



w W Õ Å

8 - 9 - + 6 x æ @ & ²

8 - 5 9 H V

g é • ⁻ Y u <

• ' Ñ f

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•⁻y f

5*26 E S

~À*Š

ê±V

[KWWS_ZZZ_UXLMLH_FRP_FQ](#)
[KWWS_ZHEFKDW_UXLMLH_FRP_FQ](#)
[KWWS_ZZZPUFQ_WHU_YRFH_DVS\[](#)

×

[KWWS_VXSSRUW_UXLMLH_FRP_FQ](#)
[VHUYLEFH#UXLMLH_FRP_FQ](#)

ü»žj

: (%	: (%

⁻/,

> @ > @ ↴
^ [_ \ _ `
> [_ \ _ @

⚡、告、操 的。
、 、 、对操 的 必 的补充
对 产 的 持 必 的补充。

↴
↴



1 ' CLI * ' w W

1.1 ' ü » w W

1.1.1 alias

alias mode command-alias original-command
no alias mode >original-command@

mode	" 3 3 3 Â
command-alias	3 " Â
original-command	" 3 3 Â

(;(& Ю † 3 " Â

3

(;(& Ю 3 " ì h ä p ä s ä u ä un " † ì help ä ping ä show ä
undebug ä undebug Â

3 " a no alias exec 3 Â
3 " ~ 1 Л 3 3 Â í Â Â Ü, Ä

Значит, $\mathcal{L}S \not\subseteq DG \cap UHVV$. Ю.

```

ip address 192.168.1.100
show aliases

```

```
Ruijie#
Ruijie(config)# def-route ip route 0.0.0.0 0.0.0.0
192.168.1.1
Ruijie(config)#
*def-route="ip route 0.0.0.0 0.0.0.0 192.168.1.1"
Ruijie(config)#
% Unrecognized command.
Ruijie(config)#
Ruijie#
globe configure mode alias:
def-route ip route 0.0.0.0 0.0.0.0 192.168.1.1
```

3

show aliases

↗

3

no privilege

```
privilege mode all @level level | reset `command-string
no privilege mode all @level level @command-string
```

mode	3 & / , 3 Â
all @	Â 3 3 ~ 1 Ï º
level level	3 3 ~ Â

reset	3 и Â
command-string	3 Â

3

Ю ¯ privilege 3 / &, 3 ~ a* ~ /
 3 / ~ Ю / Л privilege ?
 / &, 3 Â

config	
exec	
interface	
ip-dhcp-pool	' + & 3
keychain	. H \ & K D L Q
keychain-key	. H \ & K D L Q N H \
time-range	7 L P H 5 D Q J H

ЛЮ ~ & / , 3 и ' W H V W ' reload 3 ~ / Л Л Æ
 Â

Ruijie(config)# ~~set~~ 10 0

Ruijie(config)# ~~set~~ 1 0

~ & / , ~ / Л Л reload 3'

Ruijie> 0 ?

<cr>

U H O R D G 3 ~ / Л Л all

Ruijie(config)# ~~set~~ 1 0

~ & / , ~ / Л Л reload 3'

Ruijie> 0?

at reload at a specific time/date

cancel cancel pending reload scheme

in reload after a time interval

<cr>

3

enable secret	& / , 3

/

3

-	

1.2 < ü » w W

1.2.1 show aliases

3 " 3 Ю 3 " ~ 1 Л (; (& Ю show aliases

3 Â

show aliases mode @

	P R G H	" 3 3 3 Â
3	(; (&	
	3 ~ 3 " Â	
	ЛЮ ~ (; (& Ю 3 " ' Ruijie# hls exec mode alias:	
	h help	
	p ping	
	s show	
	u undebug	
	un undebug	
3		
	alias	3 "
1		
3		
	-	

2 Á ' a Â w W

2.1 ' Đ Đ a Â ü » w W

2.1.1 disable

	IO æ	GLVDEOHÂ
disable	privilege-level @	
	privilege-level	
3		
	æ 3 ý Â 7 3	
	disable 3 1	Â
	IO Ruijie# 10	
	HQDEOH	



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ĭ Â

1

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$$a \in \hat{A} \quad \{ \text{enable secret } \hat{A} \} \quad \{ \text{no} \}$$

Secret	(; (& 3 Â
Level	Â
0 5	3 7 ~ 7 ~ 7 Â
encrypted-password	3 Â

3

3 | ñ SDVVZR V BFXU L W \ Â SDVVZR U G 7 3 ~ ñ
 3 Â VHF XU L W \ 7 3 ~ Л Ь ñ 3 Â ~
 Л Ь Э ч 3 ~ SDVVZR U G Â SDVVZR U G
 || ñ VHF XU L W \ SDVVZR U G VHF XU L W \
 3 ~ ~ 3 ~ Л 7 ~ SDVVZR U G
 7 ~ VHF XU L W \ 7 Â

Ю Ruijie(config)# 0 pw10

Rs. 3172925.68

7) 73) O D V K 3 & 3
 & / , 3 A 3 A

```

IO          O L Q H B U F P V B V F U L S W   W H [ W   3
Telnet  11
configure terminal
line tty 1 16
transport input all
no exec
end

Ruijie# line_rcms_script.text
executing script file line_rcms_script.text .....
executing done
Ruijie#
Enter configuration commands, one per line. End with CNTL/Z.
Ruijie(config)# 1 16
Ruijie(config-line)#
Ruijie(config-line)#
Ruijie(config-line)#

```

3

1

3

2.1.7 ip http authentication

+ W W S 6 H U Y H U : H E A : H E
 IO 1 16 ip http authentication 3

ip http authentication enable local

enable	H Q D E O H S D V H Q D E O H V H F U H W
	H Q D E O H A
local	X V H U Q D P H 3
	A

H Q D E O H A

3

ip telnet source-interface interface-name

interface-name	À	Э ,3 ÿ 7HOQHW

Ю й в '
Ruijie(config-line)#
Ruijie(config-line)#
Ruijie#
Password: <password>
Again: <password>
Locked
Password: <password>

3

3	
lockable	Э в Â

1

3

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2.1.12 login

\$\$\$

IO

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3

~

3 login A

3 no

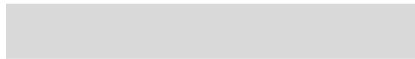
4

3

A

login

no login



	default	..
	list-name	/

3

O L Q H

\$\$\$

L

3

A

IO 9 7 < UDGLXV A

Ruijie(config)# aw

Ruijie(config)# a

Ruijie(config)# 0

Ruijie(config-line)#

3

aaa new-model	\$\$\$ L
aaa authentication login	

/

3

2.1.14 login local

\$\$\$ IO 3 login local A

3 no / A

login local

no login local

3

O L Q H

\$\$\$

L

3

A

XVHUQDPH A

IO 9 7 < A

Ruijie(config)# aw

Ruijie(config)# test 0 test

	Ruijie(config)#	0
	Ruijie(config-line)#	
3	username	Â
1		
3		

2.1.15 privilege mode

	ê & / , 3 İ Â
	ê & / , 3 İ Â
3	ê & / , 3 İ Â
	ê & / , 3 İ Â
	ê & / , 3 İ Â
3	
1	
3	

2.1.16 password

	OLQH 3 OLQH 3 password Â 3 no OLQH
	3 Â
	password password _0 7>@ encrypted-password`
	no password
	password OLQH 3 Â

	0 7	з	п	~	п	~	п	Â
	encrypted-password	з	Â					

з	OLQH							
	з	OLQH	з	Â				

	Ю	OLQH	з	й	UHG'						
	Ruijie(config)#	й	з	0							
	Ruijie(config-line)#	й	red								

ED ÂÂзZ	з							
	Q'S34 w4Ù O" —\$I (Â) dh(G				Э	й		
	login				з			

л

	Ю	3	й
	5XLMLH FRQILJ	password policy	
	Ю	3	
	5XLMLH FRQILJ	password policy strong	
	Ю	3	
	5XLMLH FRQILJ	password policy times 5	
	Ю	3	й
	5XLMLH FRQILJ	password policy life-cycle	
3			
1			
3			

2.1.18 service password-encryption

3 7 ~ service password-encryption 3 3 Q R ~
1 a й Â

service password-encryption

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	service password-encryption	3	~	3	~
	SDVVZRUG	~		service	
	password-encryption	3 7 ± ~	VKRZ UXQQUQWH ± ~	SDVVZRUG	
	1	~	~	1 й	a
	Â				

Ю	3	7	~
Ruijie(config)#	3 7 ± ~		



3		

2.1.19 telnet

1 7 H O Q H W (; (& ~ Ю telnet 3 Â
telnet host port @source ip A.B.C.D | ipv6 X:X:X:X::X | interface interface-name} @

Host	7 H O Q H W , 3 9 ä , 3 9 ý "
Port	7 H O Q H W 7 & 3 ~ ñ
/source	7 H O Q H W , 3
ip A.B.C.D	7 H O Q H W , 3 9
ipv6 X:X:X:X::X	7 H O Q H W , 3 9
interface interface-name	7 H O Q H W

--

3

3 1 W H O Q H W

-

3	
ip telnet so urce-interface	Э , 3 ñ 7 H O Q H W '
show session	7 7 < ,
exit	,

1

3		

2.1.20 username

" ~ 3 X V H U Q D P H Â
username name nopassword password password _0|7>@ncrypted-password ``
username name privilege privilege-level

no username name

name	" Â
password	3 Â
0 7	3 7 ~ 7 ~ 7 Â
encrypted-password	3 Â
privilege-level	Â

3

	3	~	Â	
a	7	ì	~	7
	3	~	7	ì
		7	ì	Â
			Ю	7
			ì	Â

ì

3

IO WHVW
5XLMLH FRQILJ testpermission rw/
IO WHVW
5XLMLH FRQILJ testpermission n/
IO WHVWFRQILJ WHVW é à à
5XLMLH FRQILJ testpermission n/config.text
5XLMLH FRQILJ testpermission rwx/

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2.2 ´ Á ¯ x ž a Â ü » w W

2.2.1 banner login

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3 banner login Â 4

~

no banner login 3 Â

banner login c message c

	c	† ~ a
	message	

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3 1 Л

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Ю Ruijie(config) Ruijie(config)#
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b9

\$ enter your password \$

3	3	
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2.2.2 banner motd

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3 banner motd Â 4

~

no banner motd 3 Â

banner motd c message c

	c	† ~ a

	message	
3		
	3 1 7 6 ↑ 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
	IO Ruijie(config)#	\$ hello,world \$
3		
1		
3		

2.2.3 boot system

boot system

Q R

Q R

3	3	
	-	
1		
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2.2.4 clock set

clock update-calendar

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	Ю #	Â		
		a	й	
3			Â	

Ю 3 1 Л	Â
Ruijie# clock update-calendar	

3	3

1

1	3
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	Ruijie(config-line)#	5 30
3		
	-	
1		
3		

2.2.7 hostname

3 " ~

3 hostname ^

hostname name

	name	3 " ~ ^ à Л ^
	3 " ~ 5 X L M L H	
3		
	3 " ~ Л & + \$ 3 ~ ^	
	Ю Ruijie(config)# BeiJingAgenda(config)#	3 " ~ % H L - L Q J \$ J H Q G D BeiJingAgenda
3		
1		
3		

2.2.8 prompt

3 ~

Ю

3 prompt ^ 1 3 ~

no prompt 3 ^

prompt string

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3

string

3

~

1 16

speed speed

Speed	ỳ ã ã ã ã ã ỳ ã ã ã ã ã

Ю ỳ E S V
 Ruijie(config)# 0
 Ruijie(config-line)# 57600

2.2.12 write

^ UXQQLQJ FRQILJ~ Æ Â
 write memory _network _terminal @

Ruijie#
Building configuration...
[OK]
boot config
write usb1:config.text
Ruijie(config)#
Ruijie#
Building configuration...
Write to boot config file: [usb1 : config.text]
[OK]
Ruijie# 1
0:1:1:38 Ruijie: USB-5- USB_DISK_REMOVED: USB Device <USB Mass
Storage Device> Removed!
Ruijie#
Building configuration...
Write to boot config file: [usb1 : config.text]
[Failed]
The device [usb1] does not exist, write to the default config file
[flash:config.text]? [no]
Write to the default config file: [flash:config.text]
[OK]

boot config	
copy	
show running-config	



3 1 7

~

G H W D L O

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IO

show clock

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'

Ruijie# 66

clock: 2003-3-17 10:27:21



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Data overflow: 27697 bytes
stop rx interrupt: 0 times

3

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´b"ð ð 0

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2.3.3 show mainfile

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"

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show mainfile

9R&G ^a&@ 9B Nř~@0 0

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|

| 3
|

2.3.6 show startup-config

195\$0

IO
Ruijie# 
Systemdescription:RuijieDualStackMulti-LayerSwitch(S3760-24)
By Ruijie Network
System start time: 1970-6-14 11:49:53
System uptime: 3:17:1:17
System hardware version: 2.0
System software version: RGOS 10.3.00(4), Release(34679)
System boot version: 10.2.34077
System CTRL version: 10.2.24136
System serial number: 1234942570001

3	3	

1

3		

3.2 HTTP

4 773 4

V

0 O 3 4 a all * K W W S K W W S V
 4' http ~ K W W S https K W W S X
 no enable service web-server + 773 4 4

0 Ô IO 3* K W W S W W S Y 4
 Ruijie#configure terminal
 Enter configuration commands, one per line. End with CNTL/Z.
 Ruijie(config)#enable service web-server

0 3 Ô	3	
	show service	4
	show web-server status	Z H E 4

0 7 Ô

3.2 http web-file update

: H E | d' M' Ô



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ö 1 Ô

3.3 ip http authentication

: H E Â 3 no Â
 ip http authentication enable local`
 no ip http authentication

ö Ô

enable	enable password enable secret 3 3
local	username 3 " 3 3

ö Ô

enable Â

ö 3 Ô

ö Ô

+ W W S 6 H U A Y H U 7 1 ± : H E Â 3 : H E
 Â

ö Ô

IO 3 : H E O R F D O Â

Ruijie#configure terminal

Enter configuration commands, one per line. End with CNTL/Z.

Ruijie(config)#ip http authentication local

ö 3 Ô

3	
enable service web-server	+ 7 7 3 L

ö 1 Ô

3.4 ip http port

K W W S Â no 3 Â
 ip http port port-number
 no ip http port

ö Ô

port-number	K W W S 3 1 3 3 Â

ö Ô

ö 3 Ô

ö Ô

3 K W W S Â

ö Ô

IO 3 K W W S Â

Ruijie#configure terminal

Enter configuration commands, one per line. End with CNTL/Z.

Ruijie(config)#ip http port 8080

ö 3 Ô

3	
---	--

ö л Ô



4 LINE w W

4.1 LINE ü » w W

4.1.1 access-class

/ L Q H \$ & / ~ Â access-class acl-no in | out ` 3 / L Q H
 Ю Â Q access-class access-list-number in | out ` 3 4 / , 1 (Ю
 \$ & / Â

no @access-class access-list-number in | out `

access-list-number	D F F H V V O L V W Â
in	4 Â
out	Â

Â	~ / L Q H Â
---	-------------

3	/ L Q H Â
---	-----------

a	3 / L Q H Â Ю 4 D F F H V V O L V W 1 2 7 Â show running 3 / L Q H Â
---	---

Ruijie# 5 6	O L Q H Y W \ 4 D F F H V V O L V W
Ruijie(config)# 4 4	
Ruijie(config-line)# 6 6	10 6

3	3
show running	Â

1	5 * 2 6 2 3
---	-------------



3		
	-	
1		
3		

4.1.4 transport input

/ L Q H L transport input 3 / L Q H L Â
 default transport input и /, 1 (Ю и Â
 transport input all | ssh | telnet | none `
 default transport input

all	/ L Q H Â
ssh	/ L Q H 6 6 + Â
telnet	/ L Q H 7 H O Q H W Â
none	/ L Q H a Â

3 9 7 < Â è 7 7 < и 1 2 1 (a
 Â / L L L L L L default transport input
 и Â

3 / L Q H

3 / L Q H Ю Â 9 7 < Ю Â show
 running 3 / L Q H Â 9 7 < 7 Â
 input 3 default transport input W 3 Â no transport
 transport input none /, 1 (Ю Â 6

O L Q H Y O W \ W H O Q H W
 Ruijie# 5
 Ruijie(config)# 4
 Ruijie(config-line)# 4

3		
	show running	Â

1 5 * 2 6 L L 3

3		

5 'g]xžwW

5.1 'ü»wW

5.1.1 cd

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cd >filesystem@ >direct@y

filesystem	Â I' E
directory	

I O D V K Ю

3

FG 3 1 Â Â é 3 ~ ^ SZG 3 Â^a
 Ъ I' E ~ ~

1' й X V E
 Ruijie# dısb0:/

3	3
S Z G	

1

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5.1.2 copy

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copy source-url destination-url

source-url	8 5 /Â Э Ю 1 Ъ Â

destination-url	85 / 1 7	Э	Ю		~
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FRS\3 1 7

7

7

85 /

flash:	IODVK 85 / a y IODVK
tftp:	7)73 7
xmodem:	[PRGHP
usb0:	XVE
usb1:	XVE

a a

85 /

3 y W I W S Э Ю

Ruijie# tftp://192.168.201.54/rgos.bin flash:/

3 W I W S

Ruijie# flash:/rgos.bin tftp://192.168.201.54/rgos.bin

3 xmodemЮ

Ruijie# xmodem: flash:/config.text

4 U

Ruijie# flash:/config.text usb0:/config.text

3	3	
del		
rename		"
dir		

1

3		

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IO

IO

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a

a

1'

IO

Ruijie# █

Directory of temp:/

Mode	Link	Size	MTime	Name
------	------	------	-------	------

1	399	2008-01-01 00:17:58	a.dat
---	-----	---------------------	-------

1 Files (Total size 399 Bytes), 0 Directories.

Total 33030144 bytes (31MB) in this device, 20463616 bytes (19MB) available.

3

3

pwd

cd

	α	β	γ	δ	ϵ
a	IODVK	EDFNXS	WHIPS	IODVK	EDFNXS
	$\hat{\alpha}$	$\hat{\beta}$		$\hat{\gamma}$	$\hat{\delta}$
	IODVK	EDFNXS	WHPS		

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url1

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$$\Vdash \hat{A}$$

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3

$$a^{\circ}$$
$$\begin{matrix} 3 \\ XVE \end{matrix}$$

ÂO D V K

$$\Vdash \hat{A} \text{ a}$$

	del	
	copy	

1

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5.1.7 rmdir

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rmdir directory

	directory	" ñ

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0

6 CPU-LOG w W

6.1 Á ¯ x ž a Â ü » w W

6.1.1 cpu-log

& 3 8		1 76		cpu-log Â	
cpu-log	log-limit	low_num	high_num		
	log-limit	# 7 A 5			

6.2 < ü » w W

6.2.1 show cpu

& 3 8

3 show cpu Â

show cpu

-	

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3

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3 1 7	& 3 8	~	à	†	ã
†	& 3 8	~ 7	à	†	ã
†	& 3 8	Â			

IO show cpu Â

Ruijie# **bp**

=====

CPU Using Rate Information
CPU utilization in five seconds: 25%
CPU utilization in one minute : 20%
CPU utilization in five minutes: 10%
NO 5Sec 1Min 5Min Process
0 0% 0% 0% LISR INT
1 7% 2% 1% HISR INT
2 0% 0% 0% ktimer
3 0% 0% 0% atimer
4 0% 0% 0% printk_task
5 0% 0% 0% waitqueue_process
6 0% 0% 0% tasklet_task
7 0% 0% 0% kevents
8 0% 0% 0% snmpd
9 0% 0% 0% snmp_trapd
10 0% 0% 0% mtblock
11 0% 0% 0% gc_task
12 0% 0% 0% Context
13 0% 0% 0% kswapd
14 0% 0% 0% bdfush
15 0% 0% 0% kupdate
16 0% 3% 1% ll_mt
17 0% 0% 0% ll main process
18 0% 0% 0% bridge_relay
19 0% 0% 0% d1x_task
20 0% 0% 0% secu_policy_task
21 0% 0% 0% dhcpa_task
22 0% 0% 0% dhcpsnp_task
23 0% 0% 0% igmp_snp

24	0%	0%	0%	mstp_event
25	0%	0%	0%	GVRP_EVENT
26	0%	0%	0%	rldp_task
27	0%	2%	1%	rerp_task
28	0%	0%	0%	reup_event_handler
29	0%	0%	0%	tpp_task
30	0%	0%	0%	ip6timer
31	0%	0%	0%	rtadvd
32	0%	0%	0%	tnet6
33	2%	0%	0%	tnet
34	0%	0%	0%	Tarptime
35	0%	0%	0%	gra_arp
36	0%	0%	0%	Ttcptimer
37	8%	1%	0%	ef_res
38	0%	0%	0%	ef_rcv_msg
39	0%	0%	0%	ef_inconsistent_daemon
40	0%	0%	0%	ip6_tunnel_rcv_pkt
41	0%	0%	0%	res6t
42	0%	0%	0%	tunrt6
43	0%	0%	0%	ef6_rcv_msg
44	0%	0%	0%	ef6_inconsistent_daemon
45	0%	0%	0%	imid
46	0%	0%	0%	nsmd
47	0%	0%	0%	ripd
48	0%	0%	0%	ripngd
49	0%	0%	0%	ospfd
50	0%	0%	0%	ospf6d
51	0%	0%	0%	bgpd
52	0%	0%	0%	pimd
53	0%	0%	0%	pim6d
54	0%	0%	0%	pdmd
55	0%	0%	0%	dvmrpd
56	0%	0%	0%	vty_connect
57	0%	0%	0%	aaa_task
58	0%	0%	0%	Tlogtrap
59	0%	0%	0%	dhcp6c
60	0%	0%	0%	sntp_rcv_task
61	0%	0%	0%	ntp_task
62	0%	0%	0%	sla_deamon
63	0%	3%	1%	track_daemon
64	0%	0%	0%	pbr_guard
65	0%	0%	0%	vrrpd
66	0%	0%	0%	psnpgd
67	0%	0%	0%	igsnpd
68	0%	0%	0%	coa_rcv
69	0%	0%	0%	co_oper
70	0%	0%	0%	co_mac
71	0%	0%	0%	radius_task
72	0%	0%	0%	tac+_acct_task
73	0%	0%	0%	tac+_task
74	0%	0%	0%	dhcpd_task
75	0%	0%	0%	dhcps_task

76 0% 0% 0% dhcpping_task
 77 0% 0% 0% dhcpc_task
 78 0% 0% 0% uart_debug_file_task
 79 0% 0% 0% ssp_init_task
 80 0% 0% 0% rl_listen
 81 0% 0% 0% ikl_msg_operate_thread
 82 0% 0% 0% bcmDPC
 83 0% 0% 0% bcmL2X.0
 84 3% 3% 3% bcmL2X.0
 85 0% 0% 0% bcmCNTR.0
 86 0% 0% 0% bcmTX
 87 0% 0% 0% bcmXGS3AsyncTX
 88 0% 2% 1% bcmLINK.0
 89 0% 0% 0% bcmRX
 90 0% 0% 0% mngpkt_rcv_thread
 91 0% 0% 0% mngpkt_recycle_thread
 92 0% 0% 0% stack_task
 93 0% 0% 0% stack_disc_task
 94 0% 0% 0% redun_sync_task
 95 0% 0% 0% conf_dispatch_task
 96 0% 0% 0% devprob_task
 97 0% 0% 0% rdp_snd_thread
 98 0% 0% 0% rdp_rcv_thread
 99 0% 0% 0% rdp_slot_change_thread
 100 4% 2% 1% datapkt_rcv_thread
 101 0% 0% 0% keepalive_link_notify
 102 0% 0% 0% rerp_msg_rcv_thread
 103 0% 0% 0% ip_scan_guard_task
 104 0% 0% 0% ssp_ipmc_hit_task
 105 0% 0% 0% ssp_ipmc_trap_task
 106 0% 0% 0% hw_err_snd_task
 107 0% 0% 0% rerp_packet_send_task
 108 0% 0% 0% idle_vlan_proc_thread
 109 0% 0% 0% cmic_pause_detect
 110 1% 1% 1% stat_get_and_send
 111 0% 1% 0% rl_con
 112 75% 80% 90% idle

⊖ ~ † ä † ä †
 & 3 8 ^ / , 6 5 + , 6 5 £ ~ Â IO é & 3 8 †
 Â é ~ IO

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6 H F	£ & 3 8
0 L Q	£ † & 3 8
0 L Q	£ † & 3 8

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 ~ : L Q G R V I 6 \ V W H P , G O H 3 U R F H V V Â ⊖

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7.1 ' ü » w W

7.1.1 memory-lack exit-policy

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7.1.2 show memory

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3 show memory $\hat{A}$

show memory

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8.1 ' ü » w W

8.1.1 clear logging

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clear logging

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Ruijie# 00

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ꜛ	logging on	
	show logging	ă
	logging buffered	ă

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8.1.2 more flash

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more flash:filename

	Filename ˘	"

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ZDUQLQJV		
1RWLILFDWLRQV	~	a
LQIRUPDWLRQDO		
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Ruijie(config)#	98		10000	6

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logging on	
show logging	ǎ
clear logging	ǎ

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8.1.4 logging console

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logging console level

no logging console

	show logging	3 1 7	Â
	Ю Ruijie(config)#	1 900	й '
3			
	logging on		
	show logging	щ	7 7
1			
3			

8.1.5 logging count

	7	7	Ю	3 Â	7
	7	Q R	Â		
	logging count				
	no logging count				
3					
		7	7	Â	no logging count
		7	7	Â	
	Ruijie(config)#	7	90		
3					
	show logging count				
	show logging		б	щ	
1					
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[illegible]

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	ORFDO XVH	ORFDO
й ORFDOÂ		

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Ruijie(config)# **ggh**

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	logging console	л Э

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8.1.7 logging file flash

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~ 3 QR Â
logging file flash:filename >max-file-size@level @
no logging file

Filename	" Â a ~ й W[W Â
max-file-size	Â ŷ . 0 E\WHV й . Â
О Н У Н О	л Â)/\$6+ й Â

a)/\$6+ Â

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)/\$6+ Â
т й й W[W т " Â
a)/\$6+)/\$6+)/\$6+
)/\$6+ ORJJLQJ ILOH || OÐVaK Â

Ю)/\$6+ ~ " й WUDFH W[Wй .
й Â
Ruijie(config)# **ggh**

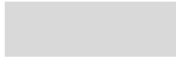
3		
	logging on	
	show logging	ǎ ~ Л
	more flash	) / \$ 6 +
1		
3		

8.1.8 logging monitor

Ю 97 < ^ W H O Q H 6 6 + ~ Э
 3 Â 3 Q R 97 < Э Â

logging monitor level

no logging monitor



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logging on

no logging on

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number

all	2
console	1 3
except	3 a 5
severity	3 3 5 2

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3 Â 3 1 Л Â

a ^ G H E X 3 Z D U Q L Q 3
 Ruijie(config)# 10 3

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show logging count	
show logging	6 3

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8.1.11 logging server

Syslog Sever ~ Ю 3 Â Syslog server
 Syslog Server ~ 3 Q R Â
 logging server ip-address ipv6 ipv6-address`
 no logging server ip-address ipv6 ipv6-address`

ip-address	3 , 3
ipv6 ipv6-address	3 , 3 9

a V \ V O R J V H U Y H U

3

3 6 \ V O R J V H U Y H U Â 1 Л 6 \ V O R J
 6 H U X H U 6 \ V O R J 6 H U Y H U

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no logging source interface

interface-type	
interface-number	

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 ~ л лб 3 , 3 ÿ
 Э , 3 ÿ л , 3 ÿ ÿ
 Э , 3 ÿ ÿ , 3 ÿ ÿ

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I0          /RRSEDFN  5 6\VORJ      '
Ruijie(config)# 9065 0

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[illegible]

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no logging synchronous

[illegible]

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	3	б	°	П	° 1 Лб				
	Ruijie(config)# 0 Ruijie(config-line)#logging synchronous Ruijie# 83 '2:1 Ruijie# Oct 9 23:40:55 %LINK-5- CHANGED: Interface GigabitEthernet 0/1, changed state to down Oct 9 23:40:55 %LINEPROTO-5- UPDOWN: Line protocol on Interface GigabitEthernet 0/1, changed state to DOWN Ruijie# // a								
3	<table><tr><td>3</td><td></td></tr><tr><td>show running-config</td><td></td></tr></table>					3		show running-config	
3									
show running-config									
1									
3	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>								

8.1.15 logging trap

6\VORJ 6HUYHU Â ~ Ю 3 Â 3

QR

logging trap level

no logging trap

level	ш Â 1 Лб ш Â 1 Лб

,QIRUPDWLRQDO

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6HUYHU 6HUYHU 6\VORJ 6HUYHU 3 ORJJLQJ 6\VORJ

show logging 3 1 Лб 3 Â

Ю й й 6\VORJ 6HUYHU

Ruijie(config)# 202.101.11.22

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no service sequence-numbers

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8SWLPH ÿ ð || ÿ Æ ÿ À
'DWHWLPH ÿ . . ' ÿ À
Ю /RJ 'HEXJ ÿ ÿ 'DWHWLPH

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8.2 < ü » w W

8.2.1 show logging

ä ~ Л ã ~ 3 Â

show logging

Ю show logging count
Ruijie# 670
Module Name Message Name Sev Occur Last Time
=====SYS
CONFIG_I 5 1 Jul 6 10:29:57
-----SYS TOTAL 1

3

3	
logging count	π
show logging	6
clear logging	α

9 POE a W

9.1 ü » w W

9.1.1 Poe alloc-power

↑ π Â
poe alloc-power int
no poe alloc-power



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// 3 1 1 A

Ruijie(config)# 3 3 3

Ruijie(config)# d

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9.1.3 Poe disconnect-mode mode

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poe disconnect-mode mode

no poe disconnect-mode

mode

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no

G F

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h G F

Ruijie# 3

Ruijie(config)# 3 3 3

Ruijie(config)# d

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9.1.4 Poe enable

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poe enable
no poe enable

	no	

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Ruijie(config-if)#
Ruijie(config-if)#
Ruijie(config-if)#
Ruijie(config-if)#

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o p

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9.1.5 Poe legacy

3 ' π Â

poe legacy

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9.1.6 Poe max-power

п Â
poe max-power int
no poe max-power

	int	п ~ æ ÿ : ~ ÿ ! D I Э ÿ !
	no	п

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3 ~ п Â " @<04 229.2 16.98 035192>6<354617 BT39>6<47213

auto	й ~ й 3 2 (
energy-saving	й ~ й 3 2 (1
static	й ~ й 3 2 (1
no	й

D X W R

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Ruijie#

Ruijie(config)#

Ruijie(config)#

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9.1.8 Poe notification-control enable

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poe notification-control enable

no poe notification-control enable

no	3 2 (W U D S

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S H W K 1 R W L I L F D W L R Q ~ & R Q W U M O (D S A E O H

Ruijie(config)#

Ruijie(config)#

Ruijie#write

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9.1.9 Poe pd-description

3 ' " Â

poe pd-description pd-name

no poe pd-description

pd-name	3 ' " ÿ ~ Â	
no	1 3 ' "	

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5) & S H W K 3 V H 3 R U W 3 \ S H Â

Ruijie# 6	
Ruijie(config)# 69	0/1
Ruijie(config-if)# 666	ap220
Ruijie(config-if)# d	

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9.1.10 Poe power-off time-range name

11 Â

poe power-off time-range name

no poe power-off time-range

name	"	

	no	^	π
3			
	3	π	
	Ruijie#  Ruijie(config)#  poe-time Ruijie(config-time-range)#  8:30 17:30 Ruijie(config-time-range)#  Ruijie(config)#  0/1 Ruijie(config-if)#  poe-time		
3	3		
1			
3			

9.1.11 Poe priority

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poe priority ^ low _high _critical `

no poe priority

	low	æ
	high	
	critical	
	no	й
	/ R Z	й æ
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	3 R (	^
	Ruijie(config)#  Ruijie(config-if)# 0/1	

	Ruijie(config-if)#	d
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9.1.12 Poe reserve-power

|| Ю П Â
 poe reserve-power int
 no poe reserve-power

	int	П а !
	no	П
		П й
3		
		Ю П Â
	Ruijie(config)#	pop 10
	Ruijie(config)#	d
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	poe mode staic	П 3 R (й А Â
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9.1.13

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Ruijie(config)# p4p
Ruijie(config)# d
Ruijie# 4

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9.2 < ü » w W

9.2.1 show poe interface

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show poe interface interface-name

	interface-name	
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32 (

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9.2.2 show poe interfaces

3 R (^

show poe interfaces ^status _configuration`

status	3 R (
configuration	3 R (

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3 1 16

3 2 (

Ruijie# **show**Interface Power Power Curr Avg Peak Curr Trouble PD
PortControl Status Power Power Power Current Cause Class
Voltage-----

```

Gi0/1  enable on  14.8W           14.8W14.8W  278mA 0  4  53.5V
Gi0/2  enable on  28.4W           28.4W28.4W  531mA 0  4  53.5V
Gi0/3  enable on  14.9W           14.9W 14.9W  279mA 0  4  53.5V
Gi0/4  enable off 0.0W 0.0W 0.0W 0mA 6  N/A 0.0V
Gi0/5  enable on  14.8W           14.8W14.8W  278mA 0  4  53.5V
Gi0/6  enable on  15.0W           15.0W15.0W  281mA 0  4  53.5V
Gi0/7  enable on   6.1W 6.1W 6.1W 115mA 0  4
53.5V
Gi0/8  enable on  14.8W           14.8W14.8W  277mA 0  4  53.5V
Gi0/9  enable on  14.7W           14.7W14.7W  276mA 0  4  53.5V
Gi0/10 enable on  14.8W 14.8W           14.8W 278mA 0  4  53.5V
Gi0/11 enable on  14.7W           14.7W14.7W  275mA 0  4  53.5V
Gi0/12 enable off 0.0W 0.0W 0.0W 0mA 6  N/A 0.0V
Gi0/13 enable on  14.8W           14.8W14.8W  278mA 0  4  53.5V
Gi0/14 enable on   0.3W 0.3W 0.3W 7mA  0  4
53.5V
Gi0/15 enable off 0.0W 0.0W 0.0W 0mA 6  N/A 0.0V
Gi0/16 enable off 0.0W 0.0W 0.0W 0mA 6  N/A 0.0V
Gi0/17 enable off 0.0W 0.0W 0.0W 0mA 6  N/A 0.0V
Gi0/18 enable off 0.0W 0.0W 0.0W 0mA 6  N/A 0.0V
Gi0/19 enable off 0.0W 0.0W 0.0W 0mA 6  N/A 0.0V
Gi0/20 enable off 0.0W 0.0W 0.0W 0mA 6  N/A 0.0V
Gi0/21 enable off 0.0W 0.0W 0.0W 0mA 6  N/A 0.0V
Gi0/22 enable off 0.0W 0.0W 0.0W 0mA 6  N/A 0.0V

```

```

Gi0/23 enable off 0.0W 0.0W 0.0W 0mA 6 N/A 0.0V
Gi0/24 enable off 0.0W 0.0W 0.0W 0mA 6 N/A 0.0V

```

```

Ruijie# show

```

```

Interface Power      Power      Max      Alloc Port      Port
Power-off

```

```

Control Status      Power      Power      Priority Legacy
Time-range

```

```

-----
-----
Gi0/1  enable on  N/A  N/A  critical off  N/A
Gi0/2  enable on  N/A  N/A  critical off  N/A
Gi0/3  enable on  N/A  N/A  criti          cal off  N/A
Gi0/4  enable off N/A  N/A  critical off  N/A
Gi0/5  enable on  N/A  N/A  critical off  N/A
Gi0/6  enable on  N/A  N/A  high  off  N/A
Gi0/7  enable on  N/A  N/A  high  off  N/A
Gi0/8  enable on  N/A  N/A  high  off  N/A
Gi0/9  enable on  N/A  N/A  high  off  N/A
Gi0/10 enable on  N/A  N/A  high  off  N/A
Gi0/11 enable on  N/A  N/A  high  off  N/A
Gi0/12 enable off N/A  N/A  high  off  N/A
Gi0/13 enable on  N/A  N/A  low  off  N/A
Gi0/14 enable on  N/A  N/A  low  off  N/A
Gi0/15 enable off N/A  N/A  low  off  N/A
Gi0/16 enable off N/A  N/A  low  off  N/A
Gi0/17 enable off N/A          N/A low  off  N/A
Gi0/18 enable off N/A  N/A  low  off  N/A
Gi0/19 enable off N/A  N/A  low  off  N/A
Gi0/20 enable off N/A  N/A  low  off  N/A
Gi0/21 enable off N/A  N/A  low  off  N/A
Gi0/22 enable off N/A  N/A  low  off  N/A
Gi0/23 enable off N/A  N/A  low  off  N/A
Gi0/24 enable off N/A  N/A  low  off  N/A

```

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9.2.3 show poe powersupply

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```

```

show poe powersupply

```

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	Ruijie# 0pp Device member : 1 Power management : auto PSE total power : 370.0 W PSE total power consumption : 0.0 W PSE total remain power : 370.0 W PSE peak power : 0.0 W PSE average power : 0.0 W PSE powered port : 0 PSE disconnect mode : DC PSE reserve power : 0% PSE class lldp : enable
--	---

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10 USB w W

10.1 ü » w W

10.1.1 show usb

86% Å

show usb

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86% ~ ~ Å

Ю 86%
Ruijie# **bb**
'HYLFH 0DVV.6WRUDJH
,
'85/ SUHIL[XVE
'LVN 3DUWLWLRQV
XVE W\SH)\$7

6L]H % 0%
\$YDLODEOH VL]H^% 0%

ЛЭ ~ Mass Storage Device " Å

85/	8 1Л 8 Å
6L]H	8 Э1 Å
\$YDLODEOH VL]H	8 Э Å

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10.1.2 usb remove

usb remove

11 ' x ž f ¢ Õ w W

11.1 ' ü » w W

й &/, Ю &23< э ' ; P R G H P
copy xmodem э' 7 I W S ' copy tftp э' tftp
ipv6 э Э 7)73 Ё Ъ Ю 7)73 Ё Э Â

11.1.1 copy tftp

W I W S ' э W I W S Э Ю Â
copy flash filename tftp ocaion filename
copy tftp ocaion filename flash filename
copy flash filename tftp ocaion filename
copy tftp ocaion filename flash filename

filename	Э "

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э

П э Â э 7)73 Ъ
э э ä Â 7)73 Â

Ю ' э э ^ L S ~ ~
^ F R Q I L J E D N э ^ V Z L W F K E L Q ^ L S

Ruijie# **pp** ://192.168.12.1 / config.bak **■** config.text
Ruijie# **pf** : switch.bin **■**/192.168.12.1 / config.bak

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11.1.2

copy flash filename tftp location filename
 copy tftp location filename flash filename

filename	Э	"

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Э

Э 7)73 Ё Ю FRQIL А WH[W
 Ruijie# [P] [P] //[2000::100]/config.text
 [P] config.text
 Accessing tftp://[2000::100]/config.text...
 Success : Transmission success,file length 1496

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-		

11.1.3 copy xmodem

[PRGHP Э Э [PRGHP Э Ю А
 copy flash filenamexmodem
 copy xmodem flash filename

filename	Э	"

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 А ;PRGHP А

	Â Ю ' ÿ ÿ [P R G H P ' , Э [P R G H P Э ÿ Â	
	Ю Э Ю ' , Ruijie# pl : config.text Ruijie# pl : config.text ■	
3	3 -	
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3	-	

ZULWH Â

Ruijie(config)# d UHG JLDQW

2 d

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show member	Â
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12.1.3 ent-physical-entry mib ent-physical -index max-access mode read-only

(QW3K\VLFDQ(QW3K\VLFDQ, QGH[ñ I' E , 3 QR 0, % HQW3K\VLFDQ, QGH[ñ I' E

ent-physical-entry mib ent-physical -index max-access mode read-only

no ent-physical-entry mib ent-p hysical-index max-access mode

3

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end 3 Ctrl+C Â

(QW3K\VLFDQ(QW3K\VLFDQ, QGH[ñ I' E
5XLMLH FRQILJ ent-physical-entry mib ent-physical-index max-access mode
read-only
5XLMLH FRQILJ

3

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1

12.1.4 stack on

stack on

no stack on

[illegible]
$$\sim 10^{11} \text{ } \mathbb{Q} \text{ R } \sim \hat{A}$$

```
* L J D E L W ( W K H U Q H W
Ruijie(config)#
Ruijie(config-if)#
```

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	-	

3	-	
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12.2 < ü » w W

12.2.1 show member

```
show member >member@
```

member	$\hat{A}$

$$\mathfrak{z} \wedge \mathcal{L} \qquad \hat{A}$$

Ruijie#	Member Mac Address	Priority	Software Version	HardwareVersion	Description
-----	-----	-----	-----	-----	-----

1	00d0.f810.3323	1	RGOS 10.1.00(2),Release(12889)	1.0	SWITCH
2	00d0.f822.33aa	1	RGOS 10.1.00(2),Release(12889)	1.0	SWITCH
3	00d0.f822.33ae	1	RGOS 10.1.00(2),Release(12889)	1.0	SWITCH
4	00d0.f822.33b0	1	RGOS 10.1.00(2),Release(12889)	1.0	SWITCH
5	00d0.f822.33b2	1	RGOS 10.1.00(2),Release(12889)	1.0	SWITCH
6	00d0.f824.23b4	1	RGOS 10.1.00(2),Release(12889)	1.0	SWITCH
7	00d0.f833.44b4	1	RGOS 10.1.00(2),Release(12889)	1.0	SWITCH
8	00d0.f855.33ae	1	RGOS 10.1.00(2),Release(12889)	1.0	SWITCH

13 ' H a w W

13.1 ü » w W

13.1.1 threshold set

$\hat{A} \quad \& 38$

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	-	

13.2 < ü » w W

13.2.1 show threshold

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show threshold {cpu | memory | temperature}

cpu memory temperature	Б	cpu ÿ & 3 8
	memory ÿ	temperature ÿ
member n	Э	n ÿ

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Ruijie#

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threshold set	3	

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14.1 ´ ü » w W

14.1.1 eee enable

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eee enable

no eee enable

no	(((π	

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3 ´ (((π Â

EEE π
 Ruijie# 5
 Ruijie(config)# 6
 Ruijie(config-if)# e

0/1

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1

3		

14.2 < ü » w W

(((IO 3

14.2.1 show eee interface

(((Â

show eee interface > gigabitEthernetinterface-id @

gigabitEthernet interface-id	,	'

Gi0/5	YES	enable	enable	enable	0
Gi0/6	YES	enable	enable	enable	0
Gi0/7	YES	enable	enable	enable	0
Gi0/8	YES	enable	enable	enable	0
Gi0/9	YES	enable	enable	enable	0
Gi0/10	YES	enable	enable	enable	0
Gi0/11	YES	enable	enable	enable	0
Gi0/12	YES	enable	enable	enable	0
Gi0/13	YES	enable	enable	enable	0
Gi0/14	YES	enable	enable	enable	0
Gi0/15	YES	enable	enable	enable	0
Gi0/16	YES	enable	enable	enable	0
Gi0/17	YES	enable	enable	enable	0
Gi0/18	YES	enable	enable	enable	0
Gi0/19	YES	enable	enable	enable	0
Gi0/20	YES	enable	enable	enable	0
Gi0/21	YES	enable	enable	enable	0
Gi0/22	YES	enable	enable	enable	0
Gi0/23	YES	enable	enable	enable	0
Gi0/24	YES	enable	enable	enable	0
Gi0/25	NO	-	-	-	-
Gi0/26	NO	-	-	-	-
Gi0/27	NO	-	-	-	-
Gi0/28	NO	-	-	-	-
-	-	-	-	-	-

3

3

1

3

15 f Ô a Â ´ w W

15.1 ´ ü » w W

15.1.1 fan force enable

~ 3 Q R Â

fan force enable

no fan force

	no	

--

3

3 ì ~ 1 ~ Â show
running-config 3

Ruijie# 5
Enter configuration commands, one per line. End with CNTL/Z.
Ruijie(config)# 666

3	3	
	show fans	Â

1

3		

3

3 й ~
running-config 3 Â 1~

Â show

й Â
Ruijie# 5
Enter configuration commands, one per line. End with CNTL/Z.
Ruijie(config)# 666



й ' 1 \$ ' 1 а $\hat{A}$ а и \$XWR \hat{A} 6 SHHG

1

Ruijie#show temperature

Device	Temperature Slot	State	Current(C)
1	0	normal	46

Ruijie#

IO

Device	Temperature Slot	State	Current(C)

3

--	--

1

3

--	--

15.2.3 show version slots

1

show version slots

--	--

3

3 1 16

1

Ruijie#

Dev	Slot	Port	Max Ports	Configured	Module	Online	Module
Status	Software	Status	Serial	Number			
1	0	26	26	N/A	RG-S3760E-24P	N/A	

ok 79499486486486

3

1



Q , -5x 1 p5% x 6

Ú`Ÿ4j 1 p5% x 6 Q , -5x, Ì G Y • È Ù À 1 ß0´8V Ö

G!5B y · Q ,

G!5B 0 \$ & Q ,

G!5B \$ J J U H J D W Q , 3 R U W

G!5B 9 / \$ 1 Q ,

G!5B 3 U R W R F R Q , 9 / \$ 1

G!5B 3 U L Y D W Q , 9 / \$ 1

G!5B 6 + \$ 5 (9 \$ / Q ,

G!5B 9 R L F H 9 Q \$ 1

G!5B 0 6 7 3 Q ,

G!5B #A, ûEã ô1u)Ú Q ,

G!5B * 9 5 3 Q ,

G!5B // ' 3 Q ,

G!5B 4 , 1 4 Q ,

1.1.1.1

1.1.1.1

1.1.1.1 carrier-delay

Carrier delay is the time taken for a packet to be transmitted over a link. It is measured in seconds. The default value is 5 seconds.

carrier-delay > seconds

no carrier-delay

– DAÈ â	– D	£EÄ	
	seconds	ÃEÝ – D È ¼!) ! È8× È	/! Ä

5 ,ÖG!5B	EQ"¶ Ê Ê5 ,Ö /! Ä		
----------	-------------------	--	--

Q , õ ä	y ·G!5B õ ä Ä		
---------	---------------	--	--

S*ü Û Ð	A¹ – D Û y ·JÒCÃ,XEQ"¶ " # µ È ' & ' ¢ ' R Z QŠ Ö 8 ŠŠ Ö,X ÊKÈ Ê Ê È V p ' & ' ü Ê Ê Y ¥*ó ñ ê ÈFw 2İ4³ Ú Ñ+9E-/i,X(Š Ö,X ñ ê5à á7Ç b Þ ,X D BJÒCÃ G i „ # Ä V p ' & ' EQ"¶ • ÊKÈ!EWKS ÈFw ÚA¹ – DA'KS o È Ä¹ ¿ tEóCÃ+ " 6. È¹ “CÃ + >< Ä¹EW ¿,X / Ä V p,İ i È ' & ' EQ"¶ • ÊKÈ ä bCÃ+ " 6. 8...,X ÊKÈ ÈFw h A¹ ÚA¹ – DA'5B,İ İ,X û o È¹ !Eô ä"u Ý ™?U,XCÃ+ 95 Ä		
---------	--	--	--

G!5B _	¹ ß,X _ \$/ 8×G!5B y ·,XEQ"¶ Ê Ê /! Ö Ruijie(config)# interface gigabitethernet 1/1 Ruijie(coinfig)# carrier-delay 5		
--------	--	--	--

,İ G Q ,	Q ,	£EÄ	

G ÄÄÈ â	´		
---------	---	--	--

Q , Z Æ	(È	AÈ ä	

1.1.2 clear counters

#ÜL8 y ·Au D <

clear counters >interface-id @

- D	£EÄ
-----	-----

shutdown no shutdown

Ruijie# clear interface gigabitethernet 1/1

Q	£EÄ
shutdown	GKÁ y

GÄÄÄ

(E	AÄÄ

1.1.4 description

A'5B y ,X y á Ä S*üA¹ Q ,X Q RÝNM ÚA¹A'5B 6 á ä5,Ö Ä

description string

no description

- D	£EÄ
string	y ,X y á Ä

5,ÖG!5B 5,Ö"u Ý y á Ä

Q , ö ä y ·G!5B ö ä

S*ü Ü Ð S*ü show interfaces Q , ¹,ß y · µ C È Ù Ä y á Ä

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

Q	£EÄ
show interfaces	¹,ß y ·A'5B `4³Au µ C Ä

GÄÄÄ

(E	AÄÄ

G!5B y · Q ,

5 ,ÖG!5B A' Û5 ,Ö Ö õ +,XL p " # s6Ñ Ä

Q , õ ä < G!5B õ ä

S*ü Û Ð

G!5B _ GKÁA' Û,X õ +L p " # s6Ñ Ö
Ruijie(config)# fiber antifake ignore

,l G Q ,	Q ,	£EÄ
	-	

G ÄAÈ ä

Q , Z Æ	(È	AÈ ä

1.1.7 flowcontrol

A¹ Q , ' Ö ê GKÁ# GE { Ä S*üA¹ Q ,X Q BÝNM ÚA¹A'5B 6 á 5 ,Ö Ä

flowcontrol auto _off _on `

no flowcontrol

- DAÈ ä	- D	£EÄ
	auto	7¼ # # GE { Ä
	off	GKÁ# GE { Ä
	on	' Ö# GE { Ä

5 ,ÖG!5B 5 ,Ö GKÁ# GE { Ä

Q , õ ä y ·G!5B õ ä

S*ü Û Ð S*ü show interfaces ¹,ß y ·# GE { ` rL ,X# GE { Ä

G!5B _ ' Ö ¹ p5% y · ,X# GE { Ö
Ruijie(config)# interface gigabitethernet 1/1
Ruijie(config-if)# flowcontrol on

,l G Q ,	Q ,	£EÄ
	show interfaces	¹ ,ß y ·A'5B `4³Au µ C Ä
G ÄÄÈ â		
Q , Z Æ	(Ë	AÈ â

1.1.8 interface aggregateport

A¹ Q , ð ã Ð7p Q , È î êA“KÂ Ô p6. ÜJÒCÃ y · È JE[−] 9 y ·G!5B ð ã Ä S*üA¹ Q ,
 ,X Q BÝNM ôL8A¹ y · Ä

interface aggregateport port-number

– DAÈ â	– D	£EÄ
	port-number	\$ J J U H J D WÈÈ88 È+UWÛ ` =) ð + ‡ n Ä
5 ,ÖG!5B		
Q , ð ã	< G!5B ð ã	
S*ü Ü Ð	Ä¹ B Ô n? í ÈÚ J ^a y · t9 Ô p D J J U H J D WÄH D S R U W J D W X HÝ S R U W , y · Ú>•?š Ô p H' Èä , y · ,X 2 û Ú+ D J J U H J D W X X Û S R Ä S W show interfaces ê show interfaces aggregateport Q , ¹ ,ß y ·A'5B Ä	
G!5B –	Ruijie(config)# interface aggregateport 3 Ruijie(config-if)#	
,l G Q ,	Q ,	£EÄ
	show interfaces	¹ ,ß y ·A'5B `4³Au µ C Ä
G ÄÄÈ â		
Q , Z Æ	(Ë	AÈ â

1.1.9 interface giagbitEthernet

A¹ Q , ð ã Ð7p Q , ÈÈÝ ½ ¹ p5% y · È JE[−] 9 y ·G!5B ð ã Ä

interface gigabitEthernet mod-num/port-num

	– D	£EÄ
– DAÈ â	mod-num/port-num	õ + Ë õ + Þ,X0Ä · Ë È8× È+ A' Û ` =) õ + ‡ n Ä

5,ÖG!5B

Q, õ ä

< GigabitEthernet

S*ü Ü Ð

A¹ Q, "u Ý no EÝNM ÈA¹2O _ y · á6Ñ ôL8 Ä S*üshow interfaces ê show interfaces
gigabitEthernet Q, ¹,ß y · A'5B Ä

GigabitEthernet

Ruijie(config)# interface gigabitEthernet 1/2
Ruijie(config-if)#

,ì G Q,

Q,	£EÄ
show interfaces	¹,ß y · A'5B `4³Au µ C Ä

G ÄÄÈ â

Q, Z Æ

(Ë	AÈ â

1.1.10 interface vlan

A¹ Q, õ ä Ð7þ Q, Èî î êA"KÄ Ô þ | Ö x 6< .³ y · Ä V Z \ W F K Y \ U W X T _ \ Q È W H, Ü Ì È V H
JE¯ 9 y · GigabitEthernet Ä S*üA¹ Q, X no EÝNM ôL8A6 9, Ä

interface vlan vlan-id

no interface vlan vlan-id

	– D	£EÄ
– DAÈ â	vlan-id	9 / \$ 1 ,È8× È+ A' Û ‡ n Ä

5,ÖG!5B

Q, õ ä

< GigabitEthernet

S*ü Ü Ð

S*ü show interfaces ê show interfaces vlan Q, ¹,ß y · A'5B Ä

G!5B _

O H Q J W K	4"4Ú,X < K S z È) ! 2G Ä¾ Ý F D E O H ¼ W D W H (Š Ő 6 K R ¼ W S H, X K S z ! Ý Ä J W (Š Ő ß K S z ´ È / 1 \$Ä+ b4"4ÚK S z B µ È ,X ôEæ ÊKÈ 9Au1k,X È ¹ Ä6Ñ , ü Ô n,XAÄ Ä Ä (Š Ő 6 K R ¼ W 2 S H Í Q ,X O H Q J Ü W Ä · 4"4Ú Lp&•,XK S z Ä
-------------	--

Ruijie(config)#interface gigabitEthernet 0/1

Ruijie(config-if-GigabitEthernet 0/1)#line-detect detail

Interface: GigabitEthernet 0/1

start cable-diagnoses, please wait...

cable-diagnoses end! this is result:

pair state length(meters)

A Ok 1

B Ok 2

C Short 1

D Short 1

+!%o	AÈ â
S D L U V	Ü4"4ÚG M6 Ü ÿ,X4" Í D,Ä È V 4²4" + ¯ Í 4"4" Ü5â ä Ä
V W D W H	' !4" Í,X(Š Ő ÈE Ý h p Ö 2.Ä!7 ÄÈ 6 K R U W Ä-ÄCÄ ÄÈ2 S H ÄQ CÄ ÄÈ & U R V Ä8V680·MÈ 8 Q N Q Ä Z#Q Bù Ä Ä
O H Q J W K	4"4Ú,X4" ÍK S z È) ! 2G Ä+ b4"4ÚK S z B µ È,X ôEæ ÊKÈ 9Au1k,X È ¹ Ä6Ñ , ü Ô n,XAÄ Ä Ä(Š Ő 6 K R ¼ W 2 S H Í Q ,X O H Q J Ü W Ä · · 4"4Ú Lp&•,XK S z Ä

G ÄÄÈ â

Q , Z Æ	(È	AÈ â

1.1.12 medium-type

EÝ ½ y ·,X2O _ Ä S*üA¹ Q ,,X

Q , ð ã y · G!5B ð ã

S*ü Ü Ð A'5B y · Õ,X P WÄXÖ û ðEg ûKS Å Ä,Â ! A' Ü ¾ Õ Í(=)Ú y ·,XA'5B Ä

G!5B – Ruijie(config)# interface gigabitethernet 1/1
Ruijie(config-if)# mtu 9216

Q ,	£EÄ
show interfaces	¹ ,ß y ·A'5B `4³Au µ C Ä

G ÄÄÈ á

(È	AÈ á

1.1.14 negotiation mode

A'5B y ·,X7¾# ð ã Ä S*üA¹ Q ,X no EÝNM Ú y ·,X7¾# ð ãA'5B 6 á ä5 ,Õ Ä
negotiation mode ðn _off `
no negotiation mode

– D	£EÄ
on	A'5B Ö y ·,X7¾# ð ã Ä
off	A'5B GKÁ y ·,X7¾# ð ã Ä

5 ,ÕG!5B y ·,X7¾# ð ä5 ,Õ GKÁ,X Ä

Q , ð ã y · G!5B ð ã

S*ü Ü Ð	y ·,XEó)[Ã ¹Ã# { `y ·,X7¾# ð ã E à ± n y ·,X7¾# ¹0(Š Ö Ä y ·,X7¾# ð ã ` y ·,X7¾# ¹0(Š Ö á ` <1 à Ä				
	Ô8 ™ %ß È ¾?U0Ã ·,XEó)[Ã ¹`# { ,X Ô/i 2 û D X WÄÈ è5Ü y ·,X7¾# ð ã R Q È Fw A¹ y ·,X7¾# ¹0(Š Ö R Q È G y ·,X7¾# s6Ñ ' Ö				
	,X × '0Ã ·,XEó)[Ã ¹`# { ,X 2 û <F¾ M2 D X WÄÈ J è y ·,X7¾# ð ã R I È È Fw y ·,X7¾# ¹0(Š Ö R I X È G y ·,X7¾# s6Ñ GKÁ,X Ä				
	speed	duplex	flowcontrol	negotiation mode	7¾# ¹0(Š Ö
	D X W R	I X O O K D O I	R Q R I I	R Ö I I	

	DXWR	RQ	RII	RII	Ô
	IXOO	KDOI	DXWR	RII	IO
	IXOO	KDOI	RQ	RII	RQÔ
	IXOO	KDOI	RQ	RII	RIIGKÁ

Í b,R · È y ·,X7¾# s6Ñ" E°FÑ GKÁ,X È G,R ·,X7¾# ¹ 0(Š Œ" E°
FÑ R lX×Í b + · È y ·,X7¾# s6Ñ" E°FÑ Ô ,X È G + ·,X7¾# ¹
0(Š Œ" E°FÑ R Q Ä

G!5B _	ßM6,X_ \$*ü b Ô y · ,X7¾# õ ã Ö Ruijie(config)# interface gigabitethernet 0/1 Ruijie(config-if-Gigabitethernet 0/1)# negotiation mode on
--------	--

ì G Q ,	Q , £EÄ
VKRZ LQWHUIDFHV	/ 0Ä ·,XG!5B ž(Š Œ Ä

G ÄÄÈ ä

Q , Z Æ	(È	AÈ â
	E ž J !(	y ·,X7¾ # õ ã5 ,Ö Ô ,X
	E Š J â(	y ·,X7¾ # õ ã5 ,Ö GKÁ,X

1.1.15 shutdown

•tFA¼! Ñ 2% q b UÑ• Ä ð " Ñ

G!5B _	_ Ö GKÁ\$ S Ö	
	Ruijie(config)#	interface aggregateport 1
	Ruijie(config-if)#	shutdown
	_ Ö ' Ö \$ S Ö	
	Ruijie(config)#	interface aggregateport 1
	Ruijie(config-if)#	no shutdown

,l G Q ,	Q ,	£EÄ
	clear interface	y ·.@ Ê á ! Ä
	show interfaces	¹,ß y ·A'5B `4³Au µ C Ä

G ÄÄÈ ä

Q , Z Æ	(Ë	AÈ ä

1.1.16 snmp trap link-status

üA' Ü Ä¹îby ·G!5B ú ¥EÖA¹y ·,X / L Q N 7 U D S È's6Ñ' Ô Ê È V p y · ¥*ö L Q N
(Š Ö ¬ê È 6 1 0 3 Ú ¥ Î / L Q N 7 U D S Ä S*üA¹ Q ,,X no EÝNM6 1 0 3 Ú á ¥ Î
/ L Q N 7 U D S Ä

snmp trap link-status

no snmp trap link-status

- DAÈ ä	- D	£EÄ

5 ,ÖG!5B 5 ,Ö ™ %ß ÈA¹ s6Ñ' Ô Ê È V p y · ¥*ö / L Q N 7 U D S È's6Ñ' Ô Ê È V p y · ¥*ö L Q N
(Š Ö ¬ê È 6 1 0 3 Ú ¥ Î / L Q N 7 U D S Ä S*üA¹ Q ,,X no EÝNM6 1 0 3 Ú á ¥ Î
/ L Q N 7 U D S Ä

Q , õ ä y ·G!5B õ ä Ä

S*ü Ü Ð Í by ·Ä¹p5% y · Ä \$ Sy · Ä 6 9 ,y · ÄÈA¹ Q ,G!5B ú ¥EÖA¹y ·,X / L Q N 7 U D S
's6Ñ' Ô Ê È V p y · ¥*ö / L Q N 7 U D S È's6Ñ' Ô Ê È V p y · ¥*ö L Q N
(Š Ö ¬ê È 6 1 0 3 Ú ¥ Î / L Q N 7 U D S Ä S*üA¹ Q ,,X no EÝNM6 1 0 3 Ú á ¥ Î
/ L Q N 7 U D S Ä

G!5B _ _ Ö ßM6G!5B ÚG!5B y · á ¥EÖ / L Q N 7 U D S
Ruijie(config)# interface gigabitEthernet 1/1

```

Ruijie(config-if)#          no snmp trap link-status
_   Ö ßM6G!5B ÚG!5B y · ¥EÖ / L Q N   W U D S
Ruijie(config)#          interface      gigabitEthernet      1/1
Ruijie(config-if)#          snmp trap link-status

```

Q ,	£EÄ
5 X L M L H F R Q n p t r a p l i n k - s t a t u s	' Ö ¥EÖA¹ y · O L Q N X W 6 Ñ Ä S
5 X L M L H F R Q s h m p t r a p l i n k - s t a t u s	GKÁ ¥EÖA¹ y · O L Q N X W 6 Ñ Ä S

G ÄÄÈ ä

(È	AÈ ä

1.1.17 speed

A'5B y ·,XEó)[Ä S*üA¹ Q ,X no EÝNM ÚA¹A'5B 6 á ä5 ,Ö

- D	£EÄ
10	></ y ·,XEg)[0 E SÄV
100	></ y ·,XEg)[0 E SÄV
1000	></ y ·,XEg)[0 E SÄV
auto	></ y ·,XEg)[7¾EÖ h,X Ä

5 ,ÖG!5B Eó)[5 ,Ö 7¾EÖ h,X Ä

Q , ö ä y ·G!5B ö ä

V p y · \$ SX ä , È íA¹ y ·,XEó)[+ \$ SXEó)[‡ n È Ä ¹A'5BA¹ y ·,XEó)[È áCK 0*ü Äy ·EÖ Î \$ SÊ S*ü7¾ Ä,XEó)[A'5B ÄS*ü show interfaces Q , ¹,ßA'5B Ä y ·2O _ á à È AÆA'5B,XEó z2O _ 3 î Ý á à Ä V È 6) 3 2O _ ,X y · á AÆ ^Eó zA' 0 ê5Ü 0 Ä

```

Ruijie(config)#          interface gigabitethernet      1/1
Ruijie(config-if)#          speed      100

```

Q ,	£EÄ
show interfaces	¹,ß y ·A'5B `4³Au µ C Ä

no switchport access vlan

– DAË â	– D	£EÄ
	vlan-id	0Ã ·?U t 9,X 9 / \$ 1,X , ' Ä

5,ÖG!5B V Z L W F K,ÖS P U W D F F H V V

Q , õ ä y ·G!5B õ ä

S*ü Ü Ð V p Ô p V Z L W F K,ÖS P U W D F F H V V y · ¾6Ñ Ô p 9/\$1X ä , Ä Ä¹S*ü
 switchport access vlan Q , Ü nA¹y · ¾ Ô p 9/\$1X ä , Ä
 V p Ô p V Z L W F K,ÖS P U W D F F H V V y · Ä¹ î p 9/\$1X ä , Ä¹y · Ä¹2
 b ¾o 9/\$1+ A¹y ·,XÆ Ä 9/\$1ë>< ‡ nÈ W U X Q N A E Ä 9/\$1ë>< ,X Ý
 9/\$1X ä , Ä Ä¹S*ü switchport trunk Q , 9 n y ·,XÆ Ä 9/\$1ë>< Ä

G!5B _ Ruijie(config-if)# switchport mode trunk

	Q ,	£EÄ
,ì G Q ,	switchport access	Ú Ô p 0 Ä · A ' 5V B W D W L F V D F F H V V Z S U R W U # Ô p 9/\$1 ,X ä ,0Ä · Ä
	switchport trunk	Ô p W U X Q N S R Ö V Q D W L Y H 9/\$1 `G!5BE- p 7 U X Q ,XÆ Ä 9/\$1ë>< Ä

G ÄÄÈ ä ´

	(È	AÈ ä
Q , Z Æ		

1.1.21 switchport trunk

Ô p W U X Q N S R Ö V Q D W L Y H `G!5BE- p 7 U X Q ,XÆ Ä 9/\$1ë>< Ä S*üA¹ Q
 ,X Q B Ý N M Ú A¹y ·,X W U X Q N A¹ 5,Ö Ä

switchport trunk allowed vlan all | add | remove | except @lan-list | native vlan
 vlan-id `

no switchport trunk allowed vlan | native vlan `

- DAÈ ä	- D	£EÄ
----------------	-----	-----

,l G Q ,	Q ,	£EÄ
	show interfaces	/ y · µ C Ä
	switchport access	Ú Ô p0Ã · A'5B V W D W L F V ð È Û W Ö # S R U W Ô p 9 / \$ 1 X ä ,0Ã · Ä
G ÄÄÈ â		
Q , Z Æ	(Ë	AÈ â

G!5B _

62ï äA' Û

Ruijie# show interfacesgigabitEthernet0/1 switchport

Interface Switchport ModeAccess Native Protected VLAN lists

GigabitEthernet 0/1 enabled Access 11 Disabled ALL

,ì G Q ,	Q ,	£EÄ
	duplex	E¯> y ·,X ¹A'5B Ä
	flowcontrol	' Ô ê GKÁ# GE { Ä
	interface gigabitEthernet	EÝ ½ ¹ p5% y · Ä Û À ¹ p5% y · Ä È JE¯ 9 y ·G!5B õ ä Ä
	interface aggregateport	ï î êA"KÂ Ô p6. ÜJÒCÃ y · È JE¯ 9 y ·G!5B õ ä Ä
	interface vlan	ï î êA"KÂ Ô p Ö x 6<. ³ y · Ä V Z L W F K Y L U WÈXÖQÄIÈQ W H U I D F E¯ 9 y ·G!5B õ ä Ä
	shutdown	ü y ·G!5B õ ä È S*üA¹ Q , GKÁ y · Ä
	speed	A'5B y ·,XEó)[Ä
	switchport priority	A'5B TX y ·5 ,Ö ì 4{ Ä
	switchport protected	Ú y ·A' ± x y · Ä

2 ' MAC © ¬ w W

2.1 ' ü » w W

2.1.1 address-bind

A'5B Ú Ô þ L S ` P D F ,X4¥ n Ä

address-bind ip-address mac-address

no address-bind ip-address

– DAË â	– D	£EÄ
	ip-address	?U4¥ n,X , 3 Ä
	mac-address	?U4¥ n,X P D F Ä

5 ,ÖG!5B

Q , ö ä < G!5B 0 \$ & Q , @ ¥ ¢ ö ■ S ` @ ¼ Å

address-bind install

no address-bind install

S*ü Ü Ð	V p 4 Ú Ô p , 3 ` Ô p Û n,X 0 \$ & 4 ¥ n È ' x 6 \$ d , 3 E- p , 3 , X û Ê È ' û , X \$ d 0 \$ & á E- p , 3 4 ¥ n , X 0 \$ & Ê È - p û Ú î > • x 6 ö × Ä
---------	--

G!5B _	ßM6 _ \$ L S ` P D F G I , X 4 ¥ n Ruijie(config)# address-bind 3.3.3.3 00d0.f811.1112
--------	---

ì G Q ,	Q ,	£ E Ä
	show address-bind	/ 4 ¥ n > <

G Ä Ä È â

Q , Z Æ	(È	A È â

2.1.4 address-bind ipv6-mode

A'5B L S 4 ¥ n , X , 3 ð ã
A'5B P • ð ã
address-bind ipv6-mode compatible
A'5B ' R ð ã
address-bind ipv6-mode loose
A'5B ù ð ã
address-bind ipv6-mode strict

- D Ä È â	- D	£ E Ä

5 , Õ G!5B	ù ð ã Ä
------------	---------

Q , ð ã	< G!5B ð ã
---------	------------

S*ü Ü Ð	4 ¥ n , X ð ã Ú P • È ' R È ù Ý / ð ã È T - A x ð ã ù ð ã Ä J , ì h , X E @ ¥ ? ~ í È ? • ß > < / Ö	
	ð ã	l p v 4 E @ ¥ ? ~ í
	ù	¾ A Ç E 0 ú Ü 3 9 0 \$ £ Ê , X y [E @ Ä
	' R	¾ A Ç E 0 ú Ü , 3 9 0 \$ £ Ê , X y [E @ ¥ Ä

P •	¾ ACE0ú Ü, 3 9 0 \$ & Ê,X y [E@ ¥ Ä	
õ ã	IPV6 E@ ¥?~ í	
ù	á ACE Ĩ) L S Ý [E@ ¥ ÄT-Ax õ ã Ä Ä	
‘ R	ACE Ý,X , 3 9 y [E@ ¥ Ä	
P •	¾ ACE\$d0 \$ & 4¥ n ,X 0 \$ & ,X , 3 9 y [E@ ¥ Ä	

G!5B _	<pre>_V È4¥ n ,3 , 3 9 y [E@ ¥ Ä Ruijie# configure t Enter configuration commands, one per line. End with CNTL/Z. Ruijie(config)# address-bind 00d0.f822.33aa ip 192.168.5.2 Ruijie(config)# address-bind ipv6-mode compatible</pre>
--------	--

‚l G Q ,	Q ,	£EÄ
----------	-----	-----

G ÄAÈ â	‘
---------	---

Q , Z Æ	(È	AÈ â
---------	-----	------

2.1.5 address-bind uplink

A'5B Ú Ô p L S ` P D F ,X4¥ n

address-bind uplink intf-id

no address-bind uplink intf-id

- DAÈ â	- D	£EÄ
	intf-id	?UA' n _ ê ·,X y ·

5 ,ÕG!5B	‘
----------	---

Q , õ ã	< G!5B õ ã
---------	------------

S*ü Ü Ð	V p4 Ú Ô p ,3 ` Ô p Ü n,X 0 \$ & 4¥ n È'x6 \$d ,3 E- p ,3 ,X û Ê Èû,X\$d 0 \$ & á E- p ,3 4¥ n,X 0 \$ & Ê È- p û Ü î•x6 ö
---------	--

× È 5à V pA¹ y · _ ê · È J è Æ4£]>™ Z ?• D G G U H V V E L E Q 1 W D O O
+9 á*6 Ä

G!5B _

ßM6 _ \$ Ú I D 0Ã ·A'5B ,X4¥ n
Ruijie(config)# address-bind uplink fa0/1

,ì G Q ,

Q ,	£EÄ
show address-bind uplink	/ 4¥ n _ ê ·

G ÄÄÈ â

5 * 2 6 ¹ þ

Q , Z Æ

(È	AÈ â

2.1.6 clear mac-address-table dynamic

#ÙL8 | Ö Ä

clear mac-address-table dynamic address mac-addr @ >interface interface-id @ >vlan
vlan-id @

- DAÈ â

- D	£EÄ
dynamic	#ÙL8 Ý Ö Ä
address mac-addr	#ÙL8 Û n,X Ö Ä
interface interface-id	#ÙL8 Û n y ·,X Ý Ö Ä
vlan vlan-id	#ÙL8 Û n 9 / \$ 1X Ý Ö Ä

5 ,ÖG!5B

´

Q , ö ä

(M ö ä

S*ü Û Ð

Ã ¹ S*ü show mac-address-table dynamic Q , ¹,ß H þ | Ö >C Y • Ä

G!5B _

ôL8 Ý | Ö
Ruijie# clear mac-address-table dynamic

,ì G Q ,

Q ,	£EÄ
show mac-address-table dynamic	/ Ö >C µ C Ä

G ÄÄÈ â

Q , Z Æ	(È	ÄÈ â

2.1.7 mac-address-table aging-time

A'5B | Ö 5Ö ê ÊKÈ Ä S*üA¹ Q ,X Q BÝNM ÚA¹A'5B 6 á ä5 ,Ö Ä

mac-address-table aging-time seconds

no mac-address-table aging-time

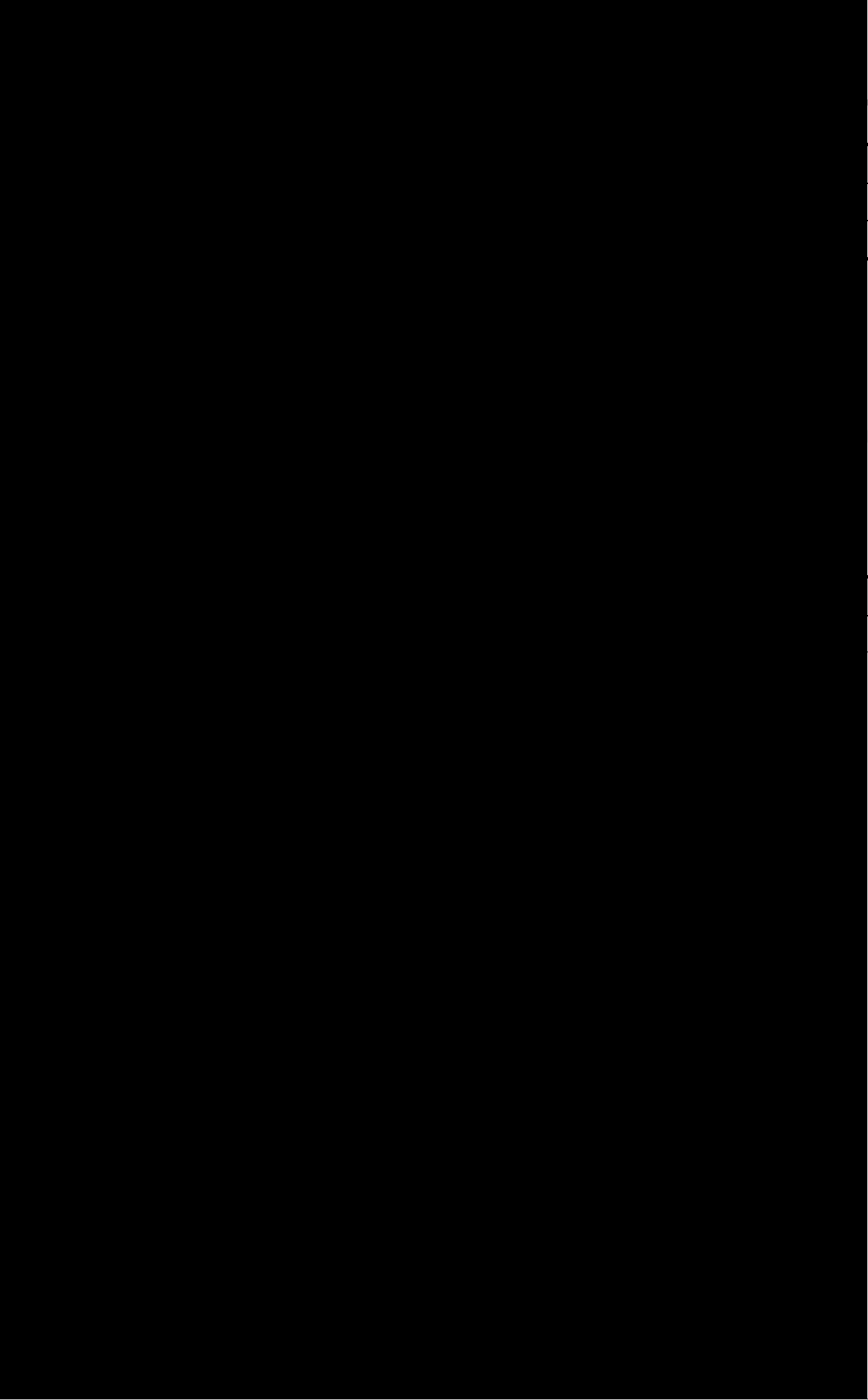
– DAÈ â	– D	£EÄ
	seconds	Ö 5Ö ê ÊKÈ È ¹/!) ! Ä k8× È+ A' Ü ‡ n Ä

5 ,ÖG!5B 5 ,Ö /! Ä

Q , ö ä < G!5B ö ä

S*ü Ü Ð S*ü show mac-address-table aging-time Q , ¹,ßA'5B Ä
S*ü show mac-address-table dynami F Q , ¹,ß | Ö >< Ä

G!5B _ Ruijie(config)# mac-address-table aging-time 150



E\$,

vlan 1

--

Eî-¹ Ä Ã ¹ ü < G!5B õ ã ßEîE> Q , snmp-server enable traps mac-notification
9 ' Ô ê GKÁA' Û ¥EÖ 0 \$ & 7 U D S 6Ñ Ä

G!5B _

Ruijie(config)# mac-address-table notification
Ruijie(config)# mac-address-table notification

G!5B _	BM6,X_ \$AÈ â Z V)G!5B Ô pM- Õ G I ÈFü 9/\$1 y« ,Â,X
	E- p ,X Û Ê ÈE- p Û Ú>•E@ ¥ Û n,X y · J L J D E L W H W K Æ U Q H W
	Ruijie(config)# mac-address-table static 00d0.f800.073c vlan 4
	interface gigabitethernet 1/1

,l G Q ,	Q ,	£EÄ
	show mac-address-table static	/ M- Õ Ä
	clear mac-address-table static	#ÜL8M- Õ Ä

G ÄAÈ â

Q , Z Æ	(È	AÈ â

2.1.11 snmp trap mac-notification

' Ô y ,X 0 \$ & Eî-1 s6Ñ Ä S*üA¹ Q ,X no EÝNM GKÁA¹ s6Ñ Ä

snmp trap mac-notification added _removed `

no snmp trap mac-notification added _removed `

- DAÈ â	- D	£EÄ
	added	' r t ÊEî-1 Ä
	removed	' >• ôL8 ÊEî-1 Ä

5 ,ÕG!5B 5 ,Õ GKÁA¹ s6Ñ Ä

Q , õ ä y ·G!5B õ ä

S*ü Û Ð S*ü show mac-address-table notification interface Q , ¹,ßA'5B Ä

G!5B _ Ruijie(config)# interface gigabitethernet 1/1
Ruijie(config-if)# snmp trap mac-notification added

,l G Q ,	Q ,	£EÄ
	mac-address-table notification	' Ô 0 \$ & Eî-1 s6Ñ Ä
	show mac-address-t able notification	/ 0 \$ & Eî-1 s6ÑA'5B `Eî-1 >< µ C Ä

G ÄÄÈ â

Q , Z Æ	(Ë	AÈ â

Q , Z Æ	(Ë	AÈ â

PDF DGGUHVVOH DUQLQJ

G!5B0Ã · : 46Ñ o ' Ô/ GKÁ
mac-address-learning

– DAÈ â	– D	£EÄ

5 ,ÖG!5B : 46Ñ o Ô

Q , õ ã y · õ ã

S*ü Ü Ð á6Ñ ü Ô] < s6Ñ,X0Ã · Þ GKÁ 0 \$ & : 46Ñ o ÈGKÁ : 46Ñ o,X0Ã · á6ÑG!
5B] < s6Ñ ×

G!5B – _ Ö GKÁ y · : 46Ñ o Ö
5XLMLH FRQILB DGGQ R VÐDOH DUQLQJ

G ÄÄÈ â

2.2 < ü » w W

2.2.1 show address-bind

¹,ß Ý4¥ n ><,X µ C Ä

show address-bind

– DAÈ â	– D	£EÄ

5 ,ÖG!5B

Q , ð ä

(M ð ä

S*ü Ü Ð

G!5B _

Ruijie# show address-bind
IP Address Binding MAC Addr

3.3.3.3 00d0.f811.1112
3.3.3.4 00d0.f811.1117

,ì G Q ,	Q ,	£EÄ
	address-bind	A'5B4¥ n Ä

G ÄÄÈ â

Q , Z Æ	(È	AÈ â

2.2.2 show address-bind uplink

¹,ß _ ê · µ C Ä

show address-bind uplink

_ DAÈ â	_ D	£EÄ

5 ,ÖG!5B

Q , ð ä

(M ð ä

S*ü Ü Ð

G!5B _

Ruijie# show address-bind uplink
Ports State

Fa0/1 Disabled

Fa0/2 Disabled

.....

