



©2015



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1 WEB

2 WEB

2.1

WEB

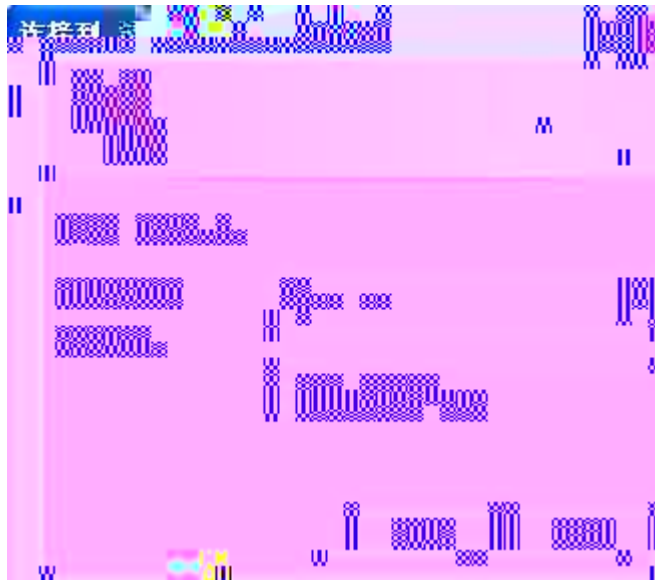
WEB	

	WEB	“ WEB ”
	WEB	Enable
	Enable	

IP _____,



“ ”



	WEB	Enable
	enable	

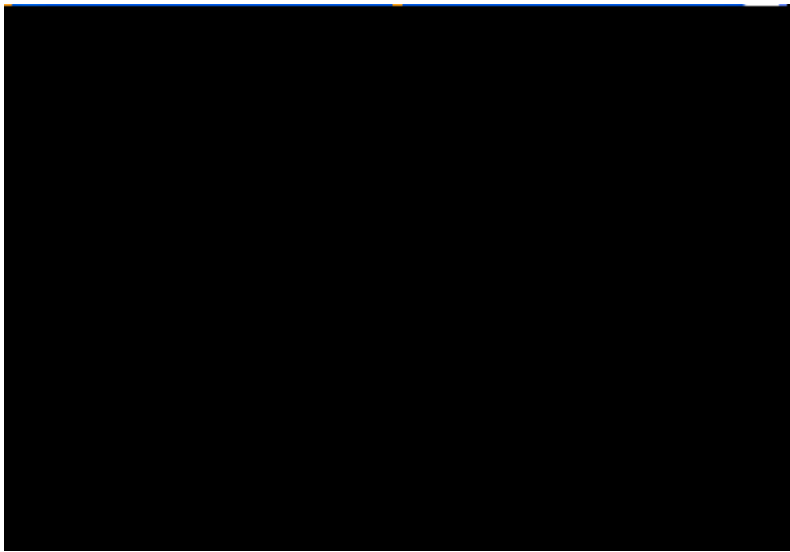
2.2

2.2.1 IP

“ IP ” 2 ý š



5



7 VLAN

VLAN ID	VLAN	“	”
VLAN	VLAN		
	VLAN	“	”
	VLAN	“	”

VLAN ID : 1 (1-4094)

VLAN 名称 : 11 (可选)

保存 取消

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接。

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

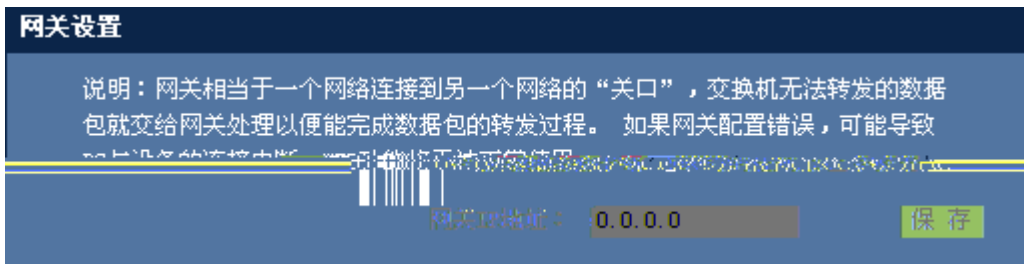
9 VLAN

VLAN ID

“ ”

2.2.3

“ ”

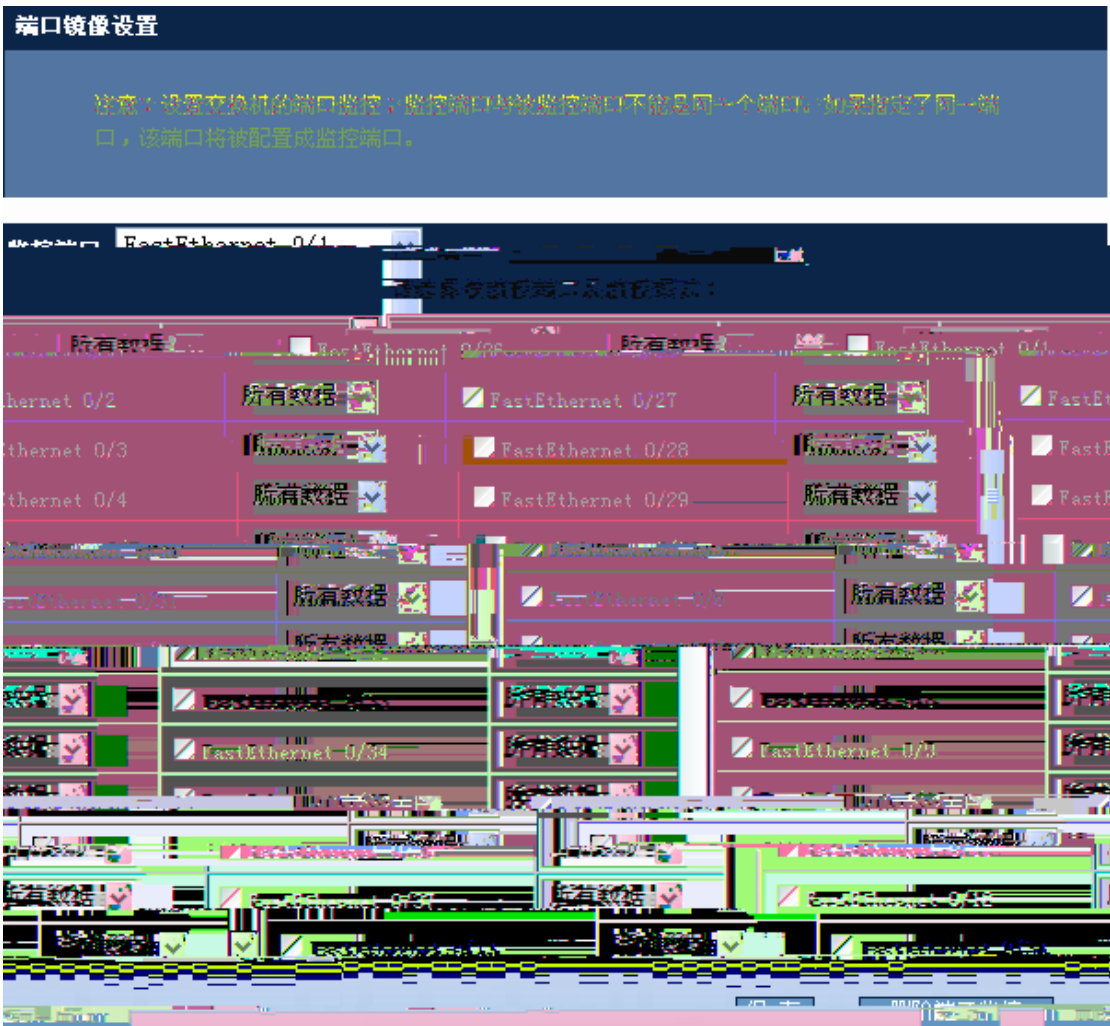


10

IP IP “ ”

2.2.4

“ ”



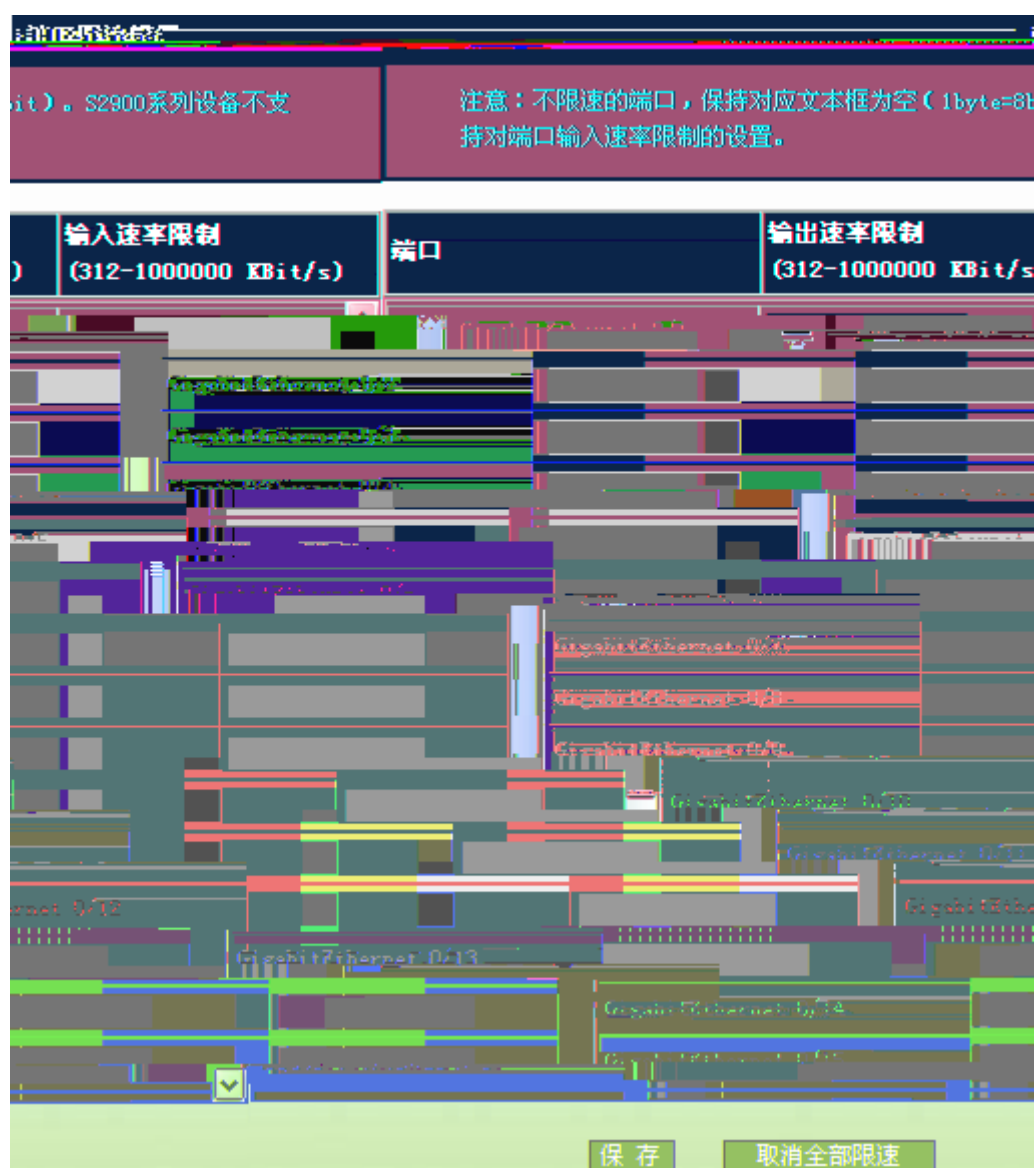
11

“ ”

