ALL7007

User’s Manual

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Chapter 1

System

“System” is the managing of settings such as the privileges of packets that pass through ALL7007 and monitoring controls. The System Administrators can manage, monitor, and configure the ALL7007 settings. But all configurations are “read-only” for all users other than the System Administrator; those users are not able to change any setting of the ALL7007.

Define the required fields of Administrator

Administrator Name:

- The username of Administrators and Sub-Administrator for the ALL7007. The **admin** user name cannot be removed; and the sub-admin user can be removed or configure.

 The default Account: **admin**; Password: **admin**

Privilege:

- The privileges of Administrators (Admin or Sub Admin). The username of the main Administrator is **Administrator** with **reading / writing** privilege. Administrator also can change the system setting, log system status, and to increase or delete sub-administrator. Sub Admin may be created by the **Admin** by clicking **New Sub Admin.** Sub Admin have **only** read and monitor privilege and cannot change any system setting value.

Configure:

- Click **Modify** to change the "Sub-Administrator's" password or click **Remove** to delete a "Sub Administrator."

Adding a new Sub Administrator

STEP 1． In the **Admin** WebUI, click the **New Sub Admin** button to create a new **Sub Administrator.**

STEP 2． In the **Add New Sub Administrator** WebUI (Figure 1-1) and enter the following setting:

- Sub Admin Name: sub_admin
- Password: 12345
- Confirm Password: 12345

STEP 3． Click **OK** to add the user or click **Cancel** to cancel it.

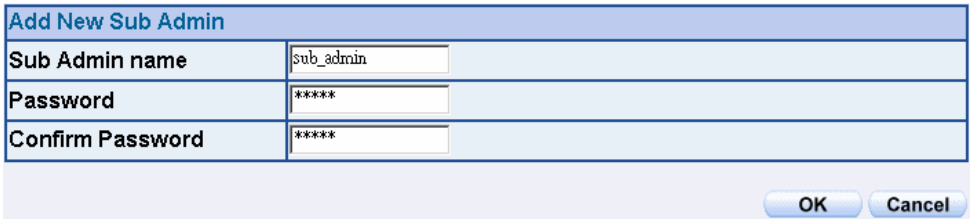


Figure1-1 Add New Sub Admin

Modify the Administrator's Password

STEP 1． In the **Admin** WebUI, locate the **Administrator** name you want to edit, and click on **Modify** in the **Configure** field.

STEP 2． The **Modify Administrator Password** WebUI will appear. Enter the following information:

- **Password:** admin
- **New Password:** 52364
- **Confirm Password:** 52364 (Figure1-2)

STEP 3． Click **OK** to confirm password change or click **Cancel** to cancel it.

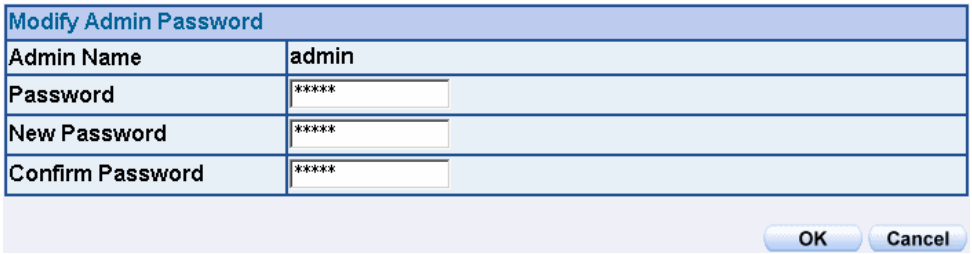


Figure1-2 Modify Admin Password

Add Permitted IPs

STEP 1 . Add the following setting in **Permitted IPs** of **Administration**: (Figure1-3)

- **Name:** Enter master
- **IP Address:** Enter 163.173.56.11
- **Netmask:** Enter 255.255.255.255
- **Service:** Select Ping and WebUI
- Click **OK**
- Complete add new permitted IPs (Figure1-4)

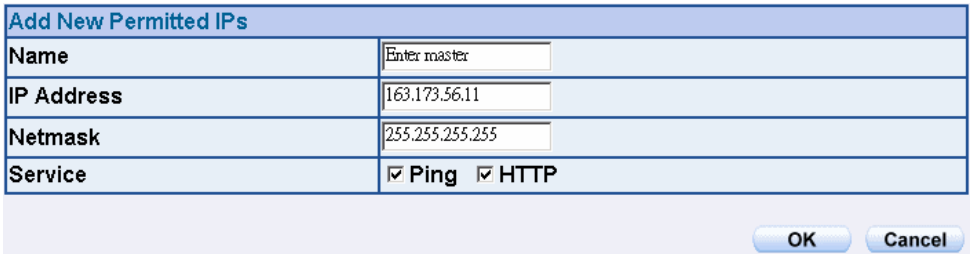


Figure1-3 Setting Permitted IPs WebUI

Figure1-4 Complete Add New Permitted IPs

To make Permitted IPs be effective, it must cancel the **Ping** and **WebUI** selection in the WebUI of ALL7007 that Administrator enter. (LAN, WAN, or DMZ Interface)

Before canceling the **WebUI** selection of Interface, must set up the Permitted IPs first, otherwise, it would cause the situation of cannot enter WebUI by appointed Interface.