,ì G Q ,

Q ,	£EÄ
address-bind uplink	A'5B _ ê .

G ÄAÈ â

Q , Z Æ

(Ë	AÈ â

2.2.3 show mac-address-table address

	show mac-address-table interface	/ Ü ny .,X Ý2O _,X μ C Ä
	show mac-address-table vlan	/ Ü n 9 / \$ 1X Ý2O _,X μ C
	show mac-address-table count	/ Í >< þ D,X4³Au Ä
	show mac-address-table static	/ M- Ö Ä
	show mac-address-table filtering	/ E>\$, Ä

G ÄÄÈ â

Q , Z Æ	(Ë	ÄÈ â

2.2.4 show mac-address-table aging-time

/ | Ö 5Ö ê ÊKÈ Ä

show mac-address-table aging-time

- DAÈ â	- D	£EÄ

5 ,ÖG!5B

Q , ö ä

(M ö ä

S*ü Ü Ð

G!5B -

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

,) G Q ,	Q ,	£EÄ
	mac-address-table aging-time	A'5B Ö 5Ö ê ÊKÈ Ä

G ÄÄÈ â

Q , Z Æ	(Ë	ÄÈ â

2.2.5 show mac-address-table count

/ í >< p D,X4³Au Ä

show mac-address-table count [interface interface-id

	show mac-address-table interface	/ Û n y .,X Ý2O _,X μ C
	show mac-address-table vlan	/ Û n 9 / \$ 1,X Ý2O _,X μ C Ä

G ÄÄÈ ä

	(È	ÄÈ ä

2.2.6 show mac-address-table dynamic

/ | Õ >< μ C Ä

show mac-address-table dynamic address mac-addr @interface interface-id @vlan
vlan-id @

	- D	£EÄ
- DAÈ ä	mac-addr	Û n><NM Í h,X,Ä,X 0 \$ & Ä
	vlan-id	Û n><NM Í h,X 9 / \$ 1Ä

5 ,ÕG!5B

5 ,Õ / <F¼ μ C

Q , õ ä

(M õ ä

S*ü Û Đ

	Ruijie# show mac-address-table dynamic
	Vlan MAC Address Type Interface

	1 0000.0000.0001 DYNAMIC gigabitethernet 1/1
	1 0001.960c.a740 DYNAMIC gigabitethernet 1/1
	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

G!5B -

,ì G Q ,	Q ,		£EÄ	
	clear mac-address-table dynamic		#ÜL8 Õ Ä	
G ÄÄÈ â				
Q , Z Æ	(È		AÈ â	

2.2.8 show mac-address-table interface

/ Û n y ·,X Ý2O _,X μ C Ä Ù À | Õ ÈM- Õ Å Ä

show mac-address-table interface interface-id @vlan vlan-id @

2.2.9 show mac-address-table notification

/ 0 \$ & Eî-1 s6ÑA'5B `Eî-1>< μ C Ä

show mac-address-table notification interface interface-id @history @

– D	£EÄ
mac-addr	

– DAÈ à	– D	£EÄ
	vlan-id	Û n,X 9/\$1 ,Ä

5 ,ÖG!5B

Q , ö ã (M ö ã

S*ü Ü Ð

G!5B –

Ruijie# show mac-address-table vlan 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

,ì G Q ,	Q ,	£EÄ
	show mac-address-table static	/ M- Ö Ä
	show mac-address-table filtering	/ E>\$, Ä
	show mac-address-table dynamic	/ Ö Ä
	show mac-address-table address	/ Û n ,X Ý2O _,X µ C Ä
	show mac-address-table interface	/ Û n y .,X Ý2O _,X µ C Ä
	show mac-address-table count	/ Í >< þ D,X4³Au Ä

G ÄÄÈ à

Q , Z Æ	(È	AÈ à

VKRZ PDF DGGUHV V OHDUQLQJ

¹,ß0Ä . : 46Ñ o

– DAÈ à	– D	£EÄ

5 ,ÖG!5B		
Q , õ ã	(M õ ã	
S*ü Ô Ð		
G!5B _	_ Ö / 0Ã · : 46Ñ o Ö 5XLMLH VKRZ PDF DGGUHV V OHDUQLQJ	
,ì G Q ,	Q ,	£EÄ
G ÄÄÈ â		
Q , Z Æ	(Ě	AÈ â

3 Aggregate Port w W

3.1 ü » w W

3.1.1 aggregateport load-balance

G!5B Ô p \$ 3,X# G£ G>51k"© Ä S*üA¹ Q ,X Q BÝNM Ú# G£ G>5A'5B 6 á 5 ,Ö Ä

aggregateport load-balance dst-mac _src-mac _src-dst-mac dst-ip _src-ip _src-dst-ip `

no aggregateport load-balance

– DAÈ â	– D	£EÄ
	dst-mac	BEg 9 y [,X,Ä,X 0 \$ & E⁻> # G£ ÚG! Äü \$ 3 ØJÒCÄ È,Ä,X 0 \$ & ,ì à,X y [>•EÖ ,ì à,X 0Ä · È,Ä,X 0 \$ & á à,X y [ÚG! á à,X0Ä · Ä
	src-mac	BEg 9 y [,X\$d 0 \$ & E⁻> # G£ ÚG! Äü \$ 3 ØJÒCÄ È 97¾ á à 0 \$ & ,X y [ÚG! á à,X 0Ä · È97¾,ì à,X 0 \$ & ,X y [S*ü,ì à,X0Ä · Ä
	src-dst-ip	B\$d , 3â,Ä,X , 3E⁻> # G£ ÚG! Ä á à,X\$d , 3²² ,Ä,X , 3Í,X# G£EíE> á à,X0Ä · E@ ¥ Èà Ô\$d , 3²² ,Ä,X , 3ÍEíE>,ì à,XJÒCÄE@ ¥ Ä ü Ý 5 Ê ß È Í A,G>*ü!8# G£ G>5,X · ä Ä
	dst-ip	BEg 9 y [,X,Ä,X , 3 E⁻> # G£ ÚG! Äü \$ 3 Ø JÒCÄ È,Ä,X , 3 ,ì à,X y [>•EÖ ,ì à,X0Ä · È ,Ä,X , 3 á à,X y [ÚG! á à,X0Ä · Ä
	src-ip	BEg 9 y [,X\$d , 3 E⁻> # G£ ÚG! Äü \$ 3 ØJÒ CÄ È 97¾ á à , 3 ,X y [ÚG! á à,X0Ä · È 97¾,ì à,X , 3 ,X y [S*ü,ì à,X0Ä · Ä
	src-dst-mac	B\$d 0 \$ & â,Ä,X 0 \$ & E⁻> # G£ ÚG! Ä á à,X\$d 0 \$ & ²² ,Ä,X 0 \$ & Í,X# G£EíE> á à,X0Ä · E@ ¥ È à Ô\$d 0 \$ & ²² ,Ä,X 0 \$ & ÍEíE>,ì à,XJÒCÄE@ ¥ Ä

5 ,ÖG!5B

BEg 9 y [,X,Ä,X `d 0 \$ & E⁻> # G£ ÚG! Ä

Q , ö ä

< G!5B ö ä Ä

S*ü Ü Ð

S*ü show aggregateport load-balance Q , ¹,ßA'5B,X# G£ G>51k"© Ä

G!5B _ Ruijie(config)# aggregateport load-balance dst-mac

,l G Q ,	Q ,	£EÄ
	show aggregateport load-balance	/ D J J U H J D W H 3 R U W

G ÄÄÈ ä

Q , Z Ä	(È	AÈ ä
	-	

3.1.2 port-group

Ú Ô p(=)Ú0Ä ·A'5B \$ J J U H J D W H 3 R U W ,M ä 30Ä UÄS*üA¹ Q ,X Q ÆÝNM ôL8A¹0Ä ·,X
\$ J J U H J D W H 3 R U W

port-group port-group-number

no port-group

- DAÈ ä	- D	£EÄ
	port-group-number	\$ J J U H J D W H 3 R U W ,M ä 30Ä UÄS*üA¹ Q ,X Q ÆÝNM ôL8A¹0Ä ·,X 3 R U W

5,ÖG!5B (=)Ú ·5,Ö á 2 b ĩ) \$ J J U H J D W H 3 R U W

Q , ö ä y ·G!5B ö ä Ä

S*ü Ü Ð Ú Ý,X \$ 3 ä ,y ·FÑ ü à Ô p 9/\$1 È ê5ÜFÑG!5B ä W U X Q Ä 2\$R ä W Q D W L Y H
9/\$1X y · á6Ñ X ä \$ 3

G!5B _ \$ Ú¹p5% y · G!5B ä \$ 3 ä , Ö
Ruijie(config)# interface gigabitethernet 1/3
Ruijie(config-if)# port-group 3

,l G Q ,	Q ,	£EÄ
	-	

G ÄÄÈ ä

Q,ZÆ	(Ë	AÈ â
	-	

3.2 < ü » w W

3.2.1 show aggregateport

/ DJJUHJDW5B\$RÄW

- DAÈ â	- D	£EÄ
	aggregate-port-number	\$JJUHJDWYHËÄRUW
	load-balance	/ DJJUHJD\,M#SRC>Wk"© Ä
	summary	/ DJJUHJDWYHËÄRUW,?UµCÄ

5,ÖG!5B

Q, ð ä

(M ð ä

S*ü Û Ð

Vp"uÝÛn DJJUHJDWYHËÄRUW DJJUHJDWYHËÄRUW9Ä

G!5B _

Ruijie# show aggregateport 1 summary
AggregatePort MaxPorts SwitchPort Mode Ports

Ag1 8 Enabled ACCESS

,ìGQ,

Q,	£EÄ
aggregateport load-balance	G!5B Ô p \$ 3,X# G£ G>51k"© Ä

G ÄAÈ â

Q,ZÆ

(Ë	AÈ â
-	

4 ' VLAN w W

4.1 ' ü » w W

4.1.1 dot1q-vlan-current-entry mib dot1q-vlan-index max-access mode read-only

G!5BA¹ Q , Ã Â ' R W T 9 O D Q & X Ü Æ H X Q W , (Q V & • G R W T 9 O D X Q Q G H [Û A " K Â L \$ ¾ A Ĭ õ ã × S * ù A¹ Q , , X Q B Ý N M 6 á 0 , % V & • G R W T 9 O D Q , Q G H [, X Ô ù A " K Â L \$ / U ! 6 A " K Â õ ã Ö

dot1q-vlan-current-entry mib dot1q-vlan-index max-access mode read-only no
dot1q-vlan-current-entry mib dot 1q-vlan-index max-access mode

– DAÈ â	– D	£EÄ
	-	

5 ,ÖG!5B

Q , õ ã < G!5B õ ã Ä

S*ù Ô Ð ?UE"² (M õ ã ÈEg 9 end Q , È ê K 9 Ctrl+C 4~ Ü K Ä

G!5B _ Â ' R W T 9 O D Q & X Ü Æ H X Q W , (Q V & • G R W T 9 O D X Q Q G H [L \$ ¾ A Ĭ õ ã Ö
5 X L M L H R u i j i e (c o n f i g) #
dot1q-vlan-current-entry mib dot1q-vlan-index max-access mode read-only

, Ì G Q ,	Q ,	£EÄ
	-	

G ÄÄÈ â

(È	
-----	--

4.1.2 name

A'5B 9 / \$ 1X á + Ä S*üA¹ Q ,X no EÝNM ÚA¹A'5B 6 á ä5 ,Ö Ä

name vlan-name

no name

– DAÈ á	– D	£EÄ
	vlan-name	9 / \$ 1X á +

5 ,ÖG!5B	9 / \$ 15 ,Ö á + 9 / \$ 1Ç 9 / \$ 1 ,È V 9 / \$ 1 5 ,Ö á + ´ 9 / \$ 1 ´
----------	---

Q , ö ä	9 / \$ 1G!5B ö ä
---------	------------------

S*ü Ü Ð	S*ü show vlan Q , ¹,ß Y O G!5B
---------	--------------------------------

G!5B –	Ruijie(config)#	vlan 10
	Ruijie(config-vlan)#	name vlan10

,ì G Q ,	Q ,	£EÄ
	show vlan	/ 9 / \$ 1X ä ,0Ä ·1 µ C Ä

G ÄÄÈ á	´
---------	---

Q , Z Æ	(È	AÈ á

4.1.3 switchport access

S*üA¹ Q , Ú Ô p0Ä ·A'5B D F F H V È J S R W U W Ö p 9 / \$ 1X ä ,0Ä · ÄS*üA¹ Q ,X no EÝNM ÚA¹0Ä · Ü# 5 ,Ö,X 9 / \$ 1 Ä

switchport access vlan vlan-id

no switchport access vlan

– DAÈ á	– D	£EÄ
	vlan-id	0Ä ·?U t 9,X 9 / \$ 1X , ' Ä

5 ,ÖG!5B	V Z L W F K ,Ö S R U W D F F H È V ,Ö,X 9 / \$ 1 9 / \$ 1
----------	---

Q , ö ä	y ·G!5B ö ä
---------	-------------

S*ü Ô Ð	Eg 9 Ô p 9 / \$ 1 ,Ä V pEg 9,X Ô p ,,,X 9 / \$ 1 , 'È í Á' Ô î î Î Ô p 9 / \$ 1 È J Ú A¹0Ã · A¹5B A¹ 9 / \$ 1 X ä , Ä V pEg 9,X Æ4£ , ü,X 9 / \$ 1 , 'È í r t 9 / \$ 1 X ä ,0Ã · Ä V pA¹0Ã · Ô p W U X Q Æ á Ñ R , U A W i 0
----------------	---

G!5B –	Ruijie(config)# interface gigabitethernet 1/1
	Ruijie(config-if)# switchport access vlan 2

,l G Q ,	Q ,	£EÄ
	switchport mode	Ô n Ô p ` y · Ä V Z L W F K S R U W Å X ö ã Ä
	switchport trunk	Ô p W U X Q Æ á Ñ R , U A W i 0 9 / \$ 1 ` G!5B E - p 7 U X Q Æ á Ñ 9 / \$ 1 ë > < Ä

G ÄÆ ä

Q , Z Æ	(È	AÈ ä

4.1.4 switchport mode

S*üA¹Q , Ô n Ô p ` y · Ä V Z L W F K S R U W Å X ö È Ä¹ Ô n A¹ y · D F F H V Å X ö
S R Ä J W E U L G Ä S R U W L Q N S R U W È è 5 U Ä S*üA¹Q , X Q R Y N M Ú A¹ y · X
ö ä 6 á 5, Ö Ä

switchport mode access _trunk | hybrid | uplink | dot1q-tunnel

no switchport mode

– DAÈ ä	– D	£EÄ
	access	A¹5B Ô p V Z L W F K S R U W Å X ö
	trunk	A¹5B Ô p V Z L W F K S R U W Å X ö
	hybrid	A¹5B Ô p V Z L W F K S R U W Å X ö
	uplink	A¹5B Ô p V Z L W F K S R U W Å X ö
	dot1q-tunnel	A¹5B Ô p V Z L W F K S R U W Å X ö

5, Ö G!5B V Z L W F K S R U W Å X ö

Q , ð ä

y ·G!5B ð ä

S*ü Ü Ð

V p Ô p V Z L W F × S R U W F F È V y · ¾ 6 Ñ Ô p 9 / \$ 1 X ä , Ä Ä ¹ S*ü
switchport access vlan Q , Ü n A¹ y · ¾ Ô p 9 / \$ 1 X ä , Ä
V p Ô p V Z L W F × S R U W U È Q y · Ä ¹ î p 9 / \$ 1 X ä , Ä A¹ y · Ä ¹ 2
b ¾ o 9 / \$ 1 + A¹ y · , X A E Ä 9 / \$ 1 ë > < ‡ n È W U X Q N A E Ä 9 / \$ 1 ë > < , X Ý
9 / \$ 1 X ä , Ä Ä ¹ S*ü switchport trunk Q , 9 n y · , X A E Ä 9 / \$ 1 ë > <

G!5B _

Ruijie(config-if)# switchport mode trunk

\\ u! Ð 0

		G!5BE- p 7 U X Q X A E Ä 9 / \$ 1 ë > < Ä - D Y O D Q O L V W Ä¹ Ô p 9 / \$ 1 È 3 Ä¹ Ô 2 İ ë 9 / \$ 1 È¹ ä, X 9 / \$ 1 , Ô È¹ û, X 9 / \$ 1 , 4 \$ È K È* ü Ä Ä 0 ú È È² y Ä V Ö Ä % K È Ä¹* ü Ä Ä 0 ú È L h Ô È V Ö allowed vlan vlan-list D X Ø A E Ä 9 / \$ 1 ë > < Û ÿ Ý Ö, X 9 / \$ 1 × D G > / Ú Û n 9 / \$ 1 ë > < t 9 A E Ä 9 / \$ 1 ë > < × U H P R > / H Ú Û n 9 / \$ 1 ë > < t A E Ä 9 / \$ 1 ë > < ô L 8 × H [F H > S / W L 8 ë Î, X 9 / \$ 1 ë > < ê, X Ý 9 / \$ 1 t 9 A E Ä 9 / \$ 1 ë > < × native vlan vlan-id G!5B 1 D W L Y H Ä 9 / \$ 1
--	--	--

5 , Ö G!5B

5 , Ö, X A E Ä 9 / \$ 1 ë > < A' 5 B D È 5 Q Ö, X 1 D W L Y H í 9 / \$ 1 / \$ 1

Q , ö ä

y · G!5B ö ä

Native VLAN Ö

0 7 U X E N p · ? U 2 b Ô p Q D W L Y H Ä 9 , \$ Q D W L Y È 9 / \$ 1 E- p y · P
¥, X 8 1 7 \$ * y [È F Ñ > · A x 2 b E- p 9 / \$ 1 X Ä ' È E- p y ·, X 5 , Ö
Ä 2 Ä, · 4 € 0 9 / \$ 1

S*ü Ü Ð

	switchport access	Ú Ô p0Ã ·A'5B D F F H V V È JSÚR U W W Û# Ô p 9 / \$ 1X ä ,0Ã · Ä
--	-------------------	--

G ÄÄÈ â

Q , Z Æ	(È	ÄÈ â

4.1.6 vlan

G!5BA¹ Q ,E¯ 9 9 / \$ 1G!5B õ ä Ä S*üA¹ Q ,X Q BÝNM ôL8 Æ , ü,X9 / \$ 1Ä

vlan vlan-id

no vlan vlan-id

- DAÈ â	- D	£EÄ
vlan-id	9 / \$ 1 , È Ä	"¼ ä Ö5 ,Ö,X 9 / \$ 1Ä 9 / \$ 1 Å á AÆ ôL8 Ä

5 ,ÖG!5B

Q , õ ä < G!5B õ ä

S*ü Û Ð ?UE¨² (M õ ä ÈEg 9 end Q , È êK 9 Ctrl+C 4~ ÜK Ä
?UE¨² < G!5B õ ä ÈEg 9 exit Q ,

G!5B - Ruijie(config)# vlan 1
Ruijie(config-vlan)#

,ì G Q ,	Q ,	£EÄ
show vlan	/ 9 / \$ 1X ä ,0Ã ·1 µ C Ä	

G ÄÄÈ â



4.2 < ü » w W

4.2.1 show vlan

/ 9 / \$ 1 X ä , 0 Ä · 1 µ C Ä

show vlan id vlan-id @

– DAÈ â	– D	£EÄ
	vlan-id	9 / \$ 1 , È Ä

5 ,ÖG!5B	5 ,Ö / <F¼ µ C
----------	----------------

Q , õ ä	(M õ ä
---------	--------

S*ü Ô Ð	?UE¨² (M õ ä ÈEg 9 end Q , È êK 9 Ctrl+C 4~ ÜK Ä ?UE¨² < G!5B õ ä ÈEg 9 exit Q ,
---------	---

G!5B _	Ruijie# show vlan id 1
	VLAN Name Status Ports

	1 VLAN0001 STATIC Fa0/1, Fa0/2

,l G Q ,	Q ,	£EÄ
	name	A'5B 9 / \$ 1 X á + Ä
	switchport access	Ú y · t 9 Ô p 9 O Æ Q

G ÄAÈ â	'
---------	---

Q , Z Æ	(È	AÈ â

5

5 ,ÖG!5B		
Q , õ ã	y · õ ã	
S*ü Û Ð		
G!5B _	Ruijie(config-if)#	protocol-vlan ipv4
,ì G Q ,	Q ,	£EÄ
	no protocol-vlan ipv4	
G ÄÄÈ â	EC Ê(5 * 2 6 ¹ þ	
Q , 2 7 L	Ë	

5.1.3 protocol-vlan profile num frame-type type ether-type type

	show protocol-vlan profile num	
	no protocol-vlan profile	
	no protocol-vlan profile num	

G ÄÄÈ â EC Ê(5 - S` 0

5.2 < ü » w W

5.2.1 show protocol-vlan

/ 3 U R W R F R Q , 9 / \$ 1

show protocol-vlan

– DAÈ â	– D	£EÄ
5 ,ÖG!5B		
Q , õ ã	(M õ ã	
S*ü Û Ð		
G!5B _	Ruijie# show protocol-vlan	
,ì G Q ,	Q ,	£EÄ
G ÄAÈ â	EC Ê(5 * 2 6 ¹ Þ	
Q , Z Æ	(È	AÈ â

S*ü Ü Ð

G!5B –

Ruijie(config)# interface gigabitEthernet 0/2
Ruijie(config-if)# switchport mode private-vlan host

,ì G Q ,

Q ,	£EÄ
show vlan private-vlan	

G ÄÄÈ â

EC Ê(5 * 2 6 ¹ Þ

Q , Z Æ

(Ë	AÈ â

G ÄÄÈ â	EC Ê(5 * 2 6 1 þ	
Q , Z Æ	(Ë	ÄÈ â

6.1.5 switchport private-vlan mapping

S U L Y D W 109 / \$ 1G!5B ?U#Ë ,X V H F R Q G D U \ 9 / \$ 1

switchport private-vlan mapping p_vid \$vlist add svist remove svlist `

no switchport private-vlan mapping

– DAÈ â	– D	£EÄ
	p_vid	Æ4£ ï Î,X S U L P D U \ 9 , '
	svlist	Æ4£ ï Î,X V H F R Q G D U \ 9 / \$ 1 O L V W
	no	ª#\#Ë ,X Ý V H F R Q G D U \ 9 / \$ 1

5 ,ÖG!5B	´#Ë ,X V H F R Q G D U \ 9 / \$ 1
----------	-----------------------------------

Q , õ ã	/•Ý 9 / \$ 1#Ë y · õ ã
---------	------------------------

S*ü Ò Ð	´
---------	---

G!5B _	Ruijie(config)#	interface gigabitEthernet	0/1
	Ruijie(config-if)#	switchport mode private-vlan	promiscuous
	Ruijie(config-if)#	switchport private-vlan mapping	22 add 23-25

,l G Q ,	Q ,	£EÄ
	show vlan private-vlan	

G ÄÄÈ â	EC Ê(5 * 2 6 1 þ	
---------	-------------------	--

Q , Z Æ	(Ë	ÄÈ â

6.2 < ü » w W

6.2.1 show vlan private-vlan

/ S U L Y D W H 9 / \$ 1

show vlan private-vlan >community_primary _isolated @

	– D	£EÄ
– DAÈ â	primary	/ S U L P D U \ µ 9 / \$ 1
	community	/ F R P P X Q L W \ µ 9 / \$ 1
	isolated	/ L V R O D W H \ µ 9 / \$ 1

5 ,ÖG!5B ´ S U L Y D W H 9 / \$ 1

Q , õ ã (M õ ã

S*ü Ü Ð ´

G!5B _ Ruijie# show vlan private-vlan

	Q ,	£EÄ
,ì G Q ,	-	

G ÄÄÈ â EC Ê(5 * 2 6 ¹ Þ

	(È	ÄÈ â
Q , Z Æ		

6.3 Hybrid w W

6.3.1 switchport hybrid allowed vlan

switchport hybrid allowed vlan > >ad@ >taggedntagged @_remove @istY

no switchport hybrid allowed vlan

G!5B K \ E 0Ä G XEg Î?~ í

– DAÈ â	– D	£EÄ
---------	-----	-----

G ÄÄÈ à EC Ê(5 * 2 6 1 Þ

Q , Z Æ	(Ë	ÄÈ à

6.3.3 switchport mode hybrid

switchport mode hybrid

no switchport mode

G!5B0Ä · K \ E U L G

– DAÈ à	– D	£EÄ
	no	ôL8 K \ E UöLäG

5 ,ÖG!5B ÞG!5B

Q , ö ä y · ö ä

S*ü Ô Ð ´

G!5B _ Ruijie(config-if)# switchport mode hybrid

,l G Q ,	Q ,	£EÄ

G ÄÄÈ à EC Ê(5 * 2 6 1 Þ

Q , Z Æ	(Ë	ÄÈ à

7 ' SHARE VLAN w W

7.1 ' ü » w W

7.1.1 share

S*üA¹ Q ,A'5B V K D U H Ä Y O D Q

– DAÈ â	– D	£EÄ
5 ,ÖG!5B		
Q , õ ä	Y O G!5B õ ä	
S*ü Ü Ð	?U ¢# \ V K D U H *üY n o s d a e Q , Ä ?UE ¨ ² (M õ ä ÈEg 9 end Q , È êK 9 & W U 4 Ü K Ä ?UE ¨ ² < G!5B õ ä ÈEg 9 exit Q , Ä	
G!5B –	Ruijie(config)# vlan 2 Ruijie(config-vlan)# share	
,l G Q ,	Q ,	£EÄ
G ÄÄÈ â		
Q , Z Æ	(È	AÈ â

7.2 ´ ü » w W

7.2.1 show mac-address-table share

8 Voice VLAN w W

8.1 ü » w W

8.1.1 voice vlan

< S6Ñ 9 R L F H 9 / \$ 1 È Á ' 5 B Ô \$ 1 9 R L F H 9 Á \$ 1 Ä ¹ S * Ü A¹ Q , , X no EÝNM G
KÁ 9 R L F H 9 S6Ñ 1 Ä
voice vlan vlan-id
no voice vlan

– DAÈ â	– D	£EÄ
	vlan-id	></ 9 R L F H 9 X \$ 1 Ä

5 , Ö G!5B 5 , Ö G K Á , X Ä

Q , ð ä < G!5B ð ä

S * Ü A¹ Q , S6Ñ A¹ Ü , X 9 R L F H 9 S6Ñ 1 È Á È Ü n 9 R L F H 9 / \$ 1 , '
Å G!5B 9 R L F H 9 / ! È N O i î Í h , X 9 / \$ 1 Ä
Å 9 / \$ 1 T - A x 9 / \$ 1 È ' L Ô i î È 9 / \$ 1 á 6 Ñ > • A ' 5 B 9 R L F H
9 / \$ 1 Ä
S * Ü Ü Ð a "¼ ä Å á A È Ü ¢ p 9 / \$ 1 à È Á ' 5 B 9 R L F H 9 ä \$ 6 1 X S H U 9 Ä \$ 1
Å V p y 9 , X 0 Ä · Þ Ô Z [9 / \$ 1

no voice vlan cos

– DAÈ â	– D	£EÄ
	cos-value	></ 9 R L F H 9X\$ÁMÇ# ,X& R 6 Ä
5,ÖG!5B	cos-value – D,X5 ,Ö	Ä
Q , õ ä	< G!5B õ ä	
S*ü Ü Ð	A' ÜEîE> Ä 9 R L F H 9X\$ÁMÇ# ,X& R 6 Ä ' 6 & 3 9 ðP–AÁMÇ# ,Xì 4{ È±A•Eî A±BÜG£ Ä	
G!5B –	– ÖG!5B 9 R L F H 9X\$ÁMÇ# ì 4{ È & R 6 Ruijie(config)# voice vlan cos 5	
,l G Q ,	Q ,	£EÄ
	show voice vlan	/ 9 R L F H 9X\$ÁMÇ# µ C â ' ! (Š Œ Ä
G ÄÄÈ â	/	
Q , Z Æ	(È	AÈ â
		„ r Q ,

8.1.4 voice vlan dscp

< A'5B 9 R L F H 9X\$ÁMÇ# ,X 6 & 3 Ä*ü Ä¹ S*üA¹ Q , ,X no EÝNM ÚA¹G!5B 6 á
5,Ö Ä

voice vlan dscp dscp-value

no voice vlan dscp

– DAÈ â	– D	£EÄ
	dscp-value	></ 9 R L F H 9X\$ÁMÇ# ,X 6 & 3 Ä
5,ÖG!5B	dscp-value – D,X5 ,Ö	Ä
Q , õ ä	< G!5B õ ä	
S*ü Ü Ð	A' ÜEîE> Ä 9 R L F H 9X\$ÁMÇ# ,X& R 6 Ä ' 6 & 3 9 ðP–AÁMÇ# ,Xì 4{ È±A•Eî	

A±BüG£ Ä

G!5B _ _ ÖG!5B 9 R L F H 9X\$ÄMÇ# ì 4{ È ' 6 & 3 Ä
Ruijie(config)# voice vlan dscp 40

Q ,	£EÄ
show voice vlan	/ 9 R L F H 9X\$ÄB µ C â ' ! (Š Œ Ä

G ÄÄÈ ä

Q , Z Æ	(È	ÄÈ ä
		„ r Q ,

8.1.5 voice vlan enable

ü y ·G!5B õ ä ß S*ü!8 Q , S6Ñ0Ä ·,X 9 R L F H 9s6Ñ1Ä*ü Ä ¹ S*üA¹ Q ,,X no EÝ
NM GKÁ0Ä ·,X 9 R L F H 9s6Ñ1Ä

voice vlan enable

no voice vlan enable

- DAÈ ä	- D	£EÄ

5 ,ÖG!5B 5 ,Ö ™ % ß0Ä ·,X 9 R L F H 9s6Ñ1GKÁ Ä

Q , õ ä y ·G!5B õ ä

E!E>A¹ Q , ' Ô0Ä ·,X 9 R L F H 9s6Ñ1È 9 R L F H 9s6Ñ1¼6Ñ ü(=)Ú0Ä · Þ *ü ÄJä
K{• Ö ü \$ F F H V V Ä 3 U R X I Q N Ä 8 F E U W G Ä 3 U R L M D W H 9Ä \$ B U L Y D W H 9 / \$ 1
#È · ä 8 S O L D Q N Ü 9 R L F H 9s6Ñ1Ä
AÈ ä ü < 9 R L F H 9GKÄ ,X ™ % ß Ä ÄE S6Ñ0Ä ·,X 9 R L F H 9s \$ 1
6Ñ È á*ó Ä

G!5B _ _ Ö ' Ô0Ä ·) D V W (W K H , X Q 9 R L F H 9s6Ñ1Ä
Ruijie(config)# interface fastEthernet 0/1
Ruijie(config-if)# voice vlan enable

Q ,	£EÄ
-----	-----

	show voice vlan	/ 9 R L F H 9,X\$5B μ C â'! (Š Ŏ Ä
G ÄÄÈ â		
Q , Z Æ	(Ě	AÈ â
		„ r Q ,

8.1.6 voice vlan mac-address

< A'5B 9 R L F H 9Ä\$1y,XAÁMÇ# 2 8 , Ä*ü Ä¹ S*üA¹ Q ,,X no EÝNM ôL8A' Û
pA'5B,X ▯ p 2 8 ,

Q , Z Æ	(Ë	AÈ â
		„ r Q ,

8.1.7 voice vlan mode auto

ü y ·G!5B õ ã ßG!5B0Ã ·,X 9 R L F H 91/0\$1ã 7¾| õ ã Äü Ã¹S*üA¹Q ,,X no
EÝNMA'5B0Ã ·,X9 R L F H 91/0\$1ã | õ ã Ä

voice vlan mode auto

no voice vlan mode auto

– DAÈ â	– D	£EÄ
	´	´

5,ÖG!5B	0Ã ·,X 9 R L F H 91/0\$1ã5,Ö 7¾ õ ã Ä
---------	--

Q , õ ã	y ·G!5B õ ã
---------	-------------

9 R L F H 9 / \$ 1

S*ü Ü Ð

,l G Q ,	Q ,	£EÄ
	show voice vlan	/ 9 R L F H 9,X\$1ö ã Ä'! (Š Ő È Ù À S6Ñ 9 R L F H 9\$6Ñ1X0Ä ,X¹0 ö ã Ä

G ÄÄÈ â

Q , Z Æ	(È	AÈ â
		„r Q ,

8.1.8 voice vlan security enable

< ' Ô 9 R L F H 9X\$1ö ã Ä*ü Ä¹S*üA¹ Q ,X no EÝNM GKÁ]< ö ã Ä
voice vlan security enable
no voice vlan security enable

– DAÈ â	– D	£EÄ

5 ,ÖG!5B

9 R L F H 9X\$1ö ã 5 ,Ö ' Ô Ä

Q , ö ã

< G!5B ö ã

Z6Ñ ó È Q E¯> *ü AÁMÇ# â D B# Ú/• ôEg È Ä¹' Ô 9 R L F H 9X\$1ö ã Ä
' Ô]< ö ã âA' Û î Í y [,X\$d 0 \$ & E¯> "¹È 'y [\$d 0 \$ & ÄŠ ÿ,X
9 R L F H 9 / \$ 1 È È , AÇE A¹ y [ü 9 R L F H 9Y\$Eg È ú í Ú A¹ y [ö × Ä

S*ü Û Ð

a "¼ ä ÎA,*ü G£ á?U ü 9 R L F H 9 / \$ È ôEgAÁMÇ `î u D B Ä8¹,X
.B Ý!8LÔ?U ÈÄÈ.BA×9 R L F H 9,X\$1 ö ã Ä Æ GKÁ Ä

AÈ â

]< ö ã ß È ™ Í X Q W D y J H GÝ 9 R L F H 9 / \$,X y M E D > J
\$d 0 \$ & "¹È í b ú Ý J W M 2,X';% QÒH@

	show voice vlan	/ 9 R L F H 9X\$!5B μ C â '!(Š Ő Ä
G ÄÄÈ â		
Q , Z Æ	(Ě	AÈ â
		„ r Q ,

8.2 < ü » w W

8.2.1 show voice vlan

/ 9 R L F H 9X\$!5B μ C â '!(Š Ő È Û À S6Ň 9 R L F H 9s6ŇX0Ä .,X¹0 õ ä Ä

show voice vlan

– DAÈ â	– D	£EÄ

5 Š,ÖG!5Bâ-g#1TjTg" Ääpâ,Ü(Ät.Yfä)e59ÖÜKfö-ö.g#Ä.18r]P,Eif¼(" i¿'CE U3m 9 R LYŠ Ő Ä ~Ä à ð \$ 1à

9 MSTP w W

9.1 ü » w W

9.1.1 bpdu src-mac-check

' Ô ¢ p y ,X E S G K P D F 1 Ä*ü Ã 1*üA1 Q ,X Q EÝNM GKÁ y ,XE S G K P D F
" 1 s6Ñ Ä

bpdu src-mac-check H.H.H

no bpdu src-mac-check

	– D	£EÄ
– DAÈ â	H.H.H	></ ¾ y \$d P D F A1 ,X E S G Ä
	no	EÝNM></ 0Ä · y İ),X E S G Ä

5 ,ÖG!5B 5 ,Ö GKÁ,X Ä

Q , õ ä y ·G!5B õ ä Ä

S*ü Ü Ð

G!5B – Ruijie(config)# interface gigabitethernet 1/1
Ruijie(config-if)# bpdu src-mac-check 00d0.f800.1e2f

	Q ,	£EÄ
ì G Q ,	-	

G ÄÄÈ â

	(È	AÈ â
Q , Z Æ		

9.1.2 clear spanning-tree counters

#ÜL86 7 3 ¥ Ü4³Au µ C Ä

clear spanning-tree counters > interface interface-id @

- D

G ÄÄÈ â		
Q , Z Æ	(È	ÄÈ â

9.1.4 spanning-tree

' Ô 0 6 7 3 È ú – D Ä ü ' Ô 0 6 7 3 X à Ê È A'5B 0 6 7 3 < , X Î A'5B Ä S*ü A¹ Q ,
, X Q EÝNM GKÄ S D Q Q L Q 6 Ñ V U H Q R Q , ú – D EÝNM ¾ Ú Í h – D 6 á 5 , Ö È
J á GKÁ V S D Q Q L Ä J W U H H

spanning-tree > forward-time seconds hello-time seconds max-age seconds @
no spanning-tree > forward-time hello-time max-age @

– DAÈ â	– D	£EÄ
	forward-time seconds	0Ä ·(Š Œ ¬,X ÊKÈKÈLh Ä
	hello-time seconds	A' Û n Ê ¥EÖ % 3 ' 8y [,X ÊKÈKÈLh Ä
	max-age seconds	% 3 ' 8

G ÄÄÈ â

Q , Z Æ	(È	ÄÈ â

9.1.5 spanning-tree autoedge

' Ô ñ p y ,X \$ X W R H G G Ä ü Ä 1*üA1 Q ,X G L V D E Y N M G K Á y ,X \$ X W R H G J H
Ô G Ä

spanning-tree autoedge >disabled @

– DAÈ â	– D	£EÄ
	disabled	GKÁ y ,X \$ X W R H G G Ä

5 ,ÖG!5B 5 ,Ö ' Ô,X Ä

Q , õ ä y ·G!5B õ ä Ä

S*ü Ü Đ

G!5B – Ruijie(config)# interface gigabitethernet 1/1
Ruijie(config-if)# spanning-tree autoedge disabled

,ì G Q ,	Q ,	£EÄ
	show spanning-tree interface	/ 0Ä · 6 7 3G!5B µ C Ä

G ÄÄÈ â

Q , Z Æ	(È	ÄÈ â
		9.94.9 Tf .9414 Tww 3.0nning-tree au

	disabled	GKÁ y ·,X % 3 ' 8 I L Ô W Ä H U
5 ,ÖG!5B	5 ,Ö GKÁ,X Ä	
Q , õ ä	y ·G!5B õ ä Ä	
S*ü Ü Ð	‘	
G!5B _	Ruijie(config)# interface gigabitethernet 1/1 Ruijie(config-if)# spanning-tree bpdufilter enable	
·,ì G Q ,	Q ,	£EÄ
	show spanning-tree interface	/ 6 7 3 Ä ·G!5B µ C Ä
G ÄÄÈ ä	‘	
Q , Z Æ	(È	AÈ ä

9.1.7 spanning-tree bpduguard

' Ô ¢ p y ·,X % 3 ' 8 * X DÔUGÄ*ü Ä¹*üA¹ Q ,,X H Q D E Æ B G V D E Y Ì M G Ô ê
GKÁ y ·,X % 3 ' 8 * X DÔUGÄ

spanning-tree bpduguard >enabled disabled @

	- D	£EÄ
- DAÈ ä	enabled	' Ô y ·,X % 3 ' 8 * X DÔUGÄ
	disabled	GKÁ y ·,X % 3 ' 8 * X DÔUGÄ
5 ,ÖG!5B	5 ,Ö GKÁ,X Ä	
Q , õ ä	y ·G!5B õ ä Ä	
S*ü Ü Ð	‘	
G!5B _	Ruijie(config)# interface gigabitethernet 1/1 Ruijie(config-if)# spanning-tree bpduguard enable	

,l G Q ,	Q ,	£EÄ
	show spanning-tree interface	/ 6 7 3 Ä ·G!5B µ C Ä

G ÄÄÈ â

Q , Z Ä	(È	AÈ â

9.1.8 spanning-tree compatible enable

B ' !0Ä ·,X y · 2 û µ C ÝEÝ ½ û,X ú 0 6 7 ,X µ CE¯> ¥EÖ È ¹ r),, â J W {
KÈ,X fE² Ä

spanning-tree compatible enable

no spanning-tree compatible enable

– DAÈ â	– D	£EÄ

5 ,ÖG!5B 5 ,Ö GKÁ

Q , ö ä y · ö ä

S*û Ô Ð

G!5B _ Ruijie(config-if)# spanning-tree compatible enable

,l G Q ,	Q ,	£EÄ
	-	

G ÄÄÈ â

Q , Z Ä	(È	AÈ â

9.1.9 spanning-tree guard loop

y · Þ ' Ô ORRS JX DÄUG s6Ñ È6ÑL !6 0Ä · ê Û Ñ · ´ á E S GÄ(*ó,X Ä6Ñ,X)fCÄ Ä

spanning-tree guard loop

no spanning-tree guard loop

– DAÈ à	– D	£EÄ
5 ,ÖG!5B	5 ,Ö GKÁ O R R S JSÖÄJ G	
Q , õ ä	y ·G!5B õ ä Ä	
S*ü Ô Ð	‘	
G!5B _	Ruijie(config-if)# spanning-tree guard loop	
,l G Q ,	Q ,	£EÄ
G ÄÄÈ à	‘	
Q , Z Æ	(Ë	AÈ à

9.1.10 spanning-tree guard none

y · Þ GKÁ J X D (MG Ä S*üA¹ Q ,X Q BÝNM a#\ y · Þ,X J X D 66Ä

spanning-tree guard none

no spanning-tree guard none

– DAÈ à	– D	£EÄ
5 ,ÖG!5B	GKÁJ X D 66Ä	
Q , õ ä	y ·G!5B õ ä Ä	
S*ü Ô Ð	‘	
G!5B _	Ruijie(config-if)# spanning-tree guard none	

,l G Q ,	Q ,	£EÄ
	-	
G ÄÄÈ â		
Q , Z Æ	(Ë	AÈ â

9.1.11 spanning-tree guard root

y · 'Ô U R R W (MÄUSG¹ Q ,X Q EÝNM GKÄ R R W (MÄU*G U R R W § X D U G
6Ñ È6ÑL !6 ´JíAÄG!5B êM2"© y [,X İĐ7È ' ! 9 !,X ¬ê Ä

spanning-tree guard root

no spanning-tree guard root

– DAÈ â	– D	£EÄ
5 ,ÖG!5B	5 ,Ö GKÄ U R R W §6ÑÄU G	
Q , õ ä	y ·G!5B õ ä Ä	
S*ü Ü Đ		
G!5B _	Ruijie(config-if)# spanning-tree guard root	
,l G Q ,	Q ,	£EÄ
G ÄÄÈ â		
Q , Z Æ	(Ë	AÈ â

9.1.12 spanning-tree ignore tc

y · ' Ô WEF\$, Ô G Ä S*üA¹ Q ,X Q RÝNM GKÁWEF\$, Ô G Ä *ü WEF\$, s6Ñ È í0Ã ·
 ,X 7 &y [Ú á Ø)Ú Ä

spanning-tree ignore tc

no spanning-tree ignore tc

– DAÈ â	– D	£EÄ

5 ,ÖG!5B 5 ,Ö GKÁ 7 &E>\$, s6Ñ

Q , ö ä y ·G!5B ö ä

S*ü Ô Ð

G!5B _ Ruijie(config-if)# spanning-tree ignore tc

,l G Q ,	Q ,	£EÄ
	-	

G ÄÄÈ â

Q , Z Æ	(È	AÈ â

9.1.13 spanning-tree link-type

G!5B y ·,XE² y2O _ á ³ &• Í&•E² y´ Äü Ã ¹*üA¹ Q ,X Q RÝNM ÚA¹A'5B 6 á ä5 ,Ö
 Ä

spanning-tree link-type >point-to-point _shared @

no spanning-tree link-type

– DAÈ â	– D	£EÄ
	pointit-to-point	A'5BA¹ y ·,XE² y2O _ SRL Q W WR SRL Q W
	shared	A'5BA¹ y ·,XE² y2O _ VK D U H G

5 ,ÖG!5B y ·2O _ < ¹ Ê ÈA¹ y ·,XE² y2O _ SRL Q W WR·2O SRL Q W A¹ y ·
 ,XE² y2O _ VK D U H G

Q , ð ä	y ·G!5B ð ä Ä
---------	---------------

S*ü Ò Ð	‘
---------	---

G!5B –	Ruijie(config)#	interface gigabitethernet	1/1
	Ruijie(config-if)#	spanning-tree link-type point-to-point	

Q ,

Q , Z Æ	(Ë	AÈ â

9.1.15 spanning-tree max-hops

ü < G!5B õ ã ß S*ü!8 Q , Ã ¹A'5B % 3 ' 8ü,X Ô ûCÇ D Ä 0 D[K R S V Å È W Q W
Z % 3 ' 8ü Ô þ 5 H J L R 4 E > î å ÄA' Û â>• ö × È J Í Ý,X , Q V W D Q Å S ü Q R
E Ý N M Ã ¹ Ú A¹ Q , 6 á 7 Ç 5 , Ö Ä

spanning-tree max-hops hop-count

no spanning-tree max-hops

– DAÈ â	– D	£EÄ
	hop-count	% 3 ' 8ü>• ö × ! Ã ¹4E>A' Û,X õ D È8× È É

5 ,ÖG!5B hop-count ,X5 ,Ö

Q , õ ã < G!5B õ ã

S*ü Û Ð ü 5 H J L R 5 R R W % 4 E Ö X 1 4 B ' 8Ü ý Ô þ + R W & R N K E W R R W % Ö Ý È J H
!£4E> Ô þA' Û È + R S & R X i Q W È,È í></ A¹ % 3 ' 8µ C C Y Ê ÈA' Û
+ R S V ,X % 3 ' 8 ? U ö × W Ä
¬ P D[K R U S E V i Ý , Q V W D Q F H

G!5B _ ß _ Ú ^ Ý 0 6 7 , Q V W D Q F H K R S V Ö
Ruijie(config)# spanning-tree max-hops 10
3 Ã ¹K 9 show spanning-tree mst (M Q ,P`A• þEÄG!5B

,ì G Q ,	Q ,	£EÄ
	show spanning-tree	¹,ß 0 6 7 3µ C

G ÄAÈ â ´

Q , Z Æ	(Ë	AÈ â

9.1.16 spanning-tree mode

ü < õ ã ß S*ü!8 Q , 6 7 3 Ä S*ü Q RÝNM Ä¹Ú*ó ä å(6 á7Ç5 ,Õ Ä

spanning-tree mode >stp_rstp _mstp @

no spanning-tree mode

– DAÈ å	– D	£EÄ
	stp	6SDQQLQJ WUHH SURWRFRO ,(((G
	rstp	5DSL G VSDQQLQJ WUHH SURWRFRO ,(((
	mstp	0XOWLSOH VSDQQLQJ WUHH SURWRFRO

5 ,ÕG!5B	0 6 7 3
----------	---------

Q , õ ã	< G!5B õ ã
---------	------------

S*ü Ò Ð	‘
---------	---

G!5B _	Ruijie(config)# spanning-tree mode stp
--------	--

,ì G Q ,	Q ,	£EÄ
	show spanning-tree	¹,ß*ó ä åG!5B

G ÄÄÈ å	‘
---------	---

Q , Z Æ	(È	ÄÈ å

9.1.17 spanning-tree mst configure

ü < õ ã ß S*ü!8 Q , Ä¹E⁻ 9 0 6 7 õ ã ÈG!5B 0 6 7 3 5 H J L R Q Ä RÝNM Ä¹Ú¹
Q , ß Ý – D Ä Q D P H Ä U H Y L Ä Y L Ä Q Q P D S Å 6 á7Ç5 ,Õ Ä

spanning-tree mst configuration

no spanning-tree mst configuration

– DAÈ å	– D	£EÄ

5,ÖG!5B	5,Ö L Q V W D Q D P B N + 0 ú Ä U H Y L V L Ä Q	Ý,X 9 O B Ñ ü , Q V W D Q F H 0 € V W D 5 I
Q , ö ä	< G!5B ö ä	Ü È
	?UE¨² (M ö ä ÈEg 9 H Q Q , È ê K 9 & W U 4 Ü K Ä ?UE¨² < G!5B ö ä ÈEg 9 H [L Q W Ä E¯ 9 0 6 7 G!5B ö ä â È Ä¹ S*ü¹ ß Q , E¯ > G!5B – D Ö instance instance-id M n vlan-range Ö Ú 9 O D t 0 6 7 , Q V W D Q F H L Q V W D , Q F È L É Ä Y O , Q È É Ä Y O D Q U D Q Ô H Y O , Q Ü È 9 / \$ 1 , ?•üEë ÈLh Ô ÈE² 4 Á, X 9 / \$ 1 , Ä¹ S*ü p É y E² y ø p 9 / \$ 1 , 4 ð – D Ö nÒ	Ü È

S*ü Ü Ð

```

Ruijie(config-mst)#      exit
Ruijie(config)#
V p?U Ú 9 / $ 1  ¢ , Q V W D Q F H E Fw E ¯ 9  0 6 7G!5B õ ã â È ;> V ß,XE>/ß
Ruijie(config-mst)#      no instance      1  vlan   3
V p?U Ú H p , Q V W D Q F H E •"© V ß Ö
Ruijie(config-mst)#      no instance      1
| Ã¹EîE>  0 6 7G!5B Q , ,X  V K R FZA• PEÄE>/ß Ä

```

,l G Q ,

Q ,	£EÄ
show spanning-tree mst	¹,ß 0 6 7 U H G!5B Q
instance instance-id vlan vlan-range	9 0 0 0 t 0 6 7 , Q V W D Q F H
name	G!5B 0 6 7,X á +
revision	G!5B 0 6 7,X(È
show	ü 0 6 7 õ ã ß ¹,ß 0 6 7 õ ã

G ÄÄÈ â

Q , Z Æ

(È	AÈ â

9.1.18 spanning-tree mst cost

ü y · õ ã ß S*ü!8 Q ,A'5B!£ p , Q V W D Q F H ...C Ä S*ü Q BÝNM Ä¹ ÚA¹ Q , 6 á7Ç
5,Ö Ä

spanning-tree mst instance-id] cost cost

no spanning-tree >mst instance-id @ cost

– D	£EÄ
instance-id	, Q V W D Q F H E É

Q, õ ã	y ·G!5B õ ã								
S*ü Ü Đ	F R V W Ü > < â C ã X 8...C C ^ P ¬								
G!5B –	4- Ô p ` , Q V W D, Q 5 B X y ·G!5B C ã X 8...C •"© V ß Ö Ruijie(config)# interface gigabitethernet 1/1 Ruijie(config-if)# spanning-tree mst 3 cost 400 3 ã ¹K 9 show spanning-tree mst interface interface-id (M Q ,P`A• ÐEÄ!5B								
ì G Q ,	<table> <tr> <th>Q ,</th><th>£EÄ</th></tr> <tr> <td>show spanning-tree mst</td><td>¹,ß y ·,X 0 6 7 3µ C Ä</td></tr> <tr> <td>spanning-tree mst port-priority</td><td>G!5B y · ì 4{</td></tr> <tr> <td>spanning-tree mst priority</td><td>L Q V W G!5B F H{</td></tr> </table>	Q ,	£EÄ	show spanning-tree mst	¹,ß y ·,X 0 6 7 3µ C Ä	spanning-tree mst port-priority	G!5B y · ì 4{	spanning-tree mst priority	L Q V W G!5B F H{
Q ,	£EÄ								
show spanning-tree mst	¹,ß y ·,X 0 6 7 3µ C Ä								
spanning-tree mst port-priority	G!5B y · ì 4{								
spanning-tree mst priority	L Q V W G!5B F H{								
G ÄÄÈ â	´								
Q , Z Æ	<table> <tr> <th>(È</th><th>AÈ â</th></tr> <tr> <td></td><td></td></tr> </table>	(È	AÈ â						
(È	AÈ â								

9.1.19 spanning-tree mst port-priority

Û y · G!5B õ ã ß S*ü!8 Q , Ã ¹A'5BA¹ y · J! í á à , Q V W D Q Æ X Ñ · ì 4{ È- Ú
E j 5 H J L P Q à) f CÃ , X ¾ p0Ã · î Ø b ¥EÕ(Š Œ Ä S*ü Q Æ Ý NM Ã ¹ Ú A¹ Q , 6 á
7C5, Œ Ä

```
spanning-tree mst instance-id @ port-prioritypriority
```

```
no spanning-tree >mst instance-id @ port-priority
```

	- D	£EÄ
- DAÈ â	Instance-id	, Q V W D Q F H É
	priority	OÃ · ì 4{ È ÃÉÝ*ü È E þ H D È ,X á D Ä
5 ,ÖG!5B	, Q V W D Q F JÖ L G S U L R X S JÖW \	
Q , õ ä	y ·G!5B õ ä	

G!5B _	ß _4- , Q V W D Q A 5 B XA' Û ì 4{ A' Ö
	Ruijie(config-if)# spanning-tree mst 20 priority 8192
	Ã ¹K 9 show spanning-tree mst instance interface interface-id (M Q ,P`A• ÐEÄ G!5B Ä

,l G Q ,	Q ,	£EÄ
	show spanning-tree mst	¹,ß y ·,X 0 6 7 3µ C Ä
	spanning-tree mst cost	A'5BCÄ X8...C Ä
	spanning-tree mst port-priority	4- á à , Q V W D'5BÄ ì 4{ Ä

G ÄÄÈ á

Q , Z Æ	(È	AÈ á

9.1.21 spanning-tree pathcost method

G!5B0Ä ·CÄ X8...C ,X5 ,ÖAu1k •"© Ä S*üA¹ Q ,X Q BÝNM ÚA¹A'5B 6 á ä5 ,Ö Ä
spanning-tree pathcost method >long short @
no spanning-tree pathcost method

- DAÈ á	- D	
	long	G>*ü Ű šA' n S D W K ,Ŧ Æ V W
	short	G>*ü Œ Ű šA' n S D W K ,Ŧ Æ V W

5 ,ÖG!5B 5 ,ÖG>*ü 7 Ű šA' n 3 D W K ,Ŧ Æ V W

Q , õ ä < G!5B õ ä Ä

S*ü Ű Ð —ä R V Ñ°)~@\$ 4řf,,\$ F1 \$i±€Bñ QB2# `@ 0

G ÄÄÈ â

(È

spanning-tree portfast bpdudfilter default

no spanning-tree portfast bpdudfilter default

– DAÈ â	– D	£EÄ
5 ,ÖG!5B	5 ,Ö GKÁ % 3 ' 8 I L O W H U	
Q , õ ä	< G!5B õ ä Ä	
S*ü Ü Ð	' Ô % 3 ' 8) L @ Æ Ì H 0 Ä · î ¶ á ¥ 3 á % 3 ' 8 Ä S*ü show spanning-tree Q , 1, ßA'5B Ä	
G!5B _	Ruijie(config)# spanning-tree portfast bpdudfilter default	
, Ì G Q ,	Q ,	£EÄ
	show spanning-tree interface	/ 6 7 3< G!5B Ä
G ÄÄÈ â	'	
Q , Z Æ	(È	AÈ â

9.1.24 spanning-tree portfast bpduguard default

< ,X' Ô % 3 ' 8 J X Æ Ü G Ä 1*üA¹ Q , ,X Q RÝNM < ,X GKÁ% 3 ' 8 J X Æ Ü G

spanning-tree portfast bpduguard default

no spanning-tree portfast bpduguard default

– DAÈ â	– D	£EÄ
5 ,ÖG!5B	5 ,Ö GKÁ % 3 ' 8 * X D U G	
Q , õ ä	< G!5B õ ä Ä	
S*ü Ü Ð	' Ô % 3 ' 8 J X Æ Ü G Ä 1*üA¹ 0Ä · P % 3 ' 8 È í E ¯ 9 H U U R U G (S Ö Ä S O H G show spanning-tree Q , 1, ßA'5B Ä	

G!5B _	Ruijie(config)#	spanning-tree portfast bpduguard	default
,l G Q ,	Q ,		£EÄ
	show spanning-tree interface		/ 6 7 3< G!5B
G ÄÄÈ ä	/		
Q , Z Æ	(È	AÈ ä	

9.1.25 spanning-tree portfast default

< 'Ô Ý y ·,X 3 R U W Ô Ð V W A¹ Q ,X Q RÝNM < GKÁ Ý y ·,X 3 R U W Ô Ð V W

spanning-tree portfast default

no spanning-tree portfast default

- DAË â	- D	£EÄ
5 ,ÖG!5B	5 ,Ö GKÁ Ý y ·,X 3 R U WÔ Ð V W	
Q , õ ä	< G!5B õ ä Ä	
S*ü Ü Ð	/	
G!5B _	Ruijie(config)# spanning-tree portfast default	
,l G Q ,	Q ,	£EÄ
	show spanning-tree interface	/ 6 7 3< G!5B Ä
G ÄÄË â	/	
Q , Z Æ	(Ë	AË â

9.1.26 spanning-tree reset

Ú H p V S D Q Q L Q 5 B W A¹ H ,Ö ÄÄ¹ Q , "u Ý Q RÝNM Ä

spanning-tree reset

– DAË â	– D	£EÄ

5 ,ÖG!5B

Q , ð ä < G!5B ð ä Ä

S*ü Û Ð

G!5B _ Ruijie(config)# spanning-tree reset

Q ,	£EÄ
show spanning-tree	/ 6 7 3< G!5B µ C Ä

G!5B 0 6 7 3 Q ,

9.1.29 spanning-tree tc-protection tc-guard

< 'Ô W F J XÖDÜÄG*üA¹ Q ,X Q BÝNM < GKÁW F J XÖDÜÄG*ü W F J XSD U G
6Ñ È6ÑL !6 WYF[,X = 7 Ä

spanning-tree tc-protection tc-guard

no spanning-tree tc-protection tc-guard

– DAÈ à	– D	£EÄ
5 ,ÖG!5B	5 ,Ö GKÁ W F J XÖDÜÄG	
Q , õ ä	< G!5B õ ä Ä	
S*ü Ô Ð	‘	
G!5B _	Ruijie(config)# spanning-tree tc-protection tc-guard	
,l G Q ,	Q ,	£EÄ
G ÄÄÈ à	‘	
Q , Z Æ	(È	AÈ à

9.1.30 spanning-tree tx-hold-count

6 7 3< ,X 7 [+ R O G &AF5B È6ÑL !6 WYF[,X % 3 '8p D ÄS*üA¹ Q ,X Q BÝNM
ÚA¹A'5B 6 á ä5 ,Ö Ä

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

no spanning-tree tx-hold-count

– DAÈ à	– D	£EÄ
5 ,ÖG!5B	5 ,Ö Ä	
Q , õ ä	< G!5B õ ä Ä	

S*ü Ū Đ		
G!5B _	Ruijie(config)#	spanning-tree tx-hold-count 5
,l G Q ,	Q ,	£EÄ
	show spanning-tree	/ 0 6 7 3< G!5B μ C Ä
G ÄÄÈ â		
Q , Z Æ	(Ë	AÈ â

9.2 < ü » w W

9.2.1 show spanning-tree

/ `ó ä å,l G,X< G!5B μ C Ä

show spanning-tree summary _ forward-time _ hello-time _ max-age _
inconsistentports| tx-hold-count _pathcost method _max_hops | counters >interface
interface-id @ @

- D	£EÄ
summary	/ 0 6 7 3X Ø L Q V W,Ø Q C F H U0Ä ·E@ ¥(Š Ő μ C Ä
Inconsistentports	/ ´ ± x è)fCÄ ± x5à E O F X0Ä · Ä
forward-time	/ % U L G J H) R U Z Ä D U G ' H O D \
hello-time	/ % U L G J H + H Ä O O R 7 L P H
max-age	/ % U L , S Ø H L Q M W D H Q Ä Ö (Ä ö H B w 4 @ P H Ä T a y Ä -aFhE

S*ü Ü Ð

G!5B _

Ruijie# show spanning-tree hello-time

,l G Q ,

Q ,	£EÄ
spanningtree pathcost method	A'5BCÄ X8...C ,X •"©
spanning-tree forward-time	A'5B % U L G J H) R U Z Ä U G ' H O D \
spanning-tree hello-time	A'5B % U L G J H + H Ä O O R 7 L P H
spanning-tree max-age	A'5B % U L G J H 0 Ä [\$ J H
spanning-tree max-hops	A'5B L Q V W , D Ö U C D
spanning-tree tx-hold-count	/ 7 [+ R O G & R X Q W

G ÄÄÈ ä

Q , Z Ä

(È	AÈ ä
E S	V K R Z V S D Q Q L Q J W U M F R X Q W H U V

9.2.2 show spanning-tree interface

/ 6 7 3y ·A'5B Ä Ü Ä ÄEÝ*ó ä åG!5B Ä

show spanning-tree interface interface-id > ^bpdufilter _portfast _bpduguard _
link-type ` @

- DAÈ ä

- D	£EÄ
interface-id	0Ä · È
bpdufilter	/ E S G X I (Ö W H U
portfast	/ S R U V Ö W
bpduguard	/ E S G X J Ö W
link-type	/ 0Ä ·,X O L Q N W \ S H

5 ,ÖG!5B

Q , ö ä

(M ö ä Ä

S*ü Ü Ð

G!5B _ Ruijie# show spanning-tree interface gigabitethernet 1/5

,l G Q ,	Q ,	£EÄ
	spanning-tree bpdupfilter	' Ô ¢ p y ,X % 3 ' 8 I L Ô WÄ U
	spanning-tree portfast	' Ô ¢ p y ,X S R U WÄ Ø X W
	spanning-tree bpduguard	' Ô ¢ p y ,X % 3 ' 8 J X Ø UGÄ
	spanning-tree link-type	G!5B y ,XE² y2O _ á &• Í&•E² y´ Ä

G ÄÄÈ ä

Q , Z ÄE	(Ë	AÈ ä

9.2.3 show spanning-tree mst

ü(M õ ä ß S*ü!8 Q , Ä¹¹,ß 0 6 7G!5B È , Q V W,Ø ØEÄ

show spanning-tree mst ^configuration _instance-id interface interface-id @ `

- DAÈ ä	- D	£EÄ
	configuration	A' Ü,X P VQW
	instance-id	Instance Ë
	interface-id	0Ä · È

5,ÖG!5B 5,Ö / Ý , Q V WØ Q F H

Q , õ ä (M õ ä

S*ü Ü Ø

G!5B _ Ruijie# show spanning-tree mst configuration

,l G Q ,	Q ,	£EÄ
	spanning-tree mst configuration	E 9 0 6 7 U H G!5B Q
	spanning-tree mst cost	/ L Q V W,ØÄ XBL..C
	spanning-tree mst max-hops	/ L Q V W,Ø Q ØC D
	spanning-tree mst priority	/ L Q V W,ØQÜ F H

	spanning-tree mst port-priority	/ L Q V W, X Y F i H
G Ä Ä È â		
Q , Z Æ	(È	A È â

10 ´ " ` k ô m a Â w W

10.1 ´ ü » w W

#A, ûEã ôG!5B1u)Ú Û À ¹ ß, ì G Q , Ö

„ EULGJH IUDPH IRUZDUGLQJ SURWRFRO ESGX

„ EULGJH IUDPH IRUZDUGLQJ SURWRFRO JYUS

„ EULGJH IUDPH IRUZDUGLQJ SURWRFRO [

„ EULGJH IUDPH IRUZDUGLQJ SURWRFRO UHVHUYHG PX

„ EULGJH IUDPH IRUZDUGLQJ SURWRFRO FLVFR SYVW

10.1.1 bridge-frame forwarding protocol 802.1x

Ô ; #A, ûEã ô s6Ñ Ä S*üA¹ Q ,X no EÝNM Ú GKÁ ; #A, ûEã ô s6Ñ Ä

bridge-frame forwarding protocol 802.1x

no bridge-frame forwarding protocol 802.1x

– DAÈ â	– D	£EÄ
	no	GKÁ ; #A, ûEã ô s6Ñ

5 ,ÖG!5B

Q , õ ä < G!5B õ ä

S*ü Û Ð

_ Ö üA' Û Þ Ö % 3 ' 8#A, ûEã ô s6Ñ Ö
 Ruijie(config)# bridge-frame forwarding protocol 802.1x
 _ Ö üA' Û Þ GKÁ % 3 ' 8#A, ûEã ô s6Ñ Ö
 Ruijie(config)# no bridge-frame forwarding protocol 802.1x

, ì G Q ,	Q ,	£EÄ
	-	

G ÄÄÈ â

(Ě

	no	GKÁ3 9 6 7#A, ûEã ô s6Ñ
5 ,ÖG!5B		
Q , õ ã	< G!5B õ ã	
S*ü Ü Ð		
G!5B _	_ Ö üA' Ü Þ Ö % 3 ' 8#A, ûEã ô s6Ñ Ö Ruijie(config)# bridge-frame forwarding protocol cisco-pvst _ Ö üA' Ü Þ GKÁ % 3 ' 8#A, ûEã ô s6Ñ Ö Ruijie(config)# no bridge-frame forwarding protocol cisco-pvst	
,l G Q ,	Q ,	£EÄ
G ÄÄÈ â		
Q , Z Æ	(Ë	AÈ â

10.1.4 bridge-frame forwarding protocol gvrp

Ö * 9 5 3 #A, ûEã ô s6Ñ Ä S*üA¹ Q ,X no EÝNM Ú GKÁ9 5 3 #A, ûEã ô s6Ñ Ä
 bridge-frame forwarding protocol gvrp
 no bridge-frame forwarding protocol gvrp

- DAÈ â	- D	£EÄ
	no	GKÁ* 9 5 3 #A, ûEã ô s6Ñ
5 ,ÖG!5B		
Q , õ ã	< õ ã	
S*ü Ü Ð		
G!5B _	_ Ö üA' Ü Þ Ö % 3 ' 8#A, ûEã ô s6Ñ Ö Ruijie(config)# bridge-frame forwarding protocol gvrp	

#A, ûEã ô1u)Ú Q ,

Q , Z Æ	(Ë	AÈ â

11 ' GVRP w W

11.1 ' ü » w W

11.1.1 gvrp applicant state

A¹ Q , A'5B0Ã · ,XEî õ ã È { 0Ã · ú ¥EÖ * 9 5 3Eî Ä S*üA¹ Q , ,X Q BÝNM 6 á5 ,ÖA'5B

gvrp applicant state normal _non-applicant `

no gvrp applicant state

– DAÈ â	– D	£EÄ
5 ,ÖG!5B	ACE0Ã · ¥EÖ * 9 5 3Eî Ä	
Q , õ ã	y · G!5B õ ã	
S*ü Ü Ð	S*ü show gvrp configuration Q , , ¹ BA'5B	
G!5B _	Ruijie(config-if)# gvrp applicant state normal	
,ì G Q ,	Q ,	£EÄ
	show gvrp configuration	/ * 9 5 3G!5B µ C
G ÄÄÈ â	´	
Q , Z Æ	(È	AÈ â

11.1.2 gvrp dynamic-vlan-creation

A¹ Q , { ú ACE | Ö î Î Y O Ð S*üA¹ Q , ,X Q BÝNM 6 á5 ,ÖA'5B Ä

gvrp dynamic-vlan-creation enable

no gvrp dynamic-vlan-creation enable

– DAÈ â	– D	£EÄ
5 ,ÖG!5B	/U!6 Ö ĭ Î Y O D Q	
Q , õ ã	< G!5B õ ã	
S*ü Ü Ð	S*ü show gvrp configuration Q , ,ßA'5B	
G!5B _	Ruijie(config)# gvrp dynamic-vlan-creation enable	
, ì G Q ,	Q ,	£EÄ
	show gvrp configuration	/ * 9 5 3G!5B µ C
G ÄÄÈ â	´	
Q , Z Æ	(Ë	AÈ â

11.1.3 gvrp enable

A¹ Q , ' Ô * 9 5 3 s6Ñ È S*üA¹ Q , ,X Q Æ á5 ,ÖA'5B Ä

gvrp enable

no gvrp enable

– DAÈ â	– D	£EÄ
5 ,ÖG!5B	GKÁ * 9 5 3	
Q , õ ã	< G!5B õ ã	
S*ü Ü Ð	S*ü show gvrp configuration Q , ,ßA'5B	
G!5B _	Ruijie(config)# gvrp enable	
, ì G Q ,	Q ,	£EÄ

G!5B*953Q,

11.2 < ü » w

11.2.1 clear gvrp

#ÜL8* 9

clear gvrp

– DAÈ â

£EÄ

5 ,ÖG!5B

Q , õ ä

S*ü Û Ð

G!5B _

S*ü Ü Ð	S*ü show gvrp configuration Q , ¹,ßG!5B µ C	
G!5B _	Ruijie# show gvrp configuration Global GVRP Configuration: GVRP Feature:enabled GVRP dynamic VLAN creation:enabled Join Timers(ms):200 Join Timers(ms):600 Join Timers(ms):10000 Port based GVRP Configuration: Port:GigabitEthernet 3/1 app mode:normal reg mode:normal Port:GigabitEthernet 3/2 app mode:normal reg mode:normal Port:GigabitEthernet 3/3 app mode:normal reg mode:normal Port:GigabitEthernet 3/4 app mode:normal reg mode:normal Port:GigabitEthernet 3/5 app mode:normal reg mode:normal Port:GigabitEthernet 3/6 app mode:normal reg mode:normal Port:GigabitEthernet 3/7 app mode:normal reg mode:normal Port:GigabitEthernet 3/8 app mode:normal reg mode:normal Port:GigabitEthernet 3/9 app mode:normal reg mode:normal Port:GigabitEthernet 3/10 app mode:normal reg mode:normal Port:GigabitEthernet 3/11 app mode:normal reg mode:normal Port:GigabitEthernet 3/12 app mode:normal reg mode:normal	
‚ì G Q ,	Q ,	£EÄ
G ÄÄÈ â	´	
Q , Z Æ	(Ë	AÈ â

11.2.3 show gvrp statistics

/ Ô p0Ã · ê Ý0Ã ·,X * 9 5 34³Au
show gvrp statistics interface-id all `

– DAÈ à	– D	£EÄ
	interface-id	5%4° y · ,'

5 ,ÖG!5B

Q , õ ã

S*ü Ò Ð

S*ü show gvrp statistics / Ô p0Ã · ê Ý0Ã ·,X * 9 5 34³Au

G!5B _	Ruijie# show gvrp statistics gigabitethernet	1/1
	Interface GigabitEthernet 3/1	
	RecValidGvrpPdu 0	
	RecInvalidGvrpPdu 0	
	RecJoinEmpty 0	
	RecJoinIn 0	
	RecEmpty 0	
	RecLeaveEmpty 0	
	RecLeaveIn 0	
	RecLeaveAll 0	
	SentGvrpPdu 0	
	SentJoinEmpty 0	
	SentJoinIn 0	
	SentEmpty 0	
	SentLeaveEmpty 0	
	SentLeaveIn 0	
	SentLeaveAll 0	
	JoinIndicated 0	
	LeaveIndicated 0	
	JoinPropagated 0	
	LeavePropagated 0	

,ì G Q ,	Q ,	£EÄ
	clear gvrp statistics	#ÜL8 Ô p0Ã · ê Ý0Ã ·,X * 9 5 34³Au

G ÄÄÈ à

Q , Z Æ	(Ë	AÈ â

11.2.4 show gvrp status

/ + * 9 5 3*ó ä,X | Ö 9 / \$ 1,X Ý ä ,0Ã · ` t 9M- Ö 9 / \$ 1,X | Ö ä ,0Ã · Ä

show gvrp status

– DAÈ â	– D	£EÄ

5 ,ÖG!5B

Q , ö ä

(M ö ä

S*ü Û Ð

S*ü show gvrp status Q , / * 9 5 3(Š Ö

G!5B _

Ruijie# show gvrp status

,l G Q ,	Q ,	£EÄ

G ÄAÈ â

Q , Z Æ	(Ë	AÈ â

12 ´ LLDP w W

12.1 civic-location

G!5B / / ' 3 BEĭ μ C Ä*ü Ä ¹ S*ü Q BÝNM ôL8 μ C

{ country | state | county | city | division | neighborhood | street-group | leading-street-dir | trailing-street-suffix | street-suffix | number | street-number-suffix | landmark | additional-location-information | name | postal-code | building | unit | floor | room | type-of-place | postal-community-name | post-office-box | additional-code } ca-word

no {country | state | county | city | division | neighborhood | street-group | leading-street-dir | trailing-street-suffix | street-suffix | number | street-number-suffix | landmark | additional-location-information | name | postal-code | building | unit | floor | room | type-of-place | postal-community-name | post-office-box | additional-code } ca-word

İ – DAÈ â Ð

– D	£EÄ
country	Ñ Š ·-Ö È þ +0ú Ä F K L Q Ð +
state	μ C & \$2O _
county	& \$2O _
city	& \$2O _
division	& \$2O _
neighborhood	& \$2O _
street-group	& \$2O _
leading-street-dir	& \$2O _
trailing-street-suffix	& \$2O _
street-suffix	& \$2O _
number	& \$2O _
street-number-suffix	& \$2O _
landmark	& \$2O _
additional-location-information	& \$2O _
name	& \$2O _
postal-code	& \$2O _
building	& \$2O _
unit	& \$2O _
floor	& \$2O _
room	& \$2O _
type-of-place	& \$2O _
postal-community-name	& \$2O _
post-office-box	& \$2O _
additional-code	& \$2O _

ca-word	μ C
---------	-----

İ5 ,ÖG!5B Đ

İQ, ðãĐ // '3 &LYLF \$G5B0HVV

İS*üÜĐĐ E⁻9 // '3 &LYLF \$G5B0HVV B-DAÈâ ,XQ, ÄFRXQWÄ\|VWÄWFXQÄWFLÄ\ GLYLÄLQQLJKERÄKVRUGHVÄ JHFXSLQJ ÄWUHHWOGQU ÄWUUMHMHÄXVIX[IL[QXPEHÄU VWUHHW QXPÄEHODVQGFÄUNGGLWLRQDO ORFÄWLQDPÄQIRUPDW SRVWDOÄFRXHOÄLQÄMORÄRWRÄP WISH RIÄSOBRMWDO FRPPÄQLW\ QDP SRVW RIILÄUH BÄGLWLÄQ!BQ/FÄRGH d, Đđ0

```
7KH QXPEHU RI OOGS IUDPHV WUDQVPLWWHG
7KH QXPEHU RI IUDPHV GLVFDUGHG
7KH QXPEHU RI HUURU IUDPHV
7KH QXPEHU RI OOGS IUDPHV UHFHLYHG
7KH QXPEHU RI 7/9V GLVFDUGHG
7KH QXPEHU RI 7/9V XQUHFRJQLJHG
7KH QXPEHU RI QHLJKERU LQIRUPDWLRQ DJHG RXW
```

İ,İ G Q , Đ

Q ,	£EÄ

İ G ÄÄÊ â Đ

12.3 clear lldp table

```
#ÜL8LLDP ,XF• µ C
clear lldp table [interface interface-name ]
```

İ – DAÈ â Đ

– D	£EÄ
interface-name	y · á/Ä

İ5 ,ÖG!5B Đ

İ Q , õ ä Đ (M õ ä

İ S*ü Ü Đ Đ „ Ü n LQWHUIDFH #ÜL8 Ü ny ·,X / / ' 3 F• µ C Ä

„ á Ü n LQWHUIDFH #ÜL8 Ý y ·,X / / ' 3 F• µ C

İG!5B _ Đ #ÜL8 y · 1,X LLDP F• µ C Ö

5XLMLH VKRZ OOGS QHLJKERUV LQWHUIDFH *LJDELW(WKHUQHW
/OGS VWDWLVLVLFV LQIRUPDWLRQ RI SRUW >*LJDELW(WKHUQHW @

7KH QXPEHU RI OOGS IUDPHV WUDQVPLWWHG
7KH QXPEHU RI IUDPHV GLVFDUGHG
7KH QXPEHU RI HUURU IUDPHV
7KH QXPEHU RI OOGS IUDPHV UHFHLYHG
7KH QXPEHU RI 7/9V GLVFDUGHG
7KH QXPEHU RI 7/9V XQUHFRJQLJHG
7KH QXPEHU RI QHLJKERU LQIRUPDWLRQ DJHG RXW
5XLMLH FOHDU OOGS WDEOH LQWHUIDFH *LJDELW(WKHUQHW

5XLMLH VKRZ OOGS QHLJKERUV LQWHUIDFH *LJDELW(WKHUQHW

İ,İ G Q , Đ

Q ,	£EÄ

İ.G.ÄÄÈ â Đ

12.4 device-type

G!5BA' Ū2O _ μ C Ä*ü Ä ¹ S*ü noEÝNM ôL8A¹A' Ū2O _ μ C Ä
device-type device-type
no device-type

İ – DAÈ â Đ

– D	£EÄ
-----	-----

A' Ū2O _ Ä ª 8× È 8× 00

device-type

İ,İ G Q , Đ

Q ,	£EÄ
show lldp status	/ / / ' 3 ,X(Š Œ µ C

İ G ÄÄÈ â Đ

12.7 lldp error-detect

G!5B / / ' 3 JíÄÄ "# s6Ñ ÈJíÄÄ "# Û ÀJÒCÄ ø0Ä,X 9 / \$ 1G!5B "# Ä0Ä .(Š Œ "# Ä0Ä .6. ÜG!5B "