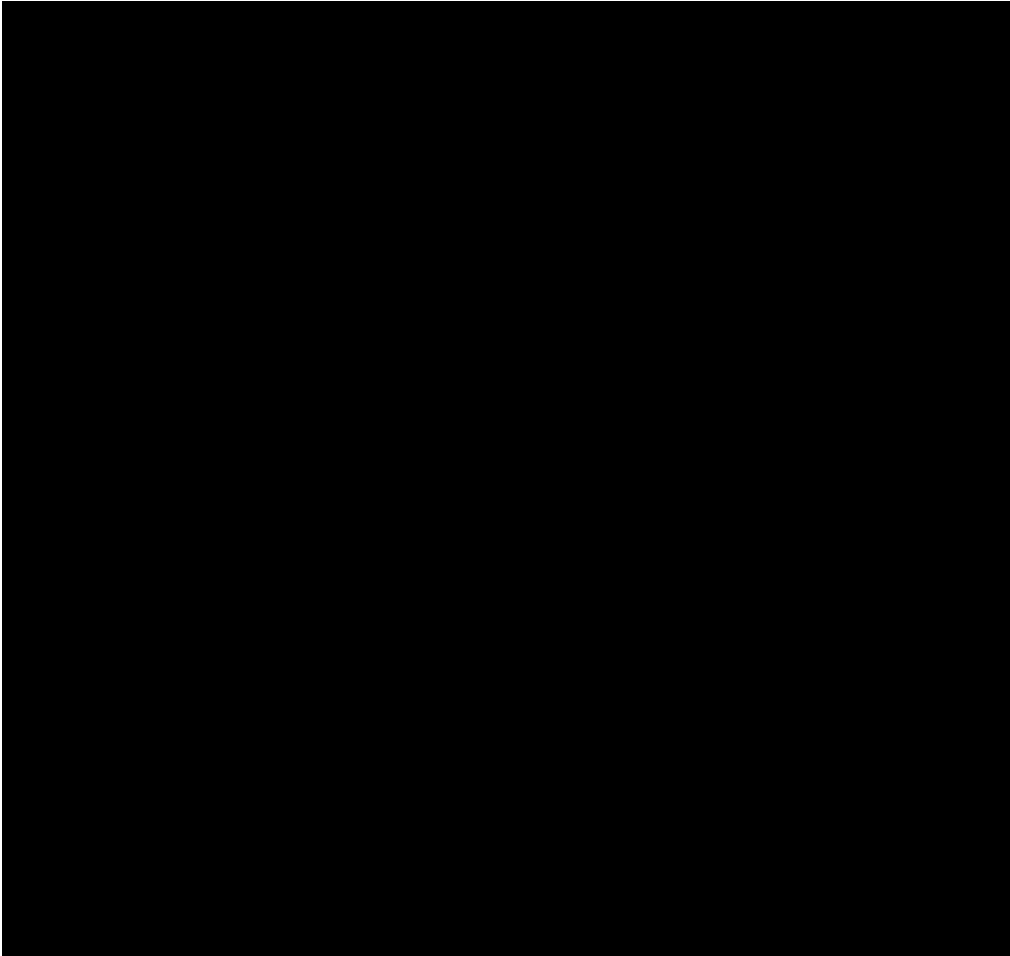
“ ”

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

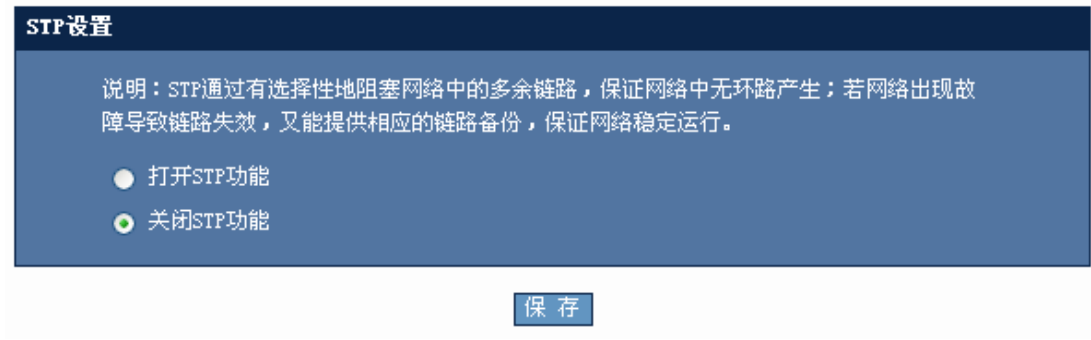


17 IGMP Snooping

IGMP Snooping “ ”
ivgl svgl ivgl-svgl svgl ivgl-svgl
IP “ ”
IGMP Snooping “ ” “ ”

2.2.10 STP

“ STP ” STP



18 STP

“ STP ” “ STP ” “ ”

2.2.11 SNMP

“ SNMP ”

SNMP



19 SNMP

SNMP “ SNMP ”

“ ” SNMP

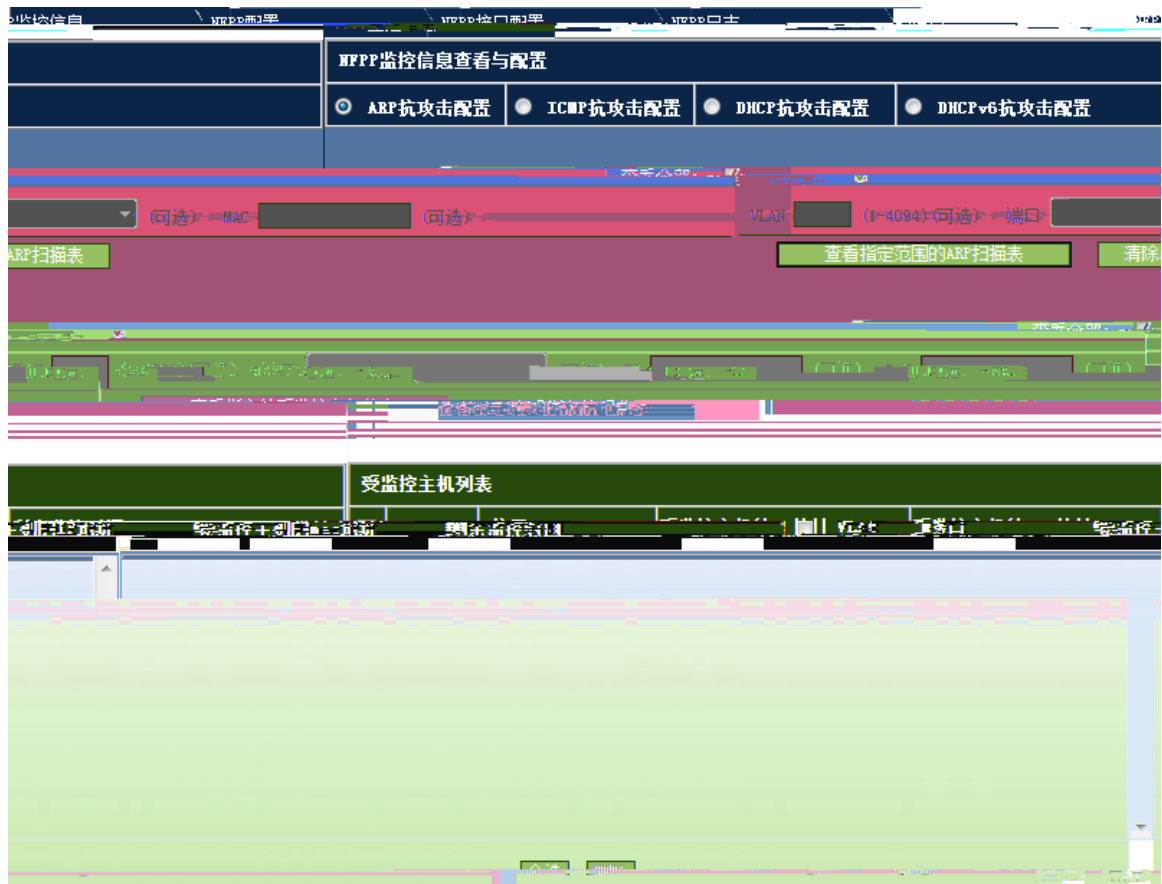
“ SNMP ” “ ”

“ ”

2.2.12 NFPP

“ NFPP ”

1 NFPP



20 NFPP

- ARP

RTMP监控信息查看与配置

查看全部: (1-4094) (可选) 端口 (可选) MAC (可选) VLAN

查看指定范围的ARP扫描表 清除ARP扫描表

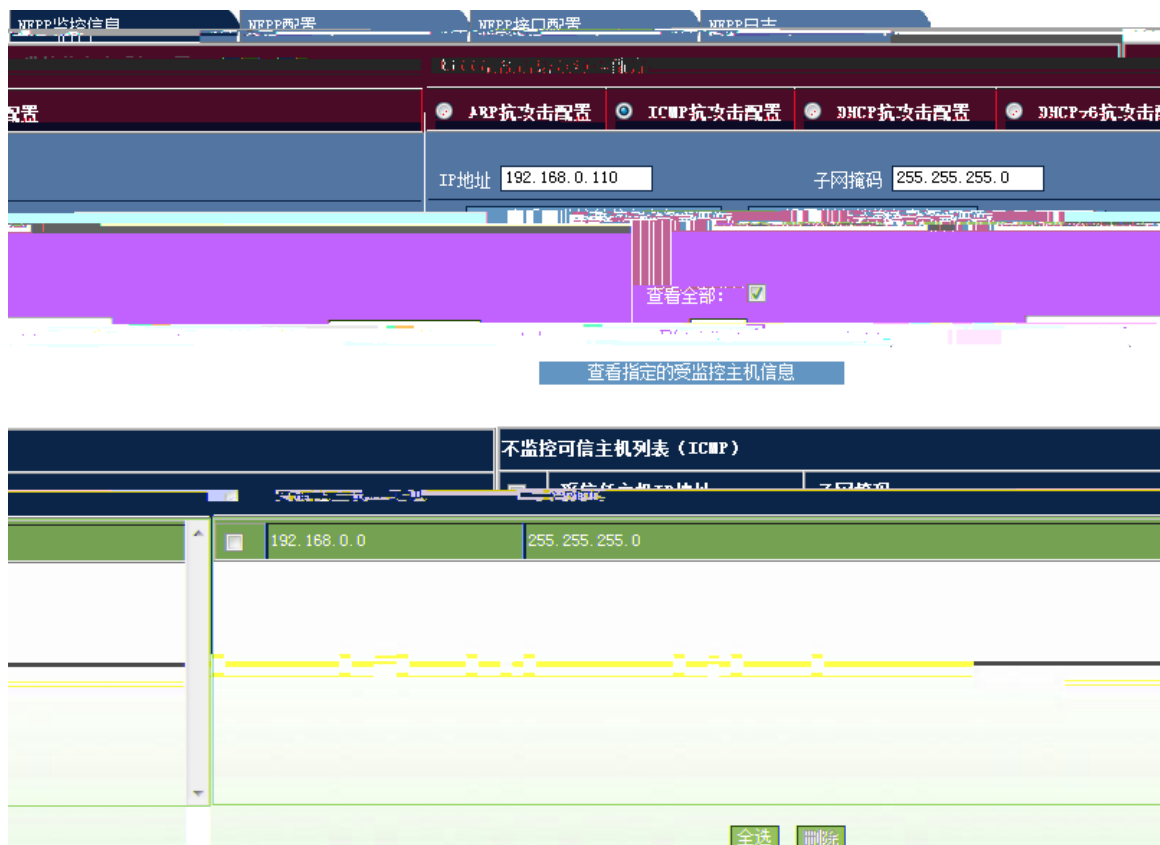
查看全部: ☒

(可选) MAC (可选) VLAN (1-4094) (可选) 端口 (可选) IP

查看指定的受监控主机信息

ARP扫描表信息				
VLAN	interface	IP address	MAC address	timestamp
1	Fa0/40	-	001a.a942.f27f	2016-6-6 11:8:53
1	Fa0/40	-	001a.a942.f27f	2016-6-6 11:10:1
1	Fa0/40	-	001a.a942	2016-6-6 11:11:2
1	Fa0/40	-	001a.a942	2016-6-6 11:12:3
1	Fa0/40	-	001a.a942	2016-6-6 11:13:3
1	Fa0/40	-	001a.a942	2016-6-6 11:14:4
1	Fa0/40	-	001a.a942	2016-6-6 11:15:4
1	Fa0/40	-	001a.a942	2016-6-6 11:16:5
1	Fa0/40	-	001a.a942	2016-6-6 11:17:13
1	Fa0/40	-	001a.a942	2016-6-6 11:18:14
1	Fa0/40	-	001a.a942	2016-6-6 11:19:15
1	Fa0/40	-	001a.a942	2016-6-6 11:20:23
1	Fa0/40	-	001a.a942	2016-6-6 11:21:21
1	Fa0/40	-	001a.a942	2016-6-6 11:22:24
1	Fa0/40	-	001a.a942	2016-6-6 11:23:25
1	Fa0/40	-	001a.a942.f27f	2016-6-6 11:25:34

21 ARP

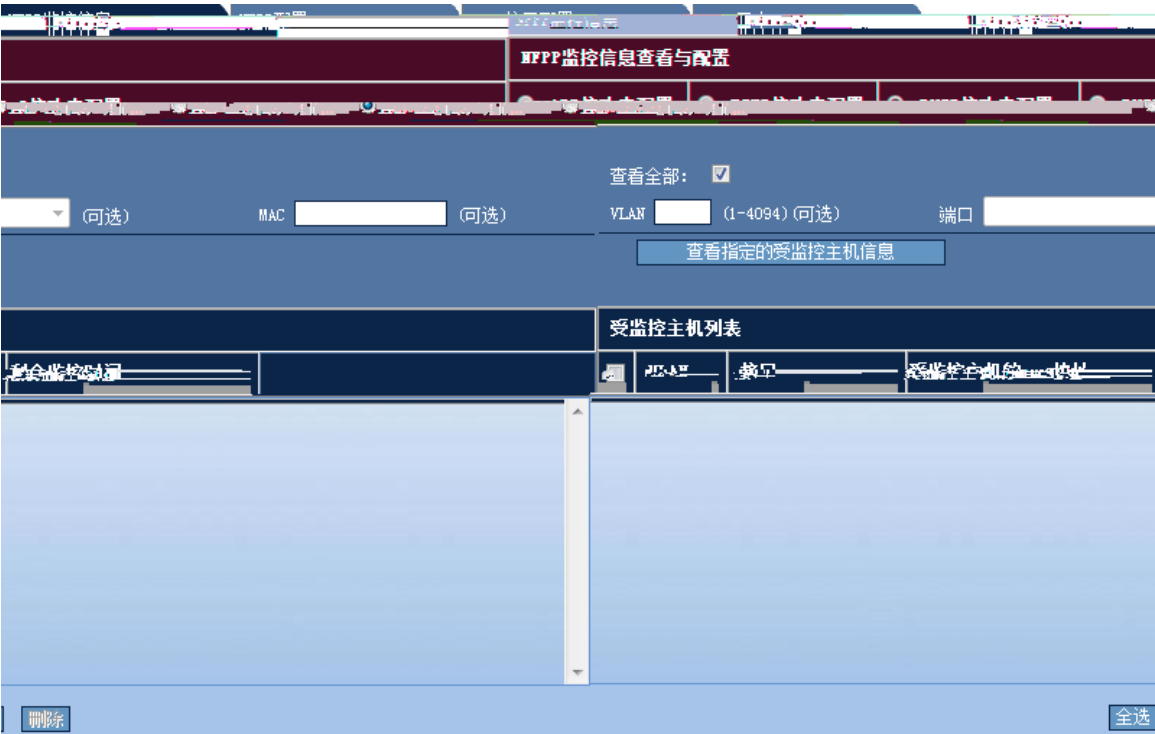


--ICMP

"

