-address-table dynamic</b>	

### 7.1.2 clear mac-address-table dynamic

### 7.1.3 clear mac-address-table filtering

**clear mac-address-table filtering** [**address** *mac-addr*][**vlan** *vlan-id*]

<b>filtering</b>	
<b>address</b> <i>mac-addr</i>	
<b>vlan</b> <i>vlan-id</i>	VLAN

**show mac-address-table filtering**

00d0.f800.0c0c

```
Ruijie# clear mac-address-table filtering address
00d0.f800.0c0c
```

<b>mac-address-table filtering</b>	
<b>show mac-address-table filtering</b>	

### 7.1.4 clear mac-address-table static

**clear mac-address-table static** [**address** *mac-addr*] [**interface** *interface-id*] [**vlan** *vlan-id*]



```

mac-address-table static show
mac-address-table static clear

```

```

00d0.f800.073c VLAN 4

```

```

gigabitethernet 1/1

```

```

Ruijie(config)# mac-address-table static
00d0.f800.073c vlan 4 interface gigabitethernet 1/1

```

<b>show mac-address-table static</b>	
<b>clear mac-address-table static</b>	

## 7.1.6 mac-address-table filtering

**no**

```

mac-address-table filtering mac-address vlan vlan-id

```

```

no mac-address-table filtering mac-address vlan vlan-id

```

<i>mac-address</i>	
<b>vlan</b> <i>vlan-id</i>	VLAN ID

**show mac-address-table filtering**

```
Ruijie(config)# mac-address-table filtering 00d0f8000
000 vlan 1
```

clear mac-address-table filtering	
show mac-address-table filtering	

**7.1.7 mac-address-table notification**

MAC no

**mac-address-table notification** [interval *value* | history-size *value*]

**no mac-address-table notification** [interval | history-size]

--	--

<b>interval</b> <i>value</i>	1	MAC	Trap	11
------------------------------	---	-----	------	----

```
Ruijie(config)# mac-address-table notification interval 40
Ruijie(config)# mac-address-table notification history-size 100
```

<b>snmp-server enable traps</b>	trap
<b>show mac-address-table notification</b>	MAC
<b>snmp trap mac-notification</b>	MAC

### 7.1.8 snmp trap mac-notification

MAC

<b>show mac-address-table notification</b>	MAC
--	-----

### 7.1.9 address-bind

```
ip mac .
```

**address-bind** *ip-address mac-address*

**no address-bind** *ip-address*

<i>ip-address</i>	IP
<i>mac-address</i>	mac

```

IP MAC IP
IP MAC IP
MAC
```

```
ip 3.3.3.3 mac 00d0.f811.1112
```

```
Ruijie(config)# address-bind 3.3.3.3 00d0.f811.1112
```

<b>show address-bind</b>	

### 7.1.10 address-bind ip-address

```
ip mac .
```

**address-bind** *ip-address mac-address*

**no address-bind** *ip-address*

<i>ip-address</i>	IP
<i>mac-address</i>	mac

```

IP          IP          MAC
IP          IP          MAC          IP
MAC

```

```

ip          3.3.3.3  mac    00d0.f811.1112
Ruijie(config)# address-bind 3.3.3.3 00d0.f811.1112

```

<b>show address-bind</b>	

### 7.1.11 address-bind uplink

```

ip          mac          .
address-bind uplink intf-id
no address-bind uplink intf-id

```

<i>intf-id</i>	

```

IP          IP          MAC
IP          IP          MAC          IP

```

MAC  
( address-bind install)

fa 0/1

Ruijie(config)#**address-bind uplink** fa0/1

<b>show address-bind uplink</b>	

RGOS10.1

## 7.1.12 address-bind install

/

**address-bind install**  
**no address-bind install**

fa 0/1

Ruijie(config)# **address-bind uplink** fa0/1

Ruijie(config)# **address-bind install**

<b>show address-bind uplink</b>	

RGOS10.1

### 7.1.13 mac-manage-learning uniform

MAC uniform .

MAC uniform  
MAC

uniform                      MAC  
    no                      MAC

<b>show mac-address-table mac-manage-learning</b>	MAC

S8600 S9600

### 7.1.15 mac-manage-learning dispersive

MAC                                      dispersive .

MAC                                      dispersive  
 MAC

<b>show mac-address-table mac-manage-learning</b>	MAC

S8600 S9600

## 7.2

- ' **show mac-address-table address**
- ' **show mac-address-table aging-time**
- ' **show mac-address-table count**
- ' **show mac-address-table dynamic**
- ' **show mac-address-table filtering**
- ' **show mac-address-table interface**
- ' **show mac-address-table notification**
- ' **show mac-address-table static**
- ' **show mac-address-table vlan**
- ' **show address-bind**
- ' **show mac-address-table mac-manage-learning**

### 7.2.1 show mac-address-table address

MAC

**show mac-address-table** [**address** *mac-addr*] [**interface** *interface-id*]  
[**vlan** *vlan-id*]

<b>address</b> <i>mac-addr</i>	MAC
<b>interface</b> <i>interface-id</i>	
<b>vlan</b> <i>vlan-id</i>	VLAN

```
Ruijie# show mac-address-table address 00d0.f800.1001
Vlan      MAC Address          Type      Interface
-----  -
1         00d0.f800.1001     STATIC   Gi1/1
```

<b>show mac-address-table static</b>	

<b>show mac-address-table filtering</b>	
<b>show mac-address-table dynamic</b>	
<b>show mac-address-table interface</b>	
<b>show mac-address-table vlan</b>	VLAN
<b>show mac-address-table count</b>	
<b>show mac-address-table static</b>	
<b>show mac-address-table filtering</b>	

## 7.2.2 show mac-address-table aging-time

**show mac-address-table aging-time**

```
Ruijie# show mac-address-table aging-time
Aging time      : 300
```

<b>mac-address-table aging-time</b>	

## 7.2.3 show mac-address-table count

**show mac-address-table count**

```
Ruijie# show mac-address-table count
Dynamic Address Count : 51
Static Address Count  : 0
```

Filter Address Count : 0  
Total Mac Addresses : 51  
Total Mac Address Space Available: 8139

<b>show mac-address-table static</b>	
<b>show mac-address-table filtering</b>	
<b>show mac-address-table dynamic</b>	
<b>show mac-address-table address</b>	
<b>show mac-address-table interface</b>	
<b>show mac-address-table vlan</b>	VLAN

## 7.2.4 show mac-address-table dynamic

**show mac-address-table dynamic** [**address** *mac-addr*] [**interface** *interface-id*] [**vlan** *vlan-id*]



```

1      0007.95c7.dff9      DYNAMIC  gigabitethernet 1/1
1      0007.95cf.eee0      DYNAMIC  gigabitethernet 1/1
1      0007.95cf.f41f      DYNAMIC  gigabitethernet 1/1
1      0009.b715.d400      DYNAMIC  gigabitethernet 1/1
1      0050.bade.63c4      DYNAMIC  gigabitethernet 1/1

```

<b>clear mac-address-table dynamic</b>	

## 7.2.5 show mac-address-table filtering

**show mac-address-table static** [**addr** *mac-addr*] [**vlan** *vlan-id*]

<i>mac-addr</i>	MAC
<i>vlan-id</i>	VLAN

```

Ruijie# MAststac Yc F5hR0DC#Wn3T5 HR6DG(HB)l5t5Af5Wt5(AfR)Byc6B0

```

<i>interface-id</i>	( AggregatePort)
<i>vlan-id</i>	VLAN

```
Ruijie# show mac-address-table interface
gigabitethernet 1/1
```

```
Vlan      MAC Address      Type      Interface
-----  -
1         00d0.f800.1001  STATIC   gigabitethernet 1/1
1         00d0.f800.1002  STATIC   gigabitethernet 1/1
1         00d0.f800.1003  STATIC   gigabitethernet 1/1
1         00d0.f800.1004  STATIC   gigabitethernet 1/1
```

<b>show mac-address-table static</b>	
<b>show mac-address-table filtering</b>	
<b>show mac-address-table dynamic</b>	
<b>show mac-address-table address</b>	
<b>show mac-address-table vlan</b>	VLAN

```
show mac-address-table count
```

<b>interface</b> <i>interface-id</i>	MAC
history	MAC

## MAC

```
Ruijie# show mac-address-table notification interface
Interface          MAC Added Trap  MAC Removed Trap
-----
GigabitEthernet1/14  Disabled        Disabled
```

```
Ruijie# show mac-address-table notification
MAC Notification Feature : Disabled
Interval between Notification Traps : 1 secs
Maximum Number of entries configured in History Table : 1
Current History Table Length : 0
```

```
Ruijie# show mac-address-table notification history
History Index : 0
MAC Changed Message :
Operation:ADD Vlan : 1 MAC Addr: 00f8.d012.3456
GigabitEthernet 3/1
```

<b>mac-address-table notification</b>	MAC
<b>snmp trap mac-notification</b>	MAC

## 7.2.8 show mac-address-table static

```
show mac-address-table static [addr mac-addr] [interface
interface-id] [vlan vlan-id]
```

<i>mac-addr</i>	MAC
<i>vlan-id</i>	VLAN
<i>interface-id</i>	(AggregatePort)

<b>show mac-address-table static</b>	
<b>show mac-address-table filtering</b>	
<b>show mac-address-table dynamic</b>	
<b>show mac-address-table address</b>	
<b>show mac-address-table interface</b>	
<b>show mac-address-table count</b>	

## 7.2.10 show address-bind

**show address-bind**

```
Ruijie# show address-bind
IP Address      Binding MAC Addr
-----
3.3.3.3        00d0.f811.1112
3.3.3.4        00d0.f811.1117
```

<b>address-bind</b>	

## 7.2.11 show mac-address-table mac-manage-learning

MAC

```
Ruijie# show mac-address-table mac-manage-learning  
#####MAC manage-learning  
running mode: uniform  
configuration mode: uniform  
dynamic address learning-synchronization: off.
```

# MSTP

## 8.1

### 8.1.1 spanning-tree

```

MSTP
no
MSTP
spanning-tree
MSTP
no
spanning tree

```

```

spanning-tree [ forward-time seconds | hello-time seconds |
max-age seconds ]

```

```

no spanning-tree [forward-time | hello-time | max-age]

```

```

forward-time seconds

```

```

hello-time seconds          BPDU

```

```

max-age seconds    BPDU

```

```

spanning-tree

```

```

forward-time hello-time max-age

```

```

2*(Hello Time+1.0snd) <= Max-Age Time <= 2*(Forward-Delay
1.0snd)

```

```

spanning-tree

```

```

Ruijie(config)# spanning-tree

```

```

BridgeForwardDelay

```

```
Ruijie(config)# spanning-tree forward-time 10
```

```
show spanning-tree STP
spanning-tree mst cost STP PathCost
spanning-tree tx-hold-count STP TxHoldCount
```

