Ruijie
Networks

©2018

[ ] [ ]

{ x | y | ... }

[x | y | ...]

//

2)

¡ ¡ ¢
ج ¡ ¡ ژ ¡ ئ ّت ¢
¢

3)

1 Web

1.1

≠ RSR10-01G ` ð ¢

1.1.1

Web IE Firefox Chrome

Web Web Web Web
Web IE Firefox Chrome

1.1.2

Web Web
HTTP
HTTPS TLS1.0

Web Web Web Web
IE Firefox Chrome Safari

1.2

1.2.1

Web

Web

IP

Web Web Web

IE Firefox Chrome Safari IE (Maxton)
Web

PC 1280*1024
1440*900 Web

1.2.2

, Web IP 192.168.1.1 255.255.255.0 Web
admin admin Windows XP

Web	
Web	Eth0-Eth4 IP 192.168.1.1
Web	admin admin

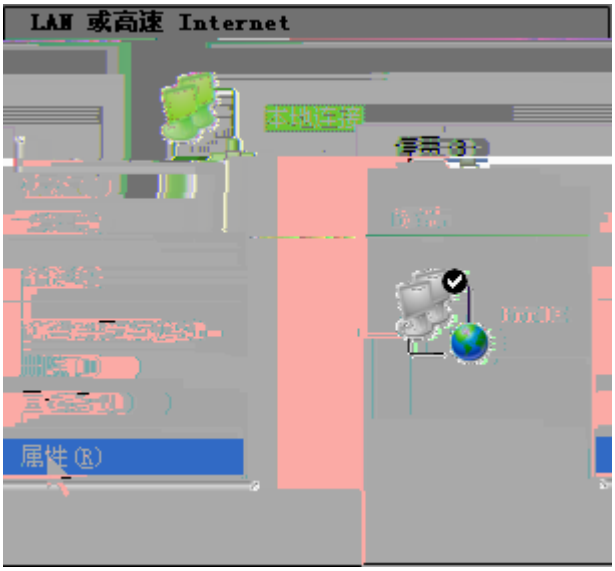
ō Eth1-Eth4 Ǒ ¯192.168.1.1 ° Web ¢

PC PC Eth4
PC

PC IP

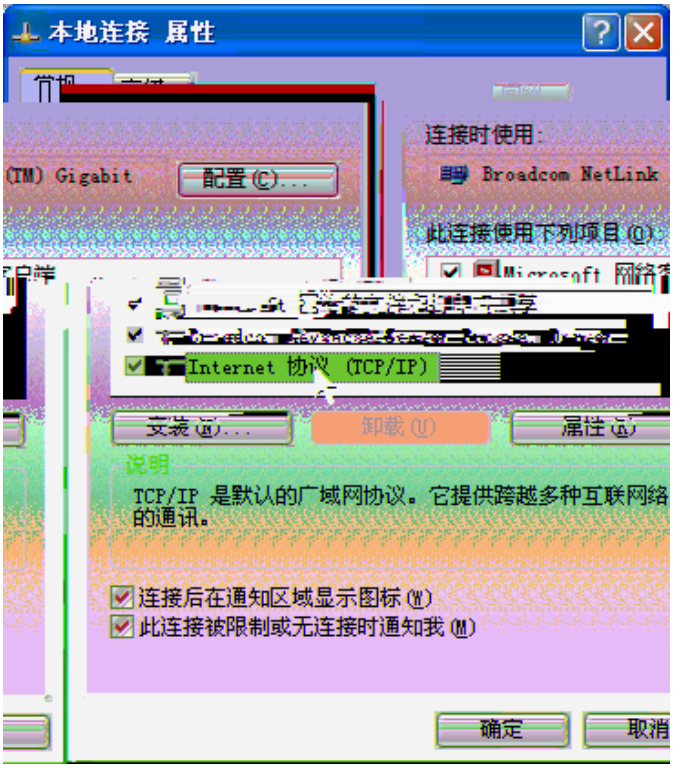
PC “ ” -> “ ” -> “ Internet ” ->" "

1-1



” ” ” ” ” Internet TCP/IP ”

1-2

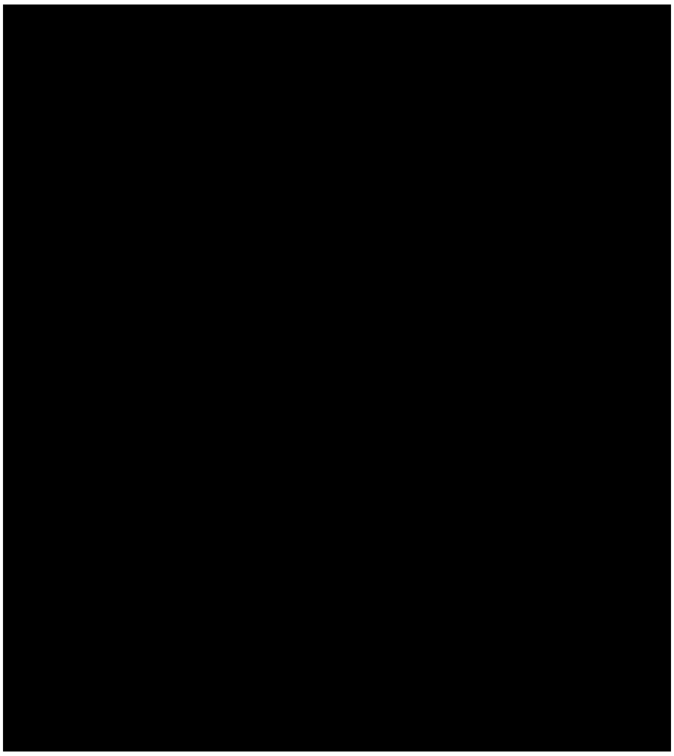


“ ” PC IP

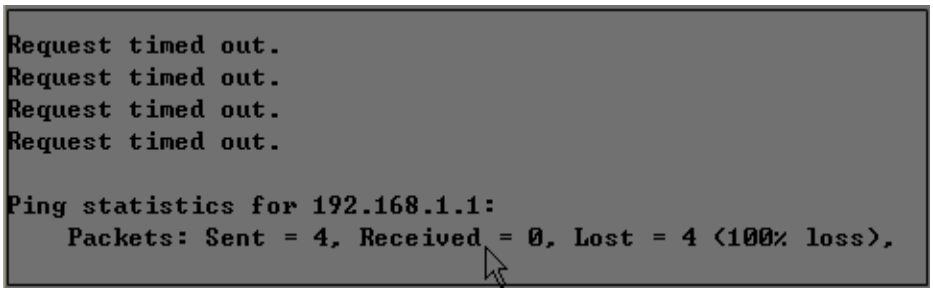
“ Internet TCP/IP ” “ IP ” “ IP ” 192.168.1.xxx xxx

2 254 “ ” 255.255.255.0 “ ” 192.168.1.1 IP

1-3

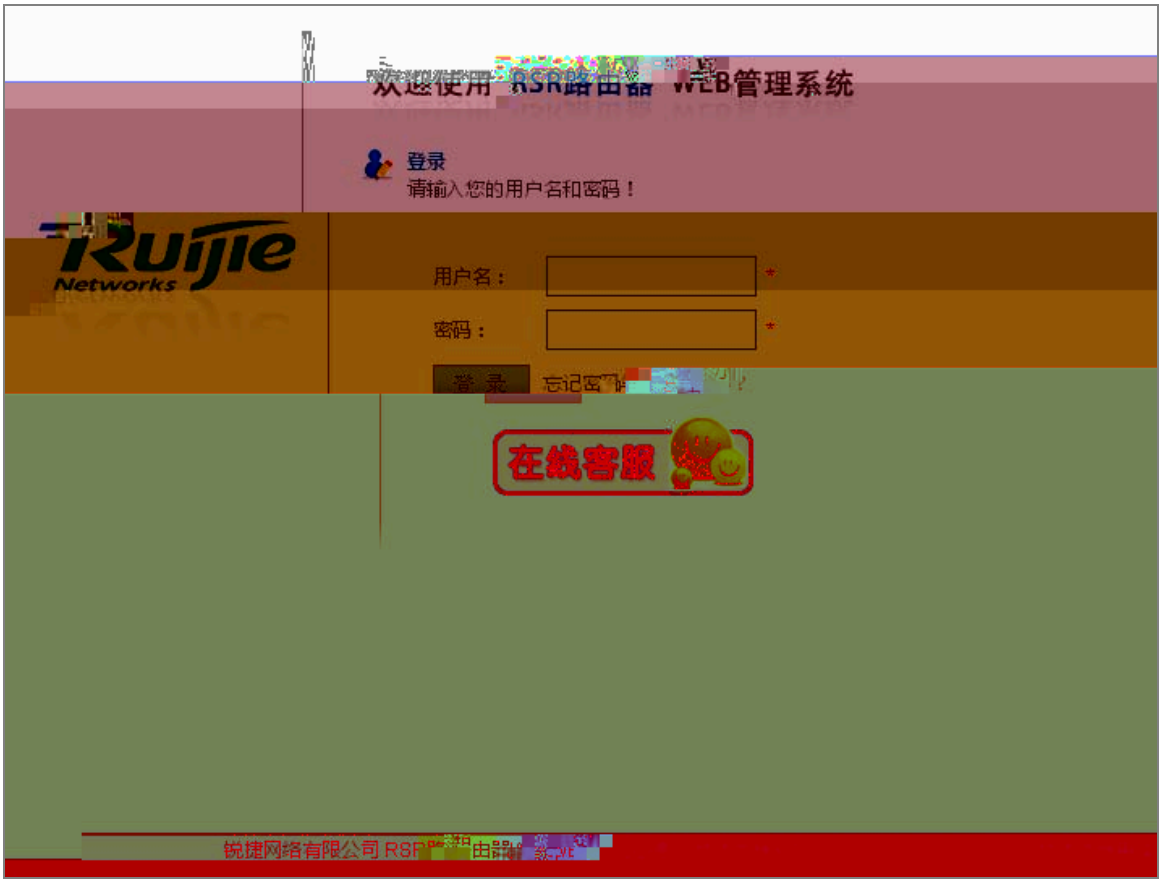


ő ک IP 192.168.1.1 PC IP l 1, ¯ ” ﻳ ¢


Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 192.168.1.1:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

PC Î

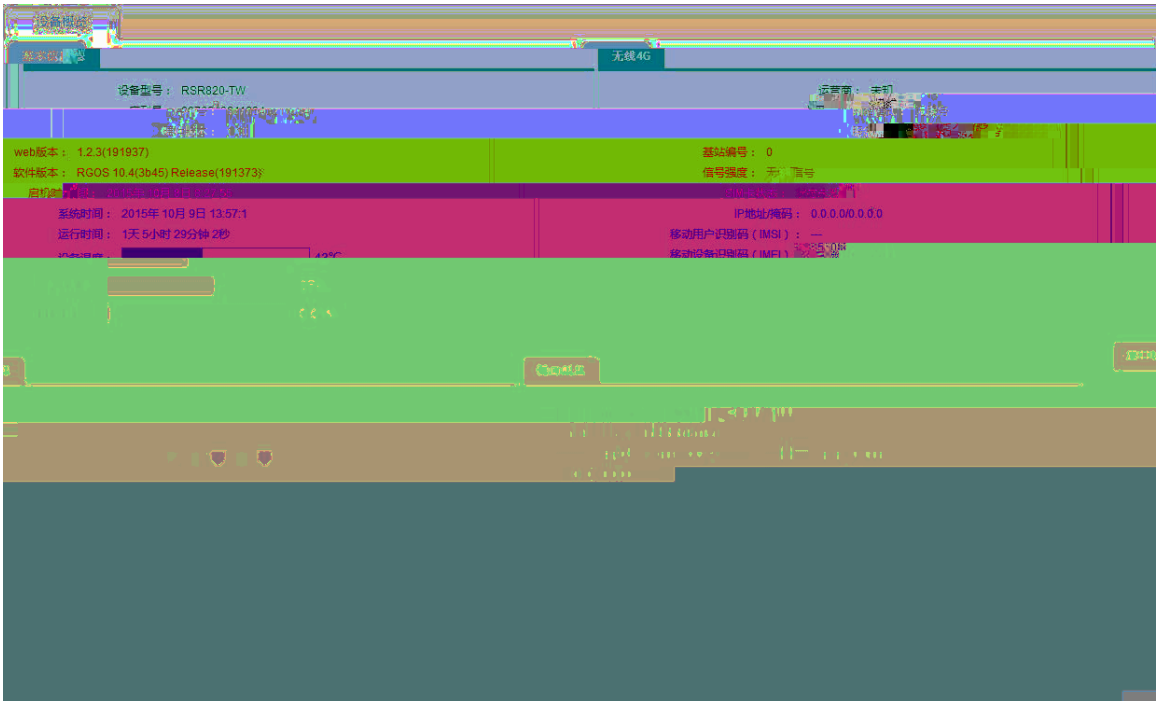
1-6



admin/admin Web , 1-7

u admin

1-7:

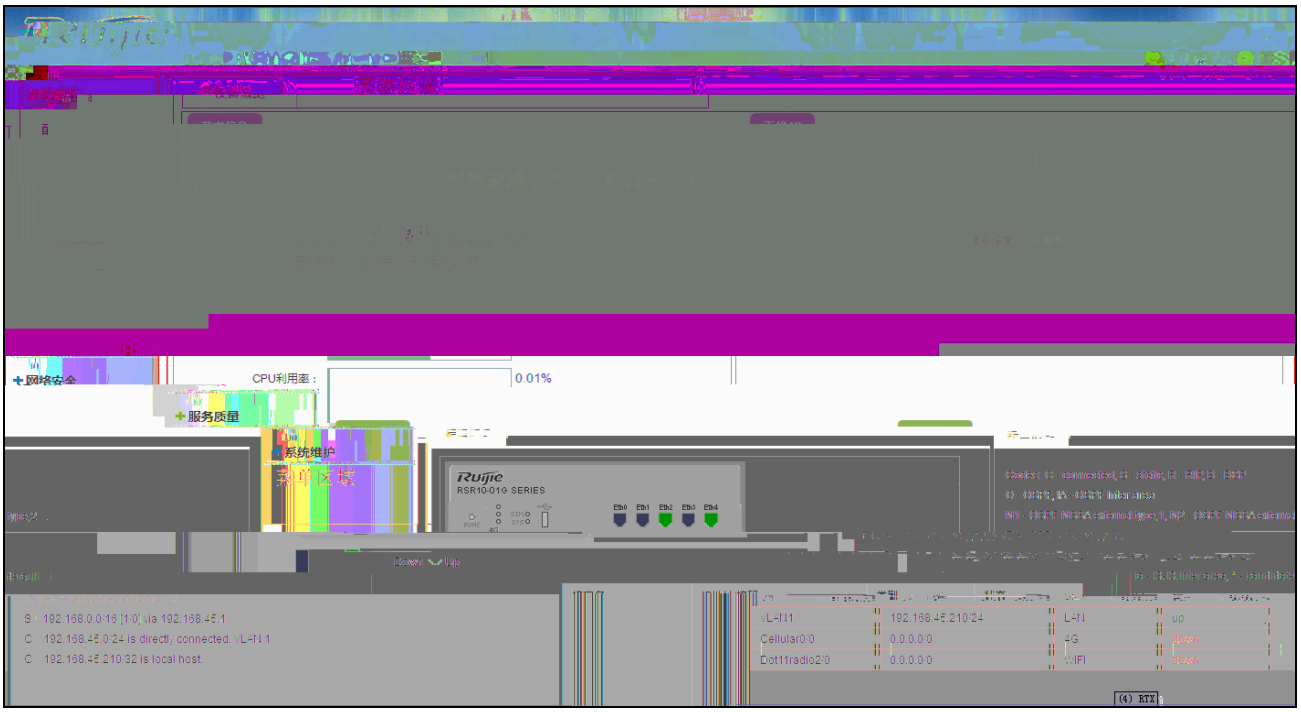


1.2.4 Web

1.2.4.1

RSR Web 1-8

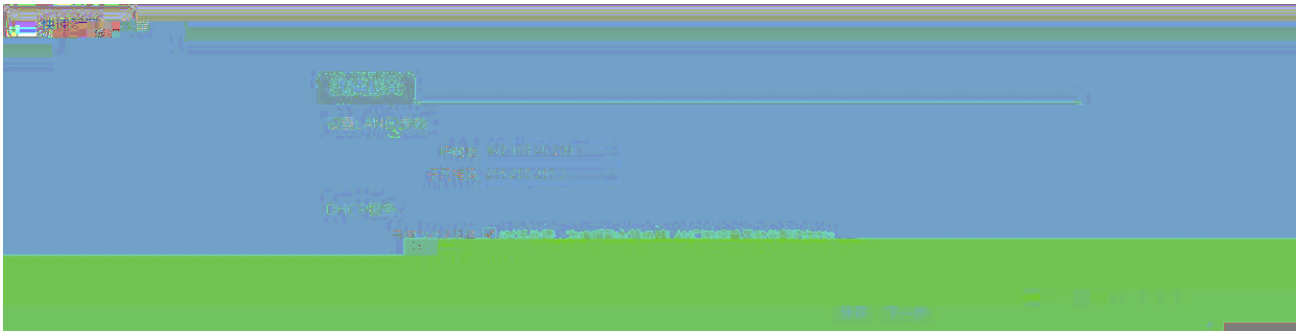
1-8 Web



1-8 Web

1.3

1.3.1



LAN IP

WiFi SSID WiFi

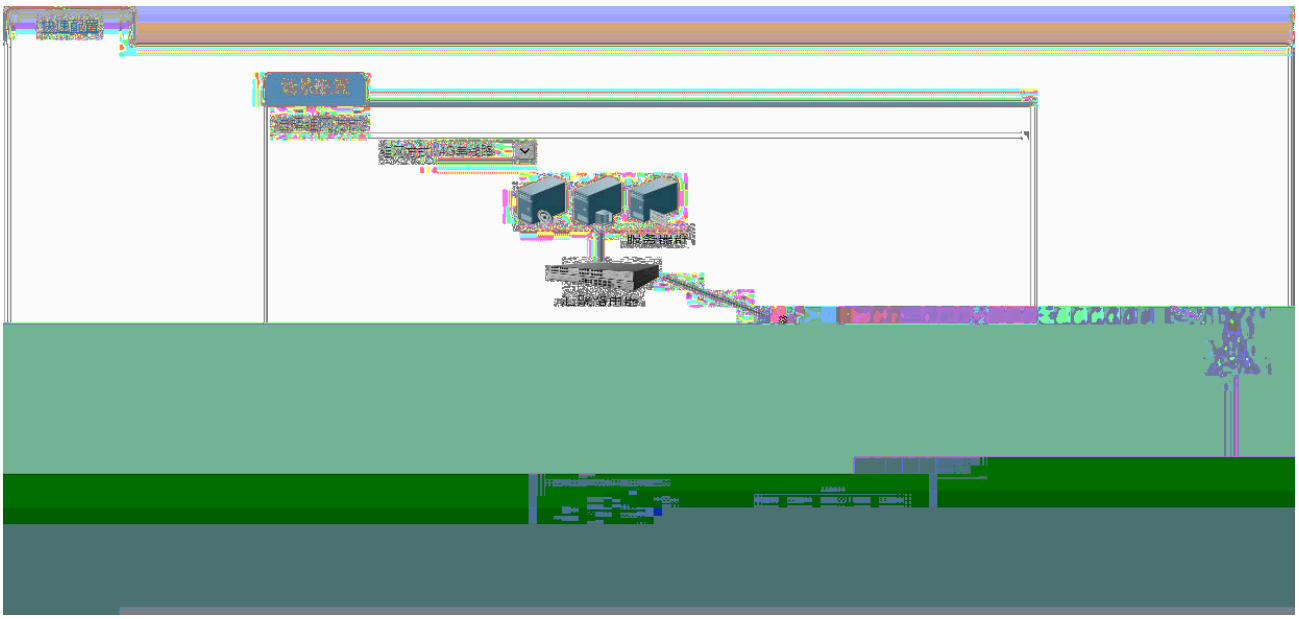
DHCP WiFi IP

ئ Eth1 Eth 4

1.3.2.2

1-11

4G



4G 4G

IP PPPoE ADSL

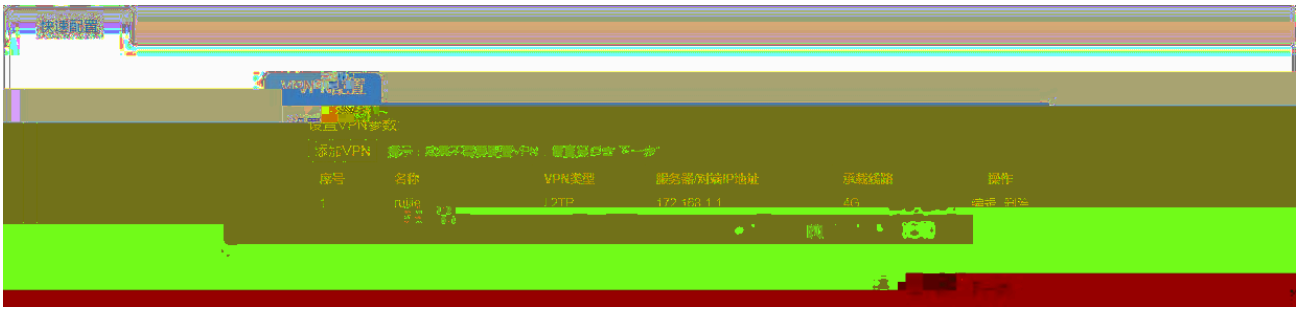
4G 4G

4G

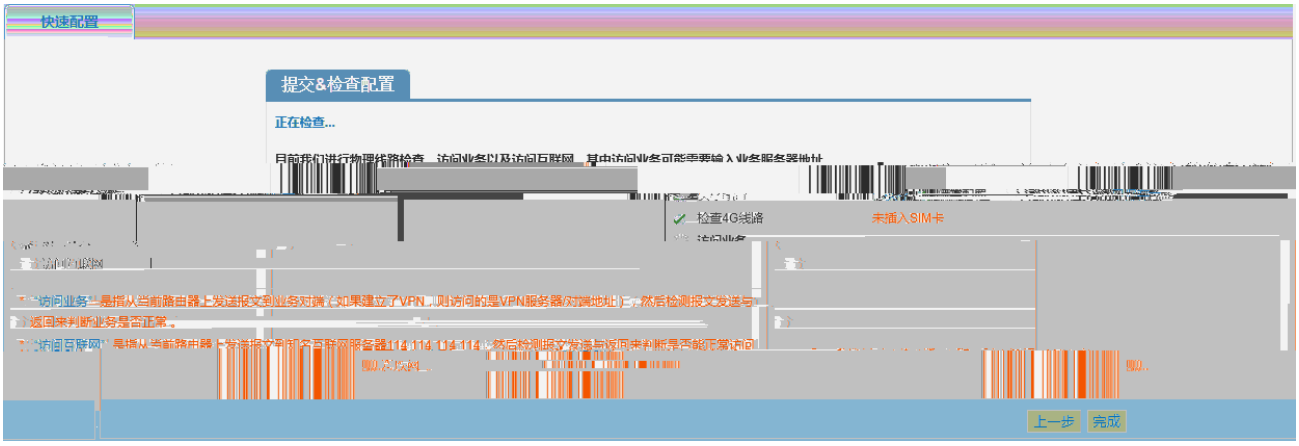
¯4G ǡ ° ¯ ǡ ° ﻴ ﺋ Eth0 Eth4 ǡ
ﺋ Eth1 Eth 4

1.3.2.3 VPN

1-13 VPN



GRE GRE Ping ÷ M d £ ? d



FAQ

1.3.2.5

4G NAT

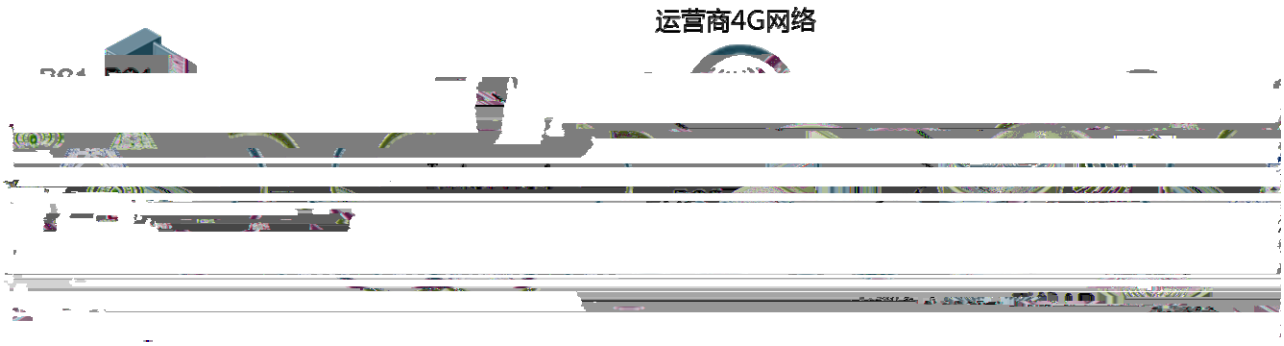
1.3.2.5.1.1

4G

ADSL/PON WiFi

1.3.2.5.1.2

1-15



1.3.2.5.1.3

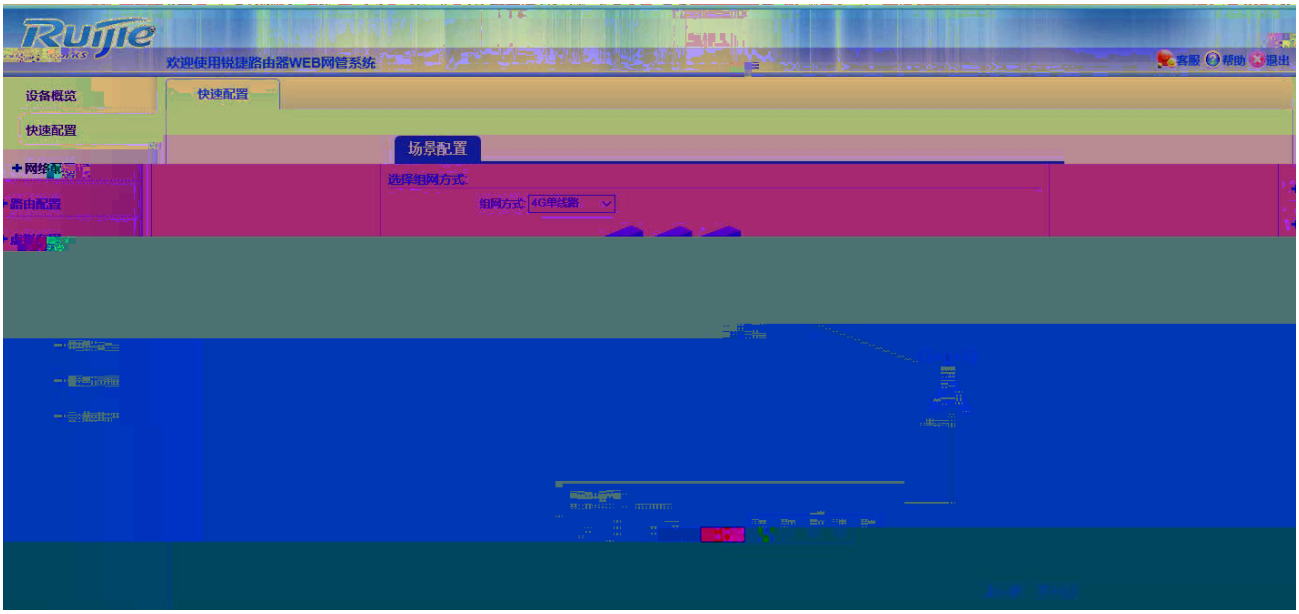
“ ” “ ” LAN IP DHCP DHCP

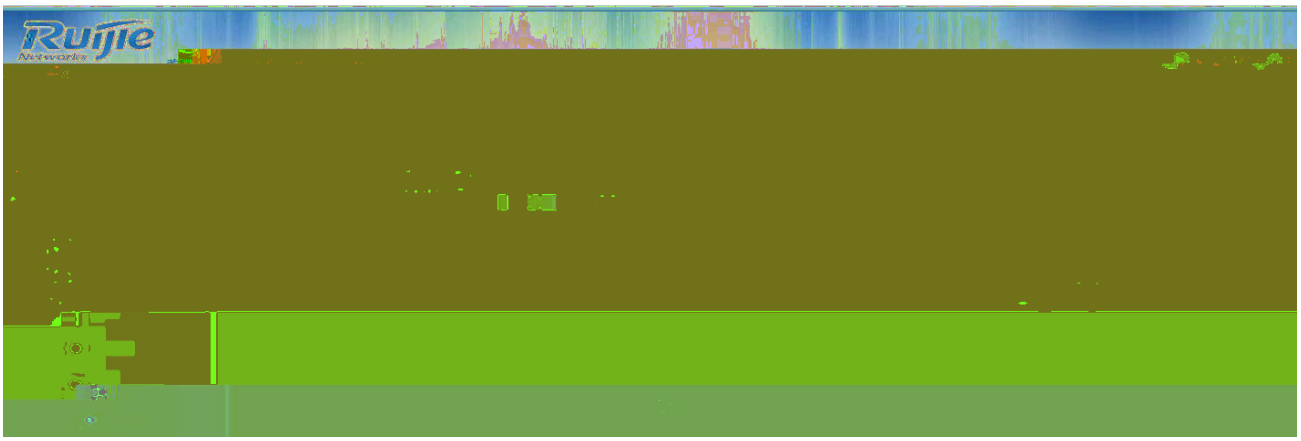
“ DNS “ ” DNS “ ” “

1-16

Web Web “ “ ” “ ”
“ 4G ” ”

1-17





L2TP VPN

1.3.2.5.2.1

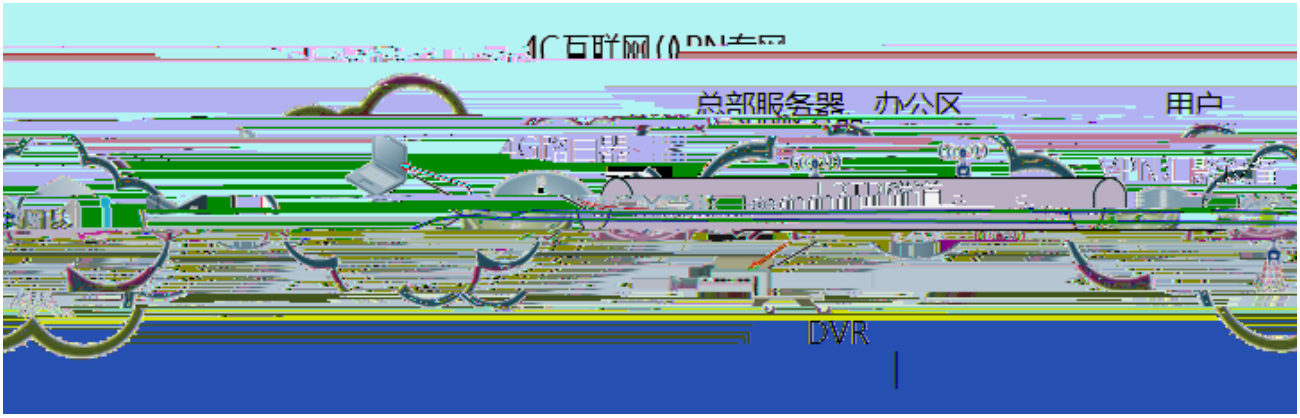
4G 4G 4G

NAT VPN L2TP VPN AAA 4G

L2TP VPN IP

1.3.2.5.2.2

1-21



1.3.2.5.2.3

“ ” “ ” LAN IP DHCP DHCP

“ DNS “ ” DNS “ ” “

1-22

“ & “ “

”

1-27

1.3.3

“ VLAN ” “ ” “ ” “ DHCP ” “ SNMP ”