IP

- "



23 NFPP —DHCP

DHCP

“ ”

- DHCPv6



24 NFPP —DHCP

DHCPv6

“

"

“

"

2 NFPP



25 NFPP —DHCPv6
CPU



26 CPU

CPU

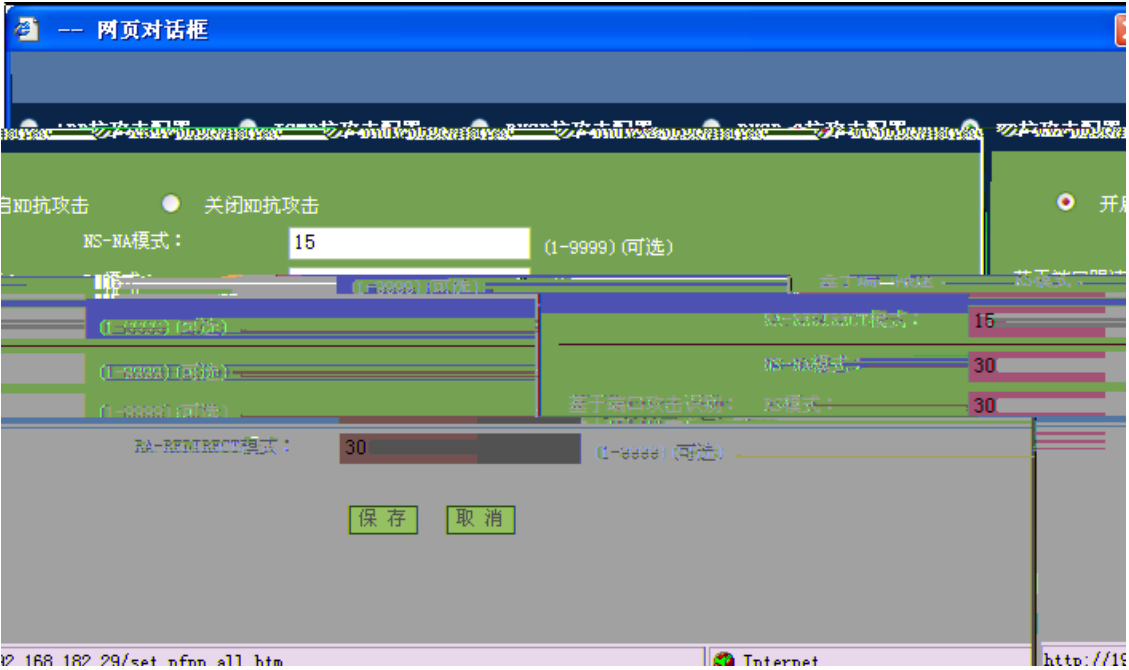
”

“

”

“

- NFPP

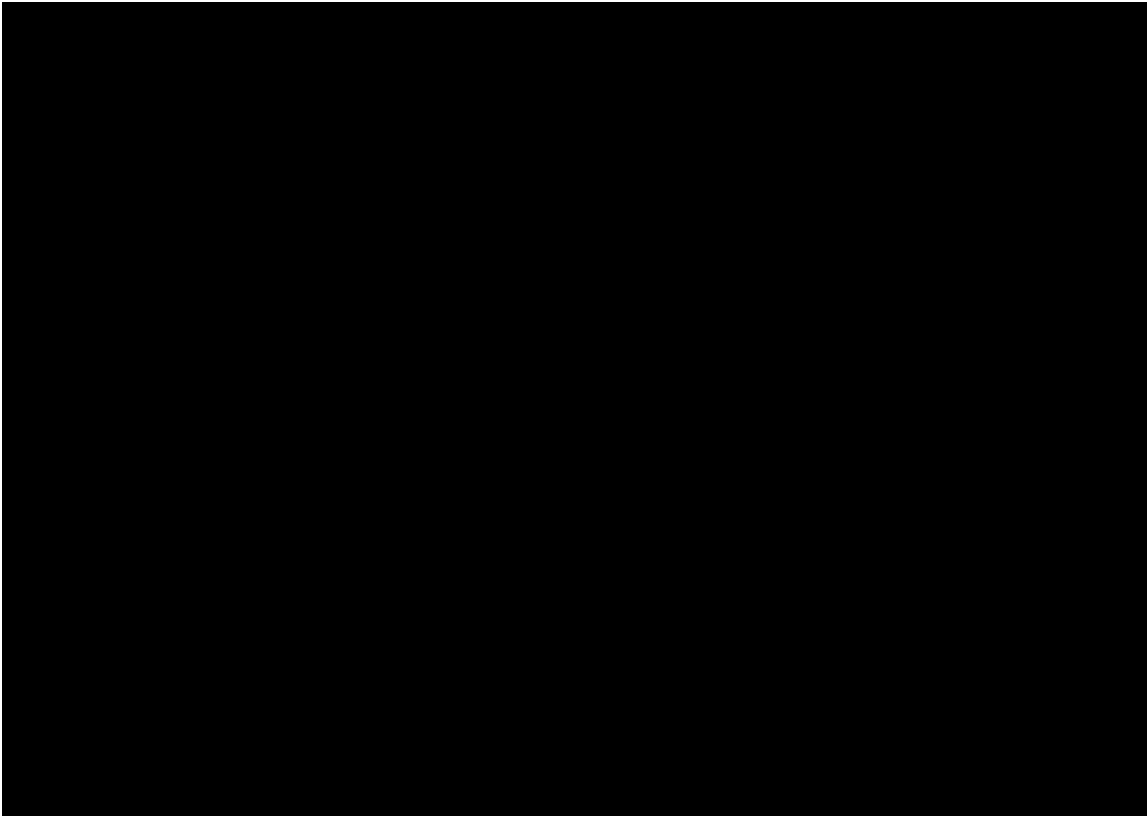


27 NFPP



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攻击
 ☐ 关闭ICMP攻击
 ☐ 默认

基于port端口识别主机 (可选):

限速值: 1112 (1-9999)

基于port端口识别主机 (可选):

限速值: 1322 (1-9999)

攻击阈值: 2222 (1-9999)