## 8.1.2 spanning-tree bpdudfilter

```
BPDU filter enabled
disabled BPDU filter
spanning-tree bpdudfilter [enabled | disabled]

enabled BPDU filter
Disabled BPDU filter
```

```
Ruijie(config)# interface gigabitethernet 1/1
Ruijie(config-if)# spanning-tree bpdudfilter enable
```

```
show spanning-tree interface
```



**spanning-tree max-hops** *hop-count*

**no spanning-tree max-hops**

*hop-count* BPDU 1 40

*hop-count* 20

Region	Root Bridge	BPDU	Hot Count	Root
Bridge		Hop Count	1	0
BPDU		Hops 0	BPDU	

**max-hops**

n Hop

íÇPa @à

```
Ruijie(config)# spanning-tree mode stp
```

```
show spanning-tree
```

## 8.1.7 spanning-tree mst configure

```
no MST MSTP Region
   name revision vlan map
```

```
spanning-tree mst configuration
```

```
no spanning-tree mst configuration
```

```
instance vlan Vlan Instance 0
name
revision 0
```

```
end Ctrl+C
```

```
exit
```

```
MST
```

```
instance instance-id vlan vlan-range Vlan MST Instance
instance-id 0 64 vlan 1 4095 vlan-range
vlan VLAN ID VLAN ID
VLAN ID instance 10 vlan 2,3,6-9
VLAN 2 3 6 7 8 9 Instance 10
VLAN Instance 0 VLAN Instance
```

```

name name          MST          32
no name

revision version   MST          0 65535    no revision

```

```
show          MST region
```

```

MST          VLAN 3, 5-10    MST

```

```
Instance 1
```

```
Ruijie(config)# spanning-tree mst configuration
```

```
Ruijie(config-mst)# instance 1 vlan 3 5-10
```

```
Ruijie(config-mst)# name region 1
```

```
Ruijie(config-mst)# revision 1
```

```
Ruijie(config-mst)# show
```

```
MST configuration
```

```
Name [region1]
```

```
Revision 1
```

```
Instance Vlan Mapped
```

```
-----
```

```
0          1-2,4,11-4094
```

```
1          3,5-10
```

```
-----
```

```
Ruijie(config-mst)# exit
```

```
Ruijie(config)#
```

```

VLAN 3    Instance 1          MST

```

```
Ruijie(config-mst)# no instance 1 vlan 3
```

```
Instance 1
```

```
Ruijie(config-mst)# no instance 1
```

```

MST          show

```

```
show spanning-tree mst          MST region
```

```
instance instance-id vlan vlan-range Vlan          MST Instance
```

```
name          MST
```

```
revision      MST
```

```
show          MST          MST
```

## 8.1.8 spanning-tree mst cost

Instance

**no****spanning-tree [mst *instance-id*] cost *cost*****no spanning-tree [mst *instance-id*] *cost***

<i>instance-id</i>	Instance	0	64
<i>cost</i>		1	200 000 000

**no**

**spanning-tree [mst *instance-id*] port-priority *priority***

**no spanning-tree [mst *instance-id*] port-priority**

<i>Instance-id</i>	Instance	0	64									
<i>priority</i>		0	16	32	48	64	80	96	112	128		
		144	160	176	192	208	224	240	16		16	

*Instance-id*            0

*priority*                128

Region

Instance 20      Gigabitethernet 1/1

10

Ruijie(config)# **interface gigabitethernet 1/1**

Ruijie(config-if)# **spanning-tree mst 20 port-priority**

0

**show spanning-tree mst *instance* interface *interface-id***

**show spanning-tree mst**                    MSTP

**spanning-tree mst cost**

**spanning-tree mst priority**                Instance

### 8.1.10 spanning-tree mst priority

Instance

**no**

**spanning-tree [mst *instance-id*] priority *priority***

**no spanning-tree [mst *instance-id*] priority**

```

instance-id Instance      0 64
priority                0, 4096,8192, 12288, 16384, 20480,
24576, 28672, 32768, 36864, 40960, 45056, 49152,53248, 57344
61440 16 4096

```

```

instance-id 0
priority 32768

```

```
Instance 20 8192
```

```
Ruijie(config-if)# spanning-tree mst 20 priority 8192
```

```
show spanning-tree mst instance interface interface-id
```

```

show spanning-tree mst MSTP
spanning-tree mst cost
spanning-tree mst port-priority Instance

```

### 8.1.11 spanning-tree reset

```
spanning-tree no
```

```
spanning-tree reset
```

```
Ruijie(config)# spanning-tree reset
```

```

show spanning-tree STP
show spanning-tree interface STP

```

## 8.1.12 spanning-tree tx-hold-count

STP TxHoldCount BPDU  
no

**spanning-tree tx-hold-count** *tx-hold-count*

**no spanning-tree tx-hold-count**

*tx-hold-count* TxHoldCount 1 10

3

Ruijie(config)# **spanning-tree tx-hold-count 5**

**show spanning-tree** MSTP

## 8.1.13 spanning-tree pathcost method

no

**spanning-tree pathcost method** [long | short]

**no spanning-tree pathcost method**

**long** 802.1t path-cost

**short** 802.1d path-cost

802.1T Path-cost

Ruijie(config-if)# **spanning-tree pathcost method long**

**show spanning-tree interface** STP

### 8.1.14 spanning-tree portfast

```
Portfast disabled
Portfast
spanning-tree portfast [disabled]
disabled Portfast
```

```
Ruijie(config)# interface gigabitethernet 1/1
Ruijie(config-if)# spanning-tree portfast
```

**show spanning-tree interface** STP

### 8.1.15 spanning-tree portfast bpduguard default

```
BPDU guard no
BPDU guard
spanning-tree portfast bpduguard default
no spanning-tree portfast bpduguard default
```

BPDU Guard.

BPDU guard

BPDU

**no spanning-tree portfast default**

Portfast

Ruijie(config)# **spanning-tree portfast default****show spanning-tree interface** STP**8.1.18 spanning-tree tc- protection**

<b>tc- protection</b>	<b>no</b>	<b>tc-</b>
<b>protection</b>		

**spanning-tree tc- protection****no spanning-tree tc- protection****tc- protection**Ruijie(config)# **spanning-tree tc- protection****8.1.19 spanning-tree tc-protection tc-guard**

<b>tc- guard</b>	<b>no</b>	<b>tc- guard</b>
<b>tc-guard</b>	<b>tc</b>	

**spanning-tree tc- protection tc-guard****no spanning-tree tc- protection tc-guard**

**tc-guard**

```
Ruijie(config)# spanning-tree tc- protection tc-guard
```

### 8.1.20 spanning-tree tc-guard

```
tc-guard no tc-guard
tc-guard tc
spanning-tree tc-guard
no spanning-tree tc-guard
```

**tc-guard**

```
Ruijie(config-if)# spanning-tree tc-guard
```

### 8.1.21 spanning-tree autoedge

```
Autoedge disabled
Autoedge
spanning-tree autoedge [disabled]

disabled Autoedge
```

```
Ruijie(config)# interface gigabitethernet 1/1
Ruijie(config-if)# spanning-tree autoedge disabled
```

```
show spanning-tree interface STP
```

### 8.1.22 bpdu src-mac-check

```
bpdu mac no
bpdu mac
bpdu src-mac-check H.H.H
no bpdu src-mac-check

H.H.H mac bpdu
no bpdu
```

```
Ruijie(config)# interface gigabitethernet 1/1
Ruijie(config-if)# bpdu src-mac-check 00d0.f800.1e2f
```

### 8.1.23 clear spanning-tree detected-protocols

```
RSTP BPDU BPDU
clear spanning-tree detected-protocols [interface interface-id]
```

*interface-id*

<b>spanning-tree forward-time</b>	BridgeForwardDelay
<b>spanning-tree hello-time</b>	BridgeHelloTime
<b>spanning-tree max-age</b>	BridgeMaxAge
<b>spanning-tree <i>max-hops</i></b>	instance
<b>spanning-tree tx-hold-count</b>	TxHoldCount

## 8.2.2 show spanning-tree interface

STP

**show spanning-tree interface** *interface-id* [{**bpdufilter** | **portfast** | **bpduguard** | **link-type** } ]

*interface-id*

<b>bpdufilter</b>	bpdufilter
<b>portfast</b>	portfast
<b>bpduguard</b>	bpduguard
<b>link-type</b>	linktype

```
Ruijie# show spanning-tree interface gigabitethernet  
1/5
```

<b>spanning-tree bpdufilter</b>	BPDU filter BPDU filter
---------------------------------	-------------------------

*instance-id* Instance

*interface-id*

Instance

Ruijie# **show spanning-tree mst configuration**

**spanning-tree mst configuration** MST region

**spanning-tree mst cost** instance

**spanning-tree mst max-hops** instance

**spanning-tree mst priority :** instance

**spanning-tree mst port-priority** instance

# SPAN

## 9.1 monitor session

SPAN  
no

**monitor session** *session\_number* {**source interface** *interface-id* [**both** | **rx** | **tx**] | **destination interface** *interface-id* { **encapsulation** | **switch** } | **mac** {**source** *mac-addr*| **destination** *mac-addr* } [**both** | **rx** | **tx**]} [**acl** *name*]

**no monitor session** *session\_number* [**source interface** *interface-id* [**both** | **rx** | **tx**] | **destination interface** *interface-id* { **encapsulation** | **switch** } ] | **mac** {**source** *mac-addr*| **destination** *mac-addr* } [**both** | **rx** | **tx**] [**acl** *name*]

**no monitor session all**

<i>session_number</i>	SPAN
<b>source interface</b> <i>interface-id</i>	<i>interface-id</i> AP SVI
<b>destination interface</b> <i>interface-id</i>	<i>interface-id</i> AP SVI
<b>mac source</b> <i>mac-addr</i>	MAC
<b>mac destination</b> <i>mac-addr</i>	MAC
<b>both</b> <b>acl</b> <i>name</i>	<b>acl</b> <i>name/id</i>
<b>rx</b>	
<b>tx</b>	
<b>all</b>	
<b>encapsulation</b>	' tag



**show monitor**

SPAN 1

```
Ruijie# show monitor session 1
sess-num: 1
src-intf:
GigabitEthernet 3/1 frame-type Both
dest-intf:
GigabitEthernet 3/8
```

```
'
[REDACTED]
```

# IP

## 10.1

- ' ip address
- ' ip unnumbered

### 10.1.1 ip address

IP                      no                      IP

**ip address** *ip-address network-mask* [ **secondary** ]

**no ip address** *ip-address network-mask* [ **secondary** ]

<i>ip-address</i>	32	IP	8	
<i>network-mask</i>	32	8	"1"	"0"
<b>secondary</b>		IP		

IP

IP                      IP                      IP

IP                      IP                      IP

                                 32                      IP

                                 1                      IP

                                 0                      IP

A    255.0.0.0

```

RGOS
IP      IP      IP      IP
      IP      IP      IP
    IP      IP      IP
      '
      254      254      C      C
      '
      IP      IP      C      IP
      '
      IP      IP
      '
      IP
      '
      IP      IP      10.10.10.1
255.255.255.0
ip address 10.10.10.1 255.255.255.0

```

<b>show interface</b>	

```

IP
secondary

```

### 10.1.2 ip unnumbered

```

IP      IP      no

```

```

ip unnumbered interface-type interface-number
no ip unnumbered interface-type interface-number

```

<i>interface-type</i>	
<i>interface-number</i>	

```

      IP          IP          IP          IP
    IP          IP          IP          IP
  IP          IP          IP          IP

,
,
      SLIP HDLC PPP LAPB Frame-relay

      X.25

,
  ping
  IP          SNMP

,

      FastEthernet 0/0

      IP

ip unnumbered fastEthernet 0/0

```

<b>show interface</b>	

## 10.2

---

```

' arp
' arp retry
' arp trusted
' arp unresolved
' arp gratuitous-send
' arp timeout
' ip proxy-arp
' service trustedarp

```

---

r 注意:

```

esw arp [ keyword ...]