Logout

STEP 1． Click **Logout** in **System** to protect the system while Administrator are away. (Figure1-5)

Figure1-5 Confirm Logout WebUI

STEP 2． Click **OK** and the logout message will appear in WebUI. (Figure1-6)

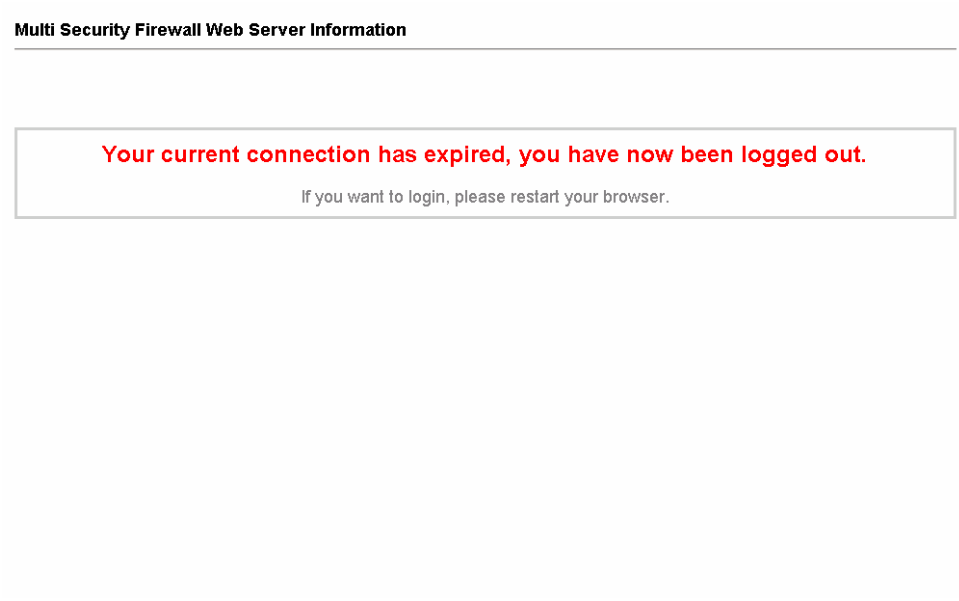


Figure1-6 Logout WebUI Message

Software Update

STEP 1．Select **Software Update** in **System**, and follow the steps below:

- To obtain the version number from **Version Number** and obtain the latest version from Internet. And save the latest version in the hardware of the PC, which manage the ALL7007
- Click **Browse** and choose the latest software version file.
- Click **OK** and the system will update automatically. (Figure1-7)

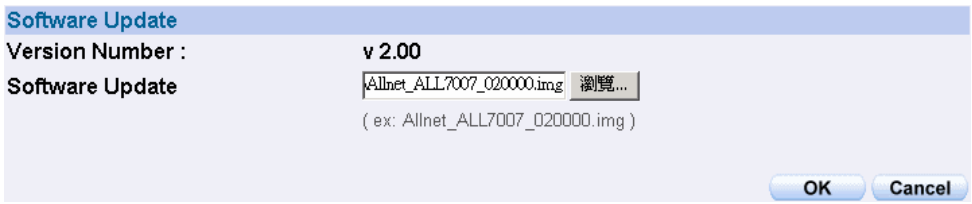


Figure1-7 Software Update

It takes 3 minutes to update software. The system will reboot after update. During the updating time, please don't turn off the PC or leave the WebUI. It may cause some unexpected mistakes. (Strong suggests updating the software from LAN to avoid unexpected mistakes.)

Chapter 2

Configure

The Configure is according to the basic setting of the ALL7007. In this chapter the definition is Setting, Date/Time, Multiple Subnet, Hacker Alert, Blaster Alert, Route Table, DHCP, Dynamic DNS, Hosts Table, Mail Relay, SNMP and Language settings.

Define the required fields of Settings

ALL7007 Configuration:

- The Administrator can import or export the system settings. Click **OK** to import the file into the ALL7007 or click **Cancel** to cancel importing. You also can revive to default value here.

Email Settings:

- Select **Enable E-mail Alert Notification** under E-mail Settings. This function will enable the ALL7007 to send e-mail alerts to the System Administrator when the network is being attacked by hackers or when emergency conditions occur. (It can be set from Settings-Hacker Alert in System to detect Hacker Attacks)

Web Management (WAN Interface):

- The System Manager can change the port number used by HTTP port anytime. (Remote WebUI management)

 After HTTP port has changed, if the administrator want to enter WebUI from WAN, will have to change the port number of browser. (For example: http://61.62.108.172:8080)

MTU Setting:

- It provides the Administrator to modify the networking package length anytime. Its default value is 1500 Bytes.

Link Speed / Duplex Mode:

- By this function can set the transmission speed and mode of WAN Port when connecting other device.

Administration Packet Logging:

- After enable this function; the ALL7007 will record packet which source IP or destination address is ALL7007. And record in Traffic Log for System Manager to inquire about.

Define the required fields of Time Settings

Synchronize Time/Date:

- Synchronizing the ALL7007 with the System Clock. The administrator can configure the ALL7007's date and time by either syncing to an Internet Network Time Server (NTP) or by syncing to your computer's clock.

GMT:

- International Standard Time (Greenwich Mean Time)

Define the required fields of Multiple Subnet

Multiple Mode:

- To display the mode that Multiple Subnet use. (NAT mode or Routing Mode)

WAN Interface Address:

- The IP address that Multiple Subnet corresponds to WAN.

LAN Interface Address/Subnet Netmask:

- The Multiple Subnet range.

