



©2015



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1 WEB

2 WEB

2.1

WEB

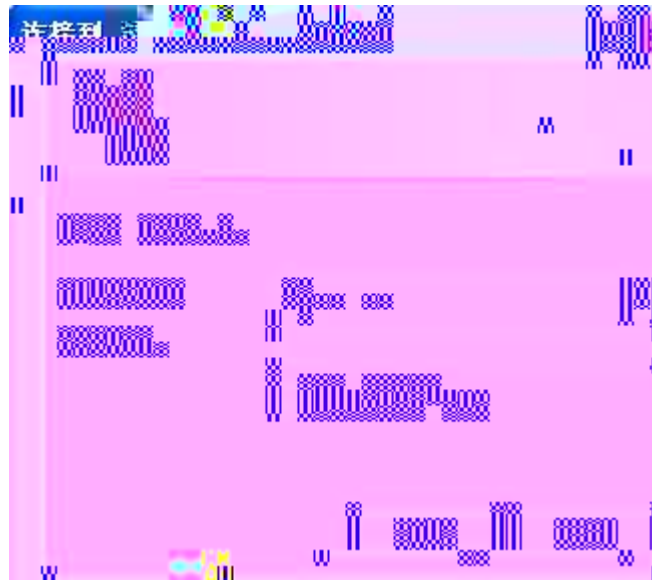
WEB	

	WEB	" WEB "
	WEB	Enable
	Enable	

IP _____



" "



2



WEB Enable
enable

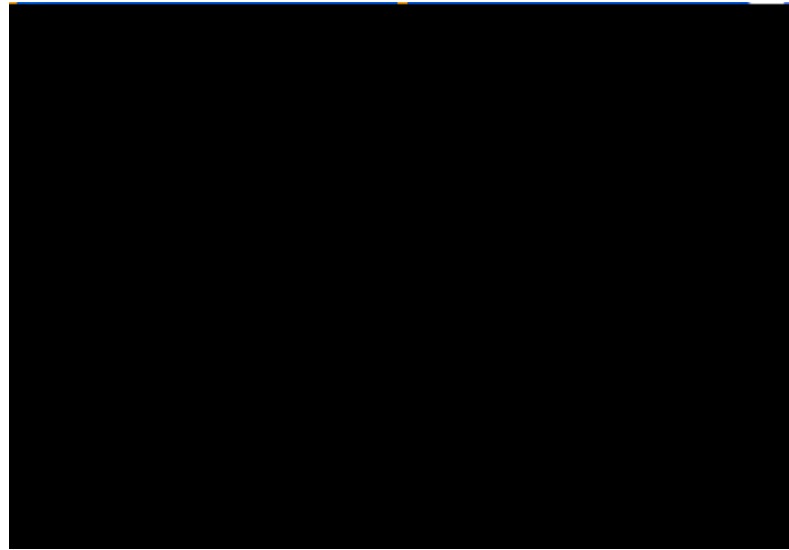
2.2

2.2.1 IP

" IP " &

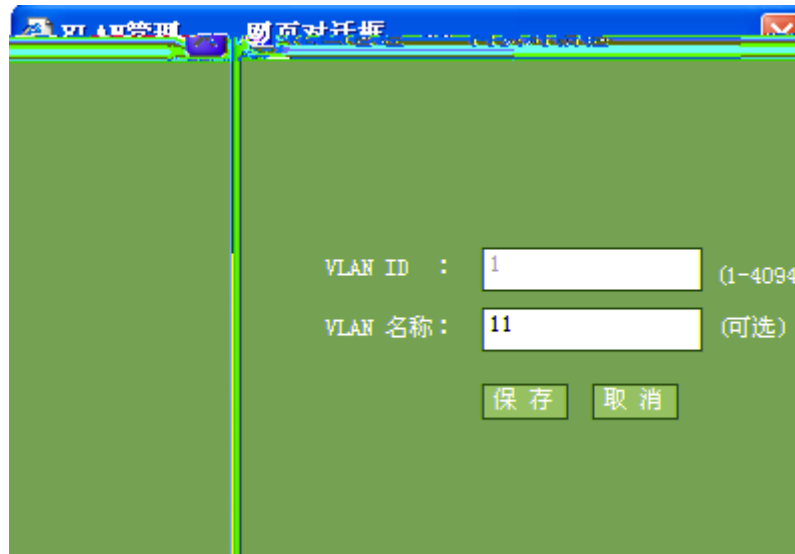


5



7 VLAN

VLAN ID VLAN " "
VLAN VLAN
 VLAN " "
 VLAN " "



8 VLAN

VLAN " "
 VLAN

2 VLAN

交换机端口分为两种模式：

Access：该模式的端口只属于一个VLAN，只传输该VLAN的报文，一般用于与终端直连。

Trunk：该模式的端口可以属于多个VLAN，可传输多个VLAN的报文，一般用于与其它交换机互连。

注意：当端口模式为“Trunk”时将允许所有VLAN访问,指定的VLAN将成为Trunk口的Native VLAN。

端口	端口模式	VLAN ID
GigabitEthernet 0/1	access	1
GigabitEthernet 0/2	access	1
GigabitEthernet 0/3	access	1
GigabitEthernet 0/4	access	1
GigabitEthernet 0/5	access	1
GigabitEthernet 0/6	access	1
GigabitEthernet 0/7	access	1
GigabitEthernet 0/8	access	1
GigabitEthernet 0/9	access	1
GigabitEthernet 0/10	access	1
GigabitEthernet 0/11	access	1

保存

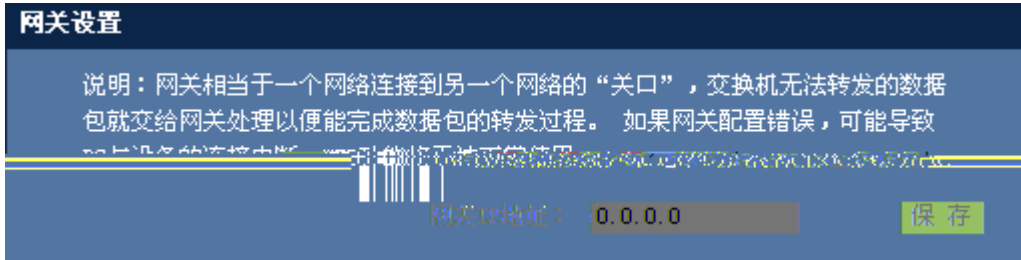
9 VLAN

VLAN ID

" "

2.2.3

" "



10

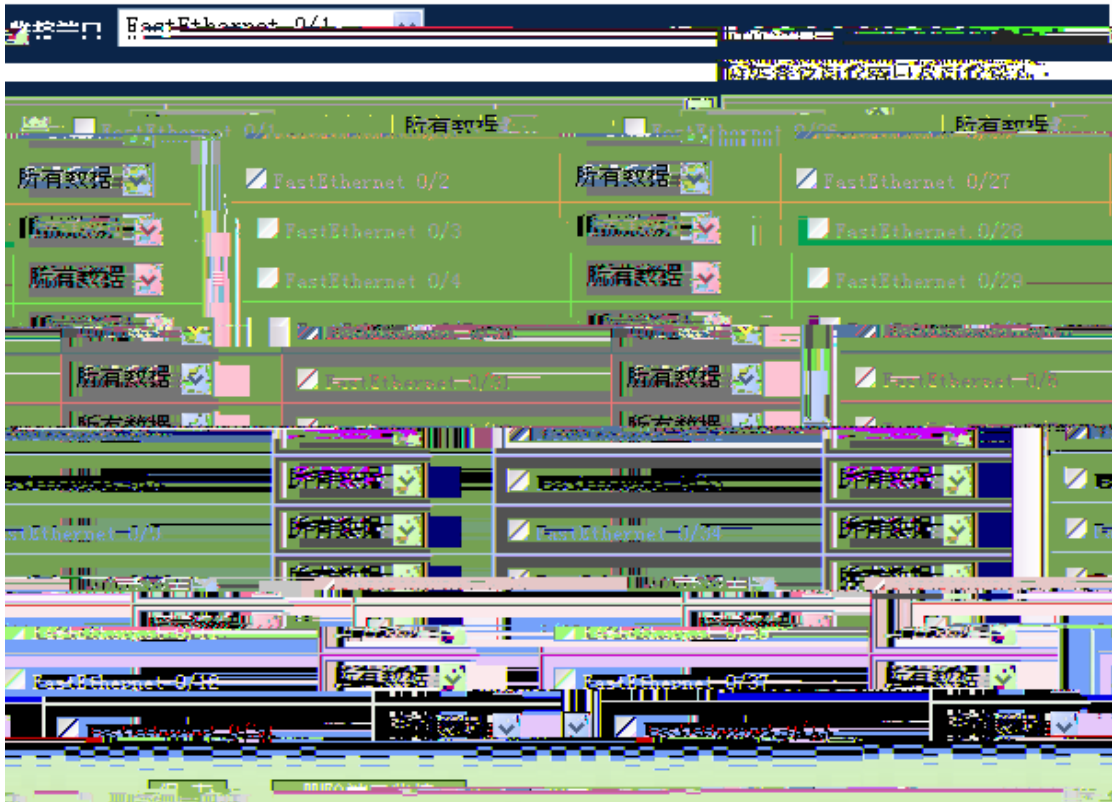
IP

IP

" "

2.2.4

" "



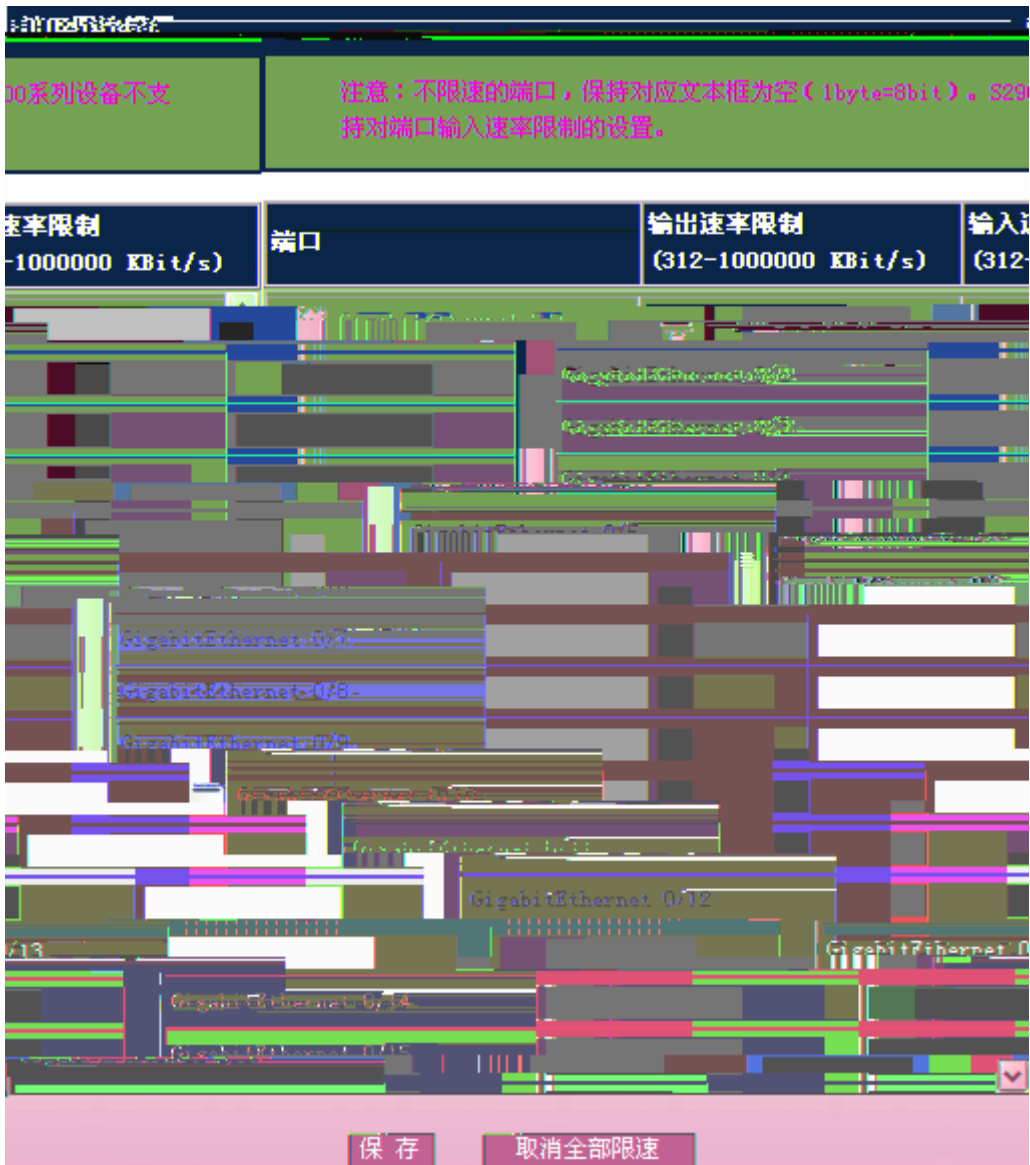
11

“ ”