```

---

## 10.2.1 arp

```

no ARP MAC IP MAC
no arp ip-address MAC-address type [ alias ]
no arp ip-address MAC-address type [ alias ]

```

<i>ip-address</i>	MAC	IP	
<i>MAC-address</i>		48	
<i>type</i>	ARP arpa		
<b>alias</b>	arp	RGOS	IP

ARP

```

RGOS ARP 32 IP 48

```

MAC

ARP ARP  
**clear arp-cache** ARP

ARP

arp 1.1.1.1 4e54.3800.0002 arpa

<b>clear arp-cache</b>	ARP

### 10.2.2 arp retry interval

arp IP  
 2 ARP no  
 1 ARP

**arp retry interval** *seconds*

**no arp retry interval**

<i>seconds</i>	<1-3600>,ARP 1
	3600 1

ARP 1

ARP ARP ARP

ARP 30s

arp retry interval 30



## 10.2.4 arp trusted

ARP

no

arp trusted *number*

no arp trusted

<i>number</i>	ARP <10-4096>

ARP

ARP  
ARP

1000

ARP

arp trusted 1000

service trustedarp	ARP

## 10.2.5 arp unresolve

ARP

no

8192

arp unresolve *number*

no arp unresolve



ARP

SVI 1

ARP

```

Ruijie(config)# interface vlan 1
Ruijie(config-if)# arp gratuitous-send interval 1
SVI 1 ARP

Ruijie(config)# interface vlan 1
Ruijie(config-if)# no arp gratuitous-send

```

## 10.2.7 arp timeout

```

ARP ARP
no

```

```

arp timeout seconds
no arp timeout

```

<i>seconds</i>	0-2147483

3600

```

ARP IP MAC ARP
ARP ARP
ARP
FastEthernet 0/0 ARP
120

```

```
interface fastEthernet 0/0
arp timeout 120
```

<b>clear arp-cache</b>	ARP
<b>show interface</b>	

## 10.2.8 ip proxy-arp

```

no ARP ARP ip proxy-arp
ip proxy-arp
no ip proxy-arp

ARP

IP ARP MAC ARP ARP
IP IP IP ARP MAC
IP MAC ARP ARP

FastEthernet 0 ARP

interface fastEthernet 0
ip proxy-arp
```

## 10.2.9 service trustedarp

```

no ARP service trustedarp
```



### 10.3.1 clear arp-cache

ARP

ARP

IP

**clear arp-cache****clear arp-cache** [A.B.C.D] | **interface** *interface-name*]

**show arp**

```

Ruijie# show arp
Total Numbers of Arp: 7
Protocol Address          Age(min)  Hardware
Type  Interface
Internet 192.168.195.68    0          0013.20a5.7a5f
arpa  VLAN 1
Internet 192.168.195.67    0          001a.a0b5.378d
arpa  VLAN 1
Internet 192.168.195.65    0          0018.8b7b.713e
arpa  VLAN 1
Internet 192.168.195.64    0          0018.8b7b.9106
arpa  VLAN 1
Internet 192.168.195.63    0          001a.a0b5.3990
arpa  VLAN 1
Internet 192.168.195.62    0          001a.a0b5.0b25
arpa  VLAN 1
Internet 192.168.195.5     --         00d0.f822.33b1
arpa  VLAN 1

```

**ARP**

Protocol	Internet
Address	IP
Age (min)	ARP “_”
Hardware	IP
Type	ARPA
Interface	IP

**show arp 192.168.195.68**

```

Ruijie# show arp 192.168.195.68
Protocol Address    Age(min)  Hardware      Type
Interface
Internet 192.168.195.68    1    0013.20a5.7a5f  arpa
VLAN 1

```

**show arp 192.168.195.0 255.255.255.0**

```
Ruijie# show arp 192.168.195.0 255.255.255.0
Protocol   Address           Age(min)   Hardware    Type
Interface
Internet  192.168.195.64    0          0018.8b7b.9106 arpa
VLAN 1
Internet  192.168.195.2     1          00d0.f8ff.f00e arpa
VLAN 1
Internet  192.168.195.5     --         00d0.f822.33b1 arpa
VLAN 1
Internet  192.168.195.1     0          00d0.f8a6.5af7 arpa
VLAN 1
Internet  192.168.195.51    1          0018.8b82.8691 arpa
VLAN 1
```

**show arp 001a.a0b5.378d**

```
Ruijie# show arp 001a.a0b5.378d
Protocol   Address           Age(min)   Hardware    Type
Interface
Internet  192.168.195.67    4          001a.a0b5.378d arpa
VLAN 1
```

### 10.3.3 show arp counter

ARP arp

**show arp counter**

**show arp counter**

```
Ruijie# show arp counter
The Arp Entry counter:0
The Unresolve Arp Entry:0
```

ARP

## 10.3.4 show arp timeout

ARP

**show arp timeout**

**show arp timeout**

```
Ruijie# show arp timeout
Interface          arp timeout(sec)
-----
VLAN 1             3600

ARP
```

192.168.12.0

clear ip route 192.168.12.0

<b>show ip route</b>	IP

### 10.3.6 show ip arp

ARP

**show ip arp**

show ip arp

```
Ruijie# show ip arp
Protocol Address      Age(min) Hardware      Type
Interface
Internet 192.168.7.233  23      0007.e9d9.0488 ARPA
FastEthernet 0/0
Internet 192.168.7.112  10      0050.eb08.6617 ARPA
FastEthernet 0/0
Internet 192.168.7.79   12      00d0.f808.3d5c ARPA
FastEthernet 0/0
Internet 192.168.7.1   50      00d0.f84e.1c7f ARPA
FastEthernet 0/0
```

```

Internet 192.168.7.215 36 00d0.f80d.1090 ARPA
FastEthernet 0/0
Internet 192.168.7.127 0 0060.97bd.ebee ARPA
FastEthernet 0/0
Internet 192.168.7.195 57 0060.97bd.ef2d ARPA
FastEthernet 0/0
Internet 192.168.7.183 -- 00d0.f8fb.108b ARPA
FastEthernet 0/0

```

## ARP

Protocol	Internet
Address	IP
Age (min)	ARP “_”
Hardware	IP
Type	ARPA
Interface	IP

### 10.3.7 show ip redirects

**show ip redirects**

**show ip redirects**

Ruijie# **show ip redirects**

Default Gateway: 192.168.195.1

# RMON

## 11.1

### RMON

- ' **rmon collection stats** *index* [**owner** *owner-string*]
- ' **rmon collection history** *index* [**owner** *owner-string*] [**buckets** *bucket-number*] [**interval** *seconds*]
- ' **rmon alarm** *number* *variable* *interval* {**absolute** | **delta** }  
**rising-threshold** *value* [*event-number*] **falling-threshold** *value*  
[*event-number*] [**owner** *ownername*]
- ' **rmon event** *number* [**log**] [**trap** *community*] [*description-string*]
- ' **show rmon statistics**
- ' **show rmon history**
- ' **show rmon events**
- ' **show rmon alarms**

### 11.1.1 rmon collection stats

no

**rmon collection stats** *index* [**owner** *owner-string*]  
**no rmon collection stats** *index*

1

```
Ruijie(config)# interface fast-Ethernet 0/1  
Ruijie(config-if)# rmon collection stats 1 zhansan
```

<b>rmon collection history</b> <i>index</i> [ <b>owner</b> <i>owner-name</i> ] <b>buckets</b> <i>bucket-number</i> <b>interval</b> <i>seconds</i>	

### 11.1.2 rmon collection history

**no**

**rmon collection history** *index* [**owner** *ownername*] [**buckets** *bucket-number*] [**interval** *seconds*]  
**no rmon collection history** *index*

RGOS  
owner buckets interval

1

```
Ruijie(config)# interface fast-Ethernet 0/1
Ruijie(config-if)# rmon collection history 1 zhansan
buckets 10 interval 10
```

<b>rmon collection stats</b> <i>index</i> [ <b>owner</b> <i>owner-name</i> ]	

### 11.1.3 rmon alarm

MIB no

**rmon alarm** *number variable interval* {**absolute** | **delta** }



trap

```
Ruijie(config)# rmon event 1 log trap rmon description  
"ifInNUcastPkts is too much " owner zhangsan
```

---

--	--

```
rmon alarm number variable interval  
{absolute | delta} rising-threshold value  
[event-number] falling-threshold value  
[event-number] [owner ownername]
```

```

Fragments : 0
Jabbers : 0
Collisions : 0
Pkts64Octets : 128
Pkts65to127Octets : 336
Pkts128to255Octets : 229
Pkts256to511Octets : 3
Pkts512to1023Octets : 0
Pkts1024to1518Octets : 1200
Owner : zhangsan
    
```

<b>rmon collection stats</b> <i>index</i> [owner owner-string]	

## 11.2.2 show rmon history

**show rmon history**

```

Ruijie# show rmon history
Entry : 1
Data source : Gi1/1
Buckets requested : 65535
Buckets granted : 10
Interval : 1
Owner : zhangsan
Sample : 198
Interval start : 0d:0h:15m:0s
DropEvents : 0
Octets : 67988
    
```

Pkts : 726  
BroadcastPkts : 502  
MulticastPkts : 189  
CRCAAlignErrors : 0  
UndersizePkts : 0  
OversizePkts : 0  
Fragments : 0  
Jabbers : 0  
Collisions : 0  
Utilization : 0

<b>rmon collection history</b> <i>index</i> [owner <i>ownername</i> ] [buckets <i>bucket-number</i> ] [interval <i>seconds</i> ]	

### 11.2.3 show rmon alarm



<b>rmon event</b> <i>number</i> [ <b>log</b> ] [ <b>trap</b> <i>community</i> ] [ <i>description-string</i> ]	

---

## 12.1

- ' **storm-control**
- ' **switchport protected**
- ' **switchport port-security**
- ' **switchport port-security aging**
- ' **switchport port-security mac-address**
- ' **port-security arp-check**

