Eg 9 5 Ë È&• Ï ¹,ß Ú / y y [,X4³Au µ C Ä

5 $ ' , 8 6…D$

EîE›9°)NM 5 $ ' , 8 6G!5B S*üA¹ s6Ñ Ä

5 $ ' , 8 6G!5BNIM6 Ö

Ò 5 $ ' , 8 6u <G!5B

Eg 9 5 Ë È&• Ï ¹,ß Ú / y y [,X4³Au µ C Ä

5 $ ' , 8 6…D$

EîE›9°)NM 5 $ ' , 8 6G!5B S*üA¹ s6Ñ Ä

5 $ ' , 8 6G!5BNIM6 Ö

Ò 5 $ ' , 8 6u <G!5B

Eg 9 5 Ë È&• Ï ¹,ß Ú / y y [,X4³Au µ C Ä

5 $ ' , 8 6…D$

EîE›9°)NM 5 $ ' , 8 6G!5B S*üA¹ s6Ñ Ä

5 $ ' , 8 6G!5BNIM6 Ö

Ò 5 $ ' , 8 6u <G!5B

Eg 9 5 Ë È&• Ï ¹,ß Ú / y y [,X4³Au µ C Ä

5 $ ' , 8 6…D$

EîE›9°)NM 5 $ ' , 8 6G!5B S*üA¹ s6Ñ Ä

5 $ ' , 8 6G!5BNIM6 Ö

Ò 5 $ ' , 8 6u <G!5B

“ ”

“ ”

1.6.2 ARP

“ ARP ”

ARP

1-39 ARP

/MAC/IP

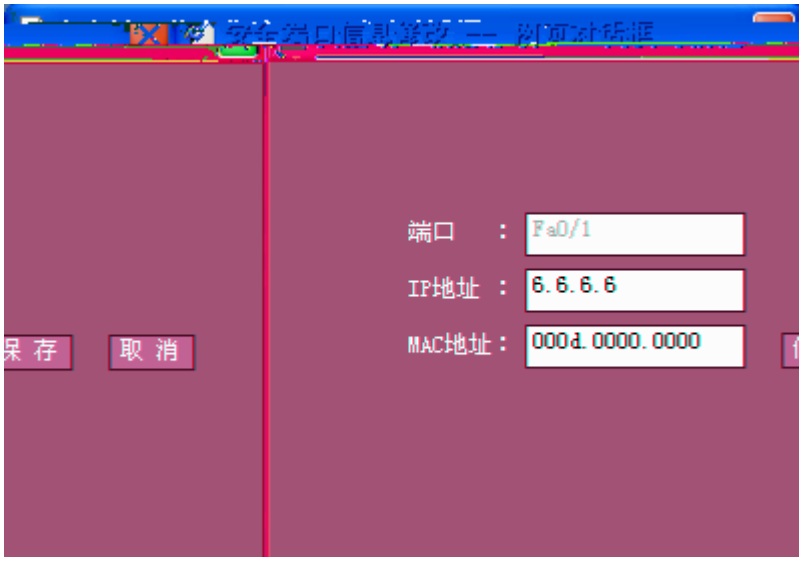
/MAC/IP IP MAC “ ”

MAC GigabitEthernet 0/15

MAC

“ ”

1-40



“ ”

1.6.3 APR

“ ARP ”

ARP

1-41 ARP

“ ARP ” “ ARP ”

1.6.4 ACL

“ ACL ”

ACL

1-42 ACL

ACL

ACL ACL ACL ACL
ACL ACE ACE “ ”
ACL “ ” ACE “ ”

ACL

IP “ IP ” IP

1-43 IP

ACL配置
CL配置
说明：ACL即访问控制列表（Access Control Lists），通过配置一系列匹配规则，对指定数据流（如限定的源IP地址、端口号等）执行允许或禁止
通过，达到对网络接口数据的过滤。
IP标准访问控制列表：根据数据流的源IP地址制定匹配条件。（编号为1 - 99，1300 - 1999）
禁止
0.0.0.0
保 存

‘ “ ”

‘ ‘

“ ” “ ”

ID

TCP UDP IP ICMP

IP IP IP

IP IP IP

“ ”

ACL

1-45 ACL

ACL ACL

“ ”

“ ”

~ PC ACL PC WEB

1.6.5 IP Source Guard

IP Source Guard

IP Source Guard IP [VLAN MAC IP PORT]

IP Source Guard DHCP Snooping DHCP Snooping IP
IP Source Guard ‘ G ® IP Gv

“ IP Source Guard ”

IP Source Guard

1-46 IP Source Guard

IP Source Guard

IP+MAC “ IP+MAC ( ) ”

IP

MAC MAC

VLAN VLAN ID

IP IP

1-47

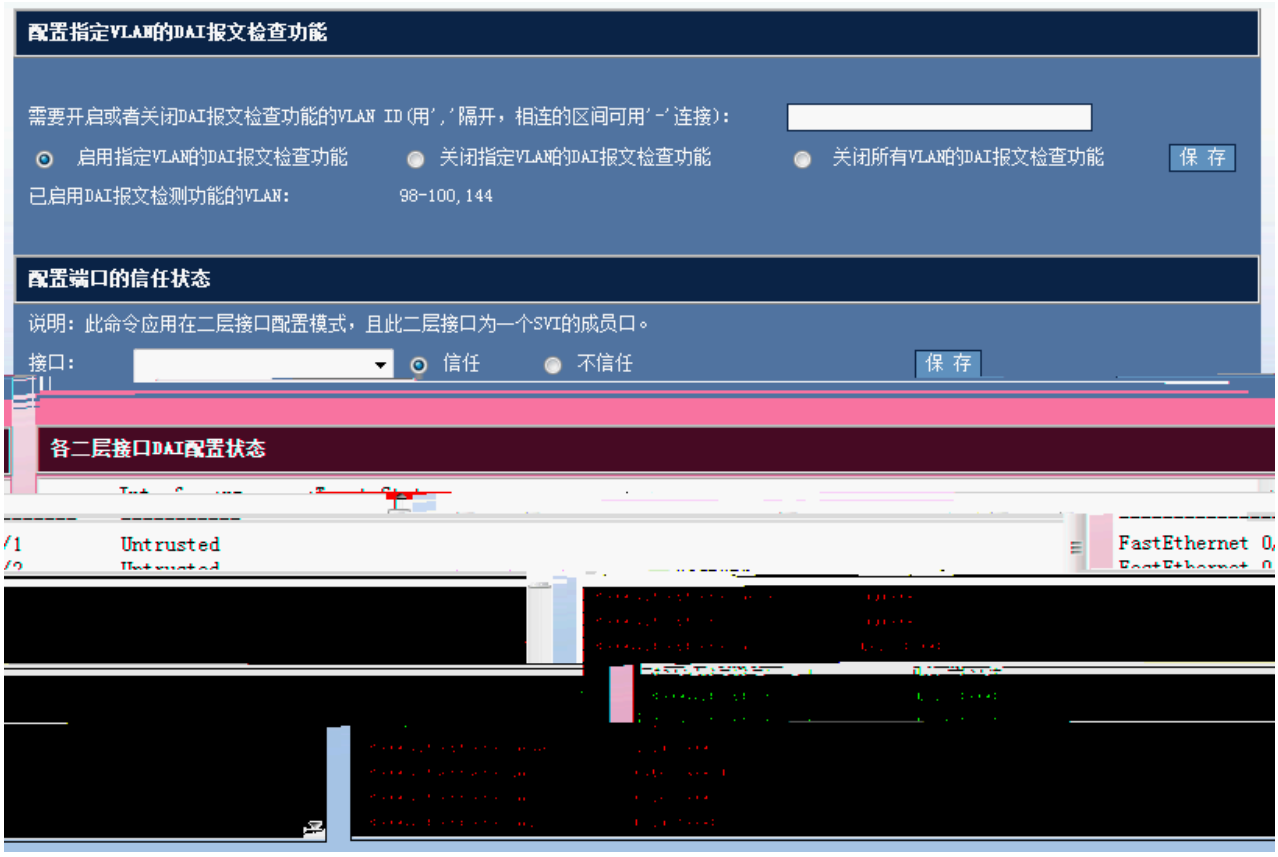
1.6.6 DAI

DAI Dynamic ARP Inspection ARP ARP arp

“ DAI ”

DAI

1-48 DAI



VLAN DAI

VLAN DAI

VLAN 100 DAI vlan-id 100 ARP DAI

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

DAI VLAN

ARP DAI
ARP ARP DAI

“ ” “ ” “ ”