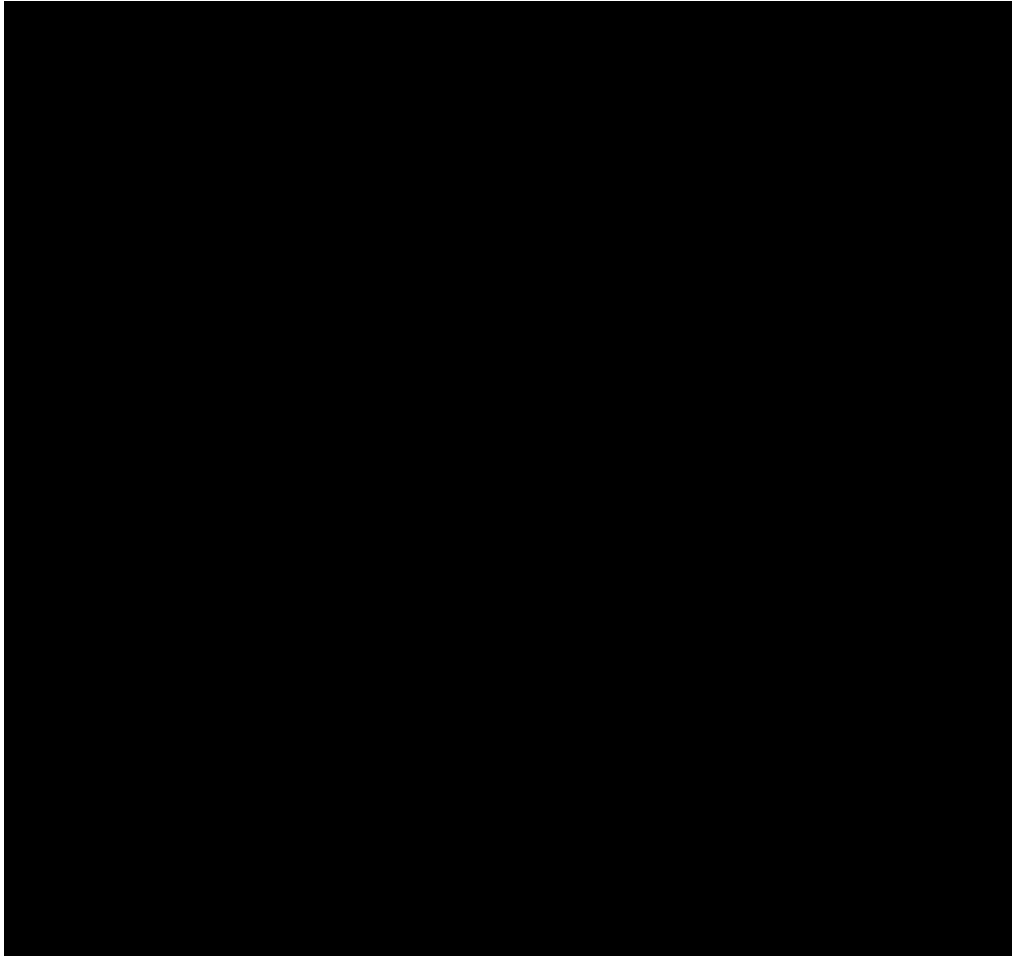
“ ”

2.2.5

“ ”



12



14

" "

3

" "

2.2.7

" "



16 DHCP

1) / DHCP

/ DHCP " "

2)DHCP

DHCP " "

DHCP " "

2.2.9 IGMP Snooping

" IGMP Snooping"

IGMP Snooping

SNMP



19 SNMP

SNMP " SNMP"

" " " "

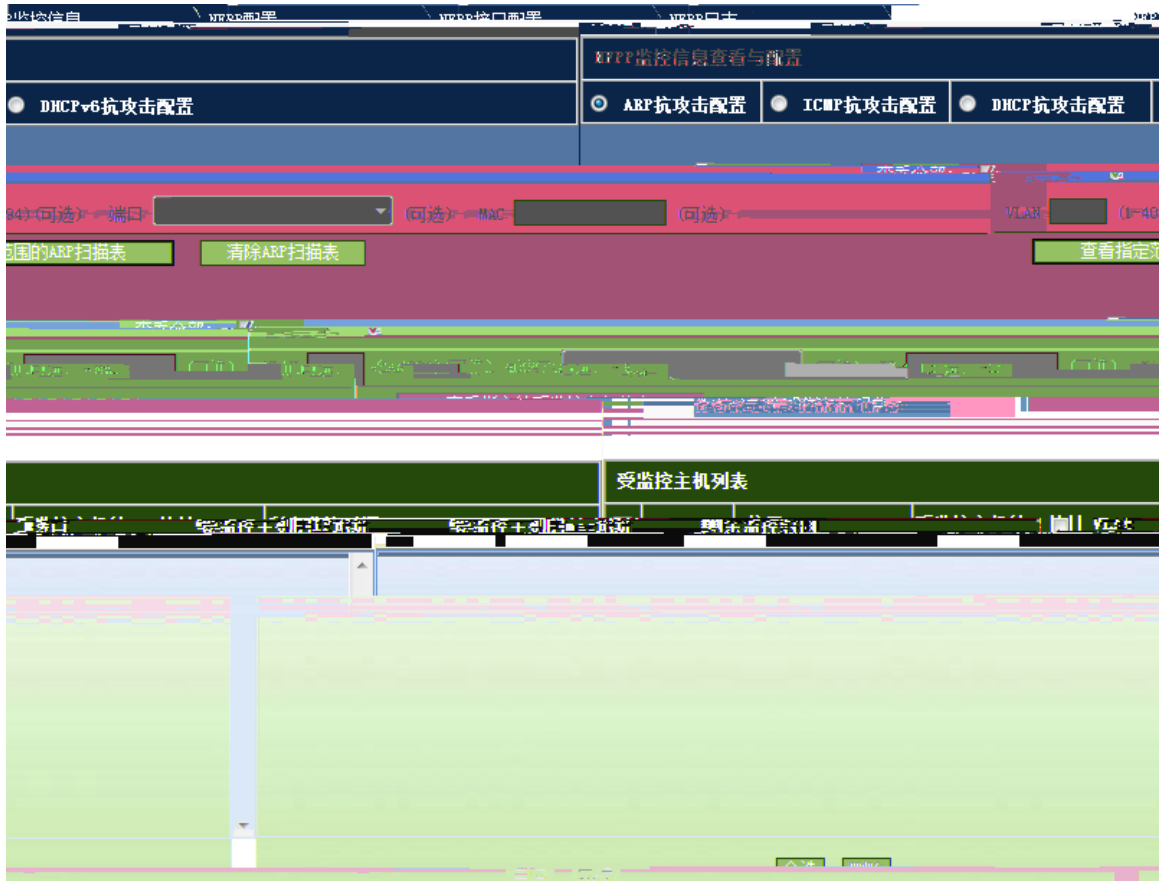
" SNMP" " "

" "

2.2.12 NFPP

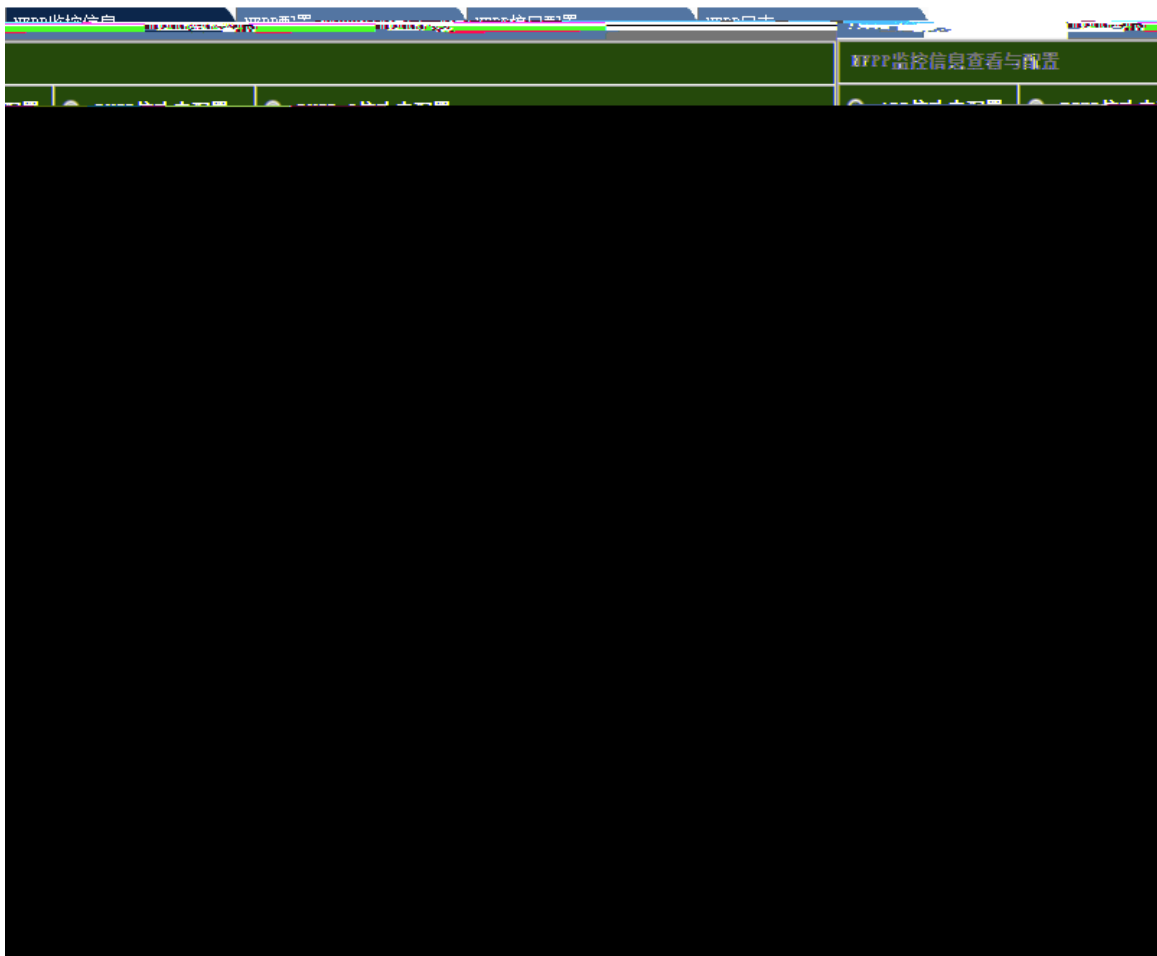
" NFPP "

1 NFPP



20 NFPP

- ARP



2114R0 0 1 TB16D.3443f1 094106T/F8 9658 Tc[48



22 NFPP

--ICMP

ICMP

"

IP

"

"

"

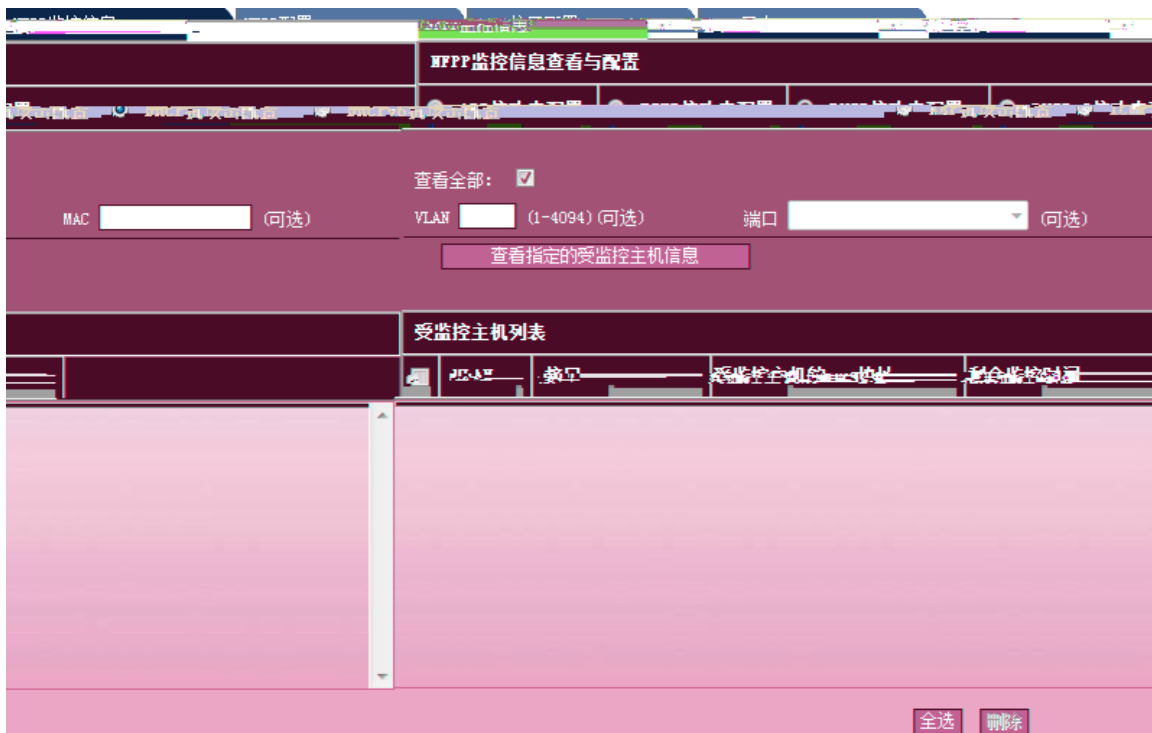
"