1.3.3.1 VLAN

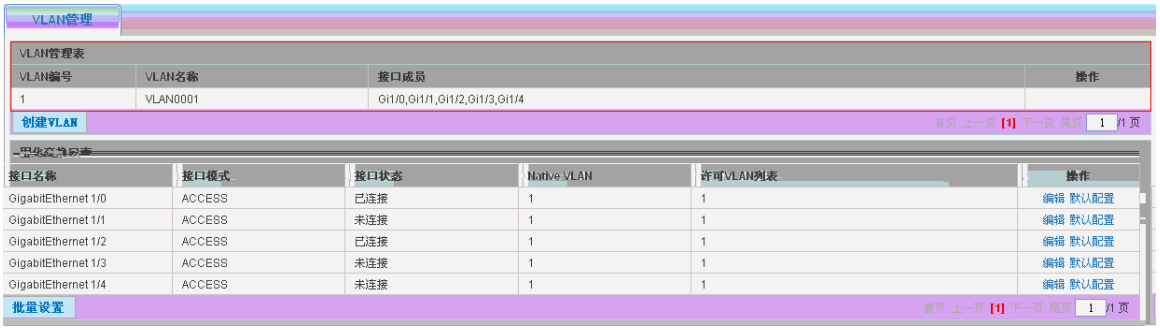
VLAN Virtual Local Area Network VLAN

VLAN

VLAN VLAN VLAN VLAN

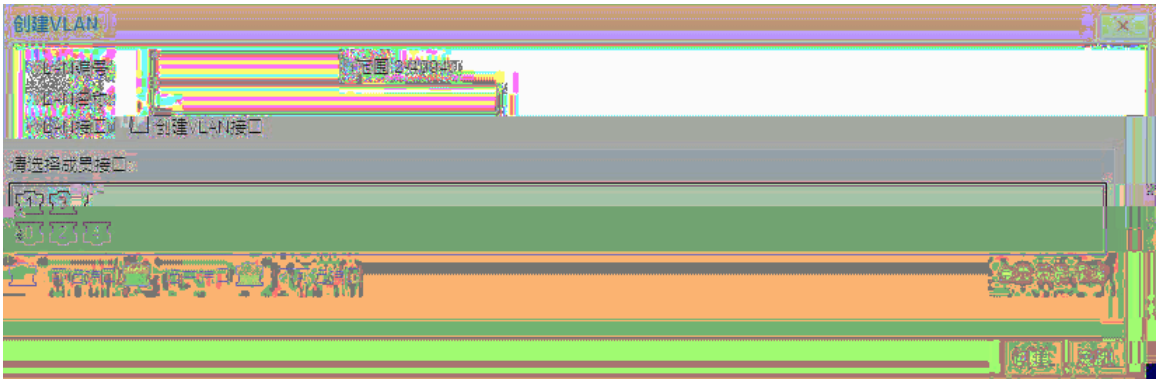
IP VLAN VLAN

1-28



⊥	VLAN1	VLAN	VLAN1	¢

1-29 VLAN

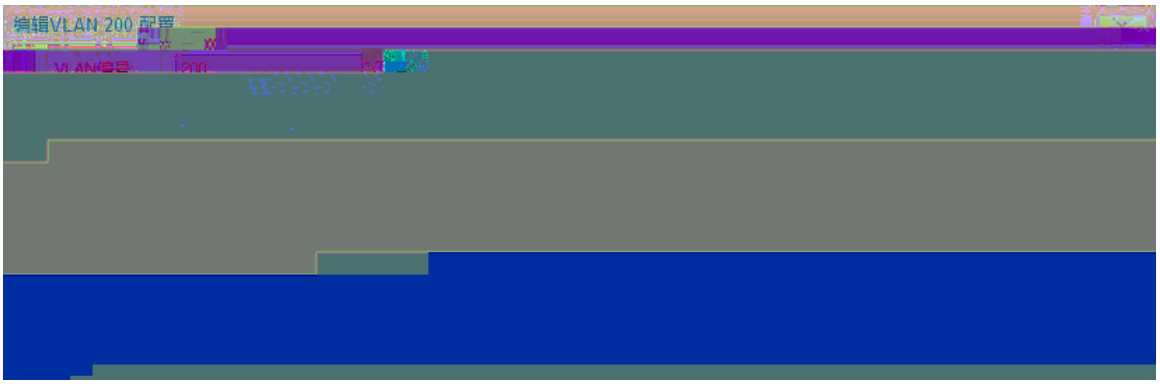


VLAN VLAN ID ID VLAN

VLAN ID VLAN

VLAN SVI VLAN VLAN VLAN
SVI “ ” “ SVI ”

1-30 VLAN



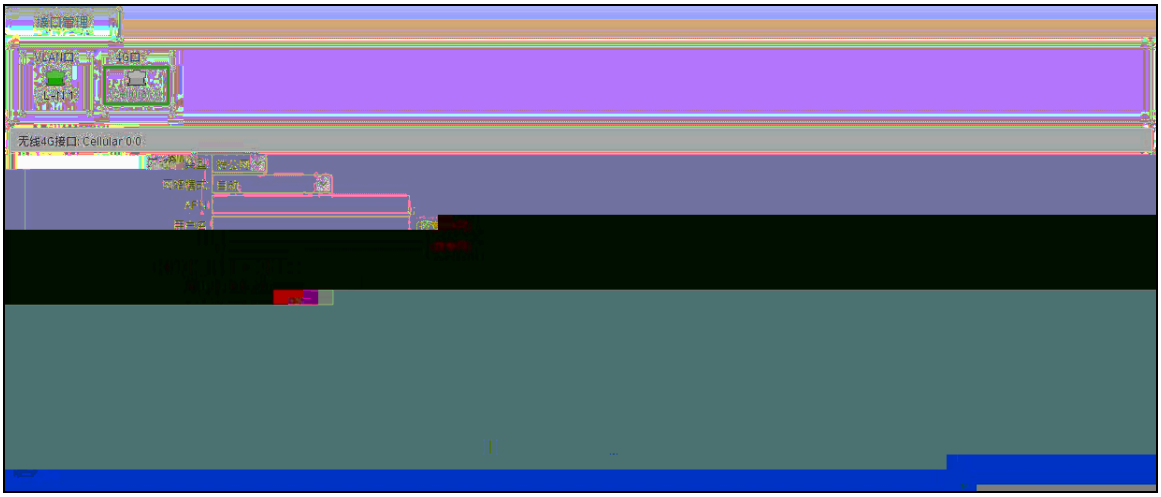
1-35

1.3.3.2

“ 4G ”“ SVI “

4G “ “

1-36



LTE 4G TD-SCDMA 3G WCDMA 3G GSM & 2G

(APN) APN APN

/ 4G

IP 4G IP 4G

IP

“ CHAP ” “ PAP ” “ CHAP&PAP ”,

4G UP

4G

SVI Switch Virtual Interface, SVI

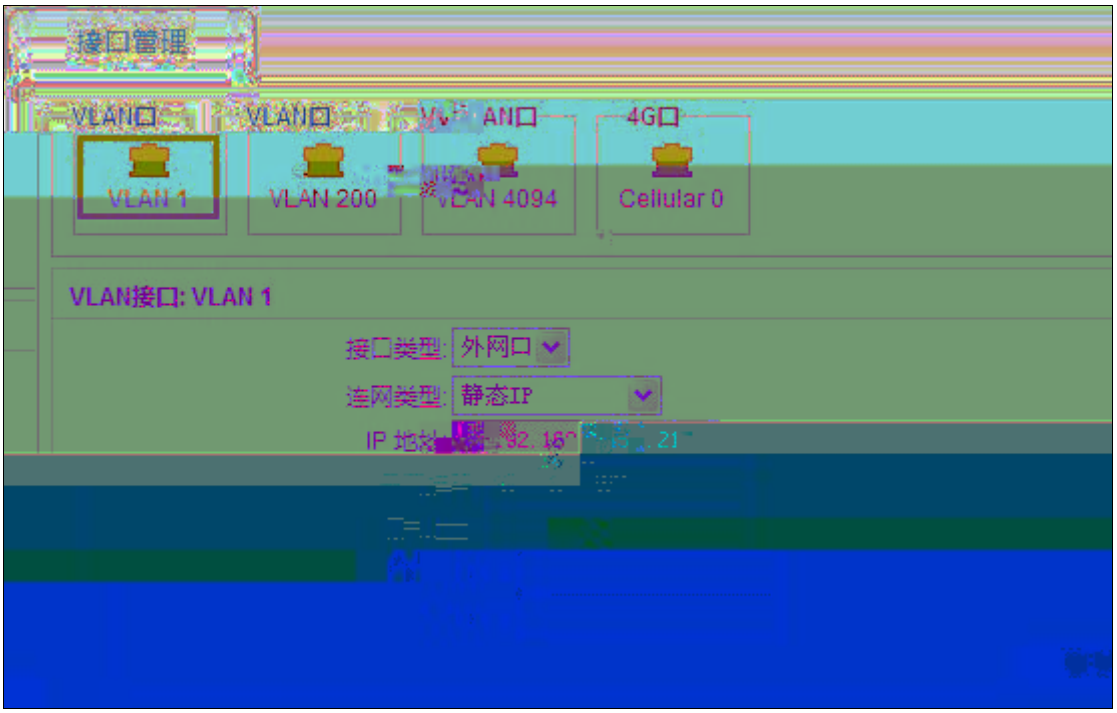
SVI Internet IP IP

DHCP IP PPPoE SVI VLAN ID “ VLAN ”

VLAN ID

NAT

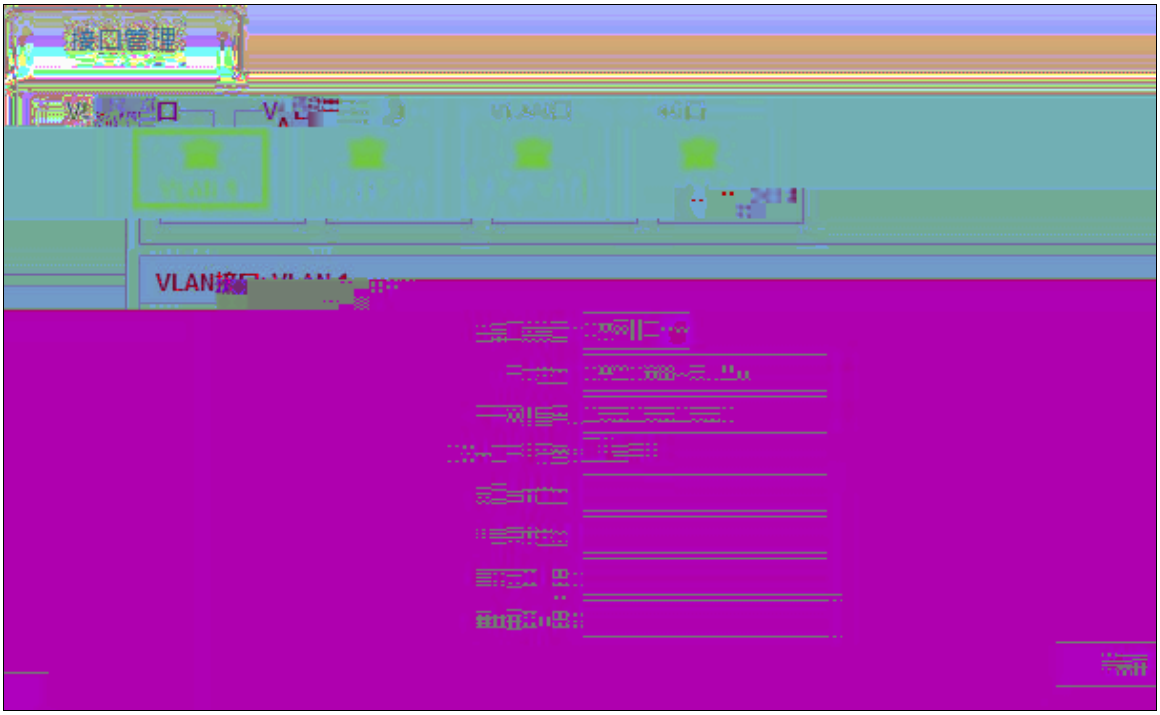
1-37



“ IP ” IP “ IP ” DHCP

“ PPPoE(ADSL) ” ADSL

1-38



SVI IP IP

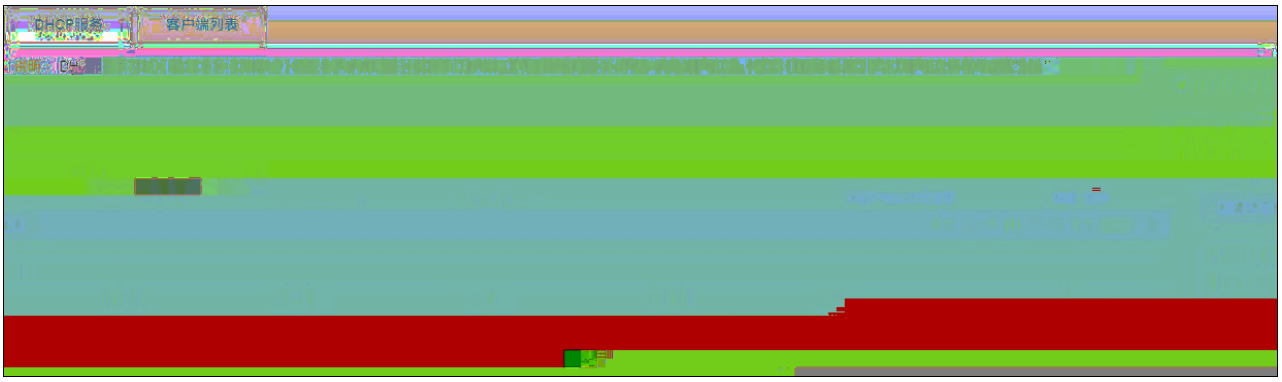
DHCP IP

1.3.3.3 DHCP

Dynamic Host Configuration Protocol, DHCP DHCP
IP DHCP IP IP IP

DHCP DHCP DHCP

1-39

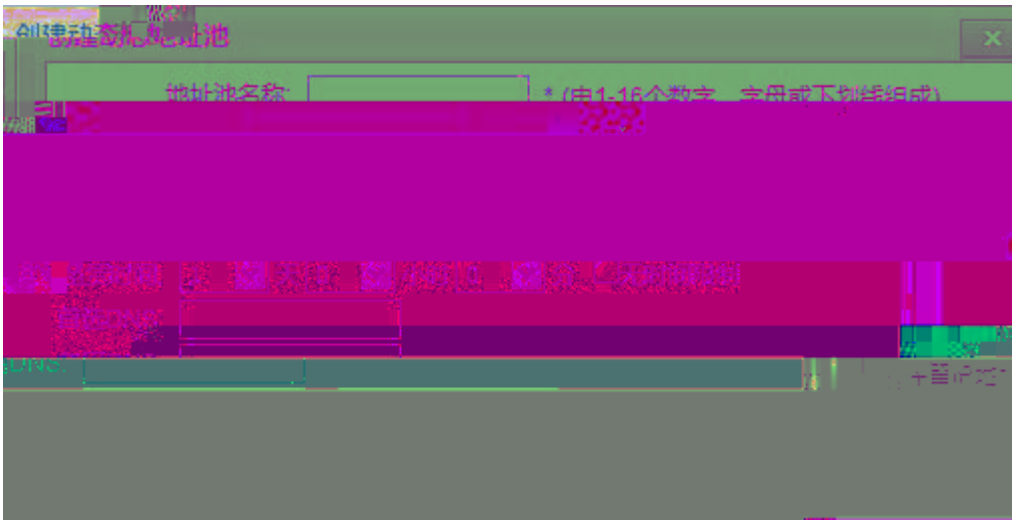


“ IP ”

1-40

“ ” “ ”

1-41



1-32

IP IP

IP IP

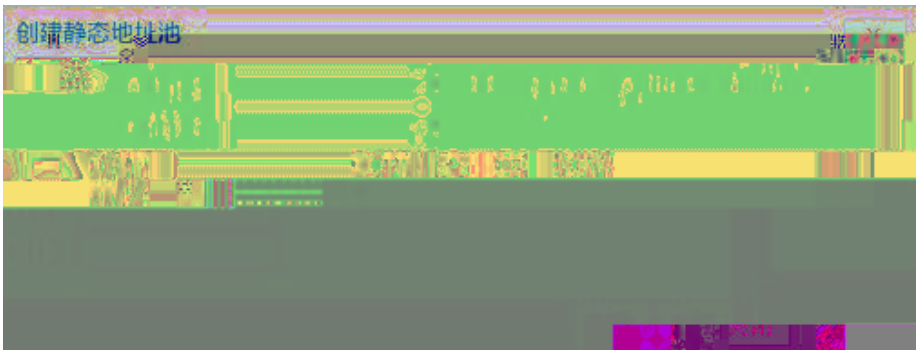
DNS/ DNS

IP IP

U IP l 5 IP g ɔ ¢

“ ” “ ”