保存

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

全选

删除

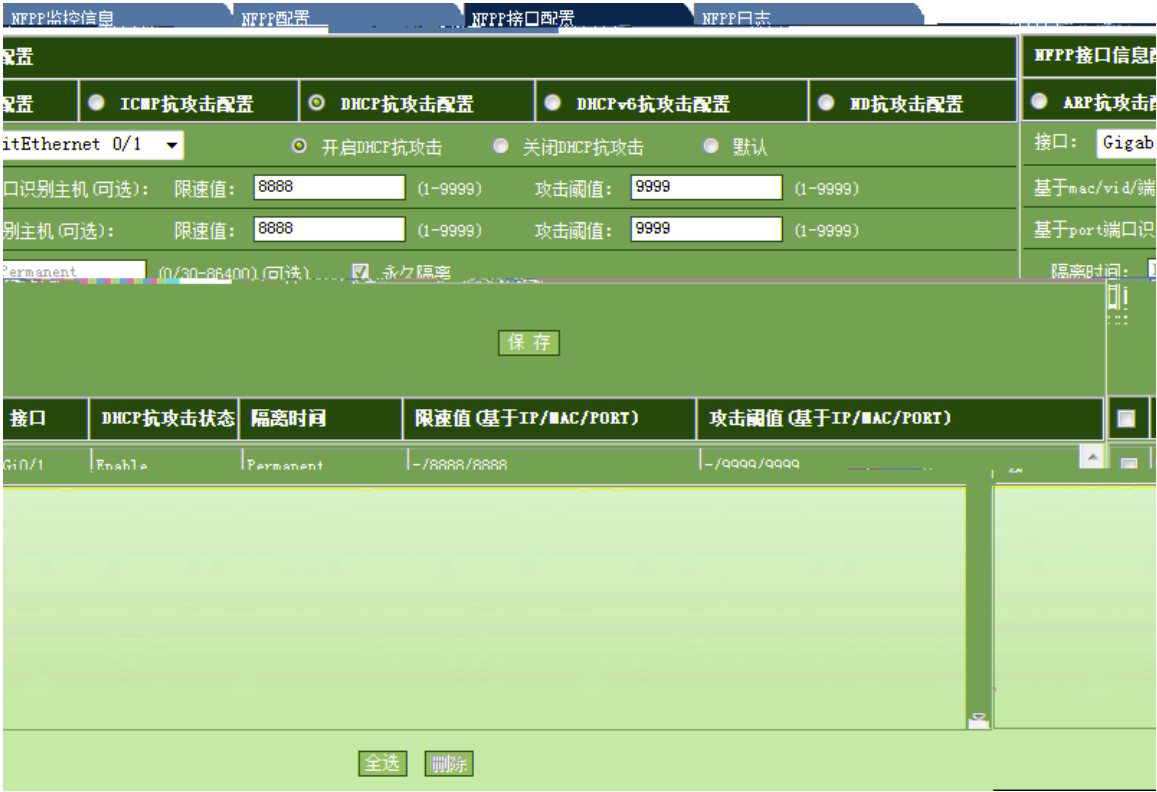
29 NFPP —NFPP ICMP

ICMP NFPP

“

22

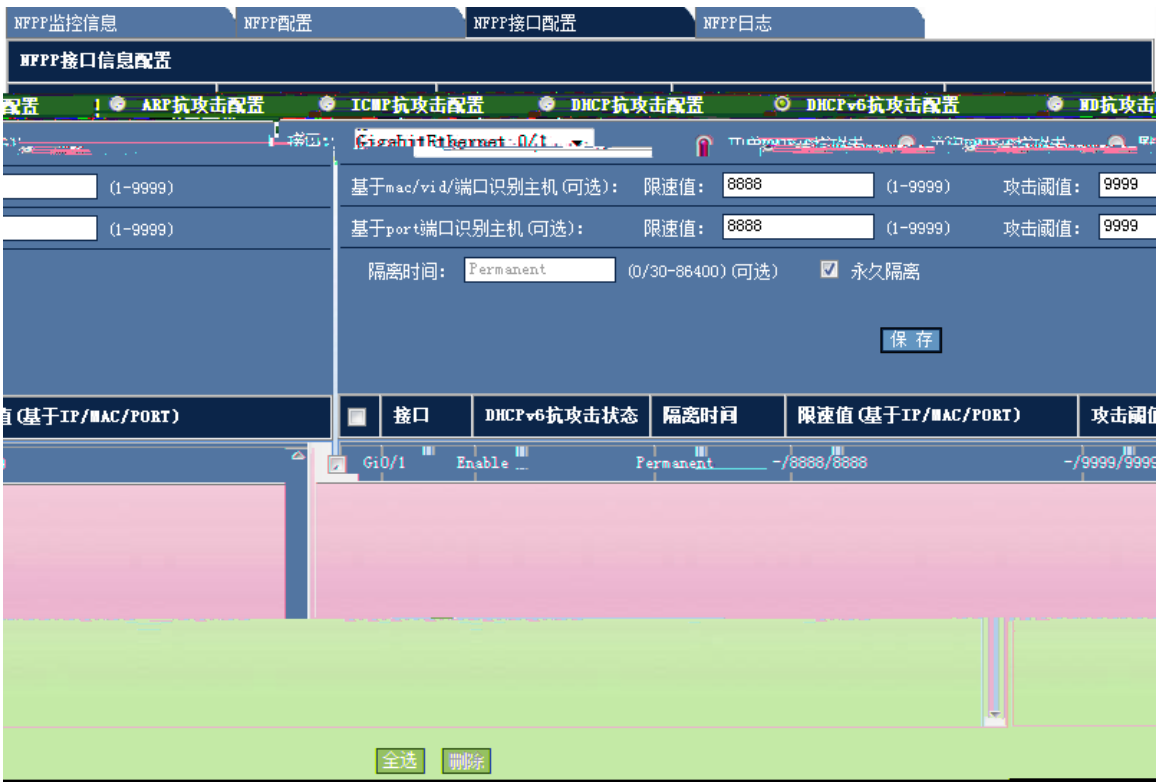
i



30 NFPP —NFPP DHCP

DHCP “ ” NFPP

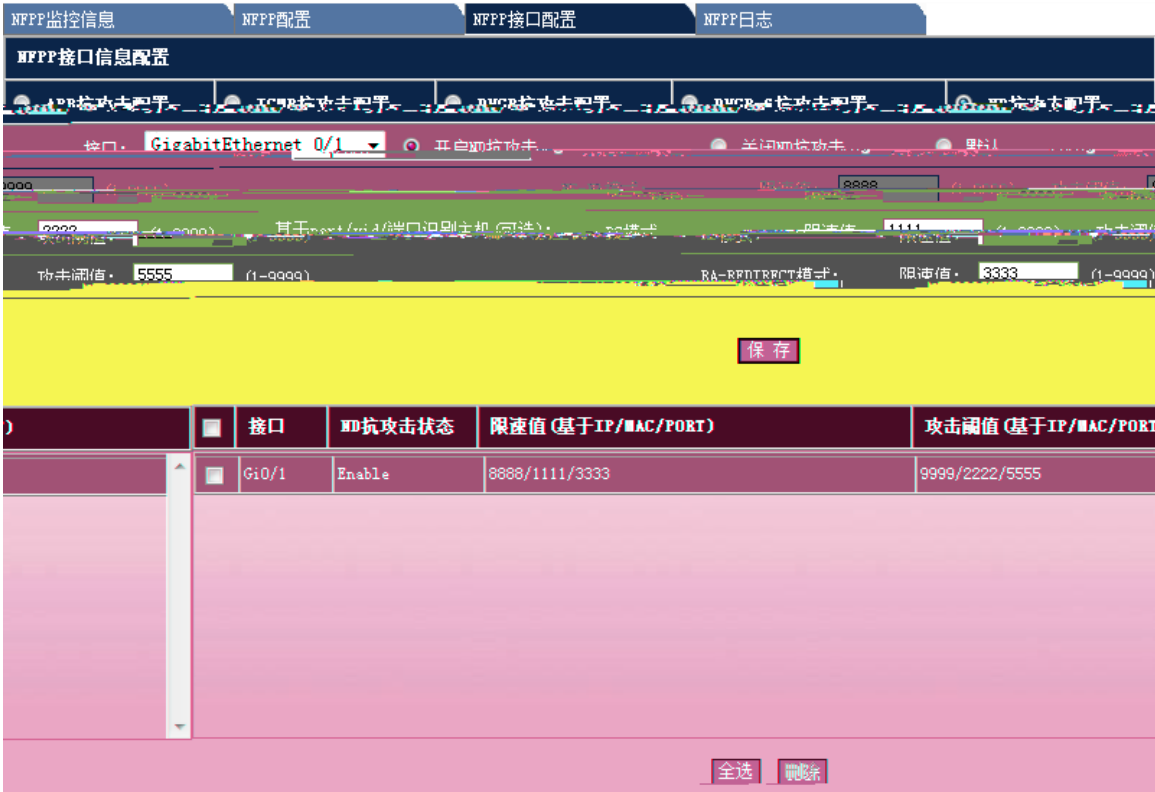
- DHCPv6



31 NFPP —NFPP DHCPv6

DHCPv6 “ ”

- ND



32 NFPP —NFPP ND

ND “ ” NFPP

4 NFPP

MFPP日志信息配置

日志缓冲区大小: 1000 (0-1024) (可选) 生成系统消息速率: 消息数: 1024 (0-1024) (可选) 时间长度: 86400 (0-86400) (可选)

用 户 选 择: 1=4094 (1-4094) (可选) 指定需要记录日志的端口 (可选): GigabitEth

ernet 0/1 添加 GigabitEth

ernet 0/2 删除 GigabitEth

ernet 0/3 删除 GigabitEth

查看日志 查看日志缓冲区 清空日志缓冲区 保存

日志缓冲区:

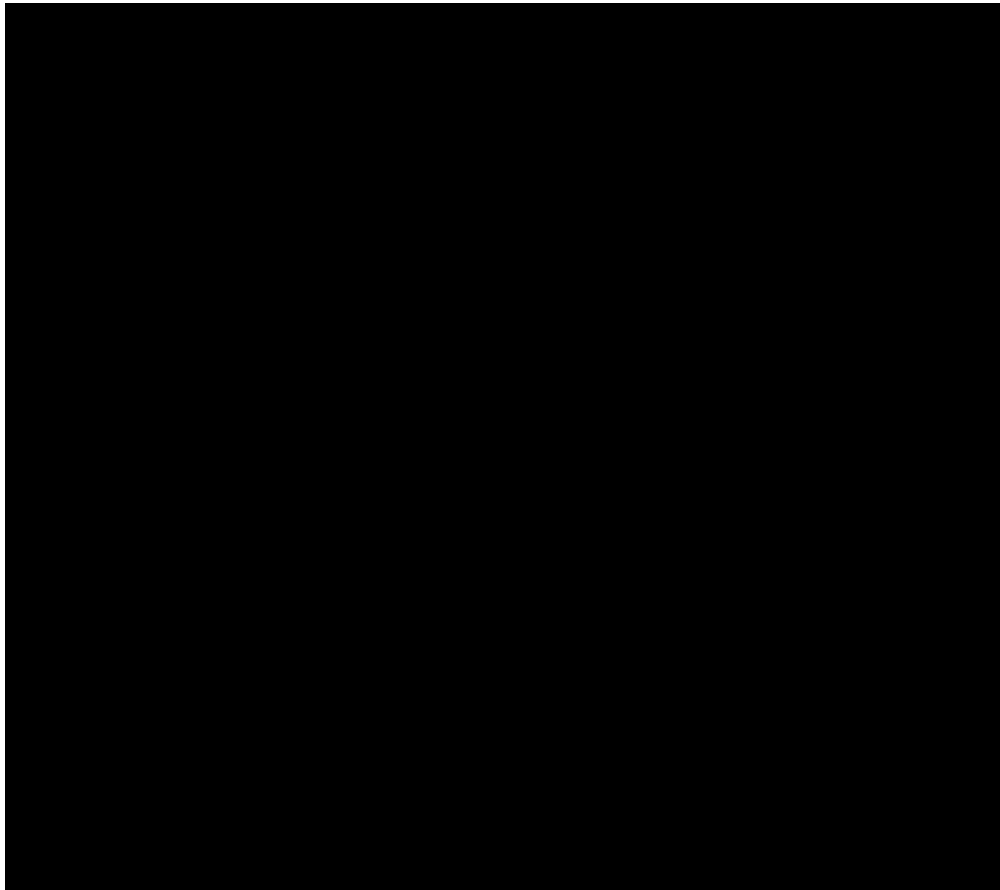
Protocol	VLAN_Interface	IP_address	MAC_address	Reason	Timestamp
----------	----------------	------------	-------------	--------	-----------

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

显示ACL信息

ACL配置

将ACL应用于端口

ACL配置

配置扩展IP访问列表

配置标准IP访问列表

规则：禁止

列表 ID (名称):

IP地址：任意源IP地址

0.0.0.0 通配符掩码： (可选) 指定IP地址范围：0.0.0.0

保存

40 IP

“ ” “ ”

ID

IP IP , IP

“ ”

IP “ IP ”

IP



41 IP

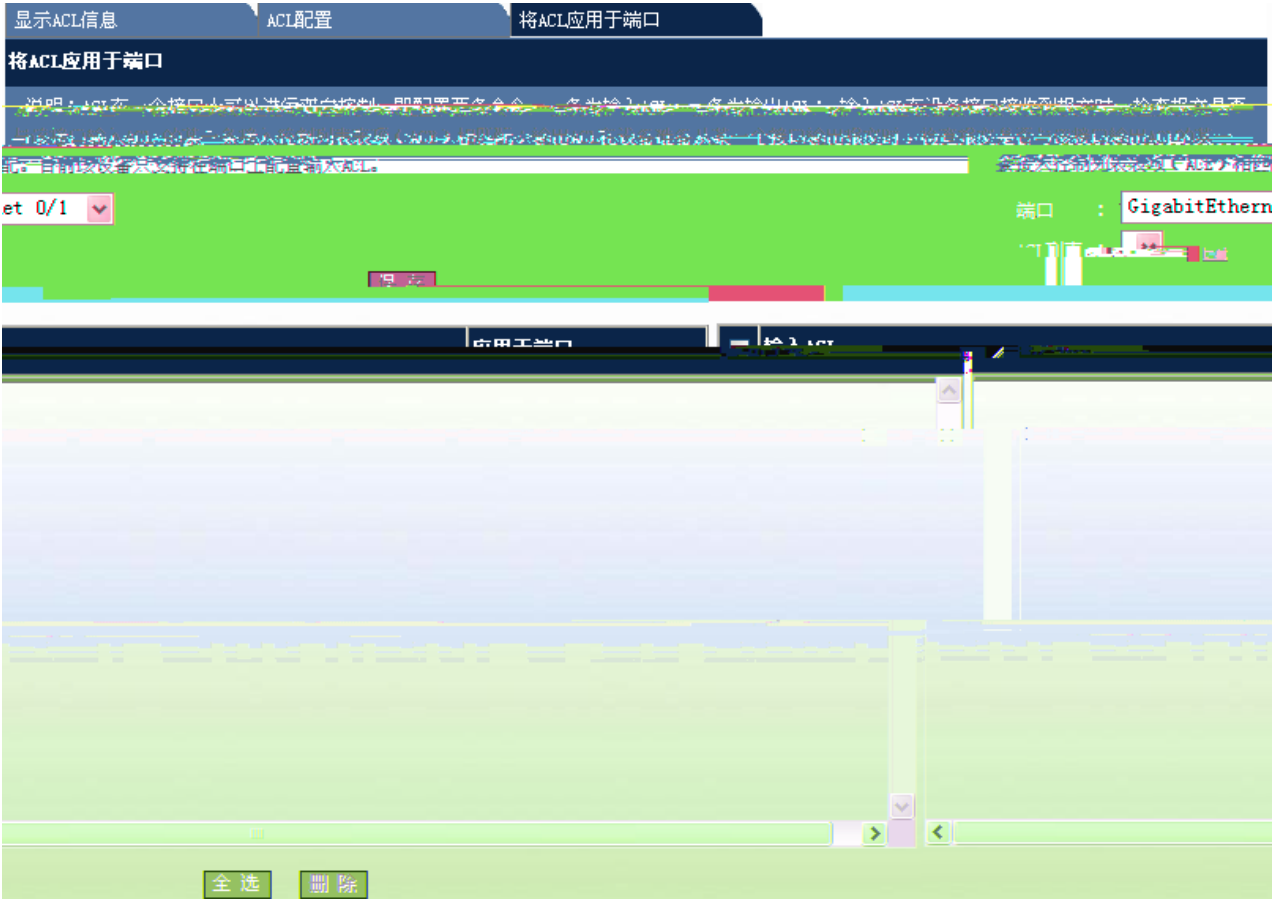
“ ” “ ”

ID

TCP UDP IP ICMP

IP IP IP

IP IP IP



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

接口配置

用户绑定

配置静态的IP源地址绑定用户

MAC地址:

VLAN:

(1-4094)

IP地址:

选择接口:

保存

☐	00d0.f811.2233	1.2.3.4	infinite	static	1	FastEthernet 0/4
--------------------------	----------------	---------	----------	--------	---	------------------