Ä 0 7 8G!5B "# ž)fCÄ "# Ä ' / / ' 3 "# JíÄÄ È È Ú ' DA: µ C □ / 1u)Ú , Ä

lldp error-detect

no lldp error-detect

İ – DAÈ â Đ

– D	£EÄ

İ5 ,ÖG!5B Đ 5 ,Ö ' Ö / / ' 3 JíÄÄ "# s6Ñ

İ Q , ö ä Đ y ·G!5B ö ä

İ S*ü Ü Đ Đ / / ' 3 JíÄÄ "# s6Ñ qM4JÒCÄ ø0Ä,XA' Ü x f / / ' 3 y [,X(M n,X 7 / 9µ CE¯> ,X È Z ±A• "#

s6Ñ,X!7.BE□> ÈLÔ?UA' Ü ¥ ×!7.B,X 7 / 9µ C Ä

İG!5B _ Đ G!5B / / ' 3 JíÄÄ "# s6Ñ Ö

```
5XLMLH FRQILJXUH WHUPLQDO
5XLMLH FRQILJ LQWHUIDFH JLDDELWHWKHUQHW
5XLMLH FRQILJ LI *LJDELW(WKHUQHW OOGS HUURU GHWHFW
```

İ,İ G Q , Đ

Q ,	£EÄ
show interface status	/ / / ' 3 ,X(Š Œ µ C

İ G ÄÄÈ â Đ

12.8 lldp hold-multiplier

G!5B 7 7 / , D È S*ü no EÝNM Ä 6 á5 ,ÖG!5B Ä

lldp hold-multiplier value

no lldp hold-multiplier

İ – DAÈ â Đ

– D	£EÄ
value	7 7 / , D È5 ,Ö ÈG!5B8× È

İ5 ,ÖG!5B Đ 5 ,Ö

İ Q , õ ã Ð < G!5B õ ã

İ S*ü Ü Ð Ð / / ' 3 y [7 L P H 7 R / L , X H 7 7 / Ð , D h y [¥ E Ö Ê K È K È L h Ä ' 1 8 È È Ê × H 7 7 / , D Ä ¹
{ A' Ü µ C ü F • A' Ü , X , # Ê K È Ä

İ G!5B _ Ð G!5B 7 7 / , D

```
5XLMLH FRQILJXUH WHUPLQDO
5XLMLH FRQILJ OOGS KROG PXOWLSOLHU
```

İ , İ G Q , Ð	Q ,	£ E Ä
	show lldp status	/ / / ' 3 , X (Š Ö µ C

İ G Ä Ä È â Ð

12.9 lldp location civic-location identifier

E[−] 9 LLDP Civic Address G!5B õ ã È Î 5 % 4 ° E ² y A' Ü , X B E Î µ C Ä ü Ä ¹ S * ü no E Ý N M ô L B L D P
Civic Address µ C Ä
lldp location civic-location identifier id
no lldp location civic-location identifier id

İ – D Ä È â Ð	– D	£ E Ä
	id	5 % 4 ° A' Ü B E Î µ C , X Ü A Š È È × È Ö 1 - 1 0 2 4 Ä

İ 5 , Ö G!5B Ð

İ Q , õ ã Ð < G!5B õ ã

İ S*ü Ü Ð Ð S*ü ! 8 Q , Ä E[−] 9 LLDP Civic Address G!5B õ ã Ä

İ G!5B _ Ð İ Î / / ' 3 0 (' 7 / 9 & L Y L F \$ G Q U C H V V Ö

```
5XLMLH FRQILJ
5XLMLH FRQILJ OOGS ORFDWLRQ FLYLF ORFDWLRQ LGHQWLILHU
5XLMLH FRQILJ OOGS FLYLF
```

İ , İ G Q , Ð	Q ,	£ E Ä
	show lldp location civic-location { identifier id interface interface-name static }	/ / / ' 3 & L Y L F \$ G Q U C H V V

İ G Ä Ä È â Ð

12.10 Ildp location elin identifier

G!5B / R F D W L R Q , G H Q W D L X 2 D W A R E Q i C A * ü Ä ¹ S * ü Q B Ý N M ô L 8 A ¹ 2 û ù + A ± È - Ö
µ C Ä
Ildp location elin identifier id elin-location tel-number
no Ildp location elin identifier id

İ – DAÈ â Đ	– D	£EÄ
	id	></ 2û ù+ A± È-Ö µ C,XG!5B ÛAš È È8× È Ö1-1024 Ä
	tel-number	></ 2û ù+ A± È-Ö È8× È Ö10 – 25+8V

İ5 ,ÖG!5B Đ

İ Q , õ ã Đ < G!5B õ ã

İ S * ü Ü < G!5M Â Ó“ Ö >™,X2 < G!5B õ ã

– D ! ? À

İ –

İ S*ü Ü Đ Đ 5 ,Ö ™ %ß È / ' 3 y [¥ × 1u)Ú Ä ¥ × ,X1u)Ú 0Ã · AÇEEİE>,X Ô ã 9 / \$ 1X , 3 Y È V
pA¹ 9 / \$ 1pG!5B , 3 Y È í4»4Á¹ R ß Ô p AÇEEİE>,X Ô ã 9 / \$ 1 È,È R , 3 Y !6 Ä
V p p R , 3 Y È í¹ R0Ã · AÇEEİE>,X Ô ã 9 / \$ 1X , 3 Y Ä
V p i p R , 3 Y È íG>*ü 0 1u)Ú ¥ × Ä

İ G!5B _ Đ G!5B / ' 3 y [¥ × ,X1u)Ú Ö
5XLMLH FRQILJXUH WHUPLQDO
5XLMLH FRQILJ LQWHUIDFH JLDDELWHWKHUQHW
5XLMLH FRQILJ LI *LJDELW(WKHUQHW OOGS PDQDJHPHQW DGGUHV

İ, İ G Q , Đ Q ,	£EÄ
show lldp local-information	/ / ' 3 µ C

İ G ÄÄÈ â Đ

12.12 lldp mode

G!5B / ' 3 ,X¹ 0 ð ã Ä*ü Ä¹ S*ü no EÝNM GKÄ¹ 3 ,X¹ 0 ð ã Ä
lldp mode r× tx txrx `
no lldp mode

İ – DAÈ â Đ – D	£EÄ
rx	></ ¾ y á ¥EÖ / ' 3 ' 8
tx	></ ¾ ¥EÖ á y / ' 3 ' 8
txrx	></ G ¥EÖ æ y / ' 3 ' 8

İ 5 ,Ö G!5B Đ txrx

İ Q , ð ã Đ y · G!5B ð ã

İ S*ü Ü Đ Đ GKÁ y · ,X / ' 3¹ 0 ð ã È!8 Ê y · á a ¥EÖ ` y / ' 3 y [Ä
y · / ' 3 s6Ñ*ó ,X! ¢ < S6Ñ Z / ' 3 è y · / ' 3 ,X¹ 0 ð ã Ø b WÄ U È W [Ä]

İ G!5B _ Đ G!5B y · ,X / ' 3¹ 0 ð ã ¾ ¥EÖ á y / ' 3 ' 8 Ö
5XLMLH FRQILJXUH WHUPLQDO
5XLMLH FRQILJ LQWHUIDFH JLDDELWHWKHUQHW
5XLMLH FRQILJ LI *LJDELW(WKHUQHW OOGS PRGH W[

İ, İ G Q , Đ Q ,	£EÄ
show lldp status	/ / ' 3 (Š Ö µ C

İ G ÄÄÈ â Đ

12.13 lldp network-policy profile

İİ LLDP Q H W Z R U 1*+9 S ROLF\ no EYNM ôLB LDP
Q H W Z R U 1*+9 S ROLF\

lldp network-policy profile profile-num

no lldp network-policy profile profile-num

İ – DAÈ â Đ	– D	£EÄ
	profile-num	LLDP network-policy1*+9,X ÛAš È8× È Ö1-1024 Ä

İ5 ,ÖG!5B Đ -

İ Q , õ ä Đ < G!5B õ ä

İ S*ü Û Đ Đ S*ü!8 Q ,E⁻ 9 / / ' 3 network-policy G!5B õ ä È S*ü!8 Q , ÊLÔ?U Û n1*+9 , ' Ä
E⁻ 9 / / ' 3 network-policy G!5B õ ä â È Ä S*ü ^voice | voice-signaling `vlan Q ,G!5B K ',X
network-policy 1*+9 Ä

İG!5B _ Đ İİ LLDP network-policy1*+9 È1*+9 È 1 Ö

5XLMLH FRQILJ
5XLMLH FRQILJ OOGS QHWZRUN SROLF\ SURILOH
5XLMLH FRQILJ OOGS QHWZRUN SROLF\

İ,İ G Q , Đ	Q ,	£EÄ
	show lldp network-policy profile profile-num @	/ / / ' 3 Q H W Z R U 1*+9 S ROLF\

İ G ÄÄÈ â Đ

12.14 lldp notification remote-change enable

G!5B / / ' 3 7 U BÖÄ S*ü no EYNM GKÄ ' 3 7 U BÖÄ

lldp notification remote-change enable

no lldp notification remote-change enable

İ – DAÈ â Đ – D

İS*ü Ü Đ Đ EİE>G!5B 7 U Đ Ñ È Æ ¹ Ú A' Ü,X // ' 3 µ C Ä _ V ¥), „F• Ä "# âF• ,XEİ µJÒCÃ Lp1
µ C Å ¥EÖ4-5%1u á u < È1u)Ú , Ä ¹ B!8 µ C,¥ {5%4°,XE▯> (Š % Å

İG!5B _ Đ G!5B/'3 7 U Đ Ñ Ö

5XLMLH FRQILJXUH WHUPLQDO
5XLMLH FRQILJ LQWHUIDFH JLJDELWHWKHUQHW
5XLMLH FRQILJ LI *LJDELW(WKHUQHW OOGS QRWLILFDWLRQ UHPR

İ,İ G Q, Đ	Q,	£EÄ
------------	----	-----

12.16 lldp timer reinit-delay

G!5B0Ã · ñ Ÿ ê,X ÊE³ ÊKÈ Ä S*ü no EÝNM Ä¹ 6 á0Ã · ñ Ÿ ê,X ÊE³ ÊKÈ 5,Ö Ä

lldp timer reinit-delay seconds

no lldp timer reinit-delay

İ – DAÈ â Ð	– D	£EÄ
	seconds	0Ã · ñ Ÿ ê,X ÊE³ ÊKÈ ÈG!5B8× È / ₁

İ5,ÖG!5B Ð /₁

İ Q , õ ã Ð < G!5B õ ã

İ S*ü Ū Ð Ð ZFS !0Ã · X¹ 0 õ ã,XNe4 ¬ê éCK,XNe4 ñ Ÿ ê(Š Ö È Ä¹G!5B0Ã · ñ Ÿ ê,X ÊE³ ÊKÈ Ä

İG!5B _ Ð G!5B / / ' 3 0Ã · ñ Ÿ ê,X ÊE³ ÊKÈ /₁ Ö

5XLMLH FRQILJXUH WHUPLQDO
5XLMLH FRQILJ OOGS WLPHU UHLQLW GHOD\

İ,İ G Q , Ð	Q ,	
	show lldp status	/ / / ' 3 ,X(Š Ö µ C

İ G ÄÄÈ â Ð

12.17 lldp timer tx-delay

G!5B / / ' 3 y [,X ¥EÖ ÊE³ ÊKÈ Ä S*ü no EÝNM Ä¹ 6 á ¥EÖ ÊE³ ÊKÈ 5,Ö Ä

lldp timer tx-delay seconds

no lldp timer tx-delay

İ – DAÈ â Ð


```
5XLMLH FRQILJ OOGS WLPHU W[ GHOD\
```

İ,İ G Q , Đ

Q ,	£EÄ
show lldp status	/ / / ' 3 ,X(Š Ő µ C

İ G ÄÄÈ â Đ

12.18 lldp timer tx-interval

G!5B / / ' 3 y [,X ¥EÖ ÊKÈKÈLh Ä S*ü no EÝNM Ä ¹ 6 á ¥EÖ ÊKÈKÈLh 5 ,Ö Ä

lldp timer tx-interval seconds

no lldp timer tx-interval

İ – DAÈ â Đ

– D	£EÄ
seconds	/ / ' 3 y [,X ¥EÖ ÊKÈKÈLh È ÄG!5B8× È

İ5 ,ÖG!5B Đ /,

İ Q , ö ä Đ < G!5B ö ä

İ S*ü Ő Đ Đ

İG!5B _ Đ G!5B / / ' 3 y [,X ¥EÖ ÊKÈKÈLh /, Ö

```
5XLMLH FRQILJXUH WHUPLQDO
5XLMLH FRQILJ OOGS WLPHU W[ LQWHUYDO
```

İ,İ G Q , Đ

Q ,	£EÄ
show lldp status	/ / / ' 3 ,X(Š Ő µ C

İ G ÄÄÈ â Đ

12.19 lldp tlv-enable

G!5B ACE ¥ ×,X 7 / ØO _ Ä S*ü no EÝNM Ä ¹ a#\ ¥ × Ő n,X 7 / ØO _ Ä

```
lldp tlv-enable basic-tlv ^all _port-description _system-capability _system-description _
system-name `dot1-tlv ^all _port-vlan-id _protocol-vlan-id _vlan-id @_vlan-name _vlan-id @ `
dot3-tlv all _link-aggregation _mac-physic _max-frame-size _power `med-tlv all _capabilit \ _
inventory _location ^civic-location _elin `identifier id _network-policy profile _profile-num @ _
power-over-ethernet ` `
```

```
no lldp tlv-enable {basic-tlv ^all | port-description | system-capability | system-description |
system-name } | dot1-tlv ^all | port-vlan-id | protocol-vlan-id | vlan-name } | dot3-tlv { all |
link-aggregation | mac-physic | max-frame-size | power } | med-tlv all _capabilit \ _inventory
```

location clocation elin identifier id network-policy profile >profile-num @_
power-over-ethernet ``

İ – DAÈ â Đ

– D	£EÄ
basic-tlv	Î 1u)Ú 7 / 9

// '3 0 (' J W2O _ ,X 7 /9

ª#\ ¥× // '3 0 (' 7 /9 Ē™NO ª#\ ¥× // '3 0 (' J W2O _ ,X 7 /9 Ē! AĒ ª#\ ¥× // '3 0 ('
& D S D E L O L W \ 7 /9

İG!5B _ Đ G!5B ¥× , (((4~4» n ,X Ý ÆÉÝ 7 /9Ö

5XLMLH FRQILJXUH WHUPLQDO

5XLMLH FRQILJ LQWHUIDFH JLJDELWHWKHUQHW

5XLMLH FRQILJ LI *LJDELW(WKHUQHW OOGS WOY HQDEOH GRW W

ÚLLDP QHWZRUN+SRDLF\ 0/1 ÞÖ

5XLMLH FRQILJ

5XLMLH FRQILJ LQWHUIDFH JLJDELWHWKHUQHW

5XLMLH FRQILJ LI *LJDELW(WKHUQHW OOGS WOY HQDEOH PHG WO

Ú // '3 &LYLF \$G!5B ĆV LG Åhü y· ÞÖ

5XLMLH FRQILJ

5XLMLH FRQILJ LQWHUIDFH JLJDELWHWKHUQHW

5XLMLH FRQILJ LI *LJDELW(WKHUQHW OOGS WOY HQDEOH PHG WO

LGHQWLILHU

Ú20 ù+ A± Ē-Ö µC LG hü y· ÞÖ

5XLMLH FRQILJ

5XLMLH FRQILJ LQWHUIDFH JLJDELWHWKHUQHW

5XLMLH FRQILJ LI *LJDELW(WKHUQHW OOGS ORFDWLRQ HOLQ LGH

İ,İ G Q , Đ

Q ,	£EÄ
show lldp tlv-config interface	/ Ū n y· AĒ ¥×,X 7 /92 ū

İG ÄÄÈ â Đ

12.20 {voice | voice-signaling} vlan

G!5BLLDP network-policy1*+9 Ä*ü Ä¹ S*ü no EÝNM ôL81*+9,X h*ü2O _ Ä

{ voice | voice-signaling } vlan { { vlan-id [cos cvalue | dscp dvalue] } | { dot1p [cos cvalue | dscp
dvalue] } | none | untagged }

no { voice | voice-signaling } vlan

İ – DAÈ â Đ

– D	£EÄ
voice	Ū n YRL, X h*ü2O _
voice-signaling	Ū n YRLFH VL, X h*ü2O _ Q J
vlan-id	Ä ÄÉÝ Ä Ū n AÁMÇ# ü,X YODQ LG È8× È
cos	Ä ÄÉÝ Ä &ODVV RI VHUYLFH
cvalue	Ä ÄÉÝ Ä G!5BAÁMÇ# ,X R VÈ8× È È5 ,Ö
dscp	Ä ÄÉÝ Ä GLIIHUHQWLWDWHG VHUYLFHV FRGH SRLQW

İ S*ü Ū Đ Đ „ Ū n global –D È Ú / Y ¥EÖ,X< // '3 µ C Ä

9/\$1 QDPH RI 9/\$1
3URWRFRO ,GHQWLW\

9/\$1

RUJDQLJDWLRQDOO\ LQIRUPDWLRQ
\$XWR QHJRWLDWLRQ VXSSRUWHG <(6
\$XWR QHJRWLDWLRQ HQDEOHG <(6
30' DXWR QHJRWLDWLRQ DGYHUWLVHG %\$6(7; IXOO GXSOH[PR
2SHUDWLRQDO 0\$8 W\SH VSHHG GXSOH[+DOI
3R(VXSSRUW 12
/LQN DJJUHJDWLRQ VXSSRUWHG <(6
/LQN DJJUHJDWLRQ HQDEOHG 12
\$JJUHJDWLRQ SRUW ,'
0D[LPXP IUDPH 6L]H

//'3 0(' RUJDQLJDWLRQDOO\ LQIRUPDWLRQ
3RZHU YLD 0', GHYLFH W\SH 3'
3RZHU YLD 0', SRZHU VRXUFH /RFDO
3RZHU YLD 0', SRZHU SULRULW\
3RZHU YLD 0', SRZHU YDOXH
0RGHO QDPH 0RGHO QDPH

show lldp local-information Q, / μ C £EÄ>< Ö

+!‰	AÈ â
&KDVVLV , ' W\SH	&KDVVLV_È*ü b ÛAš &KDVVLV+‰, '
&KDVVLV ,'	*ü b ÛAšA' Û ÈEî *ü 0\$& ></
6\WHP QDPH	£EÄA' Û,X á/Ä
6\WHP GHVFULSWLRQ	QA' Û £EÄ μ C È Û Ä.@ È EC Ê(Ä ; 02İ4³1 μ C
6\WHP FDSDELOLWLH	2İ4³HQSÖÈ,X s6Ñ
6\WHP FDSDELOLWLH	2İ4³HQSÖÈ,X s6Ñ
//'3 0(' FDSDELOLWLH	Vİ4³ Ö,X // '3 0(' ,X6Ñ o
'HYLFH FODVV	0 H 0 Û2O_ÈE Û ä 2O Ö5%4°E² yA' Û `4œ0ÄA' Û Ä 1HWZRUN FRQQHÖ5%4°E² yA' Û GHYLFH &OD Ö></,Ö8 4œ0ÄA' Û &ODVV , , Ö></ f'4œ0ÄA' Û È Û &QDVX6Ñ p È à Ê Ö f'# &ODVV , , , Ö></ EîA f4œ0ÄA' Û È Û ÖZV V& Ö D V V , , ,X6Ñ o È à Ê Ö , ÆîA f
+DUGZDUH5HY	.@ Ê(
)LUPZDUH5H	î Ê(


```
%XLOGLQJ                                EXL
)ORRU
5RRP
&LW\                                     IX]KRX
&RXQWU\
$GGLWLRQDO ORFDWLRQ                      DDD
3RUWV                                     *L

,GHQWLILHU                               WHH
```

```
/  Ý2û ù+ A± È-Ö µ C Ö
5XLMLH  VKRZ OOGS ORFDWLRQ HOLQ VWDWLF
(OLQ ORFDWLRQ LQIRUPDWLRQ

,GHQWLILHU  W
(OLQ      LLLLLLLLLL
3RUWV      *L
```

İ,İ G Q , Đ

Q ,	£EÄ

İ G ÄÄÈ â Đ

12.23 show lldp neighbors

/ F• A' Ū,X / ' 3 µ C Ä
show lldp neighbors [interface interface-name] [detail]

İ – DAÈ â Đ

– D	£EÄ
interface-name	y · á/Ä
detail	/ F• A' Ū,X Ý µ C

İ5 ,ÖG!5B Đ

İ Q , õ ä Đ (M õ ä

İ S*ü Ū Đ Đ „ á Ū n detail – D È Únú ™Â ÷uCC gÒ8Sff 8S2#! X AñÁ•†}#...880 ...3"2 ð€t...•" p 0 0 0

İG!5B _Đ / Ý0Ã· ,XF• A'Û,XµCÖ

5XLM LH VKRZ OOGS QHLJKERUV GHWDLO
/OGS QHLJKERU LQIRUPDWLRQ RI SRUW >*LJDELW(WKHUQHW @
1HLJKERU LQGH[
'HYLFH W\SH // '3 'HYLFH
8SGDWH WLPH KRXU PLQXWHV VHFRQGV
\$JLQJ WLPH Ö VHFRQGV

&KDVVLV ,' W\SH 0\$& DGGUHV
&KDVVLV LG G I FG
6\WHP QDPH 6\WHP QDPH
6\WHP GHVFULSWLRQ 6\WHP GHVFULSWLRQ
6\WHP FDSDELOLWLHV VXSSRUWHG 5HSHDWHU %ULGJH 5RXW
6\WHP FDSDELOLWLHV HQDEOHG 5HSHDWHU %ULGJH 5RXW

0DQDJH PHQW DGGUHV VXEW\SH PDF DGGUHV
0DQDJH PHQW DGGUHV G I FG
,QWHUIDFH QXPEHULQJ VXEW\SH
,QWHUIDFH QXPEHU
2EMHFW LGHQWLILHU

// '3 0(' FDSDELOLWLHV
'HYLFH FODVV
+DUGZDUH5HY
)LUPZDUH5HY
6RIWZDUH5HY
6HULDO1XP
0DQXIDFWXUHU QDPH
\$VVHW WUDFNLQJ LGHQWLILHU

3RUW ,' W\SH ,QWHUIDFH QDPH
3RUW LG *LJDELW(WKHUQHW
3RUW GHVFULSWLRQ

RUJDQLJDWLRQDOO\ LQIRUPDWLRQ
3RUW 9/\$1 ,'
3RUW DQG SURWRFRO 9/\$1 ,' 339 ,'
339 ,' 6XSSRUWHG <(6
339 ,' (QDEOHG 12
9/\$1 QDPH RI 9/\$1 9/\$1
3URWRFRO ,GHQWLW\
RUJDQLJDWLRQDOO\ LQIRUPDWLRQ

```
$XWR QHJRWLDWLRQ VXSSRUWHG      <(6
$XWR QHJRWLDWLRQ HQDEOHG          <(6
30' DXWR QHJRWLDWLRQ DGYHUWLVHG    %$6( 7 IXOO GXSOH[ PRG
  %$6( 7; KDOI GXSOH[ PRGH    %$6( 7 IXOO GXSOH[ PRGH    %$6( 7 K
2SHUDWLRQDO 0$8 W\SH                VSHHG          GXSOH[ )XOO
3R( VXSSRUW                          12
/LQN DJJUHJDWLRQ VXSSRUWHG          <(6
/LQN DJJUHJDWLRQ HQDEOHG            12
$JJUHJDWLRQ SRUW , '
OD[LPXP IUDPH 6L]H
//'3 0(' RUJDQL]DWLRQDOO\ LQIRUPDWLRQ
3RZHU YLD 0', GHYLFH W\SH
3RZHU YLD 0', SRZHU VRXUFH
3RZHU YLD 0', SRZHU SULRULW\
3RZHU YLD 0', SRZHU YDOXH
```

show lldp neighbors Q, / μ C £EÄ>< Ö

+!%o	AÈ â
Neighbor index	F• 2ö é
Device type	F• A' Û,X2O _
Update time	F• μ C ÔE¥,X È „ ÊKÈ
Aging time	F• ,X5Õ ê ÊKÈ È GF• μ C ü î â! â>•5Õ ê ôL8
Chassis ID type	Chassis ID,X2O _
Chassis ID	*ü b ÛAšA' Û ÈEî *ü MAC ></
System name	£EÄA' Û,X á/Ä
System description	A' Û £EÄ μ C È Û À.@ È/EC È(Ä ĭ 02ĭ4³1 μ C

System capabilities supported

Device class	Med A' Ü2O _ È E Ú ä 2 2O Ö5%4°E² yA' Ü `4œ0ÃÄA' Ü Ä Network connectivity deviceÖ5%4°E² yA' Ü Class IÖ></ Ö8 4œ0ÃÄA' Ü Class IIÖ></ f '4œ0ÃÄA' Ü È Ò ÿ Z Class I,X6Ñ o È à È Ö f '# Class IIIÖ></ EiAf4œ0ÃÄA' Ü È Ò ÿ ZClass I` Class II ,X6Ñ o È à È Ö IP EiAf
HardwareRev	.@ Ê(
FirmwareRev	î Ê(
SoftwareRev	EC Ê(
SerialNum	c ë È
Manufacturer name	Eô {
Asset tracking identifier	C { ÜAŠ0ú
Port ID type	0Ã · ID 2O _
Port ID	0Ã · ID
Port description	0Ã · £EÄ0ú
Port VLAN ID	0Ã · VLAN ID
Port and protocol VLAN ID	0Ã · #A, VLAN ID
PPVID Supported	ú Ö0Ã · #A, VLAN
PPVID Enabled	ú S6Ñ0Ã · #A, VLAN
VLAN name of VLAN 1	VLAN 1 ,X á/Ä
Protocol Identity	#A, ÜAŠ0ú
Auto-negotiation supported	ú Ö7¾ #
Auto-negotiation enabled	ú S6Ñ7¾ #
PMD auto-negotiation advertised	0Ã · 7¾ # Eî 6Ñ o
Operational MAU type	0Ã · 7¾ # ,XEó)[` ¹(Š Ö
PoE support	ú Ö POE
Link aggregation supported	ú ÖJÖCÄ6. Ü
Link aggregation enabled	ú S6ÑJÖCÄ6. Ü
Aggregation port ID	JÖCÄ6. Ü0Ã · ,XID
Maximum frame Size	0Ã · Ö,X Ö û û,XKS z
Power-via-MDI device type	A' Ü2O _ È Ü Ä Ö PSEÄ o+ A' Ü Ä PD Ä «+ A' Ü Ä
Power-via-MDI power source	+ \$d,X2O _

```
show lldp statistics > global interface interface-name @
```

Ĭ – DAÈ â Đ	– D	£EÄ
-------------	-----	-----

7KH QXPEHU RI QHLJKER U LQIRUPDWLRQ DJHG RXW F•µC,XCYÊôD	
7KH QXPEHU RI OOG S IUDPHV WUDQVPLWWHG ¥EO,X / / ' 3 ûþD	
7KH QXPEHU RI IUDPHV XGLVFDUþHG	
7KH QXPEHU RI HUURWIAÄXDPHþD	
7KH QXPEHU RI OOG S IUDPHV UHFHLYHG y ,X / / ' 3 ûþD	
7KH QXPEHU RI 7/9V GbY,KD/U'GHGþD	
7KH QXPEHU RI 7/9V XQÄÄS,RJ/Q'B]HþD	
7KH QXPEHU RI QHLJKER U LQIRUPDWLRQ DJHG RXW F•µC,XCYÊôD	

İ,İ G Q , Ð	Q ,	£EÄ

İ G ÄÄÊ â Ð

12.26 show lldp status

/ / / ' 3 ,X(Š ŒµC Ä
show lldp status >interface interface-name @

İ – DAÊ â Ð	– D	£EÄ
	interface-name	y · á/Ä

İ5 ,ŒG!5B Ð

İ Q , õ ä Ð (M õ ä

İ S*ü Ū Ð Ð Ū n interface – D È Ú / Ū ny · ,X / / ' 3 (Š ŒµC Ä

İG!5B _ Ð	/ Ý0Ä · ,X / / ' 3 (Š ŒµC Ö
5XLMLH VKRZ OOGS VWDWXV	
*OREDO VWDWXV RI / / ' 3 (QDEOH	
1HLJKERU LQIRUPDWLRQ ODVW FKDJJHG WLPH KRXU PLQXWH V	
7UDQVPLW LQWHUYDO V	
+ROG PXOWLSOLHU	
5HLQLW GHOD\ V	
7UDQVPLW GHOD\ V	
1RWLILFDWLRQ LQWHUYDO V	

12.27 show lldp tlv-config

/ 0Ä · Þ Ä ¤ ×,X 7 / 9G!5B µ C Ä
show lldp tlv-config >interface interface-name @

İ – DAÈ â Ð

– D	£EÄ
interface-name	y · á/Ä

İ5 ,ÖG!5B Ð

İ Q , õ ä Ð (M õ ä

İ S*ü Ü Ð Ð Ü n interface – D È Ú / Ü n y ·,X / ' 3 7 / 9G!5B µ C Ä

İG!5B _ Ð / y · ,X 7 / 9µ C Ö

5XLMLH VKRZ OOGS WOY FRQILJ LQWHUIDFH *LJDELW(WKHUQHW
/ ' 3 WOY FRQILJ RI SRUW >*LJDELW(WKHUQHW @

1\$0(67\$786 '())\$8/7

%DVLF RSWLRQDO 7/9
3RUW 'HVFULSWLRQ 7/9 <(6 <(6
6\VWHP 1DPH 7/9 <(6 <(6
6\VWHP 'HVFULSWLRQ 7/9 <(6 <(6
6\VWHP &DSDELOLWLHV 7/9 <(6 <(6
0DQDJHPHQW \$GGUHV 7/9 <(6 <(6

,(((H[WHQG 7/9
3RUW 9/\$1 , ' 7/9 <(6 <(6
3RUW \$QG 3URWRFRO 9/\$1 , ' 7/9 <(6 <(6
9/\$1 1DPH 7/9 <(6 <(6

,(((H[WHQG 7/9
0\$& 3K\VLF 7/9 <(6 <(6

,QYHQWRU\ 7/9 <(6 <(6

İ,İ G Q, Đ	Q,	£EÄ

İ G ÄÄÈ â Đ



	ruijie(config-if)#	dot1q outer-vid	3 register inner-vid	4- 22
	ruijie(config-if)#	end		

,l G Q ,	Q ,		£EÄ
	show registration-table interface intf-id @		

G ÄÄÈ â	EC Ê(5 * 2 6 ¹ Þ
---------	-------------------------

Q , Z Æ	(Ë	AÈ â



13.1.2 dot1q relay-vid vid translate local-vid v-list

ü D F F HÈWUJ È Q NE UÈXG OQÃQ NÈA'5B Î b #A,,X êF¼ Y L Â 1*+9><

dot1q relay-vid vid translate local-vid v-list

no dot1q relay-vid vid translate local-vid v-list

– DAÈ â	– D	£EÄ
	v_list	Eg 9 y [êF¼ ,X Y L &>
	vid	Â â,X êF¼ W D,X Y L G
	no	^a #\1*+9><A'5B

5 ,ÖG!5B	1*+9><0N
----------	----------

Q , õ ä	y · õ ä
---------	---------

Es 9 Ü jâFÜ! ,X Ð ` x6 !yQmâQ â ~ Ü vp m Â â,X êF¼

	vid	Â â,X êF¼ W D,X Y L G
	no	a#\1*+9><A'5B

5 ,ÖG!5B	1*+9><0N
----------	----------

Q , õ ã	y · õ ã
---------	---------

S*ü Ü Ð	'
---------	---

G!5B _	ßM6 _ \$A'5B 'Eg 9 y [êF¼ W D,X Y L G	Ê Ê Â A¹ Y L G
	ruijie(config)#	interface gigabitEthernet 0/1
	ruijie(config-if)#	switchport mode access
	ruijie(config-if)#	dot1q relay-vid 100 translate inner-vid 10-20
	ruijie(config-if)#	end

,l G Q ,	Q ,	£EÄ
	show translation-table	interface intf-id @

G ÄÄÈ â	EC Ê(5 * 2 6 ¹ Þ
---------	-------------------

G!5B _

```

ruijie# configure
ruijie(config)#          interface          gigabitEthernet          0/2
ruijie(config-if)#       dot1q-Tunnel cos   3 remark-cos   5
ruijie(config-if)#       end

```

,ì G Q ,

Q.

£EÄ

```
show interface intf-name remark
```

Q ,	£EÄ
-----	-----

	gvrp	Eã ô J Y Uy\$
	no	^a #\Eã ô y [

5 ,ÖG!5B

Q , õ ã

S*ü Ü Ð

	ßM6,X _ \$ ü y · Þ S6Ñ ` #A,Eã ô s6Ñ
G!5B _	ruijie# configure
	ruijie(config)# interface fa 0/1
	ruijie(config-if)# l2protocol-tunnel gvrp enable
	ruijie(config-if)# end

	Q ,	£EÄ
,ì G Q ,	show l2protocol-tunnel gvrp stp `	

G ÄÄÈ ä EC Ê(5 * 2 6 ¹ Þ

	(Ë	AÈ ä
Q , Z Æ		

13.1.9 l2protocol-tunnel proto-type tunnel-dmac mac-address

G!5B,ì h #A,,XEã ô

l2protocol-tunnel stp|gvrp tunnel-dmac mac-address

no l2protocol-tunnel ^stp|gvrp tunnel-dmac mac-address

	– D	£EÄ
	stp	G!5B V WXEã ô
– DAÈ ä	gvrp	G!5B J Y UXEã ô
	no	ÚEã ô 6 á 5 ,Ö Ä 5 ,Ö S*ü,XEã ô ! Ý +8V G IÈä +8V V W S È J Y W S Ä

5 ,ÖG!5B

Q , õ ã < õ ã

S*ü Ü Ð

ßM6,X_ \$ ü y · Þ S6Ñ ` #A,Eã ô s6Ñ
 ruijie# configure
 ruijie(config-if)# l2protocol-tunnelgvrptunnel-dmac 011AA9000005
 ruijie(config-if)# end

,l G Q ,	Q ,	£EÄ
	show l2protocol-tunnel ^ gvrp stp`	

G ÄÄÈ â EC Ê(5 * 2 6 ¹ Þ

Q , Z Æ	(Ë	AÈ â

13.1.10 mac-address-mapping x source-vlan src-vlan- list destination-vlan dst-vlan-id

Ú\$d Y O D: Q , X | Õ P D F á , Ä, X Y O D Q

mac-address-mapping x destination-vlan dst-vlan-id source-vlan src-vlan-list

no mac-address-mapping x destination-vlan dst-vlan-id source-vlan src-vlan-list

– DAÈ â	– D	£EÄ
	no	ª# \ y · Þ ¢ Ü n\$ d Y O D Ü n, Ä, X Y O, Æ Q á

5 , Õ G!5B

Q , õ ã y · õ ã

S*ü Ü Ð

ßM6_ \$G!5B ê W D, X ì 4{+ YF¼ W D Æ
 ruijie# configure
 ruijie(config)# interface gigabitEthernet 0/2
 ruijie(config-if)# mac-address-mapping 1 destination-vlan 5
 source-vlan 1-3

	ruijie(config-if)#	end
,l G Q ,	Q ,	£EÄ
	show interface mac-address-mapping x	
G ÄÄÈ â		
Q , Z Æ	(Ë	AÈ â

13.1.11 switchport mode dot1q-tunnel

G!5B y · G R W T W X Q Q H O
switchport mode dot1q-tunnel
no switchport mode

– DAÈ â	– D	£EÄ
	no	ôL8,l h,X G R W T W X Q Q H O
5 ,ÖG!5B	M2G R W T W X Q Q H O	
Q , õ ä	y · õ ä	
S*ü Ü Ð	´	
G!5B –	ßM6_ \$A'5B0Ã ·	G R W T W X Q Q H O
	ruijie(config)#	interface gigabitEthernet 0/1
	ruijie(config-if)#	switchport mode dot1q-tunnel
	ruijie(config)#	end
,l G Q ,	Q ,	£EÄ
	show vlan	
G ÄÄÈ â	EC Ê(5 * 2 6 ¹ Þ	
Q , Z Æ	(Ë	AÈ â

13.1.12 switchport mode uplink

A'5B0Ã · õ ã X S O L Q N

switchport mode uplink

no switchport mode

– DAÈ â	– D	£EÄ
	no	a#\ X S O dÃQ Ñã,XA'5B

5 ,ÕG!5B ´ X S O L Q N

Q , õ ã y · õ ã

S*ü Ü Ð ´

ßM6 _ \$A'5B0Ã · X S O L Q N
 ruijie(config)# interface gigabitEthernet 0/1
 ruijie(config-if)# switchport mode uplink
 ruijie(config)# end

,ì G Q ,	Q ,	£EÄ
	show vlan	

G ÄÄÈ â EC Ê(5 * 2 6 ¹ Þ

Q , Z Æ	(Ë	AÈ â

13.1.13 switchport dot1q-tunnel allowed vlan

A'5B G R W T V X X Q ã Y H O O Q

switchport dot1q-tunnel allowed vlan add @tagged|untagged `v_list

switchport dot1q-tunnel allowed vlan remove v_list

no switchport dot1q-tunnel allowed vlan

– DAÈ â	– D	£EÄ
	tagged	ú W D J
	untagged	á ú W D J
	v_list	Y O D Q > L G

	no	a#A'5B	
5 ,ÖG!5B	ACE ÃY O DEQ X Q W D J J H G		
Q , õ ã	y · õ ã		
S*ü Ò Ð	'		
G!5B –	ßM6 _ \$A'5B G R W T W,X QYQ-DOQ ACE Ã Y O D Q ÈEg WúD J ruijie(config)# interface gigabitEthernet 0/1 ruijie(config-if)# switchport dot1q-tunnel allowed vlan tagged ruijie(config)# end		

```

ruijie(config)#      interface gigabitEthernet      0/1
ruijie(config-if)#    switchport dot1q-tunnel native vlan      8
ruijie(config)#      end

```

,l G Q ,

Q ,	£EÄ
show interface dot1q-tunnel	

G ÄÄÈ â

EC Ê(5 * 2 6 1 Þ

Q , Z Æ

(È	ÄÈ â

13.1.15 traffic-redirect access-group acl outer-vlan

Í D F F H V V W U X Q N 0Ä\ E g 9 y [,X êF¼ Y L ÄG 1*+9

traffic-redirect access-group acl outer-vlan vid in

no traffic-redirect access-group acl outer-vlan

– DAÈ â

– D	£EÄ
acl	*ü b G!# ,X D F O
vd	Ä â,X êF¼ Y L G
no	a#\ î b# ,X êF¼ Y L ÄG 1*+9

5 ,ÖG!5B

1*+9><0N

Q , õ ä

y · õ ä

S*ü Ü Ð

```

ßM6 _ $A'5B Ú y ·$d      Eg 9 y [,X êF¼ Y L ÄG
ruijie#  configure
ruijie(config)#i      p access-list standard      2
ruijie(config-acl-std)#      permit host      1.1.1.1
ruijie(config-acl-std)#      exit
ruijie(config)#      interface gigabitEthernet      0/1
ruijie(config-if)#      switchport mode trunk
ruijie(config-if)#      traffic-redirectaccess-group      2 outer-vlan      3in
ruijie(config-if)#      end

```

,l G Q ,	Q ,	£EÄ
	show traffic-redirect	
G ÄÄÈ â	EC Ê(5 * 2 6 1 Þ	
Q , Z Æ	(È	AÈ â

13.1.16 traffic-redirect access-group acl nested-vlan

Í G R W T WÄX-EGQY PÈA'5B Î b# ,X Y L#G1*+9

traffic-redirect access-group acl nested-vlan vid in

no traffic-redirect access-group acl nested -vlan

– DAÈ â	– D	£EÄ
	acl	*ü b G!# ,X D F O
	vid	?U#İ t Y L G
	no	a#\ î b# ,X Y L#G1*+9

5 ,ÖG!5B 1*+9><0N

Q , õ ä y · õ ä

S*ü Ô Ð ´

G!5B –	ßM6 _ \$A'5B Ú y ·\$d	Eg 9 y [İ t Y L G
	ruijie# configure	
	ruijie(config)# ip access-list standard 20	
	ruijie(config-acl-std)# permit host 1.1.1.3	
	ruijie(config-acl-std)# exit	
	ruijie(config)# interface gigabitEthernet 0/1	
	ruijie(config-if)# switchport mode dot1q-tunnel	
	ruijie(config-if)# traffic-redirectaccess-group 20 nested-vlan 10	
	in	
	ruijie(config-if)# end	

,l G Q ,	Q ,	£EÄ
----------	-----	-----

	show traffic-redirect	
G ÄÈ â	EC Ê(5 * 2 6 1 Þ	
Q , Z Æ	(È	AÈ â

13.1.17 vlan-mapping-in vlan sr c-vlan-list remark dest-vlan

ü D F F HÈWUJ È Q NE UÈLXS OÖÄQ NÈA'5BEg 9 • å,X 9 / \$ 1ô Ø,X1*+9>< È Ú ¢0Ä .
Eg 9 y [,X 9 / \$ 1 , Â Û n,X 9 / \$ 1 , ' â aE@ ¥ Ä

vlan-mapping-in vlan src-vlan-list remark dest-vlan

no vlan-mapping-in vlan src-vlan-list remark dest-vlan

	– D	£EÄ
– DAÈ â	src-vlan-list	Eg 9 y [,X Y L G<
	dest-vlan	Â â,X y [,X Y L G
	no	a#\1*+9><A'5B Ä

5 ,ÖG!5B

Q , õ ä

S*ü Û Ð

Q , Z Æ	(Ë	AÈ â

13.1.18 vlan-mapping-out vlan sr c-vlan-list remark dest-vlan

ü D F F HÈWUJ È Q NE UÈLXG OQÑÈA'5BEg Î • â,X Ô Í Ô 9 / \$ 1ô Ø,X1*+9>< Ä

vlan-mapping-out vlan src-vlan-list remark dest-vlan

no vlan-mapping-out vlan src-vlan-list remark dest-vlan

– DAÈ â	– D	£EÄ
	src-vlan-list	Eg 9 y [,X Y L G<
	dest-vlan	Â â,X y [,X Y L G
	no	ª#\1*+9><A'5B Ä

5 ,ÖG!5B

Q , õ ä

S*ü Ô Ð

ßM6 _ \$A'5BEg 9 y [7 D J,X 9 , ' Ê È Ú J ä aE@ ¥

Ruijie# configure terminal

G!5B _

Q , ð ä
(M ð ä

S*ü Ü Ð

ruijie# show frame-tag tpid
Ports tpid

Gi0/1 0x9100

Q ,	£EÄ

G ÄÄÈ ä
EC Ê(5 * 2 6 ¹ Þ

(Ë	AÈ ä

13.2.3 show inner-priority-trust

/ ì 4{ á G!5B

show inner-priority-trust

- D	£EÄ

5 ,ÖG!5B
á á

Q , ð ä
(M ð ä

S*ü Ü Ð

ruijie# show inner-priority-trust
Ports inner-priority-trust

Gi0/1 enable

Q ,	£EÄ
-	

G ÅÈ à EC Ê(5 * 2 6 1 Þ

Q , Z Æ	(È	AÈ à

13.2.4 show interface dot1q-tunnel

/ G R W T W G!5B Q H O

show interface intf-id @ dot1q-tunnel

– DAÈ à	– D	£EÄ
	intf-id	(M n,X y ·

5 ,ÖG!5B ´

Q , õ ä (M õ ä

S*ü Ô Ð ´

ruijie# show interface dot1q-tunnel
Interface: Gi0/3
Native vlan: 10
Allowed vlan list: 4-6 È10 È30-60
Tagged vlan list: 4 È6 È30-60

Gi0/1	in	active	5	3
Gi0/1	out	active	3	5

,l G Q ,	Q ,	£EÄ
	-	

G ÄÄÈ ä	EC Ê(5 * 2 6 1 Þ
---------	-------------------

Q , Z Æ	(È	AÈ ä

13.2.7 show l2protocol-tunnel

/ ` Eã ôG!5B

show l2protocol-tunnel gvrp|stp `

- DAÈ ä	- D	£EÄ
	gvrp	/ Eã ô J Y U y\$G!5B
	stp	/ Eã ô V W y\$G!5B

5 ,ÖG!5B	GKÁ
----------	-----

Q , õ ä	(M õ ä
---------	--------

S*ü Ü Ð	´
---------	---

G!5B -	ruijie# show l2protocol-tunnel stp
	Destination mac : 01d0f8000005
	L2protocol-tunnel: Stp Enable
	ruijie# show l2protocol-tunnel gvrp
	Destination mac : 01d0f8000006
	L2protocol-tunnel: gvrp Disable

,l G Q ,	Q ,	£EÄ
	-	

5 ,ÖG!5B

1*+9><0N

Q , õ ã

(M õ ã

S*ü Ü Ð

'

G!5B _

ruijie# show traffic-redirect

Ports Type VID Match-filter

Gi0/3 Mod-outer 23 11

Gi0/3 Mod-outer 3 4

Gi0/3 Mod-outer 6 5

Gi0/3 Mod-inner 8 inner-to-8

Gi0/6 Mod-inner 9 100

Gi0/7 Nested-vid 13 nest-13

,İ G Q ,	Q ,	£EÄ

G ÄÄÈ â

EC Ê(5 * 2 6 ¹ Þ

Q , Z Æ	(È	AÈ â

13.2.10 show translation-table

/ Î b #A,,X D F F H V V W U X Æ · NY K Æ E U > G

show translation-table >interface intf-id @

– DAÈ â	– D	£EÄ
	intf-id	Û n,X y ·

5 ,ÖG!5B

1*+9><0N

Q , õ ã

(M õ ã

S*ü Ü Ð

'

ruijie# show translation-table

G!5B _



Q , -5x , 3 ž h*ü

Ú`Ÿ4j , 3 ž h*ü Q , -5x, Ì G Y • È Ù À ¹ ß 0 ´ 8 V Ö

G!5B , 3 Q ,

G!5B , 3 á u Q ,

G!5B , 3 9 Q ,

G!5B ' + & 3 & O Q H Q W

G!5B ' + & 3 5 H Q D \

G!5B ' + & 3 9 & O Q H Q W

G!5B ' + & 3 9 5 H O D \ Q J H Q W

G!5B ' 1 6 Q ,

G!5B) 7 3 6 H U Q , H U

G!5B) 7 3 & / , (1 Q ,

G!5B 5 % 4 ° E ² E î û # A © ¹ K Q ,

G!5B 7 & 3 Q ,

G!5B , 3 9 5 (¿ E ó E @ ¥ Q ,

1 'IP © ¬ w W

1.1 / L © ¬ ' w W

y · G!5B Û Ä¹ ß Q, Ö

1.1.1 ip address

A¹ Q, *ü 9G!5B y ·, X , 3 È Ã¹*ü Q Æ ã ôL8 Û n y ·, X , 3 Ä Q, ã V ß Ö

ip address ^ ip-address network-mask | mask-length @| ip-address/mask-length ` >secondary @>gateway ip-address @

no ip address >^ip-address >network-mask | mask-length @ ip-address/mask-length ` >secondary]|[gateway @ @

- DAÈ â	- D	£EÄ
	ip-address	p!“(M! , 3 È ! Ô4~ È¹ E⁻ •ã></ È 4~ KÈ*ü&•Lh Ô Ä
	network-mask	p!“(M !5%4° }-Ö È³ ´></ }-Ö ! È³ ´></ ! Ä!£ ! Ô4~ È¹ E⁻ •ã></ È4~ KÈ*ü&•Lh Ô Ä
	mask-length	\$5% }-ÖKS z
	ip-address/mask-length	, 3 ` \$5% }-ÖKS z
	secondary	></ G!5B, X ð , 3 Ä

5 ,ÖG!5B y ·"u ÝG!5B , 3 Ä

Q , ð ä y ·G!5B ð ä Ä

Ö pA' Û ¾ ÝG!5B Z , 3 È ! Ã¹ y ` ¥EÖ , 3D B y È y ·G!5B Z , 3 ÈAÈ â A¹ y · AÇEEα> , 3#A, Ä 5%4° }-Ö 3 Ô p !!“(M, X D È ÜAš- A¹ , 3 , X ¾´ p!“(M 5%4°F¼ Ü Ä5%4° }-Ö È ,X!“(M Í h, X , 3 !“(M! 5%4°F¼ Ü È ,X!“(M Í h , X , 3 !“(M! F¼ Ü Ä V \$205%4° Í h, X5%4° }-Ö Ä4 Ä¹ ý*ü5%4° }-Ö Í Ô p5%4°E⁻> \$5% æ Ü È \$5% æ Ü Ü Ô p Ü F¼ Ü, X Ô ol“(M! 3 0 5%4°F¼ Ü È4ý ä •G£ È r t5%4°, X DG£ ÈE- È, X5%4° }-Ö /Ä \$ 5% }-Ö Ä 5 * 2 6EC È Ä¹ Ö Ô p y ·G!5B î p , 3 È J Ô p , 3 È J - <F¼ ð

, 3 Ä ð , 3 ,XG!5B)ÚAŽ P"u Ý D,ÂL\$ È Ã ¹Lc ãG!5B È ¾ ÝG! ¾ Z , 3
â !6ÑG!5B ð , 3 Ä ð , 3 Ä ¹ â , 3 2 b à Ô p5%4° ê5Û á à Ä ü5%4°
ÎA' È î4E S*ü ð , 3 ÈEî ü ¹ ß ™ % ß hA¹5×<%A©*ü ð , 3 Ö
„ Ô p5%4°"u ÝC‡ ó î,X Ä),, ü Ô8 ³5%LÔ?U Ô p &2O5%4° È Ã ÚG!
Ä Ä ' ³5% CYE> Ä È È Ô p &2O5%4° Ú á ó ÚG! È Ý ™?U ÚG! °
Ô p &2O5%4° ÄE- A' Û LÔ?UE² y ø p5%4° È ¹ LÔ?UG!5B î p , 3 Ä
„ ACE î »X5%4° î b1 ` ,X 9 y5%4° È'u ÝE¯> \$5%,X æ Ú Äð , 3 ,X S*ü Ä ¹
SA¹5%4° \ • ç 4{ î b , 3 ,XCÃ+ 5%4° Äí b!E p \$5% È A' ÛFÑG!5B Ô p , 3 Ä
„ Ô p5%4°,X ø p \$5%>• ° ê Ô p5%4°Lh/• Ô È 4 Ä ¹ î î Ô p>•Lh/•5%4°,X \$5% ÈEî
E>G!5B ð , 3 ,X • ã È ÛLh/•,X \$5%E² yCK 9 Ä Ô p \$5% á6Ñ üA' Û,X ø p ê ø p
¹ Þ y • î),, Ä

¹ ß _ \$ ÈG!5B Z y , 3 È5%4° }-Ö Ä
ip address 10.10.10.1 255.255.255.0
ê
ip address 10.10.10.1/24
ê
ip address 10.10.10.1 24

,ìG Q,	Q,	£EÄ
	show interface	/ y ,XA°4š µ C Ä

G ÄÄÈ â ü ` A' Û Þ È ¾ Ý Ý · !6ÑG!5B , 3 È J è á Ö `4{ È G"u Ý V H F R Q G D U \
EÝNM Ä

Q , Z Æ	(È	AÈ â

1.2 © ¬ U Å " ` ´ w W

?· d #A,G!5B Q , Û À Ö

1.2.1 arp

S*üA¹ Q , ÈÄ ¹Û \$ 5 ¾ç †>< r t" û,X#A•R UðÄB" , 3

– DAÈ â	– D	£EÄ
	ip-address	â 0\$& Íh,X ,3 ÈÚ ¯4~ E¯ ></,X D È4~ KÈ*ü&•Lh Ô Ä
	MAC-address	D BJÒCÃ È p!“(M !4~ ä Ä
	type	\$ 5 3Ö(Š2O _ Ä Í b¹ p5% y · È GK + D U S D Ä

5 ,ÖG!5B

\$ 5 34ç †>< "u Ý Ĩ)M- Œ ô ØA,,) Ä

Q , ö ä

< G!5B ö ä Ä

S*ü Ū Đ

5 * 2 6 S*ü \$ 5 34ç †>< È B p!“(M ! , 3 ¹R p!“(M !,X 0\$ & Ä ÄZö 4

no arp anti-ip-attack

	– D	£EÄ
– DAÈ â	Num	A'5B?° ¥ \$ 5 3A' ö x><NM,X , 3y [p D È ^a 8× È !Ä ></ GKÁ \$ 5 3L , 3y [ï s6Ñ Ä

5 ,ÖG!5B	T→Ax ™ %ß È ü p p ⁻¹ á) • y [EÖ & 3 8âA'5B ö x><NM Ä
----------	--

Q , ö ä	< G!5B ö ä Ä
---------	--------------

S*ü Ü Ð	\$ 5 3L , 3y [ï s6Ñ È ü « p ⁻¹ á) • , 3y [ï ÊLÔ?U 4*ü x 6 .@ Ê,XCÃ+ C \$d 9L ï Ä V p.@ ÊCÃ+ C \$d!EW Ú Êarp anti-ip-attack num Ä ¹ A'5B k ä Ô o Ä ü.@ ÊCÃ+ C \$d!EW2û ô,X ™ %ß È ?U ï \$µC‡!7 CÃ+ ,X S*ü È Ä ¹ Ú arp anti-ip-attack num A'5B k!EW û È ê5Ü GKÁA ¹ s6Ñ Ä
---------	--

G!5B –	– Ö ¹ ßG!5B ÈA'5B?° ¥ \$ 5 3A' ö x><NM,X , 3y [D,Ä Ä Ruijie(config)# arp anti-ip-attack 5 – Ö ¹ ßG!5B È GKÁ \$ 5 3L , 3y [ï s6Ñ Ruijie(config)# arp anti-ip-attack 0
--------	---

	Q ,	£EÄ
,ì G Q ,		

G ÄÄÈ â	Ý x 6
---------	-------

	(È	AÈ â
Q , Z Æ	Ä	(Ô ÿ Ö

1.2.3 arp gratuitous-send interval

S*üA¹ Q , È Ä¹ ü Ü n5%4° y · n Ê ¥EÖ !C D UÄ" ÄA¹ Q ,X Q R6 ä GKÁ y · p,X
!8 s6Ñ Ä

arp gratuitous-send interval seconds

no arp gratuitous-send

	– D	£EÄ
– DAÈ â	seconds	¥EÖ !C \$ 5 3Ä" ,X ÊKÈKÈLh È) !/ È ^a 8× È !Ä

5,ÖG!5B

y ·"u Ý *ü n Ê ¥EÖ !C \$ 5 3AĚ" ,X s6Ñ Ä

Q , ð ä

y ·G!5B ð ä Ä

S*ü Ü Ð	' ¥), A' Ü ÝNe4 ,X å ê ¥EÖ \$ 5 3AË" È éCK5%4°4 -1 J WKÂNI Ê È Ã¹ Ú \$ 5 3 AË" ,XGi ô ÊKÈA'5BKS Ô&• È Ô8 á?UCYE> Ö\$ 5 3<NM,X5Ö ê ÊKÈ Ä				
Gi5B _	¹ ßGi5B È Ú \$ 5 3AË" ,XGi ô ÊKÈA'5B V arp retry interval 30				
¸G Q ,	<table> <tr> <th>Q ,</th><th>£EÄ</th></tr> <tr> <td>Arp retry times number</td><td>A'5B \$ 5 3AË" ,XGi ô ö D</td></tr> </table>	Q ,	£EÄ	Arp retry times number	A'5B \$ 5 3AË" ,XGi ô ö D
Q ,	£EÄ				
Arp retry times number	A'5B \$ 5 3AË" ,XGi ô ö D				
G ÄAÈ â	'				
Q , Z Æ	<table> <tr> <th>(È</th><th>AÈ â</th></tr> <tr> <td></td><td></td></tr> </table>	(È	AÈ â		
(È	AÈ â				

1.2.5 arp retry times

S*üA¹ Q , ÈÃ¹A'5B Gi ô D UAË" y [,X ö D ÈG?· d à Ô p , 3 È²4Á ¥EÖ \$ 5 3 AË" ,X ö D Ä S*ü!8 Q ,X Q Æ ä Ã¹ 6 áT-Ax,XGi ô ö \$ 5 3AË" Ä

arp retry times number

no arp retry times

- DAÈ â	<table> <tr> <th>- D</th><th>£EÄ</th></tr> <tr> <td>number</td><td>à Ô p \$ 5 3AË" ,X ¥EÖ ö D ÈB× È Ä'A'5B È È></ áGi ô \$ 5 3AË" È ¾ ¥EÖ ö \$ 5 3 AË" y [Ä</td></tr> </table>	- D	£EÄ	number	à Ô p \$ 5 3AË" ,X ¥EÖ ö D ÈB× È Ä'A'5B È È></ áGi ô \$ 5 3AË" È ¾ ¥EÖ ö \$ 5 3 AË" y [Ä
- D	£EÄ				
number	à Ô p \$ 5 3AË" ,X ¥EÖ ö D ÈB× È Ä'A'5B È È></ áGi ô \$ 5 3AË" È ¾ ¥EÖ ö \$ 5 3 AË" y [Ä				
5 ,ÖGi5B	V p"u Ý \$ 5 3h1(y [È \$ 5 3 AË" y [î ¥EÖ ö È' âCY È Ä				
Q , ö ä	< Gi5B ö ä Ä				
S*ü Ü Ð	' ¥), A' Ü ÝNe4 ,X å ê ¥EÖ \$ 5 3AË" È éCK5%4°4 -1 J WKÂNI Ê È Ã¹ Ú \$ 5 3 AË" ,XGi ô ö DA'5B ä Ô&• È Ô8 á?U ÚGi ô ö DA'5B k p û Ä				
Gi5B _	_ Ö¹ ßGi5B ÈA'5B \$ 5 3AË" áGi ô Ä arp retry times 1 _ Ö¹ ßGi5B ÈA'5B \$ 5 3AË" Gi ô ö Ä arp retry times 2				

|

Q.	£EÄ
----	-----

--	--	--

1.2.7 arp trusted aging

S*üA¹ Q , È Ã ¹A'5B Ã µ Ĩ \$ 5 3Ô Ÿ5Õ ê ÄA¹ Q ,X Q Ɔ ã 6 át-Ax Ä

arp trusted aging

no arp trusted aging

– DAÈ â	– D	£EÄ
5 ,ÖG!5B	* 6 1 Ã µ Ĩ \$ 5 3T-Ax á5Õ ê Ä	
Q , õ ã	< G!5B õ ã Ä	
S*ü Ü Ð	S*üA¹ Q , â Ã µ Ĩ \$ 5 3Ô Ÿ5Õ ê È5Õ ê ÊKÈ ` Ö \$ 5 3Ö ê ÊKÈ,ì à Ä5Õ ê ÊKÈ Ä ¹EîE> y · õ ã ß arp timeout Q ,A'5B Ä	
G!5B _	/	
,ì G Q ,	Q ,	£EÄ
	service trustedarp	*ü Ã µ Ĩ \$ 5 3s6Ñ
G ÄAÈ â	/	
Q , Z Æ	(È	AÈ â

1.2.8 arp trusted number

S*üA¹ Q , È Ã ¹A'5B Ã µ Ĩ \$ 5 3><NM,X Ô û þ D ÄA¹ Q ,X Q Ɔ ã 6 át-Ax Ä

arp trusted number

no arp trusted

– DAÈ â	– D	£EÄ
	number	Ã ¹A'5B Ã µ Ĩ \$ 5 3><NM,X Ô û þ D

5,ÖG!5B

á à { • 5 , Ö á à Ä

Q , ö ä

< G!5B ö ä Ä

S*ü Û Ð

?U S!8 Q , *ó ÈOj *ü Ä µ Ĩ \$ 5 3s6Ñ Ä Ä µ Ĩ \$ 5 3<NM ` J W><NM E • Y , È

arp unresolved 500

,l G Q,

Q.	£EÄ

G ÄÄÈ â

G ÄÄÈ â

Q , Z Æ

(È	ÄÈ â

1.2.11 service trustedarp

?U *ü Ã µ Ĩ \$ 5 3s6Ñ ÈÃ¹ ;> service trustedarp Q , ÄÄ¹ Q , ,X Q Æ ã GKÁ Ã µ Ĩ \$ 5 3s6Ñ Ä

service trustedarp

no service trustedarp

– DAÈ â

– D	£EÄ

5 ,ÖG!5B

5 ,Ö GKÁ Ã µ Ĩ \$ 5 3Ä

Q , ð ä

< G!5B ð ä

KÄ ôÄ ðÄ—`0\$ã~Ä F, S~ÄC,`0 0Ä, 56R—`0 0 Ä
S*ü Ü Đ

1.3.1 ip directed-broadcast

*ü , 3n å S • (=)Ú S •,XE@ 6 È*ü y ·G!5B Q , ip directed-broadcast ÄA¹ Q ,X Q R
6 ä ¢#\ n å S • (=)Ú S •,XE@ 6 Ä

ip directed-broadcast > access-list-number@

no ip directed-broadcast

	– D	£EÄ
– DAÈ â	access-list-number	Ä ÄEÝ ÄA“KÂ ë>< È È8× È ¢ È Ä V p n ZA“KÂ ë>< È È ¾ Ý G!A¹A“KÂ2O><,X , 3 n å S • y [!E@ 6 Ä
5 ,ÖG!5B	GKÁ Ä	
Q , ö ä	y ·G!5B ö ä	
S*ü Ü Ð	, 3n å S • y [Ü,Ä Ü ¢p , 3\$5% S • ,X , 3y [È V,Ä Ü ,X y [/Ä n å S • y [Ä { *óA¹ y [,X8V&•œ á ,Ä Ü \$5%,X ä , Ä "u Ý â,Ä Ü \$5%,ÈE²,XA' Ü y , 3n å S • y [ÈC³E@ ¥) • y [Ô Ø)Ü n å S • y [Ä ' n å S • y [E',ÈE²A¹ \$5%,XA' Ü â ÈA' Ü Ü ^ n å S • y [E@ 6 #Í"u S • y [Ä Ô8 Ü,Ä Ü , 3 < ,X S • y [Ä È' â ¹JÒCÄ S • • ä ¥EÖ4-,Ä Ü \$5% Þ,X Ý Ä 4 Ä ¹ ü Ü n,X y · Þ È n å S • (=)Ú S •E@ 6,X s6Ñ ÈE- A¹ y · Ä ¹E@ ¥ ,ÈE²5%4°,X n å S • Z ÄA¹ Q , ¾ E ; Æ Ö4œ,Ä Ü \$5%,X n å S • y [,X Ô â ôEg È á E ; J W n å S • y [,X!7 E@ ¥ Ä ü y · Þ È 4E¬ Ä ¹EîE> n A“KÂ ë>< 9 { E@ ¥ ¾ o n å S • Ä ' n ZA“KÂ ë>< È ¾ Ý 0ú ÜA“KÂ ë>< n ,X D B Ü !E¯> n å S • (=)Ú S •,XE@ 6 Ä V p ü y · ÞG!5B Z no ip directed-broadcast È 5 * 2 6 Ü ö × y ,X,ÈE²5%4°,X n å S • y [Ä	
G!5B _	¹ ßG!5B _ \$ ÈA' Ü) D V W (W K H0ÄQ ¢ÜM n å S •,XE@ ¥ Ä interface fastEthernet 0/1 ip directed-broadcast	
ì G Q ,	Q ,	£EÄ
G ÄAÈ â		

Q,ZÆ	(Ë	AÈ â

1.4 IP © ñ Q x ¢ ã w W

â , 3 ,¥?š `4È x,ì G,X Q , Ù À Ö

1.4.1 clear arp-cache

?U ¢ \$ 5 34ç †>< ôL8 | Ö \$ 5 3ô ØA,,) È*ü < Q , F O H D U D Ü Å S F D F K H
clear arp-cache trusted @ mask @ interface interface-name @

– DAÈ â	– D	£EÄ
	trusted	ôL8 Ã µ Ĭ \$ 5 3,X><NM
	ip	, 3 – D È G#ÛL8 Û n , 3 ,X \$ 5 3><NM È V p Û n trusted GK + í#ÛL8 Ã µ Ĭ \$ 5 3><NM È ú í Ö \$ 5 3><NM
	mask	P D V \$5% }-Ö – D È G#ÛL8 \$5% Y,X \$ 5 3><NM È !M6,X , 3 ™NO \$5% È V p Û n W U X G W H G + í ôL8 \$5%,X Ã µ Ĭ \$ 5 3><NM È ú í ôL8 \$5% Y ,X Ö \$ 5 3><NM Ä
	interface interface-name	#ÛL8 Û n y ·,X Ö \$ 5 3><NM

5,ÖG!5B

Q, ð ã (M *ü ð ã

Ã 1*üA1 Q , „ \$ 5 34ç ,>< Ä

mÁ ÊKÈ†ÁJP \$ 5 3 p w CybR @Hõ 3ôWR @BÿXó 1105383VÂN) ð X Q G D W L R Q 3 U R W H F W L R Q 3 R C
S*ü Û Ð a "¼ã

,l G Q ,	Q ,	£EÄ
	arp	ü \$ 5 3>< r tM- Ö ô ØA,,) Ä
G ÄÄÈ ä		
Q , Z Æ	(È	AÈ ä

1.4.2 clear ip route

?U H p ôL8 , 3CÃ+ >< ê5Ü, 3CÃ+ >< ,X ñ pCÃ+ A,,) È Ã ¹ ü(M *ü õ ä ;> clear ip route Q , Ä

clear ip route * _network netmask @ `

– DAÈ ä	– D	£EÄ
	*	ôL8 <F¼CÃ+
	network	?U ôL8,X5%4° ê \$5%
	netmask	Ä ÄEÝ Å5%4° }-Ö

5 ,ÖG!5B

Q , õ ä (M *ü õ ä

S*ü Ü Ð ' ¥),,CÃ+ >< Ý ´ CÃ+ È Ã ¹0ÿ G „CÃ+ >< k Ô „,XCÃ+ Ä ™NO"¼ ä V p ô L8 H pCÃ+ >< È ÚEô ä H p5%4°,X-Á VEî µ Lp Ä

G!5B _ ¹ ß _ \$ È ¾ ôL8 ,XCÃ+ Ä

1.4.3 show arp

/ ? · d #A, Ä \$ 5 3 Å4ç †>< Ä

show arp > >trusted@ ipmask @static _complete _incomplete _mac address @

– D

!%o	AÈ â
3 U R W R F R O	5%4° ,X #A, ÈA¹ +!%o , Q W HÄU Q H W
\$ G G U H V V	â.@ Ê Í h,X , 3 Ä
\$ J H P L Q	\$ 5 34ç †A,,) , ü,X ÊKÈ È¹ ÚJsAu ÄV p ,X ê5ÜM- ÖG!5B,X ÈA¹ +!%o *ü-Á4“³ ´></ Ä
+ D U G Z D U H	â , 3 Í h,X.@ Ê Ä
7 \ S H	.@ Ê 2O _ È¹ þ5% \$ 5 3 Ä
, Q W H U I D F H	â , 3 G6(X y · Ä

```

_ Ö¹ß   V K R Z   D U S           ,XEg Î4$ p
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

_ Ö¹ß   show arp           ,XEg Î4$ p
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

_ Ö¹ß   show arp 001a.a0b5.378d ,XEg Î4$ p
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

```

,l G Q ,	Q ,	£EÄ
G ÄAÈ â		
Q , Z Æ	(È	AÈ â

1.4.4 show arp counter

```

/ $ 5 34ç ,>< E Ý î â þ   D U $NM Ä
show arp counter

```

– DAÈ â	– D	£EÄ
5 ,ÖG!5B		
Q , ð ã	‘?U"	
S*ü Ô Ð		
G!5B –	¹ ß show arp counter Eg Î4\$ p Ö Ruijie# show arp counter The Arp Entry counter:0 The Unresolve Arp Entry:0	
,l G Q ,	Q ,	£EÄ
G ÄÄÈ â		
Q , Z Æ	(È	AÈ â

1.4.5 show arp detail

/ \$ 5 34ç ,><,XA°4\$ µ C Ä

show arp detail [interface-type interface-number] ip mask @ mac-address _static _
complete _incomplete @

– DAÈ â	– D	£EÄ
	interface-type interface-number	/ Û n Ý 0Ã · ê5Ü ` 0Ã · ,X \$ 5 3
	ip	L S È / Û n L S ,X \$ 5 3<NM
	ip mask	/ L S P D Û N ,X5%!%,X \$ 5 3<NM
	mac-address	/ Û n P D F ,X \$ 5 3<NM
	static	/ ÝM- Ö D Û \$NM
	complete	/ Ý Æ4£?· d,X Ö D Û \$NM
	incomplete	/ Ý þ?· d,X Ö D Û \$NM

5,ÖG!5B

Q, õ ã

S*ü Ü Ð

(M *ü õ ã

'*ü Ç¹,ß \$ 5 3XA°4\$ µ C È!¨ V \$ 5 3X2O_Ä|ÖÄM-ÖÄ ÄÄµİÄÄ
ü,X` 0Ä·ÊÈÄ¹S*ü!8 Q, Ä

¹ß show arp detail Eg Î4\$ p Ö

Ruijie# show arp detail

, 3	\$ G G U H V V	0 \$ &	\$ G G U H V V	\$ J H	P L Q	, Q W H U I D F
	I H		6 W D W L F			
	I H		6 W D W L F			
	I H		6 W D W L F			9 O
	H I H		' \ Q D P L F 9 O			* L
	D		L F ' \ Q D P		* L	* L
	D		' \ Q D P L F		\$ J	\$ J
	D		' \ Q D P L F		9 O	\$ J
	D		/ R F D O		9 O	
	D		/ R F D O			* L
	D		/ R F D O		9 O	
	D		/ R F D O			* L

G!5B _

ARP4ç †>< Ø +!%,Xÿ £EÄ V ß Ö

+!%	£EÄ
, 3 \$ G G U H V V	Ä@Ê Íh,X , 3 Ä
0 \$ & \$ G G U H V V	ÄV,W Íh,X.@Ê Ä
7 \ S H	\$ 5 3 2 O _ È Ù À M - Ö Ä Ö Ä Ä µ İ Ä ¯ / i 2 O _ Ä
\$ J H	\$ 5 3 : 4 î K S Ê È È) ! Ú J s Ä
, Q W H U I D F	H , 3 G 6 (, X Ý y · Ä
3 R U W	â \$ 5 3 G 6 (, X ` 0 Ä · Ä

,l G Q ,	Q ,	£EÄ
G ÄÄÈ â		
Q , Z Æ	(Ë	AÈ â
	(	(Ô ÿ Ö

1.4.6 show arp timeout

/ ¢ Ô y ·,X | Ö \$ 5 3><NM5Ö ê ÊKÈ

show arp timeout

– DAÈ â	– D	£EÄ
5 ,ÖG!5B	‘	
Q , ö ä	‘?U"	
S*ü Ü Ð	‘	
G!5B _	¹ ß show arp timeout Eg Î4\$ p Ö	
	Ruijie# show arp timeout	
	Interface arp timeout(sec)	

	VLAN 1	3600
,l G Q ,	Q ,	£EÄ
G ÄÄÈ â		
Q , Z Æ	(Ë	AÈ â

1.4.7 show ip arp

?U / ?· d #A, Ä \$ 5 3 Å4ç †>< È ü(M *ü õ ã ;> A¹ Q , Ä

```
show ip arp
```

– DAË â	– D	£EÄ

5 ,ÖG!5B

Q, ǒ ă

GLU
(M *ü õ ã

\$ 5 3

S*ü Ũ Đ

[illegible]

„ 1 Ô&•

„ 1 `&•

a "¼ ã

¹ ß show ip arp Eg Î4§ p Ö

```
Ruijie# show ip arp
```

Protocol	Address	Age(min)	Hardware	Type
----------	---------	----------	----------	------

Interface

Internet192.168.7.233 23 0007.e9d9.0488 ARPAFastEthernet0/0

```
Internet192.168.7.112 10 0050.eb08.6617 ARP AFastEthernet0/0
```

```
Internet192.168.7.79 12 00d0.f808.3d5c ARPA FastEthernet 0/0
```

```
Internet 192.168.7.1 50 00d0.f84e.1c7f ARPA FastEthernet 0/0
```

```
Internet192.168.7.215 36 00d0.f80d.1090 ARPAFastEthernet0/0
```

```
Internet192.168.7.127 0 0060.97bd.ebee ARPAFastEthernet0/0
```

G!5B

```
Internet192.168.7.195 57 0060.97bd.ef2d ARPAFastEthernet0/0
```

Internet192.168.7.183 -- 00d0.f8fb.108b ARPAFastEthernet0/0

\$ 5 34ç †>< Ø +!%o,X ÿ £EÄ V ß Ö

+!%o	AÈ â
3 U R W R F R O	5%4° , X #A, ÈA¹ +!%o , Q W HÄU Q H W

\$GGUHV V

â.@ Ê Í h,X ,3 Ä

\$ 5 34ç †A,,) , ü,X ÊKÈ È¹ ÚJsAu Ä V p

~~\$ J H P L Q~~

,X ê5ÛM- ÕG!5B,X ÈA¹ +!%₀₀ *ü-Á4“³ ’

	,QWHUIDFH	â ,3 G6(Xy · Ä
--	-----------	----------------

,l G Q ,	Q ,	£EÄ

G ÄÄÈ â

Q , Z Æ	(Ë	AÈ â

1.4.8 show ip interface

A¹ Q , Ä¹ / y ·,X , 3Š Œ µ C Ä Q , ã V ß Ö

show ip interface interface-type interface-number @

—/•nû +” ~YWP(,9B B— b(,‘e AD\$ Vâ,, ...•R,,~â...#b p&,1 gĩ R6s' d" Vĩ°Â đ l! \$92p' 1\$

G ÄÈ â

Q , Z Æ

(È

AÈ â

2 ´ IP § w W

2.1 IP § ´ w W

, 3á uG!5B Q ,G!5B Û Ä¹ ß Q , Ö

2.1.1 ip mask-reply

?UA} 5 * 2 6EC Ê6Ñ ó Í , & 0 3}-ÖÄ" . Î ¡ h È J ¥EÖ , & 0 3h1(y [È*ü y ·G!5B Q , ip mask-reply Ä¹ Q ,X Q Æ ã GKÁ ¥EÖ , & 0 3}-Ö ¡ h y [Ä

ip mask-reply

no ip mask-reply

– DAÈ â	– D	£EÄ

5 ,ÖG!5B	5 ,Ö GKÁ ¥EÖ , & 0 3}-Ö ¡ h y [Ä
----------	-----------------------------------

Q , ö ã	y ·G!5B ö ã
---------	-------------

S*ü Û Ð	5%4°A' Û Ý ÊLÔ?U-¹F' f6(5% Ð ñ p \$5%,X \$5% }-Ö È Z9< ¢A¹ µ C È5%4°A' Û Ä¹ ¥EÖ , & 0 3}-ÖÄ" #\ C È y , & 0 3}-ÖÄ" #\ C,X5%4°A' Û î ¥EÖ }-Ö h1(#\ C Ä
---------	---

G!5B _	¹ ßG!5B _ \$ ÈA' Û,X) D V W (W K H y QÜH yñ , & 0 3X }-ÖÄ" y [Ä interface fastEthernet 0/1 ip mask-reply
--------	---

,ì G Q ,	Q ,	£EÄ

G ÄÄÈ â	
---------	--

Q , Z Æ	(È	AÈ â

2.1.2 ip mtu

?UA'5B , 3Ù Ô û ôEg) Ä 0 7 8 Ä È*û y ·G!5B Q , ip mtu ÄA¹ Q ,X Q Æ ã Ä¹ 6 á5 ,Ö G!5B Ä

ip mtu bytes

no ip mtu

– DAÈ â	– D	£EÄ
	bytes	, 3Ù Ô û ôEg) È¹+8V)!È8× È a Ä

5 ,ÖG!5B

5 ,Ö â y · Q , P WGX5B,X ,ì à Ä

Q , ö ä

y ·G!5B ö ä

V p Ô p , 3y [CYE> , 3 0 7,û ã È 5 * 2 6EC Ê î Í y [E⁻> š Ú Ä Ý ü à Ô(=

S*û Ô Ð

– DAÈ á	– D	£EÄ

5 ,ÖG!5B

5 ,Ö *ü Ä

Q , õ ä

y ·G!5B õ ä

S*ü Ü Ð

'CÃ+ á Ô ì Ê È Ý Ã Ñ S ka' Û ¢ Ô þ y · y ,X D B Ù È E-?U ¢ A¹ y · ¥EÖ Î
• Ä V pA' Û Ú D B Ù ¢ y y ·Gi „ ¥EÖ Î • ÈA' Û î4- D B\$ d ¥EÖ Ô þ , & 0 ™ i
n â# \ C È A • D B\$ d A¹, Â Û ,X5% G à Ô \$5% þ,X ° ê Ô ÄA' Û ÄE- D B\$ d
î Ú â4Á,X D B Ù ¥ Ý'; Ô G,XCÃ XE¯> ¥EÖ Ä
5 * 2 6EC Ê5 ,Ö *ü , & 0 ™ i n â Ä

G!5B _

¹ ßG!5B _ \$ È) D V W (W K H U y Q B M Á Z , & 0 ™ i n â Ä

interface fastEthernet 0/1

no ip redirects

,ì G Q ,	Q ,	£EÄ

G ÄAÈ á

Q , Z Æ	(È	AÈ á

2.1.4 ip source-route

?U AÆ5 * 2 6EC Ê Ø)Ú ú Ý\$dCÃ+ µ C,X , 3y [È*ü < G!5B Q , ip source-route ÄA¹ Q ,
,X Q Æ ä GKÁ\$dCÃ+ µ C,X Ø)Ú s6Ñ Ä

ip source-route

no ip source-route

– DAÈ á	– D	£EÄ

5 ,ÖG!5B

5 ,Ö *ü Ä

Q , õ ä

< G!5B õ ä

S*ú Ů Đ	5 * 2 6 Ō , 3\$dCÃ+ Ä 'A' Ů y , 3D B Û Ê Ê í Í , 3y ,X ù \$dCÃ+ Ä ' R\$d CÃ+ ÄÄ,,)CÃ+ 1 EÝNMÊ> "¹ ÊÊ- oEÝNM ü5) & ÝA°4š £EÄ Ä V p "# A¹ D B Û *ü Z J Ô þEÝNM Ê î ;> j h,X 0 × V p "# ´ ,XEÝNM Ê î4- D B \$d ¥EÖ Ō þ , & 0 3- DKÂNI# C Ê' â ö ×A¹ D B Û Ä 5 * 2 6EC Ê5 ,Ö ¯% ß Ō , 3\$dCÃ+ (M û Ä	
G!5B _	¹ ßG!5B _ \$ Ê GKÁ Z , 3\$dCÃ+ (M û Ä no ip source-route	
ì G Q ,	Q ,	£EÄ
G ÄÄÊ â		
Q , Z Æ	(Ê	AÊ â