NAT Mode:

- It allows Internal Network to set multiple subnet address and connect with the Internet through different WAN IP Addresses. For example：The lease line of a company applies several real IP Addresses 168.85.88.0/24, and the company is divided into R&D department, service, sales department, procurement department, accounting department, the company can distinguish each department by different subnet for the purpose of managing conveniently. The settings are as the following：

  1. R&D department subnet：192.168.1.1/24(LAN) ←→ 168.85.88.253(WAN)
  2. Service department subnet： 192.168.2.1/24(LAN) ←→ 168.85.88.252(WAN)
  3. Sales department subnet： 192.168.3.1/24(LAN) ←→ 168.85.88.251(WAN)
  4. Procurement department subnet 192.168.4.1/24(LAN) ←→ 168.85.88.250(WAN)
  5. Accounting department subnet 192.168.5.1/24(LAN) ←→ 168.85.88.249(WAN)

The first department (R&D department) had set while setting interface IP; the other four ones have to be added in Multiple Subnet. After completing the settings, each department uses the different WAN IP Address to connect to the Internet. The settings of each department are as following:

	Service	Sales	Procurement	Accounting
IP Address	192.168.2.2~254	192.168.3.2~254	192.168.4.2~254	192.168.5.2~254
Subnet Netmask	255.255.255.0	255.255.255.0	255.255.255.0	255.255.255.0
Gateway	192.168.2.1	192.168.3.1	192.168.4.1	192.168.5.1

Routing Mode:

- It is the same as NAT mode approximately but does not have to correspond to the real WAN IP address, which let internal PC to access to Internet by its own IP. (External user also can use the IP to connect with the Internet)

Define the required fields of Hacker Alert

Detect SYN attack:

- Select this option to detect TCP SYN attacks that hackers send to server computers continuously to block or cut down all the connections of the servers. These attacks will cause valid users cannot connect to the servers.
  - **【SYN Flood Threshold(Total) Pkts/Sec】:** The system Administrator can enter the maximum number of SYN packets per second that is allowed to enter the network/ALL7007. If the value exceeds the setting one, and then the device will determine it as an attack.
  - **【SYN Flood Threshold(Per Source IP) Pkts/Sec】:** The system Administrator can enter the maximum number of SYN packets per second from attacking source IP Address that is allowed to enter the network/ALL7007. And if value exceeds the setting one, and then the device will determine it as an attack.
  - **【SYN Flood Threshold Blocking Time(Per Source IP) Seconds】:** When the ALL7007 determines as being attacked, it will block the attacking source IP address in the blocking time you set. After blocking for certain seconds, the device will start to calculate the max number of SYN packets from attacking source IP Address. And if the max number still exceed the define value, it will block the attacking IP Address continuously.

Detect ICMP Attack:

- When Hackers continuously send PING packets to all the machines of the LAN networks or to the ALL7007 via broadcasting, your network is experiencing an ICMP flood attack.
  - **【ICMP Flood Threshold(Total) Pkts/Sec】:** The System Administrator can enter the maximum number of ICMP packets per second that is allow to enter the network/ALL7007. If the value exceeds the setting one, and then the device will determine it as an attack.
  - **【ICMP Flood Threshold(Per Source IP)Pkts/Sec】:** The System

Administrator can enter the maximum number of ICMP packets per second from attacking source IP Address that is allow to enter the network / ALL7007. If the value exceeds the setting one, and then the device will determine it as an attack.

- **【ICMP Flood Threshold Blocking Time(Per Source IP)Seconds】:**When the ALL7007 determines as being attacked, it will block the attacking source IP address in the blocking time you set. After blocking for certain seconds, the device will start to calculate the max number of ICMP packets from attacking source IP Address. And if the max number still exceed the define value, it will block the attacking IP Address continuously.

Detect UDP Attack:

- When Hackers continuously send PING packets to all the machines of the LAN networks or to the ALL7007 via broadcasting, your network is experiencing an UDP attack.
  - **【UDP Flood Threshold(Total)Pkts/Sec】:** The System Administrator can enter the maximum number of UDP packets per second that is allow to enter the network/ALL7007. If the value exceeds the setting one, and then the device will determine it as an attack.
  - **【UDP Flood Threshold(Per Source IP)Pkts/Sec】:** The System Administrator can enter the maximum number of UDP packets per second from attacking source IP Address that is allow to enter the network/ALL7007. If the value exceeds the setting one, and then the device will determine it as an attack.
  - **【UDP Flood Threshold Blocking Time (Per Source IP) Seconds】:** When ALL7007 determines as being attacked, it will block the attacking source IP in the blocking time you set. After blocking for certain seconds, the device will start to calculate the max number of UPD packets from attacking source IP. If the max number still exceed the define value, it will block the attacking IP Address continuously.

Detect Ping of Death Attack:

- Select this option to detect the attacks of tremendous trash data in PING packets that hackers send to cause System malfunction. This attack can cause network speed to slow down, or even make it necessary to restart the computer to get a normal operation.

Detect IP Spoofing Attack:

- Select this option to detect spoof attacks. Hackers disguise themselves as trusted users of the network in Spoof attacks. They use a fake identity to try to pass through the ALL7007 System and invade the network.

Detect Port Scan Attack:

- Select this option to detect the port scans hackers use to continuously scan networks on the Internet to detect computers and vulnerable ports that are opened by those computers.

Detect Tear Drop Attack:

- Select this option to detect tear drop attacks. These are packets that are segmented to small packets with negative length. Some Systems treat the negative value as a very large number, and copy enormous data into the System to cause System damage, such as a shut down or a restart.