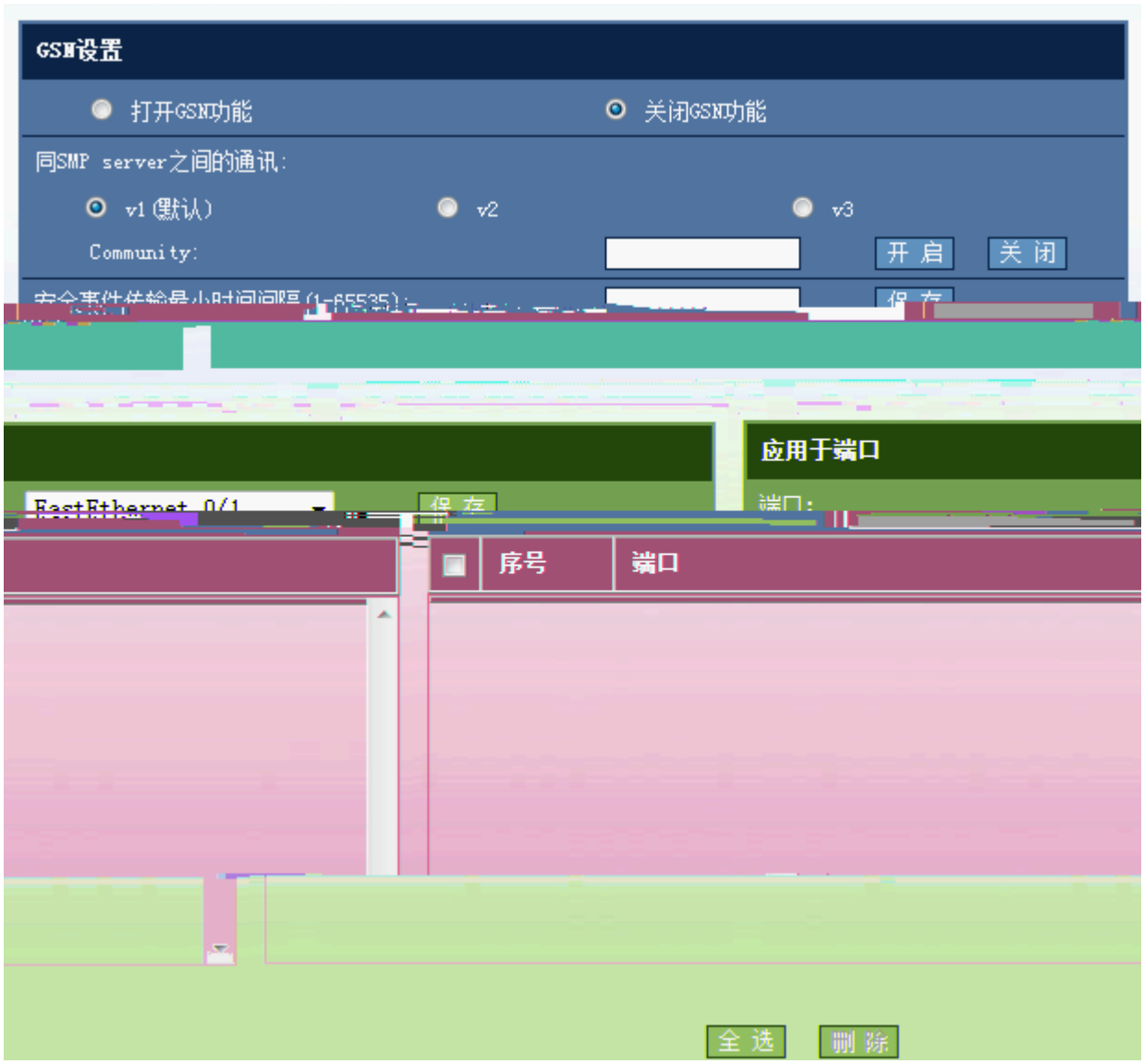
“ DAI ”

1.6.7 GSN

“ GSN ”

GSN

1-49 GSN



GSN

GSN GSN GSN GSN

SMP server

SMP server v1 v2 v3 Community User “ ”

“ ”

GSN GSN “ ”

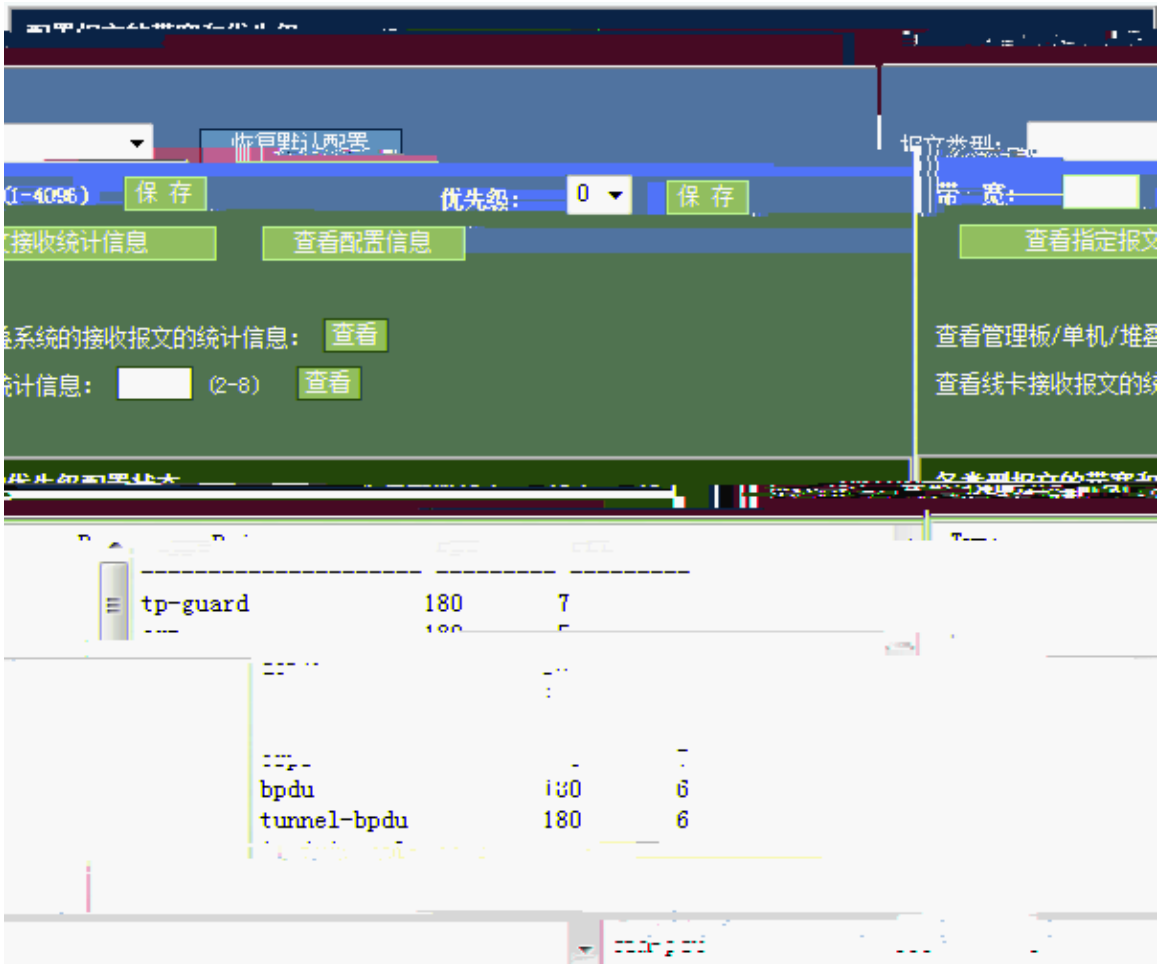
“ ”

1.6.8 CPP

“ CPP ”

CPP

1-50 CPP

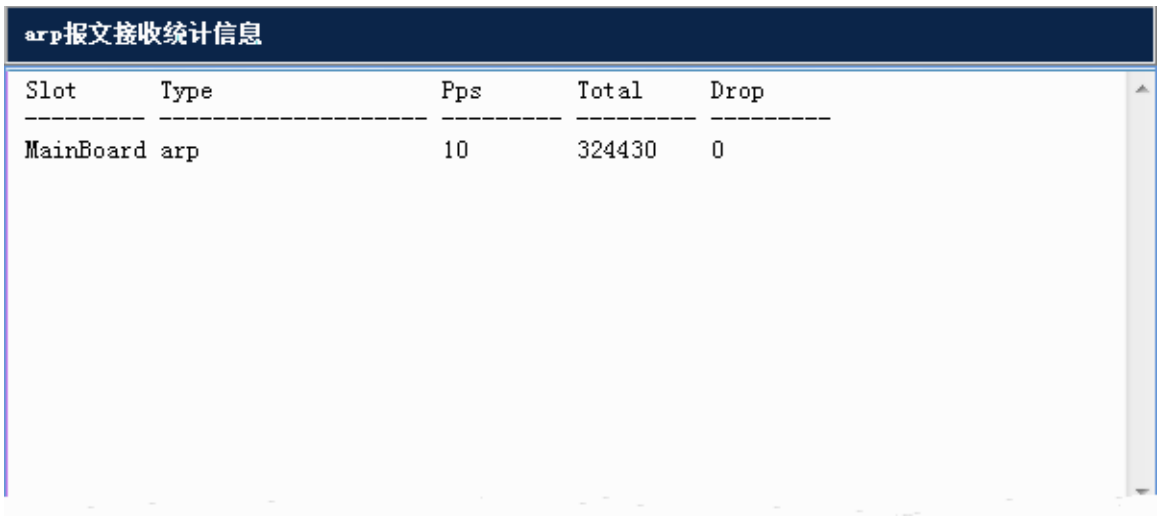


“ ” “

” “ ”