2.1.5 ip unreachables

?UA} 5 * 2 6EC Ê6Ñ ó { *ó , & 0 3Â Ů á ÄE' y [Êü y ·G!5B Q , ip unreachables ÄA¹ Q ,X
Q Æ ä Ä¹ GKÁ ¥EÖ , & 0 3Â Ů á ÄE' y [Ä

ip unreachables

no ip unreachables

- DAÊ â	- D	£EÄ
5 ,ÖG!5B	5 ,Ö *ü Ä	
Q , ö ä	y ·G!5B ö ä	
S*ú Ů Đ	V p 5 * 2 6EC Ê y Ō þ,Â Ů 7¼D•,X) ·y [Êæ á6Ñ Ø)ÚA¹ y [,X þ #A, Ê î ¥EÖ Ō þ , & 0 3Â Ů á ÄE'# C Ä V p 5 * 2 6EC Ê+ b"u ÝCÃ+ Ê5à á6ÑE@ ¥ Ō þ D B Û Ê î å D B\$d ¥EÖ , & 0 3 á ÄE'# C Ä A¹ Q , E j Ý , & 0 3Â Ů á ÄE'# C Ä	
G!5B _	¹ ßG!5B _ \$ Ê GKÁ Z) D V W (W K H V Q ¥EÖ , & 0 3Â Ů á ÄE'# C Ä interface fastEthernet 0/1 no ip unreachables	

,ì G Q ,	Q ,	£EÄ

G ÄÄÈ â

Q , Z Æ	(Ë	AÈ â

3 IPv6 w W

3.1 ü » w W

3.1.1 ping ipv6

A¹ Q ,*ü 9Až • , 3 9 5%4°,XE²Eî û Ä

ping ipv6 >ipv6-address@

– DAÈ â	– D	£EÄ
	ipv6-address	s >•Až •,X,Â,X

5 ,ÖG!5B

Q , õ ä (M õ ä

S*ü Ô Ð ' ü Q , áEg 9,Â,X Ê íE¯ 9*ü x f õ ä È Ä¹ Ô n K ',X Ø/¡ – D Ä

G!5B _	Ruijie# ping ipv6 fec0 ::1	
	ü ;> Ê S L Q J,X Ø/¡0ú È,X ÿ V B Ö	
	+!%	AÈ â
		></ !£ p ¥ Î,XAË" ,ì h,X h1(Z
		></ ¥ Î iAË" ü?~ n ÊKÈ Y"u Ý h1(
	8	></ A' Ô"u ÝCÃ+ E',Â,X
	5	></ – D ÎJí
	)	></ 2ï4³"u ÝC \$d
	\$	></ y [\$d p6ÑEÝ ½
	,	></ 5%4° y · Ø b ' R Z Ö Õ ê5Ü A¹5%4° y ·,X , 3 9 s6Ñ>•/U*ü V "# †0U
	"	></ p-¹JíAÃ

,ì G Q ,	Q ,	£EÄ

G ÄAÈ â

Q , Z Æ	(Ë	AÈ â

3.1.2 ipv6 address

5%4° y ·G!5B Ô p , 3 9 ,X S*üA¹ Q ,X Q Æ ã ôL8G!5B,X Ä

ipv6 address ipv6-address prefix-length

ipv6 address ipv6-prefix prefix-length eui-64

ipv6 address prefix-name sub-bits/prefix-length >eui-64 @

no ipv6 address

no ipv6 address ipv6-address prefix-length

no ipv6 address ipv6-prefix prefix-length eui-64

no ipv6 address prefix-name sub-bits/prefix-length >eui-64 @

– DAÈ â	– D	£EÄ
	ipv6-address	, 3 9 È™NOFI ~ 5) & n ,X 6 ã È£ p ³ KÈ*ü f ËLh Ô È£ p ³ 4 !"(M È*ü AE⁻ D></
	ipv6-prefix	, 3 9 !4Ô È™NOFI ~ 5) & n ,X 6 ã È£ p ³ KÈ*ü f ËLh Ô È£ p ³ 4 !"(M È *ü AE⁻ D></
	prefix-length	, 3 9 !4Ô,XKS z G , 3 9 ·><5%4°,XF¼ Ú Ä
	prefix-name	Eî*ü !4Ô,X á + Ä S*üE- p Û n,XEî*ü !4Ô*ó ä y · Ä
	sub-bits	\$!4Ô!"(M â !"(M,X ÄE- p âEî*ü !4Ô ,X !4Ô Û J*ó ä y · ÄE- p ,X></ "©?UFI ~ 5) & £EÄ,X f È></ "© Ä
	eui-64	></ *ó ä,X , 3 9 + G!5B,X !4Ô ` !"(M,X y · , ' ÛAš0ú4~ ä Ä

5,ÖG!5B

Q , õ ä

y ·G!5B õ ä

S*ü Û Ð

' Ô p , 3 9 y ·>• î î J èJÒCÃ(Š Ō 8 3 ÊFw 2Ĭ4³ Ú A¹ y ·7¾ |*ó äJÒCÃ
Ä

y ·,X , 3 Y 3 Ä¹ S*üEî*ü !4Ô *ó ä Ä J , 3 Y Eî*ü !4Ô
\$!4Ô !"(M ÄEî*ü !4Ô Ä¹ S*ü ipv6 general-prefix Q ,G!5B È 3 Ä6Ñ
EîE> ' + & 3 Y v 0Ä,X 3 ' Ä !4Ô ¥),, Ä s6Ñ : 4 Ä –?• ' + & 3 YG!5B Ä Ä \$

Q , ð ä y ·G!5B ð ä

S*ü Ü Ð ´(Š Œ7¾| G!5B Û 'A' Û 5 \$ÄCÃ+ @ Å y[Ê È Ã¹ S*ü 5 \$y[,X!
4Ô µ C7¾|*ó ä (8 , ã,X y · Ä
V p ,X 5 \$y[ÿ Ý J WG!5B ,X Û « ÈFw A¹ y · ÚE!E> ' + & 3 Y9< ¢E- o
J WG!5B Ä J WG!5B E! Û '16 á u<,X ,3 Y Ä 17 3á u<,X ,3 Y
1 Ä
S*ü no ipv6 address autoconfig Q , ôL8 y · Þ,X ,3 Y Ä

G!5B _ Ruijie(config-if)# ipv6 address autoconfig default
Ruijie(config-if)# no ipv6 address autoconfig

Q ,	£EÄ
ipv6 address ipv6-prefix/prefix-length >eui-64@	¹G!5B y · ,3 Y

G ÄÄÈ ä

(È	AÈ ä
5 * 2 6 (	A¹ Q , ¢ 5 * 2 6 (Ô ÿ Œ Ä

3.1.4 ipv6 enable

A¹ Q , ' ÔA¹ y ·,X ,3 Y s6Ñ È S*üA¹ Q ,,X Q ð ä Ã¹ Ú ,3 Y s6Ñ GKÁ Ä
ipv6 enable
no ipv6 enable

- D	£EÄ

5 ,ŒG!5B y ·,X ,3 Y s6Ñ"u Ý ' Ô Ä

Q , ð ä y ·G!5B ð ä

S*ü Ü Ð Ý /¡ • ä Ã¹ ' Ô y · Þ,X ,3 Y s6Ñ È Ô ü y · ßG!5B ipv6 enable Q , ` ,È
y ü y · ßG!5B Z ,3 Y Ä
a T iÄ I O ,3 Y s Ø ,3 Y s6Ñ Á PNã{ä6Á,qM@ Ä džV5p†9G0~Á• ð p)@] n !«ì ""Ð

,l G Q ,	Q ,		£EÄ	
	show ipv6 interface		¹,ß y ·,X,l G µ C	
G ÄÄÈ â				
Q , Z Æ	(È		AÈ â	

3.1.5 ipv6 general-prefix

G!5B , 3 YEî*ü !4Ô È ü < G!5B ð ã ß S*ü ipv6 general-prefix Q , ÄA¹ Q ,AÁ"© ã V ß Ö

ipv6 general-prefix prefix-name ipv6-prefix/prefix-length

no ipv6 general-prefix prefix-name ipv6-prefix/prefix-length

– D

	show ipv6 general-prefix	1,βE↑*ü !4Ô
--	--------------------------	-------------

G ÄÄÈ â

Q , Z Æ	(Ë	AÈ â
	5 * 2 6 (	A¹ Q , ¢ 5 * 2 6 (Ô ÿ Ö Ä

3.1.6 ipv6 hop-limit

ü < G!5B õ ã ß S*üA¹ Q ,G!5B ¥EÖ) • y [,X5 ,ÖCÇ D Ä

ipv6 hop-limit value

no ipv6 hop-limit

– DAÈ â	– D	£EÄ

5\$ÉZ Æ
5,ÖÇD ß Ax Ä

	- D	£EÄ
- DAÈ â	Y D O X H	F• AĖ" 1 6 y [,X DG£ Ä'A'5B,X Ê></ L !6 A¹y · P,X , S Y †0U " # Ä8× È Ä

5 ,ÖG!5B

Q , ð ä y · G!5B ð ä

S*ü Ů Đ

Q , Z Q5 U€ ìy ðĩ-ê € P # w` ìy awǎmÚÚà Ò € 1ýá PšÀ0
' ü y · ÞG!5B Ô Þ „X , 3 9 Ê ÈüA¹ ,ó!7C 4-E- Þ y · !?U W | †
0U " # È!8 ÊA¹ Ø b´ W H Q W D WCPYX(Š Œ Ä †0UE>/ß ;> ` Z È V p"u Ý ”
†0U ÈFw A¹ Ä¹>•!7.B S*ü È V p " # †0U Z È J èA¹ S*ü,X y
· ŮAš0ú S*ü (8 , ,X ŮAš0ú ÈFw >< â üA¹JÒCÃ Þ , üJÒCÃ Î)„Gᵢ á ÈFw
!8 Ê2İ4³ î7¾ | GKÁA¹ y · GL !6 üA¹ y · ÞE¯> , 3 9 ,X,ì G ᵢ 0 È!8 Ê ™NO ¹ •
Â JG!5B „X È JEîE>a ð G R Z Q yXG „ | †0U " # Ä Ĩ) ™ %ß '
Ô Þ y · ¢ G R Z Q Œ X Š Œ Œ ÊFŇ î A¹ y · Þ,X Gᵢ „ | †0U " # Ä

Q , ð ä y ·G!5B ð ä Ä

S*ü Ů Đ A¹ Ů « !,XA'5B ‡ n Z A¹CÃ+ < @ ,X ú?U S*ü <(Š Ŏ7¾ |G!5B 99< a
Ä V p Ů « !A'5B Z È Ú S*ü <(Š Ŏ7¾ |G!5B 99< k È ú í á S*ü Ä

G!5B _ Ruijie(config)# int vlan 1
Ruijie(config)# ipv6 nd managed-config-flag

,l G Q ,	Q ,	£EÄ
	show ipv6 interface	¹,ß y · G b U D L,XQlR Ä
	ipv6 nd other-config-flag	A'5B <(Š Ŏ7¾ G!5B9< aL8 ê,X µ C,X Ů « ! Ä

G ÄÄÈ ä /

Q , Z Æ	(È	AÈ ä

	show ipv6 interface	1,β y ·,X μ C
G ÄÄÈ ä		
Q , Z Æ	(È	ÄÈ ä

3.1.10 ipv6 nd prefix

A¹ Q ,*ü 9G!5BCÃ+ < @ y[5 \$ Û ÿ,X !4Ô È S*üA¹ Q ,X Q F6 ã Ú ôL8 G!5B ,X !4Ô ê5Ü 6 á !4ÔG!5B – D,X5 ,Ö Ä

ipv6 nd prefix ipv6-prefix prefix-length _default > valid-lifetime preferred-lifetime @ at > valid-date preferred-date @infinite no-advertise @ off-link @no-autoconfig @

no ipv6 nd prefix ipv6-prefix/prefix-length _default ^ off-link @ >no-autoconfig no-advertise @`

	– D	£EÄ
	ipv6-prefix	, 3 9,X5%4° È È™NOFI -5) & ,X ></ 6 ã Ä
	prefix-length	, 3 9 !4Ô,XKS z È"¼ ä !M6 ™NO t Þ ¶Ä¶
	valid-lifetime	CÃ+ < @ ,X !4Ô âAx Ý ,X ÊKÈ Ä
	preferred-lifetime	CÃ+ < @ ,X !4Ô âAx OjEÝ Ý ,X ÊKÈ Ä
	at valid-date preferred-date	A'5B @ !4Ô Ý `OjEÝ Ý ,X p!6 ÊKÈ È p!6 ÊKÈ 1 1 Ä Ü Ä H Ä ä Ê Ä ÚJs></ ,X Ä
– DAÈ ä	infinite	></ " E°FÑ Ý Ä
	default	A'5B?U S*ü,X5 ,Ö – DG!5B Ä
	no-advertise	></ A¹ !4Ô á>•CÃ+ < @ Ä
	off-link	ü ¥EÖ , 3 9 y[Ê V p,Â,X ,X !4Ô G!! 4ÔFw Ax A¹,Â,X,X ü à ÔJÒCÃ R Q OPL Q,Ñ y E',X Ä'5B ZA¹EÝNM></ A¹ !4Ô á*ü 9 . R Q O L Q N ,X ø • Ä
	no-autoconfig	A¹EÝNM Û/ A¹CÃ+ < @ ,X !4Ô á6Ñ*ü b 7¾ G!5B Ä

5 ,Ö @ ,X !4Ô üA¹ y · PEÏE> , 3 9 D G G Q ,G!5B ,X !4Ô ÄG!5B,X !4Ô üCÃ+ < @ y[,X5 ,Ö – D V ß Ö	
5 ,ÖG!5B	valid-lifetime: /! ý
	preferred-lifetime /! ý
	!4Ô>• @ È J è Ä 1*ü b R Q O L Q N 1*ü b 7¾ G!5B

Q , ð ä

y · G!5B ð ä

EîE>A¹ Q , Ã ¹ Ú ÿG!5B!£ Ô þ !4Ô,X Ø þ – D È Ù À ú?U @ A¹ !4Ô È5 ,Õ ™ % ß
CÃ+ < @ y[5 \$ @ ,X !4Ô üA¹ y · PEîE>

S*ü Ô Ð

	V H F R Q G V	A ¹ A' Û 0 A ¹ y · Þ,X5 ,ÖA' Û,X Ý ÊKÈ Ä
5 ,ÖG!5B	/!	
Q , ð ä	y ·G!5B ð ä	
S*ü Û Ð	CÃ+ <*ó , ó ´ +!% , ü b!£ þCÃ+ < @ 5 \$ y [È ¹ Û â ZA ¹ y · ü,XJÒCÃ Þ Ã ¹ ÚA ¹ A' Û 0 5 ,ÖA' Û,X ÊKÈ Ä V pA'5B,X > </ á a>· ' 05 ,ÖA' Û Ä 'A'5BM2 Ê?U"¼ äA ¹ ™NO û b1 bA' Û ¥EÖCÃ+ < @ 5 \$ y [,XKÈLh U D L Q W H U Y D O	
G!5B _	Ruijie(config)# interface vlan 1 Ruijie(config-if)# ipv6 nd ra-lifetime 2000	
,l G Q ,	Q ,	£EÄ
	show ipv6 interface	¹ ,ß y · G b U D L,Q!E Ä
	ipv6 nd ra-interval	A'5BCÃ+ < @ y [,X ¥EÖKÈLh Ä
	ipv6 nd ra-hoplimit	A'5BCÃ+ < @ y [,XCÇ D +!% ,X Ä
	ipv6 nd ra-mtu	A'5BCÃ+ < @ y [,X 0 7 8 +!% ,X Ä
G ÄÄÈ ä		
Q , Z Æ	(È	AÈ ä

3.1.12 ipv6 nd ra-interval

S*üA¹ Q ,A'5B y · Þ ¥EÖ,XCÃ+ < @ 5 \$ y [,XKÈLh ÈS*üA¹ Q ,X Q ð ä Ú 6 á5 ,Ö Ä

ipv6 nd ra-interval seconds _min-max min_value max_value`

no ipv6 nd ra-interval

- DAÈ ä	- D	£EÄ
	seconds	CÃ+ < @ 5 \$ @ y [,X ¥EÖKÈLh Ä ¼!)! Ä
	min-max	A'5BEî y [, ¥EÖKÈLh,X Ô ä ` Ô û Ä
	min_value	A'5BEî y [, ¥EÖKÈLh,X Ô ä Ä
	max_value	A'5BEî y [, ¥EÖKÈLh,X Ô û Ä

5 ,ÖG!5B /! È rL ¥EÖ y [,XKÈLh ü /! Þ ß#B | Á Ä

Q , ð ä y ·G!5B ð ä Ä

S*ü Ü Ð V pA¹A' Ü '5 ,ÖCÃ+ A' Ü Ê ÈFw A'5B,XKÈLh á6Ñ ó ü bCÃ+ <*ó , ó,X ÊKÈ Ä
 ° ê È ZL !6JÖCÃ Þ,X J WA' Ü à Ê ¥EÖCÃ+ < @ y [5à 4*ü5%4° ú ' È ¹rL
 ¥EÖ y [,XKÈLh Ü üA¹ Þ#B |,R Ü ` Ä
 V p Ü n GK + min-max ÈFw rL ¥EÖ y [,XKÈLh Ü ü Ö ä ` Ö ü KÈLc EÝ ½
 Ö Þ Ä

G!5B _ Ruijie(config)# interface vlan 1
 Ruijie(config-if)# ipv6 nd ra-interval 110
 Ruijie(config-if)# ipv6 nd ra-interval min-max 110 120

Q ,	£EÄ
show ipv6 interface	¹,ß y · G b U D L,XQ!E Ä
ipv6 nd ra-lifetime	A'5BA' Ü,X*ó , ó Ä
ipv6 nd ra-hoplimit	A'5BCÃ+ < @ y [,XCÇ D +!%,X Ä
ipv6 nd ra-mtu	A'5BCÃ+ < @ y [,X 0 7 8 +!%,X Ä

G ÄÄÈ ä ´

Q , Z Æ	(È	AÈ ä

3.1.13 ipv6 nd ra-hoplimit

S*üA¹ Q ,A'5B y · Þ ¥EÖ,XCÃ+ < @ 5 \$ y [,XCÇ D +!%,X È S*üA¹ Q ,,X Q R6 ä Ü 6
 á5 ,Ö Ä

ipv6 nd ra-hoplimit value

no ipv6 nd ra-hoplimit

– DAÈ ä	– D	£EÄ
	value	CÃ+ < @ 5 \$ y [,XCÇ D +!%,X Ä

5 ,ÖG!5B 5 ,Ö Ä

Q , ð ä	y ·G!5B ð ä Ä
---------	---------------

S*ü Ô Ð	*ü 9A'5B ¥EÖ,XCÃ+ < @ ,XCÇ D +!%,X Ä
---------	--------------------------------------

G!5B _	Ruijie(config)#
--------	-----------------

,! G Q ,

Q ,	£EÄ
show ipv6 interface	1,ß y · G b ra-info ,X μ C Ä
ipv6 nd ra-lifetime	A'5BA' Û,X*ó , ó Ä
ipv6 nd ra-interval	A'5BCÃ+ < @ y [,X ¥EÖKÊLh Ä
ipv6 nd ra-hoplimit	A'5BCÃ+ < @ y [,XCÇ D +!%,X Ä

G ÄÈ â

Q , Z Æ

(È

AÈ â

3.1.16 ipv6 nd suppress-ra

S*üA¹ Q , e ü y · Þ ¥EÖCÃ+ < @ 5 \$ y [È S*üA¹ Q , X Q Æ ã Ú ¢ „ AÆA¹ y · ¥
EÖCÃ+ < @ 5 \$ [Ä

ipv6 nd suppress-ra

no ipv6 nd suppress-ra

– DAÈ â

– D

£EÄ

5 ,ÖG!5B

ü , 3 Y, X y · Þ Ú á î ¥EÖCÃ+ < @ y [Ä

Q , ð ã

y · G!5B ð ã

S*ü Ü Ð

'?U ü Ô Þ y · Þ e CÃ+ < @ y [¥EÖ Ê Ä¹ S*ü L S Y V X S S Q Æ Ä V U D

G!5B –

Ruijie(config)# interface vlan 1
Ruijie(config-if)# ipv6 suppress-ra

, ì G Q ,

Q ,

£EÄ

show ipv6 interface

¹, ß y · G b U D L X Q Æ

G ÄÈ â

Q , Z Æ

(È

AÈ â

3.1.17 ipv6 neighbor

S*üA¹ Q , G!5B Ô Þ M- Ö F • È S*üA¹ Q , X Q Æ ã Ä¹ ô L8 W Ä

ipv6 neighbor ipv6-address interface-id hardware-address

no ipv6 neighbor ipv6-address interface-id

– DAÈ â

– D

£EÄ

ipv6-address	F• ,X , 3 9 È ™NOFI ~ 5) & n ,X ></ 6 ã Ä
interface-id	Û nA¹F• ü,X5%4° y Ä Ù À 5 R X W H G 3 R U W / \$ 3 · ` 6 9 ,y · Ä Ä
hardware-address	

- DAÈ â	- D	£EÄ
5 ,ÖGI5B	¥EÖF• AË" Ê È ¹JÒCÃ 0 \$d Ä	
Q , ð ä	< G!5B ð ä Ä	
S*ü Ô Ð	+9	
G!5B _	Ruijie(config)# no ipv6 ns-linklocal-src	
,l G Q ,	Q ,	£EÄ
	-	
G ÄAÈ â	‘	
Q , Z Æ	(Ë	AÈ â

3.1.19 ipv6 redirects

'A' Ô ü y · Þ , 3 9 y [œ ÚA¹ y [¢ y ·E@ ¥Î• Ê Ä¹ S*üA¹ Q , { ú?U üA¹
y · Þ ¥EÖ , & 0 3 YGi n â y [È S*üA¹ Q , ,X Q F6 ä ' ÞEÄ,X)„B5 Î)„ Ê Ú á ¥EÖ , & 0 3 Y
Gi n â y [Ä

ipv6 redirects

no ipv6 redirects

- DAÈ â	- D	£EÄ
5 ,ÖGI5B	ü , 3 9 ,X y · Þ AÆ ¥EÖ , & 0 3 YGi n â y [Ä	
Q , ð ä	y ·G!5B ð ä	
S*ü Ô Ð	Ý , & 0 3 YXJíAÃ y [,X D B Ò ðEgEó)[ÝL\$,X È ,Ö!£/!Js Ô Î Ä¹ ¥EÖ p JíAÃ , & 0 3 YíAÃ y [S S Ä	
G!5B _	Ruijie(conifgf)# interface vlan 1	
	Ruijie(config-if)# ipv6 redirects	

, ì G Q ,	Q ,	£EÄ
	show ipv6 interface	¹ , ß y · , X µ C
G ÄÄÈ ä		
Q , Z Æ	(È	AÈ ä

3.1.20 ipv6 route

A¹ Q , *ü 9G!5B , 3 9 , XM- ÖCÃ+ È S*üA¹ Q , , X Q Æ ä Ú ôL8 G!5B, XM- ÖCÃ+ Ä

ipv6 route ipv6-prefix prefix-length ipv6-address interface-id >ipv6-address@`

no ipv6 route ipv6-prefix prefix-length ipv6-address interface-id ipv6-address @`

– DAÈ ä	– D	£EÄ
	ipv6-prefix	, 3 9 , X5%4° È È™NOFI ~ 5) & , X ></ 6 ä Ä
	prefix-length	, 3 9 !4Ô, XKS z È"¼ ä !M6 ™NO t Þ ¶ ¶
	ipv6-address	Û n E', Â, X5%4°, X ß ÔCÇ È™NOFI ~ 5) & , X ></ 6 ä Ä ß ÔCÇ Ä ¹ ` ß ÔCÇ, XEg Î y · à È Û n Ä"¼ ä V p ß ÔCÇ, X V p JÒCÃ ÈFw ™NO Û nEg Î y · Ä
	interface-id	Û n E', Â, X5%4°, X y [Eg Î y · È V pG!5B, XM- Ö CÃ+ ™ ™ Û n ZEg Î y · 5à"u Ý Û n ß ÔCÇ È Fw ÚAx , Â, X üA ¹ Eg Î y · , ÌE ² , XJÒCÃ Þ È GA ¹ M- ÖCÃ+ >• ' 0, ÈE ² CÃ+ Ø)Ú Ä"¼ ä V p, Â, X5%4° è 5Û ß ÔCÇ, X V p JÒCÃ ÈFw ™NO Û nEg Î y · Ä

5 , ÖG!5B		
Q , õ ä	< G!5B õ ä	
S*ü Û Ð		
	V p, Â, X è5Û ß ÔCÇ JÒCÃ Fw ™NO Û nEg Î y · È J è V p, Â, X JÒCÃ È?U" ß ÔCÇ 3 ™NO JÒCÃ a "¼ ä Ä' üG!5BCÃ+ È, Â, X ` ß ÔCÇ á AÆ Î), î• È V p ß ÔCÇ `Eg Î y · FÑ Û n Z ÈFw ß ÔCÇ G! , X, ÈE ² CÃ+ , XEg Î y · ™NO `G!5B, XEg Î y · Ô7È Ä	

G!5B _	Ruijie(config)#	ipv6 route	2001::/64 vlan 1 2005	::1
,l G Q ,	Q ,		£EÄ	
	show ipv6 route		1,ß , 3 9,XCÃ+ µ C	
G ÄÄÈ â				
Q , Z Æ	(È		AÈ â	

3.1.21 ipv6 source-route

S*üA¹ Q , SA' ÜE@ ¥ ú ÝCÄ+ OjF¼,X , 3 Y y [ÈS*üA¹ Q ,X Q Æ ä Ú/U!6E@ ¥ ú ÝCÄ+ Oj F¼,X , 3 Y y [Ä

ipv6 source-route

no ipv6 source-route

- DAÈ â	- D	£EÄ
5 ,ÖG!5B	/U!6E@ ¥ ú ÝCÄ+ OjF¼,X 3 Y y [Ä	
Q , ð ä	< G!5B ð ä Ä	
S*ü Ü Ð	´ 2O _ CÄ+ OjF¼ Ý] <Ld w Ö SA' Ü \ • çFA « !4± á u Ĩ È ¹ ü5 ,Ö ™ %ß /U!6E@ ¥ ú ÝCÄ+ OjF¼,X 3 Y y [È i' Ø)Ü Ô4œ,Ä,X ,X ú Ý2O _ CÄ + OjF¼,X , 3 Y y [Ä	
G!5B _	Ruijie(conifg)#	no ipv6 source-route
,l G Q ,	Q ,	
	-	
G ÄÄÈ â		
Q , Z Æ	(È	
	AÈ â	

3.2 < ü » w W

3.2.1 clear ipv6 neighbors

#ÜL8 | Ö : 4 ,XF• Ä

clear ipv6 neighbors

– DAÈ â	– D	£EÄ

5 ,ÖG!5B (M õ ä

Q , ö ä EîE>A¹ Q , Ã ¹#ÜL8 ÝEîE>F• ¥),, | Ö : 4 ,XF• È"¼ äM- ÖG!5B,X á î>•#ÜL8 Ä

S*ü Ô Ð

G!5B _ Ruijie# clear ipv6 neighbors

,l G Q ,	Q ,	£EÄ
	ipv6 neighbor	G!5B>< ÖF•
	show ipv6 neighbors	/ F• ><,X Y •

G ÄÄÈ â

Q , Z Æ	(È	AÈ â

3.2.2 show ipv6 general-prefix

/ Eî*ü !4Ô ,X !4Ô µ C È S*ü show ipv6 general-prefix Q , ÄA¹ Q ,AÄ"© ä V ß Ö

show ipv6 general-prefix

– DAÈ â	– D	£EÄ

5 ,ÖG!5B

Q , ö ä (M õ ä

S*ü Ū Đ

S*ü show ipv6 general-prefix Q , ¹,βEî*ü !4Ô,X μ C Ä ¹G!5B,XEî*ü !4Ô È â
' + & 3 Y v 0Ä : 4 Eî*ü !4Ô ÈFÑ î / î 9 Ä

G!5B –

/ Eî*ü !4Ô μ C È _ \$ V ß Ö
Ruijie# show ipv6 general-prefix
There is 1 general prefix.
IPv6 general prefix my-prefix, acquired via Manual configuration
2001:1111:2222::/48
2001:1111:3333::/48

,l G Q ,

Q ,	£EÄ
ipv6 general-prefix	G!5BEî*ü !4Ô

G ÄÄÈ â

Q , Z Æ

(È	AÈ â
5 * 2 6 (	A¹ Q , ¢ 5 * 2 6 (Ô Ÿ Ö Ä

3.2.3 show ipv6 interface

/ , 3 9 y ·,X μ C Ä

show ipv6 interface >interface-id-ra-info @

– DAÈ â

– D	£EÄ
interface-id	y · Ä Û Ä ¹ p5% y · Ä D J J U H J D W H y S Ä 1 9 W y · Ä
ra-info	¹,βA¹ y · Þ G b ¥EÖ,X 5 \$ y [,X – D μ C Ä

5 ,ÖG!5B

Q , ö ä

(M ö ä

S*ü Ū Đ

EîE>A¹ Q , Ä ¹¹,β , 3 9 y · Þ,X G!5B Ä 1 ' G!5B ¹ Ž,ì G,X4³Au μ C Ä

INET6: 2001::1 , subnet is 2001::/64 [TENTATIVE]
Joined group address(es):
ff01:1::1
ff02:1::1
ff02:1::2
ff02:1::1:ff00:1
MTU is 1500 bytes
ICMP error messages limited to one every 10 milliseconds
ICMP redirects are enabled
ND DAD is enabled, number of DAD attempts: 1
ND reachable time is 30000 milliseconds
ND advertised reachable time is 0 milliseconds
ND retransmit interval is 1000 milliseconds
ND advertised retransmit interval is 0 milliseconds
ND router advertisements are sent every 200 seconds<240--160>
ND router advertisements live for 1800 seconds

ü pM6 / Ã¹,ß , 1 (7 V X E Q H W L V
> 7 (1 7 \$ 7 , 9 (@ È G b Ö , 1 (7 â > @YC³,X Û « !,X ŷ V ß

+!%o	AÈ â
\$ 1 < & \$ 6 7	></ A¹ " ¯ • Ä
7 (1 7 \$ 7 , 9 (	></ !7 ü A¹ E¯> †0U " # ' \$ ' È " # E¬ þ4\$ 3A¹ þ Ê,X Ä
' 8 3 / , & \$ 7 ('	></ A¹ Æ4£>• " # ÝG¡ á,X , ü Ä
' (3 5 (& \$ 7 ('	></ `ÏÀ @'->= hM` 7 (1 7 @ 1,X

ND router advertisements are sent every 200 seconds<240--160>

Flags: !M!O, Adv MTU: 1500

ND advertised reachable time is 0 milliseconds

ND advertised retransmit time is 0 milliseconds

ND advertised CurHopLimit is 64

Prefixes: (total: 1)

fec0:1:1:1::/64(Def,Auto,vltime:2592000,pltime:604800,flags:LA)

G b ra-info

S O W L P H	></ A¹ !4Ô,XOjEÝ Ý ÊKÈ /! Ä
/ _ /	/ Û «></ A¹ !4Ô,X R Q Q15BQPNÄ / ã ñ â ÞM6,ì ; Ä
\$ _ \$	\$ Û «></ A¹ !4Ô,X D X W R F15BQ I L J \$ ã ñ â ÞM6,ì ; Ä

ì G Q ,	Q ,	£EÄ

G ÄÄÈ â

Q , Z Æ	(È	AÈ â

3.2.4 show ipv6 neighbors

/ , 3 9

show ipv6 neighbors ^verbose @ >interface@ipv6-address @static> @ `

- D	£EÄ
verbose	
interface-id	
ipv6-address	
static	

- DAÈ â

Q , õ ã (M õ ã

S

_ Ö 6 9 , y · Þ
 Ruijie# show ipv6 neighbors vlan 1
 IPv6 Address Linklayer Addr Interface
 fa::1 00d0.0000.0002 vlan 1
 fe80::200:ff:fe00:2 00d0.0000.0002 vlan 1
 -
 Ruijie# show ipv6 neighbors verbose

G!5B _

IPv6 Address Linklayer Addr Interface

2001::1 00d0.f800.0001 vlan 1

State: Reach/H Age: - asked: 0

fe80::200:ff:fe00:1 00d0.f800.0001 vlan 1

State: Reach/H Age: - asked: 0

+!%o

\$ V N H G	></ ü?· dF• ,XJÒCÃ Ê Æ4£ åF• ¥EÖ,X F• AË" 1 6 ,X DG£ Ä
------------	---

_ Ö / M- ÖF• (Š Ö

Ruijie# show ipv6 neighbors static

IPv6 Address	Linklayer Addr	Interface	State
2001:1::1	00d0.f822.33ab	GigabitEthernet 0/14	ACTIVE
2001:2::2	00d0.f822.33ac	VLAN 1	INACTIVE

+!%o	AÈ â
, 3Y \$ G G U H V V	M- ÖF• ,X , 3 9
/ L Q N O D \ H U \$ G G U	G!5B,XJÒCÃ G 0 D F
, Q W H U I D F H	A¹F• ü,X y · M- ÖF• ,X(Š Ö Ö 6 7 \$ 7,X V Æ 4 £ å F • ¥ E Ö , X F • A Ë " 1 6 , X D G £ Ä

6 W D W H

5 ,ÖG!5B

Q , õ ä

(M õ ä

S*ü Û Ð

EîE>A¹ Q , Ã ¹ ¹,ßCÃ+ ><,X µ C Ä

G!5B _

Ruijie# show ipv6 route
Codes: C - Connected, L - Local, S - Static, R - RIP, B - BGP
I1 - ISIS L1, I2 - ISIS L2, IA - IIS interarea
L ::1/128
via ::1, loopback 0
C fa::/64
via ::, vlan 1
L fa::1/128
via ::, loopback 0
C 2001::/64
via ::, vlan 2
L 2001::1/128
via ::, loopback 0
L fe80::/10
via ::1, Null0
C fe80::/64
via ::, vlan 1
L fe80::200:ff:fe00:1/128
via ::, loopback 0
C fe80::/64
via ::, vlan 2

,ì G Q ,

Q ,	£EÄ
ipv6 route	G!5BM- ÖCÃ+

G ÄÄÈ â

Q , Z Æ

(È	ÄÈ â

3.2.6 show ipv6 router

, 3 Y5%4° È Ô oF• ,XCÃ+ <î¥ÎCÃ+ @ y[Ä?U /E- oF• CÃ+ <`CÃ+ @ µ C È
S*ü V K R Z L S Y Q, R X A " @ U ã V ß Ö

4 DHCP Client w W

4.1 ü » w W

4.1.1 ip address dhcp

?U S k¹ p5% ê5Ù 3 3 3Ã+ ' / & Ã) 5 Ō>™,X y ·6Ñ óEîE> ' + & 39< k , 3 μ C È*ü y ·G!5B Q , ip address dhcp Ä¹ Q ,X no 6 ã Ä¹ a#A¹G!5B Ä

ip address dhcp

no ip address dhcp

– DAÈ â	– D	£EÄ

5,ŌG!5B	5,Ō y · á6ÑEîE> ' + & 39< k , 3 Ä
---------	-----------------------------------

Q , ð ä	y ·G!5B ð ä
---------	-------------

S*ü Ū Ð	5 * 2 6EC Ê,X' + & 3 v 0Ã È üAË" , 3 Ê ÈE-?U" ' + & 3 á u < μ o h pG!5B – D μ C Ō Ä' + & 3EÝNM È v 0Ã \$5% }-Ō × Ä' + & 3EÝNM È à Ō \$5% p,X5% G μ C × Ä' + & 3EÝNM È ' 1 6 á u < μ C × Ä' + & 3EÝNM È äŌ ³ á × ' + & 3 EÝNM È : , 1 6 á u < μ C Ä 5 * 2 6EC Ê,X v 0Ã AÆ ü 3 3 3 Ã) 5Ã+ ' / & E ² CÄ pEîE> G K B& ÈE- pLÔ?U á u <,X Ō È,Ä! ä Ä,X á u < ŌA ¹ s6Ñ
---------	---

G!5B _	¹ B G!5B _ \$ È S k) D V W (W K ŌA ¹ Q H W k , 3 Ä interface fastEthernet 0 ip address dhcp
--------	---

l G Q ,	Q ,	£EÄ
	dns-server	n ' + & 3 v 0Ã,X ' 1 6 á u <
	ip dhcp pool	n ' + & 3 "4 á + È JE [–] 9 ' + & 3 "4G!5B ð ä Ä

G ÄAÈ â	‘
---------	---

Q , Z Æ	(È	AÈ â
---------	-----	------

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4.2 < ñ 0 w W

4.2.1 debug ip dhcp client

?UE> ' + & 3 & O LQH Q W
debug ip dhcp client Q , Ä
debug ip dhcp client
no debug ip dhcp client

– DAÈ â	– D	£EÄ

5 ,ÖG!5B	5 ,Ö GKÁ
----------	----------

Q , ö ä	(M *ü ö ä Ä
---------	-------------

S*ü Ů Đ	A ¹ Q , *ü b / G K F S FÜÖLÄH Q ME>/ß ,X ?U y [Y • È ¹ Ž ØG (Š Ő Ä
---------	---

G!5B –	¹ ß _ \$ È ' ŐA' Ů Þ,X G K FvS0Ä,XA×A© Ő G Ä debug ip dhcp client
--------	---

,l G Q ,	Q ,	£EÄ

G ÄÄÈ â	‘
---------	---

(È	
-----	--

Q, õ ä (M *ü õ ä Ä

S*ü Ô Ð V p"u Ý n , 3 ÈÚ / Ý ,X4¥ n ™ %o ÄV p n Z , 3 ÈÚ ¾ / A¹ , 3 ,X4¥ n ™ %o Ä

G!5B –
1 ß show dhcp lease ,X / 4§ p Ä
Ruijie# show dhcp lease
Temp IP addr: 192.168.5.71 for peer on Interface: FastEthernet0/0
Temp sub net mask: 255.255.255.0
DHCP Lease server: 192.168.5.70, state: 3 Bound
DHCP transaction id: 168F
Lease: 600 secs, Renewal: 300 secs, Rebind: 525 secs
Temp default-gateway addr: 192.168.5.1
Next timer fires after: 00:04:29
Retry count: 0 Client-ID: redgaint-00d0.f8fb.5740-Fa0/0

,l G Q,	Q,	£EÄ

G ÄÄÈ â

Q, Z Æ	(È	AÈ â

5 DHCP Relay

no ip dhcp relay information manage-vlan
default ip dhcp relay information manage-vlan

- DAË â	- D	£EÄ
	Y O D Q L G	Û n\$ d y .,X Y O D Q ,'

5 ,ÖG!5B T¬Ax

aEBs6ET (Ax)ö d→ò'ÄW)!!QmC Q5Bc-BPH 0 T¬Ax


```
Ruijie(config-ext-nacl)#      permit ip host      192.168.4.1      any
Ruijie(config-ext-nacl)#      permit ip host      192.168.5.1      any
Ruijie(config-ext-nacl)#      denyip    192.168.3.00.0.0.255192.168.3.0
0.0.0.255
    /U!6 pAxA•*ü ,l fA“KÂ
Ruijie(config-ext-nacl)#      deny    ip      192.168.3.0      0.0.0.255
192.168.4.0 0.0.0.255
Ruijie(config-ext-nacl)#      deny    ip      192.168.3.0      0.0.0.255
192.168.5.0 0.0.0.255
Ruijie(config-ext-nacl)#      deny    ip      192.168.4.0      0.0.0.255
192.168.4.0 0.0.0.255
Ruijie(config-ext-nacl)#      deny    ip      192.168.4.0      0.0.0.255
192.168.5.0 0.0.0.255
Ruijie(config-ext-nacl)#      deny    ip      192.168.5.0      0.0.0.255
192.168.5.0 0.0.0.255
Ruijie(config-ext-nacl)#      deny    ip      192.168.5.0      0.0.0.255
192.168.3.0 0.0.0.255
Ruijie(config-ext-nacl)#      deny    ip      192.168.5.0      0.0.0.255
192.168.4.0 0.0.0.255
Ruijie(config-ext-nacl)#      exit
Ruijie(config)#      ipdhcprelayinformationoptiondot1xaccess-group
DenyAccessEachOtherOfUnauthrize
```

Q ,	£EÄ
service dhcp	' Ô

5,ÖG!5B

GKÁ

Q, õ ã

< G!5B õ ã

S*ü Û Đ

A¹ s6Ñ â R S W L R Qs6Ñ RyW á Æ à ÊG!5B Ä

¹ ßG!5B _ \$ È ü ' + & 3

G!5B _

	Ruijie(config)#	
,l G Q ,	Q ,	£EÄ
	service dhcp	' Ô ' + & 3 4» .)Ú
G ÄE ä		
Q , Z Æ	(Ë	AÈ ä

5.1.7 ip helper-address

?U#ĩ t Ô p ' + & 3 á u < È Ã ¹ S*üA¹ Q , 9 H!ð #À3 á uQ óahs•Qf³â Î ‡U Ä yÚ

--	--	--

5.1.8 service dhcp

LÔ?U ü x 6 ㅓ *ü ' + & 3 4» s6Ñ Ê È Æ ¹ S*üA¹ Q , 9 ` ä Ä ;> A¹ Q , ,X Q Æ ä GKÁA¹
s6Ñ Ä

no @service dhcp

– DAÈ â	– D	£EÄ

5 ,ÖG!5B	5 ,Ö GKÁ
----------	----------

Q , ö ä	< G!5B ö ä
---------	------------

4 x !5Q Æ P °' 0 P 0 P °' 0 P , ,X

6 DHCPv6 Client w W

6.1 ü » w W

6.1.1 ipv6 dhcp client pd

?U ü y · Þ *ü ' + & 3 Y F O J A E " Q W 4 Ô µ C È A E S * ü ipv6 dhcp client pd Q , Ä S * ü A¹ Q , X no 6 ã G K Á ! 4 Ô A E " Ä

ipv6 dhcp client pd prefix-name >rapid-commit@

no ipv6 dhcp client pd

	– D	£EÄ
– DAÈ â	prefix-name	, 3 YEÎ*ü !4Ô á
	rapid-commit	AÆ S*ü1T ê,X x fE>/ß

5 ,ÖG!5B !4ÔAÈ" "u Ý *ü

Q , ð ã y ·G!5B ð ã

V p ' + & 3 Y v 0Ã ð ã E – "u Ý ' Ô È A¹ Q , î ü y · Þ *ü ' + & 3 Y v 0Ã ð ã Ä
 ipv6 dhcp client pd Q , *ü â î â ' + & 3 Y 6 H U Y Î ! 4 Ô A E " Ä k ! 4 Ô µ C
 Ê È F O L H U Q W ! 4 Ô µ C ± , ü , 3 YEÎ*ü ! 4 Ô " 4 È J ª , X Q , ¹ ž h *ü /ß c Ä
 ¹ S *ü E – p ! 4 Ô Ä
 rapid-commit GK + AÆ v 0Ã ` á u < 0Ã S *ü W Z R P H V x M D / B È V p G ! 5 B Z
 A¹ GK + È v 0Ã ¥ Î , X V R O A E L U W ÿ rapid-commit EÝNM Ä

¹ ß ü y · Þ *ü ! 4 Ô µ C A E " , X Ô p _ \$ Ö
 Ruijie(config)# interface fastethernet 0/1
 Ruijie(config-if)# ipv6 dhcp client pd pd_name

	Q ,	£EÄ
, ì G Q ,	clear ipv6 dhcp client	ü y · Þ G i ' + & 3 Y v 0Ã s 6 Ñ
	show ipv6 dhcp interface	/ ' + & 3 Y y · µ C

G Ä A È â

Q , Z Æ	(È	A È â
---------	-----	-------

6.2 < ü » w W

6.2.1 show ipv6 dhcp

?U / A' Ü,X ' 8 , ' µ C ÈÄÈ S*ü show ipv6 dhcp Q , Ä

show ipv6 dhcp

– DAÈ â	– D	£EÄ

5 ,ÖG!5B

Q , ö ä (M ö ä < ö ä y · ö ä

S*ü Ü Ð à ÔA' Ü Þ,X á u < Ä v 0Ä Ä 4» @*ü Ô þ ' 8 , ' Ä

G!5B –
 ¹ ß / ' !A' Ü,X ' 8 , ' ,X _ \$ Ö
 Ruijie# show ipv6 dhcp
 This device's DHCPv6 unique identifier(DUID):
 00:03:00:01:00:d0:f8:22:33:b0

ì G Q ,	Q ,	£EÄ

G ÄÈ â

Q , Z Æ	(È	AÈ â

6.2.2 show ipv6 dhcp interface

?U / ' + & 3 Y y · µ C ÈÄÈ S*ü VKRZ LSY GKFS Q , LÄ Q WHUIDFH

VKRZ LSY GKFS Interface-type Interface-number @

– DAÈ â	– D	£EÄ
	interface-type interface-number	y · 2O _ `2ö é

5,ÖG!5B

Q, õ ã

(M õ ã < õ ã y · õ ã

S*ü Ü Đ

V p"u Ý Ü n – D interface-type interface-number È í / Ý ' + & 3 Y y · µ C Ä V
p Ü n Z – D interface-type interface-number È í ¾ / Ü n y · µ C Ä

G!5B _

¹ ß / y · µ C, X _ \$ Ö
Ruijie# show ipv6 dhcp interface
VLAN 1 is in server mode
Server pool dhcp-pool
Rapid-Commit: disable

,l G Q,

Q,

£EÄ

G ÄÄÈ ä

Q, Z Æ

(È

ÄÈ ä

6.2.3 clear ipv6 dhcp client

?U ü y · pGi ' + & 3 Y v 0Ä ÈÄÈ S*ü clear ipv6 dhcp client Q, Ä

clear ipv6 dhcp client interface-type interface-number

– DAÈ ä

– D

£EÄ

interface-type interface-number

y · 2O _ `2ö é

5,ÖG!5B

Q, õ ã

(M õ ã

S*ü Ü Đ

clear ipv6 dhcp client Q, ü y · pGi ' + & 3 Y v 0Ä á u ÈÈ- î Đ7È v 0ÄGi „ ä
á u <0ÄÄÈ" G!5B µ C Ä

G!5B –

¹ ß Gi ' + & 3 Y v 0Ä, X _ \$ Ö
Ruijie# clear ipv6 dhcp client vlan 1

,l G Q ,	Q ,	£EÄ

G ÄÄÈ â

Q , Z Æ	(Ë	AÈ â

7 DHCPv6 Relay Agent w W

7.1 ü » w W

7.1.1 ipv6 dhcp relay destination

'Ô ¢ p y ·,X '+ & 3 Y 5 H O D \ \$ J H Q W ,X ž E',Â,X ,X y · ÄÄ¹ Q ,,X
Q R ã*ü 9 GKÁ y ·,X 5 H O D \ \$ J H Q W ô L8,Â,X Ä

ipv6 dhcp relay destination ipv6-address [interface-type interface-number]

no ipv6 dhcp relay destination ipv6-address [interface-type interface-number]

– DAÈ â	– D	£EÄ
	ipv6-address	Û n 5 H O D \ \$,Â, X0Ä
	interface-type	Û n E',Â,X0Ä y ·,X2O _ Ä ÄEÝ Ä
	interface-number	Û n E',Â,X0Ä y ·,X4ê È Ä ÄEÝ Ä

5 ,ÖG!5B

Q , õ ä

y ·G!5B õ ä

S*ü Û Ð

Ô 'KFSY 5 H O D \ y ,X Ý '+ & 3 Y v 0Ä y [FÑ Ú>• Ö>™ Jñ Û n y
· Ä ÄEÝ Ä ¥ TG!5B Q,X,Â,X Ä V pG!5B î p,Â,X È í à Ê ¥ î Ñ Ä Ä

— '+ & 3 Y 5 H O D \ 'H V W L Q D W L R Q *ü

a "¼ ä — Ô ÄÄ'Û ÄE à ÊG!5B î p 5 H O D \ \$ J H Q W Ä Ö V W L R Q D W L R Q

— ' 'H V W L Q D W L R Q È í È ä m6 ™ NO Û n î y ·4ê È

G!5B _

G!5B y · , Q W H U I D F H Ð / \$ 1+ & 3 Y 5 H O D \ Ä È Û n,Â,X

Ö

Ruijie# configure terminal

Enter configuration commands, one per line. End with CNTL/Z.

Ruijie(config)# interface vlan 1

Ruijie(config-if)# ipv6 dhcp relay destination 3001::2

Ruijie(config-if)# end

,l G Q ,

Q ,	£EÄ
-----	-----

	show ipv6 dhcp relay destination ^ all interface interface-type interface-number `	/ ' !G!5B,X 5 H O ,X ë><
--	---	--------------------------

G ÄÈ â

Q , Z Æ	(È	ÀÈ â
	„ r Q ,	

7.2 < ü » w W

7.2.1 show ipv6 dhcp relay destination

1,ß ' + & 3 Y 5 H O D \ ,X0Ã Q W C È S*ü Q , Ö

show ipv6 dhcp relay destination

- DAÈ â	- D	£EÄ
	all	/ ÝG!5B,X,Ä,X0Ã ž y · µ C
	interface interface-type interface-number	/ Û n y · ,XG!5B,X,Ä,X0Ã ž y · µ C

5 ,ÖG!5B

Q , õ ä

(M õ ä

S*ü Û Ð

E!E>A¹ Q , Ä¹ ,ß 5 H O D \ \$Ô H Q W O ð u ,X y · Í b y ,X v OÃ ' + & 3 Y
y [E!E> Û n y · Ä ÄEÝ ÅE@ ¥7Ç Û n ,Ä,X Ä

G!5B _

_ Ö / ' ! Ý,X 5 H O OÄ ,Ä,X G!5B µ C Ä

Ruijie# show ipv6 dhcp relay destination all

Interface: Vlan1 // Ô Relay ,X0Ã ·

Destination address(es) Output Interface

3001::2

FF02::1:2

Vlan2

Û n ,Ä,X

Û n î y ·

,!G Q ,

Q ,	£EÄ

G ÄÄÈ ä

Q , Z Æ	(Ë	AÈ ä
		„ r Q ,

7.2.2 show ipv6 dhcp relay statistics

1,ß ' !A' Û Ô '+ & 3 Y 5 H O D \ Q , J H Q W 66Ñ ä Ø2O y [¥™ % È S*ü Q , Ö
show ipv6 dhcp relay statistics

– DAÈ ä	– D	£EÄ
	-	

5 ,ÖG!5B

Q , ö ä

(M ö ä

S*ü Û Ð

E!E>A¹ Q , Ä¹¹,ßA' Û ' ! '+ & 3 Y 5 H O D \ Q , J H Q W 66Ñ ä Ø2O y [¥™ % Ä

1,ß '+ & 3 Y 5 H O D \ Q , J H Q W 45ÄH Q W , _ Ö

Ruijie# show ipv6 dhcp relay statistics

Packets dropped	: 2 //	ö × þ Ø)Ú y [
Error	: 2 //	JíAÄ y [ö ×
Excess of rate limit	: 0 //	CYE>A' Û Ø)Ú6Ñ o ö ×
Packets received	: 28 //	Ø2O!7 DHCPv6 #A, y [y 4³Au
SOLICIT	: 0	
REQUEST	: 0	
CONFIRM	: 0	
RENEW	: 0	
REBIND	: 0	
RELEASE	: 0	
DECLINE	: 0	
INFORMATION-REQUEST	: 14	
RELAY-FORWARD	: 0	
RELAY-REPLY	: 14	
Packets sent	: 16 //	Ø2O!7 DHCPv6 #A, y [¥EÖ4³Au
ADVERTISE	: 0	
RECONFIGURE	: 0	
REPLY	: 8	
RELAY-FORWARD	: 8	

G!5B _

RELAY-REPLY : 0

,jGQ,	Q,	£EÄ
-------	----	-----

8 ' DNS ± w W

8.1 ' ü » w W

8.1.1 ip domain-lookup

| ' 1 6 E⁻ > ³ á? · d Ä S*üA¹ Q ,X Q RÝNM í GKÁ 1 6 ³ á? · d s6Ñ Ä

ip domain-lookup

no ip domain-lookup

– DAÈ â	– D	£EÄ
5 ,ÖG!5B	5 ,Ö ™ %o ' Ô ' 1 6 ³ á? · d s6Ñ Ä	
Q , ð ä	< G!5B ð ä	
S*ü Ô Ð	A¹ Q , ' Ô ' 1 6 ³ á? · d s6Ñ,X Ô G È ;> A¹ Q , È í ' 1 6 E⁻ > ³ á? · d Ä	
G!5B –	ßM6,X _ \$ ' Ô ' 1 6 ³ á? · d s6Ñ,X Ô G Ö Ruijie(config)# ip domain-lookup	
,l G Q ,	Q ,	£EÄ
	show hosts	/ ' 1 6 ,l GG!5B µ C Ä
G ÄÄÈ â	'	
Q , Z Æ	(È	AÈ â

8.1.2 ip name-server

A¹ Q , G!5B ³ á á u <,X , 3 , 3 Y Ä ¾ ÝG!5B Z ³ á á u < !6ÑE⁻ > | Ö ³ á? · d Ä S*ü

A¹ Q ,X Q RÝNM ôL8G!5B,X ³ á á u < Ä

ip name-server ip-address | ipv6-address `

no ip name-server >ip-address | ipv6-address@

– DAÈ â	– D	£EÄ
---------	-----	-----

	ip-address	³ á á u <,X , 3
	ipv6-address	³ á á u <,X , 3 9

5 ,ÕG!5B 5 ,Õ"u ÝG!5B ³ á á u < Ä

Q , õ ã < G!5B õ ã Ä

#İt ' 1 6 6 H U ,X H 3 , 3 Y ÄE õ ;> E- 5 Q , ÈA' ÛFÑİİt Ô p ' 1 6 6 H U Ä H U
' ' " © ¢ 1 Ô p 6 H U 3 H U á Ê ÈA' Û î ñ A © å â 4 Á ' p 6 H U 3 E Õ ' 1 6 A È " È
, È ! 7. B ² h ! 6 Ä
2İ4³ Ô î Õ p á u < Ä ð L 8 ' 1 6 6 H U È È M p | Û n Z L S D G G U L S W V D G G U H V V
– D È í ¾ ð L 8 Û n , X á u < È ú í ð L 8 Ý, X ' 1 6 á u < Ä

G!5B _ Ruijie(config)# ip name-server 192.168.5.134
Ruijie(config)# ip name-server
2001:0DB8::250:8bff:fee8:f800 2001:0DB8:0:f004::1

,İ G Q ,	Q ,	£EÄ
	show hosts	/ ' 1 6 ,İ GG!5B µ C Ä

G ÄÄÈ â ´

Q , Z Æ	(È	AÈ â

8.1.3 ip host

A¹ Q , ¹G!5B á ` , 3 , X ô Ø Ä S*üA¹ Q , , X Q BÝNM ð L 8 ë > < Ä

ip host host-name ip-address

no ip host host-name ip-address

– DAÈ â	– D	£EÄ
	host-name	A' Û , X á
	ip-address	A' Û , X , 3

5 ,ÕG!5B ´

Q , õ ã < G!5B õ ã

S*ü Ô Đ | V p?U ôL8 ě>< È Ã ¹*ü no ip host host-name ip-address

8.2 < ü » w W

8.2.1 clear host

?U#ÛL8 | Ö á4ç †>< È Ã ¹ ü(M *ü ð ã ;> A¹ Q , Ä

clear host host-name @

– DAÈ â	– D	£EÄ
	host-name	Ã ¹ ôL8 ▯ p Ô n,X Ö á4ç † Ä ³ :><#ÛL8 < F¼ Ö á4ç † Ä

5 ,ÖG!5B

Q , ð ã (M *ü ð ã

S*ü Ô Ð á4ç †>< ,X ô ØA,,) È Ý ø p 9\$d Ö ÅEîE> L S K R V W Y MRÖG!5B × ÅEîE> ' 1 6 | Ö : 4 Ä ;> A¹ Q , È î ôL8 ' !EîE> ' 1 6 | Ö : 4 ,X áA,,) Ä

G!5B _ ¹ ßG!5B È î ôL8 á , 3 4ç †>< Ý | Ö : 4 ,X ô ØA,,) Ä
clear host *

, ï G Q ,	Q ,	£EÄ
	show hosts	/ á4ç †>< Ä

G ÄAÈ â

Q , Z Æ	(È	AÈ â

8.2.2 show hosts

/ ' 1 6 ,XG!5B µ C Ä

show hosts hostname @

– DAÈ â	– D	£EÄ

5 ,ÖG!5B

Q , ð ä	(M ð ä
---------	--------

S*ü Ô Ð	/ ' 1 6 ,X, ð GG!5B µ C Ä
---------	---------------------------

G!5B _	<pre>Ruijie# show hosts Name servers are: static host type address switch static 192.168.5.243 www.ruijie.com dynamic 192.168.5.123</pre>
--------	--

9 ' FTP Server w W

9.1 ' ü » w W

9.1.1 debug ftpserver

' Ô) 7 3 á u <,XA×A© μ CEg Î È S*üA¹ Q ,X Q Æ ã GKÁA×A© μ CEg Î Ä

debug ftpserver

no debug ftpserver

– DAÈ â	– D	£EÄ

5 ,ÖG!5B	GKÁA×A© μ CEg Î Ä
----------	-------------------

Q , ö ã	(M *ü ö ã Ä
---------	-------------

S*ü Ü Ð	S*ü debug ftpserver Q , Ä¹ ü) 7 3 á u <E▯ E>/ß / A°4š,XA×A© μ C Ä
---------	--

G!5B –	_ Ö¹ ß/ 8× V) ' Ô á u <,XA×A© μ C Ö Ruijie# debug ftpserver FTPSRV_DEBUG:(RECV) SYST FTPSRV_DEBUG:(REPLY) 215 RGOS Type: L8 FTPSRV_DEBUG:(RECV) PORT 192,167,201,82,7,120 FTPSRV_DEBUG:(REPLY) 200 PORT Command okay. _ Ö¹ ß/ 8× V) GKÁ á u <,XA×A© μ C Ö Ruijie# no debug ftpserver
--------	--

,ì G Q ,	Q ,	£EÄ

G ÄAÈ â	'
---------	---

Q , Z Æ	(È	AÈ â

9.1.2 ftp-server enable

*ü) 7 3 á u < È S*üA¹ Q ,X Q Æ ã GKÁ) 7 3 á u < Ä

ftp-server enable

no ftp-server enable

– DAÈ â	– D	£EÄ

5 ,ÖG!5B T–Ax GKÁ(Š Ő Ä

Q , ö ä < G!5B ö ä Ä

') 7 3 á u < *ü Ê ÈE!E>) 7 3 v 0Ä Ä¹ â E² y È JE¯> [Ê Þ ô ê ßEQ1 ¡ 0 Ä

a "¼ ä ™NO à ÊG!5B!8 Q , ` ftp-server topdir Q , !6Ñ S) 7 3 v 0ÄÄ"KÄ

) 7 3 á u < Þ,X [Ê Ä

_ Ö¹ ß/ 8× V) |) 7 3 á u < JL\$ v 0Ä ™6ÑÄ"KÄ V \ V 0ÄÄ) Ö

Ruijie(config)# ftp-server topdir /syslog

Ruijie(config)# ftp-server enable

_ Ö¹ ß/ 8× V) GKÁ) 7 3 á u < Ö

Ruijie(config)# no ftp-server enable

,! G Q ,	Q ,	£EÄ

G ÄÄÈ â

Q , Z Æ	(È	AÈ â

9.1.3 ftp-server password

G!5B) 7 3 á u <,X,O) š-Ö È S*üA¹ Q ,X Q Æ ã ¢# \ š-ÖG!5B Ä

ftp-server password >type @ password

no ftp-server password

– DAÈ â	– D	£EÄ
type		n š-Ö,X t š2O _ Ö ê Ä ·>< š-Ö p t šÄ â
		[Å × ·>< š-Ö t šE>,X š [Ä

	password	á u <, O) š-Ů
5 ,ŮG!5B	T→Ax´ š-Ů Ä	
Q , Ů ä	< G!5B Ů ä Ä	
S*ü Ů Đ	) 7 3 á u <™NOG!5B,O)*ü á ` ,O ) š-Ů ¹ “ Í v 0ÃE² yE⁻> D• ŃP`A• È Ô î ¾6Ń G!5B Ô p š-Ů Ä š-Ů ™NO Û ŷ +!; ê D + È š-Ů ! â Ã ¹ Ý0N È Ú>• Ń+9 × š-Ů KÈ,X0N 0 š -Ů,X ÔF¼ Ú Ä â [š-Ů,X Ô äKS z p +0ú Ã Ô ûKS z p +0ú × š [š-Ů,X Ô äKS z p + 0ú Ã Ô ûKS z p +0ú Ä a "¼ ä) 7 3 á u < á Ů0N š-Ů È V p#ÜL8 Z š-ŮG!5B v 0Ã Ú ´"©EîE> á u <,XD• ŃP`A• Ä	
G!5B _	_ Ů ¹ ß/ 8× V)G!5B â [š-Ů S D ŮV Ruijie(config)# ftp-server password pass ê Ů Ruijie(config)# ftp-server password 0 pass _ Ů ¹ ß/ 8× V)G!5B š [š-Ů Ů Ruijie(config)# ftp-server password 7 8001 _ Ů ¹ ß/ 8× V)ª#\ š-ŮG!5B Ů Ruijie(config)# no ftp-server password	
,ì G Q ,	Q ,	£EÄ
G ÄÄÈ â	´	
Q , Z Æ	(È	AÈ â

9.1.4 ftp-server topdir

L\$) 7 3 v 0Ã6Ń óE⁻> [ÊÄĭ m ĭ 0,X,Â)8× È Ä S*üA¹ Q , ,X Q ₪ ä O i/U!6 v 0ÃÄ"KÂ
) 7 3 á u < p ĭ) [Ê Ä

ftp-server topdir directory

no ftp-server topdir

– DAÈ á	– D	£EÄ
	directory	) 7 3 v 0Ä6Ñ óE> ; 0,XNJ ,Ä)

5 ,ÖG!5B	T–Ax´NJ ,Ä)A'5B Ä á ACEAİ m İ),Ä) Å Ä
----------	---------------------------------------

Q , ö ä	< G!5B ö ä Ä
---------	--------------

S*ü Ü Ð	) 7 3 á u <NJ ,Ä)L\$ n Z v 0Ä,O) â Ã ¹A“KÄ,X [Ê,Ä)8× È Ä™NO!7.B Ü nNJ ,Ä)!6ÑA}) 7 3 v 0ÄA“KÄ) 7 3 á u < p,X [Ê Ä 8¹"u ÝG!5BA¹ Q , È) 7 3 v 0Ä Ú ´"©A“KÄ á u < p İ) [Ê ê,Ä) Ä
---------	---

G!5B _	_ Ö¹ ß/ 8× V)) 7 3 á u < JL\$ v 0Ä™6ÑA“KÄ V\ V OÄP) Ö
	Ruijie(config)# ftp-server topdir /syslog
	Ruijie(config)# ftp-server enable
	_ Ö¹ ß/ 8× V) ¢# ,Ä),XG!5B Ö Ruijie(config)# no ftp-server topdir

,l G Q ,	Q ,	£EÄ

G ÄÄÈ á	'
---------	---

Q , Z Æ	(È	AÈ á

9.1.5 ftp-server timeout

G!5B) 7 3Î±,X0NKÆ ÊL\$ Ä 6 H V V L R Q L Ö Ö B*ÜW LQ , H R Ö W ä 6 á0NKÆ ÊL\$ T–Ax
Ä ÚJs Å Ä

ftp-server timeout time

no ftp-server timeout

– DAÈ á	– D	£EÄ
	time	0NKÆ ÊL\$ Ä)! Ö ÚJs ×8× È Ö Å

5 ,ÖG!5B	T–Ax ÊL\$ ÚJs Ä
----------	-----------------

Q , ö ä	< G!5B ö ä Ä
---------	--------------

S*ü Ü Ð	G!5B) 7 3 îA±,X0NKÆ ÊL\$ ÄV p ' ! îA± ü Ü n,X ÊL\$ "u ÝE¯> Ĩ) j 0Ä îA±0NKÆ ÄÈ) 7 3 á u < G ÄAx E² y Æ4£ È5à • Ö âA¹*ü ,XE² y Ä
	îA±,X0NKÆ ÊKÈ Ü ü Ö p) 7 3 îA± ¢ Þ ð) 7 3 i 0 ` ä â ß ð ) 7 3 i 0 Ö Ý KÈ,X ÊKÈ Ä á u < ü Ö p ) 7 3 Q , á u ` ä â Ä V Ö a "¼ ä Þ [Ê < F¼ ôEg `!© â Ä ¢ Ö ÝAu1k îA±0NKÆ ÊKÈ × ü ß p Q , 9,X Ê í 0!6Au1k îA±0NKÆ ÊKÈ Ä ' !8 îA±0NKÆ ÊL\$,XG!5B J á î í ¤ o5ë Ê,X [Ê ôEg j 0 ú 9 Ĩ) E j Ä

G!5B _	_ Ö¹ ß/ 8× V)G!5B0NKÆ ÊL\$ ÚJs Ö
	Ruijie(config)# ftp-server timeout 5
	_ Ö¹ ß/ 8× V) 6 á0NKÆ ÊL\$ T¬Ax Ä ÚJs Ä Ö
	Ruijie(config)# no ftp-server timeout

,l G Q ,	Q ,	£EÄ

G ÄÄÈ ä

Q , Z Æ	(È	AÈ ä

9.1.6 ftp-server username

G!5B) 7 3 á u <,X,O) *ü á È S*üA¹ Q ,X Q Æ ä ¢#*ü áG!5B Ä

ftp-server username username

no ftp-server username

_ DAÈ ä	_ D	£EÄ
	username	,O) *ü á

5 ,ÖG!5B T¬Ax ´*ü á Ä

Q , ð ä < G!5B ð ä Ä

S*ü Ü Ð	G!5B v 0Ä,OL) 7 3 á u < ÊLÔ?U ¢ o,X*ü á Ä v 0Ä,O) ÊLÔ?U à È ¢ o!7.B,X*ü á `š-Ö !6Ñ,O) Ä
	*ü á Ö ûKS z p +0ú È KÈ á AÆ ÝON Ä*ü á Ä ¹+ 8Ä [+!j Ä ?! D + `
	?!0ú Ê4~ ä Ä) 7 3 á u < Ö î¼6ÑG!5B Ö p*ü á Ä
	a "¼ ä) 7 3 á u < á Ö á*ü ,O) È V p#ÜL8 Z*ü áG!5B v 0Ä Ú ´ "©EíE> á u <,XD• ÑP`A• Ä

G!5B _	_ Ö ¹ ß/ 8× V) G!5B*ü á X V ð U	
	Ruijie(config)# ftp-server username user	
, ì G Q ,	_ Ö ¹ ß/ 8× V) ^#*ü á G!5B Ö	
	Ruijie(config)# no ftp-server username	
G ÄÄÈ â		
Q , Z Æ	(Ë	ÄÈ â

9.2 < ü » w W

9.2.1 show ftp-server

/) 7 3 á u <, X, ì G(Š Œ µ C Ä

show ftp-server

- DAÈ â	- D	£EÄ
5 ,ÖG!5B		
Q , õ ä	(M *ü õ ä Ä	
S*ü Û Ð	/) 7 3 á u <, X, ì G(Š Œ µ C È Û À Ö	
	„ á u < ú	
	„ ú î0ÿ { E² y Ä J / , ì G , 3 Ä 3 RÄ W	
	„ ú î0ÿ D BE² y Ä J / E¬ >• õ ä È¹ ž, ì G , 3 Ä 3 RÄ W	
	„ ' ! [Ê ôEg2O _	
	„ á u <, O) *ü á Ä š-Ö Ä ™ Ý ´ G!5B Å	
	„ á u < NJ , Ä)	
	„ îA±0NKÆ ÊL\$A'5B	
G!5B _	¹ ß/ 8× V)¹, ß) 7 3 á u <, X, ì G(Š Œ µ C Ö	
	Ruijie# show ftp-server	

ftp-server information
=====

enable : Y
topdir : /
timeout: 20min
username config : Y
password config : Y
type: BINARY
control connect : Y
ftp-server: ip=192.167.201.245 port=21
ftp-client: ip=192.167.201.82 port=4978
port data connect : Y
ftp-server: ip=192.167.201.245 port=22
ftp-client: ip=192.167.201.82 port=4982
passive data connect : N

,ì G Q ,

Q ,	£EÄ

G ÄÄÈ â

Q , Z Æ

(È	AÈ â

10 ' FTP CLIENT w W

10.1 copy ftp

ã8V Ÿ4i ü /ß c,X & /) f W ßEİE> copy ftp Q ,E⁻> [Ê ôEg Ä?U S*ü) 7 3 & O 1H Q 4W [Ê
 ßEQ A' Ū Ê ü(M õ ã ßEg 9 Q , copy ftp:url flash:url E⁻> ßEQ Ä5à Q , copy flash:url ftp:url í
 Ä¹^ v OÄ,X [Ê Þ ô á u < Þ Ä

copy ftp: //username:password@dest-address #remote-directory @mote-file

flash: local-directory/ @cal-file

copy flash: local-directory/ @cal-file ftp: //username:password@dest-address #remote-directory @
 remote-file

İ – DAÈ â Ð

– D	£EÄ
username	,O)) 7 3 6 H U,X H U E á ÈKS zL\$ +8V È á Ä Û ý Ä # Ä `ON 1 +0ú È á Ä,Ö+9
password	,O)) 7 3 6 H U,X H U E á ÈKS zL\$ +8V È á Ä Û ý Ä # Ä `ON 1 +0ú È á Ä,Ö+9
dest-address	A"KÄ,X) 7 3 6 H U,X H U
remote-directory	ÄEÝ,X) 7 3 6 H U,X H U E á ÈKS zL\$ +8V È á ÖON ` [+0ú È V p ON È></) 7 3 á u <'!¹ 0CÄ X
remote-file	E°/ß á u < Þ,X [Ê á ÈKS zL\$ +8V È á ÖON ` [+0ú
local-directory	ÄEÝ,X A' Ū [Ê CÄ X È V p Ū n ZA¹ [Ê CÄ X È í™NO ±A•A¹ [Ê CÄ X Æ4E _ ĩİÈ!8 Q , á Ö [Ê 7¼ ĩİ× V p ON í>< / üA' Ū '!Ä) ÈKS zL\$ +8V È á ÖON ` [+0ú
local-file	A' Ū Þ,X [Ê á ÈKS zL\$ +8V È á ÖON ` [+0ú

İ5 ,ÖG!5B Ð

İ Q , õ ã Ð (M *ü õ ã

İ S*ü Ū Ð Ð

S*ü copy ftp url flash url Q , Ä¹E⁻> [Ê ßEQ Ä

S*ü copy flash url ftp url Q , Ä¹E⁻> [Ê Þ ô Ä

¢*ü á X V È ßÖ SD V V 3 ,X) 7 3 6 H U,X H U R Ä Y ßEQ [Ê á

U H P R W,X [Ê L A Ū H X K R P,Ä) È , |,X [Ê á O R F D O I L O H

İG!5B _ Ð

5 X L M L H F R S \ I W S X V H U S D V V # U R R W U H P R W H I L O H I O D V K

^A' Ū K R P,Ä) ,X O R F D [Ê Þ L O H) 7 3 6 H U,X H U R Ä Y ßEQ [Ê á U H P R W H I L O H

5 X L M L H F R S \ I O D V K K R P H O R F D O I L O H I W S X V H U S D V V # U

İ,İ G Q , Ð

Q ,

£EÄ

copy tftp	ý*ü W I #W, E > [Ê ôEg
-----------	-------------------------

İ G ÄÄÈ â Ð

10.2 default ftp-client

ü < G!5B õ ã ß ;> default ftp-client Q , È 6 á) 7 3 & O L 5 , Q ! 5 B È G D BE² y >• | Ä 3 \$ 6 9 Ä
• ã È [Ê ôEg `E⁻ Ä % , 1 \$ 5 < Ä õ ã È v 0Ä\$d , 3 áE⁻> 4¥ n Ä
default ftp-client

İ – DAÈ â Ð	– D	£EÄ
	-	

İ5 ,ÖG!5B Ð D BE² y >• | Ä 3 \$ 6 9 Ä • ã È [Ê ôEg `E⁻ Ä % , 1 \$ 5 < Ä õ ã È á Ü n \$d , 3

İ Q , õ ã Ð < G!5B õ ã

İ S*ü Ü Ð Ð S*üA¹ Q , Ä¹ Ü) 7 3 & O L 5 , Q ! 5 B

İG!5B _ Ð ßM6,X/ _G!5B 6 á) 7 3 & O L 5 , Q ! 5 B
5XLM L H F R Q I L J G H I D X O W I W S F O L H Q W

İ, İ G Q , Ð	Q ,	£EÄ

İ G ÄÄÈ â Ð

10.3 ftp-client ascii

?U S*ü [Ä \$ 6 & , , Ä • ãE⁻>) 7 3 ôEg ÈÄÈ ;> < G!5B Q , ftp-client ascii ÄA¹ Q ,X no 6 ã></
ª# \ [ôEg • ã È S*ü `E⁻ ôEg • ã Ä
ftp-client ascii
no ftp-client ascii

İ – DAÈ â Ð	– D	£EÄ
	-	

İ5 ,ÖG!5B Ð T¬Ax ™ % ß 7 3 ôEg õ ã `E⁻ Ä % , 1 \$ 5 < Ä • ã

İ Q , õ ã Ð < G!5B õ ã

İ S*ü Ü Ð Ð S*üA¹ Q , Ä¹ Ü [Ê ôEg • ãA'5B [Ä \$ 6 & , , Ä • ã Ä

İG!5B _ Đ ßM6,X/ _G!5B [• ã

5XLMLH FRQILJ IWS FOLHQP DVFL L

İ,İ G Q , Đ

Q ,	£EÄ

İ G ÄÄÈ â Đ

10.4 ftp-client port

?UG!5B) 7 3S*ü | Ä 3 2 5 7 Ä • ãE¯ > D BE² y ÈÄÈ ;> < G!5B Q , ftp-client port ÄA¹ Q ,X no
6 ã></ ¢# \ | • ã È 6 á >• | • ã È ü>• | • ã ß È á u <>• |1 Y v 0ÄE² y á u < È ¢5à Î
0Ÿ D BE² y Ä
ftp-client port
no ftp-client port

İ – DAÈ â Đ

– D	£EÄ
-	

İ5 ,ÖG!5B Đ T¬Ax ™ %ø ß 7 3E² y >• | Ä 3 \$ 6 9 Ä • ã

İ Q , ö ä Đ < G!5B ö ä

İ S*ü Ü Đ Đ S*üA¹ Q , Ä¹ ÚE² y ö äA'5B | • ã È | • ã ß È á u < | • E² y v 0Ä Ä

İG!5B _ Đ ßM6,X/ _G!5B | • ã) 7 3E² y

5XLMLH FRQILJ IWS FOLHQP SRUW

İ,İ G Q , Đ

Q ,	£EÄ

İ G ÄÄÈ â Đ

10.5 ftp-client source-address

) 7 3 & O ÄH4Q W OÄ\$d , 3 È S*üA¹ , 3 â á u <OÄ , 3 E¯ > Eî µ ÈA¹ Q , á ú – D 6
ã,X Q Q , ¢# \ í v OÄ\$d , 3 4Ÿ n
ftp-client source-address ħip-address | ipv6-address `
no ftp-client source-address

İ – DAÈ â Đ

– D	£EÄ
-----	-----

ip-address	) 7 3v 0Ă,X , 3
ipv6-address	) 7 3v 0Ă,X , 3 9

İ5 ,ÖG!5B Đ 5 ,Ö ™ %ß È v 0Ă áE⁻> , 34¥ n È+ CĂ+ E⁻> EÝ ½ Ä

İ Q , õ ã Đ < G!5B õ ã

6,5Xü|• æ³D@Z6â Đ Đ@ ð 0

•Q qM %

|

11 ´ ¯ > ä ù4ì Z p V ¿ w W

11.1 ´ ü » w W

11.1.1 ping

A¹ Q ,*ü 9# A©5%4°,XE²Eî û È Æ¹ Ý ,X }*ü Až • Æ n !5%4° ,XE²Eî û KÂNI Ä Q , ä
V ß Ö

ping ip>@p-address length length @times times @imeout seconds @data data @source
source @df-bit @validate @ @

– DAÈ â	– D	£EÄ
	ip-address	Û n , 3 Y Ä
	length	Û n ¥EÖ D B Û,XKS z
	times	Û n ¥EÖ D B Û,X p D
	seconds	Û nCY Ê,X ÊKÈ
	data	Û n ? Ö B
	source	Û n\$ d , 3 Y ê\$ d y · ÄJ Èf² y · Ä _ V Ä á AÆ 0 \$d Ä
	df-bit	A'5B , 3X ') Û Aš ! È' ') !>•A'5B Ê È</ á Í D B Û E¯> Ú !% Ø)Ú È T– Ax ') ! Ä
	validate	A'5B ú öP` i h y [

5 ,ÖGI5B 5 ,Ö ü Û n,X ÊKÈÄ5 ,Ö /! Å Y ÈEÖ pKS z % \ V X H D B Û Û n,X , 3 Ä

Q , ö ä (M *ü ö ä

3 L Q Q , E > ü BEî*ü ö ä `(M *ü ö ä ß È ü BEî*ü ö ä ß È ¾6ÑE > Î ,X
S L Q Q , È5à ü(M *ü ö ä ß È íE– Æ¹E > S L Q Q ,) s6Ñ Ä BEî,X S L Q Q , È
Ä¹ ü BEî*ü ö ä `(M *ü ö ä ß ;> È5 ,Ö ü Û n,X ÊKÈÄ5 ,Ö /! Å Y ÈEÖ
pKS z % \ V X H D B Û Û n,X , 3 ³AuaÅµ Ca&(?U ÜÿQN0Ü0ž

S*ü Û Ð

Sending 5,100-byte ICMP Echoes to 192.168.5.1, timeout is 2 seconds:

< press Ctrl+C to break >

!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 1

/ 2/10

ms

_ Ö =) S L QXr _ Ö

Ruijie# ping 192.168.5.197

source	$\hat{U}_n = \frac{1}{n} \sum_{j=1}^n \hat{U}_j$ $V = \frac{1}{n} \sum_{j=1}^n V_j$
--------	---