### 12.1.1 storm-control

**no**

**storm-control** {broadcast | multicast | unicast} [{level *percent* |  
*pps packets* | *rate-bps*}]

**no storm-control** {broadcast | multicast | unicast} [ {level *percent* |  
*pps packets* | *rate-bps*}]

**broadcast**

**multicast**

**unicast**

*percent*

20 20%

*packets*

**pps**

packets per second

*Rate-bps*

64k-2M

64k

2-100M

1M

100M

8M

---

**show storm-control**

GigabitEthernet 1/1  
4M

```
Ruijie# configure terminal  
Ruijie(config)# interface GigabitEthernet 1/1  
Ruijie(config-if)# storm-control multicast 4096  
Ruijie(config-if)# end
```

<b>show storm-control</b>	

86      **pps**

## 12.1.2 switchport protected

**no**

**switchport protected**  
**no switchport protected**

---

3  
**show interfaces**

```
Ruijie(config)# interface gigabitethernet 1/1  
Ruijie(config-if)# switchport protected
```

<b>show interfaces</b>	

S32 S37  
acl

### 12.1.3 protected-ports route-deny

3  
3  
**protected-ports route-deny**  
**no protected-ports route-deny**

3  
3 **show running-config**

```
Ruijie(config)# protected-ports route-deny
```

<b>show running-config</b>	3

10.2 S32/S37 S25 S57

## 12.1.4 switchport port-security

no

**switchport port-security [violation {protect | restrict | shutdown}]**

**no switchport port-security [violation]**

<b>port-security</b>	
<b>violation protect</b>	
<b>violation restrict</b>	trap
<b>violation shutdown</b>	Trap

IP( ) MAC  
( )

1

---

M

Gigabitethernet 1/1

**shutdown**

```
Ruijie(config)# interface gigabitethernet 1/1
Ruijie(config-if)# switchport port-security
Ruijie(config-if)# switchport port-security
violation shutdown
```

show port-security	

### 12.1.5 switchport port-security aging

**no**

**switchport port-security aging {static | time time }**

**no switchport port-security aging {static | time }**

Static	
time time	1440 0 0

**no switchport port-security aging**

---

**time** **no switchport**  
**port-security aging static**

**show port-security**

```
Ruijie(config)# interface gigabitethernet 1/1  
Ruijie(config-if)# switchport port-security aging time  
8  
Ruijie(config-if)# switchport port-security aging  
static
```

<b>show port-security</b>	

## 12.1.6 switchport port-security mac-address

no

**switchport port-security [mac-address *mac-address* [ip-address *ip-address*]] | [maximum *value*]**  
**no switchport port-security [ mac-address *mac-address* ] | [maximum]**

<b>mac-address <i>mac-address</i></b>	
<b>ip-address <i>ip-address</i></b>	IP
<b>maximum <i>value</i></b>	

```

ACL
ACL      IP      MAC
          802.1x
          IP
          gigabitethernet 1/1
00d0.f800.073c      IP      192.168.12.202

```

```

Ruijie# configure terminal
Ruijie(config)# interface gigabitethernet 1/1
Ruijie(config-if)# switchport mode access
Ruijie(config-if)# switchport port-security
Ruijie(config-if)# switchport port-security
mac-address 00d0.f800.073c ip-address 192.168.12.202

```

<b>show port-security</b>	

```

S8600      IP      1K      IP
          84
S2900      IP      1K      IP
          500

```

## 12.1.7 switchport port-security arp-check

```

ARP      no
[no] switchport port-security arp-check [cpu]
cpu      CPU

```

---

Ruijie(config-if)#switchport **port-security arp-check**

<b>show port-security</b>	

S8600

---

Gi1/1 Disabled Disabled Disabled

<b>storm-control</b>	

## 12.2.2 show port-security

**show port-security** [**address**] [**interface** *interface-id*]

<b>address</b>	
<b>interface</b> <i>interface-id</i>	

```
Ruijie# show port-security
Secure Port MaxSecureAddr(count) CurrentAddr(count)
Security Action
-----
Gi1/1 128 1 Restrict
Gi1/2 128 0 Restrict
Gi1/3 8 1 Protect
```

<b>switchport port-security</b>	
<b>switchport port-security aging</b>	
<b>switchport port-security</b>	

---

<b>mac-address</b>	
--------------------	--

# 802.1X

## 13.1 dot1x

dot1x

- ' dot1x auto-req
- ' dot1x auto-req packet-num
- ' dot1x auto-req req-interval
- ' dot1x auto-req user-detect

### 13.1.1 dot1x auto-req

802.1X	dot1x auto-req
no	
[no] dot1x auto-req	

802.1x	show dot1x auto-req
--------	---------------------

```
802.1x
Ruijie# configure terminal
Ruijie(config)# dot1x auto-req
Ruijie(config)# end
Ruijie# show dot1x auto-req
Ruijie(config)# dot1x auto-req
```

```

Auto-Req: Enabled
User-Detect : Enabled
Packet-Num  : 0
Req-Interval: 30 Second

```

<b>show dot1x auto-req</b>	

### 13.1.2 dot1x auto-req packet-num

no

```

dot1x auto-req packet-num num
no dot1x auto-req packet-num

```

*num*

num = 0;

**show dot1x**

**auto-req**

802.1x

```

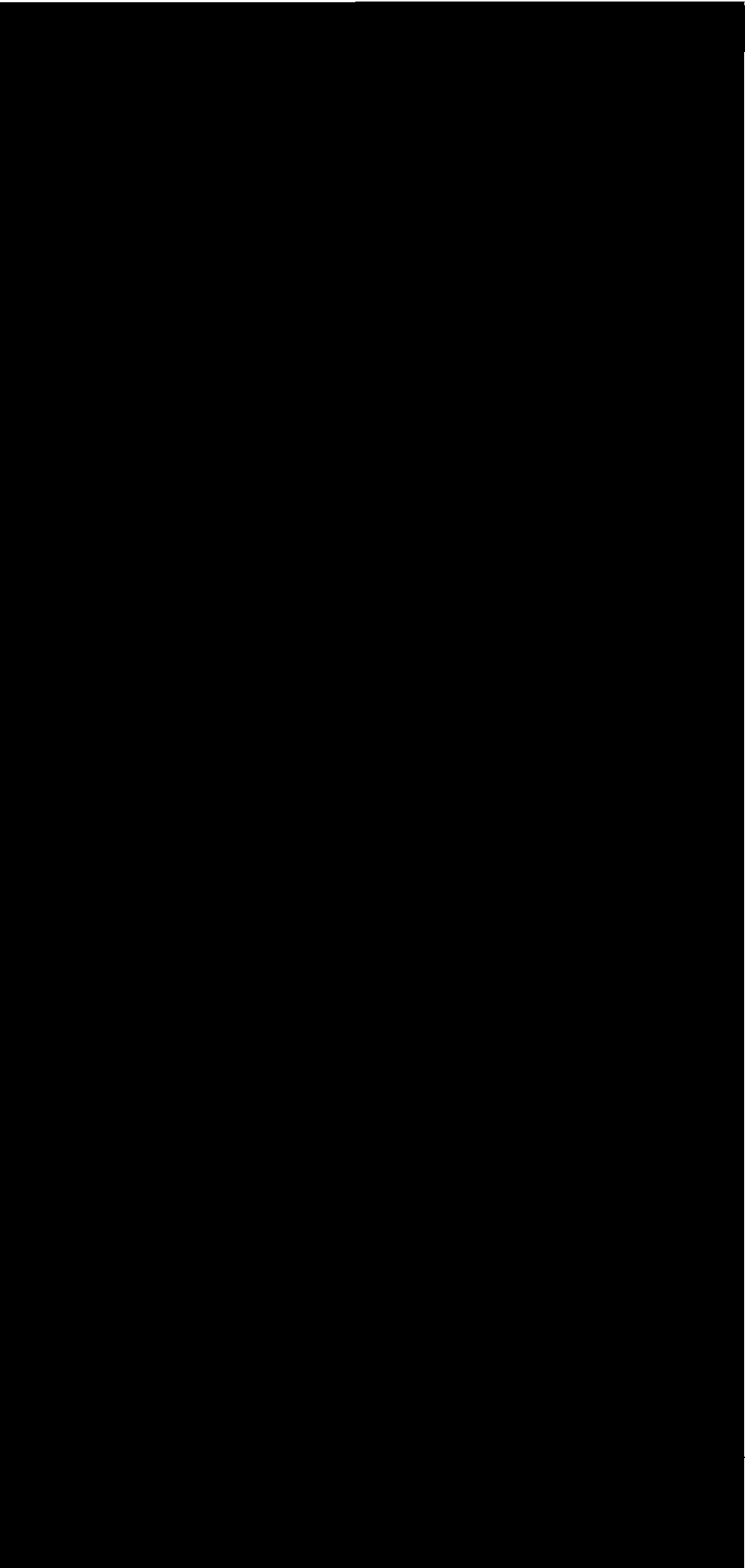
Ruijie# configure terminal
Ruijie(config)# dot1x auto-req packet-num 0
Ruijie(config)# end
Ruijie# show dot1x auto-req

```

```

Auto-Req: Enabled
User-Detect : Enabled
Packet-Num  : 0
Req-Interval: 30 Second

```



## 13.1.4 dot1x auto-req user-detect

no


```
dot1x auto-req user-detect
no dot1x auto-req user-detect
```

**show dot1x**

**auto-req**

```
Ruijie# configure terminal
Ruijie(config)# dot1x auto-req user-detect
Ruijie(config)# end
Ruijie# show dot1x auto-req
```

```
Auto-Req: Enabled
User-Detect : Enabled
Packet-Num : 0
Req-Interval: 60 Second
```



```
' dot1x timeout server-timeout
' dot1x timeout supp-timeout
' dot1x timeout tx-period
```

### 13.2.1 dot1x timeout quiet-period

no

```
dot1x timeout quiet-period seconds
no dot1x timeout quiet-period
```

*seconds*

```
0 65535 s
```

10

**show dot1x**

1000s

```
Ruijie# configure terminal
Ruijie(config)# dot1x timeout quiet-period 1000
Ruijie(config)# end
Ruijie# show dot1x
```

```
802.1X Status:      Enabled
Authentication Mode: EAP-MD5
Authed User Number: 0
Re-authen Enabled:  Disabled
Re-authen Period:   3600 sec
Quiet Timer Period: 1000 sec
Tx Timer Period:    3 sec
Supplicant Timeout: 3 sec
Server Timeout:     5 sec
Re-authen Max:      3 times
```

```

Maximum Request:      3 times
Filter Non-RG Supp:   Disabled
Client Oline Probe:   Disabled
Eapol Tag Enable:     Disabled
Authorization Mode:   Group Server