全选

删除

44

2.3.6 DAI

DAI

Dynamic ARP Inspection

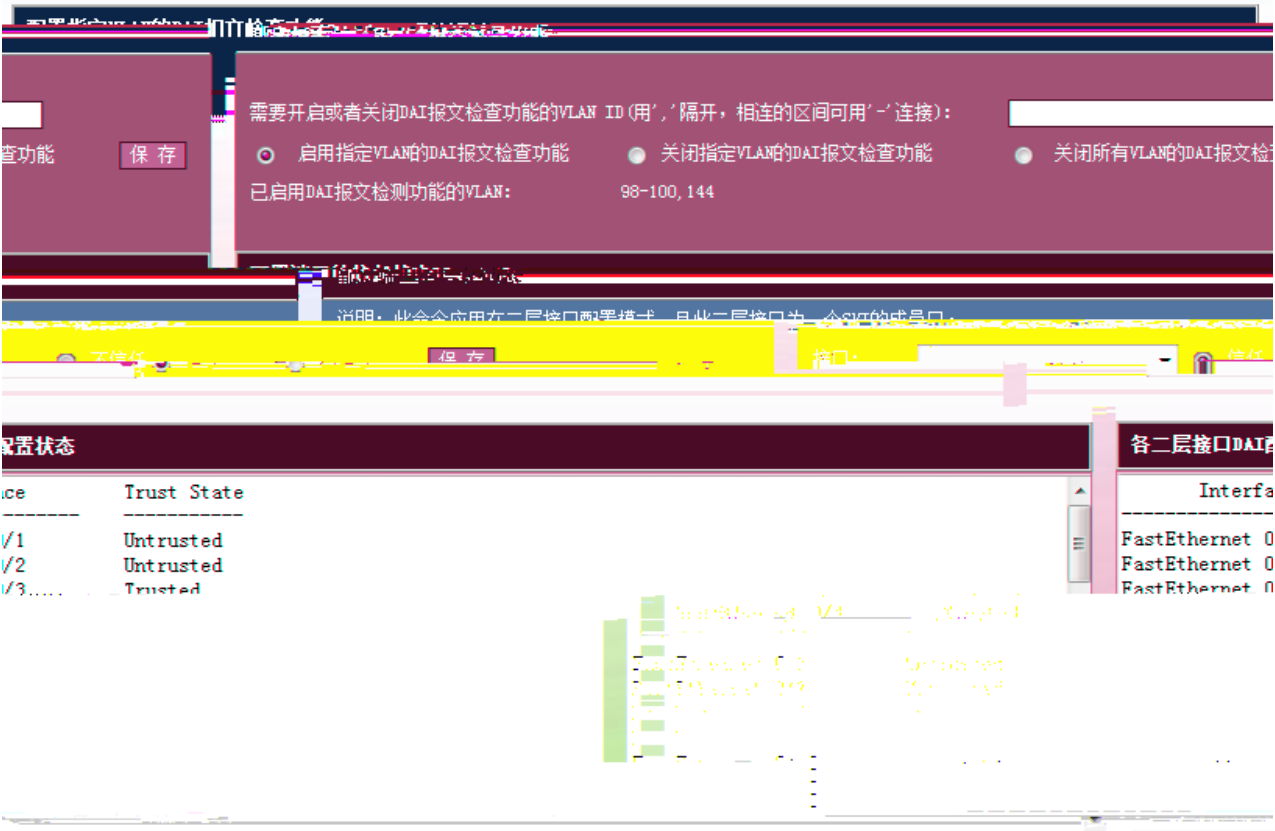
ARP

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

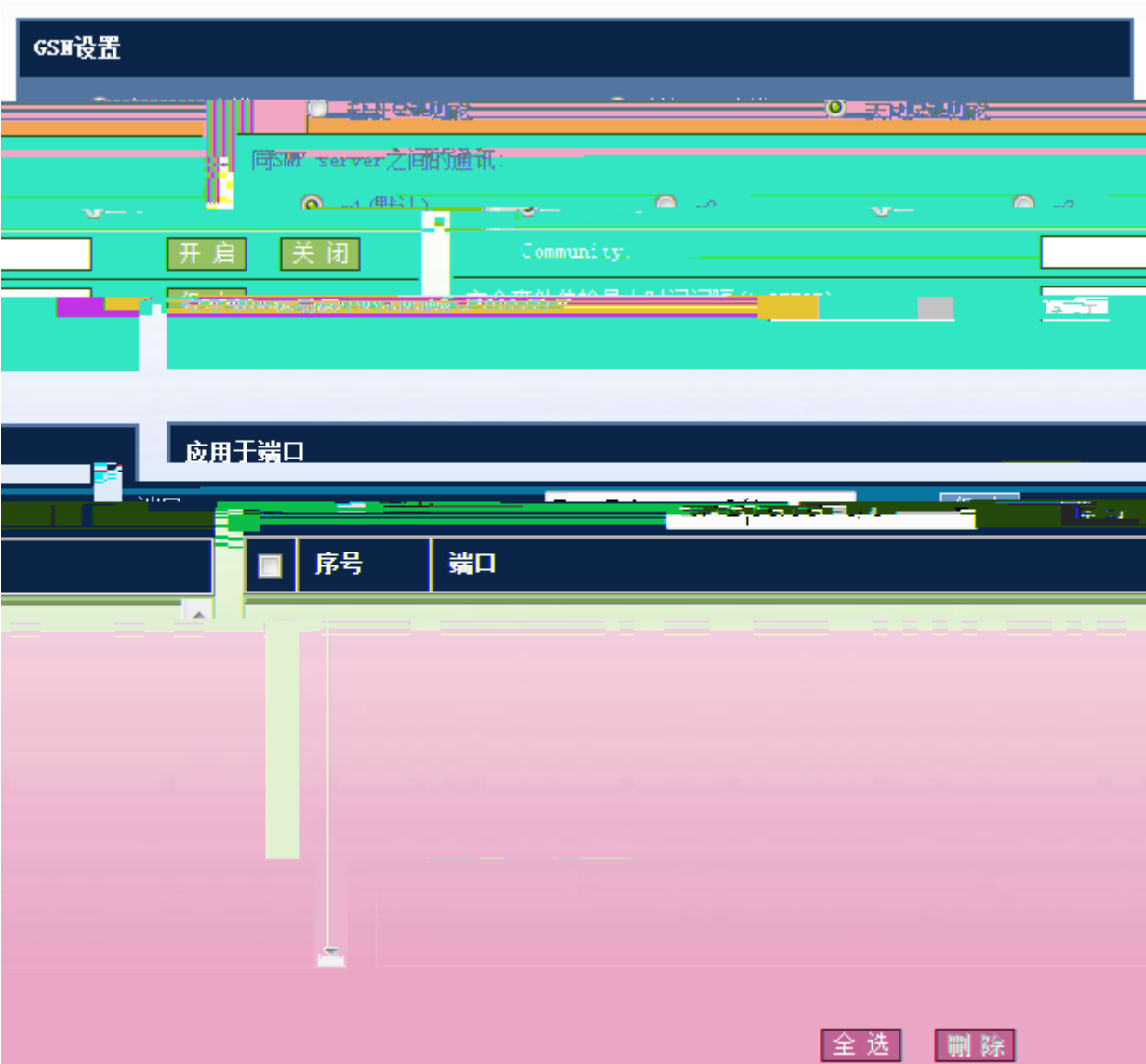
DAI

“ 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

49

/ / “ ” / /

Type	Pps	Total	Drop
tp-guard	0	0	0
arp	8	325751	0
dhcp	0	0	0
dhcpv6	0	0	0
igmp	0	0	0
l2tp=ipsec	0	0	0
l2tp	0	2500	0
l2tp=stp	0	0	0
ssh=ipsec	0	0	0
ssh=ipsec	0	0	0
ssh=stp	0	0	0
ssh	0	0	0
total	0	0	0

50 / /

“ ”

Radius服务器

Radius服务器组

AAA参数配置

AAA new-model:
☒ 开启 ☐ 关闭
密钥:
隐藏密钥 保存
记帐计费更新功能:
☒ 开启 ☐ 关闭
非锐捷认证服务器动态acl下发:
☒ 开启 ☐ 关闭
IP授权模式:
disable 保存

Radius服务器组

组名:

正端口:
长端口:
 (0-65536) (可选) (0-65536) (可选)
保存
服务器组管理: Radius Radius Radius

=====Radius group radius=====

Vrf: not-set
Server: 7::1
Authentication port: 1812
Accounting port: 1813
State: Active
Server: ::1
Authentication port: 1812

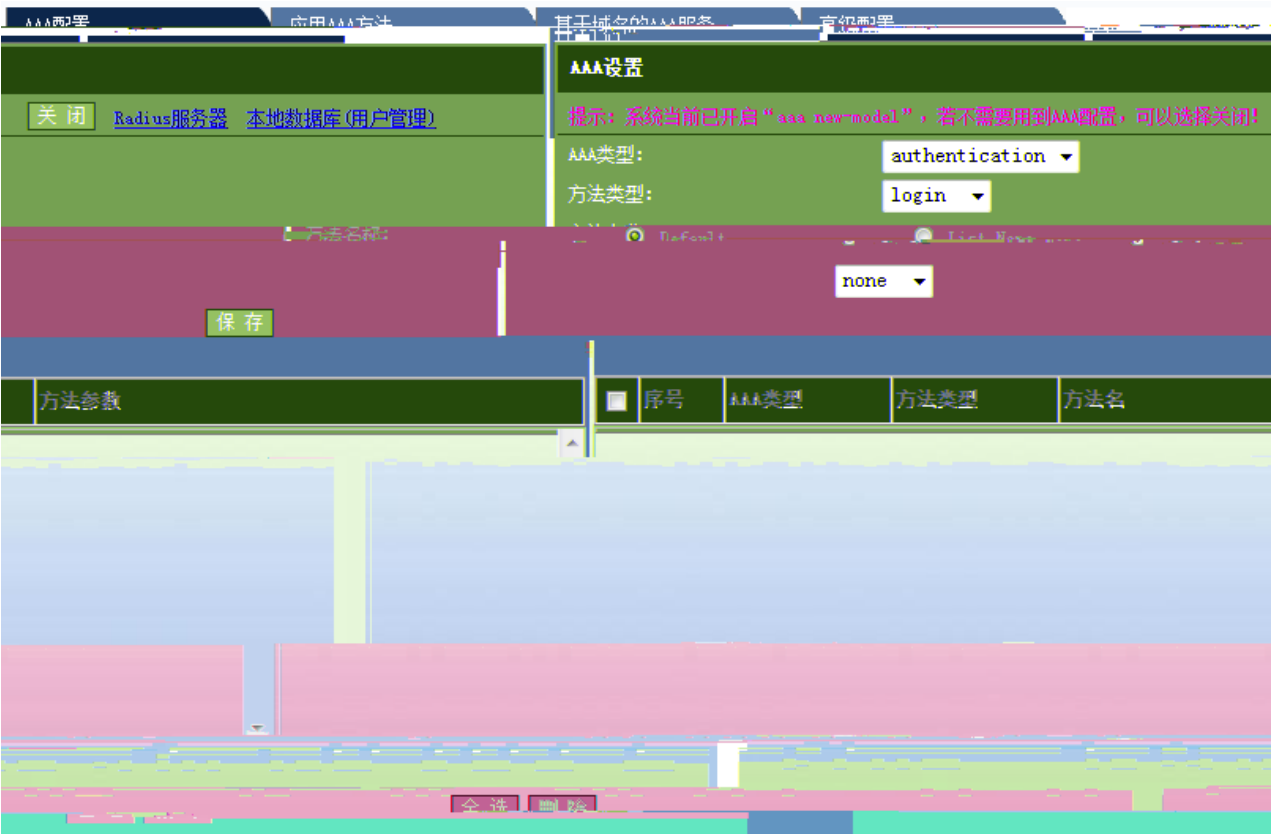
192.168.1.100
port: 1813
8

Server: 7::1
Accounting port: 1813
State: Active

52 RADIUS

RADIUS IP

“ ”



53 AAA

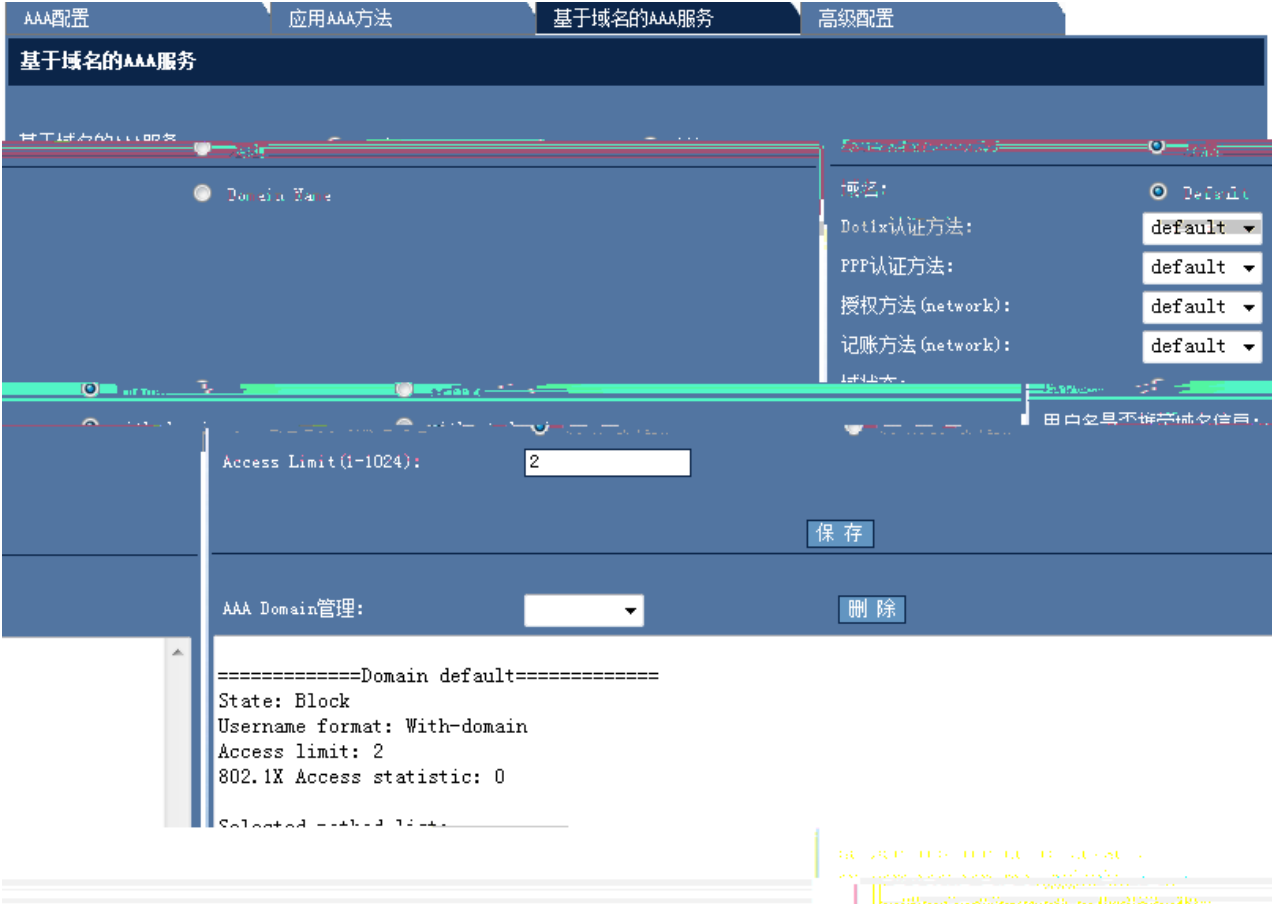
- 1 AAA
- AAA authentication authorization accounting
- AAA login enable ppp dot1x exec command network
- List Name local
- group
- 2 AAA