5,ÖG!5B 5,Ö ü Û n,X ÊÈÄ5,Ö /! Å Y ÈÖ pKS z % \VXHD B Û Û n,X ,3 Ä

Q, õ ã (M *ü õ ã

3 L Q J 65N E5a ü(M *ü ö ä ß È ü BEI*ü ö ä ß È ¾6N E5a ü(M *ü ö ä ß È iE~ Ä 1E5a> S L Q J ,X S Y s6N Ä BEI
,X S L Q J 65N E Ä 1 ü BEI*ü ö ä `(M *ü ö ä ß ;> È 5, Ö ü Ü n,X È K È Ä 5
, Ö !, Å Y È È Ö p K S z % \ V X H D B Ü Ü n,X , 3 È V p Ý h 1(È í /
S*ü Ü Ð Ô p µ È M p"u Ý h 1(È í / Ô p µ. ¶ È V p h 1(X D B Y •â A E", X D B Y •â G! È
í á Ô p µ È M p"u Ý h 1(È í / Ô p µ. ¶ È V p h 1(X D B Y •â A E", X D B Y •â G! È
;> È ü =) S L Q J 65N E Ä 1 Ü n ¥ E Ö D B Ü ,X p D Ä K S z È C Y È ,X È K È 1 1 È ` BEI,X
S L Q J 65N E È Ö â 3 E g Î Ô p 4 3 A u µ C Ä ? U S *ü 3 á s 6N È í ? U G! 5 B 3 á á u
< È K 'G! 5 B A E -5x ' 1 6 G! 5 B F ¼ Ü Ä

```

_   Ö BEÎ S L Q J ,&$_YÖ
Ruijie# ping      ipv6   2000::1

Sending 5, 100-byte ICMP Echoes to 2000::1, timeout is 2 seconds:
< press Ctrl+C to break >

!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 1/2/10
ms

G!5B _   _   Ö = ) S L QXr _ Ö
Ruijie# ping ipv6   2000::1 length 1500 ntimes 100 timeout 3 data ffff
source 2000::2

Sending 100,1000-byte ICMP Echoes to 2000::1, timeout is 3 seconds:
< press Ctrl+C to break >

!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

Success rate is 100 percent (100/100), round-trip min/avg/max = 2/2/3
ms

```

,l G Q,	Q,	£EÄ

G ÄÄÈ â

Q , Z Æ	(Ë	AÈ â

11.1.3 traceroute

;> W U D F H Q , È Æ W H ü b# A©, X D B Û ¢\$d , Â, X 4£E>, X Ý5% G

traceroute ip ip-address @ >ip-address probe number @ >source @ timeout seconds @ >ttl
minimum maximum @ @

– DAÈ â	– D	£EÄ
	lp-address	Û n , 3 Y Ä
	number	Û n ¥EÖ, X v# , X DGE
	source	Û n\$ d , 3 Y ê\$ d y · Ä J È f ² y · Ä _ V Ä á AÆ 0 \$d Ä
	seconds	Û nCY Ê ÊKÈ
	minimum maximum	Û n Ô ã ` Ô û 7 7 /

5 , ÖG!5B

Q , ð ã (M *ü ð ã

S*ü Ò Ð 7 U D F H Q , X W H b " ¹5%4°, XE²Eî û È J ü5%4° Lp ¥*ó Ê È š.B, X n ! Lp ¥
*ó, X !5B Ä?U S*ü ³ á s6Ñ È í?U G!5B ³ á á u < È K 'G!5BAË –5× ' 1 6 G!5BF¼ Ú Ä

1 ß h*ü W U D F H Q , X W H b " ¹5%4°E² y+ Eî È Ô p 5%4°E² y , ü ñ o5%
G áEî, X ™ % Ä
_ Ö5%4°+ Eî, X W U D F H Q , X W H
Ruijie# traceroute 61.154.22.36
< press Ctrl+C to break >
Tracing the route to 61.154.22.36
1 192.168.12.1 0 msec 0 msec 0 msec
2 192.168.9.2 4 msec 4 msec 4 msec
3 192.168.9.1 8 msec 8 msec 4 msec
4 192.168.0.10 4 msec 28 msec 12 msec
5 202.101.143.130 4 msec 16 msec 8 msec
6 202.101.143.154 12 msec 8 msec 24 msec
7 61.154.22.36 12 msec 8 msec 22 msec
¢ ÐM6, X4§ p È Ä ¹#Û . , ß È ¢\$d ?UA“KÄ , 3 , X È5%4°
D B Û FÑ4£E> Z ¾ o5% G Ä É Ä È à Ê4- î Z E'A¹5% G 8...C , X ÊKÈ ÈE- í b5%4°
Ú d È M2 Ý*ü, X Ä

_ Ö5%4° □ o5% G áEî,X W U D F H_ÜPÖX W H

Ruijie# traceroute 202.108.37.42

< press Ctrl+C to break >

Tracing the route to 202.108.37.42

```
1  192.168.12.1  0 msec 0 msec 0 msec
2  192.168.9.2   0 msec 4 msec 4 msec
3  192.168.110.1 16 msec 12 msec 16 msec
4  * * *
5  61.154.8.129  12 msec 28 msec 12 msec
6  61.154.8.17   8 msec 12 msec 16 msec
7  61.154.8.250  12 msec 12 msec 12 msec
8  218.85.157.222 12 msec 12 msec 12 msec
9  218.85.157.130 16 msec 16 msec 16 msec
10 218.85.157.77  16 msec 48 msec 16 msec
11 202.97.40.65   76 msec 24 msec 24 msec
12 202.97.37.65   32 msec 24 msec 24 msec
13 202.97.38.162  52 msec 52 msec 224 msec
14 202.96.12.38   84 msec 52 msec 52 msec
15 202.106.192.226 88 msec 52 msec 52 msec
16 202.106.192.174 52 msec 52 msec 88 msec
17 210.74.176.158 100 msec 52 msec 84 msec
18 202.108.37.42  48 msec 48 msec 52 msec
```

¢ ¢M6,X4\$ p È Ã¹#Ù . ,ß È ¢\$d ?UA"KÂ , 3

,X È5%

4° D B ÛFÑ4£E› Z ¾ o5% G Ä É Ä È J è5% G Î), Z Lp Ä

Ruijie# traceroute www.ietf.org

Translating " www.ietf.org "...[OK]

< press Ctrl+C to break >

Tracing the route to 64.170.98.32

```
1  192.168.217.1  0 msec 0 msec 0 msec
2  10.10.25.1     0 msec 0 msec 0 msec
3  10.10.24.1     0 msec 0 msec 0 msec
4  10.10.30.1     10 msec 0 msec 0 msec
5  218.5.3.254    0 msec 0 msec 0 msec
6  61.154.8.49    10 msec 0 msec 0 msec
7  202.109.204.210 0 msec 0 msec 0 msec
8  202.97.41.69   20 msec 10 msec 20 msec
9  202.97.34.65   40 msec 40 msec 50 msec
10 202.97.57.222  50 msec 40 msec 40 msec
11 219.141.130.122 40 msec 50 msec 40 msec
```

12	219.142.11.10	40 msec	50 msec	30 msec
13	211.157.37.14	50 msec	40 msec	50 msec
14	222.35.65.1	40 msec	50 msec	40 msec
15	222.35.65.18	40 msec	40 msec	40 msec
16	222.35.15.109	50 msec	50 msec	50 msec
17	* * *			
18	64.170.98.32	40 msec	40 msec	40 msec

,l G Q ,	Q ,	£EÄ
	-	

G ÄÄÈ â

Q , Z Æ	(È	AÈ â

11.1.4 traceroute ipv6

;> W U D F H U R X Q , Y È Ä ¹ L S Y # A © , X D B Û ¢ \$ d , Ä , X 4 £ E > , X Ý 5 % G Ä

traceroute >ipv6ip-address @probe number @timeout seconds @tl minimum maximum @ @

– DAÈ â	– D	£EÄ
	Ip-address	Û n , 3 Y ê ³ á Ä
	number	Û n ¥EÖ , X v # , X D G £
	seconds	Û n C Y Ê Ê K È
	minimum maximum	Û n Ô ã ` Ô û 7 7 /

5 , Ö G ! 5 B

Q , ö ä (M *ü ö ä

S*ü Ô Ð 7 U D F H U R X Q , Y È Ä ¹ L S Y # A © , X D B Û ¢ \$ d , Ä , X 4 £ E > , X Ý 5 % G Ä
Lp ¥*ó , X ! 5 B Ä ? U S *ü ³ á s 6 Ñ È Í ? U G ! 5 B ³ á á u < È K ' G ! 5 B Ä È – 5 × ' 1 6 G ! 5 B F ¼
Ú Ä

G!5B – ¹ ß h*ü W U D F H U R X Q , Y È Ä ¹ L S Y # A © , X D B Û ¢ \$ d , Ä , X 4 £ E > , X Ý 5 % G Ä
o5% G áEî , X ™ % Ä
_ Ö5%4°+ Eî , X W U D F H U R X Q , Y È Ä ¹ L S Y
Ruijie# traceroute ipv6

< press Ctrl+C to break >

Tracing the route to 3004::1

```
1      3000::1      0 msec 0 msec 0 msec
2      3001::1      4 msec 4 msec 4 msec
3      3002::1      8 msec 8 msec 4 msec
4      3004::1      4 msec 28 msec 12 msec
```

¢ ÐM6,X4\$ p Ã¹#Û . ,ß È ¢\$d ?UA“KÂ , 3 3004::1 ,X È5%4° D B
ÙFÑ4£E> Z ¾ o5% G ÄÉ Å È à Ê4- î Z E'A¹5% G 8...C ,X ÊKÈ ÈE- í b5%4° Ú d È
M2 Ý*ü,X Ä

_ Ö5%4° ¢ o5% G áEî,X W U D F H U R_X\$VÖH L S Y

Ruijie# traceroute ipv6 3004::1

< press Ctrl+C to break >

Tracing the route to 3004::1

```
1      3000::1      0 msec 0 msec 0 msec
2      3001::1      4 msec 4 msec 4 msec
3      3002::1      8 msec 8 msec 4 msec
4      * * *
5      3004::1      4 msec 28 msec 12 msec
```

¢ ÐM6,X4\$ p Ã¹#Û . ,ß È ¢\$d ?UA“KÂ , 3 3004::1 ,X È5%4° D B
ÙFÑ4£E> Z ¾ o5% G ÄÉ Å È J è5% G î), Z Lp Ä

,ì G Q ,

Q ,

£EÄ

G ÄÄÈ â

Q , Z Æ

(È

AÈ â

12 TCP w W

12.1 TCP ü » ´ w W

12.1.1 ip tcp path-mtu-discovery

?U *ü 7 & 3, XCÃ X Ô û ôEg) 3 0 7 8 , s6Ñ È ü < ò ã ß S*ü ip tcp path-mtu-discovery Ä?U GKÁ,XA± È ü Q , !M6 t no ÄA¹ Q ,XAA"© V ß Ö

ip tcp path-mtu-discovery >age-timerrminutes | infinite ` @

no ip tcp path-mtu-discovery >age-timerminutes | infinite ` @

	– D	£EÄ
– DAÈ â	age-timer minutes	ÄEÝ Ä 7 & 3i ¥), 3 0 7 8â ÈGj „E⁻> v# ,X ÊKÈ KÈLh Ä)! ÚJs Ä5 ,Ö ÚJs Ä ÄA'5B,X8× È ÚJs Ä
	age-timer infinite	ÄEÝ Ä 7 & 3i ¥), 3 7 0 8â È áGj „v# Ä

5 ,ÖG!5B A¹ s6Ñ p *ü Ä

Q , ò ã < ò ã ß È î b < ' Ô Ä

7 & 3XCÃ X Ô û ôEg) ¥), s6Ñ Ý 5) & r),,X ÈE- p s6Ñ Ä¹ P-5%4° ú ' ,X ý*ü)[Ä *ü S*ü 7 & 39 MG£ ôEg û + D B Ê ÈA¹ s6Ñ Ä¹ S ôEg û6Ñ k â ¢ Ä

E- p s6Ñ,X *ü â GKÁ È í b Æ4£ , ü,X 7 & £² y á*ó È ¾ í â 9 î0ÿ,X 7 & £² y *ó Ä Q ,Jl Í , 3 Y` , 3 Y,X 7 & 3â Ê*ó Ä

Ý 5) & ,X £EÄ È 7 & 3ü ¥), 3 0 7 8â ÈLh Ô!% ÊKÈ Ä¹ S*ü È û,X 0 6 6 9 v# ,,X 3 0 7 8E- p ÊKÈKÈLh S*ü – D age-timer 9 Ú n ÄA' Ú ¥),,X 3 0 7 8´ 7 & 3 E² y ø0Ä # î 9,X 0 6 6 ä È ÈA' Ú î Ý ÞEÄG!5B ÊKÈKÈLh È • ñA© ¥), È û,X 3 0 7 8ÄÈ 3 0 7 8E' 0 6 6,X Èê5Ü*ü 0!6E- p n Ê < ÈE- p v# E>/ß ! î 0!6 Ä 0!6E- p n Ê < È S*ü age-timer infinite – D Ä

G!5B – | 7 & 3X 3 0 7 8¥), s6Ñ Ä

Ruijie(config)# ip tcp path-mtu-discovery

	Q ,	£EÄ
¡G Q ,	show tcp pmtu	/ 7 & £² y,X 3 0 7 8

G ÄÄÈ â Ý G ÄFÑ Õ Ä

Q , Z Ä	(È	ÄÈ â
	5 * 2 6	5 * 2 6 (Ô ÿ Õ Ä

12.2 TCP ü » < w W

12.2.1 show tcp pmtu

/ 7 & 3 3 0 7 8 ,X µ C È S*ü V ß Q , Ö
show tcp pmtu

– DAÈ â	– D	£EÄ
	,	

5 ,ÖG!5B ,

Q , õ ä (M õ ä Ä

S*ü Ô Ð V pLÔ?U ¹,ß TCPE² y PMTU,X È Ä ¹ S*ü show tcp pmtu Q , Ä

;> show tcp pmtu Q , / V ß Ö

Ruijie# show tcp pmtu

No. Local Address Foreign Address PMTU

[1] 2002::1.18946 2002::2.23 1440

[2] 192.168.195.212.23 192.168.195.112.13560 1440

/ ,X +!%ÄÈ â V ß Ö

G!5B –	+!%	?·Gž
	1 R	c È
/ R F D O \$ G G U H V V	3	â0Ä · È Ä Ô â Ô p ³ ´ âM6,X D + 0Ä · È Ä!" V â ³ ,X ³ ´0Ä · È Ä
) R U H L J Q \$ G G U H V V	3	â0Ä · È Ä Ô â Ô p ³ ´ âM6,X D + 0Ä · È Ä!" V â ³ ,X ³ ´0Ä · È Ä
3 0 7 8		3 0 7 8X



13 ´ IPv4 REF ¼ û Ã F w W

, 3 Y 5 (2)Ä 5 X L M L H ([S U H V G) R U Z 1 D R U K © 9 E ¯ > , 3 , X Ô K S G ! Ä

13.1 ´ ü » w W

, 3 Y 5 (2)Ä 5 X L M L H ([S U H V G) R U Z 1 D R U K © 9 E ¯ > , 3 , X Ô K S G ! Ä
â , 3 Y 5 (1)G,XG!5B Q , Ö

13.1.1 ip ref synchronize all

A¹ Q , *ü 9 ^EC ÊE@ ¥>< à!9 .@ ÊE@ ¥>< Ä Ý x 6 ´ EC ÊE@ ¥>< CÃ+ DCYE>.@
ÊE@ ¥>< •G£ ê5Û.@ Ê œ à J †0U È Ì),,,@ ÊE@ ¥>< `EC ÊE@ ¥>< á Ô7È,XKÂNI Ä V pEC ÊE@ ¥
>< CÃ+ DCYE>.@ ÊE@ ¥>< •G£ È*ü hA¹ Ç •A""© £ åCÃ+ DG£ È' â ;> E- 5 Q , ^EC Ê
E@ ¥>< à!9 .@ ÊE@ ¥>< Ä.@ Ê œ à J †0U),, ü"u r"©?· ‡ Ä

- D	£EÄ
-----	-----

G!5B , 3 Y 5 (2E6E@ ¥ Q ,

13.2.2 show ip ref adjacency

A¹ Q , Ã¹ / ¢ Ô(M nF• y8V&• µ C ê ' ! Ý,XF• y8V&• µ C Ä J Q , ã V ß Ö

show ip ref adjacency glean _local ip _interface interface_type interface_number @

– DAË â	– D	£EÄ
	glean	Lš ÜF• y8V&• ÈE- 4-,ÈE²CÃ+ S*ü,XF• y Ä
	local	F• y8V&• È CÃ+ S*ü,XF• y Ä
	ip	F• y ß ÔCÇ , 3
	interface_type	Û n y ·2O _
	interface_number	Û n y ·4ê Ě

5 ,ÖG!5B

Q , õ ä

(M *ü õ ä

S*ü Û Ð

A¹ Q , Ã¹ / ' ! 5 () õ + ,XF• y>< µ C È Ä¹ Û n / Lš ÜF• y Ä F• y Ä Û
n , 3Í hF• y Ä Û n y · G6(F• y ž ÝF• y8V&•,ì G µ C Ä

G!5B _

_Í Ö / F• y>< ÝF• y µ C

Ruijie# show ip ref adjacency

adj_type next_hop mac interface

local_adj 0.0.0.0 0000.0000.0000 NULL

glean_adj 0.0.0.0 0000.0000.0000

FastEthernet 1/1

local_adj 0.0.0.0 0000.0000.0000 NULL

glean_adj 0.0.0.0 0000.0000.0000 Loopback 0

forward_adj 192.168.17.1 0000.2004.094f

FastEthernet 1/1

_Î Ö / Û n y · G6(XF• y µ C

Ruijie# show ip ref adjacency interface fastEthernet

1/1

adj_type next_hop mac interface

forward_adj 192.168.17.1 0000.2004.094f

FastEthernet 1/1

_Ï Ö / Û n , 3G6(XF• y8V&• µ C Ä

Ruijie# show ip ref adjacency 192.168.17.1

adj_type next_hop mac interface

forward_adj 192.168.17.1 0000.2004.094f

FastEthernet 1/1

_ Đ Ö / LŠ ÜF• y μ C Ä

Ruijie# show ip ref adjacency glean

adj_type next_hop mac interface

glean_adj 0.0.0.0 FastEthernet 0/0

0000.0000.0000

_ Ñ Ö / F• y μ C Ä

Ruijie# show ip ref adjacency local

adj_type next_hop mac interface

local_adj 0.0.0.0 0000.0000.0000 NULL

local_adj 0.0.0.0 0000.0000.0000 NULL

/ 4\$ p Ø +!% £EÄ Ö

+!%	AÈ â
D G M B W \ S H	F• y2O _
Q H [W B K R S	ß ÔÇÇ
P D F	0 \$ & Ä ></ ´ Ä
L Q W H U I D F H	y ·

,l G Q ,

Q ,	£EÄ
show ip ref route	/ ' ! 5 () ð + ,X ÝCÃ+ μ C

G ÄÄÈ â

Q , Z Æ

(È	AÈ â

13.2.3 show ip ref route

A¹ Q , Ä¹ / ' ! 5 () ð + ,X ÝCÃ+ μ C È J Q , ã V ß Ö

show ip ref route >default ip mask @

- DAÈ â

- D	£EÄ
default	Û nT-AxCÃ+
ip	Û nCÃ+ ,Ä,×3
mask	Û nCÃ+ }-Ö

5 ,ÖG!5B

Q , õ ã	(M *ü õ ã												
S*ü Û Ð	Ã¹ / ' ! 5 () > < , X, Ì GCÃ+ µ C È Ã¹ Û n / T- AxCÃ+ Ã Û n , 3 0 \$ 6 . G! , X CÃ+ Ã Ý CÃ+ µ C Ä												
G!5B _	_ Í Ö / 5 () > < Ý CÃ+ µ C Ruijie# show ip ref route IP/MASK s/res w adj_type next_hop mac interface *0.0.0.0/0 1/1 1 forward_adj 192.168.17.1 0000.2004.094f FastEthernet 1/1 26.26.26.24/29 1/1 1 glean_adj 0.0.0.0 0000.0000.0000 Loopback 0 26.26.26.26/32 1/1 1 local_adj 0.0.0.0 0000.0000.0000 NULL 192.168.17.2/32 1/1 1 local_adj 0.0.0.0 0000.0000.0000 NULL 192.168.17.0/24 1/1 1 glean_adj 0.0.0.0 0000.0000.0000 FastEthernet 1/1 _ Ö / 5 () > < T- AxCÃ+ µ C Ruijie# show ip ref route default IP/MASK s/res w adj_type next_hop mac interface *0.0.0.0/0 1/1 1 forward_adj 192.168.17.1 0000.2004.094f FastEthernet 1/1 _ Ö / 5 () > < Û n , 3 0 \$ 6 . G! CÃ+ µ C Ruijie# show ip ref route 192.168.17.0 255.255.255.0 IP/MASK s/res w adj_type next_hop mac interface 192.168.17.0/24 1/1 1 glean_adj 0.0. 0.0 0000.0000.0000 FastEthernet 1/1 / 4 § p Ø + ! % £ E Ä Ö <table><tr><th>+ ! %</th><th>A È â</th></tr><tr><td>, 3</td><td>, Â, X , 3</td></tr><tr><td>0 \$ 6 .</td><td>} - Ö</td></tr><tr><td>V</td><td>G6 (CÃ+ 5 D</td></tr><tr><td>U H V</td><td>? · d CÃ+ D</td></tr><tr><td>Z H L J K W</td><td>CÃ+ G i</td></tr></table>	+ ! %	A È â	, 3	, Â, X , 3	0 \$ 6 .	} - Ö	V	G6 (CÃ+ 5 D	U H V	? · d CÃ+ D	Z H L J K W	CÃ+ G i
+ ! %	A È â												
, 3	, Â, X , 3												
0 \$ 6 .	} - Ö												
V	G6 (CÃ+ 5 D												
U H V	? · d CÃ+ D												
Z H L J K W	CÃ+ G i												

	D G M B W \ S H	F•y2O _
	Q H [W B K R S	ß Ô Ç Ç
	P D F	0 \$ & Ä ></ ´ Å
	L Q W H U I D F H	Eg Î y ·

,l G Q ,	Q ,	£EÄ
	show ip ref exact-route	/ ¢ Ô , 3y [,X.B Û 5 () E@ ¥ CÃ X

G ÄÄÈ â

Q , Z Æ	(Ë	AÈ â



Q , −5× , 3CÃ+

Ú`Ÿ4j , 3CÃ+ Q , −5×, ì G Y • È Ù À ¹ B0'8V Ö
G!5B , 3CÃ+ Q ,

1.1.2 ip route

?UG!5BM- ÖCÃ+ ÈAE S*ü < G!5B Q ,L S U ÆX Q ,HX Q Æ ã ôL8 ÆG!5B,XM- ÖCÃ+ Ä

ip route network net-mask ip-address interface ip-address @distance @ >tag @permanent @
weight number @disable _enable @

- D	£EÄ
network	,Â Ô5%4°,X5%4°
net-mask	,Â Ô5%4°,X }-Ö

– DAË â	– D	£EÄ
	network	,Â Û5%4°,X5%4°
	prefix-length	,Â Û5%4°,X }-ÖKS z
	Ipv6-address	M- ÖCÃ+ ,X ß ÖCÇ
	interface	Ä ÄEÝ ÅM- ÖCÃ+ ,X ß ÖCÇ Î ·
	distance	Ä ÄEÝ ÅM- ÖCÃ+ ,X1u)ÚC±/•
	number	ÄEÝM- ÖCÃ+ ,X G _i È üG!5B1 ÆCÃ X Ê Û âA¹ CÃ X,X G _i ÄG!5B8× È Ö È Ö 5CÃ+ ,X Ý1 È CÃ X,X G _i ` á6ÑCYE>A¹ 5CÃ+ 6ÑG!5B,X Ô ù 1 ÆCÃ X 5,Â D È à Ô 5CÃ+ ,X1 ÆCÃ X KÈ,X G _i !· Û â ZE- oCÃ X KÈ,X# G£!·)[G2Ĭ Ä

5 ,ÖG!5B 5 ,Ö ´ L S M- ÖCÃ+

Q , ö ä < G!5B ö ä

S*ü Û Ð M- ÖCÃ+ ,X5 ,Ö1u)ÚC±/• ÈEİE>A'5B1u)ÚC±/• ÈÄ¹ AÆ | ÖCÃ+ : ,XCÃ+ ?Z,ªM-
ÖCÃ+ È ¾ Ý ' | ÖCÃ+ : á È È ! S*üM- ÖCÃ+ ÄEİE>A'5BM- ÖCÃ+ ,X1u)ÚC±/• Ä
¹ r),4"CÃ,X Û Ñ È!8 Ê,XM- ÖCÃ+ È Ö8 œ/Ä #B |CÃ+ Ä

G!5B _ ¹ ß,XG!5B _ \$ È r t Z Ô 5 ,Â Û5%4°,XM- ÖCÃ+ È ß ÖCÇ È1u
)ÚC±/• Ä
ipv6 route 2001::/64 2002::2 115
V pM- ÖCÃ+ "u Ý Û n y · È !7 ¥EÖ y · Lp Ê È Ä6Ñ î S k D B# G£ ¢ J W y ·
¥EÖ Ä?UFS !A¹ ™ % ¥*ó È LÔ?U Û n y · Ä¹ ß,XG!5B _ \$ È ,Â Û5%4° 1::/64 ,X
D B# G£ ¾6Ñ ¢ I D V W H W K h y E@H W
ipv6 route 2001::/64 fastethernet 0/0 2002::2

1.1.6 ipv6 static route-limit

?UG!5BM- ŒCÃ+ ,X 5 D pL\$ ÈAË S*ü < G!5B Q ,ipv6 static route-limit ÄA¹ Q ,X Q Æ ã Ä

5,ÖG!5B *ü , 3 YCÃ+

Q , õ ã < G!5B õ ã

S*ü Ü Ð 'A' Ü ¾ 0 9 yA' Ü È ê5Ü ¾ 0 9 2 , 3% GA' Ü È È Ã ¹ áLÔ?U 5 * 2 6EC Ê,X , 3 Y CÃ+ E@ ¥ s6Ñ ÄE- È Ã ¹ GKÁ5 * 2 6,X , 3 YCÃ+ s6Ñ Ä

G!5B – ¹ ßG!5B È GKÁ Z 5 * 2 6EC Ê,X , 3 YCÃ+ s6Ñ Ä
Ruijie# no ipv6 unicast-routing

,ì G Q ,	Q ,	£EÄ
	ipv6 route	G!5B L S M- ÖCÃ+
	show ipv6 route	/ , 3 YCÃ+ >< Ä

G ÄÄÈ â

Q , Z Æ	(È	AÈ â
		1 Ô õ é 9A¹ Q ,

1.2 < ü » w W

1.2.1 show ip route

?U ¹,ß , 3CÃ+ >< µ C È S*ü show ip route Q , Ä

show ip route > network mask @count _ protocolweight @ @

– DAÈ â	– D	£EÄ
	network	Ä ÄEÝ Ä ¾ / A¹,Ä Ü5%4°,XCÃ+ µ C
	mask	Ä ÄEÝ Ä ¾ / A¹ }-Ö,X,Ä Ü5%4°,XCÃ+
	count	Ä ÄEÝ Ä / ' !CÃ+ 5 D
	protocol	Ä ÄEÝ Ä GK Aì Öconnected static ×
	weight	Ä ÄEÝ Ä ¾ / M2T–Ax Gì,XCÃ+

5,ÖG!5B 5 ,Ö / Ý,XCÃ+ Ä

Q , õ ã (M *ü õ ã Ä < G!5B õ ã Ä y ·G!5B õ ã1 Ä

S*ü Ô Đ

A¹ Q , Ã¹ Ý';EÝNM È&l# / Û nCÃ+ µ C Ä

_ Ö¹ ß show ip rout H Q ,X / 4§ p Ö

Ruijie# show ip rout e

Codes: C - connected, S - static, R - RIP, B - BGP

O - OSPF, IA - OSPF inter area

N1-OSPF NSSA external type 1,N2 - OSPF NSSA external type 2

E1 - OSPF external type 1, E2 - OSPF external type 2

i - IS-IS,su - IS-IS summary,L1 - IS-IS level-1,L2 - IS-IS level-2

ia - IS-IS inter area, * - candidate default

Gateway of last resort is no set

> @	1u)ÚC±/• È zG£
9 L D	ß ÔCÇ , 3
	#A,CÃ+ ,# ÊKÈ
9 / \$ 1	ß ÔCÇE@ ¥ y ·

_ Ö¹ ß show ip route network Q ,X / 4\$ p Ö

Ruijie# show ip route 30.0.0.0

Routing entry for 30.0.0.0/8

Distance 110, metric 20

Routing Descriptor Blocks:

*192.1.1.1, 00:01:11 ago, via VLAN 1, generated by OSPF, extern 2

+!%	AÈ â
5 R X W L Q J ' H V F U L S W R U	/CÃ+ µ C,X ß ÔCÇ , 3 ÃCÃ+ 9\$d Ã È
% O R F N V	„ ÊKÈ Ã£+ ¾ p y · ÃdCÃ+ #A, ÃO _ Ã % * 3
	¶ ' 2 û 1

_ Ö¹ ß show ip route count Q ,X / 4\$ p Ö

Ruijie# show ip route count

----- route info -----

the num of active route: 5

_ Ö¹ ß show ip route weight Q ,X / 4\$ p Ö

Ruijie# show ip route weight

-----[distance/metric/weight]-----

S 23.0.0.0/8 [1/0/2] via 192.1.1.20

S 172.0.0.0/16 [1/0/4] via 192.0.0.1

,l G Q ,

Q ,	£EÄ

G ÄÄÈ â

Q , Z Æ

(È	AÈ â

1.2.2 show ipv6 route

?U¹,ß , 3 YCÃ+ >< µ C È S*ü show ipv6 route Q , Ä

show ipv6 route network/prefix-length

network/prefix-length	Ä ÃÉÝ Å ¾ / A¹,Â Û5%4°,XCÃ+ µ C
summary	Ä ÃÉÝ Å / ' ! L S ƆÃ+ 5 D,X Ú2O4³Au µ C
protocol	Ä ÃÉÝ Å GK Aᵢ Öconnected static ×

5,ÖG!5B 5,Ö / Ý,XCÃ+

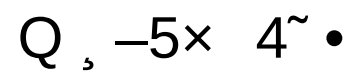
Q , ö ä (M *ü ö ä Ã < G!5B ö ä Ã y ·G!5B ö ä 1

S*ü Û Đ A¹ Q , Ã ¹ Ý';EÝNM È&l# / Û nCÃ+ µ C

G!5B _

¹ ß show ipv6 route Q ,X / 4§ p Ö
 Ruijie(config)# show ipv6 route
 IPv6 routing table name is Default(0) global scope - 7 entries
 Codes: C - Connected, L - Local, S - Static, R - RIP, B - BGP
 I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
 O - OSPF intraarea, OI - OSPF interarea, OE1 - OSPF external type
 1, OE2 - OSPF external type 2
 ON1 - OSPF NSSA external type 1, ON2 - OSPF NSSA external type 2
 [*] - NOT in hardware forwarding table
 L ::1/128 via Loopback, local host
 C 10::/64 via Loopback 1, directly connected
 L 10::1/128 via Loopback 1, local host
 S 20::/64 [20/0] via 10::4, Loopback 1
 L FE80::/10 via ::1, Null0
 C FE80::/64 via Loopback 1, directly connected
 L FE80::2D0:F8FF:FE22:33AB/128 via Loopback 1, local host

+!%	AÈ â
2	AÈ âA¹CÃ+ ,X\$dCÃ+ #A, ÄA¹ +!%o Ä6Ñª Ö &Ö,ÈE²CÃ+ × / Ö CÃ+ × 6ÖM- ÖCÃ+ × 5Ö5 , 3CÃ+ × %Ö % * ƆÃ+ × 2 Ö 2 6 3 ƆÃ+ × L Ö , 6 CÃ+ Ä



G!5B 0 / ' 6 Q R R S Q , Q J

1 IGMP Snooping w W

1.1 ü » w W

1.1.1 deny

?U/U!6E@ ¥S U R Ūn0+E,X4~ •# ÈÄÈ ;> S U R ðlā0, XG!5B Q , G H Q \ Ä
deny

– DAÈ ä	– D	£EÄ
	deny	/U!6E@ ¥S U R Ūn0+E,X4~ •

5,ÖG!5B S U R 5 lĊQ>H G H Q 0 Ä

Q , ö ä S U R G!5B ðhã Ä

S*ü Ū ð ÄÈ ü S U R ðlā0, S*ü U D Q Q lG!5B Q4~ •8× È Ä° ê È Z S S U R G!5B 0K 0*ü È
LÔ?U ÚA¹S U R hġO yġ P Ä

G!5B – ßM6 ĩ Î Ô p/U!6E@ ¥ 4~ •# S U R, ML_ \$!0
Ruijie(config)# ip igmp profile 1
Ruijie(config-profile)# range 224.2.2.2
Ruijie(config-profile)# deny

,l G Q ,	Q ,	£EÄ
	ip igmp profile	ĩ Î Ô p S U R I L O H
	range	G!5B4~ • 8× È

G ÄÄÈ ä

Q , Z Æ	(È	AÈ ä

1.1.2 permit

?UL\$ n S U R 41•0, M8× È ÈÄÈ ;> S U R ðlā0, XG!5B Q , S H U È E W¹ S U R I L O H
G6(,X y · Ú ¾4E@ ¥ Ū n,X4~ •# Ä
permit

– DAÈ ä	– D	£EÄ
	permit	AÇEE@ ¥S U R Ūn0+E,X4~ • Ä

5,ÖG!5B S U R 5 lĊQ>H G H Q 0 Ä

Q, ð ä	S U R G!5B ð ä Ä						
S*ü Ü Ð	AË ü S U R ð ä Ä S*ü U D Q Q G!5B Q4~ • 8× È Ä° ê È Z S S U R G!5B Q K 0*ü È LÔ?U ÚA¹S U R G!5B Q, H G, X Q, P Ä						
G!5B –	B M 6 i î ô p ¾ A C E E @ ¥ 4~ • # S U R, M, G!5B Q Ruijie(config)# ip igmp profile 1 Ruijie(config-profile)# range 224.2.2.2 Ruijie(config-profile)# permit						
ì G Q,	<table> <tr> <th>Q,</th><th>£EÄ</th></tr> <tr> <td>ip igmp profile</td><td>i î ô p S U R I L O H</td></tr> <tr> <td>range</td><td>G!5B 4~ • 8× È</td></tr> </table>	Q,	£EÄ	ip igmp profile	i î ô p S U R I L O H	range	G!5B 4~ • 8× È
Q,	£EÄ						
ip igmp profile	i î ô p S U R I L O H						
range	G!5B 4~ • 8× È						
G ÄÄÈ ä	,						
Q, Z Ä	<table> <tr> <th>(È</th><th>AÈ ä</th></tr> <tr> <td></td><td></td></tr> </table>	(È	AÈ ä				
(È	AÈ ä						
1.1.3 range							
?U Ü n S U R 4 L • 0, M 8× È ÈÄÈ ;> S U R ð ä Ä, M G!5B Q, U D Q Q Ä H Ü n) p4~ • È 3 Ä¹ Ü n p 8× È Y, X4~ • Ä S*ü A¹ Q, X Q Æ Ý N M ô L 8 Ü n, X4~ • Ä							
range low-ip-address >high-ip-address@ no range low-ip-address >high-ip-address@							
– DAÈ ä	<table> <tr> <th>– D</th><th>£EÄ</th></tr> <tr> <td>low-ip-address</td><td>Ü n 8× È, X C K Ý</td></tr> <tr> <td>high-ip-address</td><td>Ü n 8× È, X 4 § 3</td></tr> </table>	– D	£EÄ	low-ip-address	Ü n 8× È, X C K Ý	high-ip-address	Ü n 8× È, X 4 § 3
– D	£EÄ						
low-ip-address	Ü n 8× È, X C K Ý						
high-ip-address	Ü n 8× È, X 4 § 3						
5, Ö G!5B	´5, Ö Ä						
Q, ð ä	S U R G!5B ð ä Ä						
S*ü Ü Ð	G!5B Q 8× È ä È B r L L Ô?U Ü n ô p> È 5, Ö A¹ S U R, M, O H G H Ö Ý ê È Z S S U R G!5B Q K 0*ü È LÔ?U ÚA¹S U R h ü O Y, P Ä						
G!5B –	B M 6 i î ô p 8× È a 4~ • # S U R, M, G!5B Q Ruijie(config)# ip igmp profile 1 Ruijie(config-profile)# range 224.2.2.2 224.2.2.244						
ì G Q,	<table> <tr> <th>Q,</th><th>£EÄ</th></tr> </table>	Q,	£EÄ				
Q,	£EÄ						

G!5B , * 0 3 6 Q R R Q L Q J

1.1.5 ip igmp snooping ivgl

?U ' Ô L J P S V Q R J L Y ð ð È Ä Æ ; > < G!5B Q , ip igmp snooping
ivgl ÄÄ¹ Q , X Q R ð ð G K Á L J P S V Q R S L Q J

Q , õ ã

< G!5B õ ã Ä

Q , Z Æ	(Ė	AÈ â

1.1.8 ip igmp snooping fast-leave enable

?U ' Ô L J P S V Q R R S L Q J ID V W O H D Y H
 fast-leave enable ÄA¹ Q , X Q R 6 ã G K Á L J P S V Q R R S L Q J Ä I D V W O H D Y H
 ip igmp snooping fast-leave enable
 no ip igmp snooping fast-leave enable

– DAÈ â	– D	£EÄ

5 , Ö G ! 5 B G L V D Ö Ä H

Q , ö ä < G ! 5 B ö ä Ä

S*ü Ü Ð 0Ä · ¿Eó/• Ô Û ' x 6 ¢ □0Ä · ¥EÖ,X/• Ô □ , 34~·4~,X , * 0 3 /• Ô4~
 y [Ê È , È y ^A¹0Ä · ¢ Í hE@ ¥><NM,X Î0Ä · ë>< ôL8 Ä!8 â È ' x 6 ÍA¹
 , 34~·4~,X , * 0 3 (M n4~¹A¶ y [Ê È x 6 Ú á a âA¹0Ä · E@ ¥ Äü x 6 Þ È V p
 0Ä · ß ¾E² y Ý Ô þ y 5Ü È í Ä¹EIE> S6Ñ0Ä · ¿Eó/• Ô s6Ñ¹8V4z ú ' `C \$d Ä

G!5B – ßM6,X/ _\$è/ üA' Ü Þ ' Ô L J P S V Q R R S L Q J ID V W O H D Y H Ö
 Ruijie(config)# ip igmp snooping fast-leave enable

, l G Q ,	Q ,	£EÄ
	-	

G ÄAÈ â

Q , Z Æ	(Ė	AÈ â

1.1.9 ip igmp snooping query-max-response-time

?UG!5B x 6 y T X H Y \â1 Y ä , t 94~# C,X ÊKÈ È 'CYE>!8 ÊKÈ"u Ý
 4~ ä , , X t 9 µ C È íAx 4~ ä , Æ4£/• Ô È ôL8 Í h,X ä , Ä
 ip igmp snooping query-max-response-time time
 no ip igmp snooping query-max-response-time

– DAÈ â	– D	£EÄ
	time	Ö : 4,XCÄ+ ·,X5Ö ê ÊKÈ Ä

5 , Ö G ! 5 B V

Q , ð ä	< G!5B ð ä Ä	
S*ü Ü Ð	ü , * 0 3 , X Ô 8 ¹A¶ y [â È 4 ~ • A' Û î È „ Ý , X ä , 0 Ä · , X 5 Ö ê n Ê < È n Ê < Ê K È Ô K S ; h Ê K È È ' n Ê < , X £ Ê È í A x A ¹ 0 Ä · á a Ý ä , y 4 ~ • # È ` 4 ~ • A' Û î ^ A ¹ 0 Ä · ¢ , * 0 3 6 Q R R , S E @ > < ô L 8 Ä ü , * 0 3 , X (M n 4 ~ ¹ A ¶ y [â È 4 ~ • A' Û î í A ¹ (M n 4 ~ , X Ý ä , 0 Ä · 5 Ö ê n Ê < È n Ê < Ê K È Ô K S ; h Ê K È È ' n Ê < , X £ Ê È í A x A ¹ 0 Ä · á a Ý ä , y 4 ~ • # È 4 ~ • A' Û î ^ A ¹ 0 Ä · ¢ , * 0 3 6 Q R R , S E @ > < ô L 8 Ä í b , * 0 3 Y , X (M n 4 ~ \$ d ¹ A ¶ y [È á . n Ê < , X È „ Ø) Ü Ä	
G!5B –	ß M 6 , X / _ \$ è / ü A' Û G!5B Ö : 4 C Ä + · 5 Ö ê Ê K È V Ö Ruijie(config)# ip igmp snooping query-max-response-time 100	
ì G Q ,	Q ,	£ E Ä
G Ä Ä È ä	/	
Q , Z Æ	(È	A È ä

1.1.10 ip igmp snooping suppression enable

? U ' Ô L J P S V Q R R S L Q J X 5 H S R Ä E W > < G!5B Q , ip igmp snooping
 suppression enable Ä A ¹ Q , , X Q R 6 ä G K Á L J P S V Q R R S L Q J X X S S U H V V L R Q
 ip igmp snooping suppression enable
 no ip igmp snooping suppression enable

– DA È ä	– D	£ E Ä
5 , Ö G!5B	G L V D E Ä H	
Q , ð ä	< G!5B ð ä Ä	
S*ü Ü Ð	' S 6 Ñ Z , * 0 3 ä , G 2 i y y [e s 6 Ñ ä È ü Ö p ¹ A ¶ K È h Y 4 ~ • A' Û ¾ î ^ , X Y O D Q , X p 4 ~ • 4 ~ Y , X 1 Ô p , * 0 3 5 H S Y R E W 4 - C Ä + E ² y · È ä 4 » , X , * 0 3 5 H S Y R U W 4 » 4 Ä ä C Ä + E ² y · E @ ¥ È E - Ä ¹ £ ä 5 % 4 ° , X y [D G £ Ä G!5B Z A ¹ Q , ä È V X S S U H V 6 Ñ L R E x 6 í , * 0 3 Y Y U M E R U e W È ä í , * 0 3 Y U H Y S R U W Ä	
G!5B –	ß M 6 , X / _ \$ è / ü A' Û P ' Ô igmp snooping suppression Ö Ruijie(config)# ip igmp snooping suppression	
ì G Q ,	Q ,	£ E Ä



G!5B _	ßM6,X/ _\$è/ üA' Û ' Ô Y O D Q CÃ+ E² y · : 4 s6Ñ Ö Ruijie(config)# ip igmp snooping vlan 1 mrouter learn pim-dvmrp	
,l G Q ,	Q ,	£EÄ
	ip igmp snooping mrouter learn pim-dvmrp	G!5B < ' Ô4~ •CÃ+ · Ô : 4 s 6Ñ
G ÄÄÈ ä	/	
Q , Z Æ	(È	AÈ ä

1.1.14 ip igmp snooping vlan static interface

ü L J P S V Q R' Q , X L' Q , ß ÈM- Ô,XG!5B Ô p0Ã · y ñ p4~ •# È íA¹0Ã · Ú á
 « Ø/i , * 0 3 y [,X E i ÄÄÈ ;> < G!5B Q , ip igmp snooping vlan static
 interface ÄÄ¹ Q ,X Q R6 ä ôL8 Ô pM- ÖG!5B Ä

ip igmp snooping vlan vid static ip-addr interface interface-id

no ip igmp snooping vlan vid static ip-addr interface interface-id

- DAÈ ä	- D	£EÄ
	vid	CÃ+ ·,X Y O D Q L G
	ip-addr	4~ •
	interface-id	y · L G

5 ,ÖG!5B	´5 ,Ö Ä	
Q , õ ä	< G!5B õ ä Ä	
S*ü Û Ð	Ä¹ y ·G!5B î pM- Ö4~ • Ä	
G!5B _	ßM6,X/ _\$è/ ü Ô p0Ã · pG!5B Ô pM- Ö4~ • Ö Ruijie(config)# ip igmp snooping vlan 1 static 224.0.0.2 interfac e fastEthernet 0/1	
,l G Q ,	Q ,	£EÄ
	ip igmp snooping vlan mrouter interface	G!5B4~ •CÃ+ E² y ·
G ÄÄÈ ä	/	
Q , Z Æ	(È	AÈ ä

1.1.15 ip igmp snooping filter

?UG!5B ▢ p0Ã · ¾46Ñ y Ô M(M n,X4~ • D B# È ü y · ð ã ß ;> A¹ Q , G6((M n,X
S U R Ä A¹ Q H,X Q R6 ã ô L8 G6(X S U R Ä L O H

ip igmp snooping filter *profile-number*

no ip igmp snooping filter *profile-number*

– DAÈ â	– D	£EÄ
	<i>profile-number</i>	S U R, M40E È a 8× È !

5,ÖG!5B ´5,Ö Ä

Q , ð ã y · G!5B ð ã Ä

^ , * 0 3 3 U R H*Ü 00 p0Ã · ß È V pA¹0Ã · , * 0 3 5 H S Y R[È V Å' Ü î¹
RE- p0Ã · ?U t 9,X4~ • ú ü , * 0 3 3 U R A C B * È Y Ä8¹ È í A C E t 9 È
â!E⁻ > â4Á Ø)Ú Ä™NO ïïÜ n,X S U R È L O H ;> I L O C V (HÄU

ßM6,X/ _\$è/ ü,R 0Ã · P G6(S U R I D O H
Ruijie(config)# interface fastEthernet 0/1
Ruijie(config-if)# ip igmp snooping filter 1

,l G Q ,	Q ,	£EÄ
	ip igmp profile	ïïÔ p S U R I L O H

G ÄAÈ â

Q , Z Æ	(È	AÈ â

1.1.16 ip igmp snooping max-groups

?UG!5B y · A C E Ô î¹ ´ p4~ | Ö,X t 9A¹0Ã · A È ;> y · G!5B Q , ip igmp
snooping max-groups Q , ÄA¹ Q ,X Q R6 ã ã# Ô û4~L\$ Ä

ip igmp snooping max-groups *number*

no ip igmp snooping max-groups

– DAÈ â	– D	£EÄ
	<i>number</i>	– D8× È ± !

5,ÖG!5B y · 4~ • G£ p D á «L\$ Ä

Q , ð ã y · G!5B ð ã Ä

S*ü Ü Ð V pG!5B Z A C E : 4,X Ô û4~ D G £ È í üA¹ y · P È '4~ | Ö : 4 ,X4~A,,) p D C Y E>

Ô û AÆ DG£ Ê Ê x 6 Ú á a : 4 , * 0 3 5 H S R Ů Ű X E @ ¥ > < N M Ä

G!5B _

Q , Z Æ	(Ę	ÀÈ à

1.2.2 show ip igmp profile

1,ß ' !2İ4³ Ý S U R,KG5Bµ C

show ip igmp profile *profile-number* @

– DAÈ à	– D	£EÄ
	‘	/ Ý S U R,KG5Bµ C
	<i>profile-number</i>	/ Ũ n S U R,KG5Bµ C

5 ,ÖG!5B

Q , õ ã

(M (; (& G!5B õ ã

S*ü Ũ Đ

1,ß ' !2İ4³ Ý S U R,KG5Bµ C

G!5B _

,İ G Q ,	Q ,	£EÄ

G ÄÀÈ à

(Ę	
-----	--

- DAË â	- D	£EÄ
		' Ô , * 0 3 6 Q R R, Æ L Y A 3 A © μ C
	event	' Ô , * 0 3 6 Q R R, Æ Q E X A × A © μ C
	packet	' Ô , * 0 3 6 Q R R, Æ L Y Q X A × A © μ C
	msf	' Ô , * 0 3 6 Q R R, Æ L Q X J X A × A © μ C
	warning	' Ô , * 0 3 6 Q R R, Æ A Q X A × A © μ C

5 , Ö G ! 5 B

Q μ 0 ã Ö „ Ñ Ñ p (M

2 ' MLD Snooping w W

2.1 ' ü » w W

2.1.1 ipv6 mld profile

0 / ' ,X SUR*UloHÔ2ĩ ë,X4~E>\$, < Ä?UE⁻9 SURbläEPUOj ü < õ ã ß
G!5B Ô p SURÄA'QH, õ ã Đp Q, ÈEÝ ½ SURILOH QXPEHUÈJE⁻9

no range low-ipv6-address high-ipv6-address @

– DAÈ â	– D	£EÄ
	low-ipv6-address	Û n8× È,X "
	high-ipv6-address @	Û n8× È,XP¬

5 ,ÖG!5B ´5 ,Ö Ä

Q , ö ä S U R G I 5 B 0 H ä Ä

S*ü Ü Đ ?U" O R Z L S Y D X G 5 B 0 H W L V J K L S Y D X G 5 B 0 H V 8 × È â È B r L
LÔ?U Û n Ô þ> È5 ,ÖA¹ S U R ,X> O H G H Ö \

G!5B _ ßM6 ïò• À S Y ö K A °)) ` ,X ` J K I • " # œ " p Ð 0 7 • À ö € , X >

Ruijie(config-profile)#deny

Q ,	£EÄ
ipv6 mld profile	ĩ î Ô þ SUR I L O H
range	G!5B45 G!A0A1A0A0 #i-€ 4r æ q`€PHĩ Yg €Hia&"s" áò' qe‡2

2.1.5 ipv6 mld snooping ivgl

?U ' Ô P O G V Q R R S L Q J Ä 10 È Ä È ; > < G!5B Q , ipv6 mld snooping
ivgl Ä*ü Q R L S Y P O G V Q R R S L Q J Ä

ipv6 mld snooping ivgl

no ipv6 mld snooping

– DA È ä	– D	£EÄ

5 , Ö G!5B p | P O G V Q R R S L Q J Ä

Q , ö ä < G!5B ö ä

üA¹ ö ä ß È Ø 9 / \$ 1KÈ, X4~ ·# , ì f(À0ÿ, X Ä ¾6Ñ ñ â7¾ Å Ø b à Ô p 9 / \$ 1
,XCÄ+ E² y ·AË" y 4~ ·# × x 6 ü y Ĩ) Ô p 9 / \$ 1, X4~ ·# Ê È ¾6Ñ T, ì
à 9 / \$ 1Y, X ä , 0Ä ·E@ ¥ Ä

G!5B – ßM6, X/ _\$è/ üA' Ü p ' Ô P O G V Q R R S L Q J Ä 10 È Ä È
Ruijie(config)# ipv6 mld snooping ivgl

, ì G Q ,	Q ,	£EÄ
	-	

G Ä Ä È ä

Q , Z Æ	(È	AÈ ä
	10.4	1 Ô ö é 9

2.1.6 ipv6 mld snooping dyn-mr-aging-time

*ü ipv6 mld snooping dyn-mr-aging-time time G!5B | ÖCÄ+ E² y ·, X5Ö ê n Ê < È
*ü no ipv6 mld snooping dyn-mr-aging-time 9 6 á T–Ax Ä

ipv6 mld snooping dyn-mr-aging-time time

no ipv6 mld snooping dyn-mr-aging-time

– DA È ä	– D	£EÄ
	time	G! ÖCÄ+ E² y ·, X5Ö ê ÊKÈ Èª È! /!

5 , Ö G!5B VÄ

Q , ö ä < G!5B ö ä

| ÖCÄ+ E² y · V p ü J5Ö ê ÊKÈCY Ê!"u Ý 0 / ' BF!4~¹A! y [ê5Ü , 3 Y 3 , 0
+ H O Y Q È x 6 Ú ^A¹0Ä · ¢CÄ+ <0Ä · è>< ôL8 Ä

G!5B _ ßM6,X/ _\$è/ A'5B | ÖCÃ+ E² y ·,X5Ö ê ÊKÈ VÖ
 Ruijie(config)# ipv6 mld snooping dyn-mr-aging-time 500

Q ,	£EÄ

G ÄÄÈ â

(È	AÈ â
10.4	1 Ô ð é 9

2.1.7 ipv6 mld snooping query-max-response-time

*ù ipv6 mld snooping query-max-response-time time G!5B 0 / ' ¹A¶ y [,X ÔKS ;
 h ÊKÈ È*ù no ipv6 mld snooping query-max-response-time 9 6 áT-Ax Ä

ipv6 mld snooping query-max-response-time time
 no ipv6 mld snooping query-max-response-time

- D	£EÄ
time	0 / ' Ô8 ¹A¶ y [,X ÔKS ; h ÊKÈ È ^a È) ! /!

5 ,ÖG!5B

	10.4	1 Ô ð é 9
--	------	-----------

2.1.8 ipv6 mld snooping vlan

*ü ipv6 mld snooping vlan *vid* G!5B(M n Y O D| Q P O G V Q R s B S Ñ S Ñ Q
snooping vlan *vid* 9 GKÁ(M n Y O, ð Q P O G V Q R s B S Ñ S Ñ Q J

ipv6 mld snooping vlan *vid*

no ipv6 mld snooping vlan *vid*

– DAÈ â	– D	£EÄ
	<i>vid</i>	Y O, ð Q

S*ü Ő Đ

5 , Œ G!5B

´ G!5B

Q , õ ã

< G!5B õ ã

S*ü Ū Đ

,l G Q ,	Q ,	£EÄ
G ÄÄÈ â		
Q , Z Æ	(Ë	AÈ â
	10.4	1 Ô õ é 9

2.1.14 ipv6 mld snooping filter

?UG!5B ▫ p0Ã · ¾6Ñ y Ô M(M n,X4~ •# È ü0Ã · õ ã ß ;> A¹ Q , G6((M n,X
S U R Ä Ä¹ Q H , X Q R6 ã ôL8 G6(,X S U R Ä L O H

ipv6 mld snooping filter *profile-number*
no ipv6 mld snooping filter *profile-number*

– DAÈ â	– D	£EÄ
	<i>profile-num</i>	S U R , M Æ H
5 ,ÖG!5B	´G!5B	
Q , õ ã	0Ã ·G!5B õ ã	

no ipv6 mld snooping max-groups

- DAÈ á	- D	£EÄ
	Number	- D8× È ±

G ÄÈ â

Q , Z Æ	(È	ÄÈ â
	10.4	1 Ô õ é 9

2.2 < ü » w W

2.2.1 show ipv6 mld snooping

/ P O G V Q R R S Q , Q J

Show ipv6 mld snooping gda-table interfaces _mrouter

```
Ruijie# show ipv6 mld snooping mrouter
Vlan Interface State MLD profile number
```

```
----
```

```
1 GigabitEthernet 0/7 static 1
```

```
1 GigabitEthernet 0/12 dynamic 0
```

```
_ 4 Ö S*ü show ipv6 mld snooping gda-table 1,ß * '$ ><,X Ø4~•4~ µ C 1
```

```
ž Ô p4~•4~,X Ý ä ,0Ã .,X µ C Ö
```

```
Ruijie# show ipv6 mld snooping gda-table
```

```
Abbr: M - mrouter
```

```
D - dynamic
```

```
S - static
```

```
VLAN Address Member ports
```

```
-----
```

```
1 FF88::1 GigabitEthernet 0/7(S)
```

```
_ 5 Ö S*ü show ipv6 mld snooping interface 1,ß P O G V Q F R S i n g Q J
```

```
,XG!5B Ö
```

```
Ruijie# show ipv6 mld snooping interface GigabitEthernet 0/7
```

```
Interface Filter Profile number max-groups
```

```
-----
```

```
GigabitEthernet 0/7 1 4294967294
```

,l G Q ,

Q ,

£EÄ

G ÄÄÈ ä

Q , Z Æ

(È

ÄÈ ä

10.4

1 Ô ð é 9

2.2.2 show ipv6 mld profile

```
/ 0 / ' S U R , M J G G ! 5 B µ C Ä
```

```
show ipv6 mld profile profile-number @
```

- DAÈ ä

- D

£EÄ

```
/ Ý S U R , M G G ! 5 B µ C
```

```
profile-number / Û n S U R , M G G ! 5 B µ C
```

5 ,ÖG!5B

Q , ð ä

(M ð ä Ä

S*ü Û Ð

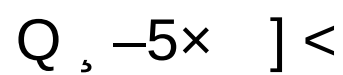
```
/ P O G S U R , M G G ! 5 B µ C
```

G!5B _

```
_ 1 Ö S*ü show ipv6 mld profile Q , 1,ß MLD profile G!5B µ C Ö
```

```
Ruijie# show ipv6 mld profile 1
```

```
MLD Profile 1
```

3

1 ' AAA w W

1.1 \ i ü » w W

1.1.1 aaa authentication dot1x

\$\$\$; ~ 3 aaa authentication dot1x
 ; Â 3 Q R ; Â
 aaa authentication dot1x default _list-name `method1 >method2 @
 no aaa authentication dot1x default _list-name `

default	~ ‡ † Æ ÿ ; Â
list-name	Æ ; ~ 1 Л Â
method	! O R F D O ä Q B Q S ~
local	"

3		
	aaa new-model	\$\$\$ E
	dot1x authentication	; 3
	username	Æ

1

3	1	

1.1.2 aaa authentication enable

\$\$\$ (Q D E O H 3 aaa authentication enable (Q D E O H
 Å 3 Q R Å

aaa authentication enable default method1 >method2 @

no aaa authentication enable default

--	--	--

default ~ ‡ 1 Æ ñ (Q D E O H
 Å (Q D E O H ygf (Q S CE0 (Q beÖS CK><S`

£

~

5 \$ ', 8 6

£

~

‡

Â

Ruijie(config)#

aaaauthenticationenableddefaultgroupradiuslocal < ð 0

\$\$\$ 3

3

Â

í \$\$\$ 333 £
aaa authentication ppp 3 / 333 Â
t Â

Ю Æ " ò UGVBS \$\$\$ 333 Â
5\$',86 £ 5\$',86 £
‡ Â

	/ R J L Q		3 4		3	
	/ R J L Q		4 3		3	
	3		3		3	
	3		3		3	
	Ю		3		3	
	3		3		3	
	Ruijie(config)#		aaa authentication login		list-1 local	
	Ruijie(config)#		line vty 0 4			
	Ruijie(config-line)#		login authentication		list-1	
3	aaa new-model		\$\$\$		L	
	username		3			
	login authentication		/ R J L Q			
1						
3	1					

\$\$\$ ^ é ~ IO 3 ~
 3 aaa authorization config-commands Â 3 Q R \$\$\$ IO
 3 11 Â
 aaa authorization config-commands
 no aaa authorization config-commands

--	--

--	--	--

	a	IO 3	Â
--	---	------	---

3	Â
---	---

	^	~ IO 3	~ 1 16	3	Q R
	π ~ ‡	è	IO 3 a	3	1 16 Â

	IO	IO 3	π	'
	Ruijie(config)#	aaa authorization config-commands		

	3	
3	aaa new-model	\$\$\$ 1
	aaa authorization commands	1X \$\$\$ 3

1	
---	--

3	1	
---	---	--

1.2.3 aaa authorization console

\$\$\$ 1 ~ 3 ~ 3 aaa
 authorization console Â 3 Q R \$\$\$ 1 3
 π Â

aaa authorization console

no aaa authorization console

--	--	--

	a	1	3	Â
--	---	---	---	---

3	Â
---	---

	5 * 2 6	†	1	è	~ 1 16	1	~
	ö	3	Â	1	3	π ~ ‡	1

3

a

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Ю

Ruijie(config)#

/l

3

П

'

aaa authorization console

```

5*26          1$6 &/,          ~   è &/,   ^   a   ~Â
          /RJLQ          ~          ([HF   Â   ([HF   ~   ‡
&/,   Â
([HF   ‡~   è          ([HF   ‹~   ŭ   ‡   a
Â

```

```

Ю          5$',86   Ё          ([HF   '
Ruijie(config)#          aaa authorization exec default group radius

```

aaa new-model	\$\$\$ Ё
authorization exec	‡
username	Ѓ

1

1.2.5 aaa authorization network

```

$$$          Ё   ^          333ä6/,3          ~          ~
3 aaa authorization network   Â          3   QR          $$$          †   Â
aaa authorization network   ^default   _list-name `method1 >method2   @
no aaa authorization network   default   _list-name `

```

default	' ~ ‡ ‡ Ѓ ñ 1HWZR UN Â
method	I' QRQ 4URXS ~
none	a
group	Ё ~ 5\$',86 7\$&\$&6 Ё

```

$$$ 1HWZR UN Â

```

```

3          Â

```

```
aaa authorization commandsA1146811DA479B>6<2AFC>JTJ /C2_1 1 Tf 0.0007 Tc 1m /C2_1 10FC2
```

	group	£ ¨ 7\$&\$&6 £
--	-------	----------------

π

3

Â

5 * 2 6

ı̇ í 3 π ¨ ı̇
ı̇ Q R Q H a 3 Â í π ı̇ 70\$ & 50G



	list-name	⌘	([H F	~ / ∟	Â
	method				



1.3.4 aaa accounting update

í Å 3 Q R 3 aaa accounting update 3 3

aaa accounting update

no aaa accounting update

--	--	--

PLQXW HV

3

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3 í \$\$\$ Ê ¢ a Â í \$\$\$ Ê ¢
Â

IO ı Â
Ruijie(config)# aaa new-model
Ruijie(config)# aaa accounting update
Ruijie(config)# aaa accounting update periodic 1

3

3	
aaa new-model	\$\$\$ Ê
aaa accounting network	İ

1

3

1	

1.3.6 accounting commands

3 3 accounting commands Â
3 QR 1 3 11 Â

accounting commands level default _list-name`

no accounting commands level

level	3 ı a ı ā 3 Â
default	ı 3 Â
list-name	İ 3 Â

11

3

Â

$$\begin{array}{ccccccccccc} & & \mathfrak{z} & & & & & & \mathfrak{z} \hat{A} & & \mathfrak{z} \\ & & \smile & & \mathfrak{z} & & \hat{A} & & \mathfrak{H} & & \smile \neq \\ \mathfrak{z} & & & & & & & & & & \\ & & \mathfrak{z} & & \mathfrak{z} & & \mathfrak{z} & & \mathfrak{H} & & \mathfrak{z} \\ & & \hat{A} & & & & \mathfrak{a} & & & & \end{array}$$

Ю и Е и F P G Q R Q H Â 7 \$ & \$ & 6 9 7 < ±
Э' P6 FA— TPIá& P WPÚÌÊÑ1ð —ÑQ& PÀ ` \$aymÍ `U hFP%o A ř,e •1 \$!¼! P #&T2


```

Ruijie(config)# aaa domain ruijie.com
Ruijie(config-aaa-domain)#
    
```

aaa new-model	\$\$\$ L
aaa domain enable	" \$\$\$ L
show aaa domain	

1

1.4.2 aaa domain enable

" \$\$\$ L ~ IO ñ Â ~
 " \$\$\$ L Â 3 Q R Â

aaa domain enable

no aaa domain enable

" \$\$\$ L Â

3 Â

" \$\$\$ L ~ Â

```

Ruijie(config)# aaa domain enable
    
```

aaa new-model	\$\$\$ L
show aaa domain	

1

3

1	

1.4.3 access-limit

~ ,((([' 3 Q R 1 3 Â

access-limit num

no access-limit

num	~ ,((([

IO a Â

3

Â

3 Â

no accounting network

default	~
list-name	=

	~	~	GHIDXOW
Â			

3	Â
---	---

Ï	1HWZRUN	Â
---	---------	---

IO	1HWZRUN	'
Ruijie(config)#	aaa domain	ruijie.com
Ruijie(config-aaa-domain)#	accounting network	default

3	
aaa new-model	\$\$\$ £
aaa domain enable	= \$\$\$ £
show aaa domain	

1

3	1

1.4.5 authentication dot1x

IO ,((([~ 3 QR 1 3 Â

authentication dot1x default list-name `

no authentication dot1x

default	~
list-name	=


```

IO
Ruijie(config)#      aaa domain    ruijie.com
Ruijie(config-aaa-domain)#      authorization network default
    
```

3	
aaa new-model	\$\$\$ £
aaa domain enable	" \$\$\$ £
show aaa domain	

1

3	1

1.4.7 state

3 Q R Â
 state block active `
 no state

block	
active	

IO 3 Â

3 Â

3 Â

```

IO
Ruijie(config)#      aaa domain    ruijie.com
Ruijie(config-aaa-domain)#      state block
    
```

3	
aaa new-model	\$\$\$ £
aaa domain enable	" \$\$\$ £

	show aaa domain	
1		
3	1	

1.4.8 show aaa domain

 $\hat{A}$

```
show aaa domain default domain-name @
```

default	✓
domain-name	⚠

3

Ю " Й GRPDLQ FRP Â

```
Ruijie# show aaa domain domain.com
```

=====Domain domain.com=====

State: Active

Username format: Without-domain

Access limit: No limit

802.1X Access statistic: 0

Selected method list:

```
authentication dot1x default
```

	?	
?	aaa new-model	\$ \$ \$ £
	aaa domain enable	" \$ \$ \$ £

1

3	1	

1.4.9 username-format

IO 1 \$ 66 L " 0 ~ 3 Q R
 ^

username-format without-domain _with-domain `

no username-format

	without-domain	
	with-domain	a

IO a ^

3 ^

IO 1 \$ 6 6 L ~ " 0 ^

IO
 Ruijie(config)# aaa domain ruijie.com
 Ruijie(config-aaa-domain)# username-domain without-domain

3	3	
	aaa new-model	\$\$\$ L
	aaa domain enable	" \$\$\$ L
	show aaa domain	

1

3	1	

server ip-addr >authen-port port1 @acct-port port2 @

no server ip-addr >authen-port port1 @acct-port port2 @

ip-addr	LS
port1	^ 5\$',86 ~
port2	^ 5\$',86 ~

LS

3

LS

^

LS

^

a

^

IO ^

Ruijie(config)# aaa group server radius ss

Ruijie(config-gs-radius)# server 192.168.4.12

acct-port 5 authen-port 6

Ruijie(config-gs-radius)# end

Ruijie# show aaa group

Group Name: ss

Group Type: radius

Referred: 2

Server List:

IP Address: 192.168.4.12

Authentication Port: 6

Accounting Port: 5

Referred: 1

3	
aaa group server	DDD LS
show aaa group	DDD LS

1

3

1	

1.5.3 show aaa group

\$\$\$ £ Â

show aaa group

--

3

Â

--

3 \$\$\$ £ Â

--

IO Â
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

3

3	
aaa group server	\$\$\$ £

1

3

1	

1.6 AAA ¾ T w W

1.6.1 aaa local authentication attempts

O R J L Q

aaa local authentication attempts

max-attempts

max-attempts'	~ 1 a Â

й

3 Â

3 / R J L Q

Ю

Ruijie# configure terminal

Ruijie(config)# aaa local authentication attempts 6

3	
---	--

IO

Ruijie# configure terminal

1

3	1	

1.6.4 clear aaa local user logout

clear aaa local user logout all _user-name word !`

	word !	,'

3

Â

~ 1 16 ≠ 1 16

IO
Ruijie#

clear aaa local user logout all

3	3	
	show running-config	
	show aaa logout	O R J L Q

1

3	1	

1.6.5 debug aaa

\$\$\$ L Â 3 no Â

debug aaa event

no debug aaa event

--	--	--

3	(;(&	Â
3	3	
1		
3	1	

1.6.6 show aaa method-list

\$\$\$ Â

show aaa method-list

3	Â	
	3 \$\$\$	Â
	IO \$\$\$	Â
	Ruijie# show aaa method-list Authentication method-list aaa authentication login default group radius aaa authentication ppp default group radius aaa authentication dot1x default group radius	

```

aaa authentication dot1x 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

```

3

3	
aaa authentication	HX
aaa authorization	HX
aaa accounting	HX

1

3

1	

1.6.7 show aaa user logout

Â

```
show aaa user logout all _user-name word !`
```

word !

, '

3

Â

~ 76

Â

Ю

Ruijie# show aaa user logout all

3

3	
show running-config	
show aaa logout	O R J L Q

1

3

1

2 ' RADIUS w W

2.1 RADIUS ' ü » w W

2.1.1 ip radius source-interface

UDGLXV ~ 3 ip radius source-interface Â 3
 no 5\$',86 Â
 ip radius source-interface interface
 no radius source-interface

Interface	UDGLXV	

UDGLXV Â

3 Â

й UDGLXV QDV ~ 1L 3 UDGLXV
 Â 3 LS й UDGLXV ~ 3
 Ъ Â

Ю UDGLXV IDVW(WKHUQH\LS й UDGLXV
 Ruijie(config)# ip radius source-interface
 fastEthernet 0/0

	3	
radius-server host	5\$',86 L	
ip address	LS	

1

	1	
3		

2.1.2 radius attribute

radius ttribute ^id ! _down-rate-limit _dscp _mac-limit _up-rate-limit `vendor-type
type !

no radius attribute ^id ! _down-rate-limit _dscp _mac-limit _up-rate-limit `vendor-type

id	⌈ LG !
type	W\SH

id	⌈	type
	PD[GRZQ UDWH	
	TRV	
	XVHU LS	
	YODQ LG	
	YHUVLRQ WR FOLHQW	
	QHW LS	
	XVHU QDPH	
	SDVVZRUG	
	ILOH GLUDFWRU\	
	ILOH FRXQW	
	ILOH QDPH	
	ILOH QDPH	
	ILOH QDPH	
	ILOH QDPH	
	ILOH QDPH	
	PD[XS UDWH	
	YHUVLRQ WR VHUYHU	
	IOX[PD[KLJK	
	IOX[PD[ORZ	
	SUR[\ DYRLG	
	GDLOXS DYRLG	
	LS SULYLOLJH	
	ORJLQ SULYLOLJH	

id	π	type
	PD[GRZQ UDWH	
	TRV	
	XVHU LS	
	YODQ LG	
	YHUVLRQ WR FOLHQP	
	QHW LS	
XVHU QDPH		

3		
	radius set qos cos	UD GLV TR V FR V
1		
3	1	

2.1.3 radius-server attribute 31

5 \$',86 &DOOLQJ 6WDWLRQ\$,& 3
radius-server attribute 31 Â 3 no ñ Â
radius-server attribute 31 mac form at {ietf | normal | unformatted}
no radius-server attribute 31 mac format

ietf	(7) 5)& ~ ñ Á ' ') \$& Ì L
normal	0\$& ^ ï Ñ normal,à

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		3

2.1.4 radius-server deadtime

radius-server deadtime 5\$',86 3
radius-server deadtime minnutes
no radius-server deadtime

minnutes	^ Æ ÿ ~ Â 1	ÿ

3	1	

2.1.6 radius-server key

radius-server key 5\$',86 3 QR 1 3 1

radius-server key text-string

no radius-server key

	text-string	3

	3 1
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3	1
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3	5\$',86	1	1 5\$',86	5\$',86	3 1
---	---------	---	-----------	---------	-----

10	1 5\$',86	1	3 1 D D D
Ruijie(config)#	radius-server key	aaa	

3	3	
	radius-server host	1 5\$',86 1 3
	radius-server retransmit	1 5\$',86
	radius-server timeout	1 5\$',86

1

3	1	

2.1.7 radius-server retransmit

radius-server retransmit 1 5\$',86 1 1 3

radius-server retransmit 1 no 1

radius-server retransmit retries

no radius-server retransmit

retries	5 \$', 8 6	Â

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\$\$\$ Ю Л Â
 Л 5 \$', 8 6
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 Ruijie(config)# radius-server retransmit 4

3		
radius-server host	Х 5 \$', 8 6	Л ỹ
radius-server key	Х 5 \$', 8 6	3
radius-server timeout	Х 5 \$', 8 6	

1

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2.1.8 radius-server timeout

5 \$', 8 6 Л ~ 3
 radius-server timeout Â 3 no ~ Â

radius-server timeout seconds

no radius-server timeout

seconds	Â ^ æ ỹ ~ Â 1	ỹ

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Ruijie(config)#

radius-server timeout

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2.2 RADIUS α ´ w W

2.2.1 debug radius

5 \$', 8 6 Â 3 Q R 5 \$', 8 6 Â

debug radius >event | detail @

no debug radius >event | detail @



3UDGL*VÂ

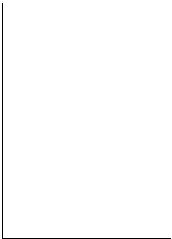
Ruijie# show radius parameter
Server Timeout: 5 Seconds
Server Deadtime: 5 Minutes
Server Retries: 3
Server Key: *****

3

3	
radius-server host	℔ 5 \$', 8 6 ℓ Ÿ
radius-server retransmit	℔ 5 \$', 8 6
radius-server key	℔ 5 \$', 8 6 3
radius-server timeout	℔ 5 \$', 8 6

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

3	
---	--

radius-server host 5 \$ ', 8u <,X 8iaHF6†6 A^ö ter†6 A^ W(cf!k

r

5	version to client	5
6	net ip	6
7	user name	7
8	password	8
9	file-diractory	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 privilege	22
23	login privilege	42
24	limit to user number	50

3	3	
	radius-server host	5 \$', 8 6 5 3
	radius-server retransmit	5 \$', 8 6
	radius-server key	5 \$', 8 6 3
	radius-server timeout	5 \$', 8 6

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3	1	

3 ' RADIUS 4Æ * ' Þ I w W

3.1 ' ü » w W

3.1.1 radius dynamic-authorization-extension enable

í à 5 \$', 8 6 ¶ Â

radius dynamic-authorization-extension enable

no radius dynamic-authorization-extension enable

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3 5 \$ ' , 8 6

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Ruijie# show radius dynamic-authorization-extension statistics

Disconnect-Request Received: 50

Incorrect Disconnect-Request Received: 1

Disconnect-Request Dropped for Queue Full: 0

Disconnect-Request Process Timeout: 0

Disconnect-Request Process Success: 49

Disconnect-ACK Sent: 25

Disconnect-ACK Sent Failed: 0

Disconnect-NAK Sent: 24

Disconnect-NAK Sent Failed: 0

Ruijie# clear radius dynamic-authorization-extension statistics

Ruijie# show radius dynamic-authorization-extension statistics

Disconnect-Request Received: 0

Incorrect Disconnect-Request Received: 0

Disconnect-Request Dropped for Queue Full: 0

Disconnect-Request Process Timeout: 0

Disconnect-Request Process Success: 0

Disconnect-ACK Sent: 0

Disconnect-ACK Sent Failed: 0

Disconnect-NAK Sent: 0

Disconnect-NAK Sent Failed: 0

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3	
show radius dynamic-authorization-extension statistics	5 \$ ' , 8 6 Â π

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	%	3

no ip tacacs source-interface

	Interface	7 \$ & \$ & 6
	7 \$ & \$ & 6	Â
3	Â	
	ÿ 7 \$ & \$ & 6 ¼ 3 Q D V ¼ 1 ¼ 3 3 7 \$ & \$ & 6 Â 3 L S ÿ 7 \$ & \$ & 6 ¼ 3 ¼ Â	
	Ю 7 \$ & \$ & 6 ÿ I D V W (W K H U Q H W L S ÿ 7 \$ & \$ & 6 Ruijie(config)# ip tacacs source-interface fastEthernet 0/0	
	3	
3	tacacs-server host	¼ 7 \$ & \$ & 6 ¼
	ip address	L S

3	7 \$ & \$ & 6 6	Â
	3 7 \$ & \$ & 6 6	3 aaa group server tacacs+ 7 \$ & \$ & 6 6 Â
	host 3 6	IO tacacs-server
	6 7 \$ & \$ & 6 6 6	6 6 6 6
	6	6
	IO	W D F 7 \$ & \$ & 6 6 3
	7 \$ & \$ & 6 6	
	Ruijie(config)#	aaa group server tacacs+ tac1
	Ruijie(config-gs-tacacs+)#	server 1.1.1.1
3	aaa group server tacacs+	7 \$ & \$ & 6 6
1		
3	1	

4.1.4 tacacs-server host

3 7 \$ & \$ & 6 6 3 Â

tacacs-server host ip^address | ipv6-address` port integer @ >timout L Q W H U @ > string @

no tacacs-server host ip-address

Ip-address	7 \$ & \$ & 6 6 3 Â
ipv6-address	7 \$ & \$ & 6 6 3 9 Â
port integer	7 \$ & \$ & 6 7 & 3
timeout integer	7 \$ & \$ & 6 6 Â
key string	7 \$ & \$ & 6 F Ø L H Q W Â

7 \$ & \$ & 6 6 Â

3 Â

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Ю ИХ 7 \$ & \$ & 6 Ё 3 Й D D D
 Ruijie(config)# tacacs-server key aaa

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3	
tacacs-server host	ИХ 7 \$ & \$ & 6 Ё 3
tacacs-server timeout	ИХ 7 \$ & \$ & 6

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4.1.6 tacacs-server timeout

3 6 7 \$ & \$ & 6 Ё 3 3 Й 3

tacacs-server timeout seconds

no tacacs-server timeout

seconds	^ 3 Й ~ 3 1 3

3

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3 3
 ~ K R V W W L P H R X W ~ 1 Л
 W L P H R X W Ё W L P H R X W 3

Ю ИХ 3
 Ruijie(config)# tacacs-server timeout 10

3	
tacacs-server host	Glt• Ü!...` P 6 R€0 0tacacs-server host Tc 0 Tw

3	1	

4.2 TACACS+ α´ w W

„ G H E X J W D F D F V
„ V K R Z W D F D F V

4.2.1 debug tacacs+

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debug tacacs+
no debug tacacs+

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7 \$\$\$&6 6

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Ruijie# show tacacs
Tacacs+ Server : 172.19.192.80/49
Socket Opens: 0
Socket Closes: 0
Total Packets Sent: 0
Total Packets Recv: 0
Reference Count: 0

3

3	
tacacs-server host	7 \$\$\$&6 6 6 3

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5 802.1X w W

dot1x auth-address-table

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no

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

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

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mac-addr	1 Â
interface	1 Â

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show dot1x auth-address table

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Ruijie# configure terminal

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

Ruijie(config)# end

Ruijie#

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3	
show dot1x auth-address-table	;

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dot1x authentication

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3 no Â

dot1x authentication default list-name `

no dot1x authentication default list-name `

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default	" Â
list-name	1 " Â

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3	
show dot1x	[Â

ð 1 Ô

dot1x auth-fail vlan

```
[ Y O D Q
dot1x auth-fail vlan vid
no dot1x auth-fail vlan
```

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vid	Y O D Q L G

ð Ô Y O D Q

ð 3 Ô Â

ð Ô 1 2 show dot1x interface 3 Â

ð Ô Ю [Y O D Q `

```
Ruijie# configure terminal
Ruijie(config)# interface fa 0/1
Ruijie(config-if)# dot1x auth-fail vlan 2
Ruijie(config-if)# end
Ruijie#write
```

ð

3 Ô

3	
show dot1x interface	[Â

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dot1x auth-mode

```
[ Â
dot1x auth-mode eap-md5 chap pap `
no dot1x auth-mode
```

ð

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eap-md5	[(\$ 3 0 ' Â
chap	[& + \$ 3 Â
pap	[3 \$ 3 Â

Step 3: Configure the Ruijie switch.