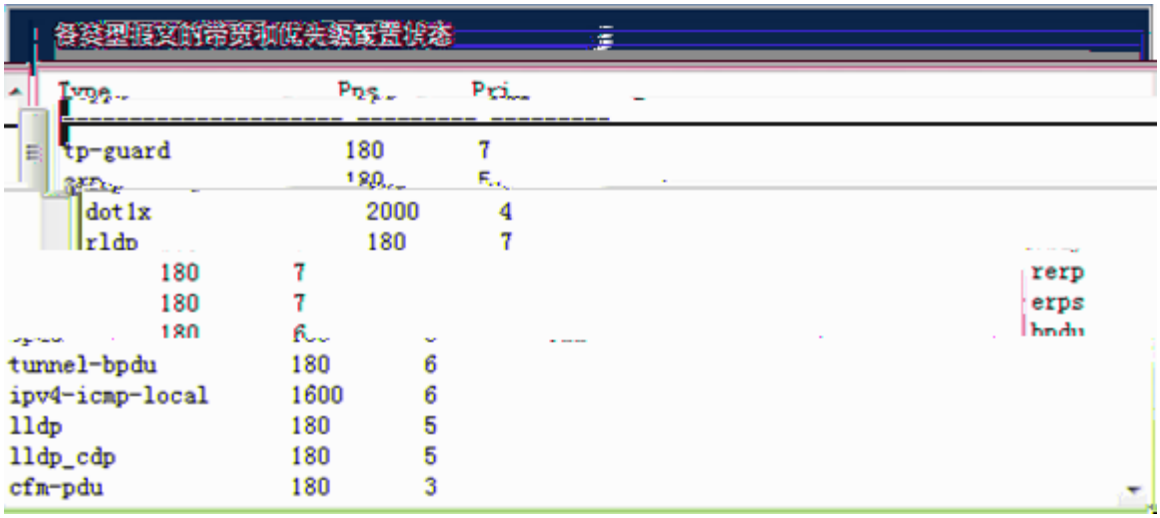
“ ”

1-51


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

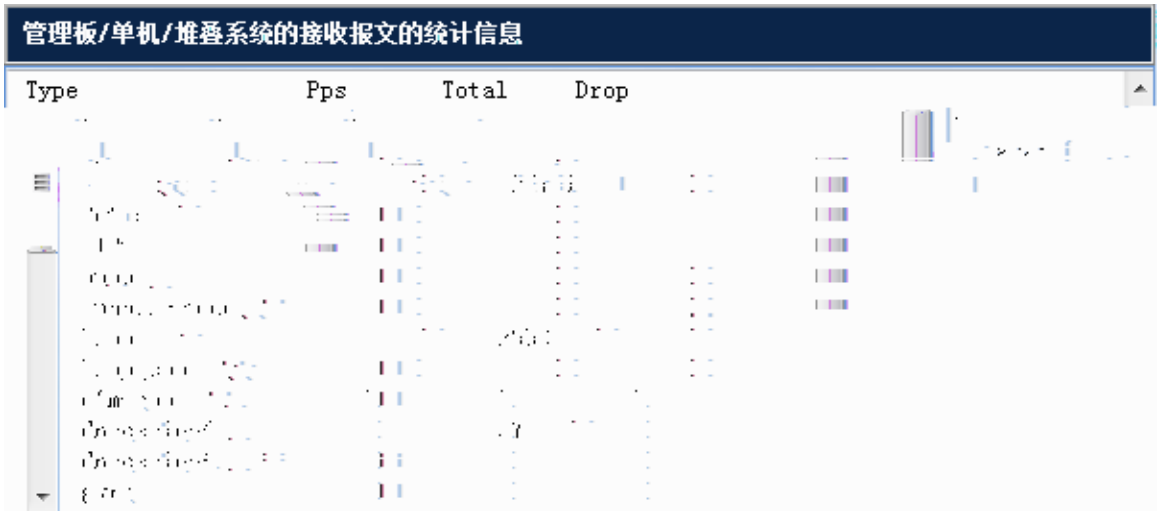
“ ”

1-52


tp-guard 180 7
dot1x 2000 4
rldp 180 7
180 7
180 7
tunnel-bpdu 180 6
ipv4-icmp-local 1600 6
lldp 180 5
lldp_cdp 180 5
cfm-pdu 180 3

/ / “ ” / /

1-53 / /



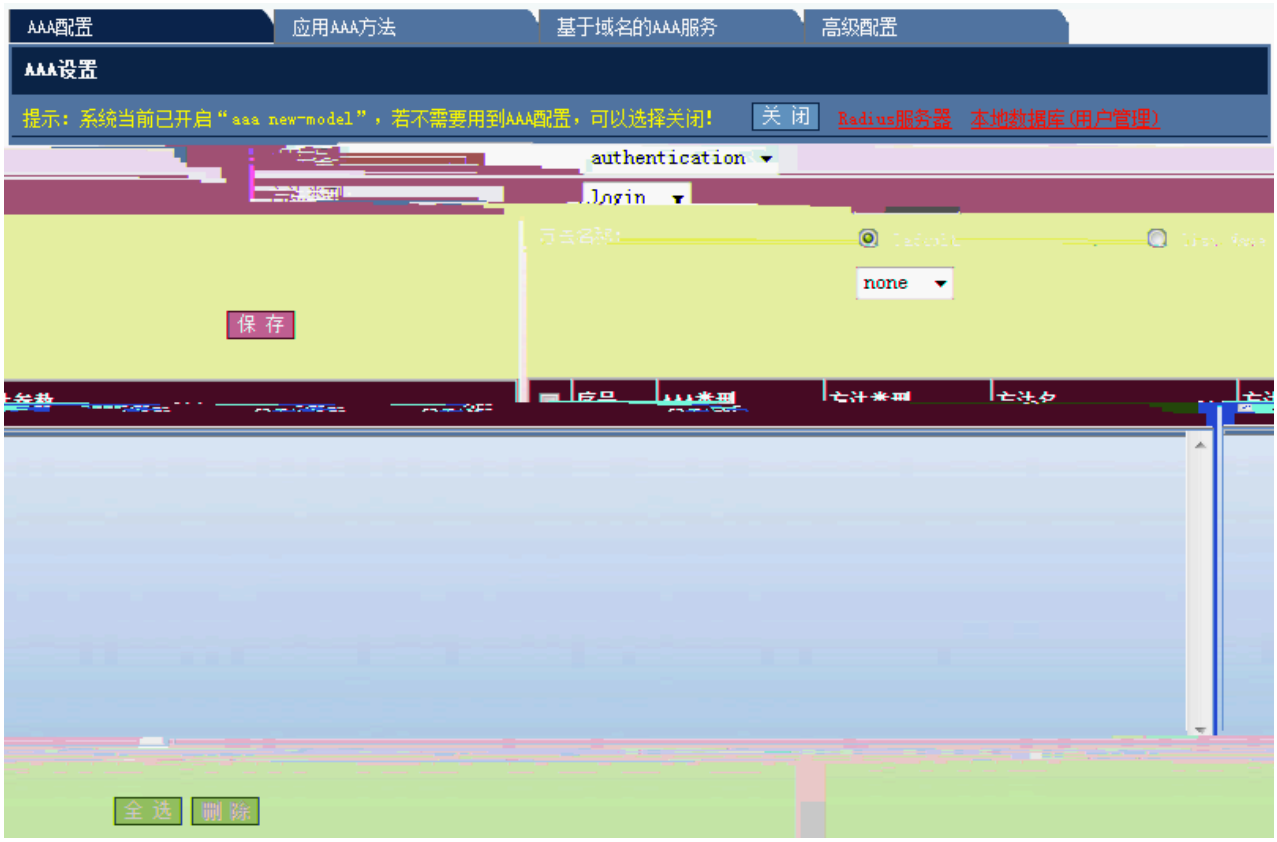
“ ”

1.6.9 RADIUS

“ RADIUS ”

RADIUS

1-54 RADIUS



AAA

AAA authentication authorization accounting AAA login enable ppp dot1x exec command network Òbl