"

"

"

- DHCP

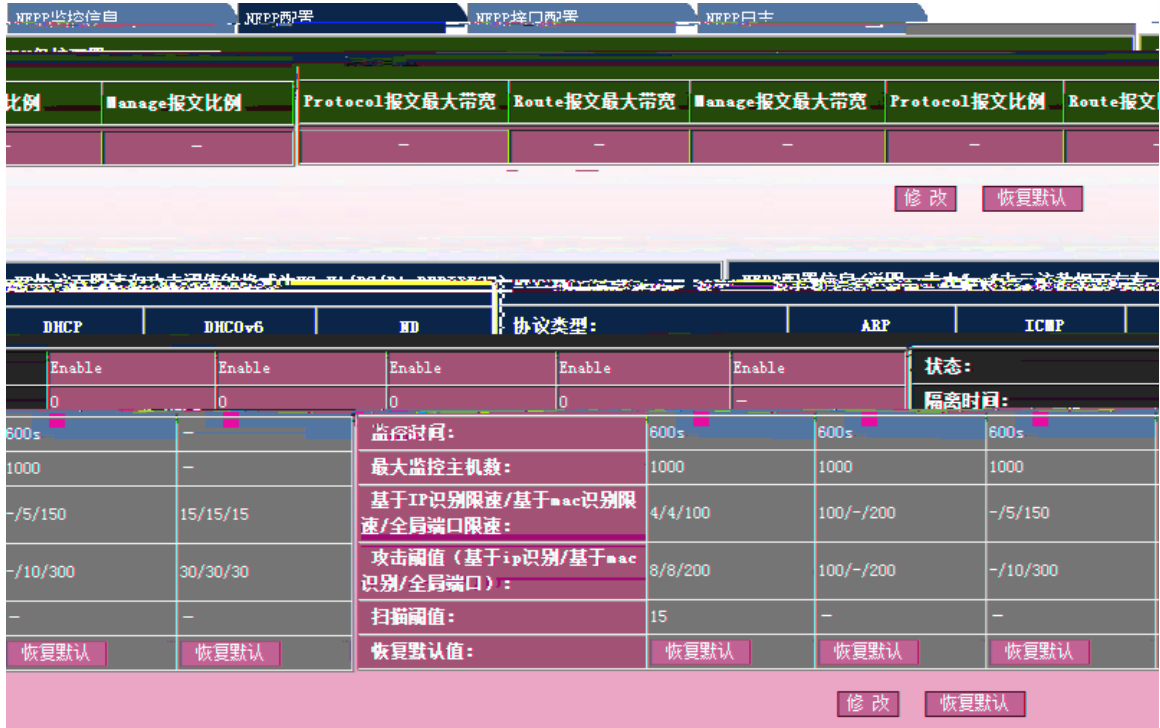


23 NFPP — DHCP

DHCP

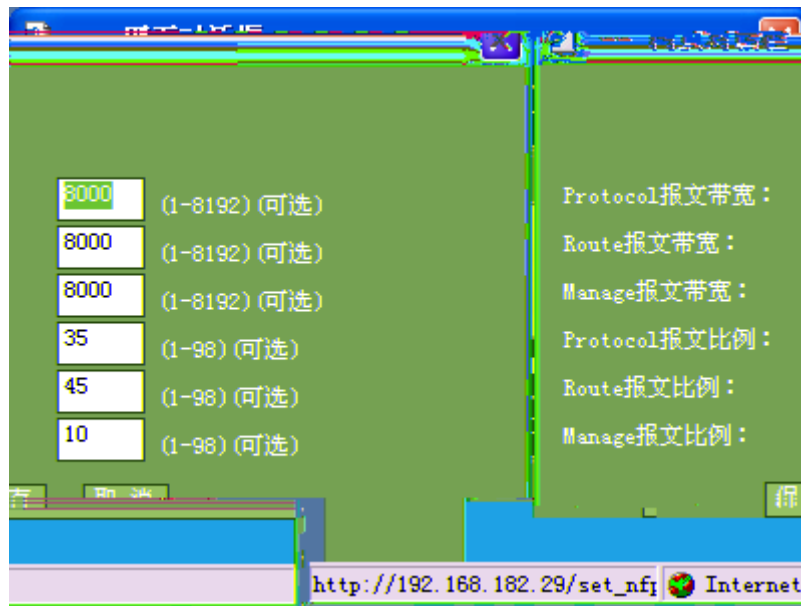
" " "

- DHCPv6



25 NFPP — DHCPv6

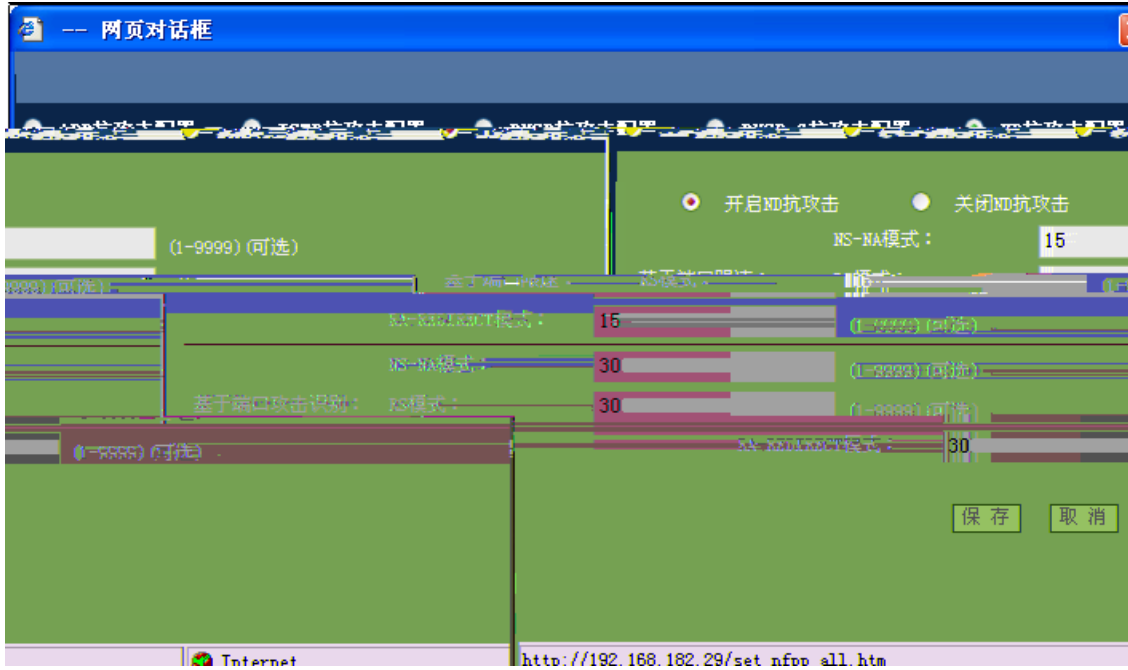
CPU



26 CPU

CPU

- NFPP

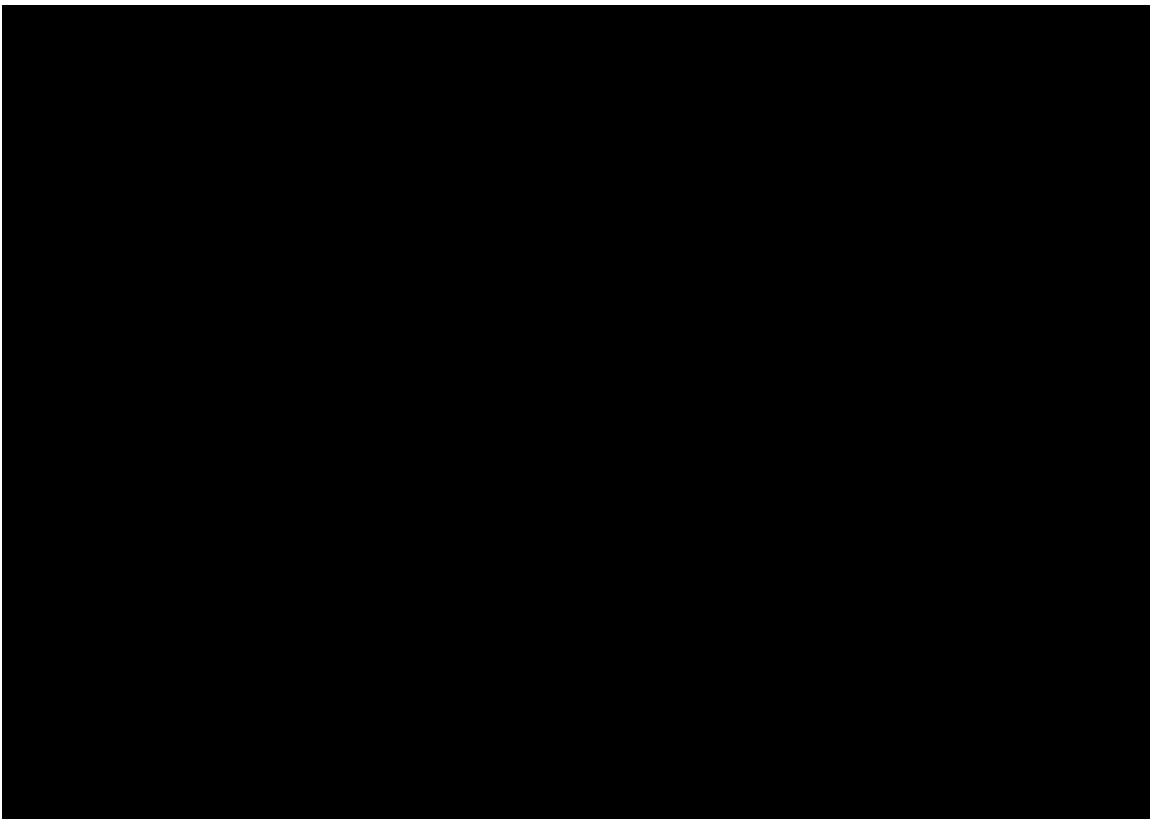


27 NFPP



3 NFPP

- ARP



28 NFPP —NFPP ARP

ARP NFPP
" "

- ICMP

NFPP监控信息 NFPP配置 **NFPP接口配置** NFPP日志

NFPP接口信息配置

ARP 攻击配置 **ICMP 攻击配置** DHCP 攻击配置 DHCPv6 攻击配置 DD 攻击配置

接口: FastEthernet 0/1 开启ICMP 抗攻击 关闭ICMP 抗攻击 默认

基于: (1) 端口识别主机 (IP) 限速值: 5112 (4,000) 隔离时间: 1000 (4,000)