1-42



1-32

IP IP IP

MAC MAC

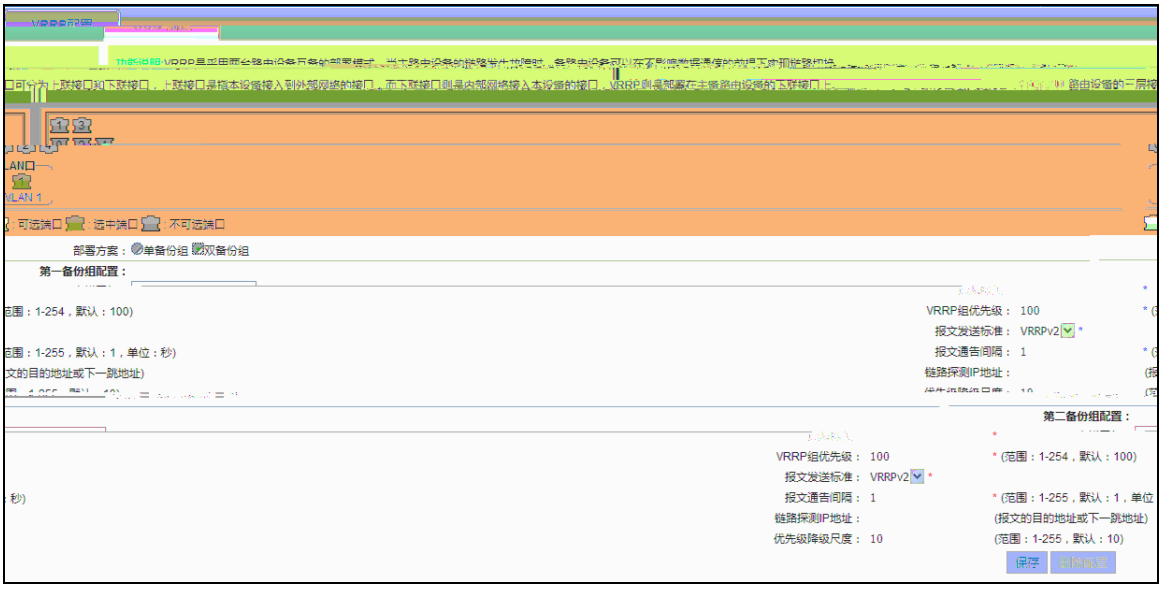
IP

DNS

IP

1-43

DHCP服务
客户端列表
客户端地址分配列表
地址租期
已分配IP地址
MMC地址
IDLE
1.1.1.100
0025.64c5.84d2
1
1 页

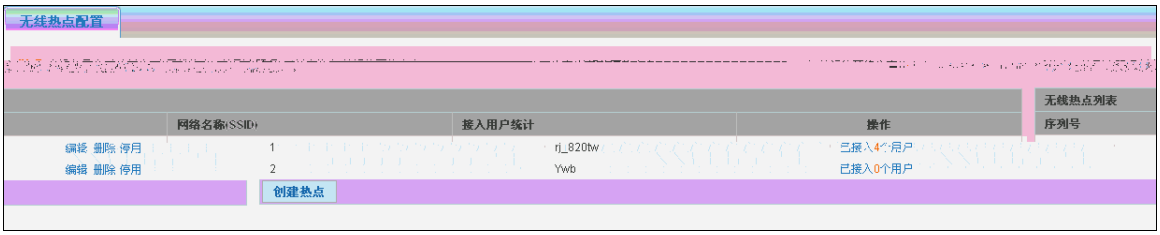


1.3.4

1.3.4.1

WiFi AP iPad

1-46 AP



3 SSID ش ¢

AP SSID

WLAN-ID 1 3

SSID iPad

AP

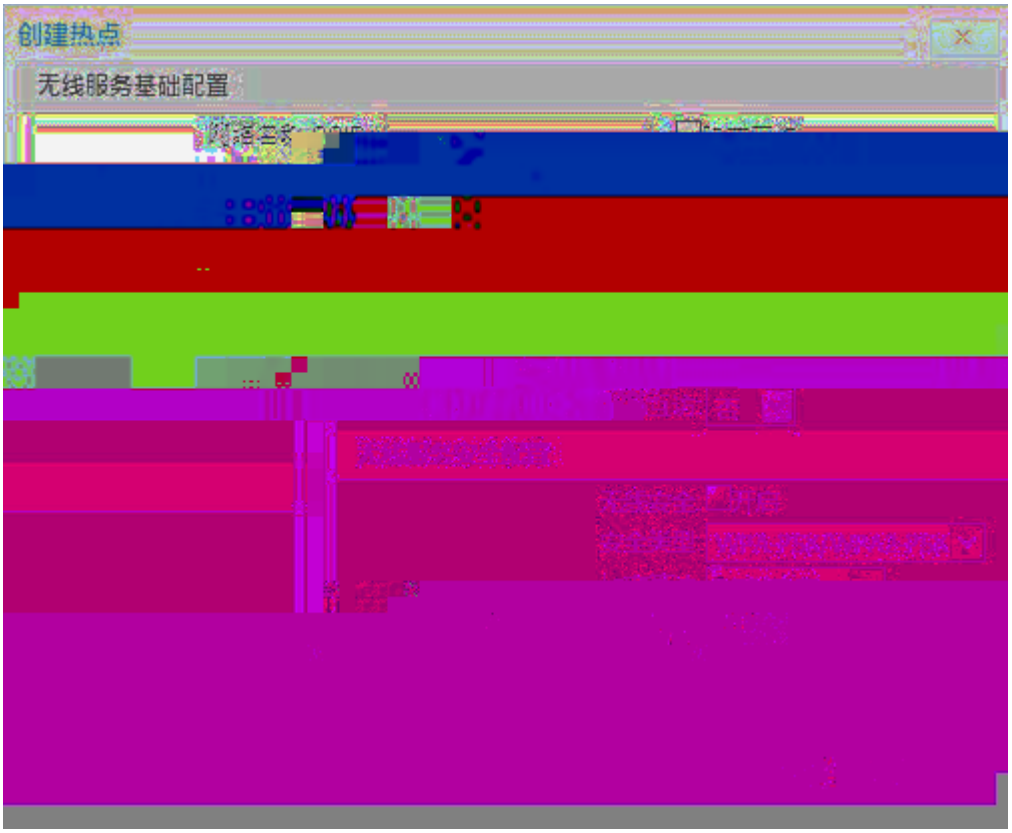
AP

AP AP

1-47

AP AP MAC IP
SSID

1-48 AP



AP

SSID iPad

SSID

DHCP IP

IP / IP WiFi IP

255.255.255.0

DNS

WiFi

WiFi

WPA-PSK/ WPA2-PSK　WPA2-PSK　WPA-PSK　　WPA-PSK/ WPA2-PSK

AES/TKIP　AES　TKIP

8-63　ASCII

1.3.4.2

WiFi

1-49　　WiFi

Station　　AP　　¢

Station

WiFi

WiFi

IP　　WiFi　IP　　IP

DNS　　DNS IP

1.3.4.3

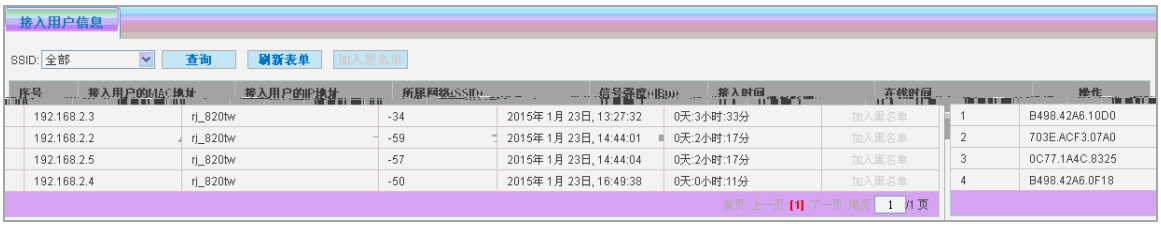
WiFi

1-50

1.3.4.4

WiFi SSID

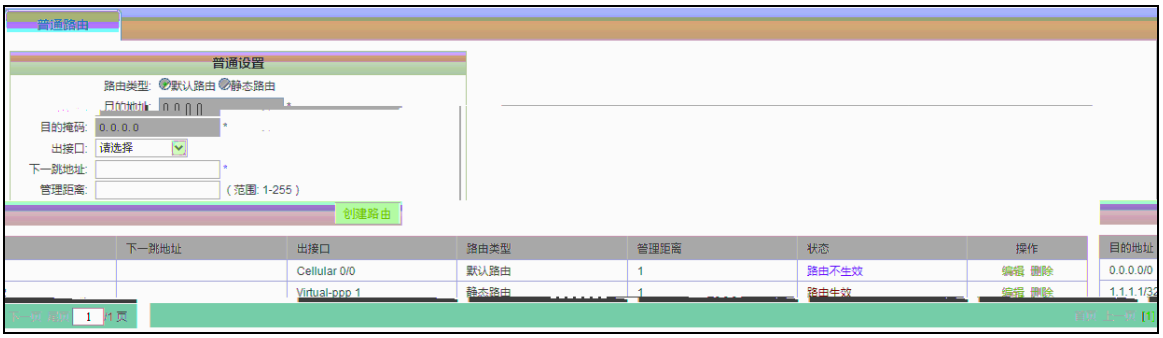
1-51



1.3.5

1.3.5.1

1-52



IP

IP

IP

“ 1 ”

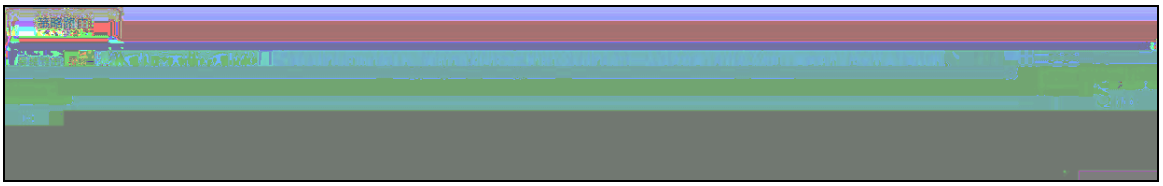
ش 0.0.0.0

1.3.5.2

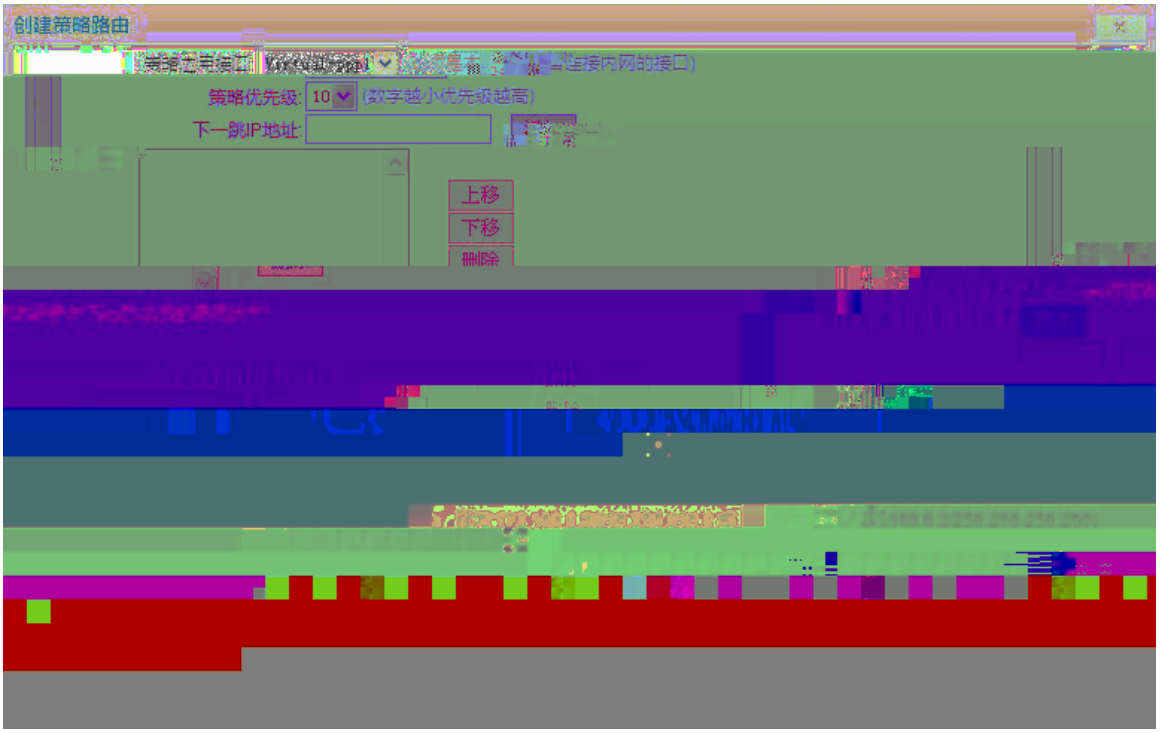
PBR Policy-Based Routing

IP

1-53



1-54



IP

IP

IP ð , ð , ð ¢

1.3.5.3 RIP

RIP(Routing information Protocol) (Interior Gateway Protocol, IGP)
(distance-vector) RIP UDP
15