AAA 1 AAB

$ $ $P¬4{G!5B Ã ¹ ¹,ß,¥?š $ $ $ü ÈG!5B Õ 9 5),X $ $ $¼˜ ž*ü BùJÕ n µ C Ä

' R W [7…D$

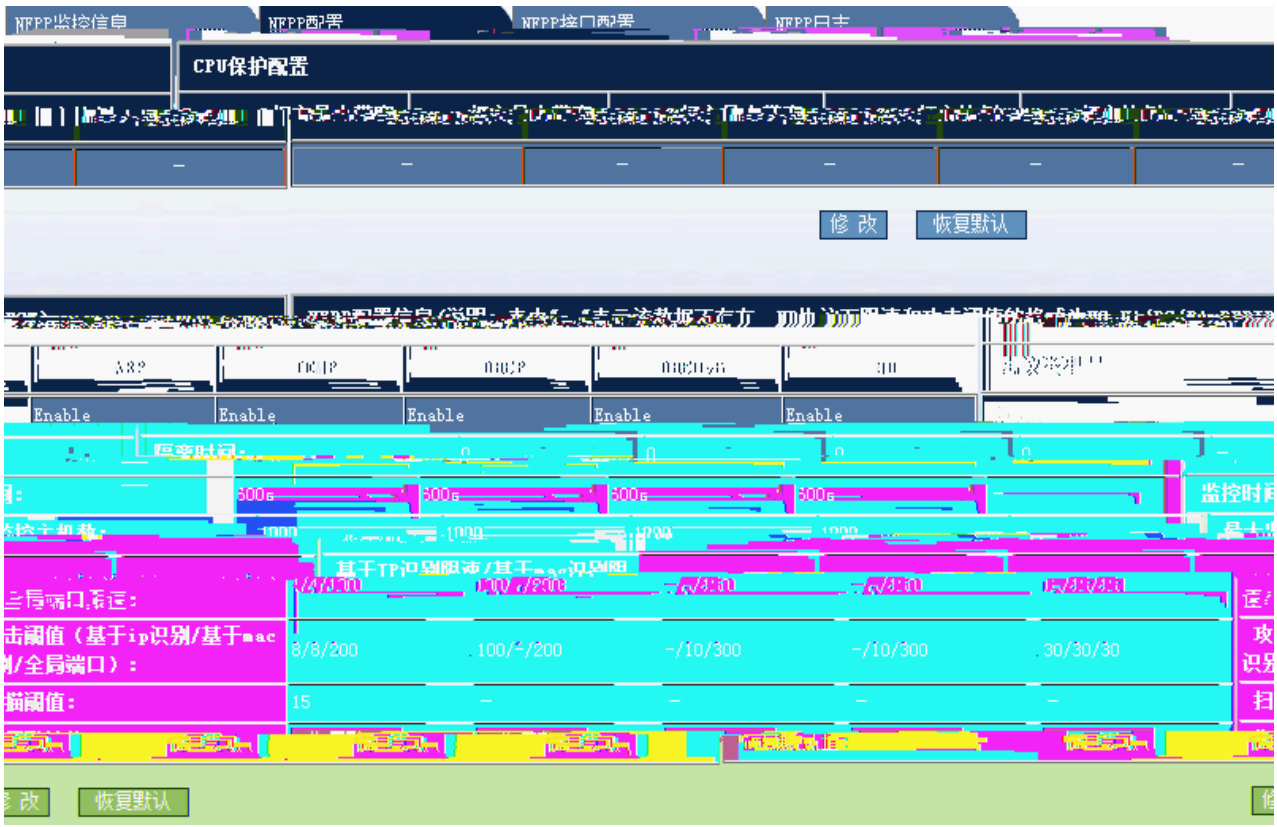
EîE›9°)NM ' R W Ç!5B S*üA¹ s6Ñ Ä

' R W G!5BNIM6 Ö

Ò ' R W G!5B

' R W 7[…D$

G!5BAÈ â Ö



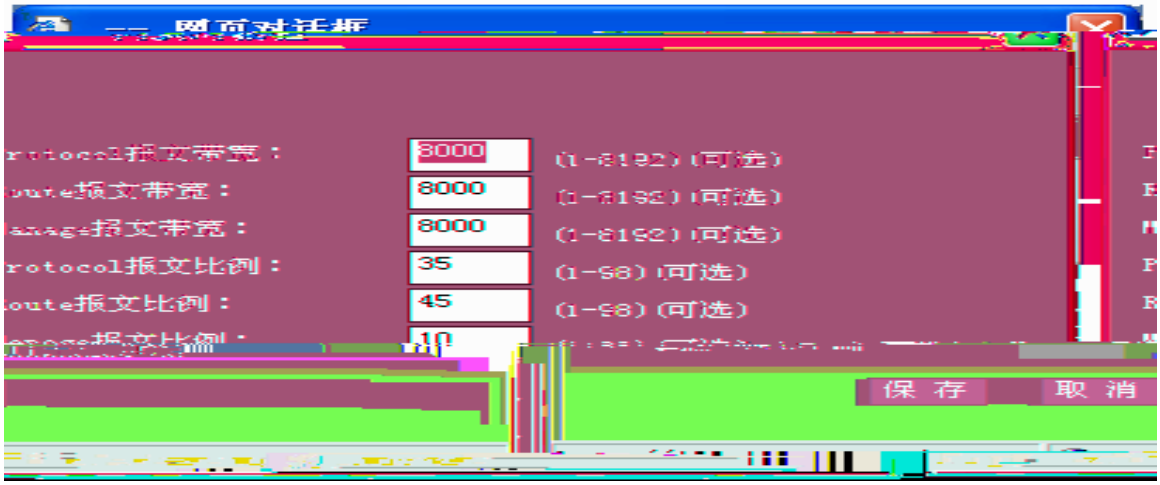
AAA AAA VRF AAA

1.6.11 Dot1x7…D$

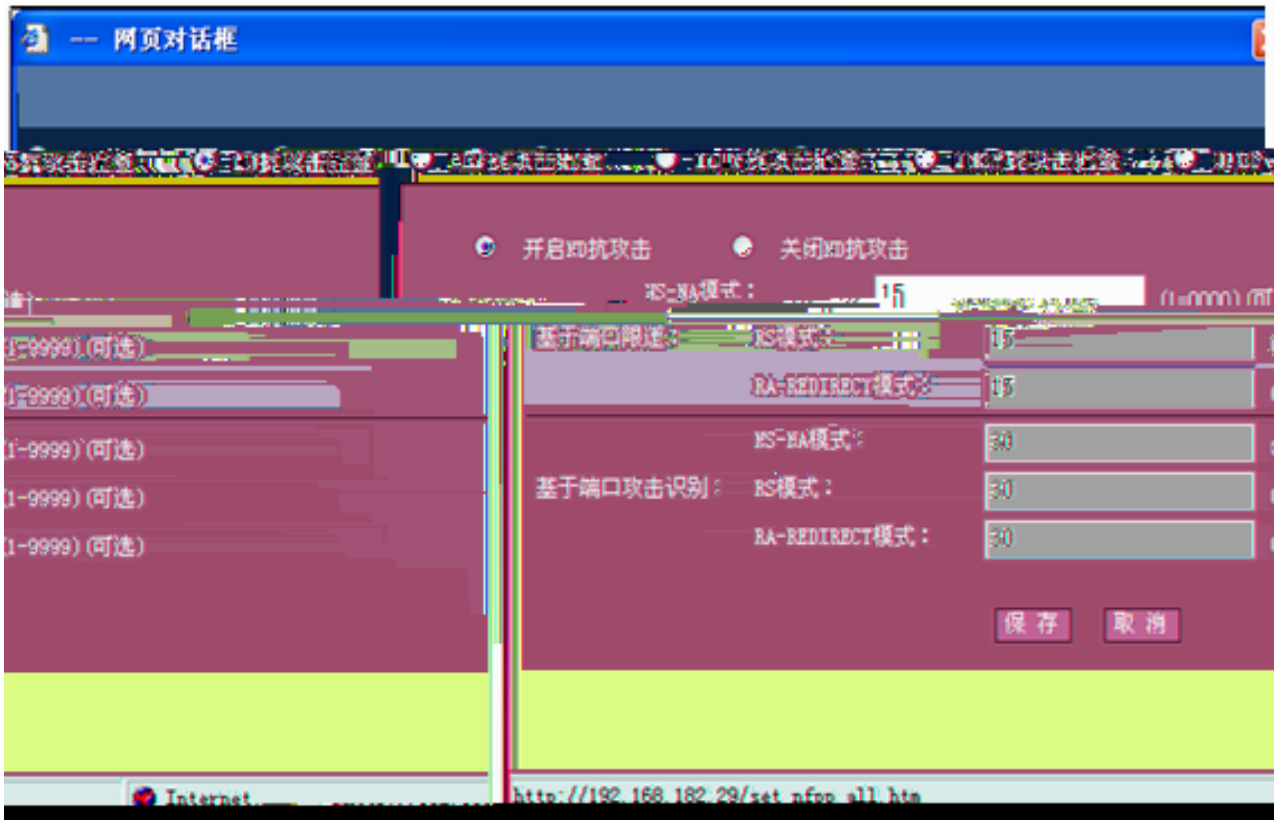
“ Dot1x ”

Dot1x

1-60 Dot1x



Dot1x 7…D$



AAA AAA VRF AAA

1.6.11 Dot1x

“ Dot1x ”