攻击源: 2222 攻击目的: 1322

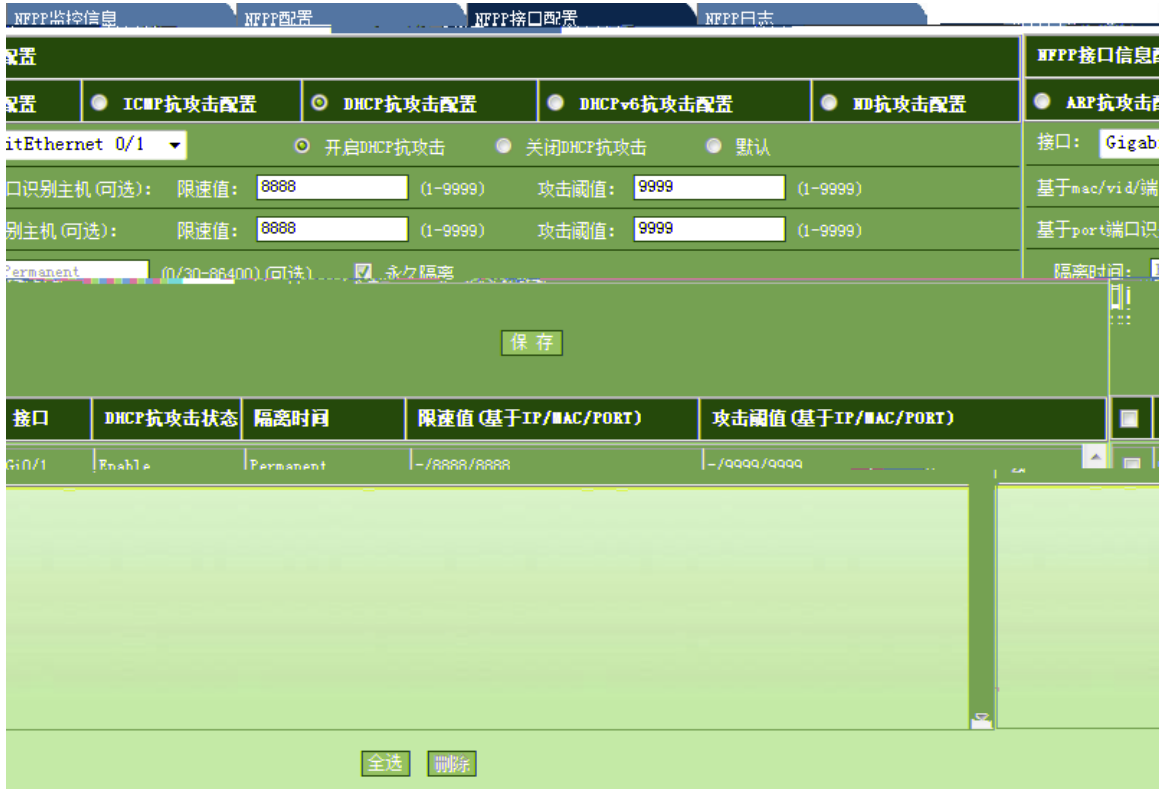
保存

攻击阈值 (基于IP/MAC/PORT)	接口	ICMP 抗攻击状态	隔离时间	限速值 (基于IP/MAC/PORT)

全选 删除

29 NFPP — NFPP ICMP

ICMP NFPP
" "

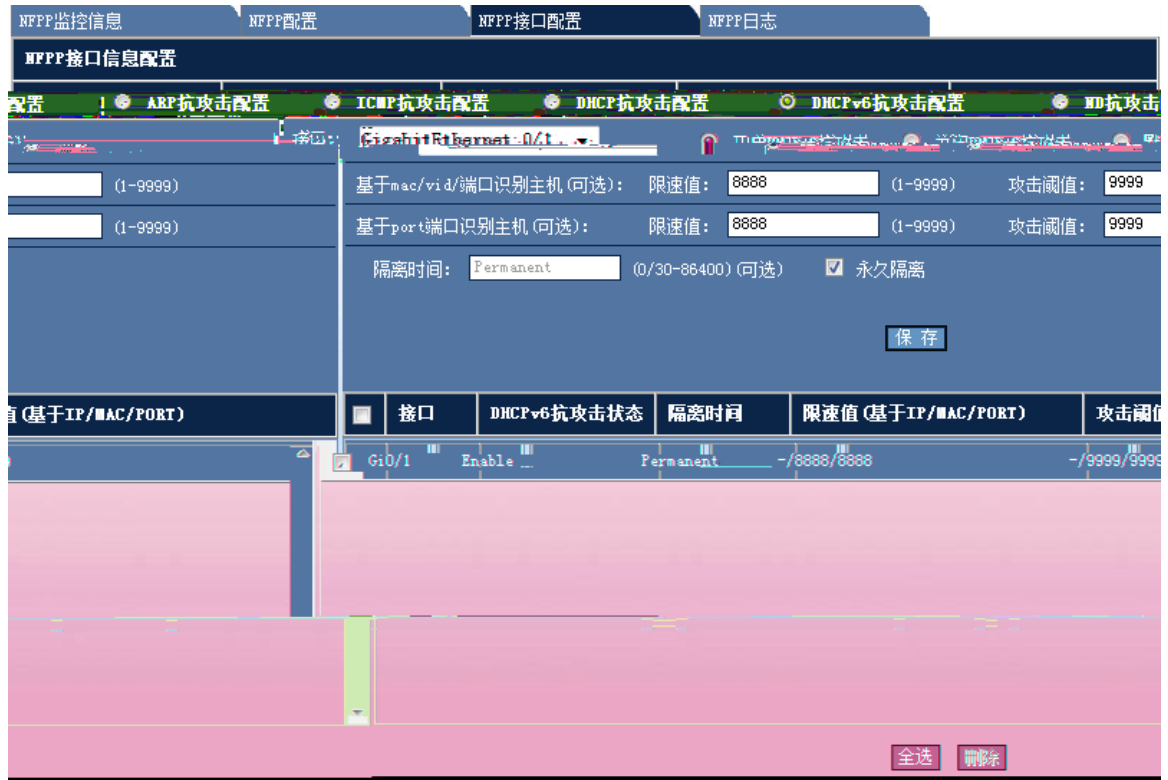


30 NFPP — NFPP DHCP

DHCP NFPP

" "

- DHCPv6



31 NFPF — NFPF DHCPv6

DHCPv6 NFPF

" "

- ND

NFPP监控信息 NFPP配置 **NFPP接口配置** NFPP日志

NFPP接口信息配置

接口: **GigabitEthernet 0/1** 开启防攻击功能 关闭防攻击功能 默认

限速值 (基于IP/MAC/PORT) 攻击阈值 (基于IP/MAC/PORT)

8888 1111 3333 9999/2222/5555

基于port (端口识别主机(可选)) 基于ip (ip地址识别主机(可选)) 基于mac (mac地址识别主机(可选))

3333 5555

保存

PORT	<input type="checkbox"/>	接口	防攻击状态	限速值 (基于IP/MAC/PORT)	攻击阈值 (基于IP/MAC/PORT)
	<input checked="" type="checkbox"/>	Gi0/1	Enable	8888/1111/3333	9999/2222/5555

全选 **删除**

32 NFPP — NFPP ND

ND NFPP

" "

4 NFPP

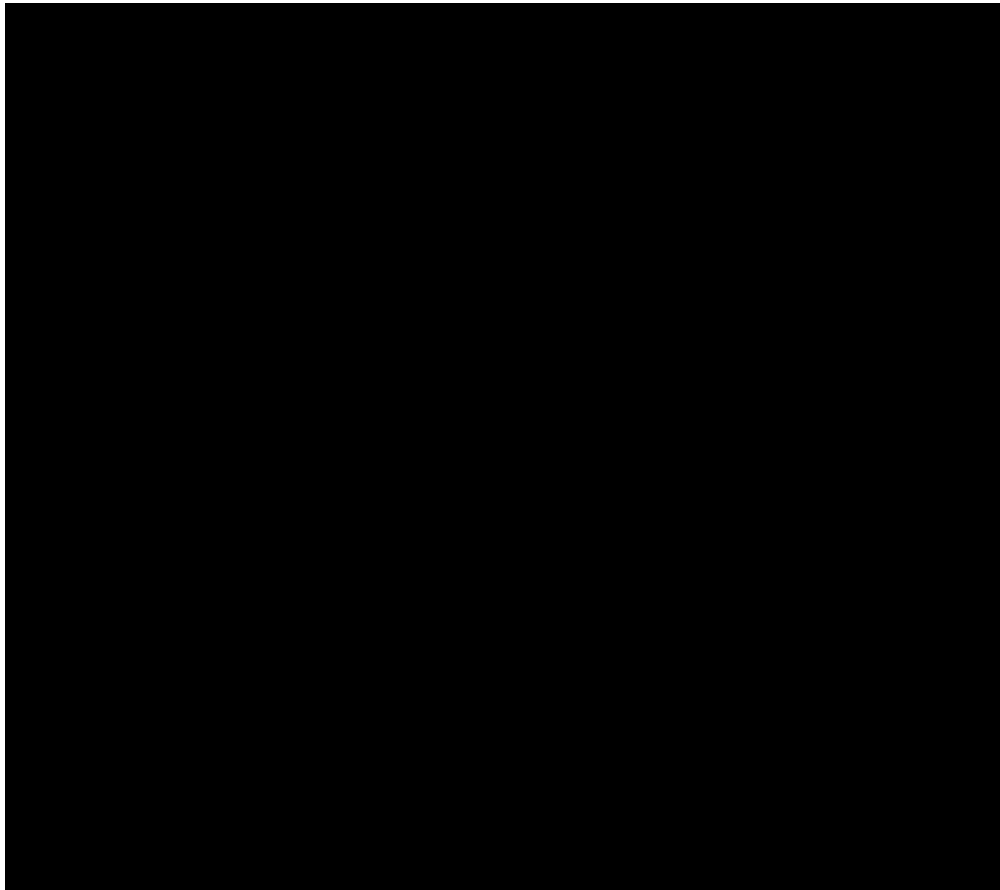


34

2.3

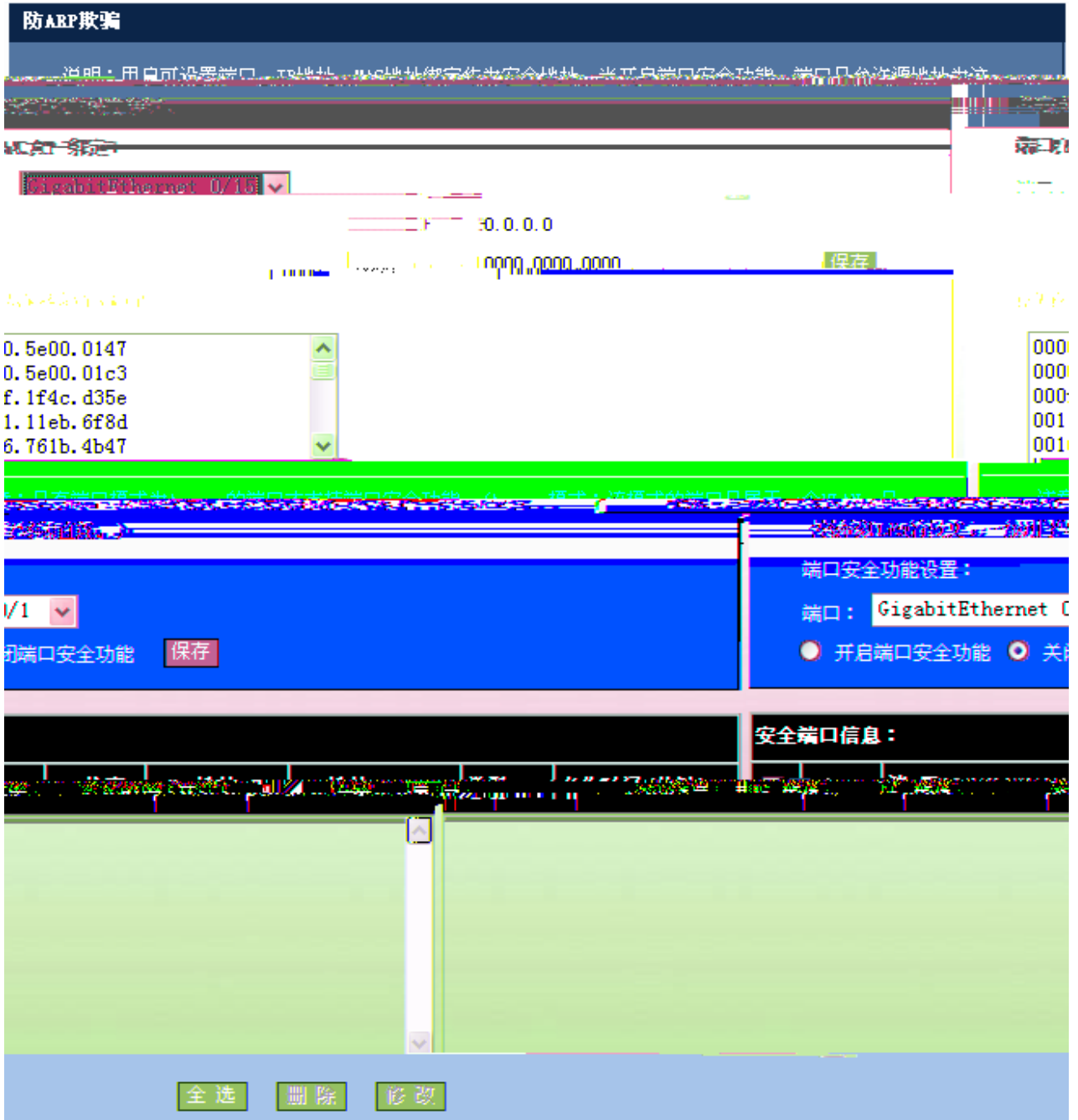
2.3.1 ARP

ARP



35

ARP



36 ARP

1) /MAC/IP

	/MAC/IP	IP	MAC	
"			MAC	
			GigabitEthernet 0/15	
	MAC			

2



41 IP

" " " "