Step 4: Verify the configuration.

Step 5: Show the configuration on the Ruijie switch.

Step 6: Configure the Ruijie switch.

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

Step 7: Verify the configuration.	
show dot1x	

Step 8: Configure the Ruijie switch.

dot1x auto-req

Step 9: Configure the Ruijie switch.

Step 10: Verify the configuration.

Step 11: Show the configuration on the Ruijie switch.

Step 12: Configure the Ruijie switch.

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

Ruijie(config)# dot1x auto-req
Auto-Req: Enabled
User-Detect : Enabled
Packet-Num  : 0
```


Req-Interval: 30 Second

õ 3 Ô

3	
show dot1x auto-req	ŷ Â

õ / Ô

dot1x auto-req packet-num

ŷ ~ no ì Â

dot1x auto-req packet-num num

no dot1x auto-req packet-num

õ Ô

num	ŷ Â

õ Ô Q X P " Â

õ 3 Ô Â

õ Ô ŷ ~ / Л show dot1x auto-req 3 П Â

õ Ô Ю ŷ ['

```
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
```

õ 3 Ô

3	
show dot1x auto-req	ŷ

õ / Ô

dot1x auto-req req-interval

ŷ ~ no ì

dot1x auto-req req-interval interval

no dot1x auto-req req-interval

õ Ô

interval	Ÿ ~ Æ V

õ Ô

õ 3 Ô Â

õ Ô Ÿ ~ 1 7 show dot1x auto-req 3 7 Â

õ Ô Ю [й V ‘

```
Ruijie# configure terminal
Ruijie(config)# dot1x auto-req req-interval 60
Ruijie(config)# end
Ruijie# show dot1x auto-req
Auto-Req: Enabled
User-Detect : Enabled
Packet-Num : 0
Req-Interval: 60 Second
```

õ 3 Ô

3	
show dot1x auto-req	Ÿ Â

õ 1 Ô

dot1x auto-req user-detect

õ ~ a 7 Ÿ ~ no й Â

dot1x auto-req user-detect

no dot1x auto-req user-detect

õ Ô

õ Ô

õ 3 Ô Â

õ Ô Æ ~ a 7 Ÿ ~ 1 7 show dot1x auto-req

3 7 Â

õ Ô Ю Æ Æ 1 ~ Ÿ Ÿ ‘

```
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
```

ð 3 Ô

3	
show dot1x auto-req	ÿ Â

ð / Ô

dot1x client-probe enable

```

dot1x client-probe enable
no dot1x client-probe enable
```

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```
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
```



```
Ruijie(config-if)# dot1x critical
Ruijie(config-if)# end
```

ð 3 Ô

3	

ð / Ô

dot1x critical recovery action reinitialize

```
5 $',86 ƚ ƚ~ Ɔ ƚ ˆ Ɔ a
ˆ no / ƚ 3 ˆ
dot1x critical recovery action reinitialize
no dot1x critical recovery action reinitialize
```

ð Ô

ð Ô Ɔ ƚ ƚ~ a

ð 3 Ô

ð Ô ƚ ƚ~ 5 \$',86 ƚ ~ Ɔ ƚ ˆ ˆ ƚ ˆ

ð Ô

```
Ruijie# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Ruijie(config)# interface fa 0/10
Ruijie(config-if)# dot1x port-control auto
Ruijie(config-if)# dot1x critical recovery action reinitialize
Ruijie(config-if)# end
```

ð 3 Ô

3	

ð / Ô

dot1x critical vlan

```
ƚ ~ 9 / $ 1ˆ Ɔ a 9 / $ 1 ˆ
no / ƚ 3 ˆ
dot1x critical vlan vlan-id
```



```
Ruijie# end
```

õ 3 Ô

3	
show dot1x	[Â

õ 1 Ô

dot1x dynamic-vlan enable

õ Y O D Q Â 3 no 1 76 Â

dot1x dynamic-vlan enable

no dot1x dynamic-vlan enable

õ Ô

õ Ô ð

õ 3 Ô

õ Ô 1 76 show dot1x dynamic-vlan 3 [Â

õ Ô Ю [Y O D Q .

```
Ruijie# configure terminal
Ruijie(config)# dot1x dynamic-vlan enable
Ruijie(config)# end
Ruijie#
```

õ 3 Ô

3	
show dot1x	[Â

õ 1 Ô

dot1x eapol-tag

õ (\$ 3 2 / 7 \$ * 71 Â

dot1x eapol-tag

no dot1x eapol-tag

õ Ô

ö Ô ÿ

ö 3 Ô Â

ö Ô 1J show dot1x 3 [

ö Ô Ю ; WDJ ‘

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

ö 3 Ô	3	
	show dot1x	[Â

ö 1 Ô

dot1x guest-vlan

ö guest vlan Â 3 no 1J Â

dot1x guest-vlan vid

no dot1x guest-vlan

- D !D, €`0
ö 0 .

ö Ô		
	Y L G	!

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ö 3 Ô Ю

ö Ô ‘ J X H V W Y O D Q dot1x dynamic-vlan enable 3 3 J X H V W Y O D Q

a Â

Y ‘ J X H V W !ÊÔ?Îh fPâÍ "0•ø D !s= á*ó Ä‡ ‘Ú à 3w @ @1 øÀ@U2¯Á•± 4< Ü p @f ôJ6 33Ã? ”

show running-config	[	^
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ö / Ô

dot1x mac-auth-bypass

0 \$ & ^
dot1x mac-auth-bypass
no dot1x mac-auth-bypass

ö	Ô		

ö Ô a 0 \$ &

ö 3 Ô ^

ö Ô / ¼ show dot1x port-control interface 3 ^

ö	Ô	Ю	[0 \$ &	
		Ruijie# configure terminal Ruijie(config)# interface fa 0/1 Ruijie(config-if)# dot1x mac-auth-bypass Ruijie(config-if)# end Ruijie#write		

ö	3 Ô	3	
		show dot1x port-control interface	[^

ö / Ô

dot1x mac-auth-bypass multi-user

0 \$ % ^
dot1x mac-auth-bypass multi-user
no dot1x mac-auth-bypass multi-user

ö	Ô		

ö Ô a 0 \$ %

ð 3 Ô Â

ð Ô 1 2 show running-config 3 Â

ð Ô Ю 0 \$ %
Ruijie# configure terminal
Ruijie(config)# interface fa 0/1
Ruijie(config-if)# dot1x mac-auth-bypass multi-user
Ruijie(config-if)# end
Ruijie#write

ð 3 Ô 3	
show running-config	Â

ð 1 Ô

dot1x mac-auth-bypass timeout-activity

[0 \$ & Â
dot1x mac-auth-bypass timeout-activity value
no dot1x mac-auth-bypass timeout-activity

ð Ô	
value	~ 2 3 4

ð Ô ~ a

ð 3 Ô Â

ð Ô 1 2 show run 3 [Â

ð Ô Ю [0 \$ &
Ruijie# configure terminal
Ruijie(config)# interface fa 0/1
Ruijie(config-if)# dot1x mac-auth-bypass timeout-activity 3600
Ruijie(config-if)# end
Ruijie#write

ð 3 Ô 3	
show dot1x port-control interface	[Â

ð 1 Ô

ö Ô 1J show dot1x 3 [Â

ö Ô Ю [,
Ruijie# configure terminal
Ruijie(config)# dot1x max-req 7
Ruijie(config)# end
Ruijie#

ö 3 Ô

3	
show dot1x	[Â

ö 1 Ô

dot1x multi-account enable

Э Ю ı~ a ƒ ¨ Â 3 ¨ ƒ Â
3 no Â
dot1x multi-account enable
no dot1x multi-account enable

ö Ô

ö Ô a ƒ ¨ Â

ö 3 Ô

ö Ô \$' ~ 3 1 Â

ö Ô Ю 1ƒ ,
Ruijie# configure terminal
Ruijie(config)# dot1x multi-account enable
Ruijie(config)# end

ö 3 Ô

3	
show dot1x	[Â

ö 1 Ô X 0 Ò@ÂpA9€ ~b4 6p€= ¾ı

```
dot1x multi-mab quiet-period seconds
no dot1x multi-mab quiet-period
```

ö	Ô		
		seconds	P D E t Â

ö Ô Â

ö 3 Ô Â

ö Ô P D E i ~ a " ~ Â 1 2 show running-config 3 Â

ö Ô Ю и V

```
Ruijie# configure terminal
Ruijie(config)# dot1x timeout quiet-period 100
Ruijie(config)# end
```

ö	3 Ô	3	
		show running-config	Â

ö 1 Ô

dot1x port-control auto

ö 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

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

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ö 3 Ô

ö Ô 1 2 show dot1x 3 [Â

ö Ô Ю [6

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

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3

```
Ruijie(config-if)# end
```

```
Ruijie#
```

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3 Ô

```
Ruijie(config)# interface g 0/1
Ruijie(config-if)# dot1x port-control auto
Ruijie(config-if)# dot1x port-control-mode port-based single-host
Ruijie(config-if)# end
```

}

;

}

dot1x probe-timer ^ interval _

3 Ô Â

3 Ô D D [PDF 1 2 show running-config 3
[Â

3 Ô PDF 2 [PDF

```
Ruijie# configure terminal
Ruijie(config)# no dot1x pseudo source-mac
Ruijie(config)# end
Ruijie#
```

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dot1x re-authentication

3 3 Â 3 no Â

dot1x re-authentication

no dot1x re-authentication

3 Ô

3 Ô a Â

3 3 Ô Â

3 Ô 3 4 3 4 Â 2 show dot1x
3 [Â

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```
Ruijie# configure terminal
Ruijie(config)# dot1x re-authentication
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:	3 times
Maximum Request:	3 times
Filter Non-RG Supp:	Disabled
Client Oline Probe:	Disabled
Eapol Tag Enable:	Disabled
Authorization Mode:	Group Server

ö	3 Ô	3	
		show dot1x	[Â

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dot1x reauth-max

3	Â	3	no	Â
dot1x reauth-max	count			
no dot1x reauth-max				

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---	---	--

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:	Disabled
Eapol Tag Enable:	Disabled
Authorization Mode:	Group Server

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		show dot1x	[Â

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dot1x stationarity enable

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dot1x timeout quiet-period

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dot1x timeout quiet-period

seconds

no dot1x timeout quiet-period

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show dot1x

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no $\hat{A}$

dot1x timeout re-authperiod seconds

no dot1x timeout re-authperiod

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	seconds	$\hat{A} \quad \hat{A} \quad \hat{A} \quad \hat{A}$

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dot1x timeout server-timeout

dot1x timeout supp-timeout

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dot1x timeout supp-timeout seconds

no dot1x timeout supp-timeout

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seconds	Â

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show dot1x

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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

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show dot1x	[Â

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dot1x timeout tx-period

配置命令如下：

```
dot1x timeout tx-period seconds
no dot1x timeout tx-period
```

配置命令	配置命令		
		seconds	配置值

配置命令如下：

配置命令如下：

配置命令如下：

配置命令如下：

```
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
```

配置命令	配置命令		
		show dot1x	配置值

配置命令如下：

show dot1x

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show dot1x

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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

MAC Move Permit' Enabled

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ð	
dot1x auth-mode	[Â
dot1x max-req	Â
dot1x port-control auto	ü ¶ Â
dot1x reauth-max	
dot1x re-authentication	ü Â
dot1x timeout quiet-period	ı Â
dot1x timeout re-authperiod	Â

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

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dot1x auth-mode	[Â
dot1x max-req	Â
dot1x port-control auto	ö 7 Â
dot1x reauth-max	
dot1x re-authentication	ö Â
dot1x timeout quiet-period	± Â
dot1x timeout re-authperiod	Â
dot1x timeout server-timeout	£ Â
dot1x timeout supp-timeout	Â
dot1x timeout tx-period	µ ¶ Â

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show dot1x port-control

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show dot1x port-control interface interface @

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interface	

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```
Ruijie# show dot1x port-control
```


dot1x port-control auto	ü 7 Â
dot1x reauth-max	
dot1x re-authentication	ü Â
dot1x timeout quiet-period	ı Â
dot1x timeout re-authperiod	Â
dot1x timeout server-timeout	Ł Â

show dot1x re-authentication

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```
show dot1x reauth-max
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Ruijie# show dot1x reauth-max

reauth-max: 2 times

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dot1x auth-mode	[Â
dot1x max-req	Â

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Backend-State	Port-Status	User-Type	Time

2	ts-user	0023.aaaa.4286	Fa0/5 1 Authenticated
Idle	Authed	static	0days 0h 8m 8s

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3	
dot1x auth-mode	[Â
dot1x max-req	Â
dot1x port-control auto	ŭ ¶ Â
dot1x reauth-max	
dot1x re-authentication	ŭ Â
dot1x timeout quiet-period	± Â
dot1x timeout re-authperiod	Â
dot1x timeout server-timeout	ℓ Â
dot1x timeout supp-timeout	Â
dot1x timeout tx-period	˘ ¨ Â

õ 1 Ô

show dot1x timeout

```
3 ;
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
```

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

Ruijie#

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dot1x auth-mode	[Â
dot1x max-req	Â
dot1x port-control auto	ü ¶ Â
dot1x reauth-max	
dot1x re-authentication	ü Â
dot1x timeout quiet-period	± Â
dot1x timeout re-authperiod	Â
dot1x timeout server-timeout	£ Â
dot1x timeout supp-timeout	Â
dot1x timeout tx-period	µ ¨ Â

õ 1 Ô

show dot1x user id

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show dot1x user id id !

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id	VKRZ VXPPDU\ LG

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```
Ruijie# show dot1x user id 1
User name: caikov
id: 1
Type: static
Mac address is 0013.2049.8272
Vlan id is 217
Access from port Gi0/13
User ip address is 192.168.217.64
Max user number on this port is 6000
COS on this port is 5
```

```
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
```

dot1x	Configuration	Default
dot1x auth-mode	dot1x	dot1x
dot1x max-req	dot1x	dot1x
dot1x port-control auto	dot1x	dot1x
dot1x reauth-max	dot1x	dot1x
dot1x re-authentication	dot1x	dot1x
dot1x timeout quiet-period	dot1x	dot1x
dot1x timeout re-authperiod	dot1x	dot1x
dot1x timeout server-timeout	dot1x	dot1x
dot1x timeout supp-timeout	dot1x	dot1x
dot1x timeout tx-period	dot1x	dot1x

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6.1.1 http redirect

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 , 3 Â 3 http redirectÂ 3 no + 7 7 3 ã
 , 3 Â

http redirect ip-address

no http redirect

ip-address	+ 7 7 3 ã , 3 Y Â

+ 7 7 3 ã , 3 Â

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3 : HE 3 RUWDO 3 ~ a Y 3 : HE Â
 SRUWDO IO KRP HSDJH ũ ‡ ã Â
 ¶ ~ ‡ KRP HSDJH ~ a IO SRUWDO LS
 ù ã XUO

1' HTTP ã IPv4 ù 172.16.0.1 Â
 Ruijie(config)# http redirect 172.16.0.1

3	
show http redirect	+ 7 7 3 ã Â
http redirect homepage	ŷ Â

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```

address | {ip-address ip-mask @arp>@ `
address | {ip-address ip-mask @ `

```

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```
direct-site      172.16.0.1
```

$$+773 \quad \overset{\circ}{\alpha} \quad \hat{A}$$
$$+773 \quad \overset{\circ}{\alpha} \quad \hat{A}$$

url-string	3 R U W D O	Ł Ÿ ~ Љ ³ K W W S ´ ³ K W W S V

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3 Â

П 3 : H E П ~ Ÿ Â

1' Ÿ ñ http://www.ruijie-eportal.net:8080/login Â Ruijie(config)# http redirect homempa

	3	
3	show http redirect	+ 7 7 3 ã Â
	http redirect	Ł , 3 Â

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3		3 Â

6.1.4 http redirect port

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```

Ruijie(config)# http redirect port 8080
Ruijie(config)# no http redirect port 80

```

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show http redirect	+ 7 7 3 ã Â

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	3

6.1.5 http redirect session-limit

```

+ 7 7 3    ã    3    no    Â    Ю
http redirect session-limit session-num port port-session-num @
no http redirect session-limit

```

session-num	+ 7 7 3 ~ 1
port-session-num	^ 1 ~ Э + 7 7 3 ~ 1 Â

```

+ 7 7 3    ã    3    Ю
+ 7 7 3    ã    Â

```

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+ 7 7 3    Â
+ 7 7 3    ~    + 7 7 3    ~    Ë    ≠ 1    + 7 7 3
+ 7 7 3    ã    3    + 7 7 3    ã    Â

```

```

Ruijie(config)# http redirect session-limit 4

```

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	show http redirect	+ 7 7 3 ã Â

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6.1.6 http redirect timeout

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http redirect timeout seconds

no http redirect timeout

	seconds	ã Â æ ì ~ 1 ì > @Â

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	*(7 + (\$' ~ ì + 7 7 3 ã ì Â 1 Л
	a *(7 + (\$' ~ . 7 & 3 Â

	ã ì Â
	Ruijie(config)# http redirect timeout 4

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	show	CSP_ã y [â !6Ñ GKÈ Ð

6.1.7 portal-server

... Y 3 :HE 3RUWDO E E " 3
 85/ E 8'3 ũ Â 3RUWDO
 1 3 no Â

portal-server eportalv2 [type v2] ip ip-address port port-num url url-string @
 {no | default} portal-server eportalv2

ip-address	E ,3Y Â
url-string	^ 1 ~ 85/ 1 ñ > @ Â
port-num	^ 1 ~ E 8'3 ũ Â 1 ñ > Â @
pagename	"

~ Â Y 3 ~ Ю 85/ è E

3	1	
	7	3 Å

6.1.8 web-auth accounting v2

```

Y 3 :HE ~ Å 1J 3
no è Å
web-auth accounting v2 list-name
no web-auth accounting v2

```

list-name	\$\$\$ QHWZRUN ~ é \$\$\$ Å

```

" ñ default

```

```

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```

	~ í ~ 1 ... " a *
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a	~ ů ‡
	Å

```

' $$$ QHWZRUN FRPPBDFFW 5$',86
E ^ " ñ UDGLXV† Y 3 :HE Å

```

```

Ruijie# configure terminal

```

```

Enter configuration commands, one per line. End with CNTL/Z.

```

```

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

```

```

Ruijie(config)# web-auth accounting v2 comm_acct

```

```

Ruijie(config)# exit

```

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7	3 A

6.1.9 web-auth acct-update-interval

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web-auth acct-update-interval minutes

no web-auth acct-update-interval

minutes	A æ y j ~ 1 y > @ j A j ~ a A

y j A

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a	y 3 :HE π t~ 3 A

y 3 :HE y j A

Ruijie# configure terminal

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6.1.10 web-auth authentication v2

no 3 :HE 3 Â 1 3	
no 3 Â	
web-auth authentication v2 list-name	
no web-auth authentication v2	
list-name	\$\$\$:HE 3 3
	Â

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3	Â
---	---

3 :HE 3 Â 3	
a	3 3
	3 3
	3

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3	UDGLXV 3 3 Web

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	7	3 Å

6.1.11 web-auth direct-host

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web-auth direct-host ip-address ip-mask @arp>@

no web-auth direct-host ip-address

ip-address	, 3 Å
ip-mask	^ 1 ~ , 3 Å
arp	^ 1 ~ í \$ 5 3 & + (& 1 ~ 3 \$ 5 3 ~ arp

no web-auth offline-detect flow >idle-timeout@threshold @

minutes	À ¤ ÿ ¸ 1 ÿ > @ † À 1 ¸ † À
bytes	À ¤ ÿ ¸ 1 ÿ > @ À 1 ¸ À

Ю ¸ † À

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Ruijie(config)# web-auth offline-detect flow idle-timeout 3
threshold 1024

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show web-auth user	À

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7	í
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ip-only-mode	Ю : H E Л ı ~ , 3 ä 0 \$ & Â Ю Ь ~ ñ a ~ , 3 é ~ 0 \$ & ~ ~ Л ı ~ , 3 Â↑ ~ Ю Ю ~ Â
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П : H E П ~ Ÿ Â

FastEthernet 0/14 Э í : H E Â
Ruijie(config)# interface FastEthernet 0/14
Ruijie(config-if)# web-auth port-control

3	
show web-auth port-control	: H E Â
http redirect	Ł , 3 Â

http redirect homepage22F0E30C309B7>6<2C5811CD>6<1468>]TJ /C2_1 1 T1A97re 24 804.008 0.

	y 3 :HE 3RUWDO 11 A	
3	A	
	3RUWDO 3RUWDO 11 A	
	y 3 :HE 11 A Ruijie# configure terminal Enter configuration commands, one per line. End with CNTL/Z. Ruijie(config)# no web-auth portal extension	
3	3	
1	A	
3	1	
	E	3 A

6.1.15 web-auth portal key

6 3RUWDO A 11 3 no +773 :HE 3 :HE 6 E	
A web-auth portal key key-string no web-auth portal key	
key-string	6 E 11
	A
	A
3	A
	3 :HE A


```

Ruijie(config)# web-auth portal key ruijie

```

3	
http redirect	3 3RUWBO ,3
http redirect homepage	3 3RUWBO Ÿ

```

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6.1.16 web-auth portal

:HE ~ Y 3 :HE ~ 5 ~ M ¶ 7

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	portal-server	... 3 :HE 3RUWDO Â
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3		
	1	

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„ FOH DU ZHE DXWK SRUWDO W\SH Y VWDWLVLVLFV
„ FOH DU ZHE DXWK XVHU
„ VKRZ KWWS UHGLUHFV
„ VKRZ ZHE DXWK SRUWDO
„ VKRZ ZHE DXWK GLUHFV KRVW
„ VKRZ ZHE DXWK FRQWURO
„ VKRZ ZHE DXWK XVHU

```

6.2.1 clear web-auth portal statistics

```

Y 3 SRUWDO :HE Â
clear web-auth portal statistics

```

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--	---	--

3	Â	
---	---	--

1	3	Y 3 :HE	Â
---	---	---------	---

	Y 3 :HE	
	Ruijie# clear web-auth portal statistics	

3	3	
	show web-auth portal	Y 3 :HE Â

1	Â	
---	---	--

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	7	3 Â

6.2.2 clear web-auth user

```

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+773 UHGLUHFWLRQ VHWLQJV	
VHUYHU	Ł ,3 Â
SRUW	ă +773 Â
KRPHSDJH	ă Ÿ Â
VHVVLRQ OLPLW	ˆ +773 Â
WLPHRXW	ă Â
'LUHFW VLWHV	,3 ~ Â
'LUHFW DUS DGGUHVVUS Â	
\$GGUHV	,3 Â
ODVN	,3 Â
\$53 %LQGLQJ	^ 1 ~ Ÿ \$53 Â
'LUHFW KRVWV	^ ~ Â
\$GGUHV	,3 Â
ODVN	,3 Â
3RUW	^ 1 ~ 6 ,3 Â
\$53 %LQGLQJ	^ 1 ~ Ÿ \$53 Â

3	
http redirect	Ł ,3 Â
http redirect direct-site	Â
http redirect homepage	Ÿ Â
http redirect port	+773 :HE ă Â
http redirect session-limit	ˆ +773 Â
http redirect timeout	ă Â
web-auth direct-host	Â

1 Â

9 3RUWDO 8VHU 6WDWL VWLFV	Â
&XUUHQW 2QOLQH 8VHU &RXQW	
0D[2QOLQH 8VHU &RXQW	Â
2QOLQH 8VHU /LPLW	3 Â
9 3RUWDO &RPPXQL FDWLRO 6WDWL VWLFV	Y 3 3RUWDO Â
&KDOOHQJH 5HT &RXQW &KDOOHQJH	Â
&KDOOHQJH 5VS &RXQW &KDOOHQJH	Â
&KDOOHQJH 3DVVHG&&RXQW QJH	Â
&KDOOHQJH)DLOXUH &RXQW QJH	Â
&KDOOHQJH 5VS 6HQG 6XFF &RXQW	Â
\$XWK 5HT &RXQW	Â
\$XWK 5VS &RXQW	Â
\$XWK 3DVVHG &RXQW	Â
\$XWK)DLOXUH &RXQW	Â
\$XWK 5VS 6HQG 6XFF &RXQW	Â

3	
3	clear web-auth portal statistics
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Ruijie# show web-auth direct-host

Direct hosts:

Address	Mask	Port	ARP Binding
192.168.0.1	255.255.255.255	N/A	On
192.168.4.11	255.255.255.255	N/A	On
192.168.5.0	255.255.255.0	N/A	Off

\$ G G U H V V	, 3 À
0 D V N	, 3 À
3 R U W	6 , 3 À
\$ 5 3 % L Q G L Q J	ű \$ 5 3 À

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web-auth direct-host	, 3 À

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6.2.6 show web-auth control

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show web-auth control

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	3~ : H E Â								
	3 Ruijie# show web-auth control Port Control Server Name Online User Count ----- ----- <table> <tr><td></td><td></td></tr> <tr><td>3RUW</td><td>4 Â</td></tr> <tr><td>&RQWURO</td><td>4 3 : H E Â</td></tr> <tr><td>2QOLQH 8VHU &RXQW</td><td>4 Â</td></tr> </table>			3RUW	4 Â	&RQWURO	4 3 : H E Â	2QOLQH 8VHU &RXQW	4 Â
3RUW	4 Â								
&RQWURO	4 3 : H E Â								
2QOLQH 8VHU &RXQW	4 Â								
3	<table> <tr><td>3</td><td></td></tr> <tr><td>web-auth port-control</td><td>3 í : H E 7 Â</td></tr> </table>	3		web-auth port-control	3 í : H E 7 Â				
3									
web-auth port-control	3 í : H E 7 Â								
1	Â								
3	<table> <tr><td>1</td><td></td></tr> <tr><td></td><td>3 Â</td></tr> <tr><td>7</td><td>SRUW FRQWURO Â 7 : / \$ 1 ' 7 4 Â</td></tr> <tr><td>7</td><td>7 4 " Â</td></tr> </table>	1			3 Â	7	SRUW FRQWURO Â 7 : / \$ 1 ' 7 4 Â	7	7 4 " Â
1									
	3 Â								
7	SRUW FRQWURO Â 7 : / \$ 1 ' 7 4 Â								
7	7 4 " Â								

6.2.7 show web-auth user

	~ , 3 ä ä Â show web-auth user {{{all v1 v2} [online-only] [start-from index] [display-amount]} statistics ip-address ip-address}						
	<table> <tr><td></td><td></td></tr> <tr><td>all</td><td>: H E Â</td></tr> <tr><td>v1</td><td>3 : H E Â</td></tr> </table>			all	: H E Â	v1	3 : H E Â
all	: H E Â						
v1	3 : H E Â						

	online-only	^ 1 ~	Â
	v2	Y 3 SRUWDOp:HE	o SRUWDtOp:HE

Index	Address	Online	Time Limit	Time Used	Status
-------	---------	--------	------------	-----------	--------

```
1 172.16.20.2 Off 0d00:00:00 0d 00:00:00Authenticating
```

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```
Ruijie# show web-auth user 172.16.20.2
```

Type : V2 Portal

Address : 172.16.20.2

Mac : 00d0.f800.2234

Online : Off

Time Limit : 0d 00:00:00

Time Used : 0d 00:00:00

Time Start : N/A

Flow used : xxxx Bytes

FLOW limit : xxxx Bytes

Status : Authenticating

AAA Id : 0

Username : N/A

6WDWLVLVLFV	:HE Â
7\SH	:HE Â
2QOLQH	Â
7RWDO	^ ù ~ Â
\$FFXPXODWLRQ	Ǝ Â
9 3RUWDO \$XWKHQWLFDWHQ 8VHUVA	
9 3RUWDO \$XWKHQWLFDWHQ 8VHUVA	
,QGH[	∂ Â
\$GGUHV	,3 Â
2QOLQH	~ ∂ '2Q' '2IÂ'

	7	: H E	~
		Æ	Â Â

7 ' SSH w W

7.1 SSH ' ü » w W

7.1.1 crypto key generate

Е Ω ~ Ю' 3'

crypto key generate rsa | dsa`

rsa	5 6 \$
dsa	' 6 \$

Ю 66+ 6 HUYHU Ω Æ

3

66+ 6 HUYHU 3 66+ Е Ω Æ[°]
 enable service ssh-server 3 66+ 6 HUYHU 66+ 5 6 \$ ' 66+
 5 6 \$ ' 6 \$ Æ ~ 5 6 \$ ~ ‡ 66+ 6 66+ /
 Л' ' 6 \$ ~ ‡ 66+ / Л Æ
 ~ ' 6 \$ 5 6 \$ Ω[°]
 Е ~ а[°] Ω а[°] ~
 й П Е ~ Е Э ' 6 \$
 5 6 \$ ч Æ
 5 6 \$ ỹ ' 6 \$ ỹ й Æ[°]
 й Æ Æ 66+ ~ ^ 6 & 3 ~
 Е Æ Æ[°]
 5 6 \$ ' 6 \$ ỹ ~ ỹ й Æ
 Æ Æ 0ÉVÄ.Ñ" HE GÑdr T

```

crypto key zeroize rsa | dsa

```

rsa	5 6 \$
dsa	' 6 \$

```

--
Ruijie# configure terminal
Ruijie(config)#

```


7.1.3 ip scp server enable

Э 6 & 3 ЕП ~ ЛЛЮ Э Ю ~ ЛЮ
Э ~ ё Â

ip scp server enable

no ip scp server enable

a í 6 & 3 ЕП

3

í VF\$`
Ruijie# configure terminal
Ruijie(config)# ip scp server enable

3	3	
show ip ssh	66+ 6HUYHU	Â

Л

3	Л	

7.1.4 ip ssh authentication-retries

66+ 6HUYHU Â 3 QR
й Â

ip ssh authentication-retries retry times

no ip ssh authentication-retries

Ю и Â i~ no ip ssh
 authentication-retries 3 1 16 и Â

3

3 66 + 6 HUYHU Â 66 + 6 HUYHU
 ~ Ÿ П ± и Â show ip ssh 3 66 + 6 HUYHU
 Â

и ' Ruijie# configure terminal
 Ruijie(config)# ip ssh ssh authentication-retries 2

3

3	
show ip ssh	66 + 6 HUYHU Â

1

5 * 2 6 16 3

3

1	

7.1.5 ip ssh peer

3 'Ω " ~ " 'Ω
 Â

ip ssh peer username public-key {rsa | dsa} filename

no ip ssh peer username public-key {rsa | dsa} filename

username	"
filename	'Ω "

3

```

test 5 6 $ ' 6 $ Ω
Ruijie# configure terminal
Ruijie(config)# ip ssh peer test public-key rsa flash:rsa.pub
Ruijie(config)# ip ssh peer test public-key dsa flash:dsa.pub

```

3		
show ip ssh	6 6 + 6 H U Y H U	Â

1

3	1	

7.1.6 ip ssh time-out

6 6 + 6 H U Y H U Â 3 no и

ip ssh time-out time

no ip ssh time-out

time	~ 1 и a V	

Ю и V 1~ no ip ssh time-out 3~

3

3 6 6 + 6 H U Y H U Â y 1 ~

V П ~ ‡ и Â show ip ssh 3 6 6 + V H U Y H U

Â

и V

Ruijie# configure terminal

Ruijie(config)# ip ssh time-out 100

3		
show ip ssh	V V K V H U Y H U	Â

1

5*26 79

1

7.2 < ü » w W

7.2.1 disconnect ssh

66+ Â

disconnect ssh >vty @ session-id

session-id	66+ 1~ 1 ñ a Â

--

3

	66+ 1~	66+ Â	97<
1~	66+ Â	66+ Â	

Ruijie# disconnect ssh 1

Ruijie# disconnect ssh vty 1

	3	
3	show ssh	66+ Â
	Clear line vty line_number	97< Â

1	5*26 7b3
---	----------

	1	
3		

7.2.2 show crypto key mypubkey

66+ 6H UY H U 'Ω † Â

show crypto key mypubkey rsa/dsa `

	rsa	56\$ 'Ω †
	dsa	'6\$ 'Ω †

3

66+ 6 H U Y H U 'Ω † Â ' ä
" ä 'Ω † Â

Ruijie# show crypto key mypubkey rsa

3	'
---	---

	ip ssh time-out time	66 + 6 HUYHU Â
	ip ssh authentication-retries retry times	66 + 6 HUYHU Â

3 $\hat{A}$ show security event interval $\hat{A}$

Y

Ruijie(config)# security event interval 10

3

3

show security event interval

Y

 $\hat{A}$

1

5 * 2 6 7 9

3

1

8.1.4 security gsn enable

3

* 6 1 7 $\hat{A}$ Q R

security gsn enable

no security gsn enable

> 'k'

6 M-

P

--	--	--

8.1.5 smp-server host

3

V P S V H U Y B U ^

smp-server host ip-address

no smp-server host

	ip-address	V P S V H U Y B U

	V P S V H U Y H U
--	-------------------

	3
--	---

	3 ^	show smp-server	^
--	-----	-----------------	---

	Ruijie(config)#	smp-server host	192.168.4.243
--	-----------------	-----------------	---------------

3	3	
	show smp-server	VPS VHUYHU

	1	5 * 2 6	7 9
--	---	---------	-----

	3	1	

8.2 < ü » w W

8.2.1 show security evnet interval

Y

^

--	--

3

Y Â

Ruijie# show security event interval
Event sending interval(Seconds):5

3

3	
security event interval interval	Y Â

1

5 * 2 6 17 3 Â

3

1	

Ю * L J D E L W (W K D U Q H W П ~ 3

```
Ruijie# configure terminal
```

```
Ruijie(config)# interface GigabitEthernet 1/1
```

```
Ruijie(config-if)# storm-control multicast 4096
```

```
Ruijie(config-if)# end
```

3

```
show storm-control
```

```
^
```

1

```
pps и æ ^
```

3

1

9.1.2 switchport protected

3

и

^

3

no

^

```
switchport protected
```

```
no switchport protected
```

3

и

i~

Ю

a

γ

1 Л

~

б

1 Л

^

show interfaces

3

^

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

```
Ruijie(config-if)# switchport protected
```

3

```
show interfaces
```

```
^
```


3	1	

9.1.4 switchport port-security aging

3 5 3 1 1

--	--	--

9.1.5 switchport port-security binding

ИЮ ~ 1 ЛГ , 3 0 \$ & , 3 ~
i ~ 1 ЛГ ~ a
Â Q R 1 ,
no @switchport port-security binding mac-address vlan vlan_id ipv4-address _
ipv6-address
no @switchport port-security binding ipv4-address _ipv6-address



	show port-security	
1		
3	1	
	-	

	switchport port-security	
	switchport port-security binding	Ю
	Switchport port-security mac-address	
	switchport port-security aging	
	show port-security	

1

3	1	
	-	

9.1.7 switchport port-security maximum

~ Q R 1

switchport port-security maximum value

no @ switchport port-security maximum

	Y D O X H	

3

Û ~ ÿ

Й
Ruijie(config)#

	switchport port-security aging	
	show port-security	

1

3	1	
	-	

9.1.8 switchport port-security mac-address

IO

Q R

no @ switchport port-security mac-address mac-address [vlan vlan-id @

mac-address		
vlan-id	0 \$ & 9 , ' 7 5 8 1 . IO Y O D Q L G	

3

```

7 5 8 1 . G I 9 ; '
Ruijie(config)# inter g0/10
Ruijie(config-if)# switchport port-security mac-address
00d0.f800.5555 vlan 2

```

3	3	
	switchport port-security	
	switchport port-security binding	
	switchport port-security mac-address interface	IO
	switchport port-security aging	

	show port-security	
1		
3	1	
	-	

9.1.9 switchport port-security mac-address interface

	IO	Q R	
no @	switchport port-security interface	Interface-id mac-address mac-address	vlan
vlan-id @			
	Interface-id	,	
	mac-address		
	vlan-id	0 \$ & 9 , ' 7 5 8 1 . IO Y O D Q L G	

3

--

	7 5 8 1 . G I 9 , '
Ruijie(config)#	switchport port-security interface g0/10
mac-address 00d0.f800.5555	vlan 2
3	
switchport port-security	
switchport port-security binding	

Switchport port-security mac-address

1

3

1

-

9.1.10 switchport port-security sticky mac-address

IO 6 W L F N N 0 \$ & ~ Q R

no @ switchport port-security mac-address sticky mac-address vlan vlan-id @

a ~ 6 W L F N \ 0 \$ & 11 ~ Q R 6 W L F N \ 0 \$ & 11

no @ switchport port-security mac-address sticky

mac-address	
vlan-id	0 \$ & 9 , ' 7 5 8 1 . IO Y O D Q L G

6 W L F N \ 0 \$ & IO Â

3

6 W L F N \ 0 \$ &

Ruijie(config)# inter g0/10

Ruijie(config-if)# switchport port-security

Ruijie(config-if)# switchport port-security sticky mac-address

Ruijie(config-if)# end

7 5 8 1 . 6 W L F N \ G I 9 ; '

Ruijie(config)# inter g0/10

Ruijie(config-if)# no switchport port-security sticky mac-address

00d0.f800.5555 vlan 2

Ruijie(config-if)# end

3

3

switchport port-security

switchport port-security binding

	Switchport port-security mac-address	IO
	switchport port-security mac-address interface	IO
	switchport port-security aging	
	show port-security	

1

	1	
3	RGOS 10.4(3)	6 W L F N \ 0 \$ &

9.2 < ü » w W

9.2.1 show storm-control

Â

show storm-control >interface-id@

	interface-id	Â

Â

3

	Ruijie# show storm-control gigabitethernet	1/1
	Interface Broadcast Control Multicast Control Unicast Control	

	Gi1/1 Disabled Disabled Disabled	
3	3	
	storm-control	Â

1

3	d	

9.2.2 show port-security

 $\hat{A}$

```
show port-security address @interface interface-id @all @
```

address	$\hat{A}$
interface interface-id	$\hat{A}$
all	$\hat{A}$

3

$\mathfrak{z}$ a $\mathbb{N}$ $\sim$ $\ddagger$ $\ddot{a}$ $\smile$ $\circ$ $\hat{A}$

```
Ruijie# show port-security
```

Secure	Port	MaxSecureAddr(count)	CurrentAddr(count)	Security
--------	------	----------------------	--------------------	----------

Action

Gi1/1 128 1 Restrict

Gi1/1 128 1 Restrict

Gi1/2 128 0 Restrict

Gi1/3 8 1 Protect

	?
switchport port-security	А π ?
switchport port-security aging	й Э А
switchport port-security mac-address	А

1

3	4	

10 CPU • õ w W

10.1 ü » w W

10.1.1 cpu-protect type packet-type pps pps_value

& 3 8

Â

cpu-protect type arp _bpdu _dhcp _ipv6mc _igmp _rip _ospf _vrrp _pim _ttl1 _
unknown-ipmc _dvmrp _ « `pps pps_value

	pps_value	Â

& 3 8

й

Â

3

Â

Ю & 3 8 % 3 ' 8
Ruijie(config)# cpu-pr type bpdu pps 100
Set packet type bpdu pps 100 .

	3	
3	cpu-protect type packet-type pri pri_num	& 3 8 Â

л

	л	
3	-	

10.1.2 cpu-protect type packet-type pri pri_num

& 3 8

Â

cpu-protect type arp _bpdu _dhcp _ipv6mc _igmp _rip _ospf _vrrp _pim _ttl1 _
unknown-ipmc _dvmrp _ « `pri pri_num

	pri_num	, 4 5

5 A

3 A

Ю % 3 ' 8
 Ruijie(config)# cpu-protect type bpdu pri 7
 Set packet type bpdu pri 7.

3	3	
	cpu-protect type packet-type pps pps_value	A

1

	1	
3	-	

10.2 < ü » w W

10.2.1 show cpu-protect mboard

& 3 8 A

show cpu-protect mboard

	-	

3 A

3 & 3 8 A

-

3		3	
show cpu-protect slot	slot-num	.	& 3 8 Â

1

1	
---	--

vrrp	200	0	0
unknow-ipmc	200	0	0
ttl1	20	3	0

3	А	
	-	

a				
	& 33	3 ' « ' & 33	Â	

11.1.2 ip deny invalid-tcp

í 7 & 3 7 & 3
 7 3 no 7 & 3

ip deny invalid-tcp

no ip deny invalid-tcp



3

Â

Ruijie(config)# ip deny land
 Ruijie(config)# no ip deny land

3

3	
show ip deny land	/ D Q G

1

3

1	

11.2 < ü » w W

11.2.1 show ip deny invalid-l4port

Â

show ip deny invalid-l4port

3

Â

```
Ruijie# show ip deny invalid-l4port
```

DoS Protection Mode

State

protect against invalid l4port attack Off

3	3	

1

3	d	

11.2.2 show ip deny invalid-tcp

7 & 3

 $\hat{A}$

```
show ip deny invalid-tcp
```

3

3		
		i 7 & 3 π

3	1	

11.2.3 show ip deny land

/ D Q G Â

show ip deny land

3

Â

	Ruijie# show ip deny land	
	DoS Protection Mode	State

	protect against land attack	On

3	3	
	no ip deny land	í / D Q G 11

1

3	1	

' + & 3 6 Q R R S k Q J

Œjj0sÁ!Dp

1

1

standard-format	2 S W L R Q	Â
dot1x-format	2 S W L R Q	' 2 7 ;

π	Â
---	---

3

3	' + & 3	π 2 S W L R Q	' + & 3	£
2 S W L R Q	†	Â		

IO	' + & 3	π	2 S W L R Q	π	'
Ruijie# configure terminal					
Ruijie(config)#		ip dhcp snooping information option			
Ruijie(config)#		end			
Ruijie# show ip dhcp snooping					
Switch DHCP snooping status		' ENABLE			
Verification of hwaddr field status		' DISABLE			
DHCP snooping database write-delay time: 0 seconds					
DHCP snooping option 82 status: ENABLE					
DHCP snooping Support Bootp bind status: ENABLE					
Interface		Trusted		Rate limit (pps)	
-----		-----		-----	

3	3	
show ip dhcp snooping	' + & 3	V Q R R S L Q J Â

1

3	1	
---	---	--

12.1.6 ip dhcp snooping information option format remote-id

2 S W L R Q U H P R W H L S π

IO 3 Â 3 no π

no @ ip dhcp snooping information option format remote-id [string ASCII-string | hostname]

	ASCII-string	2SWLRQ UHPRWH LG ñ Æ Â
	π	Â
ř		
	ř '+&3 Ł	ř 2SWLRQ UHPRWH LG ř '+&3 Ł 2SWLRQ ř Â
	Ю DHCP π Option82 remote-id ñ ŷ " ' Ruijie# configure terminal Ruijie(config)#pdhcpsnoopinginformationoptionformatremote- i d hostname	
ř	ř	
ł		
ř	ł	

12.1.7 ip dhcp snoo SLQJ YODQ LQIRQPIRWBQ RSWH FLUFXLW LG
Ю 2SWLRQ °P

3		
1		
3	1	

12.1.9 Ip dhcp snooping vlan

9/\$1 ' + & 3 6 Q R R S L Q J IO 3 Â
 3 Q R ~ 9/\$1 ' + & 3 6 Q R R S L Q J
 no @ dhcp snooping vlan vlan-rng | vlan-min vlan-max @ ``

vlan-rng	G K F S V Q R R S L Q J Y O D Q Â
vlan-min	G K F S V Q R R S L Q J Y O D Q Â
vlan-max	G K F S V Q R R S L Q J Y O D Q Â

IO ' + & 3 6 Q R R S L Q J 9/\$1Â

3 Â

3 ~ 9/\$1 ' + & 3 6 Q R R S L Q J 1 1 9/\$1
 ' + & 3 6 Q R R S L Q J 11 ' + & 3 6 Q R R S L Q J 3 Â

IO 9/\$1 3 ' + & 3 6 Q R R S L Q J '
 Ruijie# configure terminal
 Ruijie(config)# ip dhcp snooping vlan 1000
 Ruijie(config)# end

3		
	ip dhcp snooping	' + & 3 6 Q R R S L Q J Â

1

3	1	

12.1.10 ip dhcp snooping verify mac-address

0 \$ & π IO 3 Â 3 Q R ~
 0 \$ & π Â

no @ dhcp snooping verify mac-address

	π Â
--	----------

3	Â
---	---

	0 \$ & π ' + & 3 & / , (1 7 ~ 0 \$ &
	' + & 3 & / , (1 7 0 \$ & ũ Â 0 \$ & ~
	Â

	IO ' + & 3 0 \$ & '
	Ruijie# configure terminal
	Ruijie(config)# ip dhcp snooping verify mac-address
	Ruijie(config)# end
	Ruijie# show ip dhcp snooping
	Switch DHCP snooping status ENABLE
	Verification of hwaddr field status ENABLE
	DHCP snooping database write-delay time: 0 seconds
	DHCP snooping option 82 status: ENABLE
	DHCP snooping Support Bootp bind status: ENABLE
	Interface Trusted Rate limit (pps)

3	3	
	show ip dhcp snooping	' + & 3 V Q R R S L Q J Â

1	
---	--

3	1	

12.2 DHCP snooping / L “ w W

12.2.1 ip dhcp snooping limit rate

' + & 3 ~ IO 3 Â 3
Q R ~ 1 Â

no @ dhcp snooping limit rate rate-value

rate-value	~ 3 3 6 > 3 D F N H W 3 H U 6 H F R Q G @

3

~ ' + & 3 6 Q R R S L Q J \$ 1 ~ Â
↑ 3 ~ & 3 3 > & 3 8 3 U R W H F W Â 3 3 W R F R O @ ' + & 3
~ & 3 3 ' + & 3 6 Q R R S L Q J ~ Â
& 3 3 ↑ ~ é Â
1 7 6 show ip dhcp snooping 3 ~ 3 Â

IO ÷ S S V
Ruijie# configure terminal
Ruijie(config)# interface fastEthernet 0/1
Ruijie(config-if)# ip dhcp snooping limit rate 100
Ruijie(config-if)# end
Ruijie# show ip dhcp snooping
Switch DHCP snooping status ENABLE
Verification of hwaddr field status DISABLE
DHCP snooping database write-delay time: 0 seconds
DHCP snooping option 82 status: ENABLE
DHCP snooping Support Bootp bind status: ENABLE
Interface Trusted Rate limit (pps)

FastEthernet0/1 NO 100

3	3	
	show ip dhcp snooping	' + & 3 V Q R R S L Q J Â
1		
3	1	

12.2.2 ip dhcp snooping suppression

й VXSSUHVLRQ Ю 3 Â 3 QR ~
 й QR VXSSUHVLRQ

no @ dhcp snooping suppression

	П Â	
3	Â	
	3 ~ 1 Ю ' + & 3 ~ П Ю ' + & 3 Â	
	Ю fastethernet 0/2 й VXSSUHVLRQ'	
	Ruijie# configure terminal	
	Ruijie(config)# interface fastethernet 0/2	
	Ruijie(config-if)# ip dhcp snooping suppression	
	Ruijie(config-if)# end	
3	3	
1		
3	1	

12.3 DHCP snooping < w W

12.3.1 show ip dhcp snooping

' + & 3 6 Q R R S L Q J

Ю

з Â

show ip dhcp snooping

з

з 1 Ю

' + & 3 6 Q R R S L Q J Â

Ю

' + & 3 6 Q R R S L Q J

Ruijie# show ip dhcp snooping

Switch DHCP snooping status ENABLE

Verification of hwaddr field status DISABLE

DHCP snooping database write-delay time: 0 seconds

DHCP snooping option 82 status: ENABLE

DHCP snooping Support Bootp bind status: ENABLE

Interface Trusted Rate limit (pps)

	з	
ip dhcp snooping	' + & 3 V Q R R S L Q J Â	
ip dhcp snooping verify mac-address	' + & 3 V Q R R S L Q J P D F Â	
ip dhcp snooping write-delay	I O D V K Â	
Ip dhcp snooping information option	' + & 3 П R S W L R Q Â	
ip dhcp snooping bootp-bind	' + & 3 6 Q R R S L Q J P R R W S П Â	
ip dhcp snooping trust	н ' + & 3 V Q R R S L Q J W U X V W	

1

3	1	

12.3.2 show ip dhcp snooping binding

' + & 3 6 Q R R S L Q J ~ Ю 3 Â

show ip dhcp snooping binding

3

3 ~ 1 Ю ' + & 3 6 Q R R S L Q J Â

Ю
Ruijie# show ip dhcp snooping binding
Total number of bindings: 1

MacAddress IpAddress Lease(sec) Type VLAN Interface

0000.0000.0001 1.1.1.1 78128 dhcp-snooping 1 FastEthernet 0/1

3	3	
	ip dhcp snooping binding	' + & 3 V Q R R S L Q J
	clear ip dhcp snooping binding	' + & 3 V Q R R S L Q J

1

3	1	

12.4 DHCP snooping ¾ ´ w W

12.4.1 clear ip dhcp snooping binding

' + & 3 6 Q R R S L Q J

Ю

¾ Â

clear ip dhcp snooping binding

¾

¾ 1 ½

' + & 3 V Q R R S L Q J

Â

Ю ' + & 3 V Q R R S L Q J

Ruijie# clear ip dhcp snooping binding

Ruijie# show ip dhcp snooping binding

Total number of bindings: 0

MacAddress IpAddress Lease(sec) Type VLAN Interface

	¾	
¾	show ip dhcp snooping binding	' + & 3 V Q R R S L Q J Â

1

	1	
--	---	--

3		
	3 ˘ ' + & 3 V Q R R S L Q J Â	
	I0 ' + & 3 V Q R R S L Q J ' Ruijie# debug ip dhcp snooping event Ruijie# debug ip dhcp snooping packet	
3	3	
	-	
1		
3	1	

13 ' DAI w W

13.1 n Ð x » J VLAN é DAI ö g ó Ó × w W

13.1.1 ip arp inspection vlan

3 ~ 1 2 í vlan-id 9 / \$ 1 '\$, 11 Â 3 Q R 1 2
 vlan-id 9 / \$ 1 '\$, 11 ~ vlan-id ‡ 9 / \$ 1
 3 '\$, 11 Â
 ip arp inspection vlan vlan-id
 no ip arp inspection vlan >vlan-id @

	vlan-id	Y O D Q Â

9 / \$ 1 3 '\$, 11 Â

3 Â

3 ~ í '\$, 11 ~ 3 Â

2 Ю ~ ÿ 9 / \$ 1 3 \$ 5 3 Â
 Ruijie(config)# ip arp inspection
 Ruijie(config)# ip arp inspection vlan 1

	3	
3	show ip arp inspection vlan	9 / \$ 1 3 '\$, 11 Â

1 Â

	1	
3		

13.2 7 B O L Š j T ' _ ´ w W

13.2.1 ip arp inspection trust

Y Ÿ 1 ~

Y ñ a Â

3 ip arp inspection trust Â 3 no

ip arp inspection trust

no ip arp inspection trust

13.3 DHCP Snooping d (• ü » ´

í 9/\$1 '\$, 3 \$53 Y a 4
\$53 ‡
6 Q R R S L Q J
6 Q R R S L Q J Â ' + & 3 6 Q R R S L Q J ê ' + & 3

14 IP Source Guard w W

14.1 IP Source Guard μ A w W

14.1.1 ip source binding

, 3 71 ~ no Â

no @ source binding mac-address vlan vlan-id ip-address interface interface-id

mac-address	71 0 \$ & '
vlan-id	71 Y O D Q L G
ip-address	71 , 3 '
interface-id	71 Â

71 Â

3 Â

3 1 76 † 1 76 , 3 6RXUFH *X DUG '+ & 3
Â

IO

Ruijie# configure terminal

Ruijie(config)# ip source binding 0000.0000.0001 vlan 1 1.1.1.1
interface FastEthernet 0/1

Ruijie(config)# end

Ruijie# show ip source binding

MacAddress IpAddress Lease(sec) Type VLAN Interface

0000.0000.0001 1.1.1.1 infinite static 1 FastEthernet 0/1

Total number of bindings: 1

3	3
show ip source binding	, 3

14.3.2 show ip verify source

```
3 ,3 6RXUFH *XDUG
```

```
show ip verify source interface interface-id @
```

interface-id	^

```
^
```

```
3
```

```
interface ,3 6RXUFH *XDUG
IO ' 3,3 VRXUFH JXDUG LVRQWKFRLOJWJHUBGH^DVW(WKHU
,3 6RXUFH *XDUG mode IO'
„ inactive-no-snooping-vlan ' '+&3 6QRRSLQJ '
„ inactive-trust-port ' '+&3 6QRRSLQJ 3'
„ active ' '+&3 6QRRSLQJ 3 ^
```

```
IO '
Ruijie # show ip verify source
Interface Filter-type Filter-mode Ip-address Mac-address VLAN
-----
FastEthernet 0/3 ip active 3.3.3.3 1
FastEthernet 0/3 ip active deny-all
FastEthernet 0/4 ip+mac active 4.4.4.4 0000.0000.0001 1
FastEthernet 0/4 ip+mac active deny-all
```

	3	
ip verify source		,3 6RXUFH *XDUG

```
1
```

	1	
3		

15 ND Snooping w W

15.1 ü » w W

15.1.1 ipv6 nd snooping

, 3 Y 1' V Q R R S L Q J 1 7 3 Q R , 3 Y 1'

6 Q R R S L Q J

ipv6 nd snooping

no ipv6 nd snooping

3

3 L S Y Q G V Q R R S L Q J 1 3 è í Â
1 3

' , 3 Y 1' V Q R R S L Q J
5 X L M L H 1 1
Configure terminal
(Q W H U F R Q I L J X U D W L R Q F R P P D Q G V R Q H S H U O L Q H (Q G
5 X L M L H 1 1
For Qnd snooping

3	3	
	show ipv6 nd snooping	L S Y Q G V Q R R S L Q J

1

3	1	
---	---	--

		3

15.1.2 ipv6 nd snooping trust

й W U X V W 1 Л 3 Q R й X Q W U X V W

ipv6 nd snooping trust
no ipv6 nd snooping trust

й X Q W U X V W

3

--

) D V W (W K H Q W V W
Ruijie# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.

15.2 < ü » w W

15.2.1 show ipv6 nd snooping

, 3 Y Q G V Q R R S L Q J

show ipv6 nd snooping [interface]

	interface	

--

3

--

Ø	, 3 Y Q G V Q R R S L Q J
Ruijie#	show ipv6 nd snooping

3	3	
---	---	--

1

3	1	
		3

ipv6 dhcp snooping binding-delay seconds

no ipv6 dhcp snooping binding-delay

	time	Æ
3		
	IO	Ä
	, 3 Y	Ä
	Ä	Ä
	Ruijie(config)#	ipv6 dhcp snooping binding-delay 10
3	3	
1		
	1	
3	10.4	3

16.1.3 ipv6 dhcp snooping database write-delay

G K F S Y V Q R R S L Q J I O D V K Ä 3 no
Ä

ipv6 dhcp snooping database write-delay time

no ipv6 dhcp snooping database write-delay

	time	I O D V K
3		

Đ 0

GKFSY VQRRSLQJ

IODVK 1Љ

í Ø <

3	1	
	10.4	3

16.1.5 ipv6 dhcp snooping filter-dhcp-pkt

G K F S Y Â 3 Q R ~ 11 Â

ipv6 dhcp snooping filter-dhcp-pkt

no ipv6 dhcp snooping filter-dhcp-pkt

--

3

3 1 ~ 1 1 6 G K F S Y ~ 10
G K F S Y

--	--	--

--

3

' + & 3 Y	0 \$ &	' + & 3 Y
Э а 0 \$ &	й	а Â
л	ä	ä 0 \$ &
л Э Y	Э	
l ' + & 3 9 B 6 1 2 2 3 , 1 * ' (6 7 B 1 2 7 B) 2 8 R ' X O G Q R W I L Q G G H V W L Q D W		
' H V W L Q D W L R Q 0 \$ & I > P D F D G G U H V V @ + & 3 Y л Л		
Ю	а 0 \$ &	Л 9 / \$ 1
Â		

	Â
Ruijie(config)#	ipv6 dhcp snooping ignore dest-not-found

3	3	
show ipv6 dhcp snooping	G K F S Y	V Q R R S L Q J

л

3	л	
10.4	3	

16.1.7 ipv6 dhcp snooping link-detection

/,1. '2:1 ~ Э Â 3 Q R ~
 П Â

ipv6 dhcp snooping link-detection

no ipv6 dhcp snooping link-detection

--	--	--

--

3

IO / , 1 . ' 2 : 1 ~ a IO A í π í ~
/ , 1 . ' 2 : 1 ~ IO A

· / , 1 . ' 2 : 1 ~ IO A
Ruijie(config)# ipv6 dhcp snooping link-detection

3

3	
show ipv6 dhcp snooping	G K F S Y V Q R R S L Q J

1

3

1	
10.4	3

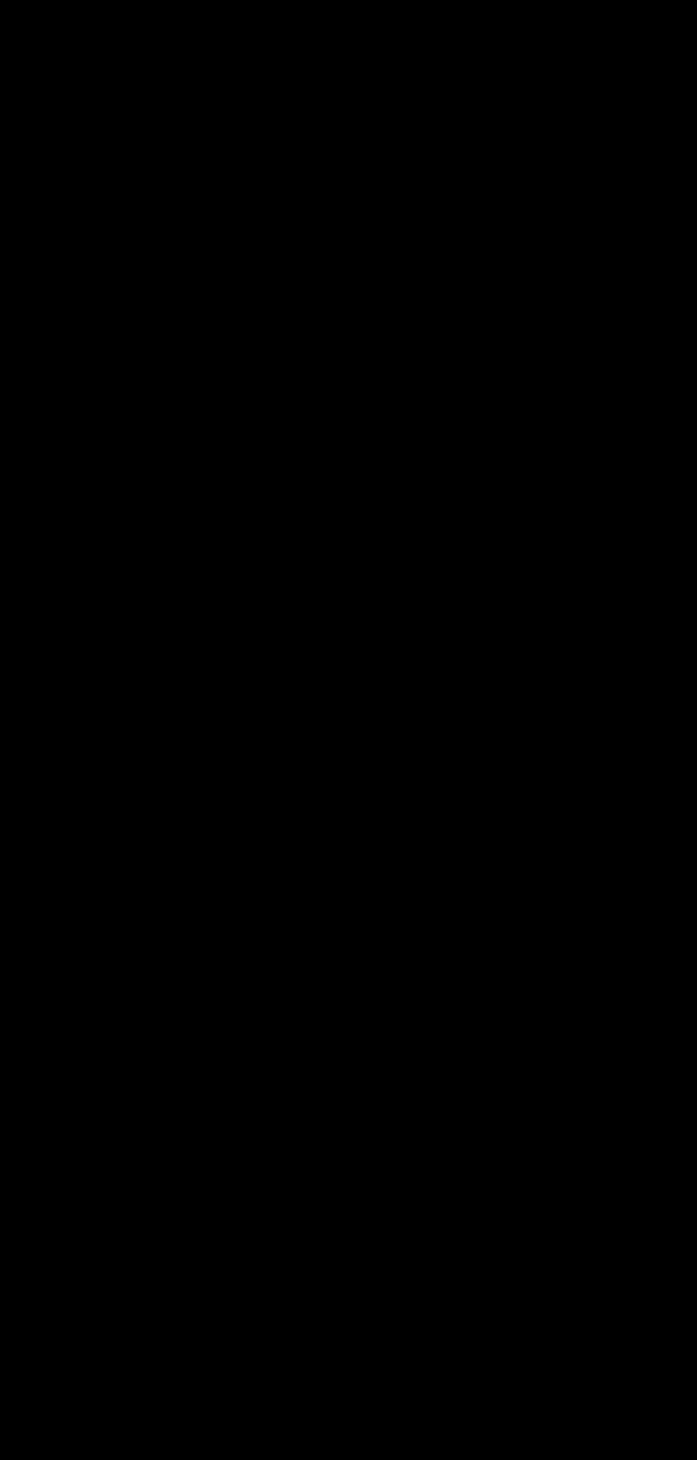
16.1.8 ipv6 dhcp snooping trust

G K F S Y V Q R R S L Q J W U A X V W 3 Q R ~
ñ X Q W A X V W

ipv6 dhcp snooping trust

no ipv6 dhcp snooping trust

--	--



	GKFSY VQRRSLQJ
--	----------------

	3

VQRRSLQJ 3 Å 3 QR ~
QRRSLQJ
^vlan-min >vlan-max`
_ ^vlan-min >vlan-max`

	YODQ ~
	YODQ LG
	YODQ LG

RSLYODQ í

LQJ í~ YODQ GKFSY VQRRSLQJ
VQRRSLQJ YODQ GKFSY VQRRSLQJ

YODQ GKFSY VQRRSLQJ
Ruijie(config)# do ipv6 dhcp snooping vlan 1 D

3	
---	--

port-security	0 \$ & , 3 9 ' 0 \$ & , 3 9 ~ й , 3 9 ~ , 3 9 ~ π ,
---------------	---

3

~ 1 7 , 3 9 ~ ' + & 3 9 4 , 3 9 ~ 1 7 Â

fastethernet í 0 \$ & , 3 9
Ruijie(config)# interface fastethernet 0/1
Ruijie(config-if)# ipv6 verify source port-security

16.2 < ü » w W

16.2.1 show ipv6 dhcp snooping

G K F S Y V Q R R S L Q J Â

show ipv6 dhcp snooping

	-	

--

3

--

3 G K F S Y V Q R R S L Q J

--

1' dhcpv6 snooping

Ruijie# show ipv6 dhcp snooping

Switch DHCPv6 snooping status ' ENABLE

DHCPv6 snooping vlan: 1-4094

DHCPv6 snooping database write-delay time: 0 seconds

DHCPv6 ignore dest-not-found :DISABLE

DHCPv6 snooping link detection :DISABLE

Interface Trusted Filter DHCP

FastEthernet0/10 yes DISABLE

3

3	

1

3

1	
10.4	3

ipv6-prefix	L S Y
mac-address	P D F
vlan vlan_id	9 / \$ 1
interface interface_name	

3

3 ~ 1 7 6 G K F S Y V Q R R S L Q J Â

1' show ipv6 dhcp snooping prefix
 Total number of prefix: 1
 Mac Address IPv6 Prefix Lease(s) VLAN Interface

 00d0.f801.0101 2001:2002::/64 42368 2 fa 0/1

3	3	

1

3	1	
	10.4	3

16.2.4 show ipv6 dhcp s nooping statistics

G K F S Y V Q R R S L Q J S L Q F S Y Â

show ipv6 dhcp snooping statistics

-	

3

3 1 1 6 G K F S Y V Q R R S K F S Y Â

1' dhcpv6 snooping dhcpv6

Ruijie# show ipv6 dhcp snooping statistics

Packets Processed by DHCPv6 Snooping = 0

Packets Dropped Because

Received on untrusted ports = 0

Relay forward = 0

No binding entry = 0

Binding fail = 0

Unknown packet = 0

Unknown output interface = 0

No enough memory = 0

Admin filter-dhcpv6-pkt = 0

5 H F H L Y H G R Q X Q W U X V W H G S R U W V	X Q W U X V W L
5 H O D \ I R U Z D U G	5 H O D \
1 R E L Q G L Q J H Q W U \	U H O H D V H G H F O L Q H a
% L Q G L Q J I D L O	
8 Q N Q R Z Q S D F N H W	' + & 3 Â
8 Q N Q R Z Q R X W S X W	0 \$ & a ~ W U X V W
1 R H Q R X J K P H P R U \	
\$ G P L Q I L O W H U G K F	' + & 3 Y ~ ŷ ñ ipv6 S i n c e s h o w i n g f i l t e r - d h c p - p k t 3 ‡ Â

3

3

3	λ	
	10.4	3

ma:01483-8101300556810060106/3-4521-0019802 70 1101026(191745885)002370061070062765534/4121015077322405

1

3

1

10.4

3

16.3 o c ü » w W

16.3.1 clear ipv6 dhcp snooping binding

G K F S Y V Q R R S L Q J

Â

clear ipv6 dhcp snooping binding ipv6-address @ >mac-address @ >vlan_id @ >interface
interface_name @

ipv6-address

L S Y

mac-address

P D F

vlan vlan_id

9 / \$ 1

interface interface_name

3

3 1 7 6

G K F S Y V Q R R S L Q J

Â

G K F S Y V Q R R S L Q J

Ruijie# clear ipv6 dhcp snooping binding

3

3

1

3

1

10.4

3

3

3 1 1 6 G K F S Y V Q R R S L Q 3 Q R 3

G K F S Y V Q R R S L Q 3

Ruijie# clear ipv6 dhcp snooping statistics

3

3

1

3

1

10.4

3

16.4 • p ü » w W

16.4.1 debug ipv6 dhcp snooping

í G K F S Y V Q R R S L Q 3 Q R 3

debug ipv6 dhcp snooping {event | packet}

no debug ipv6 dhcp snooping {event | packet}

event	Y 3 ' + & 3 Y 6 1 3 Y 9 / \$ 1 ä \$ 3 1 ä ↑
packet	G K F S Y 3 ' + & 3 Y ñ 3 3

3

3 dhcpv6 snooping 3 3

1' i dhcpv6 snooping Y

Ruijie# debug ipv6 dhcp snooping event

3	3	

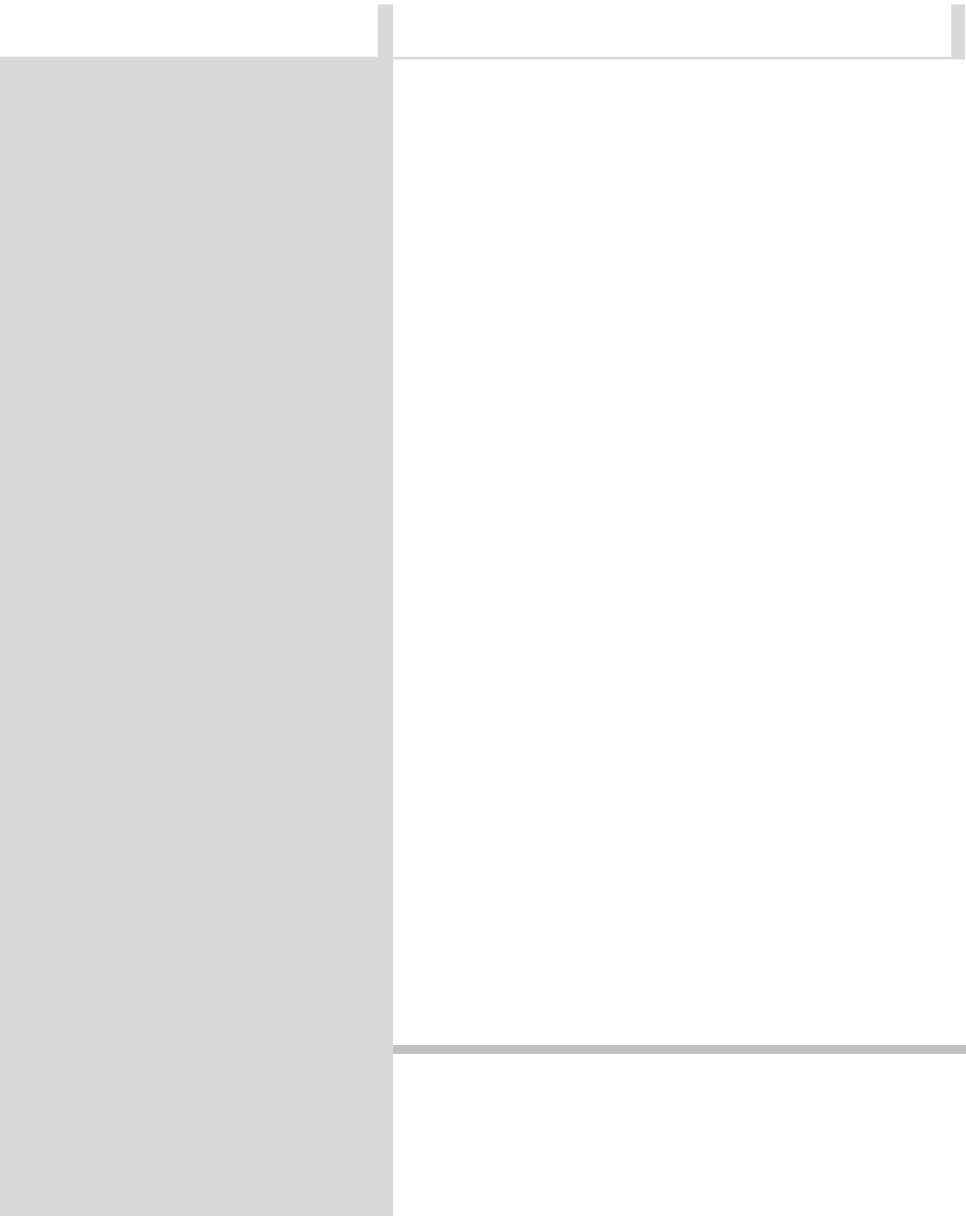
1

3	1	
	10.4	3

show anti-arp-spoofing

3

Ruijie# show DQWL DUS VSRRLQJ
SRUWLS
)D



18 NFPP w W

18.1 l ö g © d é £ Ü j ü » w W

18.1.1 cpu-protect sub-interface {manage|protocol|route} pps

3

Â

cpu-protect sub-interface { manage |protocol |route } pps pps_vaule

pps_vaule		~ 1

0 D Q D J H	~
5 R X W H	~
3 U R W R F R O	Â

3

Ruijie(config)#	cpu-protect sub-interface manage pps	200
-----------------	--------------------------------------	-----

3		
cpu-protect sub-interface	↑manage _protocol	
_ routèpercent		

1

3	1	

18.2 l ö g (Ð S æ é £ Ü è â " ü » w W

18.2.1 cpu-protect sub-interface {manage|protocol|route} percent

3

↑ Â

cpu-protect sub-interface manage protocol route `percent percent_vaule

percent_vaule	↑ ~ 4

0 D Q D J H ǎ † ì ~
5 R X W H ǎ † ì ~
3 U R W R F R O , ǎ Æ ì

3

Ruijie(config)# cpu-protect sub-interface manage percent 60

3	
---	--

7

3

,3

0\$&

~

Â

3	μ	

arp-guard rate-limit {per-src-ip | per-src-mac | per-port} pps

per-src-ip	, 3
per-src-mac	0 \$ &
per-port	#

, 30 \$ &

Â

3

1) 3 3

Ruijie(config)#nfpp

Ruijie(config-nfpp)#arp-guard rate-limitper-src-ip2

Ruijie(config-nfpp)#arp-guard rate-limit per-src-mac3

Ruijie(config-nfpp)#arp-guard rate-limit per-port50

	3	
3 1	# nfpp 3arp-guard policy	

show nfpp arp-guard summary

,Ô!D@ Âád „Hh@HH\$î¼Hh@HHád

	?	
?	nfpp arp-guard scan-threshold	?
	show nfpp arp-guard summary	
	show nfpp arp-guard scan	\$ 5 3
	clear nfpp arp-guard scan	\$ 5 3

1

3	A	

18.3.8 clear nfpp arp-guard hosts

clear

vid	1
interface-id	2
ip-address	3
mac-address	0 \$ &

3



	show nfpp arp-guard hosts	1 y
1		
3	1	

18.3.9 clear nfpp arp-guard scan

\$ 5 3 Å

clear nfpp arp-guard scan

3		
	Ruijie# clear nfpp arp-guard scan	
3	3	
	arp-guard scan-threshold	
	nfpp arp-guard scan-threshold	
	show nfpp arp-guard scan	\$ 5 3
1		
3	1	

18.3.10 nfpp arp-guard enable

3 3 \$ 5 3 Å

nfpp arp-guard enable

7

3



	Ruijie(config)#	interface	G 0/1	
	Ruijie(config-if)#	nfpp	arp-guard isolate-period	180
3				
			arp-guard isolate-period	
			show nfpp arp-guard summary	
1				
3		1		
				3

18.3.12 nfpp arp-guard policy

	nfpp	arp-guard	policy	per-src-ip	_ per-src-mac	_ per-port	rate-limit-pps	attack-threshold-pps
			per-src-ip	, 3			Â	
			per-src-mac	0 \$ &			Â	
			per-port				Â	
			rate-limit-pps	~ 1			Â	
			attack-threshold-pps	~ 1			Â	
							Â	
3								
		a			Â			
	Ruijie(config)#	interface	G 0/1					
	Ruijie(config-if)#	nfpp	arp-guard policy	per-src-ip	2	10		
	Ruijie(config-if)#	nfpp	arp-guard policy	per-src-mac	3	10		
	Ruijie(config-if)#	nfpp	arp-guard policy	per-port	50	100		
3								

	arp-guard attack-threshold	
	arp-guard rate-limit	
	show nfpp arp-guard summary	
	show nfpp arp-guard hosts	✓ ỹ
	clear nfpp arp-guard hosts	ỹ
1		
3	1	
		3

18.3.13 nfpp arp-guard scan-threshold

nfpp arp-guard scan-threshold		pkt-cnt	
	pkt-cnt	~ 1 > 100	
	\$ 53	~	\$ 53 100
3			
	Ruijie(config)#	interface	G 0/1
	Ruijie(config-if)#	nfpp arp-guard scan-threshold 20	
3	3		
	arp-guard scan-threshold		
	show nfpp arp-guard summary		
	show nfpp arp-guard scan		\$ 53
	clear nfpp arp-guard scan		\$ 53
1			
3	1		

3

18.4.1 dhcp-guard attack-threshold

18.4.1 dhcp-guard attack-threshold

 $\dot{Y}$ $\hat{A}$

```
dhcp-guard attack-threshold 0 per-src-mac per-port `pps
```

0 \$ &

‘

 $\hat{A}$

3

1) 33

↗

3	h	

$$3 \quad ' + \& 3 \quad \pi \quad \hat{A}$$
[illegible]

' + & 3 ~ Â

3	1) 3 3
---	--------

```
Ruijie(config)#      nfpf
Ruijie(config-nfpf)#  dhcp-guard enable
```

	?	
?	nffp dhcp-guard enable	⊖ ' + & 3 π
	show nfpf dhcp-guard summary	

1

3	d	

$$\mathfrak{z} \quad \hat{A}$$

seconds	$\frac{1}{a} \frac{d}{dt} \left(\frac{1}{\hat{A}} \right) > 0$
permanent	

$$u = \pi_a \hat{A}$$

3 1) 3 3

Ruijie(config)#	nfpp	
Ruijie(config-nfpp)#	dhcp-guard monitor-period	180

3		
	show nfpp dhcp-guard summary	
	show nfpp dhcp-guard hosts	4 y
	clear nfpp dhcp-guard hosts	y

1

3	d	

18.4.5 dhcp-guard monitored-host-limit

```
dhcp-guard monitored-host-limit      number
```

number	л ь ь л ъ

3

1) 3 3

A Ÿ ~ I' (5525' 7KH YDOXH WKDW \
 FRQILJXUHG LV VPDOOHU WKDQ FXUUHQW PRQLWRUH G KRV
 SOHDVH FOHDU D SDUWL RI PRQLWRUH G~KRVWV †
 Ÿ Â
 A Ÿ ~ I' 1)33B'+&3B*8\$5' 6(26B/,0,7 \$WWHP SW
 WR H[FHHG OLPLWL RI Ÿ ~ PRQLWRUH G KRVWV

```
Ruijie(config)# interface G0/1
Ruijie(config-if)# nfpp dhcp-guard enable
```

3

3	
dhcp-guard enable	' + & 3 11

1

3	1	
		3

18.4.10 nfpp dhcp-guard policy

 $\in$ $\hat{A}$

```
nfpp dhcp-guard policy ^ _`
```

	0 \$ &
	$\hat{A}$
	$\sim \mathcal{N}(\hat{A})$
	$\sim \mathcal{N}(\hat{A})$

$$| \mathbf{r} | = \sqrt{r^2} = \sqrt{r^2 + 0 + 0} = r \quad \hat{\mathbf{A}}$$

3

	a	$\hat{A}$
--	---	-----------