Filter IP Route Option:

- Each IP packet can carry an optional field that specifies the replying address that can be different from the source address specified in packet's header. Hackers can use this address field on disguised packets to invade LAN networks and send LAN networks' data back to them.

Detect Land Attack:

- Some Systems may shut down when receiving packets with the same source and destination addresses, the same source port and destination port, and when **SYN** on the TCP header is marked. Enable this function to detect such abnormal packets.

 After System Manager start **Hacker Alert**, if the ALL7007 has detected any abnormal situation, the alarm message will appear in **Alarm**- **Event Alarm**. And if the system manager starts the **E-mail Alert Notification** in **Settings**, the device will send e-mail to alarm the system manager automatically. As for to enable **SNMP Trap Alert Notification** in **SNMP** function, then instant message can appear in the software of SNMP Trap client.

Define the required fields of DHCP

Subnet:

- The domain name of LAN

NetMask:

- The LAN Netmask

Gateway:

- The default Gateway IP address of LAN

Broadcast IP:

- The Broadcast IP of LAN

Define the required fields of DDNS

Domain Name:

- The domain name that provided by DDNS

WAN IP Address:

- The WAN IP Address, which the domain name corresponds to.

Define the required fields of Host Table

Domain Name:

- It can be set by System Manager. To let the internal user to access to the information that provided by the host by this domain name

Virtual IP Address:

- The virtual IP address respective to Host Table. It must be LAN or DMZ IP address.

System Settings- Exporting

STEP 1． In System Setting WebUI, click on Download button next to Export System Settings to Client.

STEP 2． When the **File Download** pop-up window appears, choose the destination place where to save the exported file and click on **Save**. The setting value of ALL7007 will copy to the appointed site instantly. (Figure2-1)

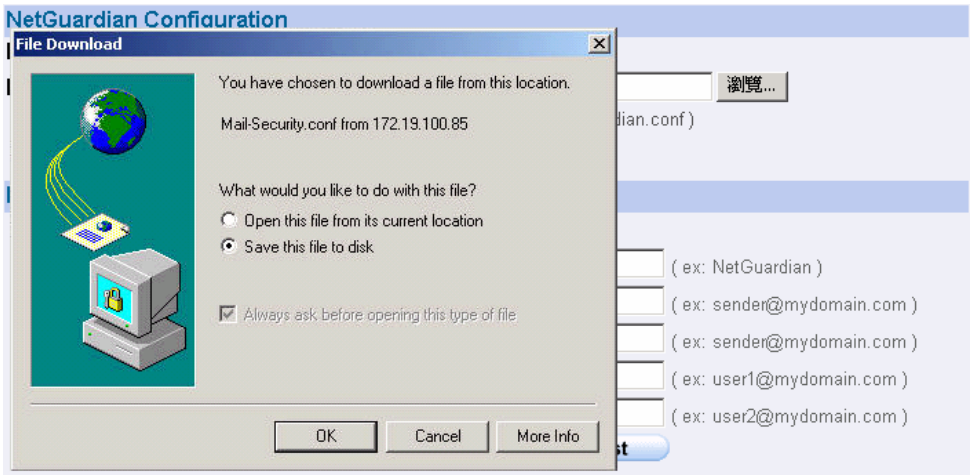


Figure2-1 Select the Destination Place to Save the Exported File

System Settings- Importing

STEP 1． In **System Setting** WebUI, click on the **Browse** button next to **Import System Settings from Client**. When the Choose File pop-up window appears, select the file to which contains the saved ALL7007 Settings, then click **OK**. (Figure2-2)

STEP 2． Click **OK** to import the file into the ALL7007 (Figure2-3)

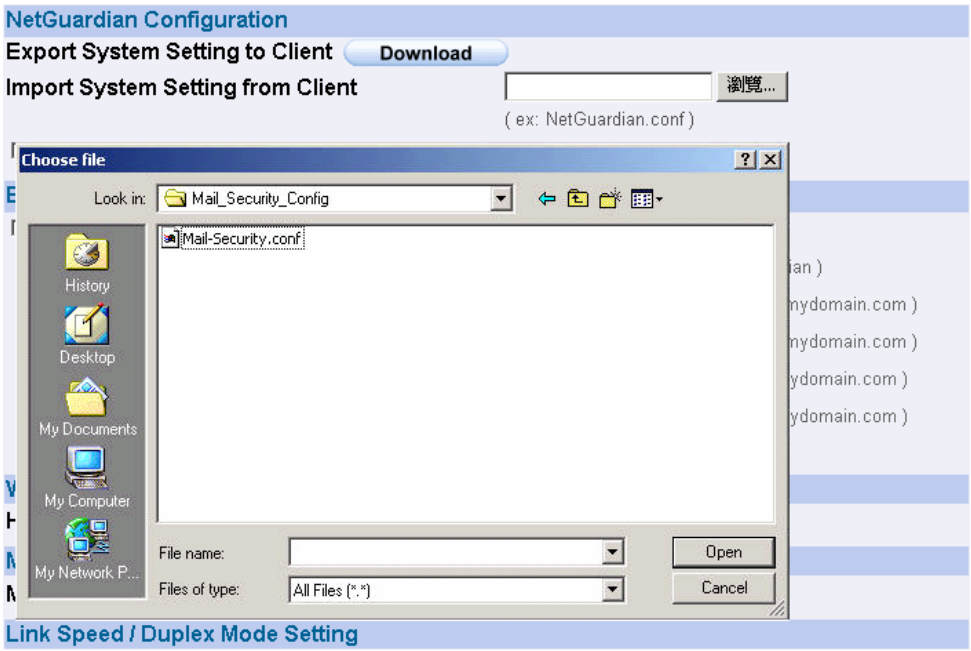


Figure 2-2 Enter the File Name and Destination of the Imported File

Figure 2-3 Upload the Setting File WebUI

Restoring Factory Default Settings

STEP 1．Select **Reset Factory Settings** in ALL7007 **Configuration** WebUI

STEP 2．Click **OK** at the bottom-right of the page to restore the factory settings. (Figure2-4)