```

<b>show dot1x</b>	802.1x

### 13.2.2 dot1x timeout re-authperiod

**no**

```

dot1x timeout re-authperiod seconds
no dot1x timeout re-authperiod

```

```

seconds                0  65535    s

```

3600

```

show dot1x           802.1x

```

1000s

```

Ruijie# configure terminal
Ruijie(config)# dot1x timeout re-authperiod 1000
Ruijie(config)# end
Ruijie# show dot1x

```

```

802.1X Status:          Enabled
Authentication Mode:    EAP-MD5
Authed User Number:    0

```



```

802.1X Status:      Enabled
Authentication Mode: EAP-MD5
Authed User Number: 0
Re-authen Enabled:  Disabled
Re-authen Period:   1000 sec
Quiet Timer Period: 1000 sec
Tx Timer Period:    3 sec
Supplicant Timeout: 3 sec
Server Timeout:     10 sec
Re-authen Max:      3 times
Maximum Request:    3 times
Filter Non-RG Supp: Disabled
Client Oline Probe: Disabled
Eapol Tag Enable:   Disabled
Authorization Mode:  Group Server

```

<b>show dot1x</b>	802.1x

### 13.2.4 dot1x timeout supp-timeout

no

**dot1x timeout supp-timeout** *seconds*

**no dot1x timeout supp-timeout**

*seconds* 0  
65535

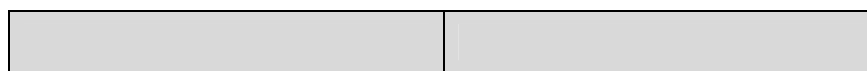
3

**show dot1x** 802.1x

10s

```
Ruijie# configure terminal
Ruijie(config)# dot1x timeout supp-timeout 10
Ruijie(config)# end
Ruijie# show dot1x
```

```
802.1X Status:      Enabled
Authentication Mode: EAP-MD5
Authed User Number: 0
Re-authen Enabled:  Disabled
Re-authen Period:   1000 sec
Quiet Timer Period: 1000 sec
Tx Timer Period:    3 sec
Supplicant Timeout: 10 sec
Server Timeout:     10 sec
Re-authen Max:      3 times
Maximum Request:    3 times
Filter Non-RG Supp: Disabled
Client Oline Probe: Disabled
Eapol Tag Enable:   Disabled
Authorization Mode:  Group Server
```



**show dot1x**

802.1x

dot344 4Tf-0344 41 16333C

**show dot1x**                      802.1x

10s

```
Ruijie# configure terminal
Ruijie(config)# dot1x timeout tx-period 10
Ruijie(config)# end
Ruijie# show dot1x
```

```
802.1X Status:            Enabled
Authentication Mode:    EAP-MD5
Authed User Number:    0
Re-authen Enabled:     Disabled
Re-authen Period:      1000 sec
Quiet Timer Period:    1000 sec
Tx Timer Period:       10 sec
Supplicant Timeout:    10 sec
Server Timeout:        10 sec
Re-authen Max:         3 times
Maximum Request:       3 times
Filter Non-RG Supp:    Disabled
Client Oline Probe:    Disabled
Eapol Tag Enable:      Disabled
Authorization Mode:     Group Server
```

<b>show dot1x</b>	802.1x

## 13.3 dot1x

- ' **dot1x re-authentication**
- ' **dot1x reauth-max**

### 13.3.1 dot1x re-authentication

no

**[no] dot1x re-authentication**

802.1X



<b>show dot1x</b>	802.1x

## 13.4 dot1x

- ' dot1x probe-timer
- ' dot1x client-probe enable

### 13.4.1 dot1x probe-timer

```
dot1x probe-timer{interval | alive}interval
no dot1x probe-timer
```

**no**

*interval* hello

**alive**

**interval**

Hello                   20

                          250

**show dot1x**                   802.1x

hello                   30 ,                   120

Ruijie# **configure terminal**

Ruijie(config)# **dot1x probe-timer interval 30**

```
Ruijie(config)# dot1x probe-timer alive 120
Ruijie(config)# end
Ruijie# show dot1x probe-timer
```

```
Hello Interval: 30 Seconds
Hello Alive: 120 Seconds
```

<b>Show dot1x probe-timer</b>	

### 13.4.2 dot1x client-probe enable

**[no] dot1x client-probe enable**

```
Ruijie# configure terminal
Ruijie(config)# dot1x client-probe enable
Ruijie(config)# end
Ruijie# show dot1x
```

```
802.1X Status:      Enabled
Authentication Mode: EAP-MD5
Authed User Number: 0
Re-authen Enabled:  Enabled
Re-authen Period:   1000 sec
Quiet Timer Period: 1000 sec
Tx Timer Period:    10 sec
```

```

Supplicant Timeout: 10 sec
Server Timeout:     10 sec
Re-authen Max:     5 times
Maximum Request:   3 times
Filter Non-RG Supp: Disabled
Client Oline Probe: Enabled
Eapol Tag Enable:  Disabled
Authorization Mode: Group Server

```

<b>show dot1x</b>	dot1x

## 13.5 dot1x

```

dot1x
' dot1x authentication
' dot1x auth-address-table
' dot1x auth-mode
' dot1x default
' dot1x dynamic-vlan enable
' dot1x eapol-tag
' dot1x max-req
' dot1x private-supplicant-only
' dot1x port-control auto
' dot1x port-control-mode
' dot1x stationarity enable

```

### 13.5.1 dot1x authentication

```

AAA
AAA
no

dot1x authentication {default | list-name}
no dot1x authentication {default | list-name}

default

```

*list-name*

AAA

AAA

AAA

dot1x

group radius

```
Ruijie# configure terminal
Ruijie(config)# aaa new-model
Ruijie(config)# aaa authentication dot1x default group
radius
Ruijie(config)# interface fastEthernet0/1
Ruijie(config-if)# dot1x authentication default
Ruijie(config-if)# end
Ruijie#
```

<b>aaa new-model</b>	AAA
<b>aaa authentication dot1x</b>	

## 13.5.2 dot1x auth-address-table

802.1X

**no**

**dot1x auth-address-table address *mac-addr* interface *interface***

**no dot1x auth-address-table address *mac-addr* interface *interface***

*mac-addr*

*Interface*

802.1X      **show dot1x**

**auth-address table**

```
Ruijie# configure terminal
Ruijie(config)# dot1x auth-address-table address
00d0f8000000 interface ethernet 1/1
Ruijie(config)# end
Ruijie#
```

<b>show dot1x auth-address-table</b>	802.1X

### 13.5.3 dot1x auth-mode

802.1x

```
dot1x auth-mode {eap-md5 | chap | pap}
no dot1x auth-mode
```

**eap-md5** 802.1x      EAP-MD5      **802.1X**      **EAP-MD5**



**show dot1x**            802.1x

802.1x

```
Ruijie# configure terminal
Ruijie(config)# dot1x auth-mode chap
Ruijie(config)# end
Ruijie#
```

<b>show dot1x</b>	802.1x

### 13.5.4 dot1x default

802.1x

**dot1x default**

**show dot1x**            802.1x

802.1x

```
Ruijie# configure terminal
Ruijie(config)# dot1x default
Ruijie(config)# end
Ruijie# end
```

<b>show dot1x</b>	802.1x



**show dot1x**            802.1x

802.1X    tag

```
Ruijie# configure terminal  
Ruijie(config)# dot1x eapol-tag  
Ruijie(config)# end Ruijie(config)#
```

802.1x                    7

```
Ruijie# configure terminal
Ruijie(config)# dot1x max-req 7
Ruijie(config)# end
Ruijie#
```

<b>show dot1x</b>	802.1x

### 13.5.8 dot1x private-supPLICANT-only

**no**

```
dot1x private-supPLICANT-only
no dot1x private-supPLICANT-only
```

**show dot1x private-supPLICANT-only**                    802.1x

```
Ruijie# configure t
Ruijie(config)# dot1x private-supPLICANT-only
Ruijie(config)# end
Ruijie#
```

<b>show dot1x private-supPLICANT-only</b>	

## 13.5.9 dot1x port-control auto

no

```
dot1x port-control auto
no dot1x port-control
```

802.1x

```
show dot1x      802.1x
```

802.1x

```
Ruijie# configure terminal
Ruijie(config)# interface g0/1
Ruijie(config-if)# dot1x port-control auto
Ruijie(config-if)# end
Ruijie#
```

show dot1x	802.1x

## 13.5.10 dot1x port-control-mode

802.1x

MAC

```
dot1x port-control-mode {mac-based | port-based}
no dot1x port-control-mode
```

```

mac-based      mac  802.1X
port-based          802.1X

```

mac-based

```

show dot1x port-control      802.1x
                             802.1X
                             802.1X

```

```

802.1x
802.1x
Ruijie(config)# interface g 0/1
Ruijie(config-if)# dot1x port-control auto
Ruijie(config-if)# dot1x port-control-mode
port-based
Ruijie(config-if)# end
Ruijie#

```

show dot1x port-control	

### 13.5.11 dot1x stationarity enable

802.1x

802.1X

```

dot1x stationarity enable
no dot1x stationarity enable

```

802.1x

```
Ruijie# configure terminal
Ruijie(config)# dot1x stationarity enable
Ruijie(config)# end
Ruijie#
```

## 13.6 dot1x

```
' show dot1x
' show dot1x auth-address-table
' show dot1x auto-req
' show dot1x private-supPLICANT-only
' show dot1x max-req
' show dot1x port-control
' show dot1x probe-timer
' show dot1x re-authentication
' show dot1x reauth-max
' show dot1x summary
' show dot1x timeout
' show dot1x user id
```

### 13.6.1 show dot1x

802.1x

```
show dot1x
```

Ruijie# **show dot1x**

```

802.1X Status:      Enabled
Authentication Mode: EAP-MD5
Authed User Number: 0
Re-authen Enabled:  Disabled
Re-authen Period:   3600 sec
Quiet Timer Period: 10 sec
Tx Timer Period:    3 sec
Supplicant Timeout: 3 sec
Server Timeout:     5 sec
Re-authen Max:      3 times
Maximum Request:    3 times
Filter Non-RG Supp: Disabled
Client Oline Probe: Disabled
Eapol Tag Enable:   Disabled
Authorization Mode:  Group Server
Ruijie#

```

<b>dot1x auth-mode</b>	802.1x
<b>dot1x max-req</b>	
<b>dot1x port-control auto</b>	
<b>dot1x reauth-max</b>	

**dot1x re-authentication**



<b>dot1x max-req</b>	
<b>dot1x port-control auto</b>	
<b>dot1x reauth-max</b>	
<b>dot1x re-authentication</b>	
<b>dot1x timeout quiet-period</b>	
<b>dot1x timeout re-authperiod</b>	
<b>dot1x timeout server-timeout</b>	
<b>dot1x timeout supp-timeout</b>	
<b>dot1x timeout tx-period</b>	

### 13.6.3 show dot1x auto-req

802.1x

**show dot1x auto-req**

```
Ruijie# show dot1x auto-req
```

```
Auto-Req: Disabled  
User-Detect : Enabled  
Packet-Num : 0  
Req-Interval: 30 Seconds  
Ruijie#
```



```
private-supPLICant-only:: disabled  
Ruijie#
```