```
Ruijie(config)# interface G 0/1 Ruijie(config-if)# nfpp dhcp-guard policy Qer-src-mac 3 10 Ruijie(config-if)# nfpp c
```

3	3	
		4 5
		5

1

3	1	
		3

18.5 DHCPv6 配置

18.5.1 dhcpv6-guard attack-threshold

配置命令		配置说明
dhcpv6-guard attack-threshold	per-src-mac per-port pps	
配置		
	per-src-mac	0 ~ 65535
	per-port	1 ~ 255
	pps	1 ~ 1000000
缺省配置		0
配置	1 ~ 3	
配置示例		
Ruijie(config)# nfpp		
Ruijie(config-nfpp)#	dhcpv6-guard attack-threshold per-src-mac	15
Ruijie(config-nfpp)#	dhcpv6-guard attack-threshold per-port	200
验证		
	show nfpp dhcpv6-guard policy	
	show nfpp dhcpv6-guard summary	
	show nfpp dhcpv6-guard hosts	
	clear nfpp dhcpv6-guard hosts	
命令		

	' + & 3 Y	˘	Â
3	1) 3 3		
	Ruijie(config)# nfpf		
	Ruijie(config-nfpf)# dhcpv6-guard enable		
	3		
3	nfpf dhcpv6-guard enable	Ǝ	' + & 3 Y π
	show nfpf dhcpv6-guard summary		
∂			
	∂		
3			3

dhcpcv6-guard isolate-period seconds _permanent`	
seconds	seconds
permanent	permanent

		À
	Ruijie(config)#	nfpp
	Ruijie(config-nfpp)#	dhcpv6-guard isolate timeout 180
3		
	nfpp dhcpv6-guard isolate-period	3
	show nfpp dhcpv6-guard summary	
1		
3	1	
		3

18.5.4 dhcpv6-guard monitor- S H U L R G

		À
	dhcpv6-guard monitor- period	seconds
	seconds	~ Æ ~ 1 > @ À
		À
3	1) 3 3	
	”	~ ì ~ ~ ì
	À	~
	1	~ ì ~
	À	~
	3	ì À
	À	ì Ю
	À	
	”	ÿ ~ a
	À	
	Ruijie(config)#	nfpp
	Ruijie(config-nfpp)#	dhcpv6-guard monitor-period 180
3		
	show nfpp dhcpv6-guard summary	

	show nfpp dhcpv6-guard hosts	✓	✓
	clear nfpp dhcpv6-guard hosts		✓

1

3	1	
		3 offset 5

		}

18.5.6 dhcpv6-guard rate-limit

	^per-src-mac _per-port `pps	
	per-src-mac	0 \$ &
	per-port	
	pps	~ 1 > Â@
	0 \$ &	~ Â
}	1) 3 3	
	Ruijie(config)# nfpp	
	Ruijie(config-nfpp)# dhcpv6-guard rate-limit per-src-mac	8
	Ruijie(config-nfpp)# dhcpv6-guard rate-limit per-port	100
}		
	nfpp dhcpv6-guard policy	
	show nfpp dhcpv6-guard summary	
1		
3	1	
		}

18.5.7 clear nfpp dhcpv6-guard hosts

о Б ̃



Ruijie(config-if)#

nfpp dhcpv6-guard enable



5%

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18.6 ICMP ñ Y ß ´ ü » w W

18.6.1 icmp-guard attack-threshold

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└──

, & 0 3 Π

	Ruijie(config)#	nfpp	
	Ruijie(config-nfpp)#	icmp-guard isolate-period	180
3			
		nfpp icmp-guard isolate-period	Э
		show nfpp icmp-guard summary	
1			
3			

18.6.4 icmp-guard monitor-period

	3	Â	
	icmp-guard monitor-period	seconds	
	seconds	~ Æ ~ 1 > @ Â	
		Â	
3	1) 3 3		
	”	~ ÿ ~	~ ÿ
	Â	~	ÿ
	1	з	ÿ Â
	Ï Â		ÿ Ю
	”	ÿ	~ a
	Â		
	Ruijie(config)#	nfpp	
	Ruijie(config-nfpp)#	icmp-guard monitor-period	180
3			
		show nfpp icmp-guard summary	
		show nfpp icmp-guard hosts	1 ÿ

18.6.6 icmp-guard rate-limit

Â

	9 / \$ 1 J ¼ Ÿ Â	
	Ruijie# clear nfpp icmp-guard hosts vlan	1 interface g 0/1
3		
	icmp-guard attack-threshold	
	nfpp icmp-guard policy	
	show nfpp icmp-guard hosts	Ÿ
1		
3	1	

18.6.9 nfpp icmp-guard enable

	3 3 , & 0 3 ¼ Â	
	nfpp icmp-guard enable	
	, & 0 3 ~ Â	
3		
	, & 0 3 , & 0 3 Â	
	Ruijie(config)# interface G0/1	
	Ruijie(config-if)# nfpp icmp-guard enable	
3		
	icmp-guard enable	, & 0 3 ¼
	show nfpp icmp-guard summary	
1		

A diagram showing a horizontal line with a vertical line intersecting it. The vertical line is labeled '1' and the horizontal line is labeled '2'.

18.6.10 nfpp icmp-guard isolate-period

	seconds	permanent
seconds		
permanent		

3

Ruijie(config)#	interface	G 0/1		
Ruijie(config-if)#	nfpp	icmp-guard isolate-period	180	

	?	
?	icmp-guard isolate-period	
	show nfpp icmp-guard summary	

1

3	h	
		3

18.6.11 nfpp icmp-guard policy

Diagram illustrating the structure of a packet header, showing fields and their associated symbols.

Symbol	Fields
$\emptyset$	nfpp, icmp-guard, policy, ^per-src-ip
$\hat{A}$	_per-port, `rate-limit-pps, attack-threshold-pps

per-port	Â
rate-limit-pps	~ ¼ Â
attack-threshold-pps	~ ¼ Â

~ Â

3

a Â

```
Ruijie(config)# interface G 0/1
Ruijie(config-if)# nfp icmp-guard policy per-src-ip 5 10
Ruijie(config-if)# nfp icmp-guard policy per-port 100 200
```

3	
icmp-guard attack-threshold	
icmp-guard rate-limit	
show nfp icmp-guard summary	
show nfp icmp-guard hosts	¼ ý

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ip-guard attack-threshold per-src-ip _per-port `pps

per-src-ip	, 3	Â
per-port		Â
pps	G!5E<2"7 f1820 g /T641 0.006 4c 3.829 0f60/92_191 894.980pB	

3

1) 3 3

Ruijie(config)# nfp

Ruijie(config-nfp)# ip-guard enable

3

3	
nfp ip-guard enable	3 , 3 11
show nfp ip-guard summary	

1

3

1	
	3

18.7.3 ip-guard isolate-period

3 ^

ip-guard isolate-period seconds permanent`

seconds	~ æ ~ 1 > ^ @
permanent	

~ π a ^

18.7.5 ip-guard monitored-host-limit

3

1

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ip-guard monitored-host-limit number

number	1 ÿ ~ 1 ÿ

1 ÿ ÿ Â

3

1) 3 3

1 ÿ ~ 1 ÿ

~ a 1 ÿ ~ 3 (5525 7KH YDOXH WKDW \

FRQILJXUHG LV VPDOOHU WKDQ FXUUHQW ÿPRQLWRUHG KRV

SOHDVH FOHDU D SDUW RI PRQLWRUHG KRVWV[´

ÿ Â

1 ÿ ~ I´ 1)33B,3B*8\$5´ 6(66,21B/,0,7 \$WWHPS

H[FHHG OLPLW RIW ÿ ~ PRQLWRUHG KRVWV

Ruijie(config)# nfpp

Ruijie(config-nfpp)# ip-guard monitored-host-limit 200

3

3	
show nfpp ip-guard summary	

1

3

1	
	3

18.7.6 ip-guard rate-limit

Â

ip-guard rate-limit {per-src-ip | per-port} pps

per-src-ip	, 3
per-port	

	pps	~ 1 > Â@
	, 3	~ Â
3	1) 3 3	
	Ruijie(config)# nfpp Ruijie(config-nfpp)# ip-guard rate-limit per-src-ip 2 Ruijie(config-nfpp)# ip-guard rate-limit per-port 50	
3		
	nfpp ip-guard policy	
	show nfpp ip-guard summary	

A diagram showing a horizontal line with a vertical line intersecting it. The vertical line is labeled '1' and the horizontal line is labeled '2'.

18.7.9 clear nfpp ip-guard hosts

$$\mathcal{N} \quad \check{y} \quad \check{y} \quad \hat{A}$$

```
clear nfpp ip-guard hosts >vlanid @interface interface-id @ip-address @
```

vid	1
interface-id	2
ip-address	3

3

a Ÿ Ā

9 / \$ 1 J ŷ Â

```
Ruijie# clear nfpp ip-guard hosts vlan 1 interface g0/1
```

	?	
?	ip-guard attack-threshold	
	nfpp ip-guard policy	
	show nfpp ip-guard hosts	? ?

 λ

3	$\mathcal{H}$	
		3

18.7.10 nfpp ip-guard enable

$$\mathfrak{z} \quad \mathfrak{E} \quad , \mathfrak{z} \quad \mathbb{T} \quad \hat{A}$$

```
nfpp ip-guard enable
```

--	--	--

	, 3	^
3		
	, 3	^
	Ruijie(config)# interface G0/1 Ruijie(config-if)# nfpp ip-guard enable	
3		
	ip-guard enable	, 3 7
	show nfpp ip-guard summary	
1		
3	1	
		3

18.7.11 nfpp ip-guard isolate-period

	3	3	^
	nfpp ip-guard isolate-period seconds permanent`		
	seconds	~ æ ~ 1 > ~ @ a ^	
	permanent		
			^
3			
	Ruijie(config)# interface G 0/1 Ruijie(config-if)# nfpp ip-guard isolate-period 180		

3		3	
		ip-guard isolate-period	
		show nfpp ip-guard summary	

1

1

	clear nfpp ip-guard hosts	ÿ
1		
3	1	
		3

18.7.13 nfpp ip-guard scan-threshold

	nfpp ip-guard scan-threshold	pkt-cnt
	pkt-cnt	~ 1 > Â@
	, 3	\$ 5 3 Â
3		
	Ruijie(config)# interface G 0/1	
	Ruijie(config-if)# nfpp ip-guard scan-threshold	20
3	3	
	ip-guard scan-threshold	
	show nfpp ip-guard summary	
1		
3	1	
		3

18.8 ND ñ Y ß ´ ü » w W

18.8.1 nd-guard attack-threshold

~ ¨	~ ÿ	ÿ Â
-----	-----	-----

18.8.3 nd-guard rate-limit

$\hat{A}$

$\hat{A} \approx F_p 0$

	Ruijie(config-nfpp)#	nd-guard rate-limit	per-port	ns-na 10	
	Ruijie(config-nfpp)#	nd-guard rate-limit	per-port	rs 5	
	Ruijie(config-nfpp)#	nd-guard rate-limit	per-port	ra-redirect	5

		3	
3	nfpp nd-guard policy		
	show nfpp nd-guard summary		

	11	3
1		
3	1	
		3

18.9

number	ǎ ~ Æ ~ ʌ > @
	ǎ ñ Â
ǎ	1) 3 3
NFPP ǎ ñ 50 Â Ruijie(config)# nfpp Ruijie(config-nfpp)# log-buffer entries 50	
ǎ	log-buffer logs NFPP ŷ ǎ ʌ number_of_messages interval length_in_seconds Â
	show nfpp log 1) 3 3 ǎ
ʌ	
ǎ	ʌ ǎ


```

VLAN 1 à VLAN 2 à VLAN 3   VLAN 5   ~   IO
Ruijie(config)#      nfpp
Ruijie(config-nfpp)#      logging      vlan 1-3,5

G 0/1   ~   IO
Ruijie(config)#      nfpp
Ruijie(config-nfpp)#      logging      interface G 0/1

```

3		
show nfpp log summary	1) 3 3	ă Â

1

3	1	
		3

18.9.5 show nfpp log

```

1) 3 3   Â
show nfpp log summary
1) 3 3   ă   Â
show nfpp log buffer      statistics @

```

statistics	1) 3 3 ă

3

```

        ă   ~   ‡   ~   *   ă
ñ ' '   Â   ¶   ă   Â
ÿ   ă   1   Y   ~   IO   '
1) 3 3 B $ 5 3 B * 8 $ 5 '   ' 2 6 B ' ( 7 ( & 7 ( † R V W , 3 1 $ 0 $ &
W * L   9 / $ 1   ! Z D V   G H W H F W H G

```

```

NFPP   Â
Ruijie# show nfpp log summary

```

SRU

Total log buffer size : 10
Syslog rate : 1 entry per 2 seconds
Logging:
VLAN 1-3, 5
interface Gi 0/1
interface Gi 0/2

NFPP ǎ Â
Ruijie# show nfpp log buffer statistics
There are 6 logs in buffer.

NFPP ǎ Â
Ruijie# show nfpp log buffer
Protocol VLAN Interface IP address MAC address Reason
Timestamp

ARP 1 Gi0/1 1.1.1.1 - DoS
2009-05-30 16:23:10
ARP 1 Gi0/1 1.1.1.1 - ISOLATED
2009-05-30 16:23:10
ARP 1 Gi0/1 1.1.1.2 - DoS
2009-05-30 16:23:15

π

3

Reason 5 4 .

” ' R 6 L

” , 6 2 / \$ 7 (' π

” , 6 2 / \$ 7 (B) \$, / (' π

” 6 & \$ 1

” 3 2 5 7 B \$ 7 7 \$ & . (' π

3

3	
---	--

clear nfpp log

«4ç Œ

Ruijie# show nfpp arp-guard hosts statistics

success	fail	total
100	20	120

^

UHPDLQ WLP V HFRQGV

Ruijie# show nfpp arp-guard hosts

If column 1 shows '*', it means "hardware do not isolate user".

VLAN	interface	IP address	MAC address	remain-time(s)
------	-----------	------------	-------------	----------------

1	Gi0/1	1.1.1.1	-	110
2	Gi0/2	1.1.2.1	-	61
*3	Gi0/3	-	0000.0000.1111	110
4	Gi0/4	-	0000.0000.2222	61

Total 4 hosts

--	--

3

```
Ruijie# show nfpp arp-guard scan statistics
ARP scan table has 4 record(s).
```

' I' \$ 5 3 L Â

```
Ruijie# show nfpp arp-guard scan
```

VLAN	interface	IP address	MAC address	timestamp
1	Gi0/1	N/A	0000.0000.0001	2008-01-23 16:23:10
2	Gi0/2	1.1.1.1	0000.0000.0002	2008-01-23 16:24:10
3	Gi0/3	N/A	0000.0000.0003	2008-01-23 16:25:10
4	Gi0/4	N/A	0000.0000.0004	2008-01-23 16:26:10

Total 4 record(s)

$\Gamma \backslash W L P H V D P S$ \$53 ~ Γ E
 $\uparrow$ \$53 $\hat{A}$

```
Ruijie# show nfpp arp-guard scan vlan          1 interface      G 0/1
0000.0000.0001
VLAN   interface IP address MAC address    timestamp
----  -
11:26:10 ^5p = m ^ Å ðÅGAx" Nöhñš0 @
```

1	
3	1

18.10.3 show nfpp arp-guard summary

^

show nfpp arp-guard summary

3	
	3 1 10 ^

Ruijie# show nfpp arp-guard summary

^ Format of column Rate-limit and Attack-threshold is per-src-ip
/per-src-mac/per-port. ~

Interface Status Isolate-period Rate-limit Attack-threshold Sc
an-threshold

Global	Enable	300	4/5/60	8/10/100	15
Gi 0/1	Enable	180	5/-/-	8/-/-	-
Gi 0/2	Disable	200	4/5/60	8/10/100	20

Maximum count of monitored hosts: 1000

Monitor period ^ 300s

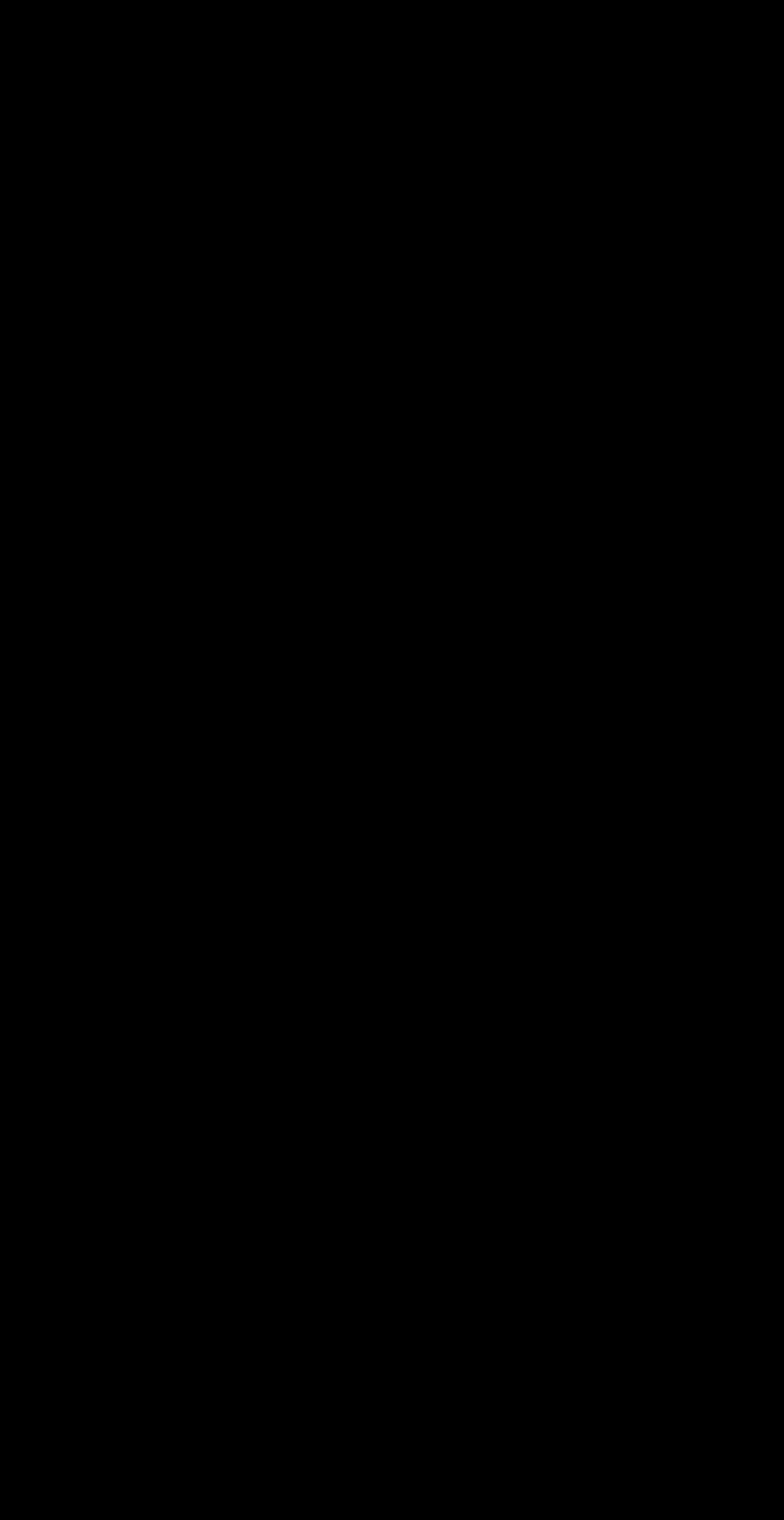
^

^ ~ , Q W H U I D C R E D O ^

^ ~ 6 W D W X V ů π ^

^ 3~ Rate-limit й^ IP /~ я

arp-guard attack-threshold	
arp-guard enable	\$ 5 3 11
arp-guard isolate-period	



5 X L M n f p p dhcp-guard hosts statistics
 V X F F H V V I D L O W R W D O

^ ž ž Ĩ Ŗ Œ ˘ è ˆ Ÿ π ˘ ˆ Ÿ Ro §

$\hat{A}$

Gi 0/2 Disable 200 -/5/30 -/10/50

Monitor period 300s

3	Rate-limit	IP	/	MAC
	/	Attack-threshold		

Имя параметра	Значение по умолчанию
dhcp-guard attack-threshold	10
dhcp-guard enable	yes
dhcp-guard isolate-period	30
dhcp-guard monitor-period	30
dhcp-guard monitored-host-limit	10
dhcp-guard rate-limit	10
nfpp dhcp-guard enable	yes
nfpp dhcp-guard isolate-period	30
nfpp dhcp-guard policy	deny

^

3

4

3

18.12 DHCPv6

18.12.1 show nfpp dhcpv6-guard hosts

show nfpp dhcpv6-guard hosts statistics

vid @ >interface-id @mac-address @ @ @

statistics	
vid	
interface-id	
mac-address	

5 X L M

show nfpp dhcpv6-guard hosts statistics

V X F F H V V ID L O W R W D O

3		
	dhcgv6-guard attack-threshold	
	dhcgv6-guard enable	' + & 3 Y 11
	dhcgv6-guard isolate-period	
	dhcgv6-guard monitor-period	
	dhcgv6-guard monitored-host-limit	1 3
	dhcgv6-guard rate-limit	
	nfpp dhcgv6-guard enable	3 ' + & 3 Y 11
	nfpp dhcgv6-guard isolate-period	
	nfpp dhcgv6-guard policy	
1		

5 X L show nfpp icmp-guard hosts statistics

V X F F H V V I D L O W R W D O

show nfpp icmp-guard trusted-host

3

1 3 A
Ruijie# show nfpp icmp-guard trusted-host
IP address mask

1.1.1.0 255.255.255.0
1.1.2.0 255.255.255.0
Total 2 record(s)

3	3
---	---

vid	1
interface-id	"
ip-address	, 3

3

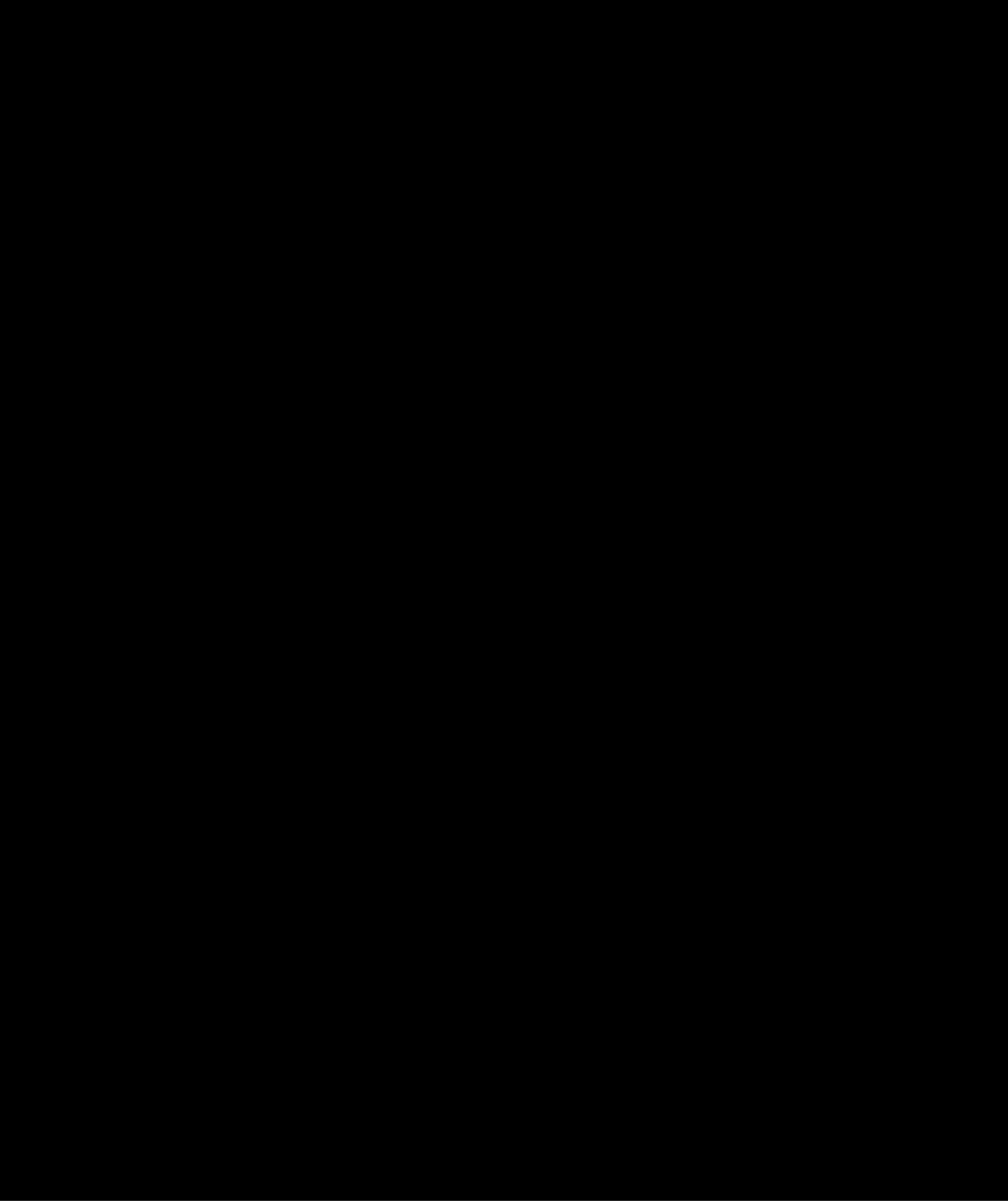
5 X L show nfpp ip-guard hosts statistics
V X F F H V V I D L O W R W D O

‘ r

 $\hat{A}$

PLA

№	Имя параметра	Значение по умолчанию
	ip-guard attack-threshold	
	ip-guard enable	yes
	ip-guard isolate-period	
	ip-guard monitor-period	
	ip-guard monitored-host-limit	10
	ip-guard rate-limit	



		3
--	--	---

18.15 ND ñ Y ß ‹ ü » w W

18.15.1 show nfpp nd-guard summary

 $\hat{A}$

```
show nfpp nd-guard summary
```

[illegible]

3

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```
Ruijie# show nfpp nd-guard summary
```

^ Format of column Rate-limit and Attack-threshold is NS-NA/RS/RA-REDIRECT.~

Interface Status Rate-limit Attack-threshold

Global Enable 20/5/10 40/10/20

```
Gi 0/1    Enable 15/15/15  30/30/30
```

Gi 0/2 Disable -/5/30 -/10/50

•

^ ~ , Q W H U I D O F R I E D O Â

$$\hat{\sim} \quad 6WDWXV\check{u} \quad \mathbb{I} \quad \hat{A}$$
$$\hat{\alpha} \sim 5 D W H \text{ O L P } \frac{1}{2} W \quad \Omega \frac{1}{2}$$

Ω̇ α̇ ~ \$WWDFN WKUHVKROG

$\mathbb{P}$ $\mathbb{L}$ $\hat{A}$

$$^{\circ} \quad \Gamma \quad \mathbb{L} \quad * \quad \exists \quad \Omega \quad \gamma \quad \sim$$
$$\Omega \quad \bar{\alpha} \quad \hat{A}$$

3	3	
---	---	--

nd-guard attack-threshold	
nd-guard enable	1 ' π
nd-guard rate-limit	
nfpp nd-guard enable	∅ 1 ' π
nfpp nd-guard policy	

π

KAË â Ä@ 0

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G!5B \$ & / Q ,

G!5B 4 2 6 Q ,

WRV WRV	y[,X á u2O _ Ä Å
FRV FRV	y[FRV
FRV LQQHU FRV	y[YF¼ WD,X FRV
LFPS W\SH	, & 0 3y[,X#\ C2O _ Ä Å
LFPS FRGH	, & 0 3y[,X#\ C2O _ -Ö Ä Å
LFPS PHVVDJH	, & 0 3y[,X#\ C2O _ á/Ä
RSHUDWRU SRUW>SRUW@	2SHUDWRUÖWä bÈ HT bÈ JW bÈ QHT á1 bÈ UDQx# Ä SRUW@ S R0AWÈ ` ,Â ; 0LÔ?U ø p0Ä · È-Ö È Jª,X ; 00ú ¾?U Ô p0Ä · È
VUF PDF DGGU	\$d ,X(=)Ú
GVW PDF DGGU	,Ä,X ,X(=)Ú
9,' YLG	Û n,X YODQ LG
9,' LQQHU YLG	Û n n YF¼ WD,X YLG
HWKHUQHW W\SH	¹ p5% #A,2O _ È Ä ¹Eg 9 [D
PDWFK DOO WFSI	G! WFS ,XOY!J
WH[W	"¼Gž µ C
LQ	ÍE¯ 9A¹ y · ,X y [E¯ > E>\$,
RXW	Í ¢A¹ y ·Eg Î ,X y [E¯ > E>\$,
^UXOH PDVN RIIVHW	UXOAE¯ ,X ³È PDVME¯ ,X }-Ö ³ `RIIV #/VÈ È Ä -5× #/iGE>< ³ ´ È></ 7Ç å Ô4~

y[³VßÖ
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ % % % % % % % % % % & & & & ' ' '
' ' ' (()) * * + + + + + + , , , , - - . . / / / / 0 0 0 0
1 1 1 1 2 2 3 3 4 4 4 4 5 5 5 5 5 5 6 6 6 6 6 6 7 7 7 7
8 8 8 8 9 9 9 9 9 9 9 9 :: :: :: :: ; < = = D D D D E E E E
Í h #/iGE>< Vß

G!5B \$ & / Q ,

time-range-name	y [E>\$,X ÊKÈ á/Ä
tos	y [,X á u2O _
tos	y [,X á u2O _ Ä Å
icmp-type	, & 0 3y [,X#\ C2O _ Ä Å
icmp-code	, & 0 3y [,X#\ C2O _ -Ö Ä Å
icmp-message	, & 0 3y [,X#\ C2O _ á/Ä
operator	j 00úÄ O W b È H I b È J W b È Q H ã1 b È

FKDUJHQ
FPG
GD\WLPH
GLVFDUG
GRPDLQ
HFKR
H[HF
ILQJHU
IWS
IWS GDWD
JRSKHU
KRVWQDPH
LGHQW
LUF
NORJLQ
NVKHOO
ORJLQ
QQWS
SLP DXWR US
SRS
SRS
VPWS
VXQUSF
VIVORJ
WDFDFV
WDON
WHOQHW
WLPH
XXFS
ZKRLV
ZZZ

ßM6 8'30Ã · á/Ã È8'3 Ã¹S*ü0Ã · á/Ã ê0Ã · È9Û nK',X0Ã · Ö

ELII
ERRWSF
ERRWSV
GLVFDUG
GQVL[
GRPDLQ
HFKR
LVDNPS
PRELOH LS
QDPHVHUYHU
QHWELRV G 0
ZHWELRV

SLP DXWR US
EPLS
V\PS
E\PS
VXQUSF

V\VORJ
 WDFDFV
 W DON
 WIWS
 W LPH
 ZKR
 [GPFS
¹p5% #A,2O _ (WKHUQHMMÖW\SH
 DDUS
 DUS
 DSSOHWDON
 GHFQHW LY
 GLDJQRVWLF
 HW\SH
 HW\SH
 ODW
 ODYF VFD
 PRS FRQVROH
 PRS GXPS
 PXPSV
 QHWELRV
 YLQHV HFKR
 [QV LGS

_ Ö , 3Û šA“KÂ ë></ _

ßM6,X , 3Î A“KÂ ë>< ACE\$d

,X y [EîE> È J^a

,X Ý y [!4± Ö

Ruijie(config)# access-list 1 permit 192.168.1.64 0.0.0.63

_ Ö , 3=)A“KÂ ë></ _

ßM6,X , 3=)A“KÂ ë>< ACE ' 1 6 y [` , & 0 3 y [EîE> Ö

Ruijie(config)# access-list 102 permit tcp any any eq domain

Ruijie(config)# access-list 102 permit udp any any eq domain

Ruijie(config)# access-list 102 permit icmp any any echo

Ruijie(config)# access-list 102 permit icmp any any echo-reply

102 deny tcp 192.168.1.15 0.0.0.0 any eq 80

,l G Q ,	Q ,		£EÄ	
	show access-lists		1,ß Ý,XA“KÂ ë><	
	mac access-group		ü y · þ h*ü 0 \$ & =)A“KÂ ë><	
G ÄÄÈ ä				
Q , Z Æ	(È		AÈ ä	
	9		EC Ê(9 1 þ	

1.1.2 deny

```

+ â Ô þ ê î þ, X ö × G H Q \ , X 5 Ê 1*ü b ‡ n y [ E @ ¥ ê E ¬ ö × Ä
, 1 Ÿ ŠA“KÂ ë><
sn @ deny source source-wildcard _host source _any `
, 3 )A“KÂ ë><
sn @ deny protocol source source-wildcard destination destination-wildcard precedence
precedence @ tos> tos @ fragments @ range lower upper @ time-range time-range-name @
Ô o G i ? U # A , , X , 3 = )A“KÂ { ë>< Ö
z Internet Control Message Protocol , & 0 3
sn @ deny icmp ^source source-wildcard _host source _any ` ^destination
destination-wildcard _host destination _any ` icmp-type @ icmp-type icmp-code @ @
icmp-message @ @ precedence precedence @ tos> tos @ fragments @ >time-range
time-range-name @
z Transmission Control Protocol 7 & 3
sn @ deny tcp source source-wildcard _host Source _any ` operator port port @ destination
destination-wildcard _host destination _any ` operator port port @ precedence precedence @
tos tos @ fragments @ range lower upper @ time-range time-range-name @ match-all tcp-flag @
z User Datagram Protocol 8 ' 3
sn @ G H Q \ source source-wildcard _host source _any ` operator port port @ @
destination destination-wildcard _host destination _any ` operator port port @ precedence
precedence @ tos> tos @ fragments @ range lower upper @ time-range time-range-name @
0 $ & )A“KÂ ë><
sn @ deny

```

EY ½ #A, S U R W- P F Ê O

sn @deny protocol > >VlOut @ >inner@ source source-wildcard _host source _any ` ^host
source-mac-address _any ` destinationdestination-wildcard \_host destination \_any ` host
destination-mac-address

Sn	\$ & /><NM c Ě
source-ipv6-prefix	\$d , 3 Y5%4° ê5%4°2O _
destination-ipv6-prefix	,Â,X , 3 Y5%4° ê5%4°2O _
prefix-length	P¬ !CK }-Õ ! D
source-ipv6-address	\$d , 3 Y
destination-ipv6-address	,Â,X , 3 Y
dscp	Ý Â á u-Õ&•
dscp	-Õ&• È 8× È
flow-label	# Û1R
flow-label	# Û1R È8× È
protocol	Í b , 3 9 ,XA¹ +!%o Ã , 3 9 _ L F P S _ žW F S _ X G S !

5 ,ÕG!5B

"u Ý Ĭ)><NM

Q , õ ã

```

Ruijie(config-mac-nacl)#          show access-lists
mac access-list extended mac1
10 deny host 0013.0049.8272 any aarp
Ruijie(config-mac-nacl)#          exit
Ruijie(config)#                   interface gigabitethernet          1/1
Ruijie(config-if)#                mac access-group          mac1 in
_ Ð Ö ß M6 , 3 Û š $ & / S*ü8× _ È,Â,X |4± , 3 ,X$d È J h*ü
y · ÄG!5B •"© Ö
Ruijie(config)#                   ip access-list standard          34
Ruijie(config-ext-nacl)#          deny host          192.168.4.12
Ruijie(config-ext-nacl)#          show access-lists
ip access-list standard 34
10 deny host 192.168.4.12
Ruijie(config-ext-nacl)#          exit
Ruijie(config)#                   interface gigabitethernet          1/1
Ruijie(config-if)#                ip access-group          34 in
_ Ñ Ö ß M6 , 3 9 = ) $ & / S*ü8× _ È,Â,X |4± , 3 ,X$d È J h
*ü y · ÄG!5B •"© Ö
Ruijie(config)#                   ipv6 access-list          v6-acl
Ruijie(config-ipv6-nacl)#         11 deny ipv6 host          192.168.4.12          any
Ruijie(config-ipv6-nacl)#         show access-lists
ipv6 access-list v6-acl
11 deny ipv6 host 192.168.4.12 any
Ruijie(config-ipv6-nacl)#         exit
Ruijie(config)#                   interface gigabitethernet          1/1
Ruijie(config-if)#                ipv6 traffic-filter          v6-acl in

```

,l G Q ,

Q ,	£EÄ
show access-lists	¹,ß Ý,XA"KÂ ë><
ipv6 traffic-filter	ü y · Þ h*ü , 3 9 =)A"KÂ ë><
ip access-group	, 3 \$ &X y · h*ü
mac access-group	0 \$ & =) \$ & / ,X y · h*ü
ip access-list	, 3 \$ &X n
mac access-list	0 \$ & =) \$ & / ,X n
expert access-list	ç Š =) \$ & / ,X n
ipv6 access-list	, 3 9 =) \$ & / n
permit	ŠAÆ><NM n Q ,

G ÄÄÈ ä

Q , Z Æ

(È	AÈ ä
9	EC Ê(9 ¹ Þ È D U G K + üEC Ê(9 ž¹ Þ Õ Ä

1.1.3 expert access-group

Ú Ô þA' n,X (; 3 (5 7 \$ & h*ü Û n,X y · Ä S*üA¹ Q ,,X no EÝNM ¢#\ h*ü Ä
expert access-group id _name ` ^inout `
no expert access-group id _name ` in out `

– DAÈ â	– D	£EÄ
	id	([S H A J K W Ä ë><,X4ê È Ä Å
	name	([S H A J K W Ä ë><,X á +
	in	ÍE¯ 9A¹ y ·,X y [E¯> E>\$,
	out	Í ¢A¹ y ·Eg Î,X y [E¯> E>\$,

5 ,ÖG!5B y ·"u Ý h*ü ([S H U W \$ & /

Q , õ ä y ·G!5B õ ä

S*ü Û Ð Ú Û n,X \$ & /h*ü bA¹ y · Þ È*ü b Í y ·,XEg 9Eg Î D B# E¯> { Ä S*ü show !\$ ŽňAf 9Hnô# /

S*ü Û Ð

,ì G Q ,	Q ,	£EÄ
	access-list	n A“KÂ ë>< Ä
	show access-lists	¹,ß Ý,XA“KÂ ë><
	show ip access-list	¹,ß , ¾ Ú,XA“KÂ ë><Ä È ± È É Å

G ÄAÈ â

Q , Z Æ	(È	AÈ â
	9 LA 0 @ TOL¥~ <Ä	

Q , Z Æ	(Ë	AÈ â
	9	EC Ê(9 ¹ þ

1.1.7 ip access-list resequence

A¹ Q , Í L 80 _ , X \$ & / < NMG i f È S*üA¹ Q , , X no EÝNM 6 át~Ax

ip access-list resequence id _name `start-sn inc-sn

no ip access-list resequence id _name `

– DAÈ â	– D	£EÄ
	Id	\$ & /4ê È
	name	\$ & /á +
	start-sn	c ÈCK Ý
	inc-sn	c È rG£

5 ,ÖG!5B	start-sn Ö inc-sn Ö
----------	------------------------

Q , õ ã	< G!5B õ ã
---------	------------

S*ü Û Ð	A¹ Q , , XG!5B4\$ p Ã ¹EiE> show access-lists Q , ¹, ß Ä
---------	--

G!5B –	\$ & / , X > < NMG i f Ö
	Ruijie# show access-lists
	ip access-list standard 1
	10 permit host 192.168.4.12
	20 deny any any
	Ruijie# config
	Ruijie(config)# ip access-list resequence 1 21 43
	Ruijie(config)# exit
	Ruijie# show access-lists
	ip access-list standard 1
	21 permit host 192.168.4.12
	64 deny any any

, ì G Q ,	Q ,	£EÄ
	show access-lists	¹, ß A “KÂ ë > <

G ÄAÈ â	´
---------	---

Q , Z Æ	(Ë	AÈ â
	9	EC Ê(9 ¹ þ

1.1.8 ipv6 traffic-filter

Ú Ô pA' n,X , 3 9 \$ & / h*ü Ü n,X y · Ä S*üA¹ Q ,X Q BÝNM a#\ h*ü Ä

ipv6 traffic-filter name ^n `

no ipv6 traffic-filter name ^ in `

– DAÈ â	– D	£EÄ
	name	, 3 9 A“KÂ ë><,X á +
	in	ÍE¯ 9A¹ y ·,X y [E¯> E>\$,
5 ,ÖG!5B	y ·"u Ý h*ü , 3 9 \$ & /	
Q , õ ä	y ·G!5B õ ä	
S*ü Ü Ð	Ú Ü n,X \$ & / h*ü bA¹ y · Þ È*ü b Í y ·,XEg 9 D B# E¯> { Ä S*ü show ipv6 traffic-filter Q , ¹,ßA'5B	
G!5B _	ß _ / V) Ú D F F H V V O L H V W Y L D F F L W Þ Ö Ruijie(config)# interface GigaEthernet 0/1 Ruijie(config-if)# ipv6 traffic-filter v6-acl in	
, ï G Q ,	Q ,	£EÄ
	show access-group	/ y · Þ4¥ n,X \$ & /G!5B Ä
G ÄÄÈ â	´	
Q , Z Æ	(È	AÈ â
	9	EC Ê(9 ¹ Þ

1.1.9 ipv6 access-list

A¹ Q , ĩ Î , 3 9 =) \$ & / È JE¯ 9A¹G!5B õ ä Ä S*üA¹ Q ,X no EÝNM ôL8A\$ & /

ipv6 access-list name

no ipv6 access-list name

– DAÈ â	– D	£EÄ
	name	\$ & / á +
5 ,ÖG!5B	´	
Q , õ ä	< G!5B õ ä	
S*ü Ü Ð	A¹ Q ,XG!5B4\$ p Ä ¹EiE> show access-lists Q , ¹,ß Ä	

G!5B _	<pre> Ruijie(config)# ipv6 access-list v6-acl Ruijie(config-ipv6-nacl)# show access-lists ipv6 access-list v6-acl Ruijie(config-ipv6-nacl)# </pre>
--------	---

,! G Q ,	Q ,	£EÄ
	show ipv6 access-lists	1,ß , 3 9 =)2OA“KÂ ë><

G ÄÄÈ â

Q , Z Æ	(È	AÈ â
	9	EC Ê(9 1 Þ

1.1.10 list-remark text

Û n,X \$ & #! t"¼Gž µ C Èno !4Ô ôL8

list-remark text

- DAÈ â	- D	£EÄ
	Text	"¼Gž µ C

5 ,ÖG!5B

Q , õ ä	\$ & /G!5B õ ä
---------	----------------

S*ü Û Ð	Û n,X \$ & #! t"¼Gž µ C
---------	-------------------------

G!5B _	<pre> Ruijie(config)# ip access-list extended 102 Ruijie(config-ext-nacl)# list-remark thisaclistofilterthehost 192.168.4.12 Ruijie(config-ext-nacl)# show access-lists ip access-list extended 102 deny ip host 192.168.4.12 any 1000 hits this acl is to filter the host 192.168.4.12 Ruijie(config-ext-nacl)# </pre>
--------	--

,! G Q ,	Q ,	£EÄ
	show access-lists	/ A“KÂ ë><
	ip access-list	, 3A“KÂ ë>< n

Q , Z Æ	(Ë	AÈ â
	9	EC Ê(9 ¹ Þ Ä

1.1.11 mac access-group

Ú Ô þA' n,X 0 \$ & \$ &h*ü Û n,X y · Ä S*üA¹ Q , ,X no EÝNM ¢#\ h*ü Ä
mac access-group id _name `iñ \_out `
no mac access-group fd _name ` ^inout `

– DAÈ â	– D	£EÄ
	id	0 \$ &A“KÂ ë><,X4ê Ë Ä Å
	name	0 \$ &A“KÂ ë><,X á +
	in	ÍE¯ 9A¹ y · ,X y [E¯ > E>\$,
	out	Í ¢A¹ y · Eg Î,X y [E¯ > E>\$,

5 ,ÖG!5B	y · "u Ý h*ü \$ & /
----------	---------------------

Q , õ ã	y · G!5B õ ã
---------	--------------

S*ü Û Ð	A¹ Q , ,XG!5B4\$ p Ä ¹EiE> show running-config Q , ,¹,ß Ä
---------	---

G!5B _	ß _ / V) Ú D F F H V V O L V W D F F H S W B*ü 6 † L J D F [B W R Q Ö \
	Ruijie(config)# interface GigaEthernet 1/1
	Ruijie(config-if)# mac access-group accept_00d0f8xxxxxx_only in

, ï G Q ,	Q ,	£EÄ
	show access-group	/ y · Þ4¥ n,X \$ & /G!5B Ä


```

ipv6 access-list v6-acl
10 permit ipv6 host ::192.168.4.12 any
Ruijie(config-ipv6-nacl)#

```

,l G Q ,

Q ,	£EÄ
show access-lists	1,ß Ý,XA“KÂ ë><
ip access-list	L S \$, h
ipv6 access-list	, 3 9 =) \$ & / n
deny	n 4±AÁ \$ & /><NM
permit	n A£EAÁ \$ & /><NM

G ÄEÈ â

Q , Z Æ

(Ë	AÈ â
9	EC Ê(9 ¹ þ

1.1.14 permit

+ â Ô þ ê î þ,X A£E permit ,X 5 Ê 1*ü b ‡ n y [E@ ¥ êE¬ ö × Ä

, 10 ŠA“KÂ ë><

n @ permit source source-wildcard _host source _any`

, 3)A“KÂ ë><

n @ permit protocol source source-wildcard destination destination-wildcard precedence
precedence @ >tos @ fragments @ range lower upper @ time-range time-range-name @

Ô oGj?U #A,,X , 3=)A“KÂ { ë>< Ö

z Internet Control Message Protocol , & 0 3

n @ permit icmp source source-wildcard _host source _any` destination
destination-wildcard _host destination _any` icmp-type @ icmp-type icmp-code @ @ _
> icmp-message @ precedence precedence @ tos> tos @ fragments @ time-range
time-range-name @

z Transmission Control Protocol 7 & 3

n @ permit tcp source source-wildcard _host Source _any` operator port port @ @
destination destination-wildcard _host destination _any` operator port port @ @ >precedence
precedence @ >tos @ fragments @ range lower upper @ >time-range time-range-name @
match-all tcp-flag @

z User Datagram Protocol 8 ' 3

n @ permit udp source source -wildcard host source _any` operator port port @ @
destination destination-wildcard host destination _any` operator port port @ @ precedence
precedence @ >tos @ fragments @ range lower upper @ time-range time-range-name @

0 \$ &)A“KÂ ë><

n @ permit any _host source-mac-address` ^any\_host destination-mac-address`
ethernet-type @ > cos @ inner in @ @

([S HJAWKÂ ë><

```
sn @ permit protocol _ ethernet-type @ > cos out @ inner in @ @ @ out [inner in] @ source
source-wildcard _ host source _ any ` host source-mac-address _ any ` destination
destination-wildcard _ host destination _ any ` host destination-mac-address _ any `
precedence precedence @ tos > tos @ > fragments range lower upper @ time-range
time-range-name @
```

EÝ ½ +!% Ò ÿ ¹ þ5%2O _ (W K H U Q H W F R W % Ê

```
sn @ permit ethernet-type | cos out @ inner in @ VID > out @ > inner @ source source-wildcard _
host source _ any ` ^ host source-mac-address _ any ` destination destination-wildcard _
host destination _ any ` ^ host destination-mac-address _ any ` time-range time-range-name @
```

EÝ ½ #A, 3 U R W R % Ê O

```
sn @ permit protocol VID out [inner in @ source source-wildcard _ host Source _ any ` ^ host
source-mac-address _ any ` ^ destination destination-wildcard _ host destination _ any `
^ host destination-mac-address _ any ` precedence precedence @ > tos @ > fragments @
range lower upper @ time-range time-range-name @
```

Ô oGj?U #A,,X ([S H H) A " K Â ë > < Ö

z Internet Control Message Protocol , & 0 3

```
sn @ permit icmp VID out @ > inner @ source source-wildcard _ host source _ any ` ^ host
source-mac-address _ any ` destination destination-wildcard 7 [ < 00600003 > - 142 < 00500003 > ] 001
```

sn @permit tcp \$source-ipv6-prefix prefix-length _host

```
Ruijie(config-if)# mac access-group 702 in
_ Ö ßM6 L $Û š $ & /S*ü8× _ È,Â,X ACE , 3 ,X$d È J h*ü
y · ÄG!5B •"© Ö
Ruijie(config)# ip access-list standard std-acl
Ruijie(config-std-nacl)# permit host 192.168.4.12
Ruijie(config-std-nacl)# show access-lists
ip access-list standard std-acl
10 permit host 192.168.4.12
Ruijie(config-std-nacl)# exit
Ruijie(config)# interface gigabitethernet 1/1
Ruijie(config-if)# ip access-group std-acl in
_ Ö ßM6 , 3 9 =) $ & /S*ü8× _ È,Â,X ACE , 3 ,X$d È J h
*ü y · ÄG!5B •"© Ö
Ruijie(config)# ipv6 access-list v6-acl
Ruijie(config-ipv6-nacl)# 11 permit ipv6
host ::192.168.4.12 any
Ruijie(config-ipv6-nacl)# show access-lists
ipv6 access-list v6-acl
11 permit ipv6 host ::192.168.4.12 any
Ruijie(config-ipv6-nacl)# exit
Ruijie(config)# interface gigabitethernet 1/1
Ruijie(config-if)# ipv6 traffic-filter v6-acl in
```

Q ,	£EÄ
show access-lists	1,ß Ý,XA“KÂ ë><
ipv6 traffic-filter	ü y · Þ h*ü , 3 9 =)A“KÂ ë><

show access-group >interface interface ! @

	– D	£EÄ
– DAÈ â	interface !	Û n,X y .

5 ,ÖG!5B

Q , õ ã

S*ü Û Ð

/ y · Þ h*ü,X \$ & /È á Û n / <F¼ y · Þ h*ü,X \$ & /

G!5B _

Ruijie# show access-group
ip access-list standard ipstd3
Applied On interface GigabitEthernet 0/1.
ip access-list standard ipstd4
Applied On interface GigabitEthernet 0/2.
ip access-list extended 101
Applied On interface GigabitEthernet 0/3.
ip access-list extended 102
Applied On interface GigabitEthernet 0/8.

,ì G Q ,

Q ,	£EÄ
ip access-group	L S“KÂ ë><KÂ n
mac access-group	0 \$ &A“KÂ ë><KÂ n
expert access-group	([S H A J KÂ ë><KÂ n
ipv6 traffic-filter	, 3 9 A“KÂ ë><KÂ n

G ÄÄÈ â

Q , Z Æ

(È	AÈ â
9	EC Ê(9 ¹ Þ

1.2.2 show access-lists

/ Ý \$ & /G!5B ê Û n á +,X \$ & /

show access-lists id _name @

	– D	£EÄ
– DAÈ â	id	A“KÂ ë><,X4ê È
	name	A“KÂ ë><,X á +

5 ,ÖG!5B

Q , õ ã

(M õ ã

S*ü Ū Đ	/ Ū n,X D È"u Ý Ū n id ê name È í / Ý,X \$ & /
G!5B –	Ruijie# show access-lists n_acl ip access-list standard n_acl Ruijie# show access-lists 102 ip access-list extended 102 Ruijie# show access-lists ip access-list standard n_acl ip access-list extended 101 mac access-list extended mac-acl expert access-list extended exp-acl ipv6 access-list v6-acl

	expert access-list	([S H ̢) W \$ & / n
G ÄÄÈ â		
Q , Z Æ	(Ë	ÄÈ â
	9	EC Ê(9 ¹ þ

1.2.4 show ip access-group

/ y · G!5B,X , 3 \$ & /

show ip access-group interface interface ! @

– DAÈ â	– D	£EÄ
	interface !	Û n,X y ·

5 ,ÖG!5B

Q , õ ã (M õ ã

S*ü Û Đ / y · G!5B,X , 3 \$ & / ̢¹"u Ý Û n y · È í / Ý y · G6(,X , 3 \$ & /

G!5B \$ & / Q ,

G!5B _	Ruijie(config)#	security global access-group	1
,l G Q ,	Q ,		£EÄ
	show secu-acl		/] <EîF'G!5B
G ÄÄÈ â			
Q , Z Æ	(Ë	AÈ â	
	9	EC Ê(9 ¹ þ	

1.3.3 security uplink enable

G!5B y ·] <EîF',X _ ê ·

security uplink enable

no security uplink enable

– DAÈ â	– D	£EÄ

5 ,ÖG!5B

Q , õ ã y · G!5B õ ã

S*ü Û Ð G!5B] <EîF',X _ ê y ·

G!5B Ruijie(config-if)# security uplink enable

	Q ,	
--	-----	--

2 ´ QOS w W

2.1 - þ ´

*ü üE¯> 4 R 6!5B !ÈLÔ?U#Û.´ 4 R 6Ý G,X¹ ß´&•µ C Ö
z Ô þ y·Ô î G6(þ S R O L F\ P D S ×
z Ô þ S R O L F\ Æ P D S þ F O D V V × P D S
z Ô þ F O D V V Ô P D S þ \$ & / Æ A¹ \$ & / X Ý \$ & (¯ N O K Ý, ì à E > \$, ³ õ S ×
z Ô þ y· þ G6(, X \$ & (, X þ D á ¢³ G!5B] < \$ & / ´ 0´ 8 V, X L \$ Ä
5, Õ ¯ ¯ ß Æ R 6 s6 Ñ G K Á, X Ä G A' Û Í Ý, X y [à 1 Ø) Ú Ä ' 4 Ú Ô þ 3 R O L F\ Ø D S
6(¯ Ô þ y· þ È ¯ A' 5 B Z y ·, X µ ï ð ã Ê È A¹ y ·, X 4 R 6 s6 Ñ G > • ' Ô Ä ? U G K Á A¹ y
·, X 4 R 6 s6 Ñ È | E î E > ? · ‡ A¹ y ·, X 3 R O L F\ A 5 B È J Ú y ·, X µ ï ð ã A' 2 I I G Ä Ä
¹ ß 4 2 6, X 5 , Õ G!5B Ö

5, Õ G!5B	5, Õ & R 6	
	Kó ë þ D	
	Kó ë E B E @ 1 k " ©	: 5 5
	4 X H X H : H L J K W	
	: 5 5 : H L J K W 5 D Q J H	
	' 5 5 : H L J K W 5 D Q J H	
	µ ï ð ã	1 R 7 U X V W

& R V Kó ë, X T - A x ô Ø > <

Cos Kó ë	CoS	Kó ë

& R 6 W R T 6 A x 3 Ø > <

CoS to DSCP	CoS	DSCP

, 3 3 U H F H G H Q F # - A W R Ø > 6 & 3

IP-Precedence to DSCP	IP-Precedence	DSCP

' 6 & 3 W R , X T R A x ô Ø > <

DSCP to CoS	DSCP	CoS

2.2 ´ ü » w W

2.2.1 class maps

ĩ î \$ & / Ø

ip access-list extended _standard ` a cl-id a cl-name `

ê mac access-list extended a cl-id a cl-name `

ê expert access-list extended a cl-id a cl-name `

```

ê ipv6 access-list extended  acl-name
ê access-list acl-id  2ĭ ë Q , Ä -?•  $ & /,ĭ G0'8V Å
ĭĭ  F O D V V È P D S  F O D V V Gĭ B D S Ė
no @ class-map class-map-name
ĭĭ A¹  F O D V V , X P G! $ Š Ö
no @ match access-group  acl-name _acl-id

```

	- D	£EÄ
- DAÈ â	acl-name	Æ4£#" ĭĭ,X \$ & /,X á +
	acl-id	Æ4£#" ĭĭ,X \$ & /,X L G
	class-map-name	?U ĭĭ,X F O D V V ,X Ė B S
	no class-map class-map-name	ôL8 Æ4£ , ü,X F O D V V P D S
	no match access-group acl-name _ acl-id	ôL8A¹ G!

5 ,ÖG!5B

Q , ö ä

< G!5B ö ä

S*ü Ü Ð

G!5B -

```

_  Ö ĭĭ  0$& $ & / Q Ė H
Ruijie(config)#      mac access-list extended me
_  ÖA'5B $ & /? ĭ
Ruijie(config-ext-macl)#      permit hos  t 1111.2222.3333  any
_  ÖÖÔ ĭ $ & /A'5B
Ruijie(config-ext-macl)#      exit
_  Ö ĭĭ  F O D V V Q P D S P
Ruijie(config)#      class-map cm
_  Ö G6( $ & /
Ruijie(config-cmap)#      match access-group me
_  6 ÖÖÔ ĭ F O D V VA'Ė B S
Ruijie(config-cmap)#      exit

```

,ĭ G Q ,

Q ,	£EÄ
show mac access-lists	
show ip access-lists	
show class-map	

G ÄÄÈ â

Q , Z Æ

(È	AÈ â
-----	------

2.2.2 drr-queue bandwidth

A'5B ' 5 5 A× z • ã,XKó ë G_i

drr-queue bandwidth weight1...weight8

no drr-queue bandwidth

– DAÈ â	– D	£EÄ
	weight1...weight8	^a 8× È ?•5 ,ÖG!5B
	no	6 á5 ,Ö

5 ,ÖG!5B	?•5 ,ÖG!5B
----------	------------

Q , ð ã	< G!5B ð ã
---------	------------

S*ü Ü Ð	‘
---------	---

G!5B _	Ruijie(config)#	drr-queue bandwidth	1 2 3 4 5 6 7 8
--------	-----------------	---------------------	-----------------

,l G Q ,	Q ,	£EÄ
	show mls qos queueing	

G ÄÄÈ â	‘
---------	---

Q , Z Æ	(È	AÈ â

2.2.3 rate-limit

0Ã ·Eó)[L\$,XA'5B

rate-limit input _output ` bps burst-size

no rate-limit

– DAÈ â	– D	£EÄ
	input	Eg 9L\$Eó
	output	Eg ÎL\$Eó
	kbps	!E/!Js,X ú 'L\$ G£
	burst-size	(ñ ¥# G£L\$. E \ W H G V F ^a S8×CÈLqWá à5à á à
	no	6 á5 ,Ö

5 ,ÖG!5B	‘
----------	---

Q , ð ä y ·G!5B ð ä

S*ü Ü Ð

G!5B – Ruijie(config)# interface fastEthernet 0/1
Ruijie(config-if)# rate-limit input 1000000 4096

Q ,	£EÄ
show mls qos interface	

G ÄÄÈ ä

(È	AÈ ä

2.2.4 mls qos cos

G!5B y ·,X & R 6

mls qos cos default-cos

no mls qos cos

– D	£EÄ
default-cos	
no	6 á5 ,Ö

5 ,ÖG!5B & R 6

Q , ð ä y ·G!5B ð ä

S*ü Ü Ð

G!5B – Ruijie(config)# interface gigabitethernet 1/ 1
Ruijie(config-if)# mls qos cos 7

Q ,	£EÄ
show mls qos interface interface-id	

G ÄÄÈ ä

(È	AÈ ä

2.2.5 mls qos map cos-dscp

A'5B & R 6 ô Ø YF¼ ' 6 & 3

mls qos map cos-dscp dscp1...dscp8

no mls qos map cos-dscp

– DAÈ â	– D	£EÄ
	dscp	^a 8× È q { • á à5à á à
	no	6 á5 ,Ö

5 ,ÖG!5B ?•5 ,ÖG!5B

Q , õ ã < G!5B õ ã

S*ü Ü Ð

G!5B _ Ruijie(config)# mls qo map cos-dscp 8 10 16 18 24 26 32 34

,ì G Q ,	Q ,	£EÄ
	show mls qos maps	/ GVFS FRV PDSV GVFS FRV ` LS SUHF GVFS PDSV

G ÄÄÈ â

Q , Z Æ	(È	AÈ â

2.2.6 mls qos map dscp-cos

A'5B y [,X YF¼ ' 6 & 3 ô Ø & R 6

mls qos map dscp-cos dscp-list WcBs

no mls qos map dscp-cos

– DAÈ â	– D	£EÄ
	dscp-list	^a 8× È q { • á à5à á à
	cos	^a 8× È
	no	6 á5 ,Ö

5 ,ÖG!5B ?•5 ,ÖG!5B

Q , õ ã < G!5B õ ã

S*ü Ü Ð

G!5B _	Ruijie(config)#	mls qos map dscp-cos	8 10 16 18 to 0
,! G Q ,	Q ,		£EÄ
	-		
G ÄÄÈ â	show mls qos maps / G V F S F R V P D S V G V F \$ £ ¤ ¥ ¦ § ¨ © ª « ¬ ® ¯ ° ± ² ³ ´ µ ¶ · ¸ ¹ º » ¼ ½ ¾ ¿		
Q , Z Æ	(È		AÈ â
	-		

	– D	£EÄ
– DAÈ â	sp	4± Í ì 4{A× z
	rr	EBE@A× z
	wrr	ú û DGE G¡EBE@A× z
	drr	ú û KS z G¡EBE@A× z
	no	6 á5 ,Ö

5 ,ÖG!5B 5 ,Ö Z UÅ z

Q , ö ä < G!5B ö ä

S*ü Ü Ð

G!5B _ Ruijie(config)# mls qos scheduler sp

	Q ,	£EÄ
¡ G Q ,	show mls qos scheduler	

G ÄÄÈ â

	(È	AÈ â
Q , Z Æ		

2.2.9 mls qos trust

G!5B y ,X 4 R ¶ Í ö ä

mls qos trust >cos_dscp ip-precedence @

no mls qos trust

	– D	£EÄ
– DAÈ â	cos	0Ã ,X 4 R ¶ Í ö ä & R 6
	dscp	0Ã ,X 4 R ¶ Í ö ä ' 6 & 3
	ip-precedence	0Ã ,X 4 R ¶ Í ö ä , 3 3 5 (
	no	6 á5 ,Ö

5 ,ÖG!5B á µ Ī

Q , ö ä y ·G!5B ö ä

S*ü Ü Ð

G!5B —	Ruijie(config)# Ruijie(config-if)#	interface gigabitethernet mls qos trust cos	1/1
------------------------------	---------------------------------------	--	-----

2.2.12 priority-queue cos-map

G!5BEg ÎKó ë G6(,X & R 6

priority-queue cos-map qid cos0 >cos1>cos2>cos3 >cos4>cos5 >cos6>cos7 @ @ @ @ @ @ @

no priority-queue cos-map

– DAÈ â	– D	£EÄ
	qid	Û n,XKó ë L G
	F R V	cos0 ... Ö G6(,X & R 6
	no	6 á5 ,Ö
5 ,ÖG!5B	?•5 ,ÖG!5B	
Q , õ ä	< G!5B õ ä	
S*ü Ü Ð	‘	
G!5B _	Ruijie(config)#	priority-queue cos-map 1 0 1
,ì G Q ,	Q ,	£EÄ
	show mls qos queueing	
G ÄAÈ â	á à2ĩ ë,XA' Û Ö,X – D á à È?•5 ,ÖG!5B	
Q , Z Æ	(Ë	AÈ â

2.2.13 service-policy

Ú S R O L F \h*ü DyS Þ

service-policy input policy-map-name

no service-policy input

– DAÈ â	– D	£EÄ
	policy-map-name	Æ4£ ĩ Î,X S R O L F,XPáD-S
	no	?·L8 S R O L F \ü p D-S h*ü
5 ,ÖG!5B	‘	
Q , õ ä	y ·G!5B õ ä	
S*ü Ü Ð	‘	

G!5B –	Ruijie(config)# Ruijie(config-if)#	interface fastEthernet service-policy input po	0/1
‚ì G Q ,	Q ,		£EÄ
	show mls qos interface		
G ÄÄÈ â			
Q , Z Æ	(Ë	AÈ â	

2.2.14 wfq-queue bandwidth

2.2.15 wfq-queue sp

üA× z1k"© S*ü Z I 7X ™ %ß ÈA¹ Q ,G!5B,ì h,X Ø pKó ë ú*ü ù ì 4{ V S Ä

wfq-queue queue-id sp

no wfq-queue queue-id sp

	– D	£EÄ
– DAÈ â	queue-id	Kó ë È
	sp	ù ì 4{Kó ëA× z1k"©

5 ,ÖG!5B á S*ü V S

Q , ð ä < G!5B ð ä

S*ü Ü Ð üKó ë S*ü Z I 7k"©A× z Î. Þ È S*üA¹ Q , Ä¹ r),Kó ë¹ V S Z Þ ðA× z Ä

Kó ë S*ü Z I 7k"©A× z Ö
 Ruijie(config)# mls qos scheduler wfq
 Ruijie(config)# show mls qos scheduler
 G!5BKó ë ` ù Kó ëA× z Ö
 Ruijie(config)# wfq-queue 1 sp
 Ruijie(config)# wfq-queue 3 sp
 Ruijie(config)# show running

	Q ,	£EÄ
ì G Q ,	show mls qos scheduler	¹,ß 4 2 6A× z • ä

G ÄÄÈ â EC Ê(5 * 2 6 ¹ Þ

	(È	AÈ â
Q , Z Æ		

2.2.16 wrr-queue bandwidth

A*5B : 5 5 1k"©,XKó ë G¡!" _

wrr-queue bandwidth weight1 ... weightn

no wrr-queue bandwidth

	– D	£EÄ
– DAÈ â	weight1...weightn	Ü n,X Q ÞEg ÎKó ë,X G¡ È Q žª 8× È?• 5 ,ÖG!5B
	no	6 á5 ,Ö

5 ,ÖG!5B	Z H L J K W	Z H L J K W Q
Q , õ ã	< G!5B õ ã	
S*ü Ü Ð	‘	
G!5B _	Ruijie(config)#	wrr-queue bandwidth 1 2 3 4 5 6 7 8
,ì G Q ,	Q ,	
	£EÄ	
	show mls qos queueing	
G ÄEÈ à	á à2ĭ ë,XA' Ü Ö,X – D Ý á à È?•5 ,ÖG!5B Ä	
Q , Z Æ	(Ë	
	AÈ à	

2.3 < ü » w W

2.3.1 show class-map

/ F O D V V r PDS

show class-map >class-nam@

– DAÈ à	– D	
	£EÄ	
	class-name	
	F O D V V ,XÄÐ S	
5 ,ÖG!5B	/ Ý F O D V V P D S	
Q , õ ã	(M õ ã	
S*ü Ü Ð	‘	
G!5B _	Ruijie# show class-map	
,ì G Q ,	Q ,	
	£EÄ	
G ÄEÈ à		
Q , Z Æ	(Ë	
	AÈ à	

2.3.2 show policy-map

/ 4 R 6 S R O L F r \ P > D S F O D V V F O D X W • Q D P H @
show policy-map >policy-name >class class-name @ @

– DA È â	– D	£ E Ä
	policy-name	S R O L F \ , Q D P H
	class-name	F O D V V , X R Ä S

5 , Ö G ! 5 B / Ý S R O L F \ Q D P H

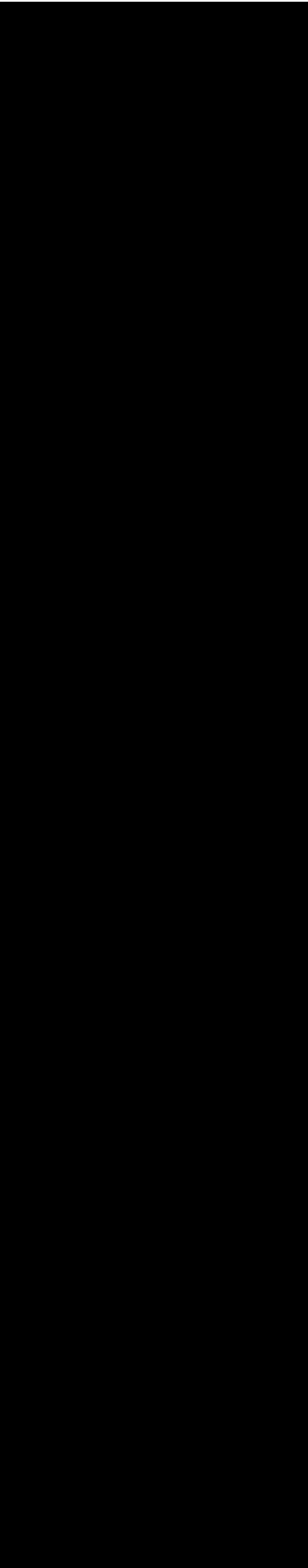
Q , õ ã (M õ ã

S * ü Û Ð ´

G!5B _

--	--	--

G ÄÄÈ â



Q , ð ã	(M ð ã
---------	--------

S*ù Ò Ð	´
---------	---

G!5B _	Ruijie#
--------	---------

– DAÈ â	– D	£EÄ
5 ,ÖG!5B		
Q , õ ã	(M õ ã	
S*ü Ô Ð		
G!5B _	Ruijie# show mls qos scheduler	
,ì G Q ,	Q ,	£EÄ
G ÄÄÈ â		
Q , Z Æ	(Ë	AÈ â



Q, -5x ãM4 û

Ú`Ÿ4i ãM4 û Q, -5x, Ì G Y • È Ù À¹ ß0'8V Ö

G!5B 5 / ' 3 Q,

G!5B 7 3 3Q,

G!5B 6 (0 Q,

1 ´ RLDP w W

1.1 ´ ü » w W

1.1.1 rldp detect-interval

S*üA¹ Q ,G!5B 5 / ' 3 ü0Ã · Þ ¥EÖ v# y [,XKÈLh Ä

rldp detect-interval interval

no rldp detect-interval

– DAÈ â		
	– D	£EÄ
	interval	v# KÈLh È ª 8× È / ₁ w Q4'b\$P ×\$ ñ5–fu% 5ia X-4H d a X

Q , ð ä < G!5B ð ä Ä

S*ü Ü Ð A¹ Q , ` v# KÈLh4\$ Ü S*ü,X È*ü b.B n Ô û v# ÊKÈ Ä

G!5B – ßM6 Ô pG!5B Ô û v# ð D ,X_ \$ Ö
Ruijie(config)# rldp detect-max 5

Q ,	£EÄ
rldp detect-interval	G!5B v# KÈLh

G ÄÄÈ â

(È	AÈ â

1.1.3 rldp enable

A¹ Q , { 5 / ' 3 ,X < s6Ñ Ô G Ä
rldp enable
no rldp enable

– D	£EÄ

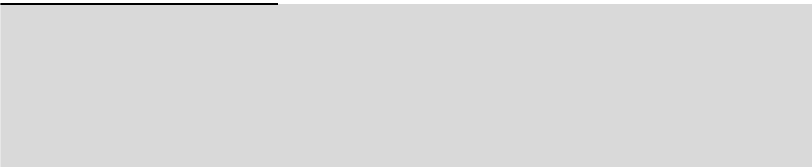
5 ,ÖG!5B GKÁ Ä

Q , ð ä < G!5B ð ä Ä

S*ü Ü Ð ¾ Ý < 5 / ' 3 ' Ô È0Ä · 5 / ' 3 !6ÑEα> Ä

G!5B – ßM6 ' Ô,X_ \$ Ö
Ruijie(config)# rldp enable

Q ,	£EÄ
rldp port	G!5B0Ä ·,X 5 / ' 3



1.1.4 rldp port

A¹ Q , G!5B0Ã ·,X U O'Ⓢ Ⓢ à Ê Û n " # 2O _ ` Lp Ø)Ú ·"© Ã

rldp port ^unidirection-detect | bidir ection-detect | loop-detect ` warning | shutdown-svi | shutdown-port | block `

no rldp port ^unidirection-detect | bidir ection-detect | loop-detect `

– DAÈ â	– D	£EÄ
	unidirection-detect	) åJÒCÃ " # 2O _
	bidirection-dnt	åJÒCÃ " # 2O _
	loop-den	) fCÃ " # 2O _
	warning	A: Ø)Ú
	shutdwn-svi	V K X W Ⓢ Æ · Z Q V Y L
	shutdwn-p	V K X W Ⓢ Æ · Z Q
	block	GKÁ0Ã ·,X : 4E@ ¥

5 ,ÖG!5B ´5 ,Ö Ä

Q , õ ã y ·G!5B õ ã Ä

S*ü Û Ð ¾4 Ý < 5 / ' 3 ' Ô,X ™ %ß È0Ã ·,X 5 / ' 3 " # !6ÑCK 0*ü Ä

G!5B – ßM6,X/ _ ü I D V ÞG!5B Z U O'Ⓢ Ⓢ Ê Û n " # 2O _) fCÃ " # È Lp Ø)Ú GKÁ0Ã · : 4E@ ¥ Ä

Ruijie(config)# interface fas 0/1

Ruijie(config-if)# rldp port loop-detect block

,ì G Q ,	Q ,	£EÄ
	rldp enable	< U O'Ⓢ Q ,

G ÄÄÈ â ´

Q , Z Æ	(È	AÈ â

1.1.5 rldp reset

A¹ Q , S Ý>• rldp shutdown ê disable ,X0Ã ·Gì „E[–] 9 U O'Ⓢ Ä

rldp reset

– DAÈ â	– D	£EÄ

5 ,ÖG!5B

Q , õ ã (M õ ã Ä

S*ü Ü Ð

G!5B _ ßM6,X/ _\$è/ A¹ Q , ,X S*ü Ö
Ruijie# rldp reset

,ì G Q ,	Q ,	£EÄ
	rldp enable	5 O G-SG!5B Q ,

G ÄÄÈ â

Q , Z Æ	(È	AÈ â

1.2 < ñ 0 w W

1.2.1 show rldp

/ U O,XÖÄ · "# µ C Ä
show rldp interface interface-id @

- DAÈ â	- D	£EÄ
---------	-----	-----

1.2.2 debug rldp

' Ô U O 6 5 × A © Ô G Ä A¹ Q , , X Q R ã G K Á A × A © Ô G Ä

debug rldp packet | event | error @

undebg rldp packet | event | error @

2 ´ TPP w W

2.1 ´ ü » w W

2.1.1 topology guard

ü < G!5B Q , õ ã ß È S*ü W R S R O R J Q , J Ô X ß U % G x s6Ñ , X < Ô G Ä S*ü
A¹ Q , , X Q Æ Ý NM 9 / U ! 6 § % L x s6Ñ Ä

topology guard

no topology guard

5 ,ÖG!5B

† f Q ' " `¥ !)ruW)€ 0

3 ´ SEM w W

3.1 ´ ü » w W

3.1.1 action cli

ü 6 (0 G!5B ð ã ßG!5B1*+9 | 0 È;> A' Û,X Q ,> ÄA¹ Q ,X no 6 ã*ü b ôL8 Û n
Û1R,X> | Ä

Ruijie(config-applet)#commit

Ruijie(config-applet)#exit

,l G Q ,

Q ,	£EÄ
smart manager applet	n Î b Q ,>,X 6 (01*+9
policy record	G!5B4~) & / ,> ,XEg Î4~),X •G£
smart manager policy record	#Ù)Ú 6 (01*+9E▯> { *ó,X & / 4~)

G ÄÄÈ â

3.1.2 action counter

ü 6 (0 G!5B õ ã ßG!5B1*+9 | 0 È ; 0 6 (0 Q áAu D < ÄÄ¹ Q ,X no 6 ã*ü b ôL8
Û n Û1R,X> | Ä

action label counter name counter-name value counter-value op ^dec _inc _nop _
set `

no action label

– DAÈ â

– D	£EÄ
label	> ,X Û1R
name counter-name	i 0Au D <,X á +
value counter-value	i 0 S*ü,X D
op ^dec _inc _nop _set `	i 0 S*ü,X •"©

5 ,ÖG!5B 5 ,Ö áG!5B> |

Q , õ ã 6 (0 G!5B õ ã

S*ü Û Ð – D name counter-name Û n,XAu D < È ´LÔ n È,È y S*ü G Ä Ä

G!5B _

,¥ {¹ « È ' ¥),,¹ « Ý O R J L Q I D L O H Y • È4-Au D <\$ X W K H Q W L R D WÄ H B) D L O H

Ruijie(config)#smart manager applet Test_1

Ruijie(config-applet)#event tag monitor_log syslog pattern "login
faile"

Ruijie(config-applet)#action00counternameAuthenticate_Faileopinc
value 1

Ruijie(config-applet)#commit

Ruijie(config-applet)#exit

,l G Q ,	Q ,	£EÄ
	smart manager applet	n Î b Q ,> ,X 6 (0 1*+9

G ÄÄÈ â

3.1.3 action exit

ü 6 (0 G!5B ð ã ßG!5B1*+9 | 0 È4œ!61*+96î È JA'5BEÔ Î(Š Œ ÄÄ¹ Q ,X no 6 ã
*ü b ôL8 Û n Û1R,X> | Ä
action 6 .

```
Ruijie(config)#smart manager applet Test_2
Ruijie(config-applet)#event tag monitor_cli cli pattern "line" sync
yes
Ruijie(config-applet)#action 00 cli command "enable"
Ruijie(config-applet)#action 10 cli command "aaa new-model"
Ruijie(config-applet)#commit
Ruijie(config-applet)#exit
```

G!5B _

Ruijie(config-applet)#exit

,l G Q ,

Q ,	£EÄ
smart manager applet	n Î b Q ,> ,X 6 (01*+9

G ÄÄÈ â

3.1.6 action set

ü 6 (0 G!5B õ ã ßG!5B1*+9 | 0 È;> 1*+9 F¼ ¬G£A'5B i 0 ÄA¹ Q ,> ,X no 6 ã*ü b
ôL8 Û n Û1R,X> | Ä

action label set variable-name variable-value

no action label

– DAÈ â

– D	£EÄ
label	> ,X Û1R
variable-name	F¼ ¬G£,X á +
variable-value	F¼ ¬G£,X

5 ,ÖG!5B 5 ,Ö áG!5B> |

Q , õ ã 6 (0 G!5B õ ã

S*ü Û Ð A'5B,X F¼ ¬G£ Ä¹` < ¬G£Gj á Ä 'A'5B,X F¼ ¬G£ â < ¬G£Gj á¹ â È *ü!8
¬G£ áA“KÄ ¬G£,X Ê í È F¼ ¬G£*ó Ä

G!5B _ ü Q R Q H H20H,Q1W9 A'5B ¬G£ È J Ú ¬G£ ¥EÖ¹ « Ä

Ruijie(config)#smart manager applet Test_1

Ruijie(config-applet)#event tag none_event none

Ruijie(config-applet)#action 00 set var_for_test "Test_1 running"

Ruijie(config-applet)#action 10 syslog msg "\$var_for_test"

Ruijie(config-applet)#commit

Ruijie(config-applet)#exit

,l G Q ,

Q ,	£EÄ
smart manager applet	n Î b Q ,> ,X 6 (01*+9

G ÄÄÈ â

3.1.7 action syslog

ü 6 (0 G!5B ð ã ßG!5B1*+9 | 0 È;> A,,)¹ « ; 0 ÄA¹ Q ,,X no 6 ã*ü b ôL8 Û n
Û1R,X> | Ä
action label syslog > prioritypriority-level @sg msg-text > facilitystring @
no action label syslog

– DAÈ â

– D	£EÄ
-----	-----

3.1.8 action wait

ü 6 (0 G!5B ð ã ßG!5B1*+9 | 0 È;> 1*+96î V 0 ; 0 ÄA¹ Q ,X no 6 ã*ü b ôL8
Ô n Ô1R,X> | Ä
action label wait

– DAÈ â	– D	£EÄ
	-	

5 ,ÖG!5B 5 ,Ö á ¢ x1*+9G!5B

Q , õ ã 6 (0 G!5B õ ã

S*ü Û Ð

G!5B _ ¢ x1*+9G!5B _ Ä
Ruijie(config)#smart manager applet Test_1

subset-id ` event-type *ü b ý á à,X_Ê Ä¾Ý D F W\$R Q O L V K¥ ¥¥¥ H Q M Q W
,X subset-id ` event-type â Q ,A'5B,X subset-id ` event-type ` < Ô7È ! Ã¹
?º¥ 3 R O Ä F \

Ã S*ü,X HYH-QWÖ

¬G£ á	*üEè
BDSSOLF DWLRQB VXE VHW	¥ ×(M n _ Ê,X \$Lš
BDSSOLF DWLRQB W\SH	¥ ×(M n _ Ê,X2O _
BDSSOLF DWLRQB VXE VHW	¥ × _ Ê,X v D

	á G2Ī
pattern regular-expression	*ű Q ,> õ ã G!,X +0ú
sync yes no `	ú à!9 • ã ;> 1*+9 È G1 1*+9 ;> ` ä JE¨ ² ä s â È Q ,> ! ;> ÄT~Ax à!9 Ä
skip yes no `	ú Ñ+9 Q , È8 s6Ñ ™6Ñ S*ű üM2 à!9 ™ % ß ÄT~Ax Q R
default wait-time	Q ,> 1 Y1*+9E□> 4§ 3,X Ô û ÊKÈ È ü Q ,> â1*+9 à!9 ,X ™ % ß S*ű ÄT~Ax /!
mode variable	G! Q ,X õ ã ÄT~Ax Ý õ ã Ä
occurs num-occurrences	?º ¥ (Y H Q Ű?U,X G! õ D ÄT~Ax
period period-value	Q ,X R F F X U ¼ È Z ÊCYE> S H U L R G,X Y P D F X U V i 0 Ú>•CY Ê Ä R F F X U V Ê!8 – D ´ Ä

5 ,ÖG!5B 5 ,Ö áG!5B _ Ê

Q , õ ã 6 (0G!5B õ ã

S*ű Ű Đ S*ű õ ã E¯> G! Ê*ű b!¨ Í,X Q , Q ,> =) ¹ â,X Q , È5à á *ű Eg 9,X1T
m È!¨ V pattern write memory Ê*ű Eg 9,X write memory ` write mem
FÑ î>• G! Ä
Í b Q ,X =) ?U Û À ¹ ß ™ % Ö

GK +

Q , –5× S*ű t2k £EÄ,XF¼ Ú È*ű üEg 9F¼ Ú +0ú Ý 7 D Æ Ä ¹7¼ |>9U\$,X Q ,
2ô Ä <F¼FÑ =) ä GK +,X ä m 6 ä È G =) Eg 9KÂ È Ê4- Î,X ñ/ GK + Ä _ V Ö
Eg 9SHOW Smart Manager Version Ú>• =) äshow smart manager version Ä

y · á

y · á,X y ·2O _ â y ·4ê È Ú ŷ>• =) Èy ·2O _ ,X =) 6 ä â L Q W H Æ¼/DXfH
·2O _ £EÄ Ô7È È y ·4ê È ,X =) â*ű bEg 9,X y ·4ê È Ô7È Ä _ V ÖEg 9 show ip
interface fa 0/1 Ú>• =) ä show ip interface FastEthernet 0/1 Ä

ÄEg 9 – D

Q , *ű Ä ¹Eg 9F¼ Ú È Ô8 Q ,X – D È =) 6 ä â*ű Eg 9 Ô7È Ä _ V ÖEg 9
HostName Ruijie Ä>• =) ä hostname Ruijie

[Ê2İ4³CÃ X

[Ê2İ4³CÃ Ú ŸBüF¼ Ú `CÃ XF¼ Ú È J ŸBüF¼ Ú Ú>• =) ä ä m 6 ä ÈCÃ XF¼ Ú ,X

Ruijie(config-applet)#commit

Ruijie(config-applet)#exit

_ Ö,¥ { Q ,> Eg 9 È*ü ü y · õ ã ßEg 9 shutdown ÊL !6*ü ; 0 Ä

Ruijie(config)#smart manager applet Test_2

Ruijie(config-applet)#eventtag monitor_inputclipattern"shutdown"

mode interface

Ruijie(config-applet)#action 00 syslog msg "can not do this"

Ruijie(config-applet)#action 10 exit 0

Ruijie(config-applet)#commit

Ruijie(config-applet)#exit

,l G Q ,

Q ,	£EÄ
smart manager applet	n Î b Q ,> ,X 6 (01*+9

G ÄÄÈ ä

3.1.13 event counter

ü 6 (0G!5B õ ã ßG!5B,¥ { <,¥ { 6 (0Au D < ÄA¹ Q ,> ,X no 6 ã*ü b ôL8 Û n á/Ä
,X _ Ê Ä

event tag event-name >correlate ^andnot _and _or ` @unter name counter-name

entry-op operator entry-val entry-value exit-op operator exit-val exit-value

no event tag event-name

– DAÈ ä

– D	£EÄ
event-name	_ Ê,X á/Ä
correlate ^andnot _and _or `	î p _ Ê ™ %ß ' ! _ Ê â !E• Ý _ Ê4~ Ü KÈ,X 5 Ê G2Ĭ Ä D Q &/ â G2Ĭ È R Ů</ ê G2Ĭ È D Q G Q>R/W è á G2Ĭ
name counter-name	Û n>•,¥ {,XAu D <,X á +

entry-op operator

entry-val entry-value	?° ¥! "EW S*ü,X! "EW
exit-op operator	6 á! "EW S*ü,X! "EW •"© Ö H T 1 b J H û b1 b J W û b O Hã b1 b O Wã b Q H á1 b
exit-val exit-value	6 á! "EW S*ü,X! "EW

5 ,ÖG!5B 5 ,Ö áG!5B _ Ê

Q , õ ã 6 (0G!5B õ ã

S*ü Ü Ð H Y H Q W F, R X Q W H, X Q áAu D < È5à Q áAu D <,X,X Eî + D F W L R Q F R X Q W H
¬ Ä

' Q áAu D < â entry-op ` entry-val 4~ Ü! "EWEîE>¹ â È _ Ê>•?° ¥ Ä
EîE>G!5Bexit-op ` exit-val Ä e _ ÊNe4 ?° ¥ È8 Ê V p _ Ê?° ¥ ÈÜ?° ¥ â _ Ê
ÚE⁻ 9 (Š Œ Èá aE⁻> „,X?° ¥ Ä' Q áAu D <,X â exit-op ` exit-val 4~ ÜE⁻
> ! "EWEîE> Ê È _ Ê Ú ¢ (Š Œ 6 á Èentry-op ` entry-val 4~ Ü! "EW Ú Ä¹Gî
„?° ¥ Ä

Ä S*ü,X H Y H Q W

¬G£ á	*üEè
B F R X Q W H U B Q D P H	Q áAu D <,X á +
B F R X Q W H U B Y D O X H	Q ,Au D <,X

G!5B _ G!5B1*+9,¥ {Au D < 7 H V W B & R X Q W H U B & R X Q W H U Ê?° ¥1*+9A,,)
¹ « Ä à Ê Ú 7 H V W B & R X Q W H U V W B & R X Q W H U Gî „ 6 á,¥ { Ä

Ruijie(config)#smart manager applet Test_1

Ruijie(config-applet)#event tag monitor_counter counter name

Test_Counter entry-op ge entry-val 10 exit-op gt exit-val 5

Ruijie(config-applet)#action10counternametest_counteropsetvalue

0

Ruijie(config-applet)#commit

Ruijie(config-applet)#exit

,ì G Q ,

Q ,	£EÄ
-----	-----

smart manager applet	n Î b Q ,> ,X 6 (01*+9
action counter	

G ÄÄÈ ä

3.1.14 event none

ü 6 (0 G!5B õ ã ß G!5B,¥ { <,¥ { smart manager run Q , ÄÄ¹ Q ,X no 6 ã*ü b
ôL8 Û n á/Ä,X _ Ê Ä

event tag event-name > correlate andnot _and _or `none >sync yes default
wait-time @no_` @

no event tag event-name

– DAÈ ä

– D	£EÄ
event-name	_ Ê,X á/Ä
correlate ^andnot _and _or `	î p _ Ê ™ %ß ' ! _ Ê â !E• Ý _ Ê4~ Ü KÈ,X 5 Ê G2Ĭ Ä D Q &/ â G2Ĭ È R Ů </ ê G2Ĭ È D Q G Q>R/W è á G2Ĭ
sync yes no `	ú à!9 • ã ;> 1*+9 È G1 1*+9 ;> ` ä â È Q ,> !4» 4Á ;> ÄT–Ax à!9 Ä
default wait-time	Q ,> 1 Y1*+9E□> 4§ 3,X Ô û ÊKÈ È ü Q ,> â1*+9 à!9 ,X ™ %ß S*ü ÄT–Ax /!