Web RIPv2 RIP RIP Web
RIP IP
RIP

± IP ± RIP ¢

RIP

RIP

RIP

± ¢

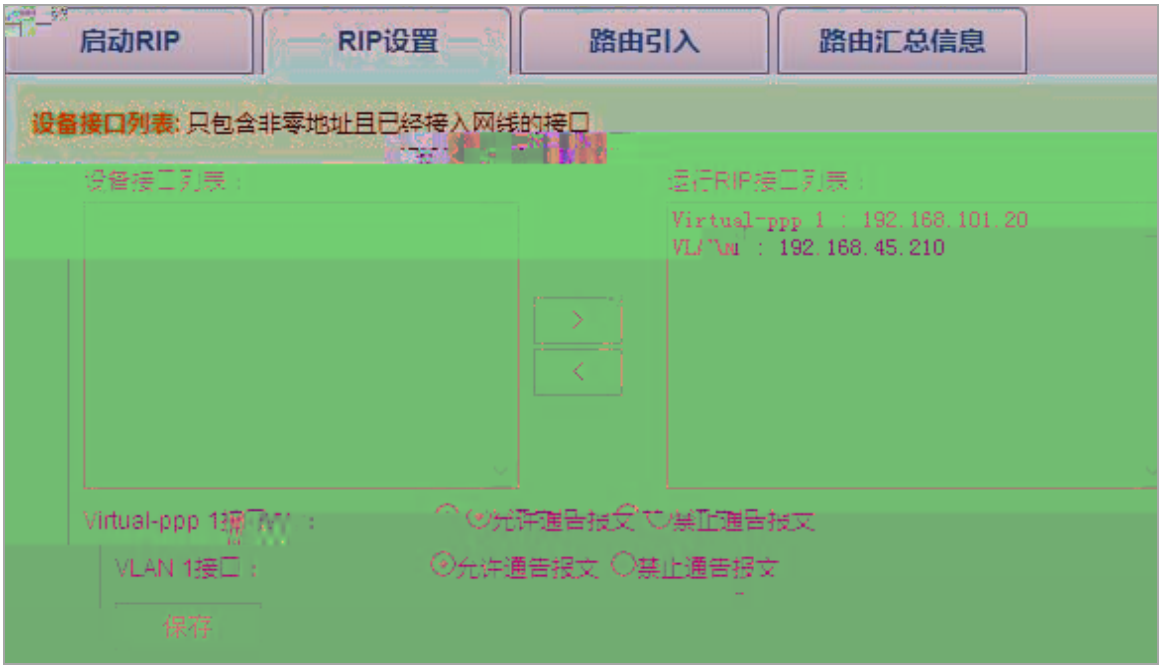
1-55

RIP

VLAN

RIP RIP

1-56

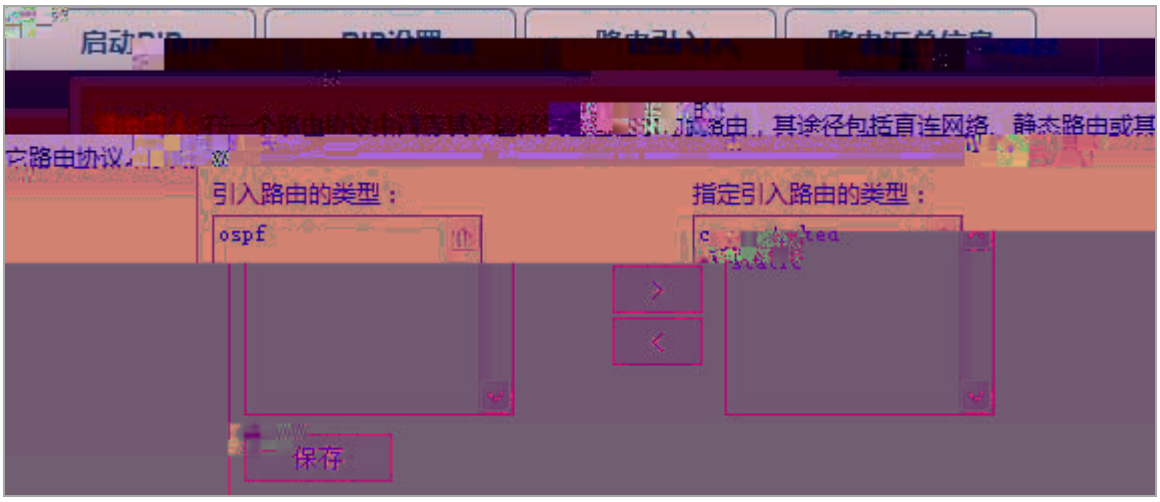


: RIP OSPF

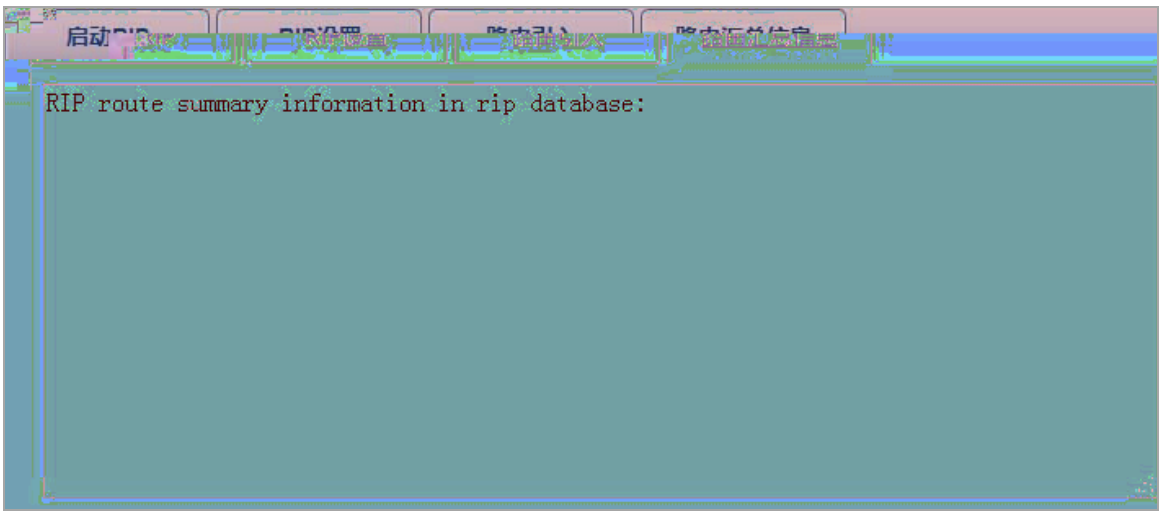
OSPF RIP OSPF

OSPF Connected Static

1-57



1-58



1.3.5.4 OSPF

OSPF Open Shortest Path First (Interior Gateway Protocol,IGP), Autonomous System , (RIP) OSPF

OSPF OSPF Web OSPF IP OSPF

ID ٩ ID ﺋ ز OSPF ¢

OSPF

OSPF ID “ 1 ”

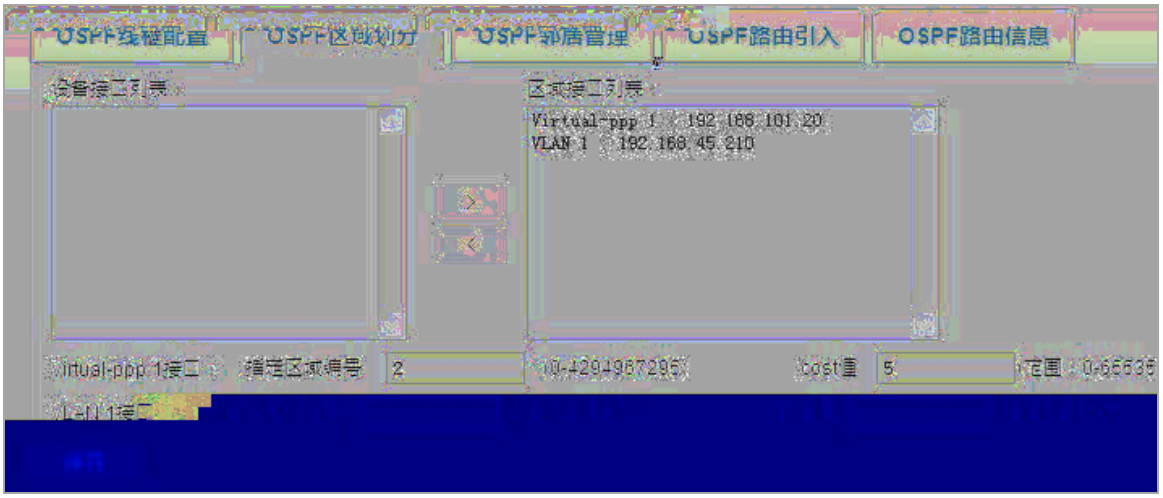
1-59

OSPF

VLAN

OSPF

1-60



OSPF

OSPF OSPF

OSPF OSPF

OSPF

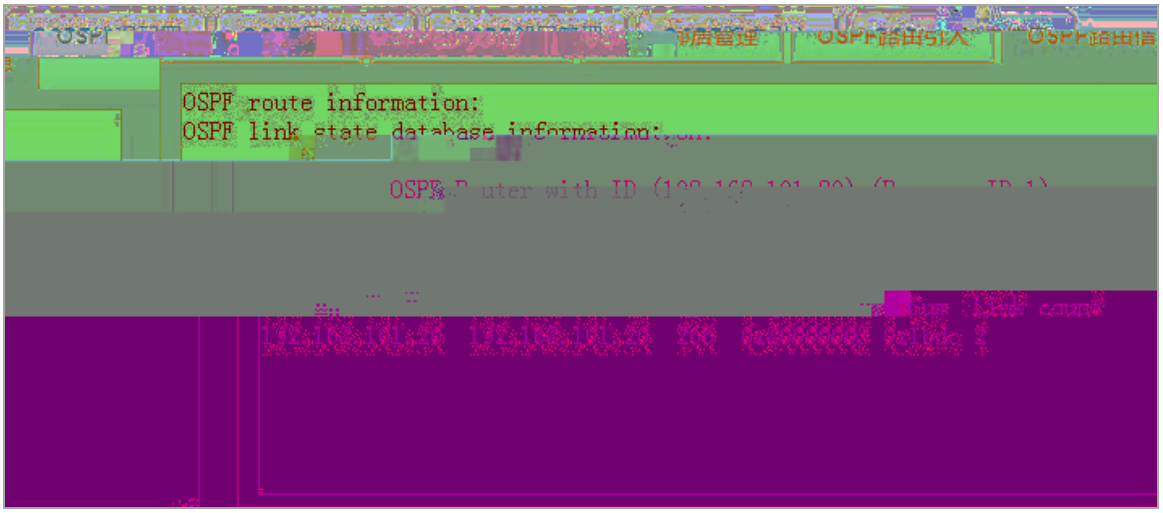
1-61

OSPF

OSPF : OSPF RIP OSPF

OSPF

1-63



1.3.6

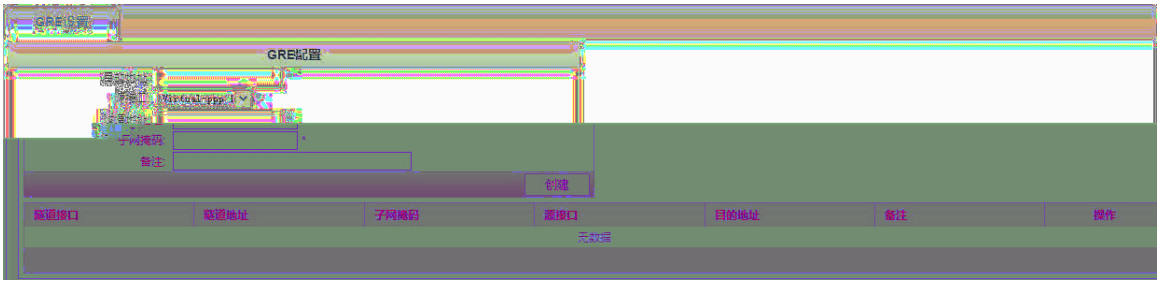
VPN “Virtual Private Network” “ ”

VPN

1.3.6.1 VPDN

VPDN VPDN VPDN L2TP

1-64



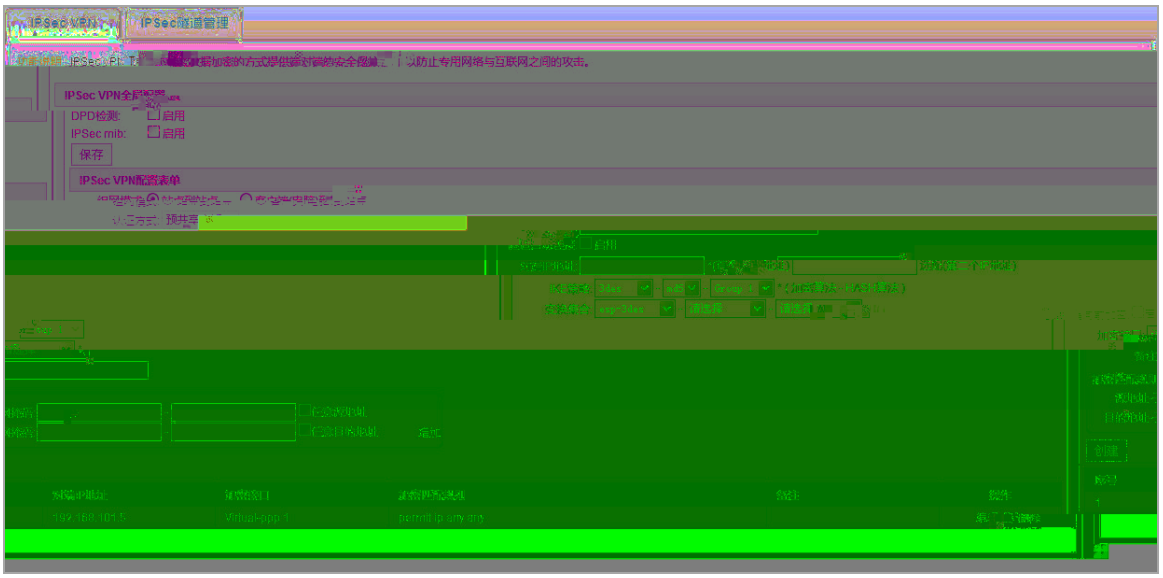
1.3.6.3 IPSec VPN

VPN Internet Internet

IPSec

IPSec

1-67



DPD

“ ”

IPSec

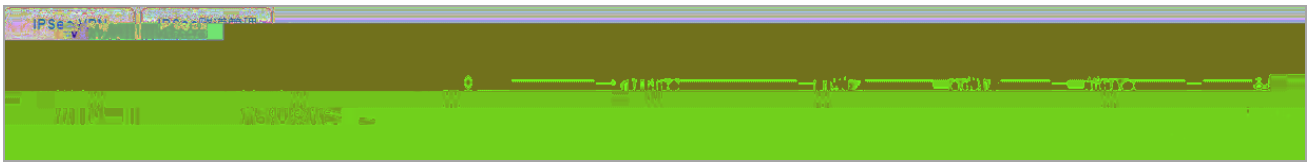
IPSec IP

IKE

VPN

IPSec VPN

1-68



IPSec IP IP

1.3.7

PKI

CA Certificate Authority

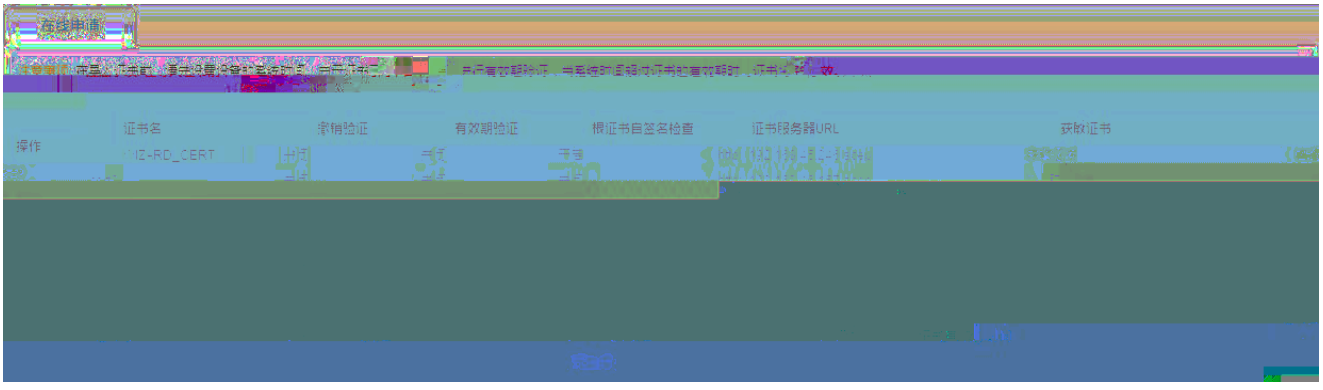
CA

CA

1.3.7.1

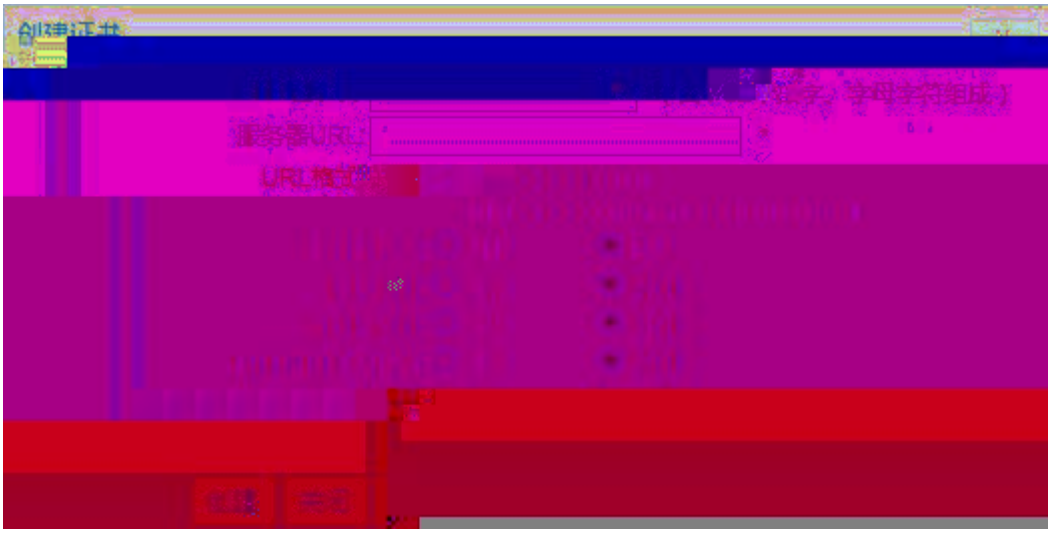
CA Certificate Authority

1-69



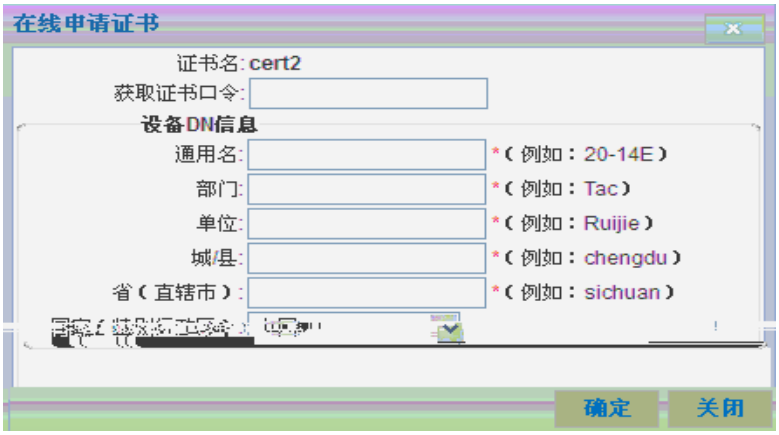
“ ”