Dot1x

1-60 Dot1x

Dot1x

AAA AAA VRF AAA

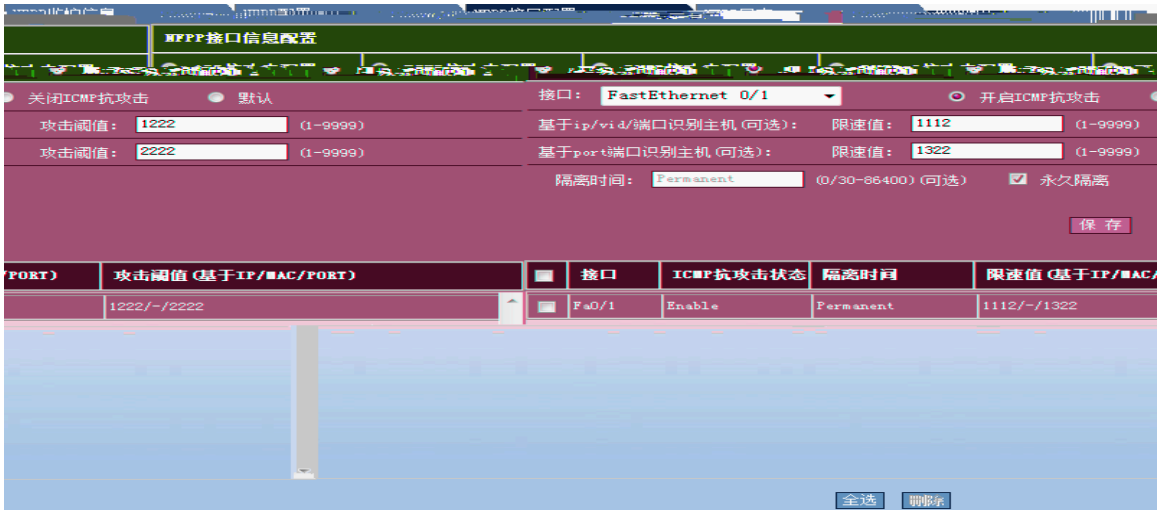
1.6.11 Dot1x

“ Dot1x ”

Dot1x

1-60 Dot1x

Dot1x



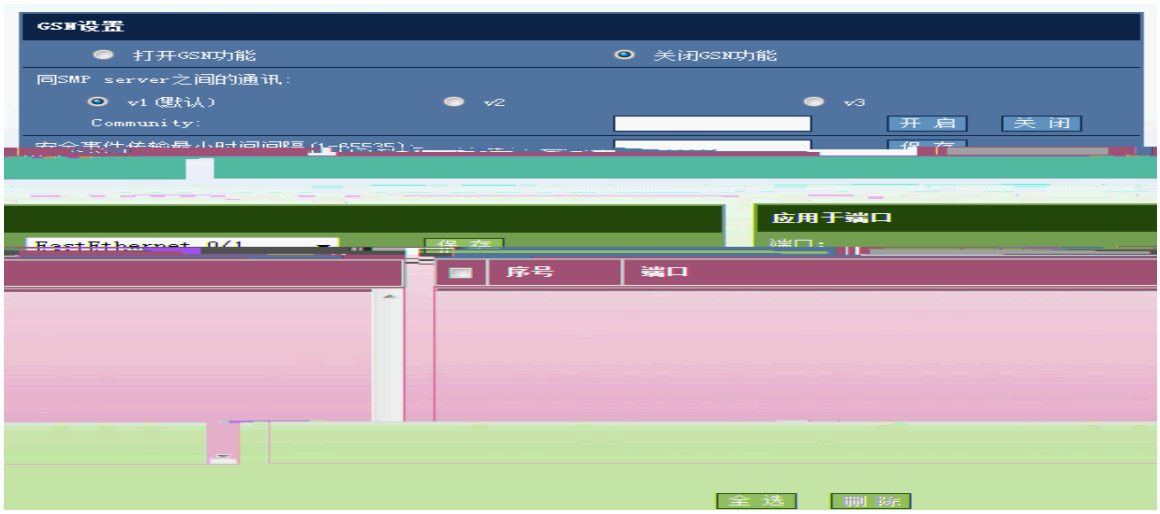
“ ”

1.6.9 RADIUS

“ RADIUS ”

RADIUS

1-54 RADIUS



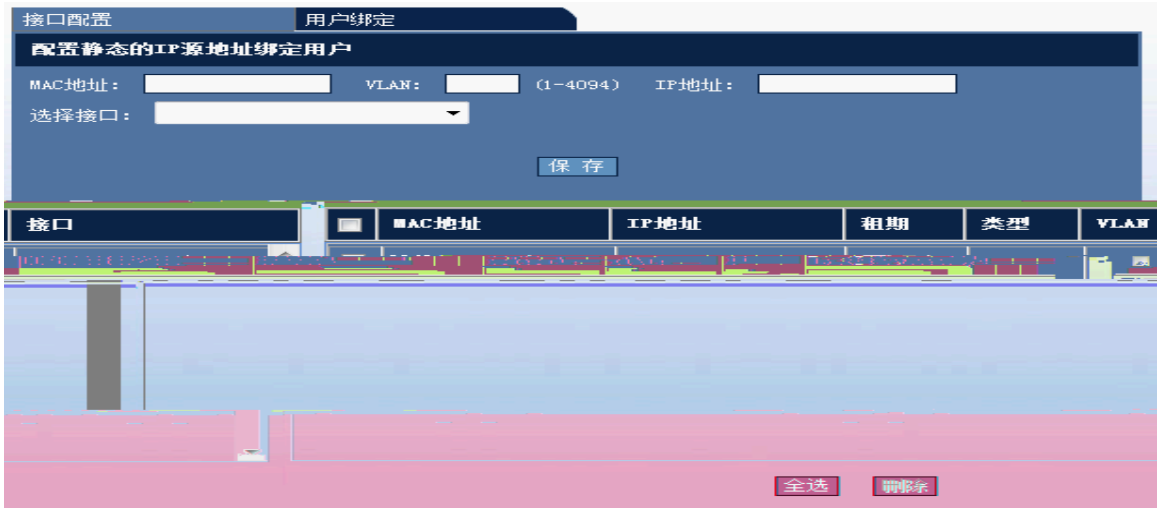
“ ”

1.6.9 RADIUS

“ RADIUS ”

RADIUS

1-54 RADIUS



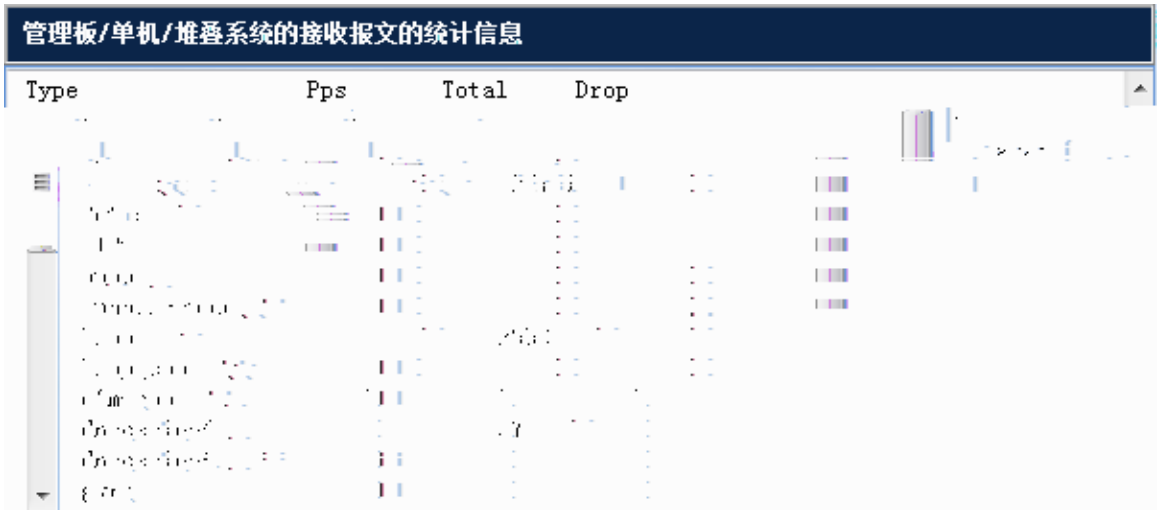
“ ”

1.6.9 RADIUS

“ RADIUS ”