ID

TCP UDP IP ICMP

IP

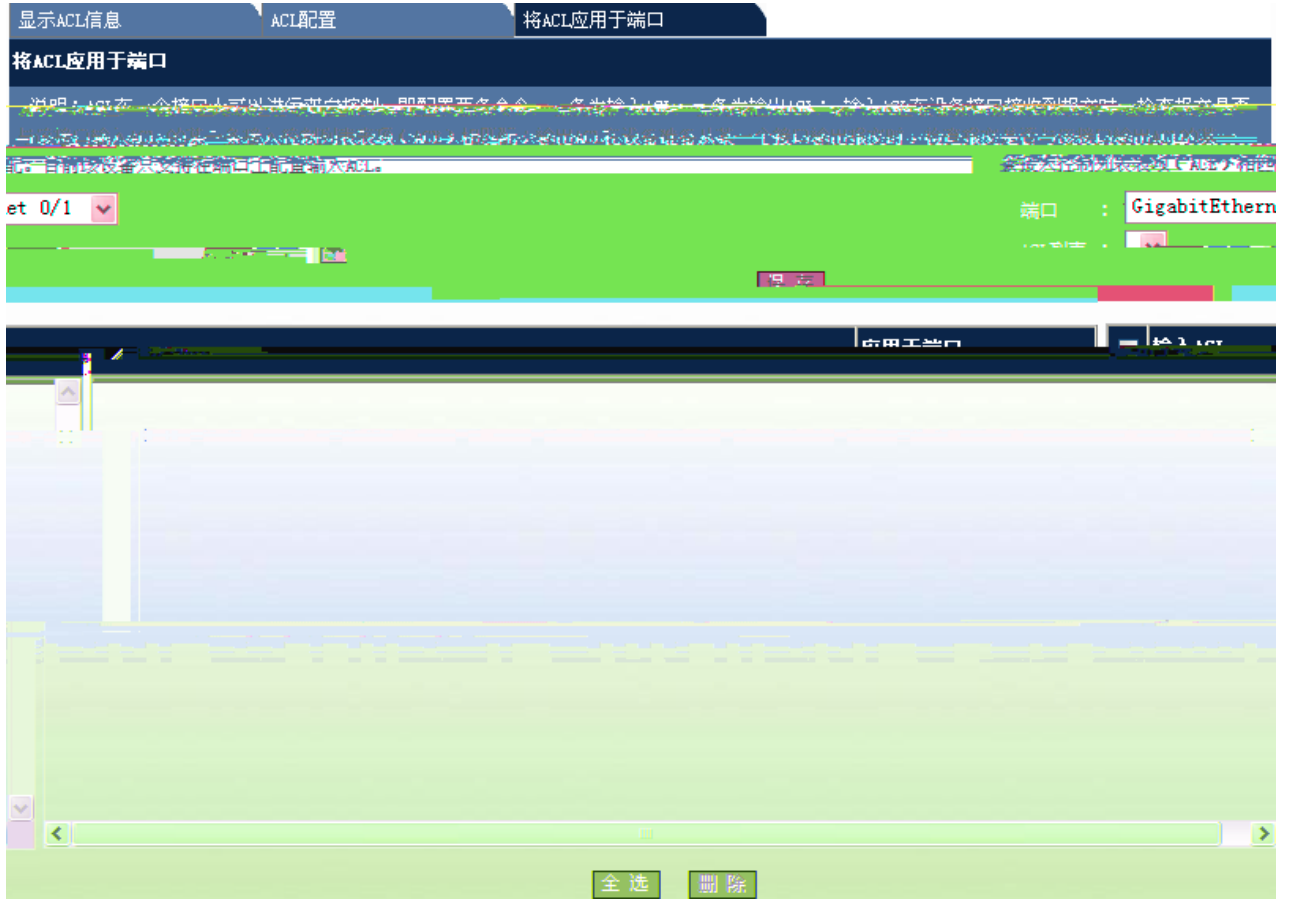
IP

IP

IP

IP

IP



42

IP Source Guard DHCP Snooping
DHCP Snooping

" IP Source Guard"

IP Source Guard



43 IP Source Guard

1

IP Source Guard

IP+MAC " IP+MAC ()"

2

IP

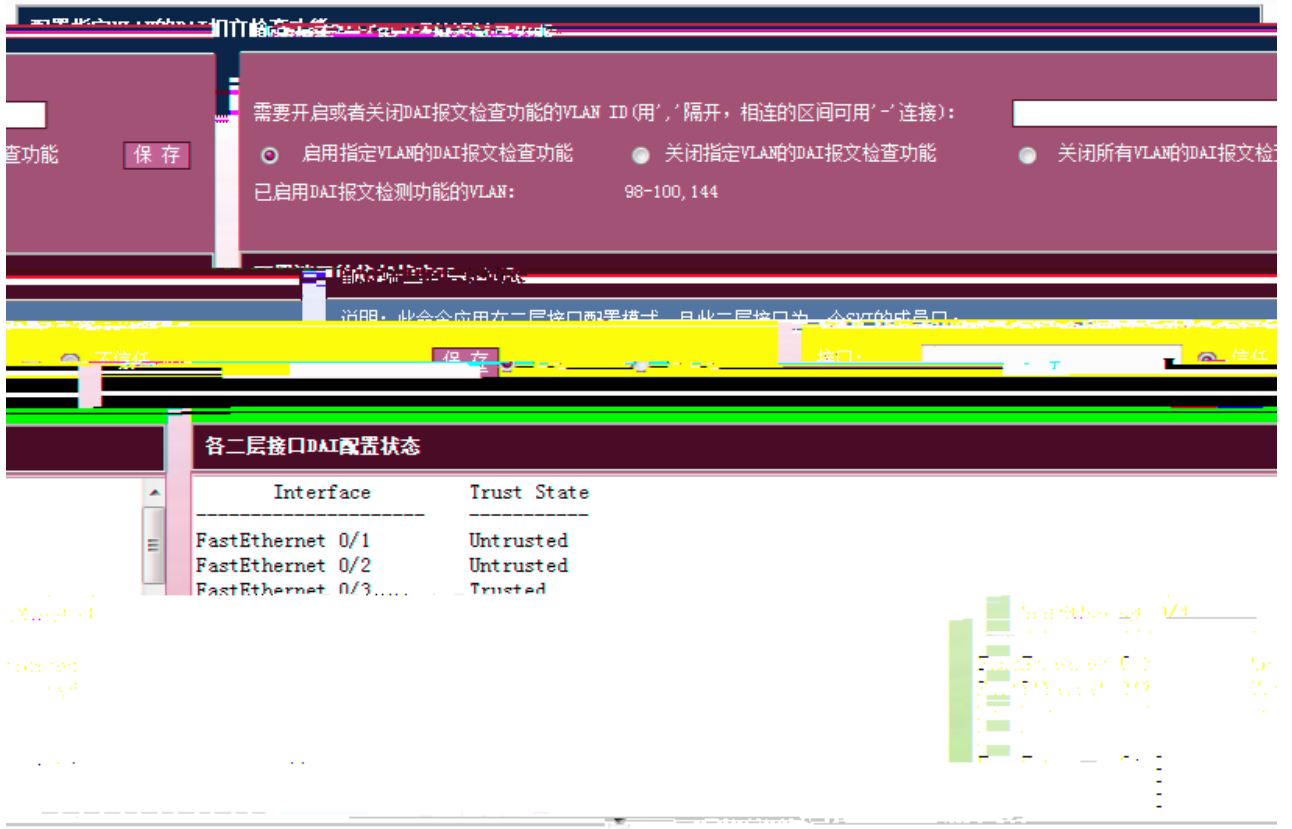
MAC MAC
VLAN VLAN ID
IP IP



44

2.3.6 DAI

DAI Dynamic ARP Inspection ARP ARP
 arp
" DAI"
DAI



45 DAI

```

1          VLAN  DAI
          VLAN  DAI
          VLAN 100  DAI          vlan-id  100  ARP          DAI

"          DAI          VLAN ID"          VLAN
          VLAN  DAI
          DAI
    
```

" DAI "

2.3.7 GSN

" GSN "

GSN



46 GSN

- 1) GSN GSN GSN GSN GSN
- 2) SMP server

arp报文接收统计信息				
Slot	Type	Pps	Total	Drop
MainBoard	arp	10	324430	0

48

" "

各类型报文的带宽和优先级配置状态		
Type	Pps	Pri
tp-guard	180	7
arp	180	5
dot1x	2000	4
rldp	180	7
rerp	180	7
erps	180	7
bpdu	180	6
tunnel-bpdu	180	6
ipv4-icmp-local	1600	6
lldp	180	5
lldp_cdp	180	5
cfm-pdu	180	5

49

/ / " " / /

管理板/单机/堆叠系统的接收报文的统计信息			
Type	Pps	Total	Drop
tp-guard	0	0	0
arp	8	325751	0
dhcp	0	0	0
igmp	0	0	0
unicast-arp	0	0	0
lldp	0	2881	0
lldp-req	0	0	0
cdnsync	0	0	0
drop-ipv4	0	0	0
drop-ipv6	0	0	0
drop-	0	0	0

50 / /

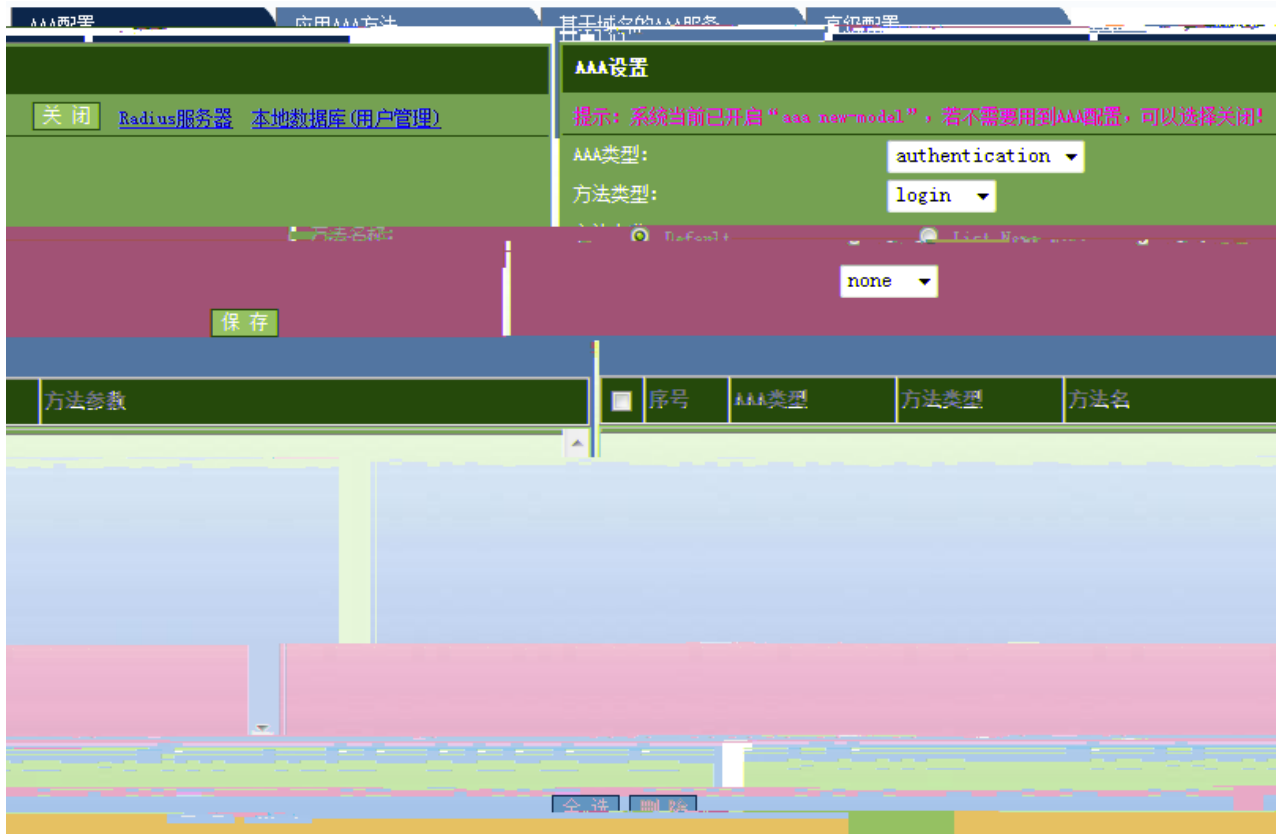
" "