1-70



“ ”

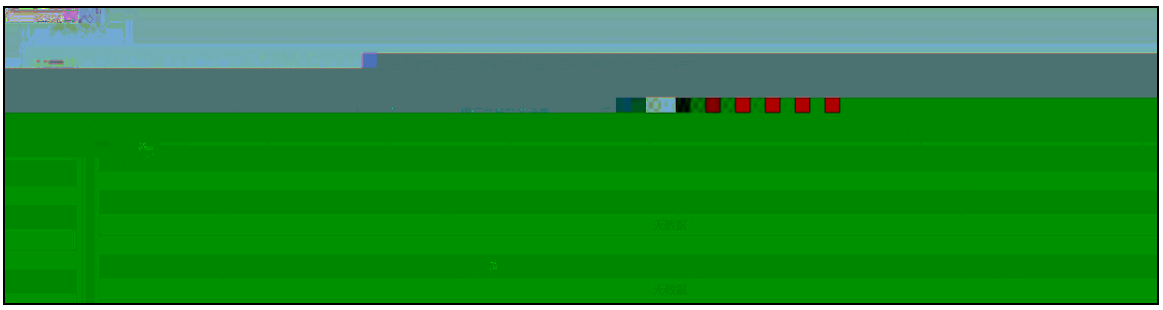
1-71



1.3.7.2

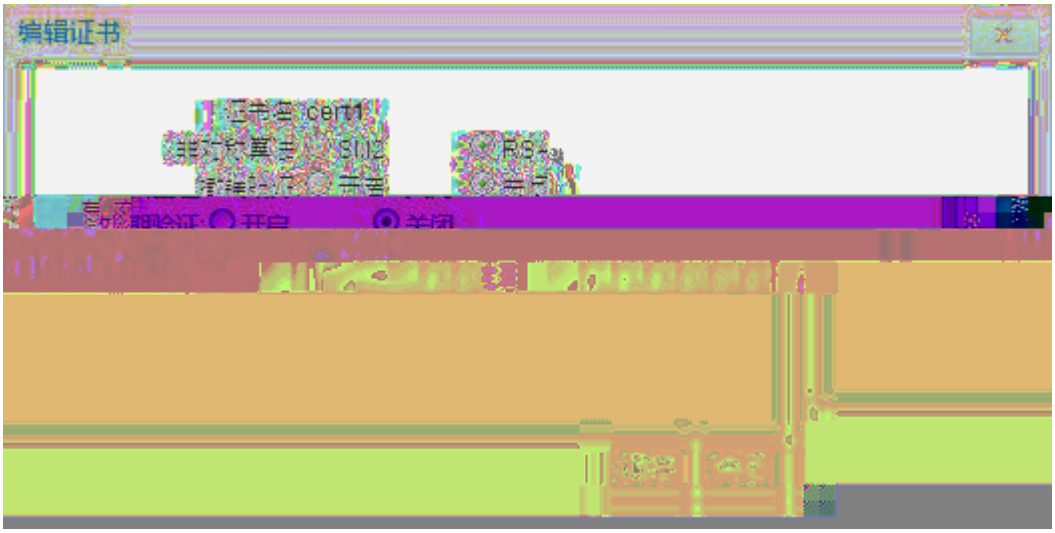
CA Certificate Authority “ *.pfx ”

1-72



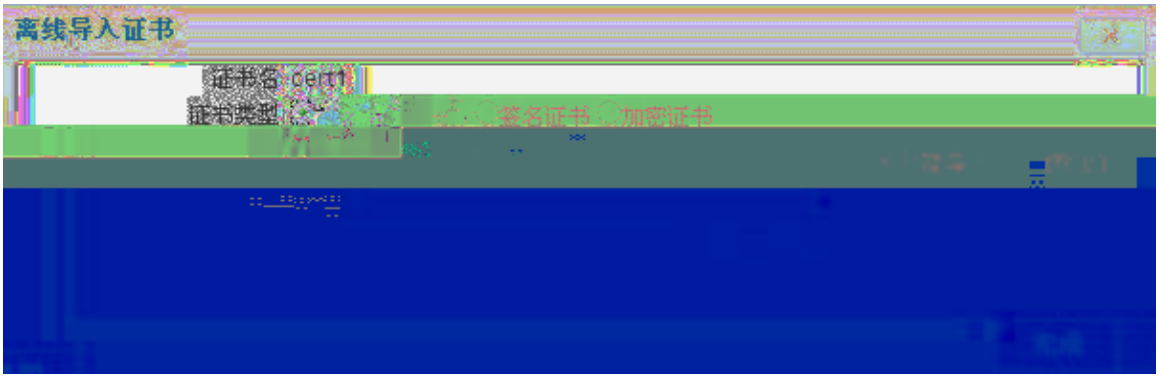
“ ”

1-73



“ ”

1-74



1-75

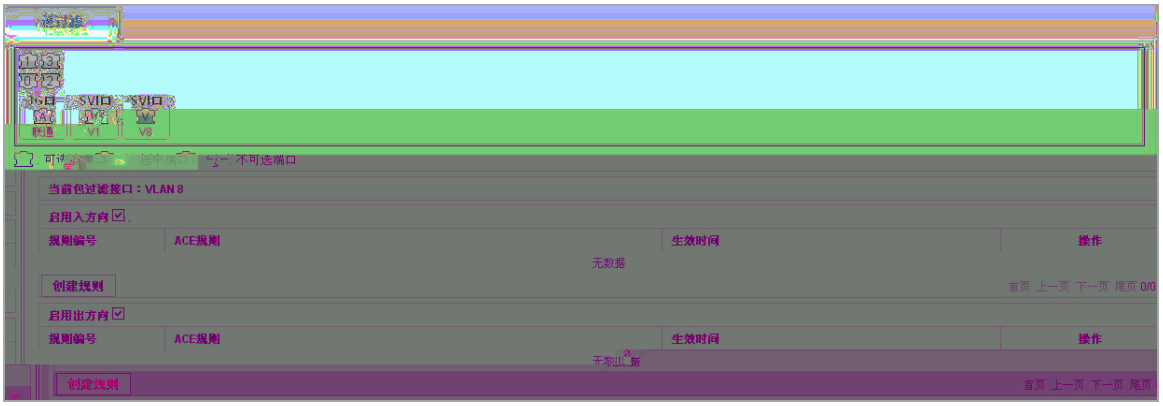
1.3.9.3

IP

o

ئ

1-82



1-2147483647

IP TCP UDP ICMP

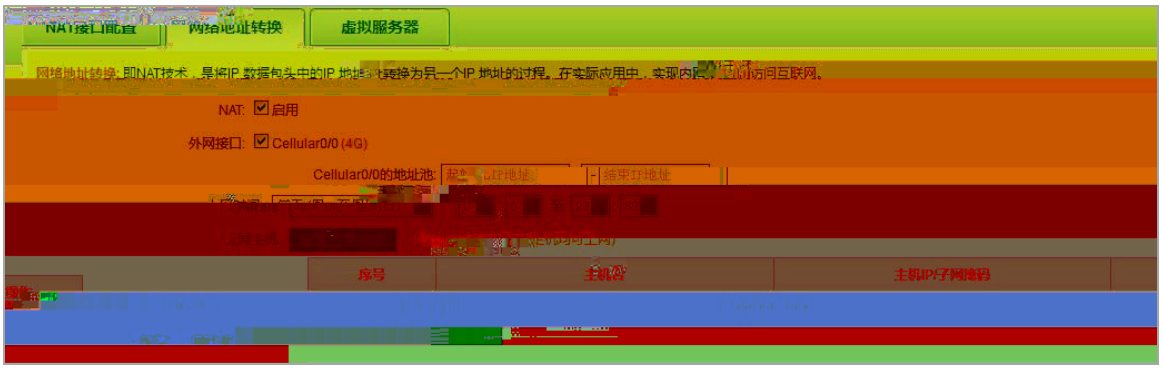
¢ و ي ي

ب ً ¢ Virtual-PPP Dialer ¡ ¡ ب 18 ث

¢ o ي

NAT NAT “ Network Address Translation ” “ ” IP Internet IP IP

1-85

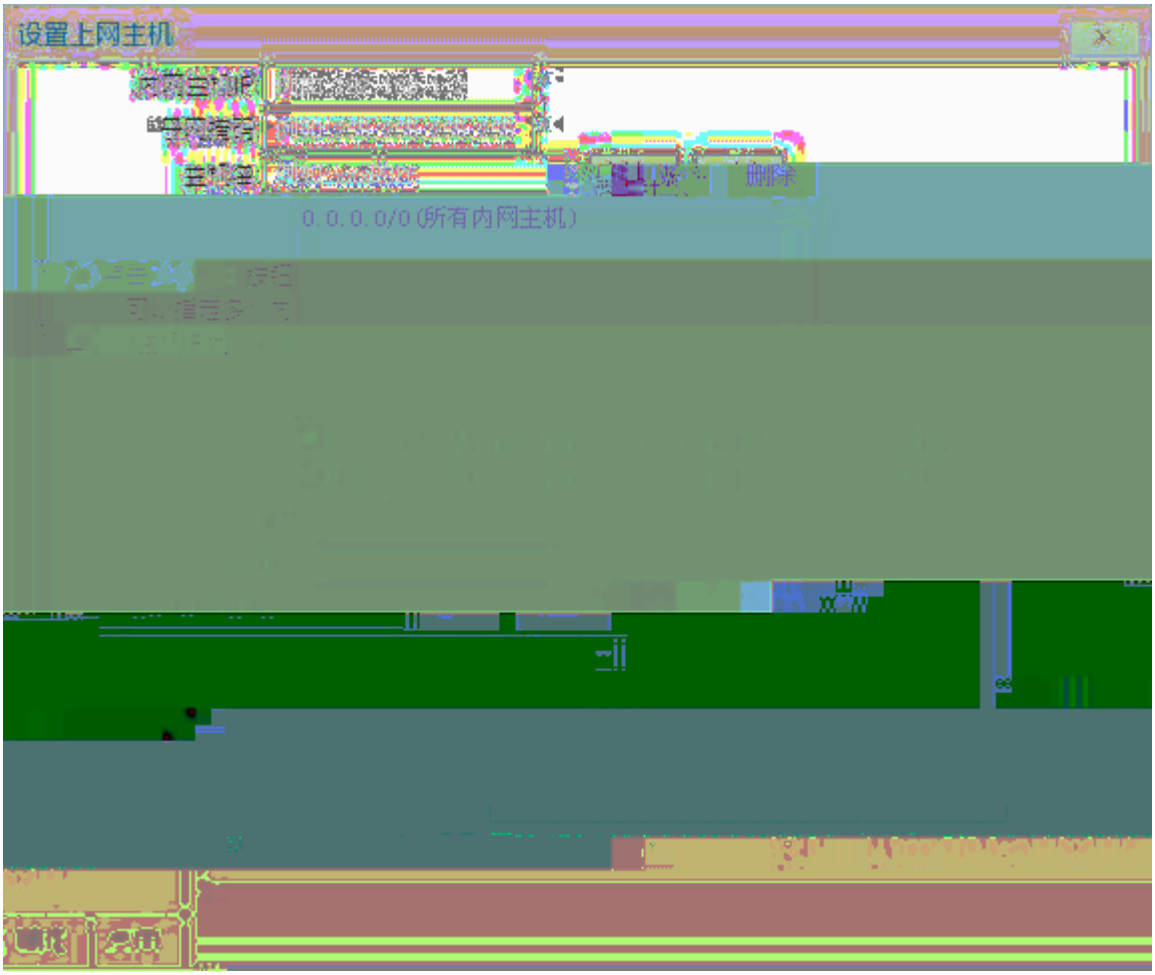


IP IP

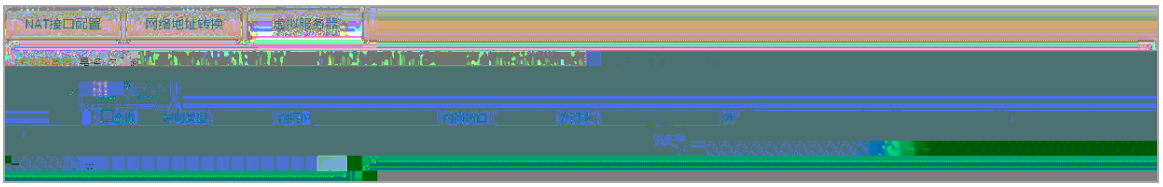
“ ”