<b>dot1x auth-mode</b>	802.1x
<b>dot1x max-req</b>	
<b>dot1x port-control auto</b>	
<b>dot1x reauth-max</b>	
<b>dot1x re-authentication</b>	
<b>dot1x timeout quiet-period</b>	
<b>dot1x timeout re-authperiod</b>	
<b>dot1x timeout server-timeout</b>	
<b>dot1x timeout supp-timeout</b>	
<b>dot1x timeout tx-period</b>	

### 13.6.5 show dot1x max-req

```
show dot1x max-req
```

```
Ruijie# show dot1x max-req
max-req: 2 times
Ruijie#
```

<b>dot1x auth-mode</b>	802.1x
<b>dot1x max-req</b>	
<b>dot1x port-control auto</b>	
<b>dot1x reauth-max</b>	
<b>dot1x re-authentication</b>	
<b>dot1x timeout quiet-period</b>	
<b>dot1x timeout re-authperiod</b>	
<b>dot1x timeout server-timeout</b>	
<b>dot1x timeout supp-timeout</b>	
<b>dot1x timeout tx-period</b>	

### 13.6.6 show dot1x port-control

```
show dot1x port-control [interface interface]
```

*interface*

```
Ruijie# show dot1x port-control
interface  dyn-user  static-user  max-user  qos
ctrl-mode status
-----  -----  -----  -----  -----
-----  -----
Gi0/1      0          1          6000     dscp: 0
mac-base Authed
Ruijie#
```

```
Ruijie# show dot1x probe-timer
```

```
Hello Interval: 20 Seconds
```

```
Hello Alive: 250 Seconds
```

```
Ruijie#
```

<b>dot1x auth-mode</b>	802.1x
<b>dot1x max-req</b>	
<b>dot1x port-control auto</b>	
<b>dot1x reauth-max</b>	
<b>dot1x re-authentication</b>	
<b>dot1x timeout quiet-period</b>	
<b>dot1x timeout re-authperiod</b>	
<b>dot1x timeout server-timeout</b>	
<b>dot1x timeout supp-timeout</b>	
<b>dot1x timeout tx-period</b>	

### 13.6.8 show dot1x re-authentication

**show dot1x re-authentication**

```
Ruijie# show dot1x re-authentication
reauth-enabled: disabled
Ruijie#
```

<b>dot1x auth-mode</b>	802.1x
<b>dot1x max-req</b>	
<b>dot1x port-control auto</b>	
<b>dot1x reauth-max</b>	
<b>dot1x re-authentication</b>	
<b>dot1x timeout quiet-period</b>	
<b>dot1x timeout re-authperiod</b>	
<b>dot1x timeout server-timeout</b>	
<b>dot1x timeout supp-timeout</b>	
<b>dot1x timeout tx-period</b>	

## 13.6.9 show dot1x reauth-max

**show dot1x reauth-max**

```
Ruijie# show dot1x reauth-max
reauth-max: 2 times
Ruijie#
```

<b>dot1x auth-mode</b>	802.1x
<b>dot1x max-req</b>	
<b>dot1x port-control auto</b>	
<b>dot1x reauth-max</b>	
<b>dot1x re-authentication</b>	
<b>dot1x timeout quiet-period</b>	
<b>dot1x timeout re-authperiod</b>	
<b>dot1x timeout server-timeout</b>	

<b>dot1x timeout supp-timeout</b>	
<b>dot1x timeout tx-period</b>	

### 13.6.10 show dot1x summary

802.1X

**show dot1x summary**

```
Ruijie# show dot1x summary
ID          MAC                Interface  VLAN  Auth-State
Backend-State Port-Status Type
-----
-----
1 00d0f8000000 Gi0/1          1  Authenticated Idle
Authed      Static
Ruijie#
```

<b>dot1x auth-mode</b>	802.1x
<b>dot1x max-req</b>	
<b>dot1x port-control auto</b>	
<b>dot1x reauth-max</b>	

---

<b>dot1x re-authentication</b>	
<b>dot1x timeout quiet-period</b>	
<b>dot1x timeout re-authperiod</b>	

**dot1x timeout supp-timeout A5E601xAp51**

**dot1x timeout server-timeout X**

```

Up-bandwidth is 1024 kbps
Down-bandwidth is 1024 kbps
Authorization vlan is dep7
Authorization session time is 1000000 seconds
Authorization ip address is 192.168.217.64
Start accounting
Permit proxy user
Permit dial user
IP privilege is 2

Ruijie#

```

<b>dot1x auth-mode</b>	802.1x
<b>dot1x max-req</b>	
<b>dot1x port-control auto</b>	
<b>dot1x reauth-max</b>	
<b>dot1x re-authentication</b>	
<b>dot1x timeout quiet-period</b>	
<b>dot1x timeout re-authperiod</b>	
<b>dot1x timeout server-timeout</b>	
<b>dot1x timeout supp-timeout</b>	
<b>dot1x timeout tx-period</b>	

### 13.6.12 show dot1x timeout

```
802.1X
```

```

show dot1x timeout quiet-period
show dot1x timeout re-authperiod
show dot1x timeout server-timeout
show dot1x timeout supp-timeout
show dot1x timeout tx-period

```

```
Ruijie# show dot1x timeout quiet-period
quiet-period: 60 sec
Ruijie#
```

<b>dot1x auth-mode</b>	802.1x
<b>dot1x max-req</b>	
<b>dot1x port-control auto</b>	
<b>dot1x reauth-max</b>	
<b>dot1x re-authentication</b>	
<b>dot1x timeout quiet-period</b>	
<b>dot1x timeout re-authperiod</b>	
<b>dot1x timeout server-timeout</b>	
<b>dot1x timeout supp-timeout</b>	
<b>dot1x timeout tx-period</b>	

# AAA

## 14.1

aaa authentication

### 14.1.1 aaa authentication

AAA

aaa authentication

no

**aaa authentication** {dot1x | enable | ppp | login} {default | list-name} method1 [method2...]

**no aaa authentication** {dot1x | enable | ppp | login} {default | list-name}

**default**

*list-name*

**dot1x** Dot1x

**enable** Enable

**ppp** PPP

**login** Login

*method* 1

4

1 AAA

<b>local</b>	
<b>none</b>	
<b>group</b>	RADIUS

**default**

**aaa authentication** {dot1x | enable | ppp | login} **default group radius**



*method1*

<b>local</b>	
<b>none</b>	
<b>group</b>	RADIUS

AAA

SA

Ö

## 14.3

RGOS                      RADIUS

- ' **aaa accounting network**
- ' **aaa accounting update**
- ' **aaa accounting update periodic**
- ' **show aaa method-list**
- ' **debug aaa**

### 14.3.1 aaa accounting network

**aaa accounting network**                      **no**

**aaa accounting network** {**default** | *list-name*} **start-stop group**  
**radius**  
**no aaa accounting network** {**default** | *list-name*}

**network**    DOT1X    PPP  
**resource**  
*list-name*  
**start-stop**

**group**  
**radius**                      RADIUS

RGOS  
**start-stop**

RADIUS

```
Ruijie(config)# aaa accounting network start-stop group
radius
```

aaa new-model	AAA
aaa authorization network	AAA
aaa authentication	AAA
username	

### 14.3.2 aaa accounting update

```
aaa accounting update
no
```

```
aaa accounting update
no aaa accounting update
```

AAA

AAA

```
Ruijie(config)# aaa new-model
Ruijie(config)#
```

aaa new-model	AAA

aaa accounting network	
------------------------	--

### 14.3.3 aaa accounting update periodic

```

periodic                                     aaa accounting update
                                             no

```

```
aaa accounting update periodic interval
```

```
no aaa accounting update periodic
```

```
interval                                     1
```

```
5 minutes
```

AAA

AAA

1

```
Ruijie(config)# aaa new-model
```

```
Ruijie(config)# aaa accounting update
```

```
Ruijie(config)# aaa accounting update periodic 1
```

aaa new-model	AAA
aaa accounting network	

### 14.3.4 show aaa method-list

EXEC

EXEC

Ruijie# **show aaa method-list**

## 14.4 AAA

```
' show aaa group
' aaa group server
' server ip-addr authen-port port1 acct-port port2
' ip vrf forwarding
```

### 14.4.1 show aaa group

AAA

**show aaa group**

AAA

```
Ruijie# show aaa group
Group Name:  ss
Group Type:  radius
Referred:    2
Server List:
IP Address:  192.168.217.64
```

---

```
Authentication Port: 1812
Accounting Port: 1813
Referred: 1
Ruijie#
```

aaa group server	AAA

## 14.4.2 aaa group server

```
AAA
```

```
no
```

```
6Td4B2C58A7A11CE08028-20,150Tstc 0.9056 T, w<2827,C25 1808885603086A
```



<b>aaa group server</b>	aaa
<b>show aaa group</b>	aaa

#### 14.4.4 ip vrf forwarding

AAA vrf **no**

**ip vrf forwarding** vrf\_name

**no ip vrf forwarding**

vrf\_name vrf

vrf

```
Ruijie(config)# aaa group server radius ss
Ruijie(config-gs-radius)# server 192.168.4.12
Ruijie(config-gs-radius)# server 192.168.4.13
Ruijie(config-gs-radius)# ip vrf forwarding vrf_name
Ruijie(config-gs-radius)# end
Ruijie#
```

<b>aaa group server</b>	aaa
<b>show aaa group</b>	aaa

## 14.5 AAA

- ' **aaa new-model**
- ' **debug aaa**
- ' **show aaa method-list**

## 14.5.1 aaa new-model

```

RGOS AAA
new-model AAA no AAA
aaa new-model
no aaa new-model

```

AAA

```

AAA AAA
aaa new-model AAA AAA AAA

```

AAA

```
Ruijie(config)# aaa new-model
```

aaa authentication	

## 14.5.2 debug aaa

```

AAA no
debug aaa
no debug aaa

```

EXEC

### 14.5.3 show aaa method-list

AAA

**show aaa method-list**

AAA

AAA

```
Ruijie# show aaa method-list
Authentication method-list
aaa authentication login default group radius
aaa authentication ppp default group radius
aaa authentication dotlx default group radius
aaa authentication dotlx san-f local group angel group
rain none
aaa authentication enable default group radius
Accounting method-list
aaa accounting network default start-stop group radius
Authorization method-list
aaa authorizing network default group radius
Ruijie#
```

<b>aaa authentication</b>	
<b>aaa authorization</b>	
<b>aaa accounting</b>	

# RADIUS

## 15.1 RADIUS

RADIUS

```
' ip radius source-interface  
' radius-server host  
' radius-server key  
' radius-server retransmit  
' radius-server timeout  
' radius-server dead-time  
'
```

radius

radius fastEthernet 0/0 ip

radius

```
Ruijie(config)# ip radius source-interface
fastEthernet 0/0
```

radius-server host	RADIUS
ip address	ip

### 15.1.2 radius-server host

RADIUS

radius-server

no

RADIUS

```
radius-server host {hostname | ip-address} [auth-port port-number]
[acct-port port-number]
```

```
no radius-server host {hostname | ip-address}
```