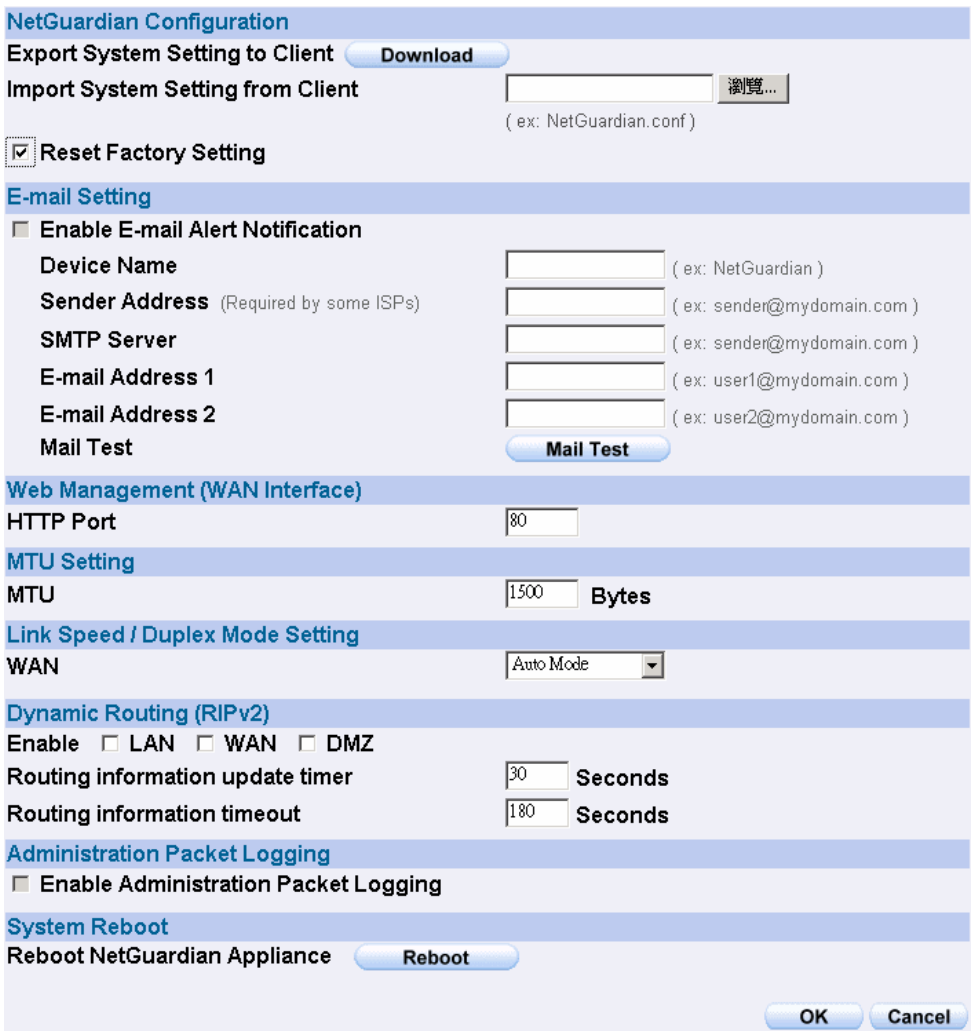


Figure2-4 Reset Factory Settings

Enabling E-mail Alert Notification

STEP 1． Select **Enable E-mail Alert Notification** under E-Mail Settings.

STEP 2．Device Name: Enter the Device Name or use the default value.

STEP 3．Sender Address: Enter the Sender Address. (Required by some ISPs.)

STEP 4．SMTP Server IP: Enter SMTP server's IP address.

STEP 5．E-Mail Address 1: Enter the e-mail address of the first user to be notified.

STEP 6．E-Mail Address 2: Enter the e-mail address of the second user to be notified. (Optional)

STEP 7． Click **OK** on the bottom-right of the screen to enable E-mail Alert Notification. (Figure2-5)

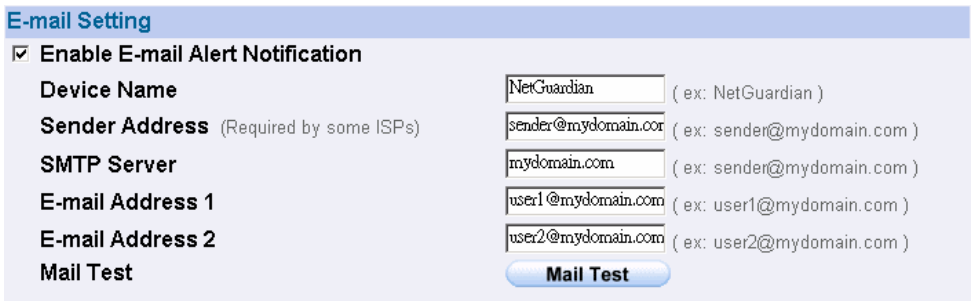


Figure2-5 Enable E-mail Alert Notification

Click on **Mail Test** to test if E-mail Address 1 and E-mail Address 2 can receive the Alert Notification correctly.