RADIUS

1-54 RADIUS



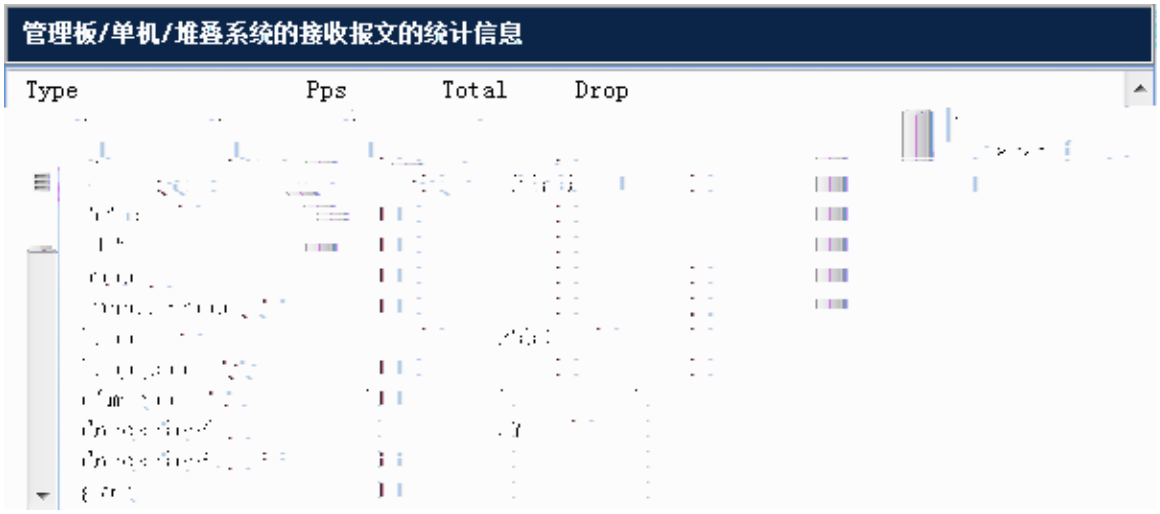
“ ”

1.6.9 RADIUS

“ RADIUS ”

RADIUS

1-54 RADIUS



“ ”

1.6.9 RADIUS

“ RADIUS ”

RADIUS

1-54 RADIUS

AAA AAA VRF AAA

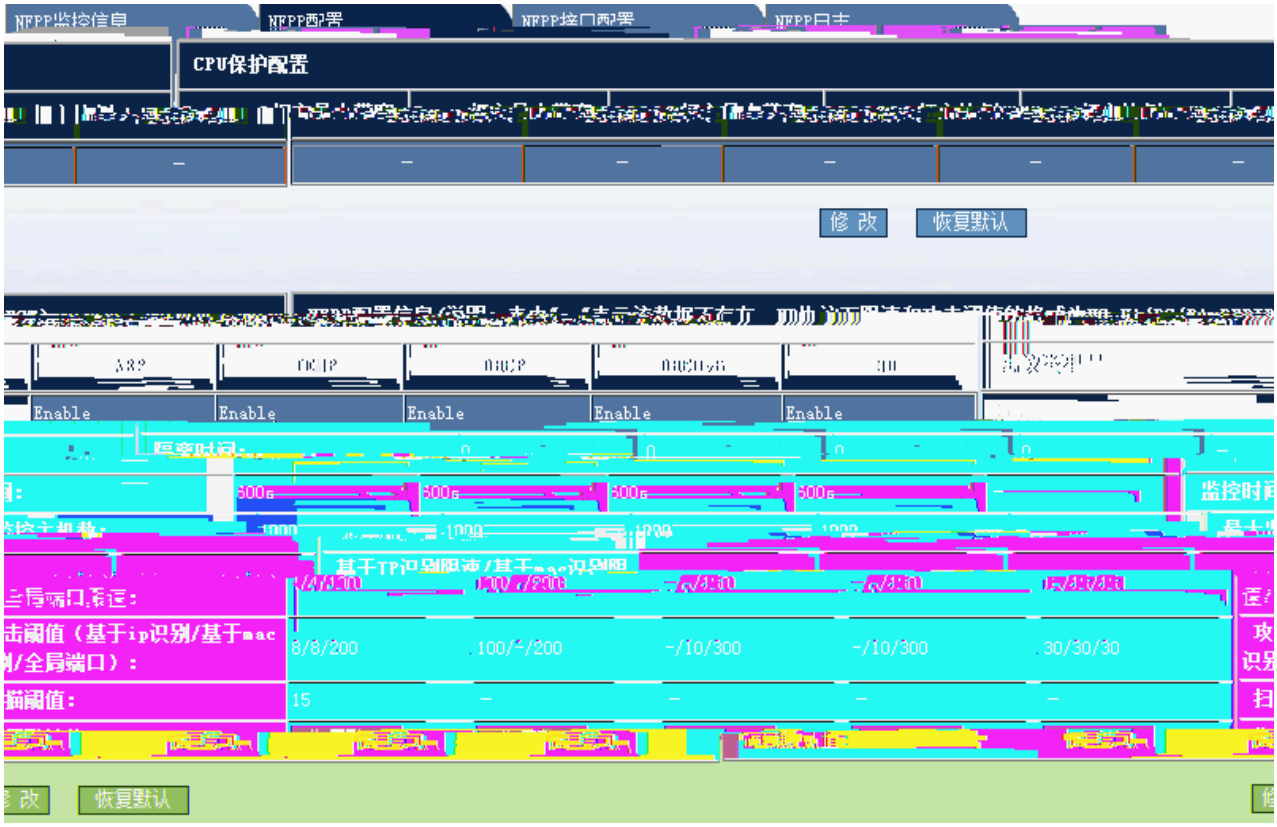
1.6.11 Dot1x

“ Dot1x ”

Dot1x

1-60 Dot1x

Dot1x



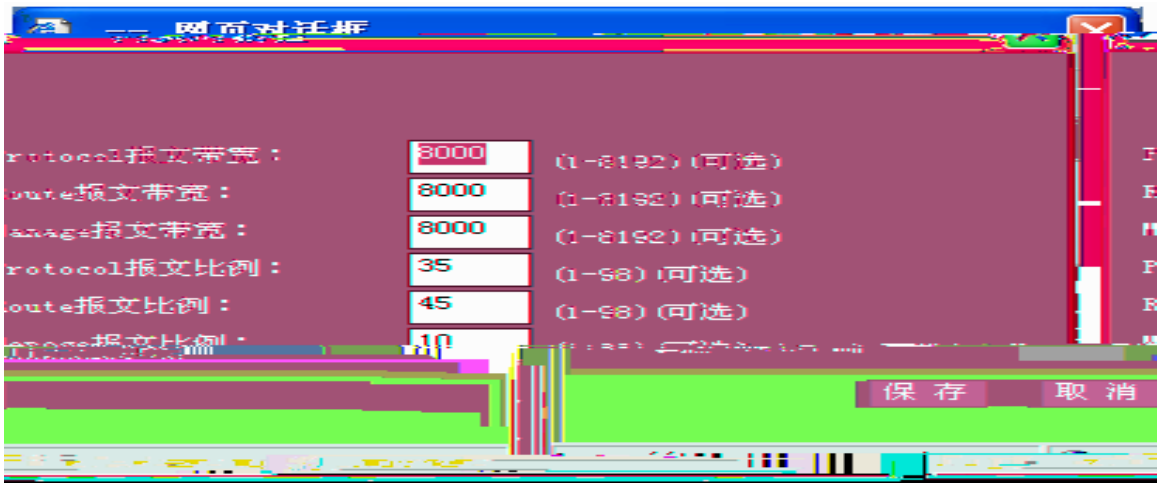
$ $ $P¬4{G!5B Ã ¹ ¹,ß,¥?š $ $ $'ü ÈG!5B Õ 9 5),X $ $ $¼˜ ž*ü BùJÕ n µ C Ä