IP IP ¢

1-86



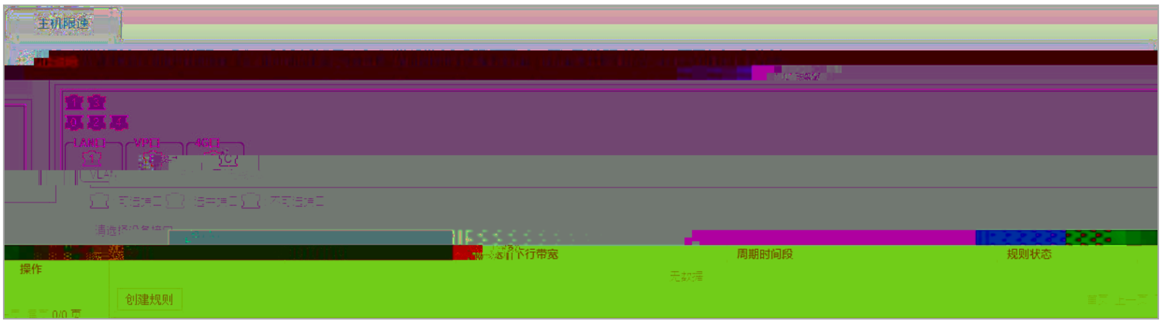
1-87



TCP UDP

IP IP IP

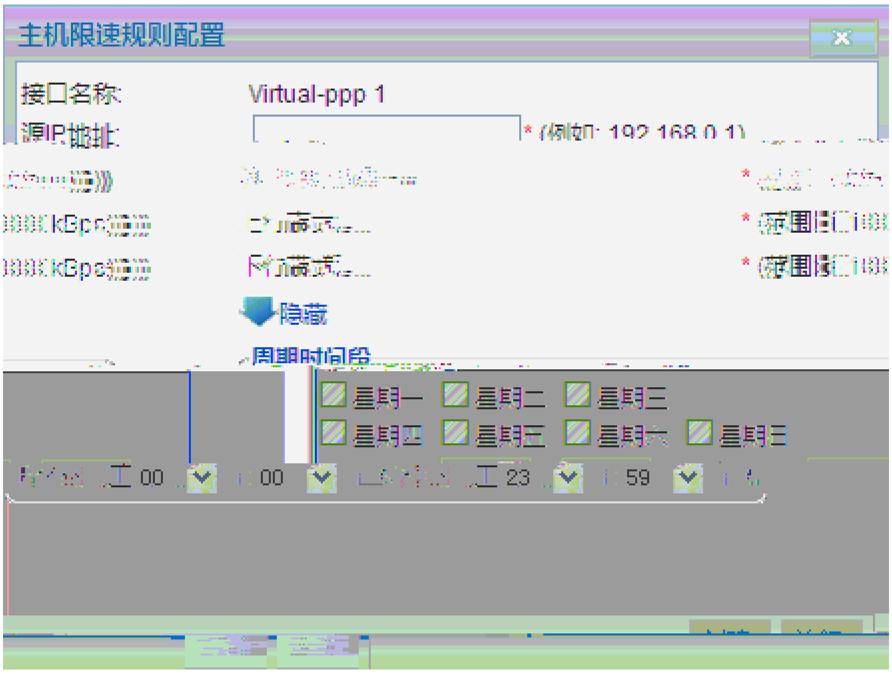
1 65535



IP IP

ث 18 ب ¡ ¡ Dialer Virtual-PPP ¢ ب
ـ ¢

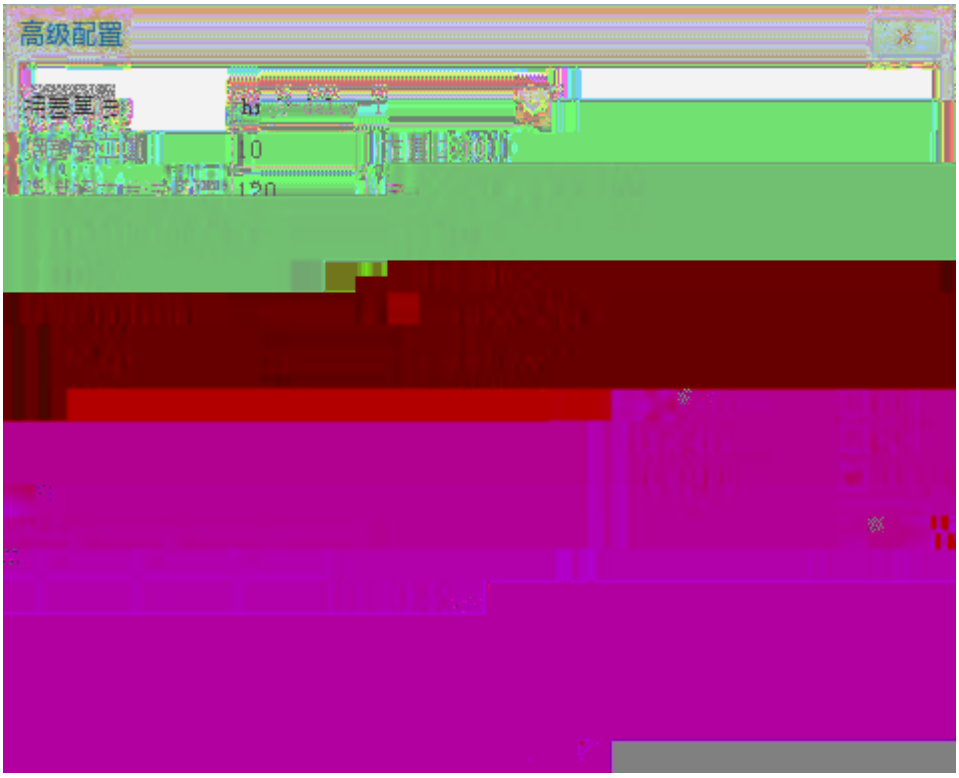
1-91



1.3.10.2

1-92

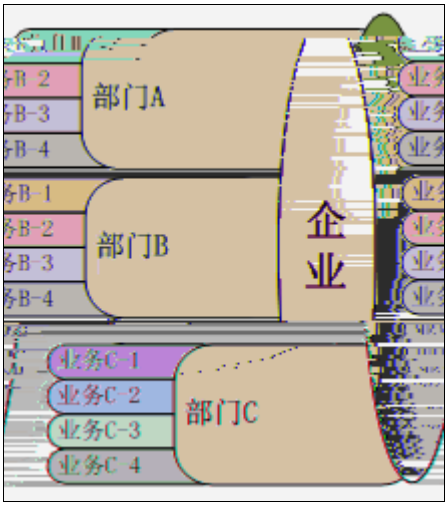
1-93



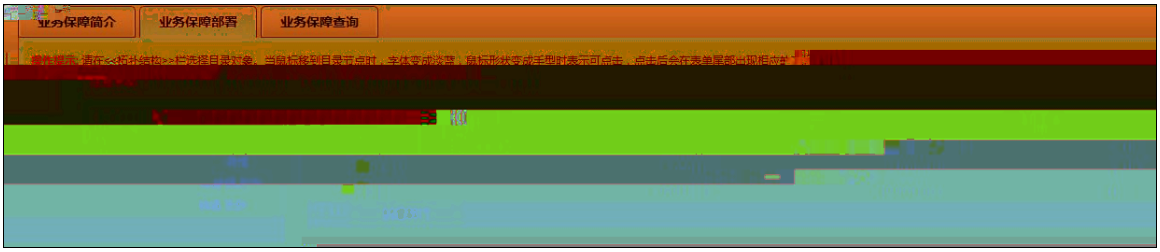
1.3.10.3

HQoS QoS Quality of Service

QoS

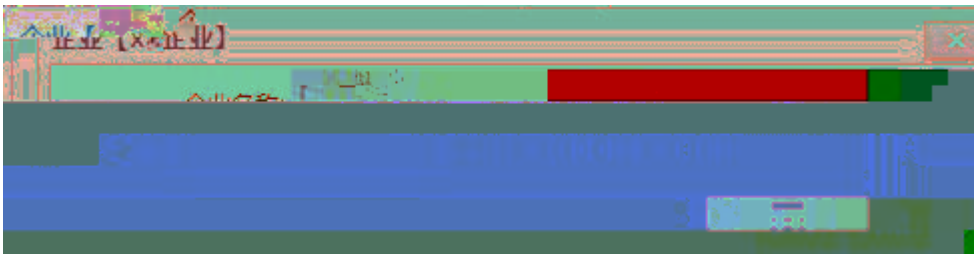


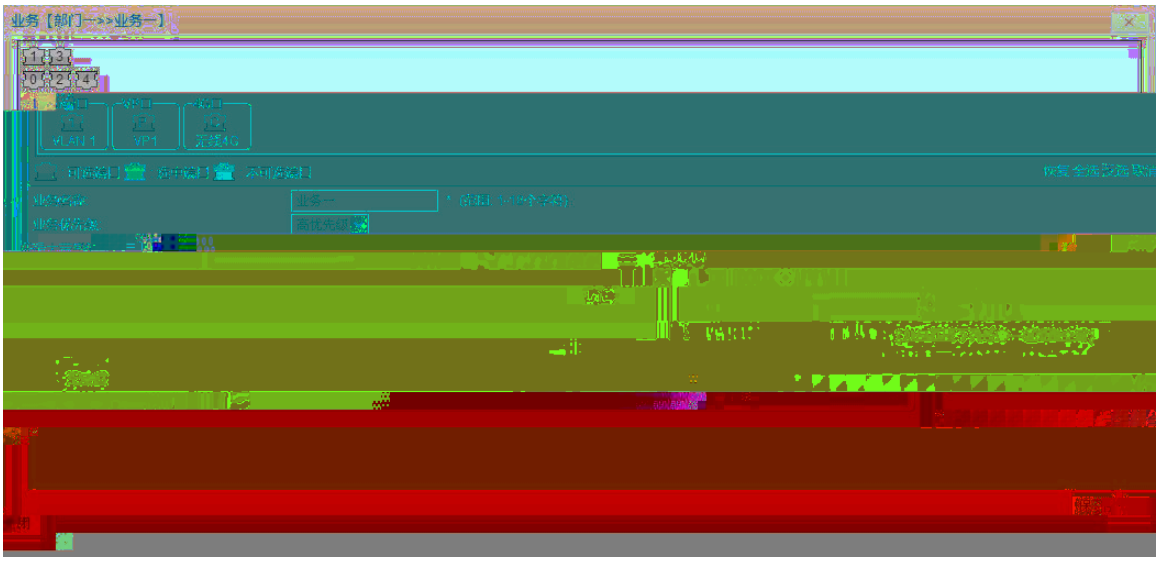
1-96



1)

“ ”





ACL “ ”

ث 18 ب ¡ ¡ Dialer Virtual-PPP ¢ ″ ب

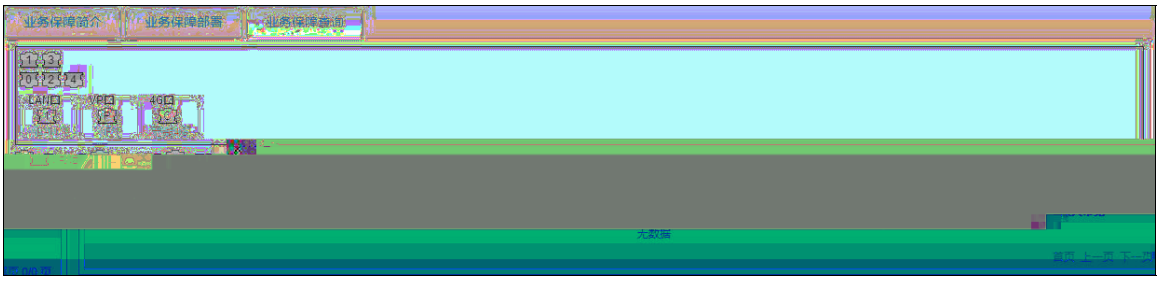
¢

1-100

ک ،

DSCP ش ō Differentiated Services Code Point Ŏ,IETF 1998 ث 12 ـ

1-101

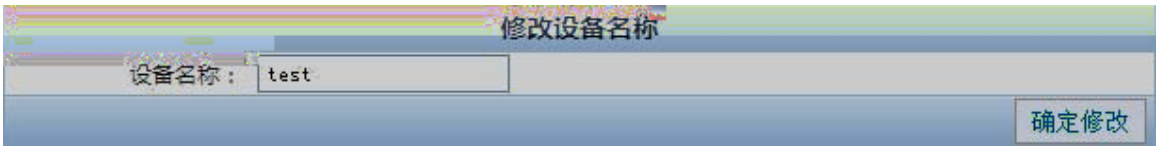


ث 18 ب ¡ ¡ Dialer Virtual-PPP ¢ ″ ب
¢

1.3.11

1.3.11.1

1-102



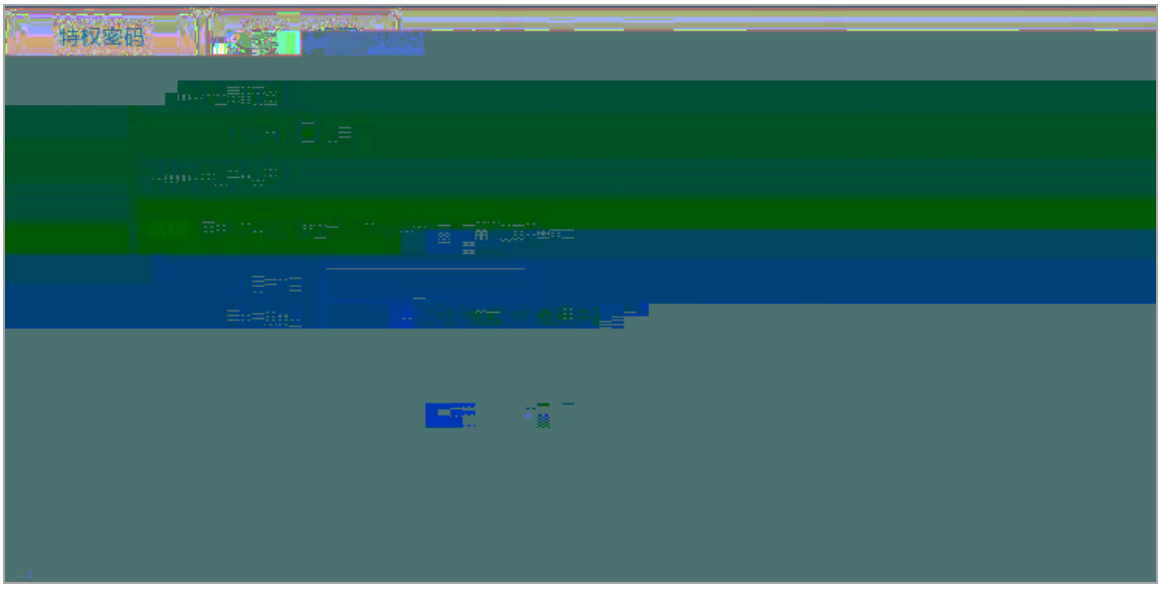
1.3.11.2

PC

1-103

Telnet

1-106



ش چ ث ا

Telnet “0” “1” Telnet ش چ ا ج

1.3.11.5

Web

“ ” “ ” “

” 50

Web

1-107

ذ ذ " " ث ¢

ا ث ¢ 50 ڑ ¢

ج “bin” Web ج “upd”

¢

ا flash ث ن ا

ا ا ¢

1.3.11.6

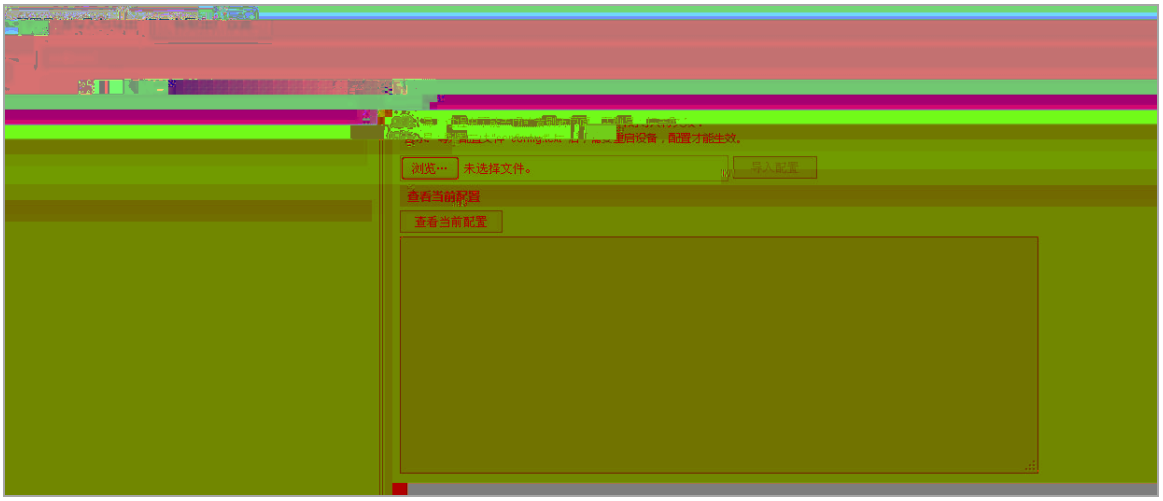
“ .text ”

“ config.text ”