Reboot ALL7007

STEP 1．Reboot ALL7007：Click **Reboot** button next to **Reboot ALL7007 Appliance.**

STEP 2．A confirmation pop-up page will appear.

STEP 3．Follow the confirmation pop-up page; click **OK** to restart ALL7007. (Figure2-6)

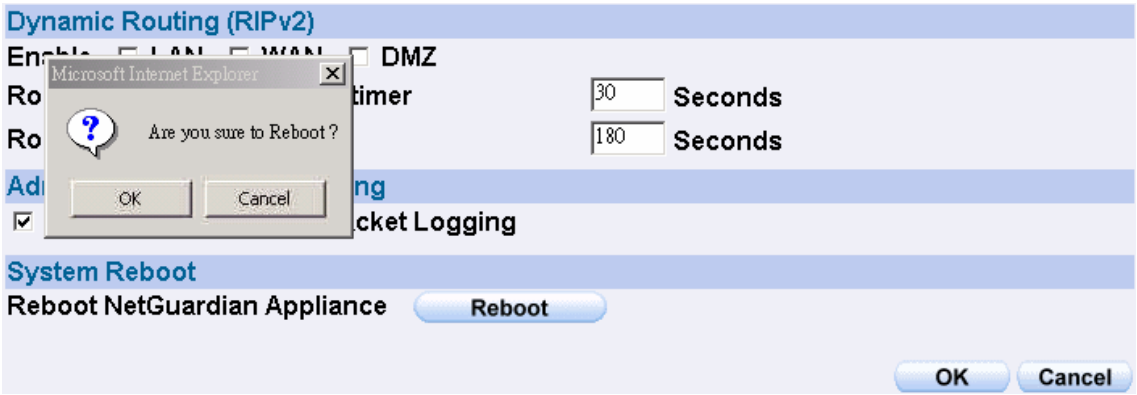


Figure2-6 Reboot ALL7007

Date/Time Settings

STEP 1． Select **Enable synchronize with an Internet time Server** (Figure2-7)

STEP 2． Click the down arrow to select the **offset time from GMT.**

STEP 3． Enter the **Server IP / Name** with which you want to synchronize.

STEP 4． Set the interval time to synchronize with outside servers. If you set it to 0, it means the device will not synchronize automatically.

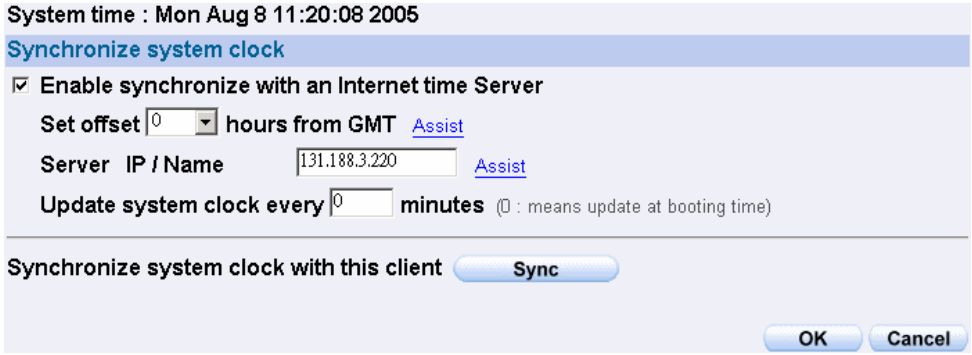


Figure2-7 System Time Setting

Click on the **Sync** button and then the ALL7007's date and time will be synchronized to the Administrator's PC

The value of **Set Offset From GMT** and **Server IP / Name** can be looking for from **Assist**.

Multiple Subnet

Connect to the Internet through Multiple Subnet NAT or Routing Mode by the IP address that set by the LAN user’s network card

Preparation

To connect to Internet, WAN IP (211.22.22.22) connect with ATUR.

Adding Multiple Subnet

Add the following settings in **Multiple Subnet** of **System** function**:**

- Click on **New Entry**
- **Alias IP of LAN Interface**： Enter 172.16.30.1
- **Netmask**：Enter 255.255.255.0
- **WAN**：Enter Interface IP211.22.22.22, and choose **NAT** in **Forwarding Mode**
- Click **OK**
- Complete Adding Multiple Subnet (Figure2-8)

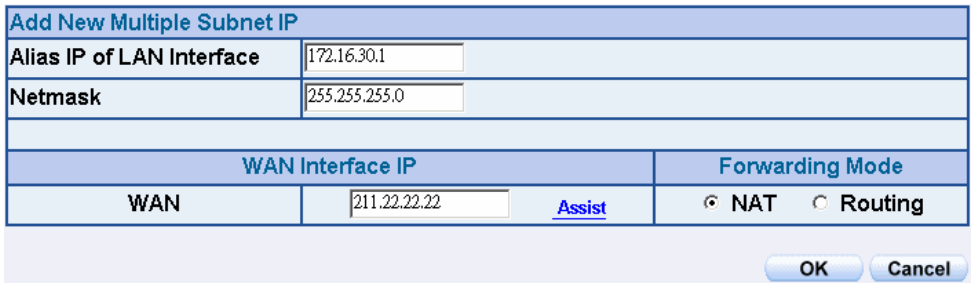


Figure2-8 Add Multiple Subnet WebUI

WAN Interface can use **Assist** to enter the data.