54 AAA

AAA AAA

3 AAA



55 AAA AAA Dot1x PPP Access Limit

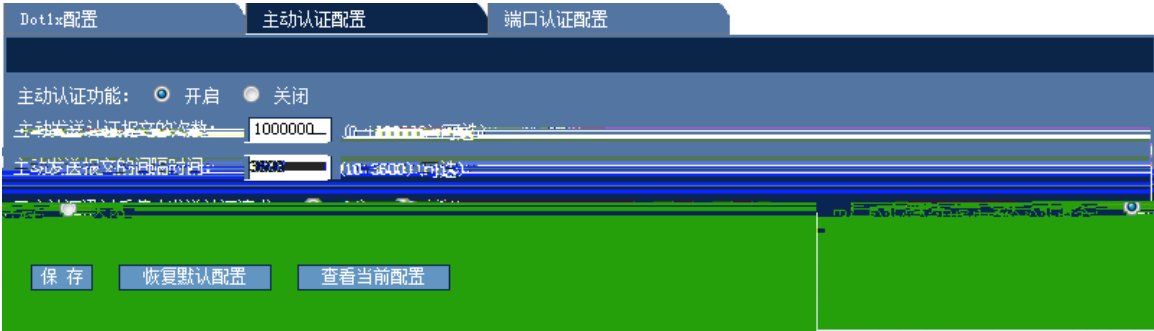
(network) (network)

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) 保存

端口下的可认证主机(端口必须开启认证功能)：MAC地址： 端口： 添加

失败VLAN尝试次数： (1~3) 保存

端口下可认证主机列表	
主机MAC地址	端口
☒ 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:

查找

MAC地址:

绑定

☐	序号	IP	MAC

全选

删除

刷新



62 ARP

2.3.13 WEB

“ web ”

web

WEB



64

IP

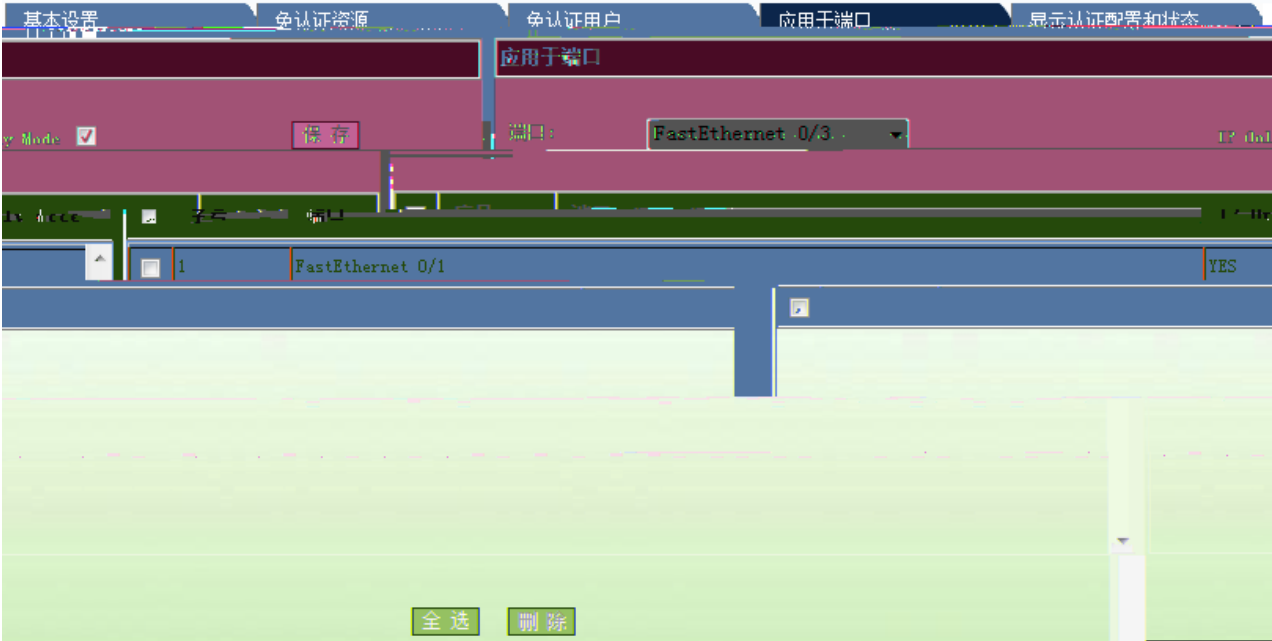
3)



65

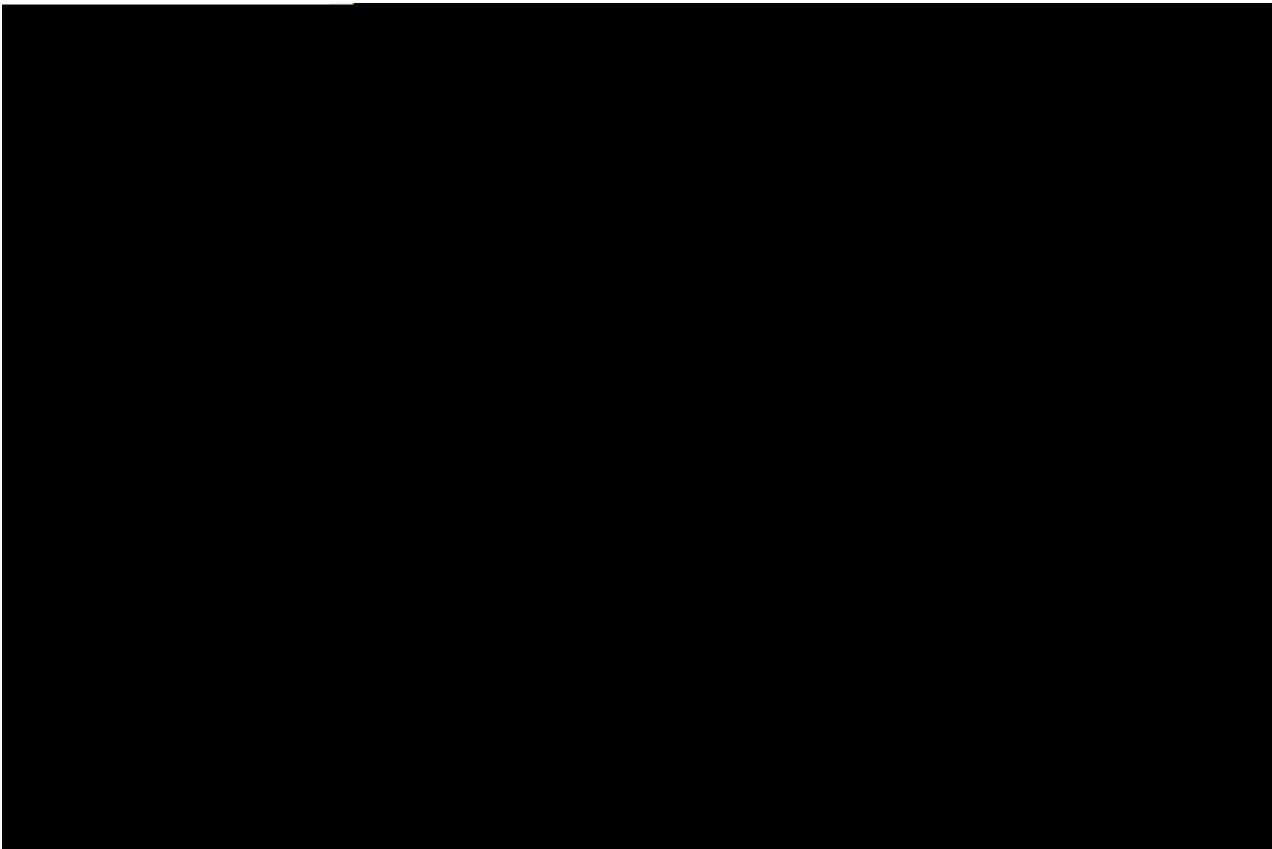
IP

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和服务器之间的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。

接口名称

是否信任

是否限速

接口名称

是否信任

是否限速

接口名称

是否信任

是否限速

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：

FastEthernet 0/1

保存

DHCP Snooping配置信息

端口	信任端口	限速

全选

删除

68 DHCP Snooping

1)DHCP Snooping

DHCP Snooping DHCP Snooping MAC
“ ”

2)DHCP Snooping

“ ”

2.4 QOS

2.4.1

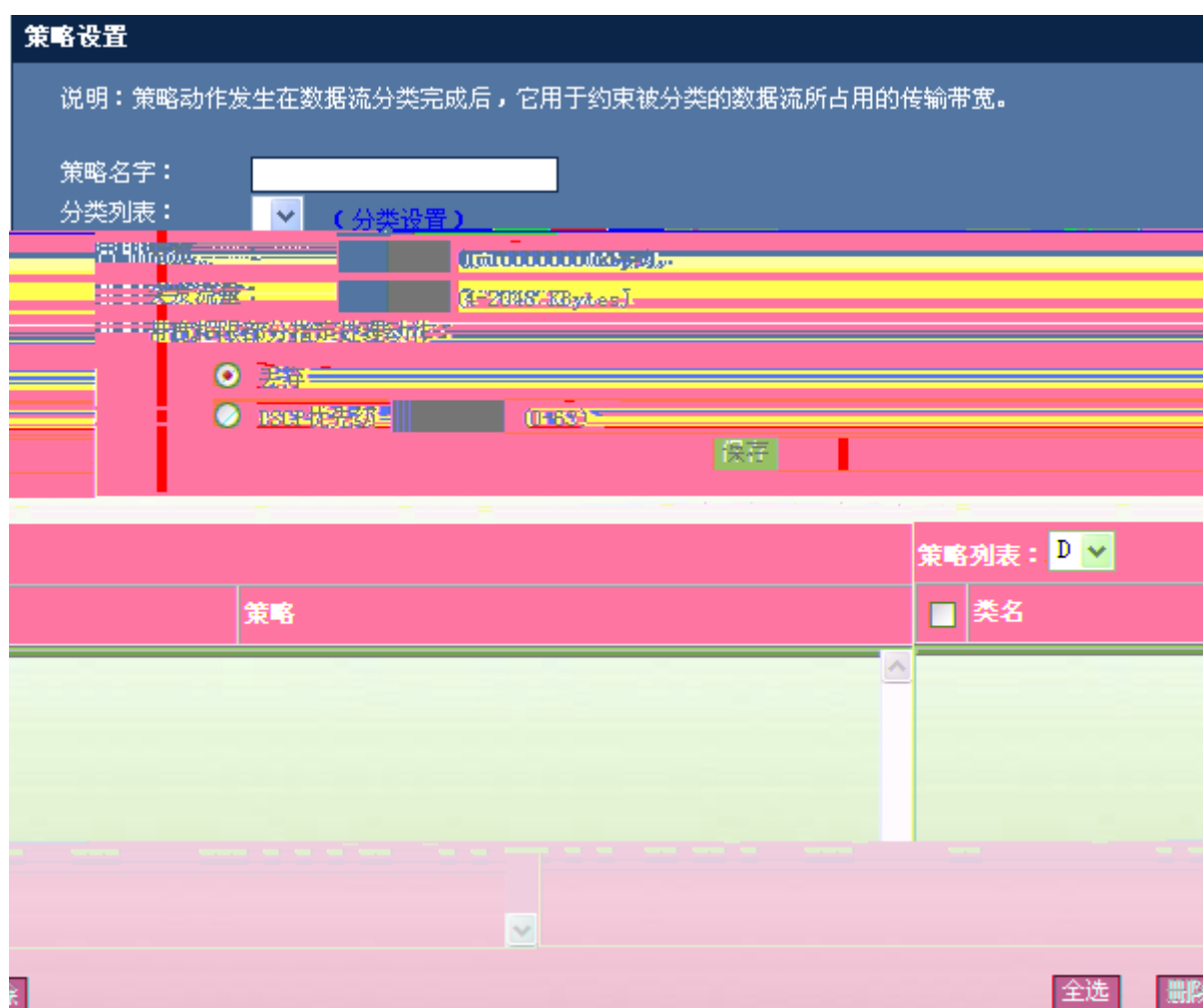
“ ”