<i>hostname</i>	RADIUS	DNS	
<i>Ip-address</i>	RADIUS	IP	
<i>Auth-port</i>	RADIUS	UDP	
<i>Port-number</i>	RADIUS	UDP	0
<i>Acct-port</i>	Radius	UDP	
<i>Port-number</i>	RADIUS	UDP	0

RADIUS AAA  
**radius-server**

RADIUS  
RADIUS

RADIUS

```
Ruijie(config)# radius-server host 192.168.12.1
```

<b>aaa authentication</b>	AAA
<b>radius-server key</b>	RADIUS
<b>radius-server retransmit</b>	RADIUS
<b>radius-server timeout</b>	RADIUS

### 15.1.3 radius-server key

RADIUS

aaa

```
Ruijie(config)# radius-server key aaa
```

radius-server host	RADIUS
radius-server retransmit	RADIUS
radius-server timeout	RADIUS

### 15.1.4 radius-server retransmit

RADIUS

radius-server retransmit

**no**

```
radius-server retransmit retries
```

```
no radius-server retransmit
```

```
retries RADIUS
```

3

AAA

RADIUS

4

```
Ruijie(config)# radius-server retransmit 4
```

<b>radius-server host</b>	RADIUS
<b>radius-server key</b>	RADIUS
<b>radius-server timeout</b>	RADIUS

### 15.1.5 radius-server timeout

RADIUS

**radius-server timeout**                      **no**

**radius-server timeout** *seconds*

**no radius-server timeout**

*seconds*

1-1000

5

10

Ruijie(config)# **radius-server timeout** 10

<b>radius-server host</b>	RADIUS
<b>radius-server retransmit</b>	RADIUS
<b>radius-server key</b>	RADIUS



**no radius attribute {<id>|down-rate-limit | dscp | mac-limit |  
up-rate-limit} vendor-type**

*id*                    id <1-255>

*type*                    type

22

ip privilege

22

max up-rate

211

<b>radius vendor-specific extend</b>	Radius id

### 15.1.9 radius vendor-specific extend

id

**show radius vendor-specific**

## 15.2.1 debug radius

RADIUS no RADIUS

**debug radius [event | detail]**

**no debug radius [event | detail]**

EXEC

## 15.2.2 show radius server

RADIUS

**show radius server**

radius

```
Ruijie# show radius server
server ip : 192.168.4.12
acct port: 23
authen port: 77
server state: ready
```

```
server ip : 192.168.4.13
acct port: 45
authen port: 74
server state: ready
```

<b>radius-server host</b>	RADIUS
<b>radius-server retransmit</b>	RADIUS
<b>radius-server key</b>	RADIUS
<b>radius-server timeout</b>	RADIUS

### 15.2.3 show radius parameter

RADIUS

**show radius parameter**

radius

```
Ruijie# show radius parameter
Server Timeout: 5 Seconds
```

<b>radius-server host</b>	RADIUS
<b>radius-server retransmit</b>	RADIUS
<b>radius-server key</b>	RADIUS
<b>radius-server timeout</b>	RADIUS

## 15.2.4 show radius vendor-specific

RADIUS

**show radius vendor-specific**

radius

```
Ruijie# show radius vendor-specific
id   vendor-specific      type-value
-----
1    max down-rate        76
2    qos                   77
3    user ip              3
4    vlan id              4
5    version to client    5
6    net ip               6
7    user name            7
8    password             8
9    file-directory       9
10   file-count           10
11   file-name-0          11
```

---

12	file-name-1	12
13	file-name-2	13
14	file-name-3	14
15	file-name-4	15
16	max up-rate	75
17	version to server	17
18	flux-max-high32	18
19	flux-max-low32	19
20	proxy-avoid	20
21	dailup-avoid	21
22	ip privilige	22
23	login privilige	42
24	limit to user number	50

<b>radius-server host</b>	RADIUS
<b>radius-server retransmit</b>	RADIUS
<b>radius-server key</b>	RADIUS
<b>radius-server timeout</b>	RADIUS

# QoS

## 16.1

```

QoS
1 policy-map
policy-map
class-map 1 ACL ACL ACE
ACE "ACL"
QoS
Policy Map
QoS
Policy Map
QoS Off
QoS
    
```

CoS	0
	8
	WRR
QueueWeight	1:1:1:1:1:1:1
WRR Weight Range	1:15
DRR Weight Range	1:15
	No Trust

Cos

CoS	0	1	2	3	4	5	6	7
	1	2	3	4	5	6	7	8

CoS to DSCP

CoS	0	1	2	3	4	5	6	7
DSCP	0	8	16	24	32	40	48	56

IP-Precedence to DSCP

IP-Precedence	0	1	2	3	4	5	6	7
DSCP	0	8	16	24	32	40	48	56

S2900	<b>cos dscp</b>
S8600	<b>cos dscp ip-precedence</b>

## 16.2.2 mls qos cos

CoS

```
mls qos cos default-cos  
no mls qos cos
```

```
default-cos 0 7  
no
```

```
CoS 0
```

```
Ruijie(config)# interface gigabitethernet 1/1  
Ruijie(config-if)# mls qos cos 7
```

```
show mls qos interface interface-id
```

## 16.2.3 Class Maps

ACL

```
ip access-list {extended | standard} { acl-id | acl-name }  
mac access-list extended {acl-id | acl-name}  
expert access-list extended {acl-id | acl-name}  
ipv6 access-list extended acl-name  
access-list acl-id ACL  
  
class map class map  
  
[no] class-map class-map-name  
  
class map
```

**[no] match access-group** *acl-name|acl-id*

<i>acl-name</i>	ACL
<i>acl-id</i>	ACL id
<i>class-map-name</i>	class map
<b>no class-map</b> <i>class-map-name</i>	class map
<b>no match access-group</b> <i>acl-name acl-id</i>	

MAC ACL, me

Ruijie(config)# **mac access-list extended** *me*

ACL

Ruijie(config-ext-macl)# **permit host** *1111.2222.3333*  
**any**

ACL

Ruijie(config-ext-macl)# **exit**

class-map, cm

Ruijie(config)# **class-map** *cm*

ACL

Ruijie(config-cmap)# **match access-group** *me*

class-map

Ruijie(config-cmap)# **exit**

**show mac access-lists**

**show ip access-lists**

**show class-map**

S2900

S8600

## 16.2.4 Policy Maps

policy map                    policymap

**[no] policy-map** *policy-map-name*

policy map                    class-map                    ,

**[no] class** *class-map-name*

IP                    ipdscp                    IP

**set ip dscp** *new-dscp*

**no set ip dscp**

**police** *rate-bps burst-byte*[**exceed-action** {**drop** | **dscp** *dscp-value*}]

**no police**

*policy-map-name*                    .....                    policymap

**no policy-map** *policy-map-name*                    .....                    policy map

*class-map-name*                    .....                    class map

**no class** *class-map-name*                    .....

*new-dscp*                    DSCP

*rate-bps*                    .....                    kbps

*burst-byte*                    .....                    kbyte

*drop*

*dscp-value*                    .....                    DSCP

```

dscp 10
Ruijie(config-pmap-c)# set ip dscp 10
1M, 4096k, dscp 16
Ruijie(config-pmap-c)# police 1000000 4096
exceed-action dscp 16

```

**show policy-map**

```

S2900 S8600

```

## 16.2.5 service-policy

policy map

```

service-policy {input | output} policy-map-name
no service-policy {input | output}

```

```

policy-map-name          policymap
no           policy map

```

```

Ruijie(config)# interface fastEthernet 0/1
Ruijie(config-if)# service-policy input po

```

**show mls qos interface**

```

S2900          input
S8600          input output

```

## 16.2.6 priority-queue

```

[no] priority-queue [out]

```

**priority-queue [out]** SP (S2900  
 ,S8600 )

**no priority-queue [out]** WRR

WRR

Ruijie(config)# **no priority-queue out**

**show mls qos queueing**

## 16.2.7 wrr-queue bandwidth

WRR

**wrr-queue bandwidth** *weight1 ... weightn*

**no wrr-queue bandwidth**

*weight1...weightn* n n

**no**

weight1: ...: weightn = 1:...:1

Ruijie(config)# **wrr-queue bandwidth 1 2 3 4 5 6 7 8**

**show mls qos queueing**

S2900

S8600

## 16.2.8 wrr-queue cos-map

CoS

**wrr-queue cos-map** *qid cos0* [

```
Ruijie(config)# mls qos map cos-dscp 8 10 16 18 24 26  
32 34
```

```
show mls qos maps          dscp-cos maps,dscp-cos maps  
ip-prec-dscp maps
```

```
S2900          S8600
```

## 16.2.10 mls qos map dscp-cos

DSCP	CoS
------	-----

```
mls qos map dscp-cos dscp-list to cos
```

```
no mls qos map dscp-cos
```

```
dscp-list
```

```
cos          0 7
```

```
no
```

```
Ruijie(config)# mls qos map dscp-cos 8 10 16 18 to 0
```

```
show mls qos maps          dscp-cos maps,dscp-cos maps  
ip-prec-dscp maps
```

```
S2900          S8600
```

## 16.2.11 interface rate-limit

**rate-limit** {input | output} *bps burst-size*

**no rate-limit**

**input**

**output**

WRR

```
Ruijie(config)# mls qos scheduler sp
```

```
show mls qos scheduler
```

S8600

### 16.2.13 drr-queue bandwidth

DRR

```
drr-queue bandwidth weight1...weight8
```

```
no drr-queue bandwidth
```

```
weight1...weight8
```

```
no
```

```
Ruijie(config)# drr-queue bandwidth 1 2 3 4 5 6 7 8
```

```
show mls qos queueing
```

86

## 16.2.14 mls qos map ip-prec-dscp

ipprec DSCP

**mls qos map ip-prec-dscp dscp1...dscp8**

**no mls qos map ip-prec-dscp**

**dscp**

**no**

```
Ruijie(config)# mls qo map ip-prec -dscp 8 10 16 18 24  
26 32 34
```

```
show mls qos maps dscp-cos maps,dscp-cos maps  
ip-prec-dscp maps
```

S8600

## 16.2.15 wfq-queue bandwidth

wfq

**wfq-queue *queue-id* bandwidth *min max***

**no wfq-queue *queue-id* bandwidth**

*queue-id*

*min*

*max*

min †

max kbps

wfq

wfq

```
Ruijie(config)# mls qos scheduler wfq
Ruijie(config)# show mls qos scheduler
```

```
Ruijie(config-if)# wfq-queue 2 bandwidth 10 10240
Ruijie(config-if)# wfq-queue 4 bandwidth 7 10240
Ruijie(config-if)# show running
```

show mls qos scheduler	QOS

RGOS10.1

## 16.2.16 wfq-queue sp

wfq

(sp)

```
wfq-queue queue-id sp
no wfq-queue queue-id sp
```

*queue-id*

*sp*:

sp

wfq

sp+wfq

wfq

```
Ruijie(config)# mls qos scheduler wfq
Ruijie(config)# show mls qos scheduler
```