After setting, there will be two subnet in LAN: 192.168.1.0/24 (default LAN subnet) and 172.16.30.0/24. So if LAN IP is:

• 192.168.1.xx, it must use NAT Mode to connect to the Internet.

• 162.172.50.xx, it's also use NAT mode through WAN (The Internet Server can see your WAN IP directly). (Figure2-9)

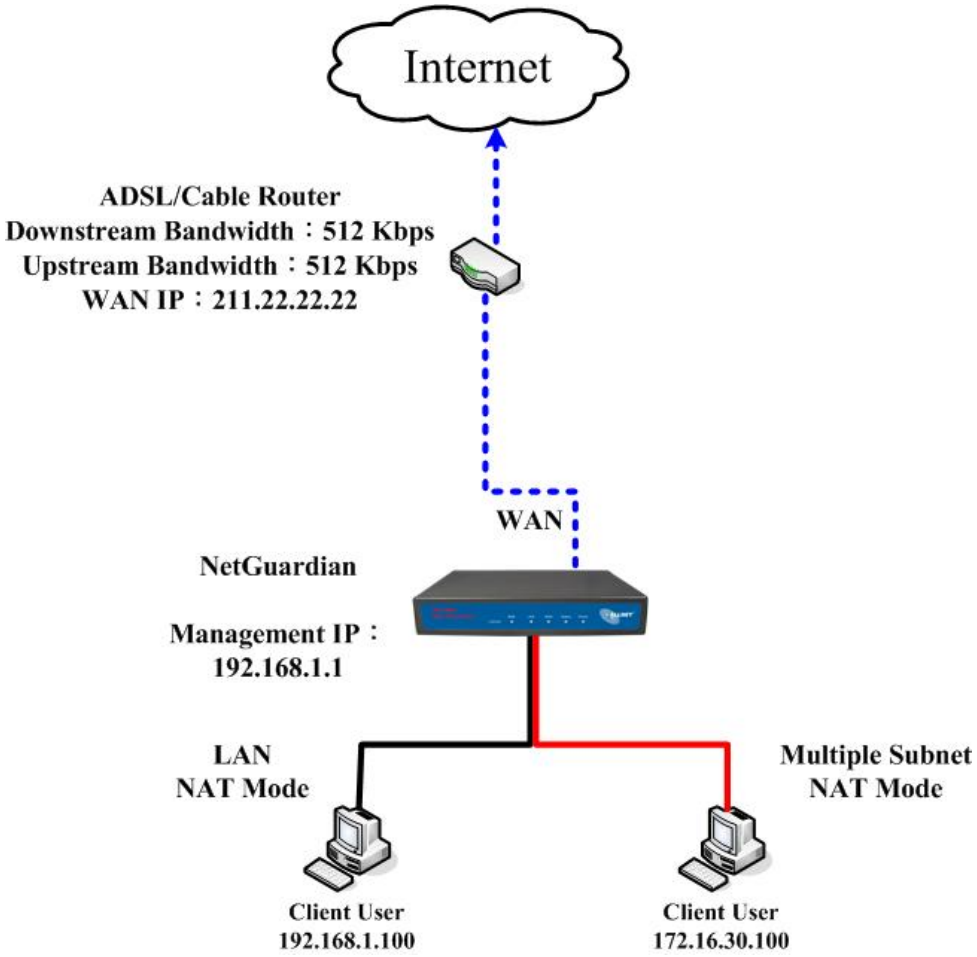


Figure2-9 Multiple Subnet Network

- The ALL7007's Interface Status:
  WAN IP：211.22.22.22
  LAN Port IP：192.168.1.1
  LAN Port Multiple Subnet：172.16.30.1

WAN IP (10.10.10.1) connect to the Router of ISP (10.10.10.2) directly. The IP address provided by ISP is 162.172.50.0/24

Add the following settings in **Multiple Subnet** of **System** function**:**

- Click on **New Entry**
- **Alias IP of LAN Interface**： Enter 162.172.50.1
- **Netmask**：Enter 255.255.255.0
- **WAN**：Enter Interface IP: 10.10.10.1, and choose **Routing** in **Forwarding Mode**
- Click **OK**
- Complete Adding Multiple Subnet (Figure2-10)

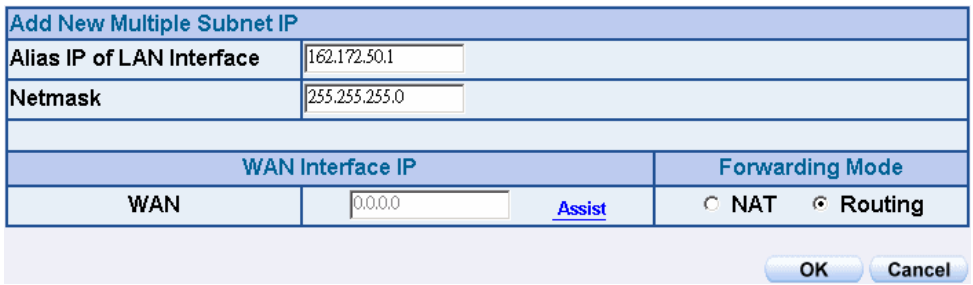


Figure2-10 Multiple Subnet WebUI Setting

After setting, if LAN IP of ALL7007 is 162.172.50.xx, it uses Routing Mode (Internet Server can see your IP 162.172.50.xx directly) (Figure2-11)