1.6.11 Dot1x7…D$

EîE›9°)NM ' R W Ģ!5B S*üA¹ s6Ñ Ä

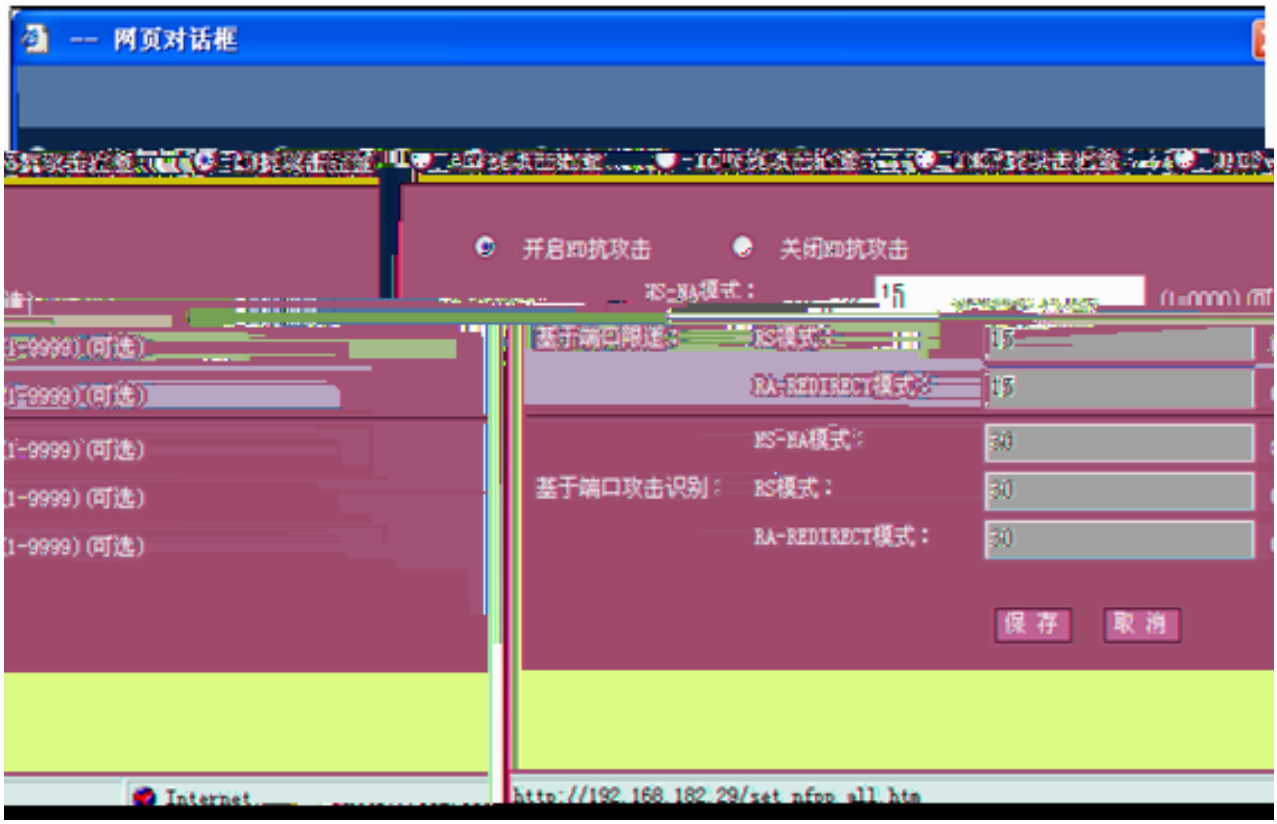
' R W G!5BNIM6 Ö

Ò ' R W!5B



Dot1x 7…D$

G!5BAÈ â Ö



$ $ $P¬4{G!5B Ã ¹ ¹,ß,¥?š $ $ $ü ÈG!5B Õ 9 5),X $ $ $¼˜ ž*ü BùJÕ n µ C Ä

1.6.11 Dot1x7…D$

EîE›9°)NM ' R W Ģ!5B S*üA¹ s6Ñ Ä

' R W G!5BNIM6 Ö

Ò ' R W!5B

Dot1x 7…D$

G!5BAÈ â Ö

$ $ $P¬4{G!5B Ã ¹ ¹,ß,¥?š $ $ $ü ÈG!5B Õ 9 5),X $ $ $¼˜ ž*ü BùJÕ n µ C Ä

1.6.11 Dot1x7…D$

EîE›9°)NM ' R W Ģ!5B S*üA¹ s6Ñ Ä

' R W G!5BNIM6 Ö

Ò ' R W!5B

Dot1x 7…D$

G!5BAÈ â Ö

$ $ $P¬4{G!5B Ã ¹ ¹,ß,¥?š $ $ $ü ÈG!5B Õ 9 5),X $ $ $¼˜ ž*ü BùJÕ n µ C Ä

1.6.11 Dot1x7…D$

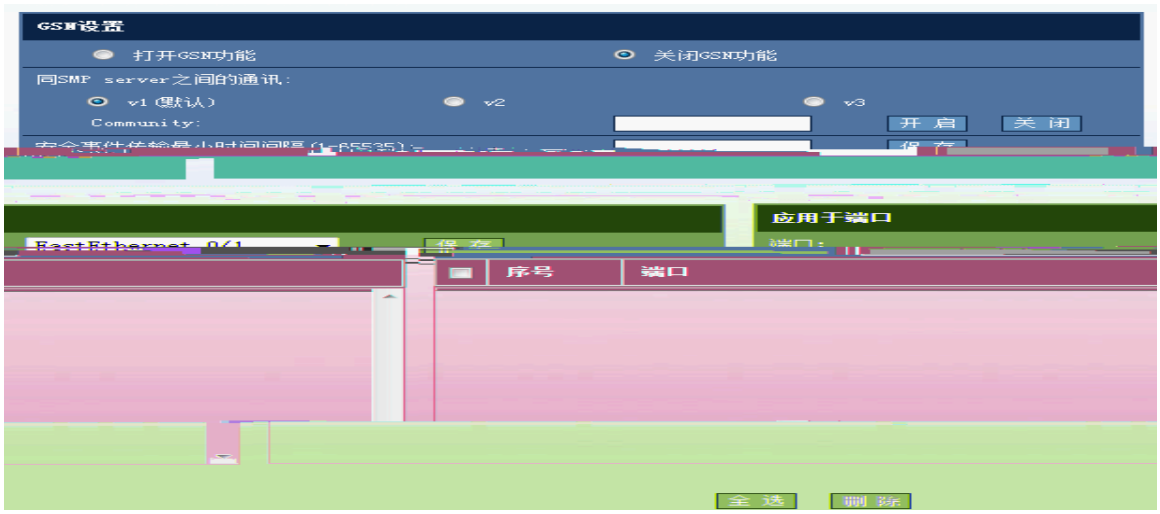
EîE›9°)NM ' R W Ç!5B S*üA¹ s6Ñ Ä

' R W G!5BNIM6 Ö

Ò ' R W!5B

Dot1x 7…D$

G!5BAÈ â Ö



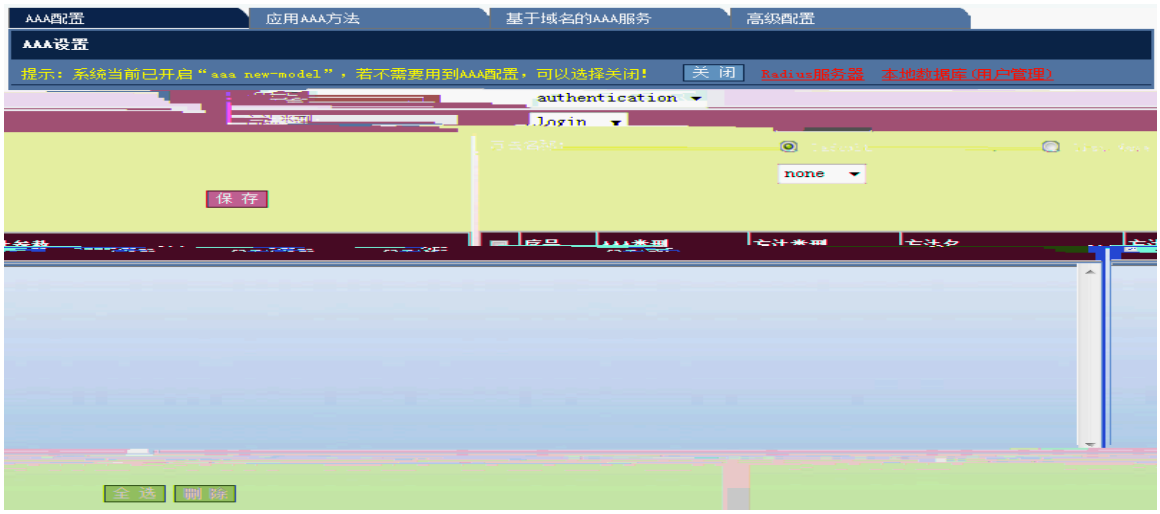
“ ”

1.6.9 RADIUS

“ RADIUS ”

RADIUS

1-54 RADIUS



Eg 9 5 Ë È&• Ï ¹,ß Ú / y y [,X4³Au µ C Ä

1.6.9 RADIUS7…D$

EîE›9°)NM 5 $ ' , 8 6G!5B S*üA¹ s6Ñ Ä

5 $ ' , 8 6G!5BNIM6 Ö

Ò 5 $ ' , 8 6u <G!5B

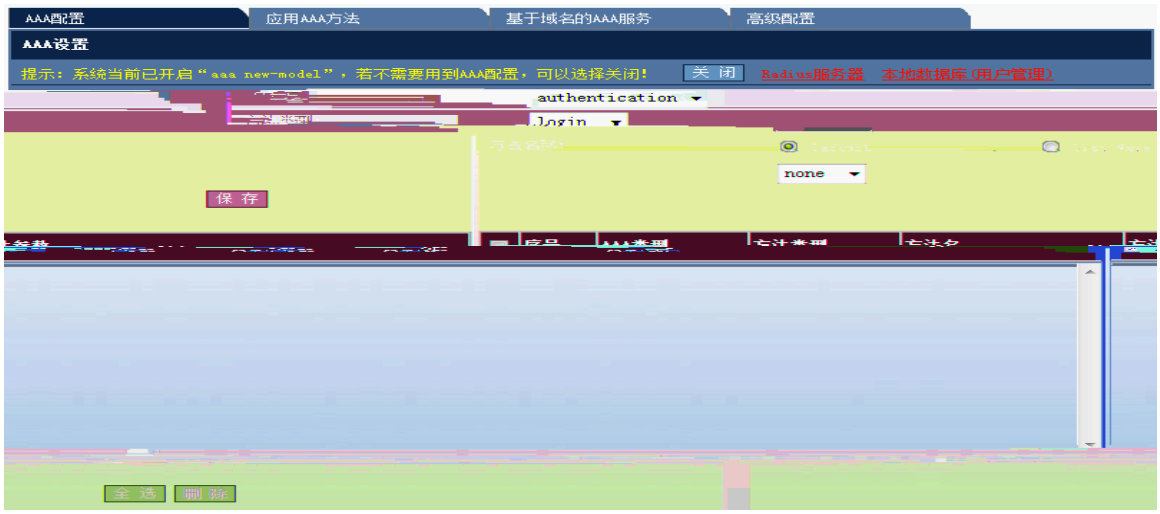
Eg 9 5 Ë È&• Ï ¹,ß Ú / y y [,X4³Au µ C Ä