5 ,ÖG!5B 5 ,Ö áG!5B _ Ê

Q , õ ã 6 (0 G!5B õ ã

S*ü Û Ð A¹ Q ,A'5B,X,¥ { <,¥ {*ü Eg 9,X smart manager run Q , Ä*ü ¹ ;> Q ,X
• ãPE |1*+9 ÄE' ¹ ;> MG£6Ĭ ,Ä,X Ä
Ä S*ü,X H Y H–QWÖ

–G£ á	*üEè
B S R O L F \ B Q D P H	1*+9,X á +
B Q R Q H B D U J F	– D,X p D
B Q R Q H B D U J	– D
B Q R Q H B D U J	– D
B Q R Q H B D U J	– D
B Q R Q H B D U J	– D

B Q R Q H B D U J	– D
-------------------	-----

G!5B _ G!5B Q R Q H ,X H Y H Q W 7 H V W B ¥ 1 âA,,) 1 « Ä
 Ruijie(config)#smart manager applet Test_1
 Ruijie(config-applet)#event tag monitor_cmd none
 Ruijie(config-applet)#action00syslogmsg"noneeventtriggeredwith
 \$_none_argc argc"
 Ruijie(config-applet)#commit
 Ruijie(config-applet)#exit

,! G Q ,	Q ,	£EÄ
	smart manager applet	n î b Q ,> ,X 6 (01*+9
	smart manager run	Eα> Q R Q H H Y H Q W

G ÄÄÈ â

3.1.15 event snmp

ü 6 (0 G!5B õ ä ßG!5B,¥ { <,¥ { V Q P B5 ÄA¹ Q ,X no 6 ä*ü b ôL8 Û n á/Ä
 ,X _ Ê Ä

event tag event-name > correlate ^andnot _and _or ` s@mp oid oid-value get-type
 ^exact _next `entry-op operator entry-val entry-value entry-type ^value _
 increment _rate `poll-interval poll-int-value exit-op operator exit-val exit-value
 exit-type ^value _increment _rate ` exit-comb ^or \_and `exit-time
 exit-time-value @ a@rage-factor average-factor-value @
 no event tag event-name

– DAÈ â

– D	£EÄ
event-name	_ Ê,X á/Ä
correlate ^andnot _and _or `	î p _ Ê ™ %ß '! _ Ê â !E• Ý _ Ê4~ Ü KÈ ,X 5 Ê G2İ Äand ></ â È or ></ ê Èandnot ></ J è á Ä
oid oid-value	,¥ {,X V Q P S R L G
get-type ^exact _next `	V Q P \$0 • ä Ä,È y i 0E¬ J H W Q Ð [W
entry-op operator	?° ¥!EW S*ü,X •"© Ö H T 1 b J H û b1 b J W û b

	O Hã b1 b O Vã b Q H á1 b
entry-val entry-value	?° ¤!EW S*ü,X D
entry-type ^value _increment rate `	?° ¤!EW S*ü,X D 6 ã
exit-comb ^or _and `	exit-op â exit-time ,X J ë G2ĩ
exit-op operator	6 á!EW S*ü,X •"© Ö H T 1 b J H û b1 b J W û b O Hã b1 b O Vã b Q H á1 b
exit-val exit-value	6 á!EW S*ü,X D
exit-type ^value _increment rate `	6 á!EW S*ü,X D 6 ã
exit-time exit-time-value	¢ 3 R O ¤•P¥ ,¥ {Gĩ „ S6Ñ,X Ô ã ÊKÈ
average-factor average-factor-value	>• rate S*ü È poll-int-value ,ì , ¬ ê4³Au < ó
poll-interval poll-int-value	!EW,X ÊKÈKÈLh ÈT–Ax /!

5 ,ÖG!5B 5 ,Ö áG!5B _ Ê

Q , ð ã 6 (0 G!5B ð ã

S*ü Ü Ð Å S*ü,X H Y H-QWÖ

¬G£ á	*üEè
B V Q P S B Q R W L I B R L G	7 U D S 2 , '
B V Q P S B Q R W L I B R L G B Y D O	7 U D S 2 , '

G!5B _ ,¥{ A' Ü ¥ Î,X R L G ,X W U#DCSÈ' R L,XG û b Ê È?º
¥1*+9 Ä

Ruijie(config)#smart manager applet Test_1

Ruijie(config-applet)#event tag monitor_trap snmp-notification oid

1.3.6.1.2.1.52.2.1 op gt oid-val 1000

Ruijie(config-applet)#action00syslogmsg"havetraps\$_snmp_notif_oid
value \$_snmp_notif_oid_val"

Ruijie(config-applet)#action 10 exit 1

Ruijie(config-applet)#commit

Ruijie(config-applet)#exit

,l G Q ,

Q ,	£EÄ
smart manager applet	n Î b Q ,> ,X 6 (0 1*+9

G ÄÄÈ ä

3.1.17 event snmp-object

ü 6 (0 G!5B ð ã ßG!5B,¥{ <,¥{ V Q P Í S V Q P Í B5,X J H W V H W ;DÄÄW Q H [W
,X no 6 ã*ü b ôL8 Ü n á/Ä,X _ Ê Ä

event tag event-name >correlate ^andnot _and _or ` s@mp-object >operate ^get |
getnext | set ` @@ oid-value type value istable ^yes \_no `skip ^yes _no `

no event tag event-name

– DAÈ ä

– D	£EÄ
event-name	_ Ê,X á/Ä
correlate ^andnot _and	î p _ Ê ™ %ß ' ! _ Ê â !E• Ý _ Ê4~ Ü KÈ,X 5 Ê

_or `	G2ĭ Äand ></ â G2ĭ È or ></ ê G2ĭ È andnot ></ J è á G2ĭ
operate ^get getnext set `	6 1 0 3 ĭ 0,X2O _
oid oid-value	,¥{,X V Q P S Ä R L G
type value	,¥{ R L, 2O _ Ä
istable ^yes _no `	,¥{,X V Q P S R L, 2O _ Ä
skip ^yes _no `	ú Ñ+9 6 1 0 3 ĭ 0 È T -Ax no Ä

5 ,ÖG!5B 5 ,Ö áG!5B _ Ê

Q , õ ã 6 (0 G!5B õ ã

S*ü Ů Đ Ä S*ü,X H Y H -Q W Ö

¬G£ á	*üEè
B V Q P S B R L G	6 1 0 3 2 , '
B V Q P S B U H T X H V W B W \ S H	6 1 0 3 AË" 2O _
B V Q P S B Y D O X H	6 1 0 3 AË"

G!5B _ ,¥{ Í V Q P S R L G ,X Â È ' Â ¥*ó ÊA,,)¹ « Ä
 Ruijie(config)#smart manager applet Test_1
 Ruijie(config-applet)#event tag monitor-snmpobj snmp-object oid
 1.3.6.1.2.1.1.4 type octet
 Ruijie(config-applet)#action 00 syslog msg "_snmp_oid : \$_snmp_oid
 _snmp_request_type:\$_snmp_request_type_snmp_value:\$_snmp_value"
 Ruijie(config-applet)#action 10 exit 1
 Ruijie(config-applet)#commit
 Ruijie(config-applet)#exit

,ĭ G Q ,

Q ,	£EÄ
smart manager applet	n î b Q ,> ,X 6 (0 1*+9

G ÄÄÈ â

3.1.18 event syslog

ü 6 (0 G!5B õ ã ßG!5B,¥{ <,¥{ O ÄÄ¹ Q ,X Q Æ ã*ü b ôL8 Ů n á/Ä,X _ Ê Ä

event tag event-name > correlate andnot _and _or ` s@log pattern
regular-expression > prioritypriority-level

G!5B _ _ Ö,¥ {¹ « V p Î),, P H P R U \ I D L Æ A' Û Û æ 6 Ä

Ruijie(config)#smart manager applet Test_1

Ruijie(config-applet)#event tag monitor_log syslog pattern "memory fail"

Ruijie(config-applet)#action 00 switchover

Ruijie(config-applet)#commit

Ruijie(config-applet)#exit

_ Ö)9< ¹ « G K +- È J r t1*+9,X H Y H-ÇVÄ

Ruijie(config)#smart manager applet Test_2

Ruijie(config-applet)#event tag monitor_log syslog pattern

"%LINK-3-UPDOWN: Interface (&/<intf_name >.*), changed state to (&/<intf_status>.*)."

Ruijie(config-applet)#action 00 syslog msg " I nterface \$intf_name \$intf_status"

Ruijie(config-applet)#commit

H Y 0A' Û f ç ±C AYf >ïª®®B` ( J 0 æÄŽ ! N «î • -ï® ! A|ã, `Uđ
Ruijie(config-applet)#exit

' y · - ê È)9< \$ X J / , 1 . 8 3 : 2 , Q W H U I D F H * L J D E L W (W K
F K D Q J H G V W D W H W R X S

	andnot ></ J è á G2Ĭ Ä
absolute unix time-value	?º ¥ _ Ê S*ü 8 Q L ĩ Ū n¹ ó ÊKÈ Ä
absolute date G D W H Y D O X	Hº ¥ _ Ê S*ü ' D W Ĥ Ū n¹ ó ÊKÈ Ä
countdown time time-value	?º ¥ _ Ê S*ü Ô p Ô õ ū n Ê < Ä
cron cron-entry cron-entry	?º ¥ _ Ê S*ü & U Ĥ Ĥ Ä
watchdog time time-value	?º ¥ _ Ê S*ü Ô p ~)f n Ê < Ä
name timer-name	Ū n n Ê <,X á + Ä

5 ,ÖG!5B 5 ,Ö áG!5B (Y H Q W

Q , õ ã 6 (0 G!5B õ ã

S*ü Ū Đ Ĩ b ÊKÈ,X _ Ê Ú ¹ ß ̄ i Ö
Ä ¢ Ô(M n¹ ó ÊKÈ
Ä üG!5B*ó CK,X Ô p ÊKÈ&•
Ä F U R @ £EÄ,X ÊKÈ
Ä+ ~)f n Ê <?º ¥
ü ¢ Ô(M n¹ ó ÊKÈ ÊKÈ Ū n Ä¹ Ú ø i • ã È ' D W H W L P H • ã ` 8 Q L ĩ KÈ
ã Ä
Ä S*ü,X H Y H -Q W Ö

¬G£ á	*üEè
_timer_type	n Ê <2O _
_timer_time	n Ê <CY Ê ÊKÈ
_timer_remain	n Ê < ß õ CY Ê ÊKÈ Ä F U R Q _ n Ê < á Ö !8 ¬G£ Ä

G!5B _ _ Ö 8 Q L ĩ KÈ Gi „ |A' Ū Ä

3600
Ruijie(config-applet)#action 00 syslog msg "3600 second arrival"
Ruijie(config-applet)#commit
Ruijie(config-applet)#exit

_ Ö!£ #ÛON Ô õD U4\$,
Ruijie(config)#smart manager applet Test_3
Ruijie(config-applet)#eventtagmonitor_timertimerwatchdogtime7200
Ruijie(config-applet)#action 00 cli command "enable"
Ruijie(config-applet)#action 10 cli command "clear arp-cache"
Ruijie(config-applet)#commit
Ruijie(config-applet)#exit

_ Ö!£ ¹ &•#ÛONCÃ+
Ruijie(config)#smart manager applet Test_4
Ruijie(config-applet)#event tag monitor_timer timer cron cron- entry
"0 0 * * *"
Ruijie(config-applet)#action 00 cli command "enable"
Ruijie(config-applet)#action 10 cli command "clear ip route *"
Ruijie(config-applet)#commit
Ruijie(config-applet)#exit

	£EÄ
--	-----

S*ü Ü Ð

G!5B _

,ì G Q , Q ,

|

Ê È Ú ¢A,,) [Ê Ø Ô Ÿ?Z,^a Ä
 '(M n1*+9Eα> { *ó,X & / > |NMEg ÎA,,) [Ê û ã,X `CYE> – D per-policy
 record-size-per-policy Ê È Ú î#ÛL8EW ,XA,,) [Ê È,È A,,) [Ê û ã,X `0ú Ü –
 D per-policy record-size-per-policy A'5B Ä
 ÃÊÊ> Q , smart manager policy record clean #Û)Ú [Ê2Ï4³ P,X & / > |NMEg ÎA,,
) [Ê Ä

G!5B _ ²EÔ1*+9G!5B _ Ä
 Ruijie(config)#smart manager applet Test_1
 Ruijie(config-applet)#event tag none-event none
 Ruijie(config-applet)#action 00 cli command "enable"
 Ruijie(config-applet)#action 10 cli command "show arp"
 Ruijie(config-applet)#policy record
 Ruijie(config-applet)#commit
 Ruijie(config-applet)#exit
 Ruijie(config)# exit
 Ruijie# more /sem_record/Test_1/2010-01-01_01-00-00_1001.txt
 SEM CLI RECORD FILE
 SEM policy name: Test_1
 SEM policy trigger id :1
 SEM policy cli record time : Fri Jan 01 01:00:00 2010
 =====
 Ruijie#enable
 Ruijie#show arp
 Protocol Address Age(min) Hardware Type Interface

rollback

– DAÊ â	– D	£EÄ
	-	

5 ,ÖG!5B 5 ,Ö á ºEÔ1*+9,XG!5B

Q , ð ã 6 (0

5 ,ÖG!5B 5 ,Ö áG!5B Î b Q ,> ,X1*+9 Ä

Q , õ ã < G!5B õ ã

S*ü Û Đ Ô p1*+9 Ã ¹ Ù ÿ ¹ ßG!5B Ö
Å Ô þ ê î þ _ Ê
Å Ô þ ê î þ > |
Å1*+9,X £EÄ µ C
Å1*+9,X?º ¥ { µ C

;> smart manager applet Q , ¹ â ÚE¯ 9 6 (0G!5B õ ã È ü 6 (0G!5B õ ã ß È*ü
Ã ` ä ¹ ß ¡ 0 Ö ,S ¢³Å•š4\@[Qd0

üA' Û |Ê 6 (0,X1*+9 á î0ÿ G*ó È 6 (0,X1*+9 Ú î BG!5B üA' Û { Ä Ä¹
S*ü â ! î*ó Ä K 'G!5B -?• smart manager policy bootup-delay Ä
'1*+9 G!5B î þ _Ê Ê È 6 (0 î7¼ | Ú 6 (0 _Ê Ý'; WDXJ+!j f c f ë È J è _
Ê KÈ , ü J ë G2ĭ Ä Jª _Ê 0 Oj þ _Ê,XL t 5 Ê ÄL8Oj þ _Ê¹ ê È Jª _Ê
,X G2ĭ ' ! _Ê â !E• Ý _Ê4~ Ü KÈ,X G2ĭ Ä¹Oj þ _Ê,X J ë G2ĭ Ú>• Ñ+9 È
G!5B Ê J ë G2ĭT-Ax D QÄG

Ý 3 ROLÄS*ü,X HYH-QWÖ

-G£ á	*üEè
_event_id	Û/ ?º ¥1*+9 _Ê,X _Ê?º ¥ , '

_event_pub_sec	_Ê,X ¥*ó ÊKÈ Ä 8 Q LÊKÈ Å
_event_pub_msec	_Ê ¥*ó ÊKÈ,X!¿/!

G!5B _ _ È¹ ß _\$ ĩ î Ô þ á+ 7 H V WXB\$ Q,> ,X1*+9 Ö
• % . ó # " P P ' d G y € 2 7 Â ñ

– DAÈ â

– D	£EÄ
variable-name	n ¬G£,X á +
string	n ¬G£,X

$$5, \tilde{O}G!5B \quad 5, \tilde{O} \acute{a} n \quad 6 (0 < \neg G\mathcal{E}$$
$$Q_{\text{óã}} < G!5B \text{ óã}$$

S*ü Ő Đ Ý ¬G£,X2O _FÑ +0ú _È ¬G£,X K 'ÿ B S*ü C.B n Ä
 < ¬G£ Ä¹ ü Ý,X1*+9 S*ü Ä2İ4³ `ü 3 Ä¹ ü1*+9 n à á,X F¼ ¬G£ Ä
 ü1*+9 < ¬G£ Ú î È+ F¼ ¬G£ ¥ ù 0*ü Ä

Y D U L D E O H B Q Y D U L D E O H B Q Y D U L D E O H B Q Y D U L D E O H B Q	Y D U L D E O H B Q Y D U L D E O H B Q Y D U L D E O H B Q Y D U L D E O H B Q	Y D U L D E O H B Q Y D U L D E O H B Q Y D U L D E O H B Q Y D U L D E O H B Q	Y D U L D E O H B Q Y D U L D E O H B Q Y D U L D E O H B Q Y D U L D E O H B Q	Y D U L D E O H B Q Y D U L D E O H B Q Y D U L D E O H B Q Y D U L D E O H B Q
Ruijie(config)#	smart	manager	environment	variable_name
variable_value				

,ì G Q ,

Q ,	£EÄ
show smart manager environment	/ <)f W -G£

S*ü Ü Ð G£ á?U Ú Z Æ µ C,X Ô û A' n ÈE- 6 (0 Ú á îA,,) Z Æ µ C Ä

G!5B _ G!5B 6 (0 (Y H Q WZ Æ µ C ± , DG£
Ruijie(config)#smart manager history size events 30

Q ,	£EÄ
show smart manager history events	/ _ Ê Z Æ µ C

G ÄÄÈ ä

3.1.26 smart manager policy bootup-delay

üG!5B õ ä ßG!5BA'5B 6 (01*+9 ÊE³ h*ü,X ÊKÈ Ä
smart manager policy bootup-delay dealy-time

- D	£EÄ
dealy-time	¢A' Ü { Ä Ä*ü 6 (01*+9>• h*ü,X ÊKÈKÈLh ß× È /! 7Ç /!

5 ,ÖG!5B 5 ,Ö /!

Q , õ ä G!5B õ ä

S*ü Ü Ð

G!5B _ A' nA' Ü |{ Ä Ä*ü /!¹ â ! S 6 (01*+9*ó Ä
Ruijie(config)#smart manager policy bootup-delay 120

Q ,	£EÄ
smart manager applet	n î b Q ,> ,X 6 (01*+9

G ÄÄÈ ä

3.1.27 smart manager policy record

ü(M õ ä ß#Ü)Ú 6 (01*+9E²> {*ó,X & / 4~) Ä
smart manager policy record clean > no-registered policy registered-polciy-name dir

record-directory | all @

– DAÈ â

– D	£EÄ
no-registered	#ÛL8 1'! p ü 6 (02İ4³ "¼`,X1*+9,X & / 4~)
policy registered-polciy-name	#ÛL8(M n Æ4£"¼`1*+9 { *ó,X & / 4~)
dir record-directory	#ÛL86 (04~) (M n,X & / 4~),Â)
all	#ÛL86 (04~) Ý,X & / 4~),Â)

5 ,ÖG!5B 5 ,Ö áEα>

Q , ö ä (M õ ä

S*ü Û Ð

G!5B _ _ Ö#ÛL8 <F¼`! p"¼`1*+9,X & / Eg Î4~) È!` V>• ±+-,X Æ4£ ôL8,X1*+9,X & / ,
Eg Î4~) Ö

Ruijie#smart manager policy record clean no-registered

_ Ö#ÛL8 <F¼6 (0 1*+9Eα> { *ó,X & / Eg Î4~) Ö

Ruijie#smart manager policy record clean all

,İ G Q ,

Q ,	£EÄ
action cli	;> A' Û,X Q ,>
policy record	G!5B4~) & / ,> ,XEg Î4~)

G ÄÄÈ â

3.1.28 smart manager run

ü(M õ ä ßEα> K Ý Q R QÖH_,X _ Ê,X1*+9 Ä

smart manager run policy-name parameter @

– DAÈ â

– D	£EÄ
policy-name	Q R QÖH_,X _ Ê,X1*+9,X á +
parameter	Eα> 1*+9,X – D È – D Ô Î Ä ¼A'5B p

5 ,ÖG!5B 5 ,Ö áEα>

Q , õ ã (M õ ã

S*ü Ü Ð

G!5B _ G!5B Q R Q QH_,X H Y H E Q A W 7 H V W Z B ¥ 1 âA,,) 1 « Ä
Ruijie(config)#smart manager applet Test_1
Ruijie(config-applet)#event tag monitor_cmd none
Ruijie(config-applet)#action00syslogmsg"noneeventtriggeredwith
\$_none_argc argc"
Ruijie(config-applet)#commit
Ruijie(config-applet)#exit

, ï G Q ,	Q , F 3 / Ä	£EÄ
smart manager applet		

!E@ D F W (Š Ÿ B Z W I W Y W Â ð Â † ' Ð > î ã ç ú C) ` Â ð 0

,l G Q ,	Q ,	£EÄ
	smart manager applet	n î b Q ,> ,X 6 (01*+9

ü(M *+9

G ÄÄÈ â

3.1.31 smart manager scheduler hold

ü(M õ ã ß Ú 6 (0,XA× z V 0 Ä

smart manager scheduler hold ^all _policy job-id

– DAÈ â	– D	£EÄ
	class class-options	Û n1*+9Eα> ,X2O ÿ
	queue-priority ^high _low _normal `	Û nKó ë,X ì 4{

5 ,ÖG!5B 5 ,Ö1*+9,X ì 4{FÑ normal

Q , ö ä (M ö ä

S*ü Û Đ

G!5B _ Ú2O _ D S S Q B W F O D V W,X1*+9,XKó ë ì 4{ ¢P¬! K L J K
Ruijie#smart manager scheduler modify class B queue-priority high

,ì G Q ,	Q ,	£EÄ
	smart manager applet	n Î b Q ,> ,X 6 (01*+9

G ÄÄÈ â

3.1.33 smart manager scheduler release

ü(M ö ä ß 6 áKó ë ôEÖ Ä
smart manager scheduler release ^ all _policy policy-id _class class-options `

– DAÈ â	– D	£EÄ
	all	Ý1*+9
	policy job-id	Û n1*+9,X?º ¥ , '
	class class-options	Û n1*+9Eα> ,X2O ÿ

5 ,ÖG!5B 5 ,Ö U H O H D V H

Q , ö ä (M ö ä

S*ü Û Đ !8 Q , smart manager scheduler hold EÚE>/ß Ä

G!5B _ 6 á Ý,¥ { < È 6 á ÝKó ë ôEÖ Ä
Ruijie#smart manager scheduler release all

Q ,	£EÄ
smart manager applet	n î b Q ,> ,X 6 (01*+9

G ÄÄÈ â

3.1.34 smart manager scheduler suspend

ü < G!5B õ ã ß Ú 6 (0A× z ÖCK ÄA¹ Q ,X no 6 ã*ü b 6 á 6 (0A× z Ä
smart manager scheduler suspend
no smart manager scheduler suspend

– D	£EÄ
-	

5 ,ÖG!5B 5 ,Ö p ÖCK 6 (0A× z

Q , õ ã < G!5B õ ã

S*ü Ô Ð Æ4£ üE□> ,X4"/ß á «A× z < ÖCK E j È üA× z < ÖCK ¹ â4»4ÁE□> È,È 4§ 3 Ä

G!5B _ _ Ö Ê ÖCK 6 (0A× z Ö
Ruijie(config)#smart manager scheduler suspend

_ Ö 6 á ÖCK 6 (0A× z Ö
Ruijie(config)#no smart manager scheduler suspend

Q ,	£EÄ
show smart manager scheduler	/ 6 (0A× z ™ %

G ÄÄÈ â

3.1.35 trigger

ü 6 (0G!5B õ ã ßG!5B1*+9,X?° ¥ 2 û Ä

trigger > occurs-value

3.2 < ñ 0 w W

3.2.1 show smart manager detector

ü(M õ ã ß / ,¥ { < µ C Ä
show smart manager detector > all_detector-name @detailed | statistics @

– DAÈ â	– D	£EÄ
	all _detector-name	/ Ý,¥ { < µ C ê / (M n,X,¥ { < µ C
	detailed	/ A°4š µ C
	statistics	/ " # <4³Au µ C

5 ,ÖG!5B

Q , õ ã (M õ ã

S*ü Ô Ð

G!5B _ _ Ö ;> show smart manager detector all Q , / V ß Ö
5XLMLH VKRZ VPDUW PDQDJHU GHWHFWRU DOO
1 R 1 D P H 9 H U V L R Q 0003>

,XG!5B Q , ` _ ÊA'5B,X F¼ ¬G£ Ä

Ruijie# show smart manager detector cli detailed

No. Name Version

1 cli 01.00

Applet Configuration Syntax for cli detector :

event tag <event- name> [correlate {and | or | andnot}] cli
 pattern<regular-expression>sync{yes[default<wait-time>]]no skip
 {yes | no}} [mode <mode val>] [occurs <num- occurrences>] [period
 <period-value>]

no event tag <event-name>

Applet Built-in Environment Variables:

_event_id
 _event_type
 _event_type_string
 _event_pub_time
 _event_pub_sec
 _event_pub_msec
 _cli_msg
 _cli_msg_count
 _cli_mode

,ì G Q ,

Q ,	£EÄ
-	

G ÄÄÈ â

3.2.2 show smart manager environment

ü(M õ ã ß / < ¬G£ µ C Ä

show smart manager environment ðall _variable-name @

– DAÈ â

– D	£EÄ
all	/ Ý < ¬G£
variable-name	/ (M n,X < ¬G£

5 ,ÖG!5B

Q , õ ã (M õ ã

S*ü Ő Đ A¹ Q , ¾ / < ¬GE

G!5B _ _ Ö ;>

3.2.4 show smart manager policy all

ü(M õ ã ß / Ý,X1*+9 ¹ ž1*+9,X □ x ™ %o Ä
show smart manager policy all

– DAÈ â

– D	£EÄ
-	

5 ,ÖG!5B

Q , õ ã (M õ ã

S*ü Ů Đ A¹ Q , / ÝE¯> E>G!5B,X1*CÄ Ä

G!5B _ ;> show smart manager policy all Q , / V ß J 6 W D > W 1 H+9,X □ x ™ %o È
3 R O L F \ 1-D P*H9,X á + Ä
Ruijie#show smart manager policy all
No. Status Policy Name
1 commit Test_1
2 not commit Test_2

,l G Q ,

Q ,	£EÄ
-	

G ÄÄÈ â

3.2.5 show smart manager policy active

ü(M õ ã ß / %"# ,X1*+9 r _ Ä
show smart manager policy active > classclass-options @detailed @

– DAÈ â

– D	£EÄ
class class-options	EÝ ½1*+92O ÿ
detailed	/ A°4š µ C

5 ,ÖG!5B

Q , ð ä (M ð ä

S*ü Ü Ð A¹ Q , / !7 üE▯> ,X1*+9 r _ Ä

G!5B _ _ Ö ;> show smart manager policy active Q , / V ß Ö
Ruijie#show smart manager policy active
Key: P - Priority :L - Low, H - High, N - Normal
S - Scheduling mode :A - Active, P -Pending

No.	Job Id	P	S	Status	Time Of Event	Event Type	Policy
Name							
1	3159	N	A	running	Wed Nov11 10:28:14 2009	none	Test_1
2	3160	N	A	running	Wed Nov11 10:28:38 2009	none	Test_1
3	3161	N	A	running	Wed Nov11 10:28:38 2009	none	Test_1
4	3162	N	A	running	Wed Nov11 10:28:39 2009	none	Test_1
5	3163	N	A	running	Wed Nov11 10:28:39 2009	none	Test_1
6	3164	N	A	running	Wed Nov11 10:28:40 2009	none	Test_1

_ Ö ;> show smart manager policy active detailed Q , / V ß Ö
Ruijie#show smart manager policy active detailed
Key: P - Priority :L - Low, H - High, N - Normal
S - Scheduling mode :A - Active, P -Pending

No.	Job Id	P	S	Status	Time Of Event	Event Type	Policy
Name							
1	3159	N	A	running	Wed Nov11 10:28:14 2009	none	Test_1
exec time: Wed Nov11 10:28:14 2009 elapsed time 142.768 maxrun 31536000.000							
2	3160	N	A	running	Wed Nov11 10:28:38 2009	none	Test_1
exec time: Wed Nov11 10:28:38 2009 elapsed time 119.024 maxrun 31536000.000							
3	3161	N	A	running	Wed Nov11 10:28:38 2009	none	Test_1
exec time: Wed Nov11 10:28:38 2009 elapsed time 118.660 maxrun 31536000.000							

,l G Q ,	Q ,	£EÄ
	-	

G ÄÈ à

3.2.6 show smart manager policy pending

ü(M õ ã ß / 1 YEϣ> ,X1*+9 Ä

show smart manager policy pending > classclass-options @ >

```

2 3192 N P pend Wed Nov11 10:28:53 2009 none Test_1
maxrun 31536000.000
3 3193 N P pend Wed Nov11 10:28:54 2009 none Test_1
maxrun 31536000.000
4 3194 N P pend Wed Nov11 10:28:54 2009 none Test_1
maxrun 31536000.000
5 3195 N P pend Wed Nov11 10:28:54 2009 none Test_1
maxrun 31536000.000

```

,l G Q ,

Q ,	£EÄ
-	

G ÄÄÈ ä

3.2.7 show smart manager policy registered

```

ü(M õ ä ß / "¼ ` ,X1*+9 Ä

```

```

show smart manager policy registered > statistics @policy policy-name @
> event-type event-name @class class-options @time-ordered _name-ordered @

```

– DAÈ ä

– D	£EÄ
statistics	/ "¼ ` 1*+9,X4³Au µ C
policy policy-name	Û n1*+9 á +
event-type event-name	Û n1*+9,X H Y H2Q W
class class-options	EÝ ½1*+92O ý
time-ordered _ name-ordered	EÝ ½ / NN c

5,ÖG!5B

Q , õ ä (M õ ä

S*ü Ü Ð

```

G!5B _ ;> show smart manager policy registered Q , / V ß È J 1 R / ,X c È È
1 D P H 1*+9,X á + È & O D V 1*+9,X2O ý È 7 \ S H 1*+9,X2O _ È ( Y H Q W 7 1*+9,X
Oj p _ È,X2O _ È 7 L P H 5 H J L V 1*+9,X2O ý È 7 \ S H 1*+9,X2O _ È ( Y H Q W 7 1*+9,X

```


1 Applet threads service class default Ö

total: 1 running: 0 idle: 1

2 Applet threads service class A B C Ö

total: 32 running: 3 idle: 29

class A Ö1

calss B Ö2

,l G Q ,

Q ,	£EÄ
smart manager applet	n Î b Q ,> ,X 6 (01*+9

G ÄÄÈ â

3.2.9 show smart manager version

ü(M õ ã ß / 6 (0,X(µ C Ä

show smart manager version

– DAÈ â

– D	£EÄ
-	

5 ,ÖG!5B

Q , õ ã (M õ ã

S*ü Ô Ð

G!5B _ ;> show smart manager version Q , / V ß È*ü b Z?· 6 (0 ` Ø p "# < '!

(È J.B n(¢ o,X s6Ñ Ä

Ruijie#show smart manager version

Smart Embedded Manager Version 1.0

Event Detectors:

name version

application 1.0

syslog 1.0

cli 1.0

counter 1.0

none 1.0

snmp 1.0
snmp-object 1.0
snmp-notification 1.0
timer 1.0

,l G Q ,

Q ,	
-----	--



Q , -5x 5%1u â,¥ {

Ú`Ÿ4;5%1u â,¥ { Q , -5x, Ì G Y • È Ù À¹ ß0´8V Ö

G!5B 6 1 0 3Q ,

G!5B 5 0 2 1 Q ,

G!5B 1 7 3Q ,

G!5B 6 1 7 3Q ,

G!5B 6 3 \$ 1Q ,

G!5B 5 6 3 \$ 1Q ,

G!5B (5 6 3 \$ 1Q ,

1 SNMP w W

1.1 ü » w W

1.1.1 no snmp-server

?U #; A' Û 6 1 0 3 ·)Ú s6Ñ ÈÄË ;> < G!5B Q , no snmp-server Ä
no snmp-server

– DAË â	– D	£EÄ
5 ,ÖG!5B	#; 6 1 0 3 ·)Ú s6Ñ	
Q , õ ä	< G!5B õ ä	
S*û Û Ð	A¹ Q , GKÁA' Û Ö,X Ý(6 1 0 3X ·)Ú á u Ä	
G!5B –	ßM6,X/ _ #; 6 1 0 3 ·)Ú á u Ö Ruijie(config)# no snmp-server	
	Q , # , – 0 0	£EÄ

S*ü Ū Đ	6 1 0 3 2İ4³ c ë Ě Ō8 S*ü <,X c ë Ě Ě ¹ “ ÍA' ŪE⁻> Aš ŷ Ä2İ4³ c ë Ě Ä ¹EîE> show snmp Q , ¹,ß Ä	
G!5B _	ßM6,X/ _ Ū n 6 1 0 3,X2İ4³ c ë Ě Ruijie(config)# snmp-server chassis-id 123456	
,İ G Q ,	Q ,	£EÄ
	show snmp	¹,ß 6 1 0 3,X4³Au µ C
G ÄÄÈ â		
Q , Z Æ	(Ě	AÈ â

1.1.3 snmp-server community

?U Ū n 6 1 0 3İ ,XA“KÂ +0ú ÈÄÈ ;> < G!5B Q , snmp-server community ÄÄ¹ Q ,X Q R
6 ä ¢#A Ū n 6 1 0 3İ ,XA“KÂ +0ú Ä

snmp-server community > _string@ view view-name @ro>rw @most ipaddr @ @ > Q X P E H U L
LSY DFOQDPH@>DFOQXP _ DFOQDPH@

no snmp-server community > _string@

- D	£EÄ
0	></ Eg 9,X İ ' +0ú â [+0ú
7	></ Eg 9,X İ ' +0ú š [+0ú
string	İ ' +0ú Ě ' b 1 0 6 ` 6 1 0 3 .)Ú KÈ,XEî µ š-Ö Ä
view-name	Ū n?š Ō,X á/Ä È*ü b,S W)Ú Ä

aclnumn

2,İ0sp,İQT 8Q~³ä

aclnamn

>2/Ä Ō h,X ?K ~³ä Ō nm “K\$ Ä%`,P

	0 , %X 1 0 68× È1 1 Ä ?U GKÁ6 1 0 3·)Ú s6Ñ È ;> no snmp-server Q , G Ä Ä V p < G!5B Z service password-encryption Q , È J èEg 9,X ¶ ' +0ú Ä & R P P X Q L W Ä ä W È Ú L ¶ Q ¶0ú E > t š , X / ` , Ä8 È ¢# service password-encryption G!5B â È ¶ ' +0ú i' ¹ š [ / ` , È á î 6 á â [Ä
--	---

G!5B _	ßM6,X/ _ S*üA“KÂ ë><L\$ Í 0 , %XA“KÂ È ¾ AÆ ,X 1 0 6 Í 0 , %XA“KÂ Ö Ruijie(config)# access-list 2 permit 192.168.12.1 Ruijie(config)# access-list 2 deny any Ruijie(config)# snmp-server community public ro 2
--------	--

¶ G Q ,	Q ,	£EÄ
	access-list	n A“KÂ ë><
	service password-encryption	· , t š /

G ÄÄÈ ä

Q , Z Æ	(È	AÈ ä

1.1.4 snmp-server contact

?U Û n 6 1 0 32İ4³6(2İ • ä ÈÄÈ ;> < G!5B Q , snmp-server contact ÄA¹ Q , ,X Q ¶ ã ô
L8 Û n,X 6 1 0 32İ4³6(2İ • ä Ä

snmp-server contact text

no snmp-server contact

– DAÈ ä	– D	£EÄ
	text	£EÄ2İ4³6(2İ • ä ,X +0ú

5 ,ÖG!5B 2İ4³6(2İ • ä 0N Ä

Q , õ ä < G!5B õ ä

S*ü Û Ð

G!5B –	ßM6,X/ _ Û n 6 1 0 3X2İ4³6(2İ • ä L Q H W # L Q H W FRP F Q Ruijie(config)# snmp-server contact i-net800@i-net.com.cn
--------	--

¶ G Q ,	Q ,	£EÄ
	show snmp-server	¹,ß 6 1 0 3X µ C
	no snmp-server	GKÁ6 1 0 3·)Ú s6Ñ

G ÄÄÈ â

Q , Z Æ	(È	ÄÈ â
---------	-----	------

auth	A ¹⁴ ~,X*ü ôEg,X#\ CLÔ?UP`A• D B áLÔ?U ± š È ¾ Í Y Ý Ä
noauth	A ¹⁴ ~*ü ôEg,X#\ C áLÔ?UP`A• D B 3 áLÔ?U ± š È ¾ Í Y Ý Ä
priv	A ¹⁴ ~*ü ôEg,X#\ CLÔ?UP`A• à Ê ôEg,X D BLÔ?U ± š È ¾ Í Y Ý Ä
readview	G6(Ô p ¾AĬ,X?š Ò Ä
writeview	G6(Ô pAĬ m?š Ò Ä
aclnum	A“KÂ ë>< c ë È È G6(Û n,XA“KÂ ë>< È Û n6ÑA“KÂ 0 , %X L S Y 1 0 8× È Ä
aclname	A“KÂ ë>< á/Ä È G6(Û n,XA“KÂ ë>< È Û n6ÑA“KÂ 0 , %X L S Y 1 0 8× È Ä
ipv6_aclname	L S X“KÂ ë>< á/Ä È G6(Û n,XA“KÂ ë>< È Û n6ÑA“ KÂ 0 , %X L S Y 1 0 8× È Ä

5 ,ÖG!5B	5 ,Ö"u ÝA'5B*ü 4~
----------	-------------------

Q , õ ä	< G!5B õ ä
---------	------------

S*ü Û Đ	‘
---------	---

G!5B _	1p, Ĭ 0 ÉX !ĭ @ w
--------	-------------------

ipv6-addr	6 1 0 3 Ä L S Å
version	EÝ ½V Q R S È 9 Å 9 &Å 9
auth _noauth _ priv	A'5B 9 *ü ,X] <4{ ÿ Ä
community-string	¶ ' +0ú ê*ü á Ä 9 (Å Ä
port-num	A'5B V Q P S0Ã .
notification-type	¥EÖÄXLC@ÅÀŠTZT]P FÀ*U . Vö fÀ • S

G!5B _	ßM6,X/ _ Ü n Ô p2İ4³ µ C Ö Ruijie(config)# snmp-server location start-technology-city4F of A Buliding	
,İ G Q ,	Q ,	£EÄ
	snmp-sever contact	6 1 0 3 2İ4³6(2İ • ä
G ÄÄÈ ä	/	
Q , Z Æ	(È	AÈ ä

1.1.9 snmp-server net-id

?UA'5BA' Ü5% 4ê-Ö µ C ÈÄÈ ;> < G!5B Q , V Q P S V H U Y ÄU Q Q,XI W Q B G ôL85%
 4ê-Ö µ C Ä

snmp-server net-id text

no snmp-server net-id

- DAÈ ä	- D	£EÄ
	text	A'5BA' Ü5% 4ê-Ö W H [W H È K S/z a ,X +0ú È Ü û ä m È Ä Ù y0N Ä
5 ,ÖG!5B	A' Ü5% 4ê-Ö µ C 0N	
Q , ö ä	< G!5B ö ä	
S*ü Ü Ð	/	
G!5B _	ßM6,X/ _A'5B Ô pA' Ü5% 4ê-ÖG!5B Ö Ruijie(config)# snmp-server net-id FZ_CDMA_MSC1	
,İ G Q ,	Q ,	£EÄ
	-	
G ÄÄÈ ä	/	
Q , Z Æ	(È	AÈ ä

1.1.10 snmp-server packetsiz

?U { 6 1 0 3 Ô û,X D B Ù û ä ÈÄÈ ;> < G!5B Q , snmp-sever packet size ÄA¹ Q ,X Q R
 6 ä 6 áT→Ax Ä

snmp-server packetsize byte-count

no snmp-server packetsize

– DAÈ â	– D	£EÄ	
	byte-count	D B Û û ã È ¢	+8V +8V Ä
5 ,ÖG!5B	+8V		
Q , õ ã	< G!5B õ ã		
S*û Û Ð	/		
G!5B –	ßM6,X/ _ Û n 6 1 0 3Ô û D B Û û ã Ö Ruijie(config)# snmp-server packetsize 1492		
,l G Q ,	Q ,	£EÄ	
	snmp-server queue-length	6 1 0 3Kó è û ã	
G ÄAÈ â	/		
Q , Z Æ	(È	AÈ â	

1.1.11 snmp-server queue-length

?U Û n LKL #\ CKó ëKS z ÈAË ;> < G!5B Q , snmp-server queue-length Ä

snmp-server queue-length length

– DAË â	– D	£EÄ	
	length	Kó ëKS z È û ã ¢	Ä
5 ,ÖG!5B			
Q , õ ã	< G!5B õ ã		
S*û Û Ð	LKL #\ CKó ë*û b , LKL #\ C È Ä ^EîE>A^ Q ,A× H#\ CKó è û ã 9 { #\ C ¥EÖEó z Ä #\ C ¥EÖ Ö û Eó z p!E/! Ä		

G ÄÄÈ â

Q , Z Æ	(Ë	ÄÈ â

1.1.12 snmp-server system-shutdown

?U *ü 6 1 0 32İ4³GjCKEî¹ s6Ñ ÈÄÈ ;> < G!5B Q , snmp-server system-shutdown ÄÄ¹
Q ,X Q R6 ã ¢#\ GKÁ 6 1 0 32İ4³Eî¹ s6Ñ Ä

snmp-server system-shutdown

no snmp-server system-shutdown

– DAÈ â	– D	£EÄ

5 ,ÖG!5B GKÁ6 1 0 32İ4³GjCKEî¹ s6Ñ

Q , ö ä < G!5B ö ä

S*üA¹ Q , *ü 6 1 0 32İ4³GjCKEî¹ s6Ñ È 5 * 2 6 î üA' Ü U H O R D G ¹ U H E I R O F W
¥EÖLKL #\ CEî¹2İ4³GjCK Ä

G!5B – ßM6,X/ _ *ü 6 1 0 32İ4³GjCK s6Ñ Ö
Ruijie(config)# snmp-server system-shutdown

,İ G Q ,	Q ,	£EÄ
	-	

G ÄÄÈ â

Q , Z Æ	(Ë	ÄÈ â

5 ,ÖG!5B

á ú/• Ý +!%o

Q , õ ã

< G!5B õ ã

S*ü Ò Ð

S*üA¹ Q , ÃG!5B ¥EÕ 7 U Ð\SC ú/• Ý ã +!%o È Ù ÿ,X +!%o,Â ! Ö,X Ý A: ¥*ó
ÊKÈ È Ø þ +!%o,X K ' D B2O _ ` D B8× È Ã −?• 5 8ïb ùT†™nT†™nT†™nT,Ð\ C Ä B [ÓqP ó t 'È â

	snmp-server enable host	Û n 1 0 6,X
G ÄÄÈ â		
Q , Z Æ	(Ë	ÄÈ â

1.1.15 snmp-server trap-timeout

?U n LKL #\ CGj ¥,XCY Ê ÊKÈ ÈÄÈ ;> < G!5B Q , snmp-server trap-timeout ÄÄ¹ Q ,X
Q Æ ã 6 áT→Ax Ä

snmp-server trap-timeout seconds

no snmp-server trap-timeout

– DAÈ â	– D	£EÄ
	V H F R Q G V	CY Ê ÊKÈ È) ! /, Ë ª 8× È Ö ± Ä

5 ,ÖG!5B

/,

Q , ö ä

< G!5B ö ä

S*ü Û Ð

G!5B –

ßM6,X/ _ Û nCY Ê ÊKÈ /, Ö
Ruijie(config)# snmp-server trap-timeout 60

	Q ,	£EÄ
ñ G Q ,	snmp-server queue-length	Û nLKL #\ CKó èKS z
	snmp-server enable host	Û n 1 0 6,X
	snmp-server trap-source	Û n 6 1 0 3 7 5 \$ßC,X\$d

G ÄÄÈ â

Q , Z Æ

(Ë	ÄÈ â
-----	------

- D	£EÄ
port-num	Û n y 6 1 0 3y [,X #A,0Ã · Ë

5 ,Ö ¯™ ¯‰ ß È S*ü #A,0Ã · y 6 1 0 3y [

< G!5B ð ã

ßM6,X/ _ Û n #A,0Ã · y 6 1 0 3y [Ö
Ruijie(config)# snmp-server udp-port 15000

Q ,	£EÄ
-	

G!5B 6 1 0 3Q ,

 “a~BìÁF† X	priv @èt X , ,@> 5”Y¼4!	Û n ú S*ü ± š Ä des56 Û â S*ü !,X '(6 t š #A, Ä <A\$ Ð ` Â ðÁ59 ?æ ¶ Å•Ä K5E‡ “Ñ•ÚE- p ·`[€
----------------	----------------------------	--

Q , ð ä

< G!5B ð ä

S*ü Ü Ð

'

G!5B –

ßM6,X/ _A'5B Ô p?š Ò È Ù À Ý,X 0 , % \$ å Ä R L G Å Ö
Ruijie(config)# snmp-server view mib2 1.3.6.1 include

Q , Z Æ	(Ě	ÀÈ â

1.2 < ü » w W

1.2.1 show snmp

?U 1,ß 6 1 0 3X(Š Ů µ C ÈÀÈ ;> (M *ü õ ã Q , show snmp Ä
show snmp mib _user _view _group| host @

– DAÈ â	– D	£EÄ

5 ,ŮG!5B ´ ´ 49tc úp ρšV3 ð@&ðýo ð@ Â ñgp

,l G Q ,	Q ,		£EÄ	
	snmp-server chassis-id		6 1 0 32l4³ c ë Ë	
G ÄÄÈ â				
Q , Z Æ	(Ë		AÈ â	

2 ' RMON w W

2.1 ' ü » w W

2.1.1 rmon alarm

?U,¥{ □ p 0 , %G£ S*üA¹ Q , Ä S*ü Q R ß ã ¢#A,,) Ä

rmon alarm number variable interval absolute _delta ` rising-threshold value
event-number @falling-threshold value event-number @owner ownername @

no rmon alarm number

5 ,ÖG!5B

Q , õ ã

S*ü Û Đ

y ·G!5B õ ã

ü 5 * 2 6EC Ê ÈACE Í Æ4EG!5B,X ¹p5%4°,X Z Æ µ CE¯> Â È Ù À R Z Q ã Æ X F N H W V
¹ ž L Q W # G!5B,C È LÔ?U"¼ ã,X E- oG!5B µ C J á G Ê*ó Èà Ê Ê
ß Ô ò Z

G ÄÄÈ à

G!5B _

Q ,	£EÄ
mon event number >log@ community @ description-string @	#İ t Ô p _ Ê><NM

Interval start : 0d:0h:15m:0s
DropEvents : 0
Octets : 67988
Pkts : 726
BroadcastPkts : 502
MulticastPkts : 189
CRCAlignErrors : 0
UndersizePkts : 0
OversizePkts : 0
Fragments : 0
Jabbers : 0
Collisions : 0
Utilization : 0

,l G Q ,	Q ,	£EÄ
	rmon collection history index owner ownername @buckets bucket-number @ interval seconds @	#i t Ô p Z Æ { ><NM

G ÄÄÈ ä

Q , Z Æ	(Ë	ÄÈ ä

2.2.4 show rmon statistics

?U / 4³Au>< µ C Ä

show rmon statisticcs

– DAÈ ä	– D	£EÄ

5 ,ÖG!5B

Q , õ ä (M õ ä

S*ü Ô Ð

¹ ß _ \$ È / 4³Au>< µ C Ö
Ruijie# show rmon statistics

G!5B _

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

,! G Q ,

Q ,	£EÄ
-----	-----

3 ´ NTP w W

3.1 NTP ´ ü » w W

3.1.1 no ntp

GKÁQ W!9 á u È 0!6 â ÊKÈ á u <,X à!9 È#ÜL8 Q VXS ÝG!5B µ C Ä

no ntp

– DAÈ â	– D	£EÄ

5 ,ÖG!5B 5 ,Ö ™ ‰ ß 1 7 3

	serve-only	™ ACE Í 1 7 3á uE⁻> ÊKÈAË" Ä
	query-only	™ ACE Í 1 7 3á uE⁻> { ¹A¶ Ä
	access-list-number	, 3A"KÂ { ë>< Û È ×8× È`
	access-list-name	, 3A"KÂ { ë>< á Ä

5 ,ÖG!5B 5 ,Ö ™ %ß pG!5B İ) 1 7 3A"KÂ { ?~ í Ä

Q , õ ä < G!5B õ ä Ä

S*ü Û Ð A'5B Í A' Û 1 7 3 á u,XA"KÂ { L\$ ÄE-G □ o Z Ô/i Ô ãL\$ z,X]<~ ' È È]<,X •"© S*ü 1 7 3Ð• ÑP`A• Ä ' Ô pA"KÂAË" E' È È 1 7 3 á u Ý'; ¢ Ô ãA"KÂL\$ Ô ûA"KÂL\$,XNN c q õ G! ?~ í È ¹1 Ô p G! ,X?~ í š Ä G!NN c S H Ñ H U Ĥ M H U Y H Ĥ R Ø Ø U \ Æ Q O \

a "¼ ä ,Â !2İ4³ V p Õ { ¹A¶ s6Ñ Ä<Q' Ý'; pEÄNN cE⁻> ?~ í G! È #] ž â { ¹A¶,İ G,XAË" FÑ ´"© Ö Ä

V p pG!5B İ)A"KÂ { ?~ í È í ÝA"KÂFÑ ACE,X Ä Ô °G!5B ZA"KÂ { ?~ í È í ™ Ý?~ í ACE,XA"KÂ !6ÑE⁻> Ä

G!5B – ¹ ß/ 8× V) ACE1 ÈA"KÂ ë>< ,X Í0ÄA' Û Í A' ÛE⁻> ÊKÈAË" Ä ¹A¶ { ` ÊKÈ à!9 × JL\$ 1 ÈA"KÂ ë>< ,X Í0ÄA' Û ™6Ñ Í A' ÛE⁻> ÊKÈAË" Ä Ruijie(config)# ntp access-group peer 1 Ruijie(config)# ntp access-group serve-only 2

Q ,	£EÄ
-----	-----

S*ü Ů Đ	V p p S*ü <] <Aš ŷ È í á Í à!9Eî µE¯> t š Ø)Ú Ä ' Ô <] <Aš ŷ È à Ê ` ä J ª,X < šJyG!5B È ! Ã6Ñ ¥CK b á u <,X t šEî µ Ä P`A•,X Ů š EîE> ntp authentication-key Äntp trusted-key Ů n,X µ Ĩ šJy Ä
----------------	--

G!5B –	üG!5B Z,ì h,X < AxA• šJy J Ú J Ů n < µ Ĩ šJy â È ' ÔAxA• Ä ntp authentication-key 6 md5 woooooop ntp trusted-key 6 ntp authenticate
---------------	--

	ntp trusted-key	G!5B < μ ĩ šJy
	ntp server	Ū n Ō p 1 7 3 á u <

G ÄÄÈ â

Q , Z Æ	(Ě	ÄÈ â

3.1.5 ntp disable

GKÁ Í h y · y 1 7 3y [,X s6Ñ Ä

ntp disable

– DAÈ â	– D	£EÄ

5 ,ÖG!5B 5 ,Ö™ %o ß y · FÑ Ä¹ y « 1 7 3y [Ä

Q , õ ä y · G!5B õ ä Ä

S*ü Ū Ð ü5 ,Ö™ %o ß È Ĩ ä y · Þ y «,X 1 7 3y [FÑ Ä¹ ¢ o4- v 0ÄE⁻> ÊJsA× H ÈEîE>A' 5BE- p s6Ñ È Ä¹ #; Í h y · Þ ,X 1 7 3y [Ä

a "¼ ä 6Ñ óE⁻> - åG!5B,X y · 6f n 6Ñ óG!5B , 3 ¥ y [,X y · È ü Jª y · Þ"u YA¹ Q , Ä

G!5B _¹ ßG!5B _ \$ È GKÁ y · y 1 7 3y [Ä
no ntp

ı G Q ,	Q ,	£EÄ
	-	

G ÄÄÈ â

Q , Z Æ	(Ě	ÄÈ â

3.1.6 ntp master

A'5B ÊJs 0 1 7 3 ÊJs Ä ÊJs –5×\$d ÄM4 Ä È J WA' Ū ¢ o à!9 ÊKÈ ÄA¹ Q ,X
Q R ãª# 1 7 3 ÊJsA'5B Ä

ntp master [stratum]

no ntp master

– DAÈ â	– D	£EÄ
---------	-----	-----

	stratum	Û n ÊJs Ø,X D È8× È A¹ – D ÍT¬Ax Ä	×8¹ á Û n
--	---------	---------------------------------------	-----------

5 ,ÖG!5B 5 ,Ö áG!5B 1 7 3 ÊJs s6Ñ Ä

Q , ð ä < G!5B ð ä Ä

üEî ™ %ß È 2ĭ4³FÑ î,È y êKÈ y â êF¼,X ÊJs\$dE⁻ > à!9 Ä 8¹+ b5%4°E²
y Lp1 s ´5à Ð7È 2ĭ4³ ´"© â êF¼ ÊJs\$d à!9 Ê È Ä ¹EîE>A¹ Q ,A'5B ÊJs
–5×\$d ÄM4 È J ºA' Û º o à!9 ÊKÈ Ä
Ô °E⁻ > Z!8A'5B È2ĭ4³ “ á î â!´ J ÊJs D D ÈP¬,X,X ÊJs\$dE⁻ > à!9 Ä
S*ü!8 Q , Ê ™NO(M ŷ ã — Ä Ú ÊJsA'5B ÊJs Ä ø J Û n
ZEW ",X ÊJs D Ê Ä \ Ý Ã6Ñ Ú,ó!7,X Ý ÊJs\$d?Z,ª Ä V p Í
à Ô5%4° ,X î þA' ÛFÑ S*ü ZA¹ Q , È í Ã6Ñ+ bA' Û KÈ,X ÊJs
Â Ö Ð7È5%4°,X ÊJs à!9 á0 n Ä
° ê È S*üA¹ Q , !8¹2ĭ4³ ¢ þ â êF¼ ÊJs\$d à!9E> È í Ý Ã6ÑLÔ?U
| ð š2ĭ4³ ÊJs ¹ ±A• J á î Ý Ã6Ñ Ú,r“Ðd¹ Å! A ç–)gpc'A ™^°

S*ü Û Ð

a "¼ ã

Q , ð ä

< G!5B ð ä Ä

S*ü Ů Đ

,Â!âÀ,X2İ4³™ Ö v 0Ã"u Ý á u <0Ã È Ö,X à!9 á u < pL\$ p Ä
?UE¯> â á u <,X t šEî µ ÈOj kA'5B < t š šJy¹ ž < µ Ĩ šJy È' â Ů n í
h,X šJy á u < µ Ĩ šJy È! Ã¹ ¶CK b á u <,X t šEî µ È?U` ä â á u <,X t š
Eî µ?U" á u < Ý, ĩ à,X < t š šJy â < µ Ĩ šJy
ü, ĩ à[™] ‰ Ä2'.B z Å ß È ĩ EÝ ½ S U H Ê ß ß ¯ > à!9
G!5B 1 7 3 ¶EÖ y [,X \$d y ·,X Ê í hA^{1"}¼ ä Ô ß ÈG!5B,X y ·aC šJy âayQN0 đ SÃ Û I •EÓÁ*`·" đ S

	ntp server	Û n Ô p 1 7 3á u < JE¯ > à!9
G ÄÄÈ â		
Q , Z Æ	(Ě	ÄÈ â

3.1.9 ntp trusted-key

Ú Ô p , ' í h,X šJyG!5B < μ ĭ šJy

ntp trusted-key key-id

no ntp trusted-key key-id

– DAÈ â	– D	£EÄ
	key-id	< μ ĭ šJy , ' Ä

5 ,ÖG!5B	T¬Ax ™ %o ß"u Ý μ ĭ šJy Ä
----------	---------------------------

Q , õ ä	< G!5B õ ä Ä
---------	--------------

S*ü Ô Ð	ü 1 7 ÆîA/ • ™NOG>*ü, ì à,X μ ĭ šJy ÈEîE> , ' 9¹ R šJy È5à šJy D• á ôEg ,X È¹ ¢P¬] < û x
---------	--

G!5B –	¹ ßG!5B Ô pAxA• šJy È J ^!8 šJyA'5B í h á u < μ ĭ šJy Ä ntp authentication-key 6 md5 woooooop ntp trusted-key 6 ntp server 192.168.210.222 key 6
--------	---

, ì G Q ,	Q ,	£EÄ
	ntp authenticate	' Ô] <Aš ŷ Ä
	ntp authentication-key	A'5B 1 7 ÆAxA• šJy Ä
	ntp server	Û n Ô p 1 7 3á u < Ä

G ÄÄÈ â	
---------	--

(Ě

no ntp update-calendar

– DAÈ â	– D	£EÄ
5 ,ÖG!5B	T¬Ax pG!5B n ó È „. @ Ê ÊJs s6Ñ Ä	
Q , õ ä	< G!5B õ ä Ä	
S*ü Û Ð	S*ü!8 s6Ñ Ä ^A} 1 7 3v 0Ä n ó S*ü ¢ êF¼ ÊJs\$d à!9 k 9,X ÊJs È „A' Û,X.@ Ê ÊJs ÄA' Û,X.@ Ê ÊJs G S üA' Û G ê üA' Û á !,X ™ %ß ¡' 6Ñ ó4»4ÁCD Ä ü5 ,Ö ™ %ß "u ÝG!5B 1 7 3È „. @ Ê ÊJs ÄG!5B â È 1 7 3v 0Ä î ù!£ õ â êF¼ ÊJs \$d à!9 ä s Ê 3 à Ê È „A' Û,X.@ Ê ÊJs Ä	
G!5B –	¹ ß/ 8× V)G!5B 1 7 3n ó È „. @ Ê ÊJs Ö Ruijie(config)# ntp update-calendar	
,ì G Q ,	Q ,	£EÄ

,l G Q ,	Q ,	£EÄ
G ÄÄÈ â		
Q , Z Æ	(Ë	AÈ â

3.2.2 show ntp status

/ 1 7 3µ C Ä

show ntp status

– DAÈ â	– D	£EÄ
5 ,ÖG!5B	´5 ,Ö> Ä	
Q , ö ä	(M *ü ö ä	
S*ü Ů Đ	V p2İ4³,X 1 7 3á u ' Ô È# / '!,X 1 7 3µ C È ü1 Ô ö#İ t à!9 á u < !A¹ Q , á î ' D Ĭ) µ C Ä	
G!5B –	¹ ß _ \$ È / ' !2İ4³,X 1 7 3µ C Ä show ntp status	
,l G Q ,	Q ,	£EÄ
	-	
G ÄÄÈ â		
Q , Z Æ	(Ë	AÈ â

4 ' SNTP w W

4.1 ' ü » w W

4.1.1 sntp enable

A¹ Q ,A'5B ' Ô 6 1 7 3S6Ñ È S*ü Q , ,X no EÝNM ÚA¹A'5B 6 á 5 ,Ö ² ' LV D EÄ H
no @ sntp enable

– DAÈ â	– D	£EÄ

5 ,ÖG!5B 5 ,Ö 6 1 7 3Š Ö ' LV D E O H

Q , ö ä < G!5B ö ä

S*ü Ü Ð S*ü show sntp Q , ¹,ß 6 1 7 3 G – D

G!5B _ Ruijie(config)# sntp enable

Q ,	£EÄ
show sntp	/ 6 1 7 3XG!5B(Š Ö
clock update-calendar	EC Ê ÊJs à!9.@ Ê ÊJs
clock set	A'5BEC Ê ÊJs

G ÄÄÈ â EC Ê(5 * 2 6 ¹ Þ

Q , Z Æ	(È	AÈ â

4.1.2 sntp interval

A¹ Q ,A'5B 6 1 7 3 & OÜÖUQME` 1 7 3 6 1 7 3 6 HÜVÉBÜX ÊKÈKÈLh Ä
sntp interval seconds
no sntp interval

	– D	£EÄ	
– DAÈ â	seconds	n Ê à!9,XKÈLh È) ! /! 8× È /!	/!
		/! Ä	

5 ,ÖG!5B 5 ,Ö V

Q, õ ã	< G!5B õ ã	
S*ü Ü Ð	S*ü show sntp Q, 1,ß 6 1 7 3 G – D Ä	
a "¼ ã	E-G A'5B,X ÊKÈKÈLh á î0ÿ G*ó È V p?U0ÿ G*ó ÈÄÈG!5B ` ÊKÈ KÈLh â ;> V Q W S H Q, Æ O H	
G!5B _	Ruijie(config)#	sntp interval 3600
,l G Q,	Q,	£EÄ
	sntp enable	' Ô 6 1 7 3
	show sntp	1,ß 6 1 7 3X,l G – D
	clock update-calendar	EC Ê ÊJs à!9.@ Ê ÊJs
G ÄÈ â	EC Ê(5 * 2 6 1 Þ	
Q, Z Æ	(Ê	AÈ â

4.1.3 sntp server

A¹ Q, A'5B 6 1 7 3 6 H Ë Y H 6 1 7 3 #A, ` 1 7 3 ` < P • Ê ¹ E- þ 6 H U Y H Æ ¹ G!5B ä L Q W H U Q, H M 7 3 6 H U Ä Y H U

sntp server ip-addr

no sntp server

– DAÈ â	– D	£EÄ
	ip-addr	1 7 3 6 1 7 ä u < , X , 3
5, Õ G!5B	5, Õ "u Ý A'5B Ĩ) 1 7 3 6 1 7 ä u <	
Q, õ ã	< G!5B õ ã	
S*ü Ü Ð	S*ü show sntp Q, 1,ß 6 1 7 3 G – D	
G!5B _	Ruijie(config)#	sntp server 192.168.4.12
	Q,	£EÄ
	show sntp	

Q , Z Æ	(Ė	AÈ â

4.2 < ü » w W

4.2.1 show sntp

A¹ Q , / 6 1 7 3X, Ì G – D Ä

– DAÈ â	– D	£EÄ

5 ,ÖG!5B

Q , ö ä (M ö ä

S*ü Ò Ð S*ü show sntp Q , ¹,ß 6 1 7 3 Ì G – D

G!5B _
Ruijie# show sntp
SNTP state : Enable
SNTP server : 192.168.4.12
SNTP sync interval : 60
Time zone : +8

, Ì G Q ,	Q ,	£EÄ
	sntp enable	' Ô 6 1 7 3
	show sntp	¹,ß 6 1 7 3X, Ì G – D

5 ' SPAN w W

5.1 < ü » w W

5.1.1 monitor session

ĩ Î Ô p 6 3 \$ 1fA± J Ū n,Â,X0Ã · Ä,¥ { · Å ` \$d0Ã · Ä>,¥ { · Å S*üA¹ Q ,X Q BÝNM ô
L8 îA± ê5Û)(À ôL8\$ d0Ã · ê,Â,X0Ã · Ä

monitor session session_number source interface interface-id | | vlan vlan-id-list both rx _
tx @destination interface interface-id ^encapsulation | switch ` mac source mac-addr _
destination mac-addr ` both rx tx @filter vlan vlan-id-list ` ael name @

no monitor session session_number source interface interface-id | vlan vlan-id-list both _
rx tx @ destination interface interface id encapsulation | switch ` @mac source
mac addr destination mac addr ` both rx tx | filter vlan vlan-id-list @acl>name @

no monitor session all

– DAÈ â

– D	£EÄ
session_number	6 3 \$ 1fA± È Ä
source interface interface-id	Ū n\$ d0Ã · Äí b interface-id ÈÄ Ū n,î h,X y · È È ¾6Ñ (=)Ū0Ã · È á Ä¹ 6 9 , Ä
source vlan vlan-id-list	Ū n □ o 9 / \$ 10 K0 £,X D B\$d
destination interface interface-id	Ū n,Â,X0Ã · Äí b interface-id ÈÄ Ū n,î h,X y · È È ¾6Ñ (=)Ū0Ã · È á Ä¹ 6 9 , Ä
mac source mac-addr	>•K0 £ y [,X\$d 0 \$ &
mac destination mac-addr	>•K0 £ y [,X,Â,X 0 \$ &
filter vlan vlan-id-list	Ū n □ o 9 / \$ 1 á 0 K0 £,X D B\$d
both acl name	à Ê,¥ {Eg 9 `Eg î y [Ä ,¥ {,X# ,X acl name/id
rx	¾,¥ {Eg 9 y [Ä
tx	¾,¥ {Eg î y [Ä
all	ôL8 Ý îA±
encapsulation	ÖK0 £ · Ö>™ s6Ñ Ô ° ' Ô Ú 9/•K0 £ y [W 15,Ö á ' Ô
switch	ÖK0 £,Â,X · x 6 s6Ñ È5 ,Ö á ' Ô

5 ,ÖG!5B

Q , ö ä

< G!5B ö ä

ÖK0 £ 4

S*ü Ū Ð

Ô p0Ã · á6Ñ à Ê \$d0Ã · ` ,Â,X0Ã · Ä
ü ôL8 Ê È V p á Û â\$d0Ã · ê5Ü,Â,X0Ã · È í ôL8 H p îA± Ä
S*ü show monitor Q , Ã¹ / 6 3 \$ 1îA±,X ; 0(Š Œ Ä

a "¼ ã " V H V V L *R Q Œ < C¼4“ 50Ã ·K0 £ È?UG!5BC¼4“ 5 6 3 \$ 1
¾6Ñ S*ü V H V V LÄR Q

,l G Q ,	Q ,		£EÄ	
	monitor session		ï Ä-@ p 6 3 \$ 1îA± J Û n,Ä,X0Ä · Ä,¥ { · Ä ` \$d0Ä · Ä>•,¥ { · Ä Ä	
G ÄÄÈ â				
Q , Z Æ	(È		AÈ â	

6 ' RSPAN w W

6.1 ' ü » w W

6.1.1 monitor session

ĩ Î Ô p 5 6 3 \$ 1A± J Û n,Â,X0Ã · Ä,¥ { · Å Ã\$d0Ã · Ä>•,¥ { · Å Ä S*üA¹ Q ,X Q ÆÝ
NM ôL8 îA± ê5Ù)(À ôL8\$d0Ã · Ã,Â,X0Ã · Ä
G!5BK0 £A' Û 2 û Ö
monitor session session_num

G ÄÄÈ â

Q , Z Æ	(È	ÄÈ â

6.1.2 remote-span

S*üA¹ Q ,A'5B 5 6 3 \$ 1 9 / \$ 1

no @ remote-span

– DAÈ â	– D	£EÄ

5 ,ÖG!5B

Q , ö ä

9 / \$ 1G!5B ö ä

S*ü Ü Ð

?UE´´² (M ö ä ÈEg 9 end Q , È êK 9 & W U4ÖÜ& Ä
?UE´´² < G!5B ö ä ÈEg 9 exit Q ,

G!5B _

Ruijie(config)# vlan 5
Ruijie(config)# remote-span

,l G Q ,	Q ,	£EÄ
	show vlan	/ 9 O ÐiQ Ä

G ÄÄÈ â

Q , Z Æ	(È	ÄÈ â

7 ' ERSPAN w W

7.1 ' ü » w W

7.1.1 monitor session

ĩ î Ô þ (5 6 3 \$ 1A± Ä S*üA¹ Q ,X Q BÝNM ôL8 îA± Ä
monitor session session_num erspan-source `

– DAÈ â	– D	£EÄ
	session-num	îA± È
5 ,ÖG!5B		
Q , õ ä	< G!5B õ ä	
S*ü Ü Ð	?UE¨² (M õ ä ÈEg 9 end Q , È êK 9 & W U4Ü Ä ?UE¨² < G!5B õ ä ÈEg 9 exit Q , Ä	
G!5B –	– Ö\$d x 6 G! Ruijie(config)# monitor session 2 erspan-source	
,î G Q ,	Q ,	£EÄ
	show monitor	/ K0 £ îA± µ C Ä
G ÄÄÈ â		
	(È	AÈ â

?UE² < G!5B õ ã ÈEg 9 exit Q , Ä

G!5B _ _ Ö\$d x 6 G!
 Ruijie(config)# monitor session 2 erspan-source
 Ruijie(config-mon-erspan-src)#shutdown

Q ,	£EÄ
show monitor	/ K0 £ îA± µ C Ä

G ÄÄÈ ä

(È	AÈ ä

7.1.3 source

G!5B (5 6 3 \$ K0 £\$d0Ä · Ä

source interface V L Q J O H L Q W H U I D F H [rx|tx|both]

– D	£EÄ
single-interface	K0 £\$d0Ä ·

5 ,ÖG!5B 5 ,Ö ´ £EÄ

Q , õ ã (5 6 3 \$ G!5B õ ã

S*ü Ü Ð ?UE² (M õ ã ÈEg 9 end Q , È êK 9 & W U40ÜÄ Ä
 ?UE² < G!5B õ ã ÈEg 9 exit Q , Ä

G!5B _ _ Ö\$d x 6 G!
 Ruijie(config)# monitor session 2 erspan-source
 Ruijie(config-mon-erspan-src)#source interface gigabitethernet
 0/1 both

Q ,	£EÄ
show monitor	/ K0 £ îA± µ C Ä

G ÄÄÈ ä

(È	AÈ ä

7.1.4 destination ip address

A'5B * 5 (Ö>™,X Ü n,Ä,X , 3 Ä

destination ip address ip_address

– DAË â	– D	£EÄ
	ip_address	* 5 (Õ>™,X,Â,X, 3
5 ,ÕG!5B	5 ,Õ ´ £EÄ	
Q , õ ä	(5 6 3 \$ G!5B õ ä	
S*ü Û Ð	?UE¨² (M õ ä ÈEg 9 end Q , È êK 9 & W U40Ü Ä ?UE¨² < G!5B õ ä ÈEg 9 exit Q , Ä	
G!5B _	_ Ö\$d x 6 G! Ruijie(config)# monitor session 2 erspan-source Ruijie(config-mon-erspan-src)destination ip address 10.1.1.2	
,ì G Q ,	Q ,	£EÄ
	show monitor	/ K0 £ îA± µ C Ä
G ÄÄÈ â	'	
Q , Z Æ	(Ë	AÈ â

7.1.5 origin ip address

A'5B * 5 (Õ>™,X Û n\$d, 3 Ä

origin ip address ip_address

	show monitor	/ K0 £ îA± µ C Ä
G ÄÄÈ â		
Q , Z Æ	(Ë	ÄÈ â

7.1.6 ip ttl

A'5B Ö>™, 3y [,X 7 7 /

ip ttl ttl-value

- DAÈ â	- D	£EÄ
	ttl-value	Ö>™, 3y [,X W W O

5 ,ÖG!5B

Q , ö ä	(5 6 3 \$ G!5B ö ä
---------	---------------------

S*ü Ü Ð	?UE" ² (M ö ä ÈEg 9 end Q , È êK 9 & W U4Ü& Ä ?UE" ² < G!5B ö ä ÈEg 9 exit Q , Ä	
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G!5B _	_ Ö\$d x 6 G! Ruijie(config)# monitor session 2 erspan-source Ruijie(config-mon-erspan-src)#ip ttl 65	
--------	---	--

,l G Q ,	Q ,	£EÄ
	show monitor	/ K0 £ îA± µ C Ä

G ÄÄÈ â		
---------	--	--

Q , Z Æ	(Ë	ÄÈ â

7.1.7 ip dscp

A'5B Ö>™, 3y [,X G V F S

ip dscp dscp-value

- DAÈ â	- D	£EÄ
	dscp-value	Ö>™, 3y [,X G V F S

5 ,ÖG!5B