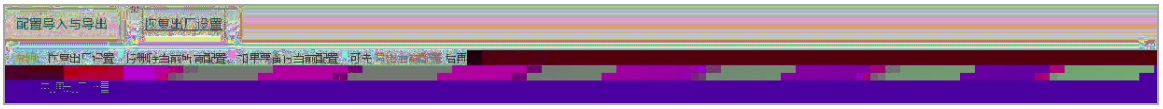
¯ config.text ° ﻱ ا ¢

ا ث ا ¢

1-108



1-109

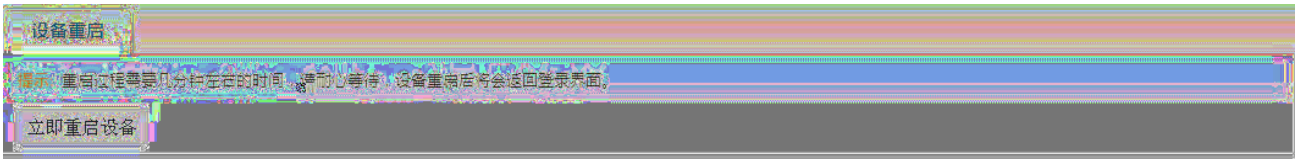


1.3.11.7

“ ” 2

Web Web

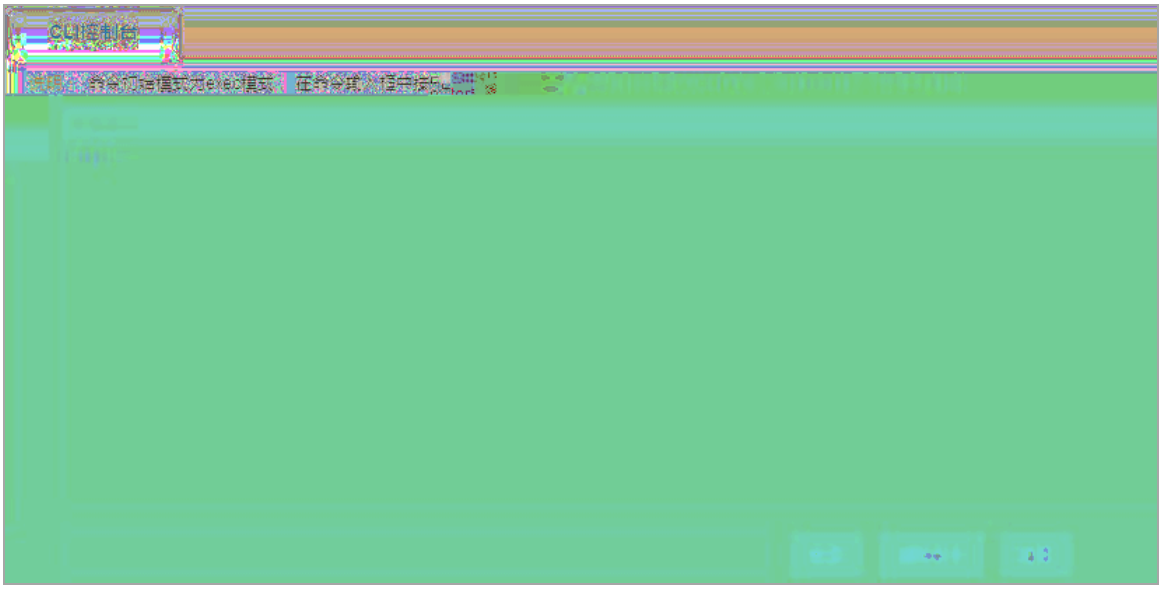
1-110



1.3.11.8 CLI

Console Telnet

1-111

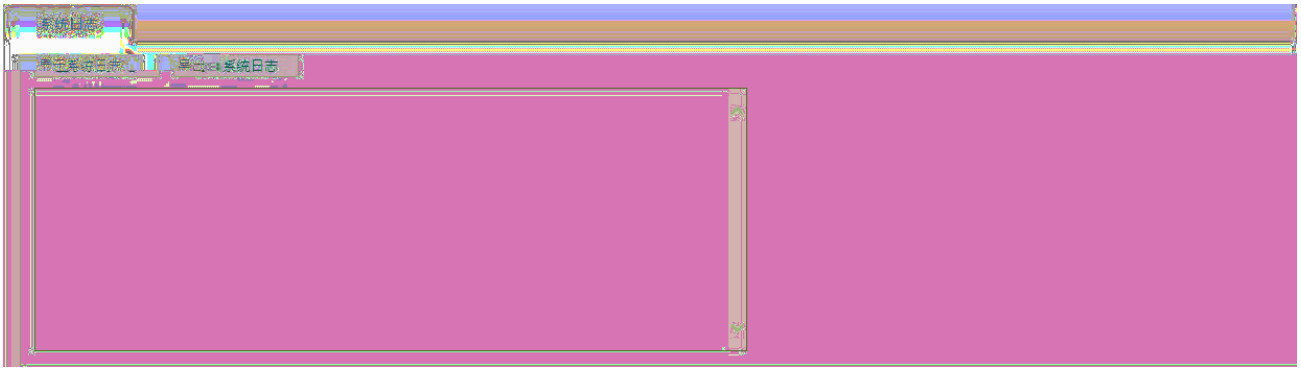


CLI ぶ ℃ ㇾ ¢

1.3.11.9

IP

1-112



1.3.11.10

IP IP

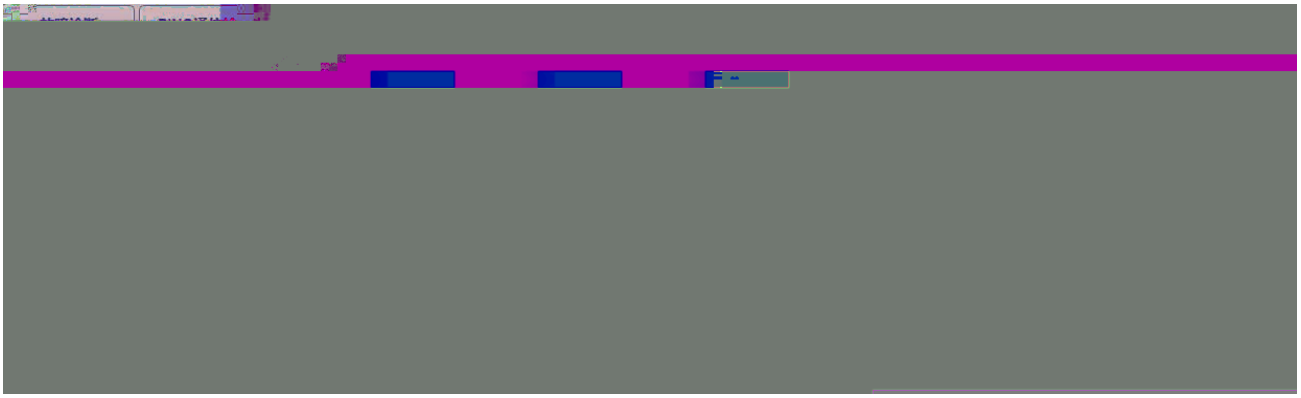
IP

1-113

Ping “ !!!!! ” “ ..... ”

“ ” ,“.” ¢

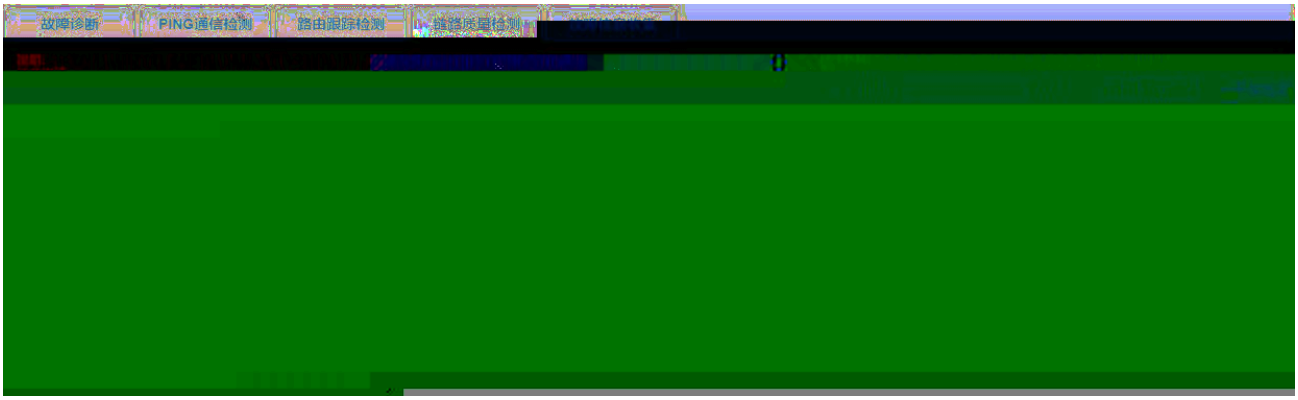
1-114



Traceroute

1-115

1-116



1-117

1.3.11.11

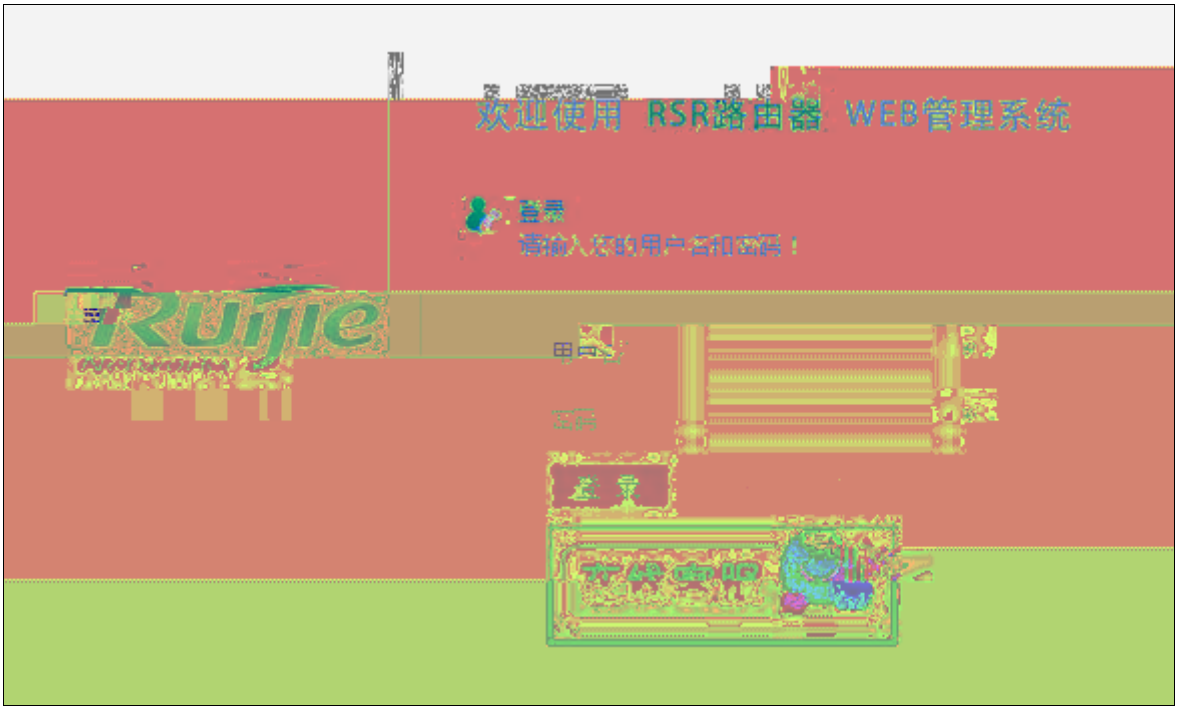
1-118

1.4

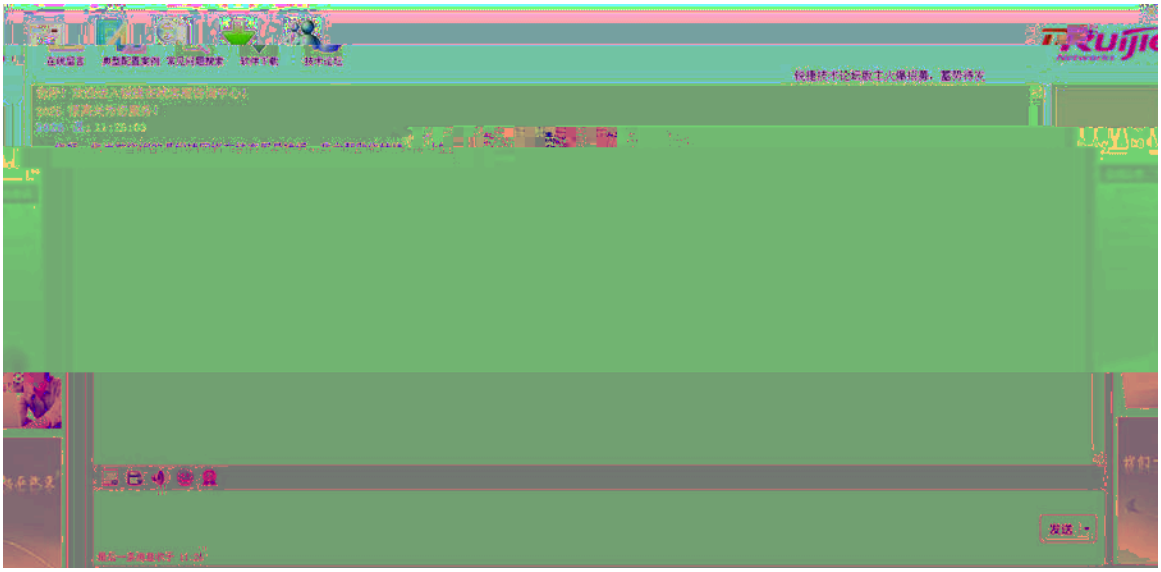
1.4.1

“ ” Web “ ”

1-119 Web



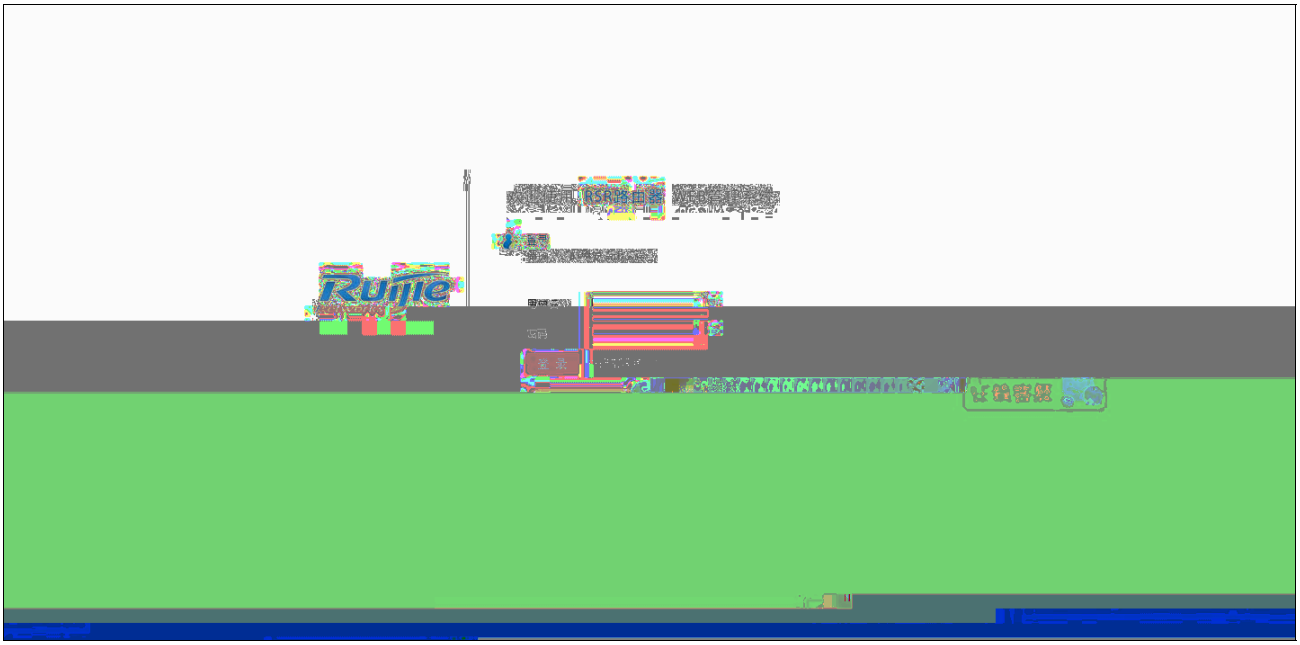
1-120



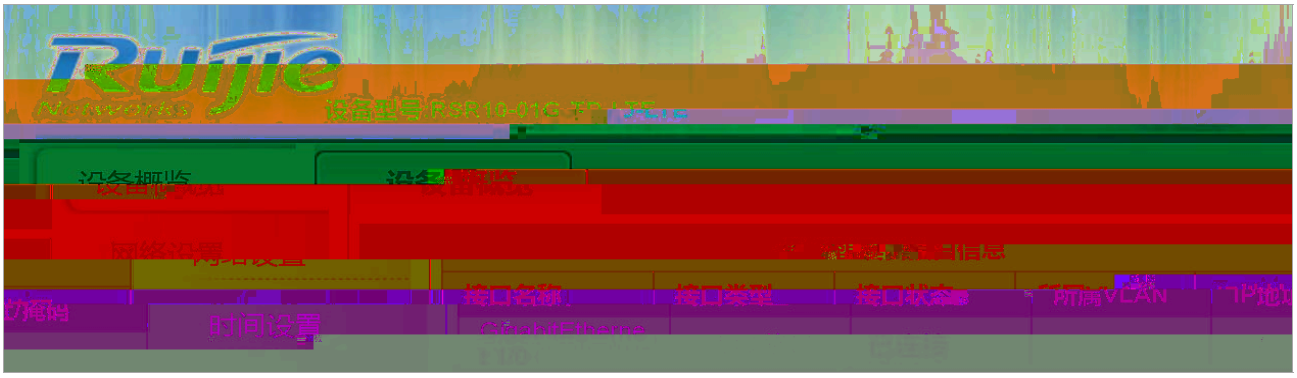
	:	8:30-18:00	U ¢
	L	Γ	4008-111-000 ¢
	4	Web	Web ¢

1.4.2 8CL@

1-121



1.5



100%

“ Ctrl (+) ” “ Ctrl (-) ” , “ Ctrl (0) ”

Ctrl (+)

Ctrl (-)

Ctrl (0) 100%

1.5.3 Web

Web Web

IE

1-124 IE

1-126

1.5.5 Web

Web Web 10
10 Web

ک 10 ا ¢

1.5.6

Web
18

PPPoE 4 Dialer

VPN 3-5 Virtual-PPP