5 $ ' , 8 6…D$

EîE›9°)NM 5 $ ' , 8 6G!5B S*üA¹ s6Ñ Ä

5 $ ' , 8 6G!5BNIM6 Ö

Ò 5 $ ' , 8 6u <G!5B



“ ”

1.6.9 RADIUS

“ RADIUS ”

RADIUS

1-54 RADIUS

Eg 9 5 Ë È&• Ï ¹,ß Ú / y y [,X4³Au µ C Ä

5 $ ' , 8 6…D$

EîE›9°)NM 5 $ ' , 8 6G!5B S*üA¹ s6Ñ Ä

5 $ ' , 8 6G!5BNIM6 Ö

Ò 5 $ ' , 8 6u <G!5B

$ $ $P¬4{G!5B Ã ¹ ¹,ß,¥?š $ $ $ü ÈG!5B Õ 9 5),X $ $ $¼˜ ž*ü BùJÕ n µ C Ä

' R W [7…D$

EîE›9°)NM ' R W Ç!5B S*üA¹ s6Ñ Ä

' R W G[5BNIM6 Ö

Ò ' R WG!5B

' R W 7[…D$

G!5BAÈ â Ö

$ $ $P¬4{G!5B Ã ¹ ¹,ß,¥?š $ $ $ü ÈG!5B Õ 9 5),X $ $ $¼˜ ž*ü BùJÕ n µ C Ä

' R W [7…D$

EîE›9°)NM ' R W Ç!5B S*üA¹ s6Ñ Ä

' R W G[5BNIM6 Ö

Ò ' R WG!5B

' R W 7[…D$

G!5BAÈ â Ö

$ $ $P¬4{G!5B Ã ¹ ¹,ß,¥?š $ $ $ü ÈG!5B Õ 9 5),X $ $ $¼˜ ž*ü BùJÕ n µ C Ä

' R W [7…D$

EîE›9°)NM ' R W Ç!5B S*üA¹ s6Ñ Ä

' R W G[5BNIM6 Ö

Ò ' R WG!5B

' R W 7[…D$

G!5BAÈ â Ö

$ $ $P¬4{G!5B Ã ¹ ¹,ß,¥?š $ $ $ü ÈG!5B Õ 9 5),X $ $ $¼˜ ž*ü BùJÕ n µ C Ä

' R W [7…D$

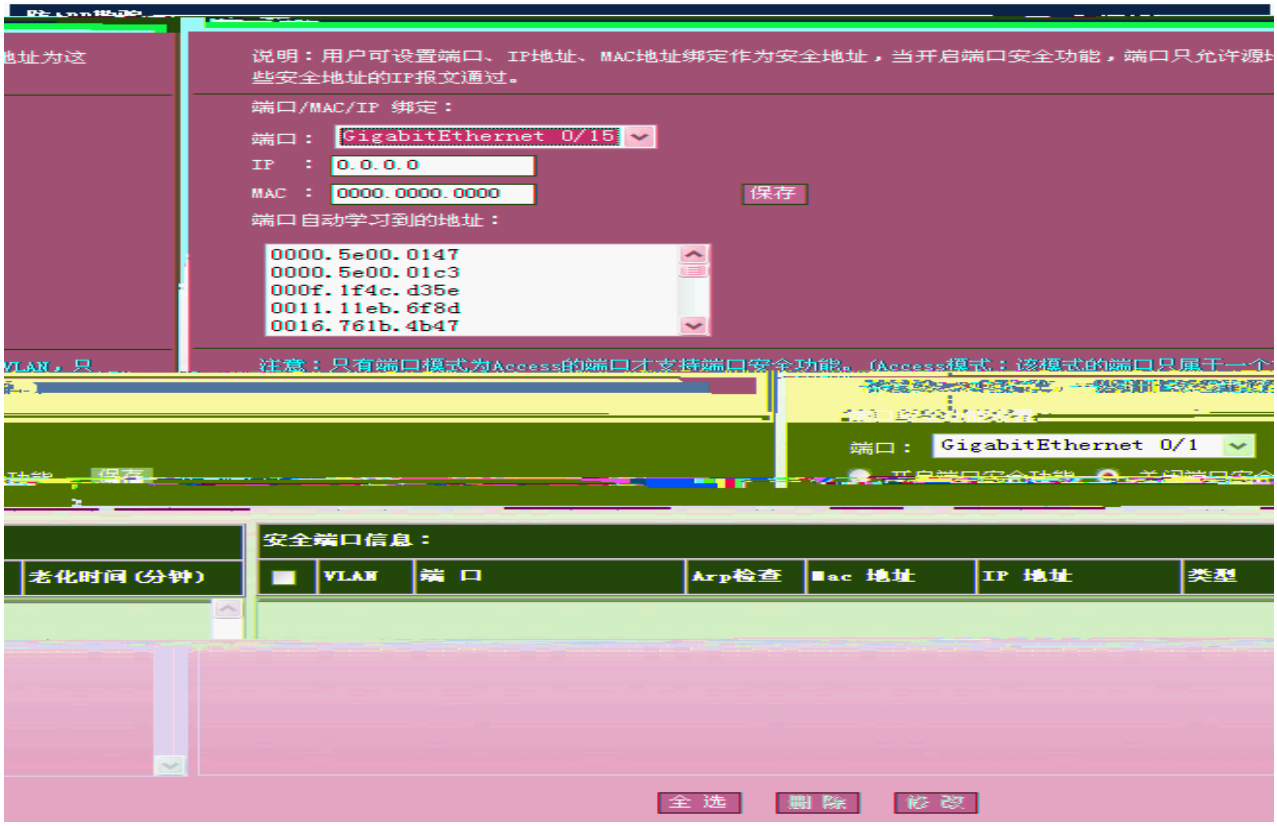
EîE›9°)NM ' R W Ç!5B S*üA¹ s6Ñ Ä

' R W G[5BNIM6 Ö

Ò ' R WG!5B

' R W 7[…D$

G!5BAÈ â Ö



AAA **P4G5BÃ** AAA **È5BÕ** VRF **X** AAA **4BÕÇÄ**

1.6.11 Dot1x7…D$

EE9)NM Dot1x **G5BSA6Ñ**

Dot1x **G5BNIM6Ö**

Ò1-60 Dot1x **G5B**

Dot1x 7…D$

G5BAÐ

$ $ $P¬4{G!5B Ã ¹ ¹,ß,¥?š $ $ $ü ÈG!5B Õ 9 5),X $ $ $¼˜ ž*ü BùJÕ n µ C Ä

' R W [7…D$

EîE›9°)NM ' R W Ç!5B S*üA¹ s6Ñ Ä

' R W G[5BNIM6 Ö

Ò ' R WG!5B

' R W 7[…D$

G!5BAÈ â Ö

$ $ $P¬4{G!5B Ã ¹ ¹,ß,¥?š $ $ $ü ÈG!5B Õ 9 5),X $ $ $¼˜ ž*ü BùJÕ n µ C Ä

' R W [7…D$

EîE›9°)NM ' R W Ç!5B S*üA¹ s6Ñ Ä

' R W G[5BNIM6 Ö

Ò ' R WG!5B

' R W 7[…D$

G!5BAÈ â Ö

$ $ $P¬4{G!5B Ã ¹ ¹,ß,¥?š $ $ $ü ÈG!5B Õ 9 5),X $ $ $¼˜ ž*ü BùJÕ n µ C Ä

' R W [7…D$

EîE›9°)NM ' R W Ç!5B S*üA¹ s6Ñ Ä

' R W G[5BNIM6 Ö

Ò ' R WG!5B

' R W 7[…D$

G!5BAÈ â Ö

$ $ $P¬4{G!5B Ã ¹ ¹,ß,¥?š $ $ $ü ÈG!5B Õ 9 5),X $ $ $¼˜ ž*ü BùJÕ n µ C Ä

' R W [7…D$

EîE›9°)NM ' R W Ç!5B S*üA¹ s6Ñ Ä

' R W G[5BNIM6 Ö

Ò ' R WG!5B

' R W 7[…D$

G!5BAÈ â Ö

$ $ $P¬4{G!5B Ã ¹ ¹,ß,¥?š $ $ $ü ÈG!5B Õ 9 5),X $ $ $¼˜ ž*ü BùJÕ n µ C Ä

' R W [7…D$

EîE›9°)NM ' R W Ç!5B S*üA¹ s6Ñ Ä

' R W G[5BNIM6 Ö

Ò ' R WG!5B

' R W 7[…D$

G!5BAÈ â Ö