1 3

```
Ruijie(config)# wfq-queue 1 sp
Ruijie(config)# wfq-queue 3 sp
Ruijie(config)# show running
```

show mls qos scheduler	QOS

RGOS10.1

## 16.3

### 16.3.1 show class-map

class map

```
show class-map [class-name]
```

```
class-name class map
```

class map

```
Ruijie# show class-map
```

S2900            S8600

### 16.3.2 show policy-map

QoS policy map    [            class class-name]

**show policy-map** [*policy-name* [**class** *class-name*]]

*policy-name*        policy name  
*class-name*         class map

policy name

Ruijie# **show policy-map**

S2900            S8600

### 16.3.3 show mls qos interface

QoS

### 16.3.4 show mls qos queueing

QoS (cos-to-queue map, wrr weight, drr weight)

**show mls qos queueing**

```
Ruijie# show mls qos queueing
```

```
S2900 cos-to-queue map, wrr weight
```

```
S8600 cos-to-queue map, wrr weight, drr weight
```

### 16.3.5 show mls qos scheduler

**show mls qos scheduler**

```
Ruijie# show mls qos scheduler
```

```
S8600
```

### 16.3.6 show mls qos maps

dscp-cos maps, dscp-cos maps ip-prec-dscp maps

**show mls qos maps [cos-dscp | dscp-cos / ip-prec-dscp]**

**cos-dscp** Vtg! dscp maps

**dscp-cos** dscp-cos maps

**ip-prec-dscp** ip-prec-dscp maps

dscp-cos maps dscp-cos maps

## TPP

### 17.1

#### 17.1.1 topology guard

```
topology guard  
no
```

```
[no] topology guard
```

**cpu topology-limit**

```
Ruijie(config)# topology guard  
Ruijie(config)# no topology guard
```

```
tp-guard port enable  
cpu topology-limit CPU
```

#### 17.1.2 tp-guard port enable

```
no
```

**[no] tp-guard port enable**

```
Ruijie# show tpp
```

```
topology guard
```

---

## 18.1

- ' **cat**
- ' **cd**
- ' **cp**
- ' **ls**
- ' **makefs**
- ' **mkdir**
- ' **mv**
- ' **pwd**
- ' **rm**
- ' **rmdir**

### 18.1.1 **cat**

**cat type {bin**

---

```
      a      ( type file); b '?'
      ,      '?'

      tmp      log.txt
Ruijie# cat type text file tmp/log.txt

      bin      tmp.bin
Ruijie# cat type bin file bin/tmp.bin
```

## 18.1.2 cd

```
cd DIRECTORY
```

```
DIRECTORY
```

```
“ ”      “ ”
“ ”      “ ”
```

```
ls
```

```
tmp
Ruijie# cd tmp
```

---

ls	

### 18.1.3 cp

**cp dest** {*DESTINE\_FILE* | *DIRECTORY*} **sour** *SOURCE\_FILE*  
**cp sour** *SOURCE\_FILE* **dest** {*DESTINE\_FILE* | *DIRECTORY*}

*DESTINE\_FILE*

*DIRECTORY*

*SOURCE\_FILE* ( )

**cp**

log.txt :

Ruijie# **cp sour** log.txt **dest** ../log\_bak.txt

### 18.1.4 ls

**ls** *PATHNAME*

*PATHNAME*

---

```
Ruijie# ls
      tmp
Ruijie# ls tmp
```

## 18.1.5 makefs

```
makefs dev DEVNAME fs FSNAME
makefs fs FSNAME dev DEVNAME
```

```
DEVNAME          (          )
FSNAME
```

makefs6.823 fs

---

b

jffs2

dev/mtdblock/1

```
Ruijie# makefs dev /dev/mtdblock/1 fs jffs2
```

## 18.1.6 mkdir

**mkdir** *DIRECTORY*

*Ej UGQD iGQD*

**M 02D 0231E34Hr**

---

*SOURCE\_FILE*  
*DESTINE\_FILE/DIRECTORY*

```
          a          ( type file); b '?'  
                    '?'  
,  
          log.txt          ,          config.txt,  
,  
Ruijie# mv sour tmp/log.txt dest ../config.txt  
          log.txt          tmp  
Ruijie# mv dest /mnt/tmp sour tmp/log.txt
```

## 18.1.8 pwd

**pwd**

pwd	

---

---

## 18.1.10 rmdir

**rmdir** *DIRECTORY*

*DIRECTORY* ,

**rm** , ,

tmp

Ruijie# **rmdir** tmp

Ruijie# **ls**

## 18.2



logging console	
logging monitor	) VTY ( telnet
logging trap	Syslog Server

### 19.1.2 terminal monitor

```

VTY
no
terminal monitor
terminal no monitor

```

```

VTY VTY

```

```

VTY VTY
VTY

```

---

/ 说明:

```

no RGOS
, 0 1

```

---

```

VTY
Ruijie# terminal monitor
Ruijie#

```

### 19.1.3 logging buffered

```

no

```



---

<b>logging on</b>	
<b>show logging</b>	
<b>logging trap</b>	syslog server

### 19.1.5 logging file flash

```

FLASH
FLASH no
logging file flash:filename [max-file-size] [level]
no logging file

Filename txt
max-file-size 128K 6M bytes
128K
level1 FLASH 6
FLASH
FLASH

```

Syslog Server

FLASH

txt

---

r 注意:

```

FLASH FLASH
FLASH logging file flash

```

---

```

FLASH trace.txt
64K, 6

```

---

```
Ruijie(config)# logging file flash:trace
```

<b>logging on</b>	
<b>show logging</b>	
<b>more flash</b>	FLASH

### 19.1.6 logging console

**no**

**logging console *level***

**no logging console**

*level*

0 7

1

Debugging (7)

**show logging**

6

```
Ruijie(config)# logging console informational
```

--	--

<b>logging on</b>	
<b>show logging</b>	

## 19.1.7 logging monitor

```

VTY telnet SSH
no VTY

```

```

logging monitor level
no logging monitor

```

*level*

1

Debugging (7)

```

VTY terminal
monitor VTY
logging monitor
Logging monitor VTY

```

164.663550 70944>6<1BB915AB05B564.663550 70944>6<1BB90.65464.663550 70944>6<1BB98.5670653B2C(Ls %D)@L%  
6<1BB90.65464.663550 70944>6<1BB98.5670653B2C(Ls %D)@L%

---

## 19.1.8 logging trap

```
Syslog Server
no
logging trap level
no logging trap

level
1

Informational(6)
```

```
Syslog Server
Syslog Server logging
logging trap
show logging
```

---

---

## Syslog Server

Loopback 0          Syslog

```
Ruijie(config)# logging source ip 192.168.1.1
```

2	mail system
3	system daemons
4	security/authorization messages
5	messages generated internally by syslogd
6	line printer subsystem
7	network news subsystem
8	UUCP subsystem
9	clock daemon
10	security/authorization messages
11	FTP daemon
12	NTP subsystem
13	log audit
14	log alert
15	clock daemon
16	local use 0 (local0)
17	local use 1 (local1)
18	local use 2 (local2)
19	local use 3 (local3)
20	local use 4 (local4)
21	local use 5 (local5)
22	local use 6 (local6)
23	local use 7 (local7)

RGOS (local7) 23

Syslog kernel

Ruijie(config)# logging facility kern

logging console	

---

## 19.1.12 logging count

**no**

**logging count**

**no logging count**

**no**

**logging count**

Ruijie(config)# **logging count**

---

1

---

Uptime

Datetime

Log

Debug

Datetime

Ruijie(config)# **service timestamps debug datetime**

Ruijie(config)# **service timestamps log datetime**

<b>logging on</b>	
<b>service sequence-numbers</b>	

### 19.1.15 service sysname

no

**service sysname**

**no service sysname**

Mar 22 15:28:02 %SYS-5-CONFIG: Configured from console

---

```
by console
Ruijie #config terminal
Enter configuration commands, one per line. End with
CNTL/Z.
Ruijie (config)#service sysname
Ruijie (config)#end
Ruijie #
Mar 22 15:35:57 S3250 %SYS-5-CONFIG: Configured from
console by console
```

<b>show logging</b>	

### 19.1.16 more flash

FLASH

**more flash:***filename*

---

## 19.1.17 clear logging

**clear logging**

Ruijie# **clear logging**

<b>logging on</b>	
<b>show logging</b>	
<b>logging buffered</b>	

## 19.2

### 19.2.1 show logging

**show logging**

**show logging**

```

Ruijie# show logging
Syslog logging: enabled
Console logging: level debugging, 4 messages logged
Monitor logging: level informational, 0 messages logged
Buffer logging: level debugging, 6 messages logged
Timestamp debug messages: datetime
Timestamp log messages: disabled
Sequence log messages: enable
Trap logging: level debugging, 2 message lines logged, 0
reserved, 0 fail
logging to 202.101.11.22
logging to 192.168.200.112
Log Buffer (Total 4096 Bytes) : have written 680
00001 2004-11-17 10:20:59 Ruijie: %7:%LINK CHANGED:
Interface FastEthernet 0/0, changed state to up
00002 2004-11-17 10:20:59 Ruijie: %7:%LINE PROTOCOL
CHANGE: Interface FastEthernet 0/0, changed state to
UP
00003 2004-11-17 10:57:18 Ruijie: %7:%LINK CHANGED:
Interface FastEthernet 0/1, changed state to
administratively down
00004 2004-11-17 10:57:21 Ruijie: %7:%LINK CHANGED:
Interface FastEthernet 0/1, changed state to down
00005 2004-11-17 10:57:41 Ruijie: %7:%LINK CHANGED:
Interface FastEthernet 0/1, changed state to
administratively down
00006 2004-11-17 10:57:43 Ruijie: %7:%LINK CHANGED:
Interface FastEthernet 0/1, changed state to down

```

Syslog logging	<b>disabled</b> <b>enabled,</b>
Console logging	
Monitor logging	VTY
Buffer logging	
Timestamp debug messages	Debug

Timestamp log messages      Log

Trap logging	Syslog Server
Log Buffer	

<b>logging on</b>	
<b>clear logging</b>	

## 19.2.2 show logging count

**show logging count**

**count**                      **show logging count**                      **logging**

**show logging**

**show logging count**

```
Ruijie# show logging count
Module Name  Message Name Sev Occur      Last Time
=====
-SYS          CONFIG_I      5   1          Jul 6
10:29:57
-----
-SYS TOTAL           1
```

---

<b>logging count</b>	
<b>show logging</b>	
<b>clear logging</b>	