WEB

52 RADIUS

RADIUS IP

" "



53 AAA

```

1      AAA
      AAA          authentication authorization accounting
      AAA          login enable ppp dot1x  exec command network
                          List Name                          local

group

2      AAA
    
```



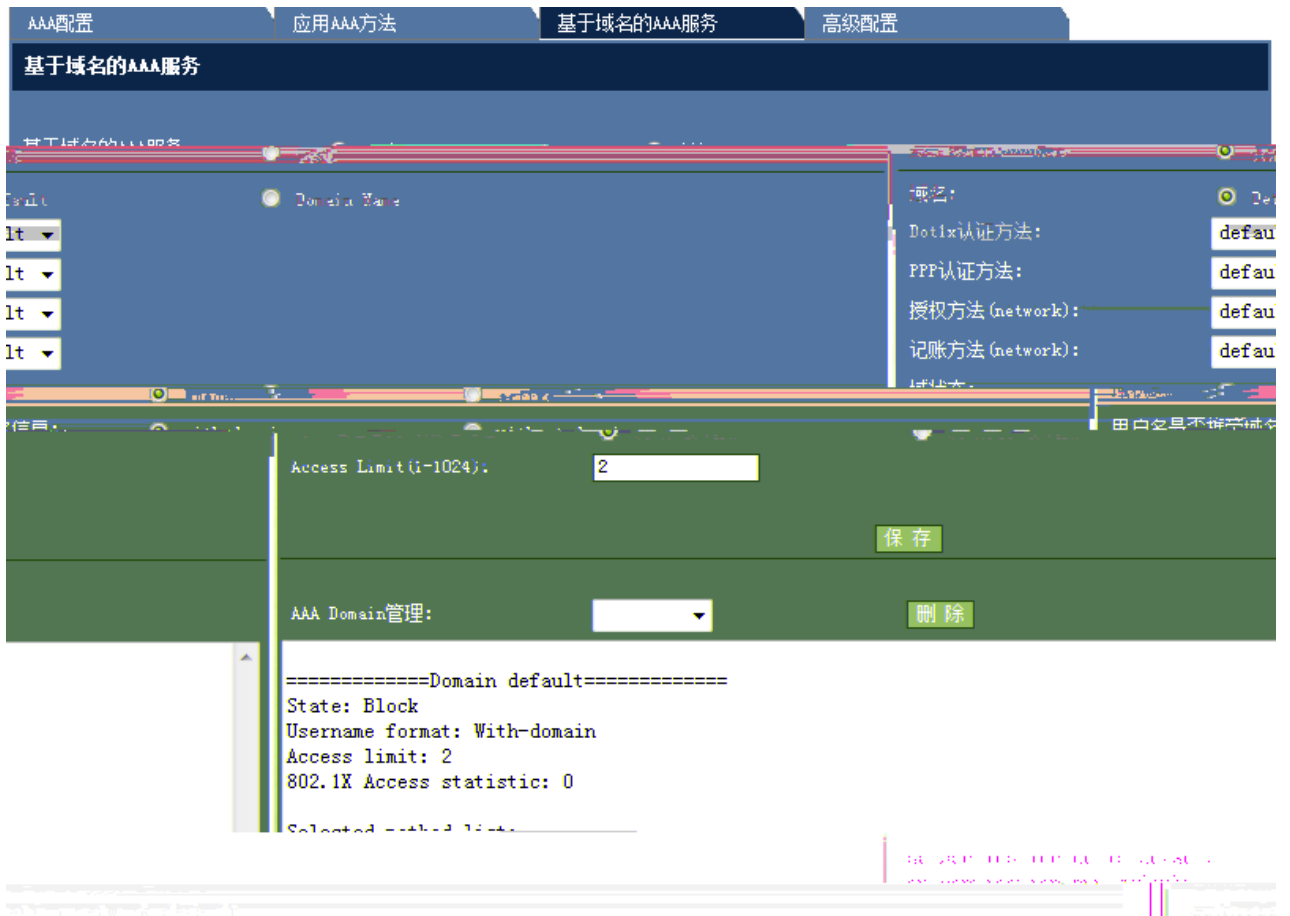
54 AAA

AAA

AAA

3

AAA



55

AAA

(network) AAA Dot1x PPP Access Limit

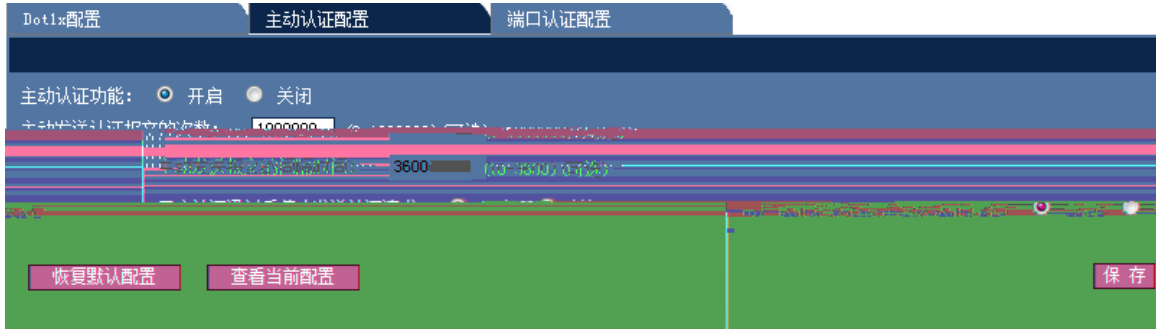
(network) (network)

AAA Domain

4 AAA

Dot1x

2



58

3

WEB

禁止动态用户在多个认证端口之间迁移: 开启 关闭 (默认值)

端口下的可认证主机 (端口必须开启认证功能): MAC地址: 端口:

失败VLAN尝试次数: (1-3)

端口下可认证主机列表

<input type="checkbox"/>	主机MAC地址	端口
<input type="checkbox"/>	0011.1111.2323	FastEthernet 0/1

60

2

" "

802.1x

MAC

" "

VLAN

" "

2.3.12

" "

智能绑定

手动查找IP MAC对应信息 通过ARP表查看IP MAC对应信息

IP地址:

MAC地址:

<input type="checkbox"/>	序号	IP	MAC
[Table content is obscured by a large redacted area]			



62 ARP

2.3.13 WEB

" web "

web

WEB



64

IP

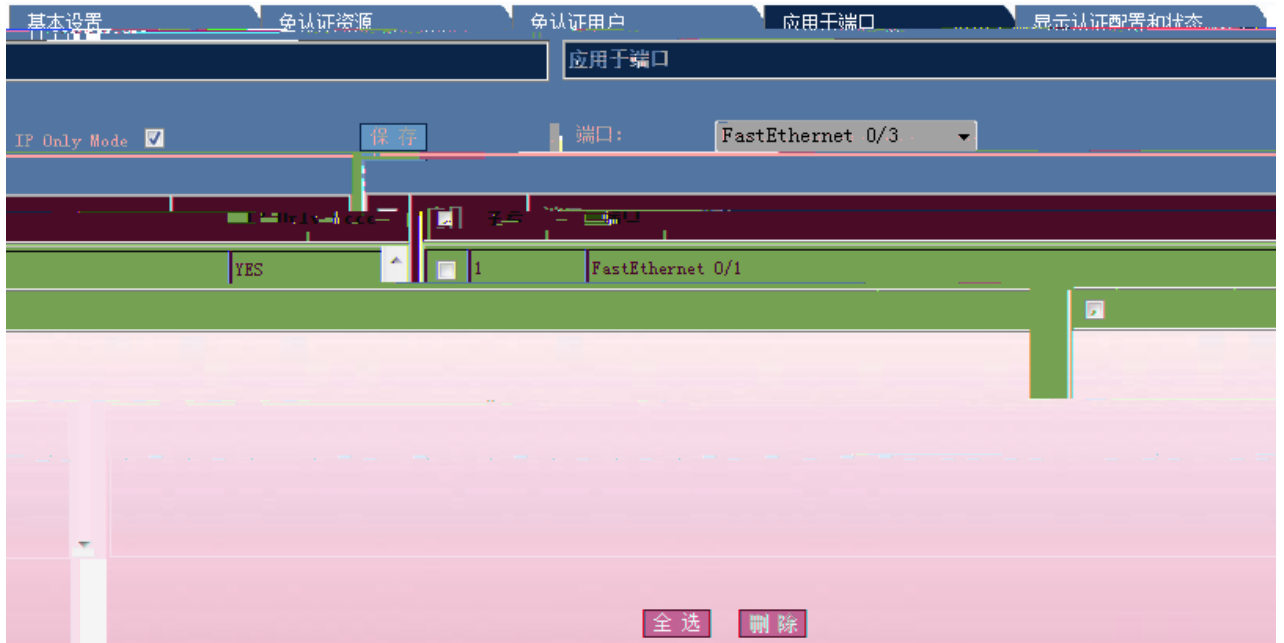
3)



65

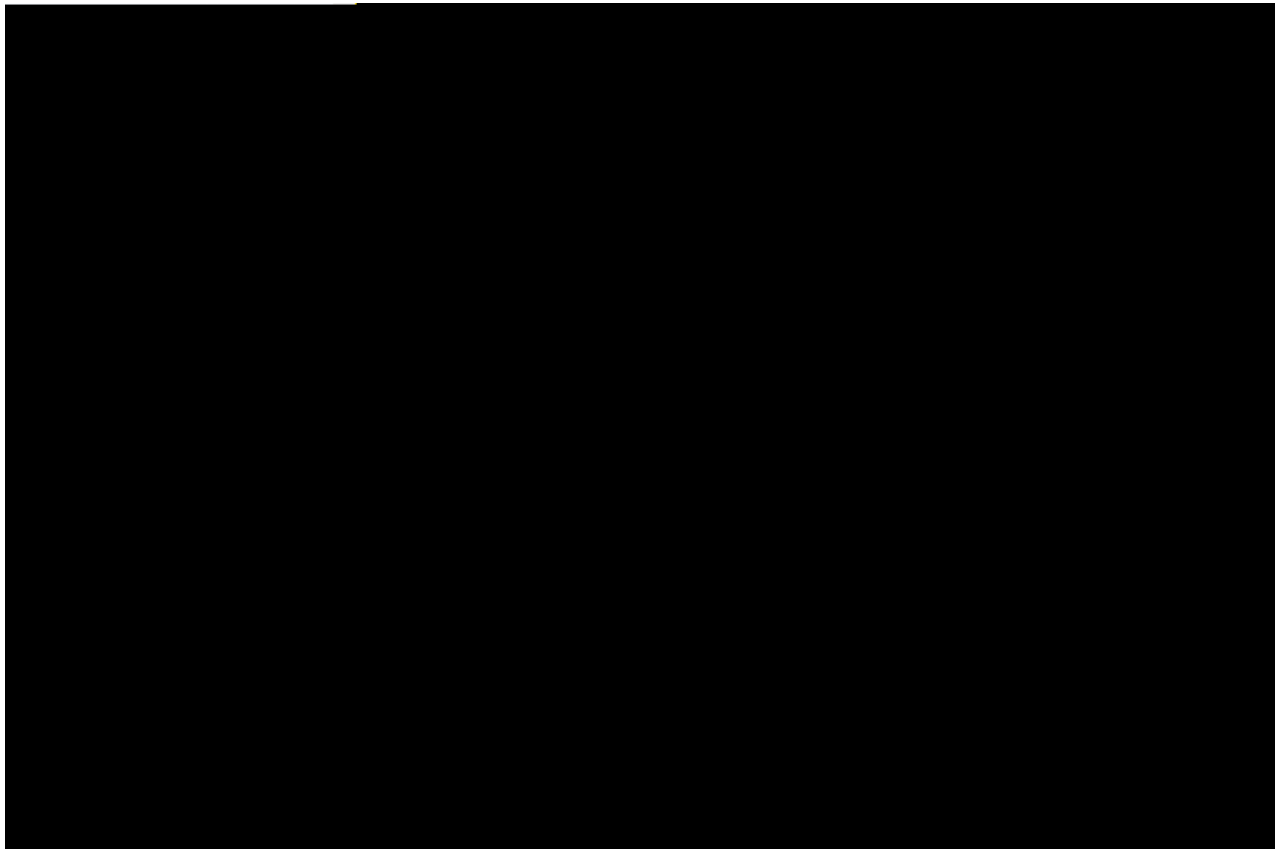
IP

4)



66

5)



67

IP

2.3.14 DHCP Snooping

" DHCP Snooping"