ACL “ ”

2.4.2

“ ”



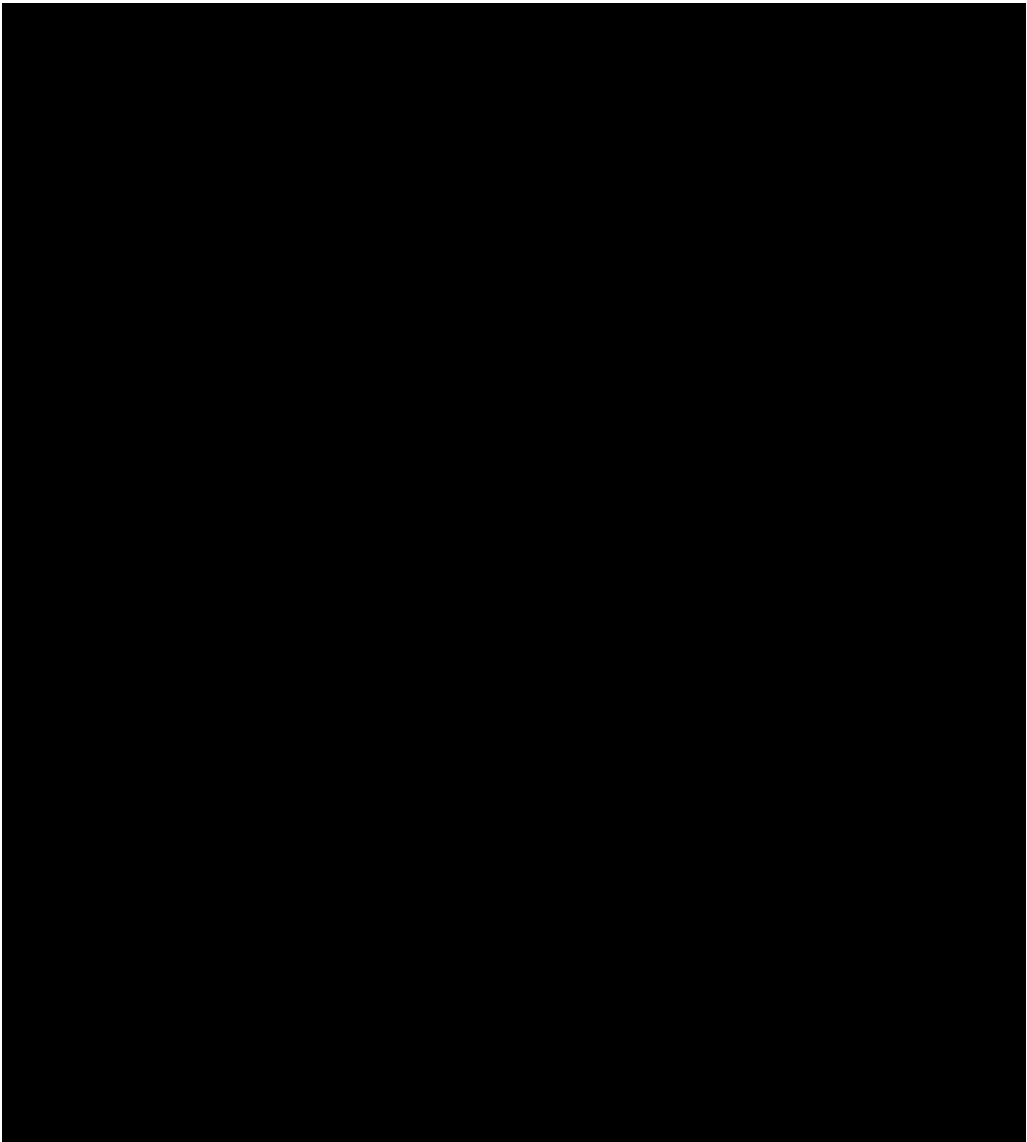
70

“ ”

“ ”

2.4.3

“ ”



“ ”
“ ”

2.4.4

“ ”

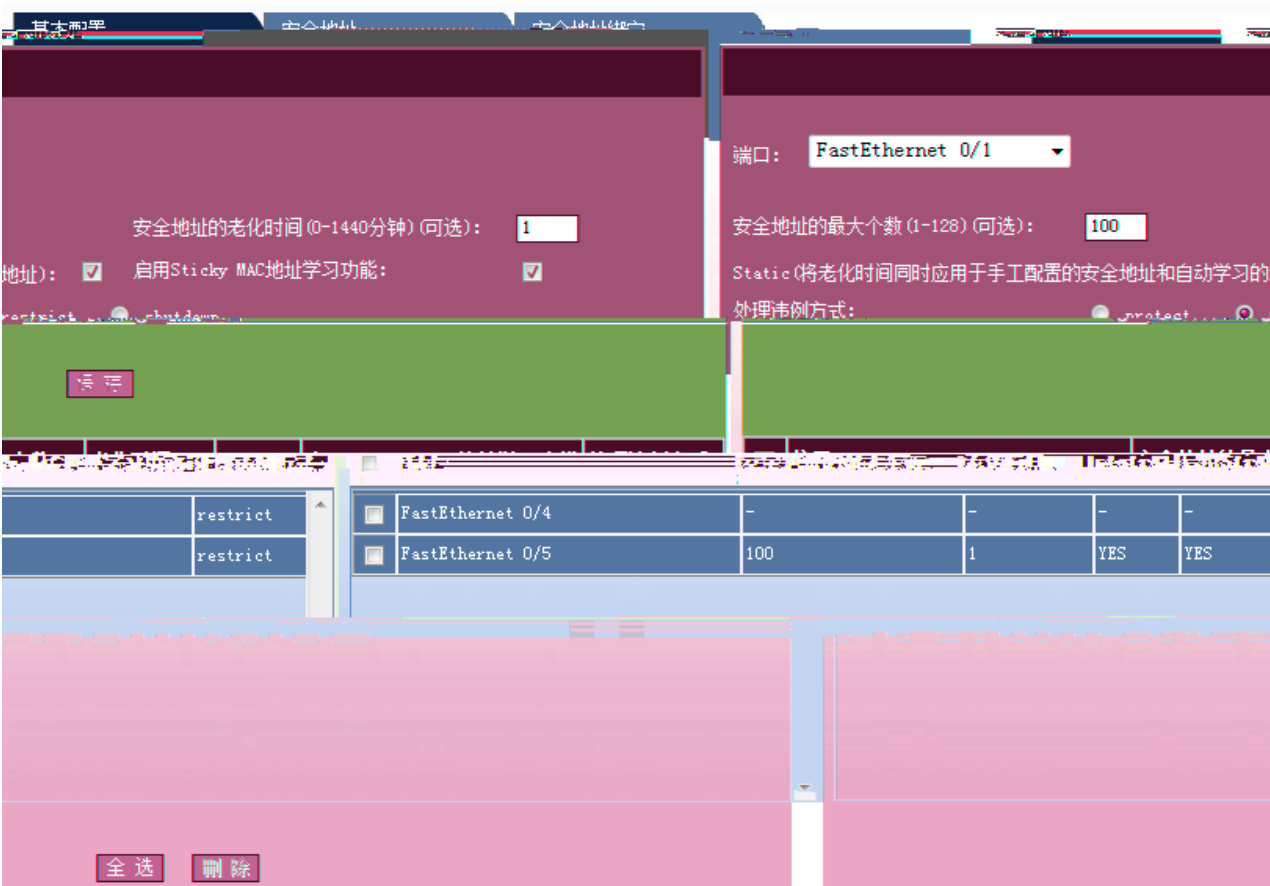


72

“ ”

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：

FastEthernet 0/1

IP地址 (IPv4或IPv6):

1.2.3.3

将MAC及Vlan进行绑定到安全端口：

☒

MAC地址：

1000.0000.0000

Vlan ID：

10

保存

☐	接口	MAC地址	Vlan ID	IP地址
☐	FastEthernet 0/1	1000.0000.0000	10	1.2.3.3

达

删除

全

75

Mac

IP
VLAN ID

MAC

Vlan

2.5

2.5.1

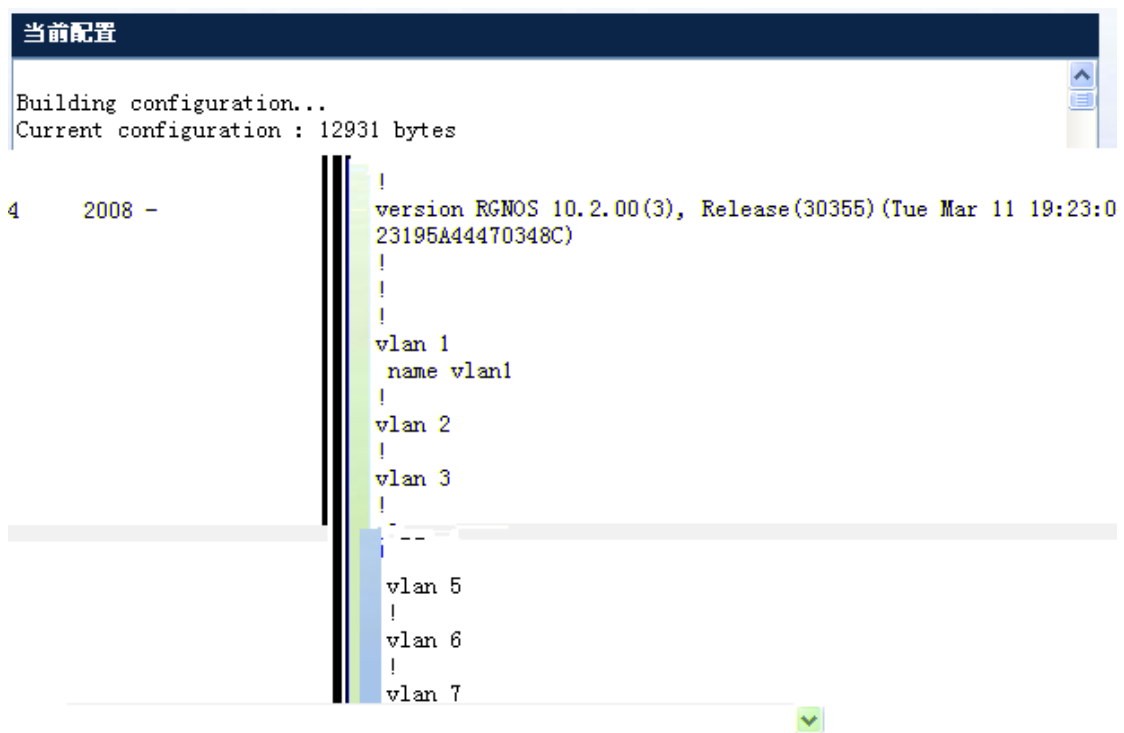
“ ”

系统信息	
设备型号：	S2924G
主机名：	Ruijie
软件版本：	RGOS 10.2(4), Release(55222), Web Version:10.2.55222
硬件版本：	1.0
MAC地址：	00d0f8f80fc4

76

2.5.2

“ ”



77

2.5.3

“ ”

端口状态						
端口名称	端口状态	端口速率	端口类型	端口描述	端口类型	端口名称
FastEthernet 0/1	down	1	Unknown	Unknown	copper	FastEthernet 0/1
FastEthernet 0/2	down	2	Unknown	Unknown	copper	FastEthernet 0/2
FastEthernet 0/3	up	1	Full	100M	copper	FastEthernet 0/3
FastEthernet 0/4	down	900	Unknown	Unknown	copper	FastEthernet 0/4
FastEthernet 0/5	down	1	Unknown	Unknown	copper	FastEthernet 0/5
FastEthernet 0/6	down	1	Unknown	Unknown	copper	FastEthernet 0/6
FastEthernet 0/7	down	1	Unknown	Unknown	copper	FastEthernet 0/7
FastEthernet 0/8	down	1	Unknown	Unknown	copper	FastEthernet 0/8
FastEthernet 0/9	down	1	Unknown	Unknown	copper	FastEthernet 0/9
FastEthernet 0/10	down	1	Unknown	Unknown	copper	FastEthernet 0/10