DHCP Snooping

DHCP Snooping 设置

说明：DHCP Snooping就是DHCP窥探，通过对Client和服务端之间的DHCP交互报文进行窥探，实现对用户的监控，同时DHCP Snooping起到一个DHCP 报文过滤的功能，通过合理的配置实现对非法服务器的过滤。

保存

DHCP Snooping 信任端口设置

说明：由于DHCP获取IP的交互报文是使用广播的形式，因此可能存在非法服务器影响用户获取IP地址。为了防止非法服务器问题，将端口配置为两种类型，信任口和非信任口。对于DHCP客户端请求报文，仅将其转发到信任口。对于DHCP服务器响应报文，仅转发来自信任口的响应报文，而丢弃所有来自非信任口的响应报文。这样就可以实现对非法DHCP服务器的屏蔽。

端口： 保存

DHCP Snooping配置信息

	端口	信任端口	限速
1	FastEthernet 0/1	信任	10000000

全选
删除

68 DHCP Snooping

1)DHCP Snooping

DHCP Snooping

DHCP Snooping

MAC

" "

2)DHCP Snooping

" "

" "

2.4 QOS

2.4.1

" "



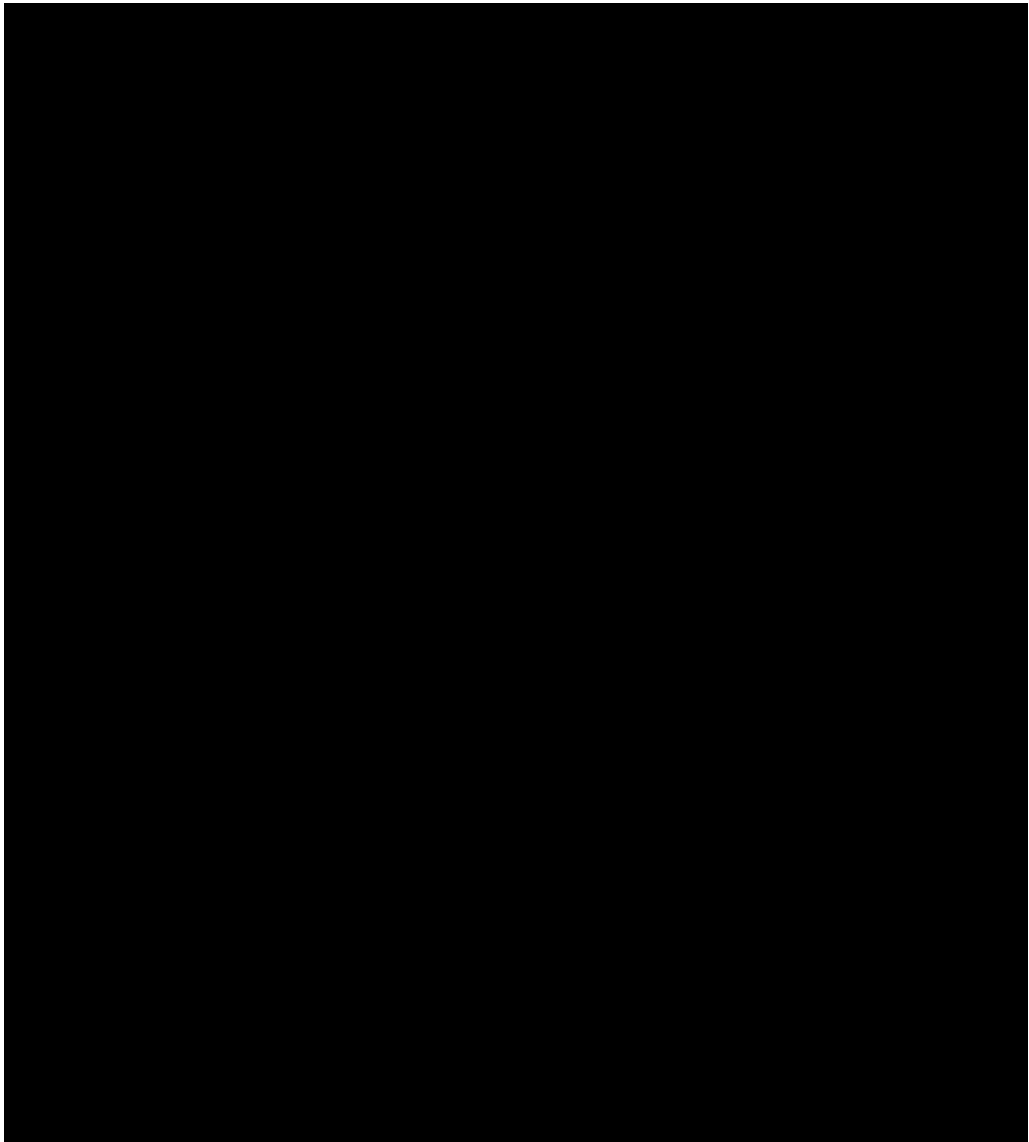
ACL " "

" "

" "

2.4.3

" "



" "

2.4.4

" "

将风暴控制应用于端口 (端口默认开启风暴控制)

端口: FastEthernet 0/2

广播 默认

组播 kilobits per second

20 (1-100) 单播 suppression level

保存

方式	控制力度	接口	风暴类型	控制方
-	-	FastEthernet 0/2	broadcast	-
?	?	FastEthernet 0/2	multicast	?
<input checked="" type="checkbox"/>		FastEthernet 0/2	unicast	level 20

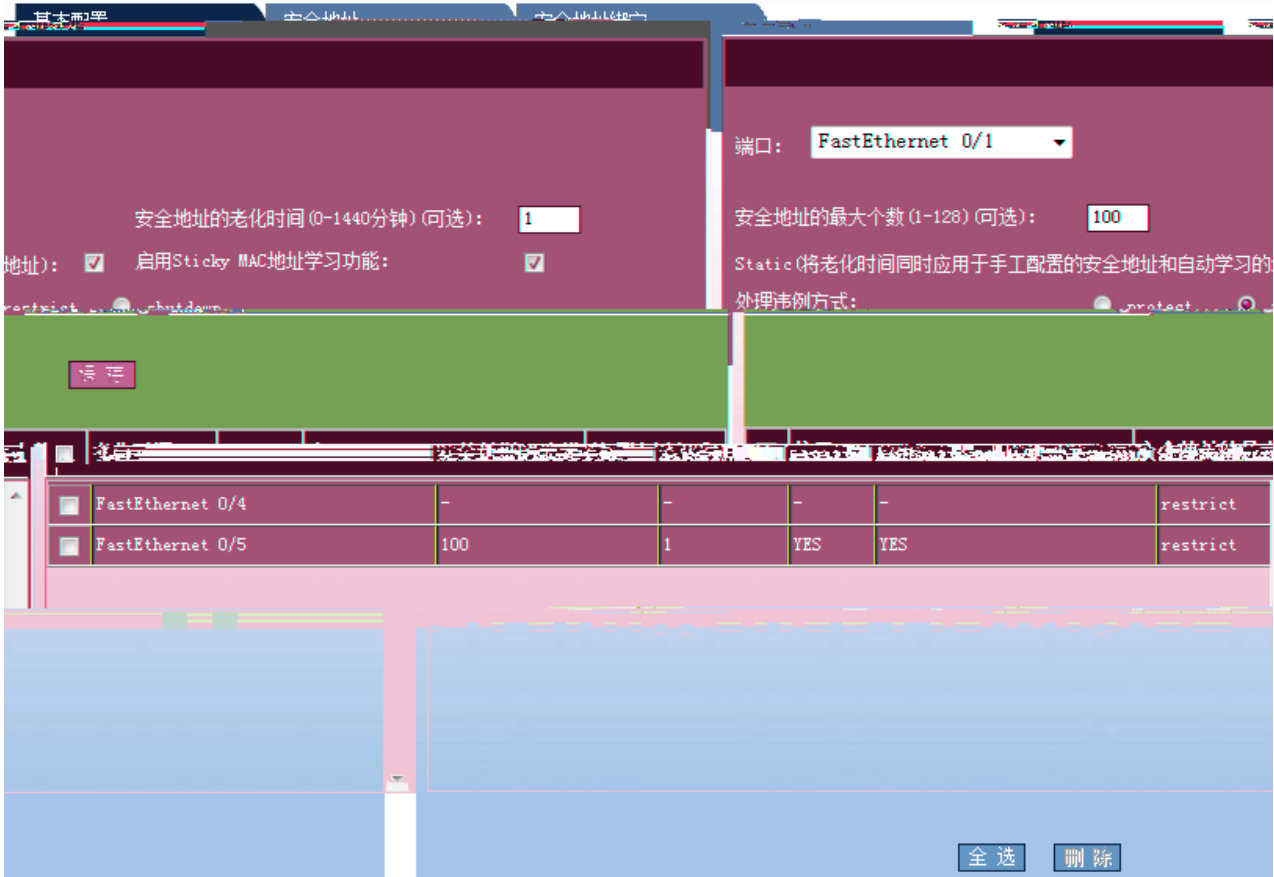
全选 删除

72

" "

2.4.5

" "



73

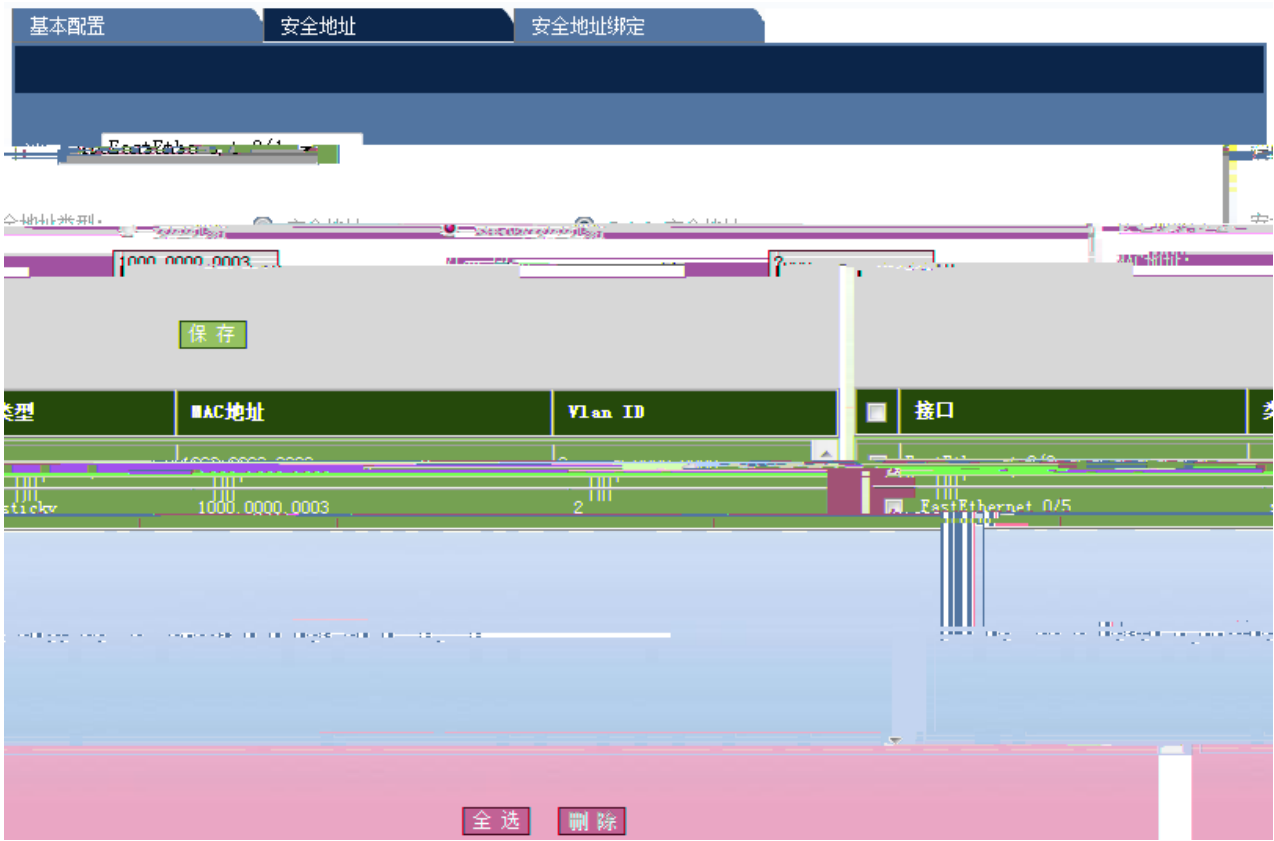
1)

Sticky Mac

Static

" "

2)



74

Mac VLAN ID

3)

基本配置 安全地址 **安全地址绑定**

端口:

IP地址 (IPv4或IPv6):

将MAC及Vlan进行绑定到安全端口:

MAC地址: Vlan ID:

<input type="checkbox"/>	接口	MAC地址	Vlan ID	IP地址
<input checked="" type="checkbox"/>	FastEthernet 0/1	1000.0000.0000	10	1.2.3.3

75

Mac IP
 VLAN ID MAC Vlan

2.5

2.5.1

" "

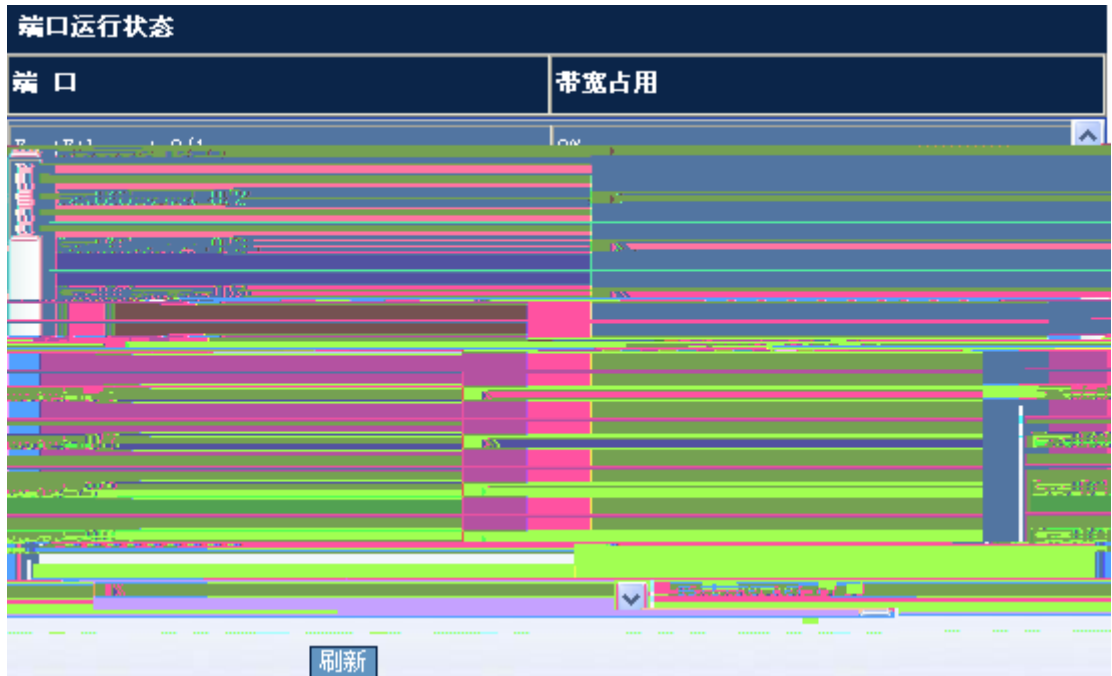
端口	名称	速率	类型	描述	状态
1	Unknown	Unknown	copper	FastEthernet 0/1	down
2	Unknown	Unknown	copper	FastEthernet 0/2	down
1	Full	100M	copper	FastEthernet 0/3	up
900	Unknown	Unknown	conner	FastEthernet 0/4	down
Unknown	Unknown	copper	FastEthernet 0/5	down	1
Unknown	Unknown	copper	FastEthernet 0/6	down	1
down	1	Unknown	Unknown	copper	FastEthernet 0/10

刷新

78

2.5.4

" "



79

2.5.5

端口统计信息

注意：本设备不支持对原有接口的统计信息清零。

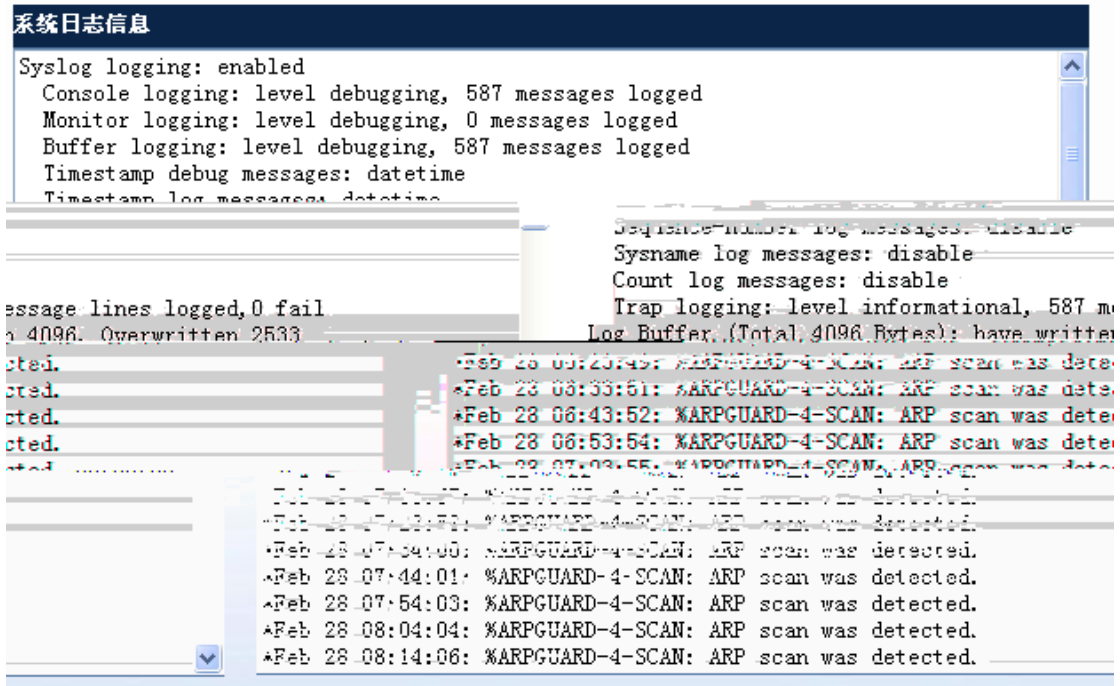
端口：

输入/输出帧统计

发送包数	发送单播包数	发送多播包数	发送广播包数	端口	接收包数	接收单播包数	接收多播包数	接收广播包数
14043	12012	343	1688	Gi0/1	33198	8950	5508	18740
0				Gi0/2	0	0	0	0
2717				Gi0/3	6	6264	3004	543
0				Gi0/4	0	0	0	0
175				Gi0/5	11	217	15	27
0				Gi0/6	0	0	0	0
2298818				Gi0/7	69848	3430900	436541	695541
0				Gi0/8	0	0	0	0
842417				Gi0/9	37	1719318	685632	191269
0				Gi0/10	0	0	0	0
2367132				Gi0/11	149	4080490	958886	754472
0				Gi0/12	0	0	0	0
0				Gi0/13	0	0	0	0
0				Gi0/14	0	0	0	0
8386				Gi0/15	935630	3198954	1051703	213
0				Gi0/16	0	0	0	0

80

2.5.6



81

2.6

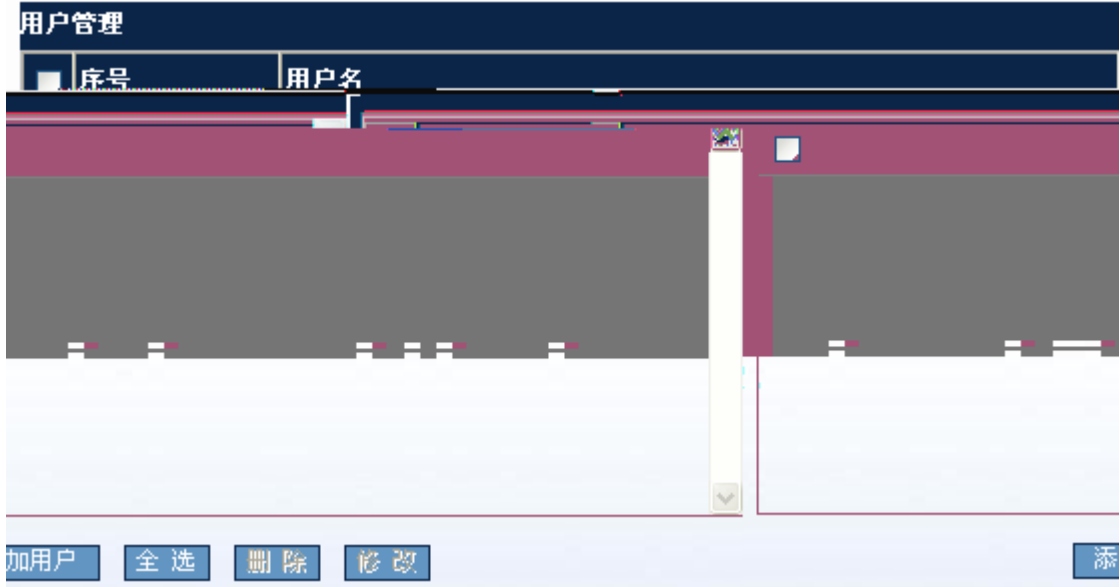
2.6.1 Ping

" Ping"

Ping



82 Ping



84

" "



85

" "

" "

" "

WEB



87

1) i Enable

在 Enable

" "



17A6

2.6.5 /

“ / ”
/



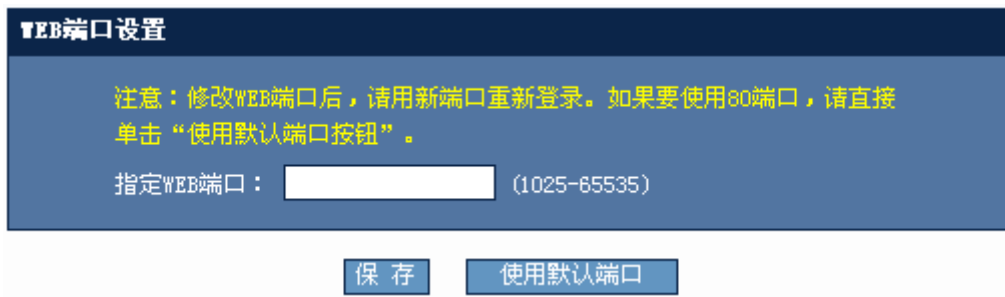
89 /

config.text TFTP IP TFTP
“ ”

2.6.6 WEB

“ WEB ”

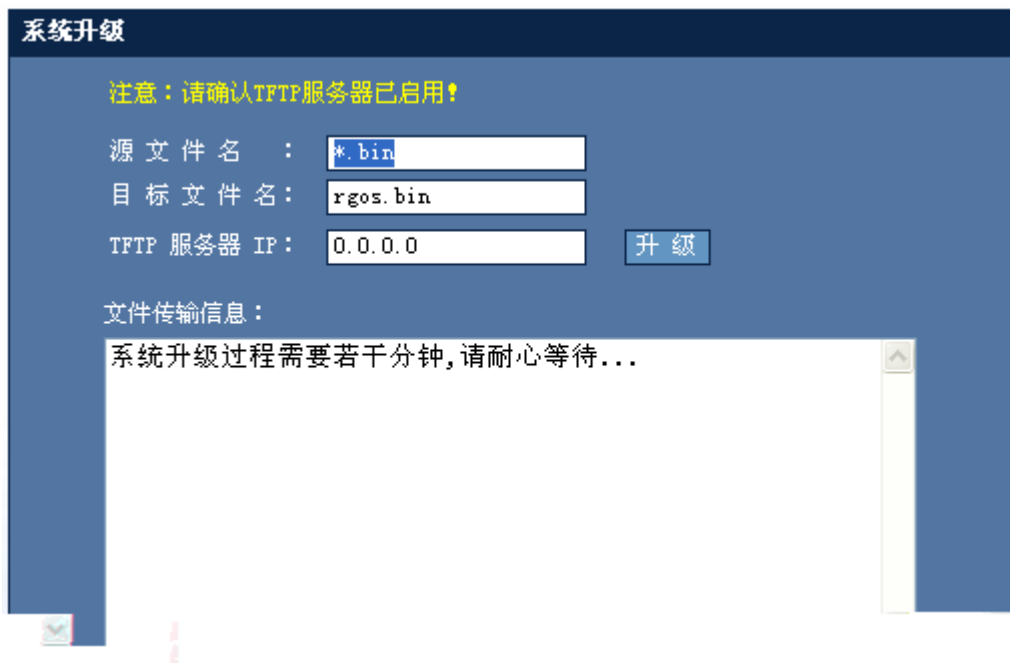
WEB



90 WEB

8080 IP 192.168.1.1
:8080

2.6.7



91

TFTP

TFTP
TFTP IP

2.6.8

2.7

2.8 WEB

2.8.1

2 Enable

a. config

b. WEB

c. WEB Enable

d. Enable

e. IP

2.8.5

1 Local

//WEB

//WEB 15

//WEB local

!

// WEB

// IP

!

WEB