78

2.5.4

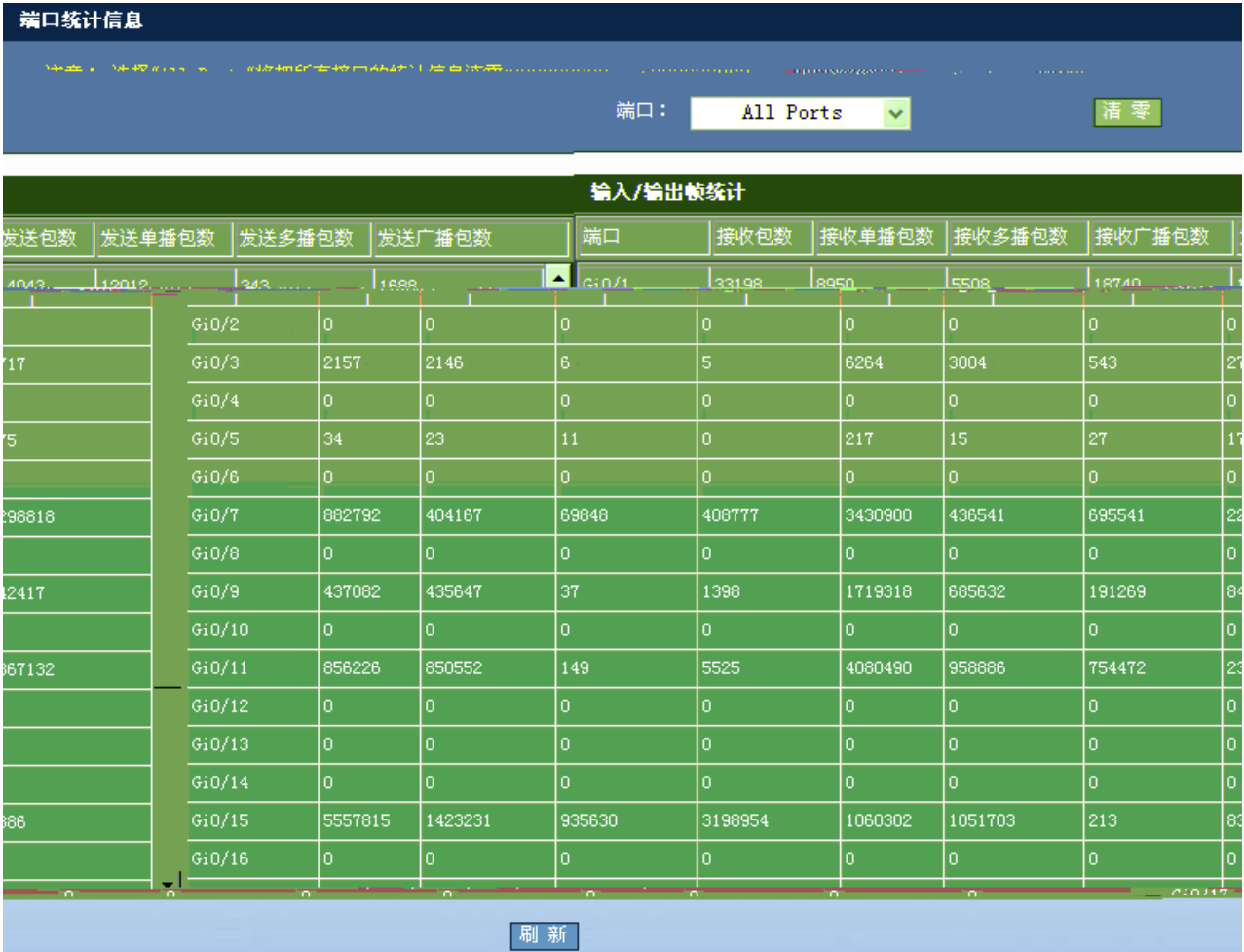
“ ”

端口运行状态	
端口	带宽占用
FastEthernet 0/1	Low
FastEthernet 0/2	Low
FastEthernet 0/3	Low
FastEthernet 0/4	Low
FastEthernet 0/5	Low
FastEthernet 0/6	Low
FastEthernet 0/7	Low
FastEthernet 0/8	Low
FastEthernet 0/9	Low
FastEthernet 0/10	Low

79

2.5.5

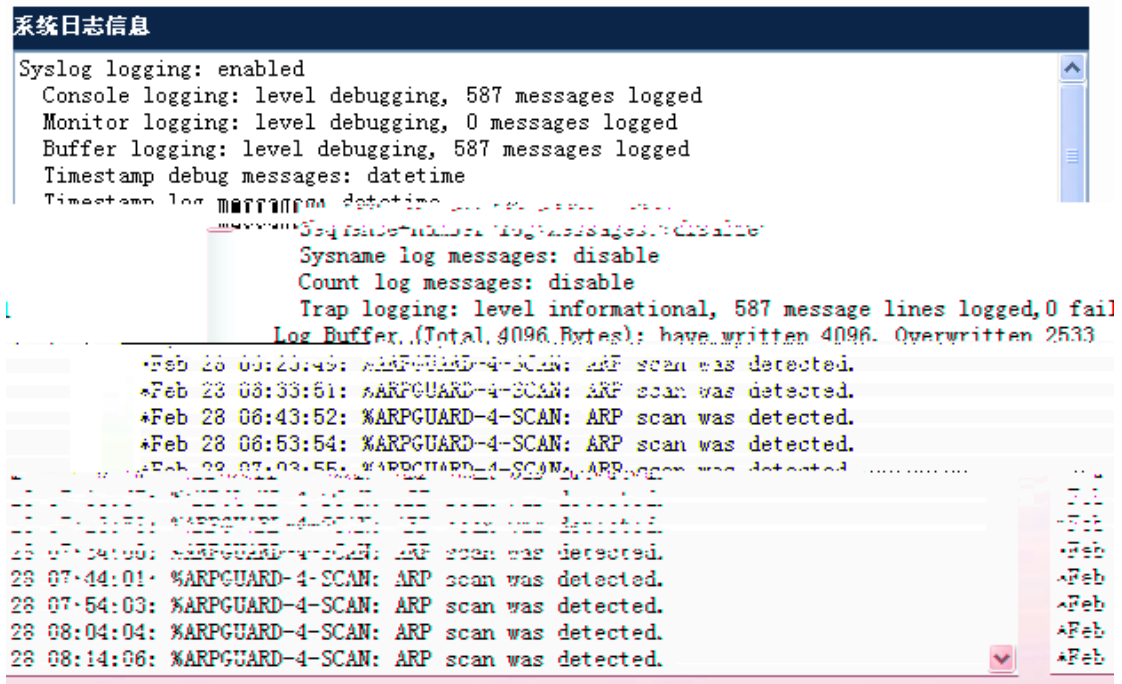
“ ”



80

2.5.6

“ ”



81

2.6

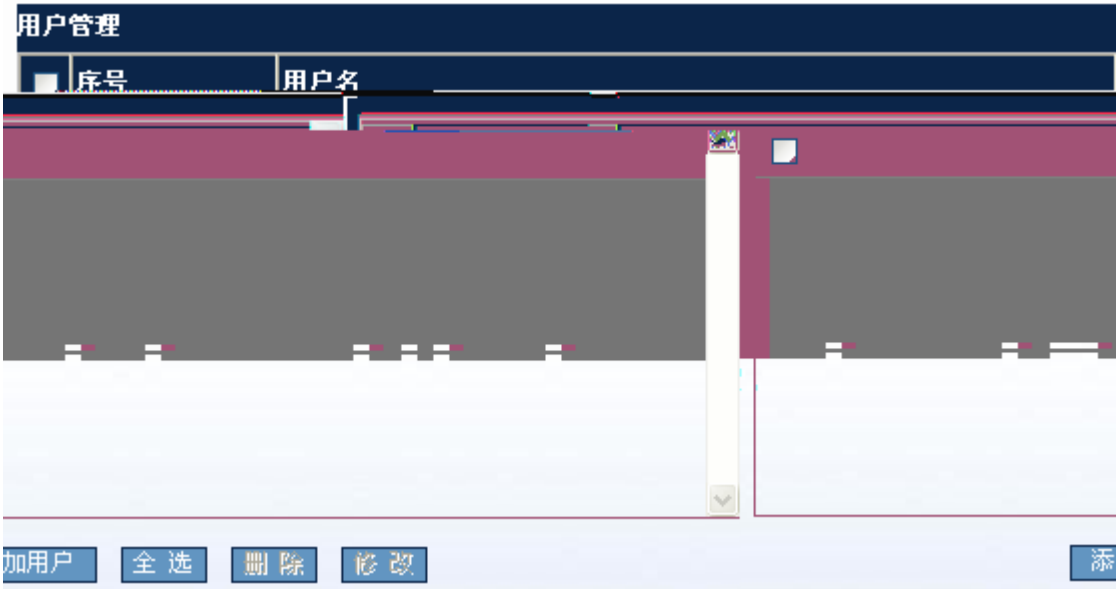
2.6.1 Ping

“ Ping ”

Ping

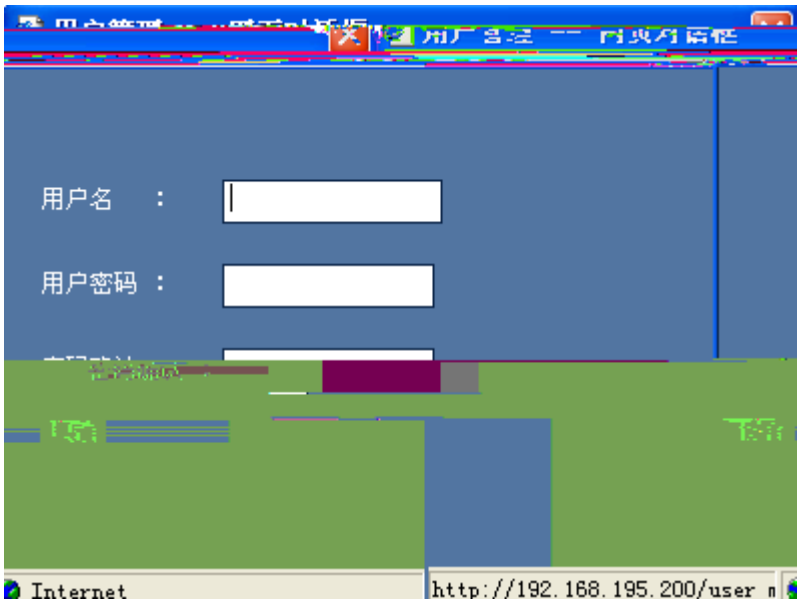


82 Ping



84

“ ”



85

“ ”

“ ”

“ ”

WEB



87

1)i Enable

☒ Enable

“ ”



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2.6.5 /

“ / ”

/



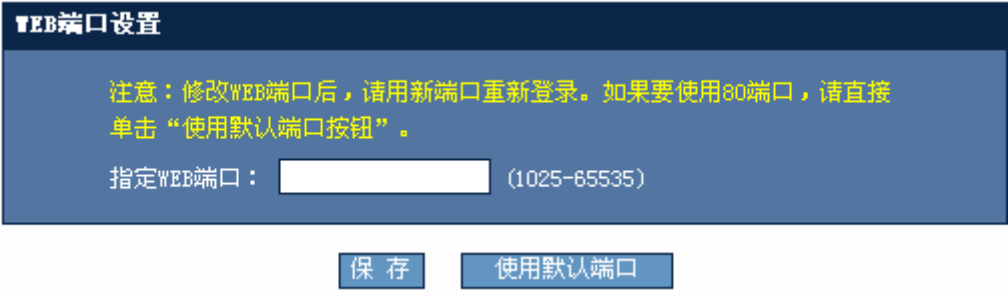
89 /

“ config.text TFTP IP TFTP ”

2.6.6 WEB

“ WEB ”

WEB

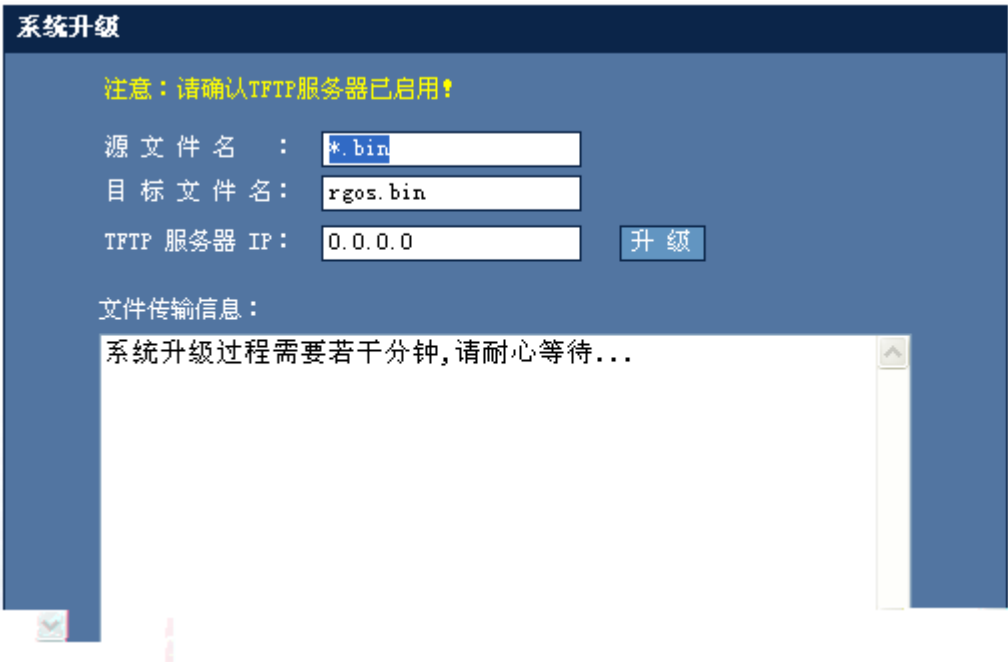


90 WEB

“ ”
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

!