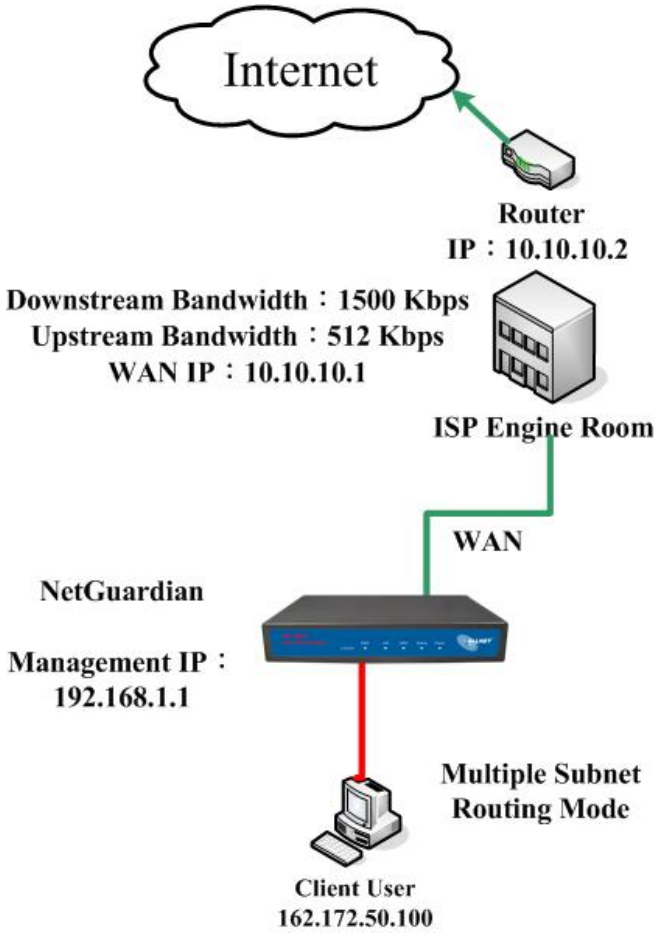


Figure2-11 Multiple Subnet Network

- The ALL7007's Interface Status:
  WAN IP：10.10.10.1
  LAN Port IP：192.168.1.1
  LAN Port Multiple Subnet：162.172.50.1

Route Table

To connect two different subnet router with the ALL7007 and makes them to connect to Internet through ALL7007

Preparation

Company A: WAN (61.11.11.11) connects with ATUR to Internet
LAN subnet: 192.168.1.1/24
The Router1 which connect with LAN (10.10.10.1, support RIPv2)
its LAN subnet is 192.168.10.1/24

Company B: Router2 (10.10.10.2, support RIPv2), its LAN subnet is
192.168.20.1/24

Company A ‘s Router1 (10.10.10.1) connect directly with Company B ‘s Router2 (10.10.10.2).

STEP 1．Enter the following settings in **Route Table** in **System** function:

- **Destination IP**: Enter 192.168.10.1
- **Netmask**: Enter 255.255.255.0。
- **Gateway**: Enter 192.168.1.252
- **Interface**: Select LAN
- Click **OK** (Figure 2-12)

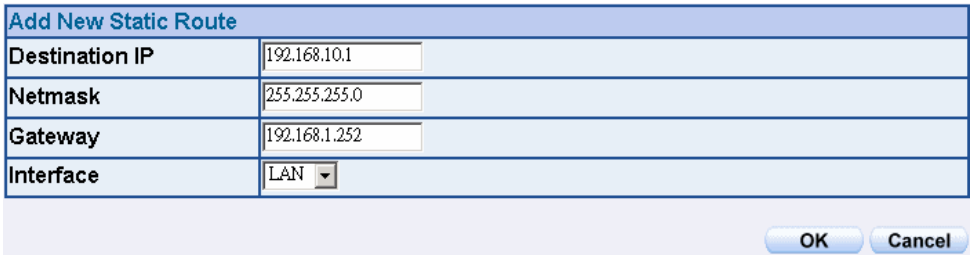


Figure2-12 Add New Static Route1

STEP 2．Enter the following settings in **Route Table** in **System** function:

- **Destination IP**: Enter 192.168.20.1
- **Netmask**: Enter 255.255.255.0
- **Gateway**: Enter 192.168.1.252
- **Interface**: Select LAN
- Click **OK** (Figure 2-13)

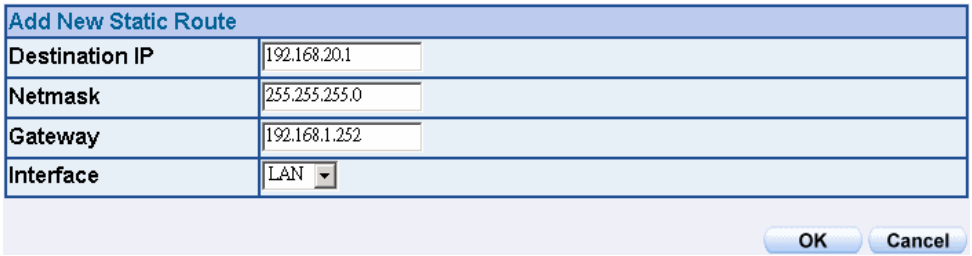


Figure2-13 Add New Static Route2

STEP 3． Enter the following setting in **Route Table** in **System** function:

- **Destination IP**: Enter 10.10.10.0
- **Netmask**: Enter 255.255.255.0
- **Gateway**: Enter 192.168.1.252
- **Interface**: Select LAN
- Click **OK** (Figure 2-14)

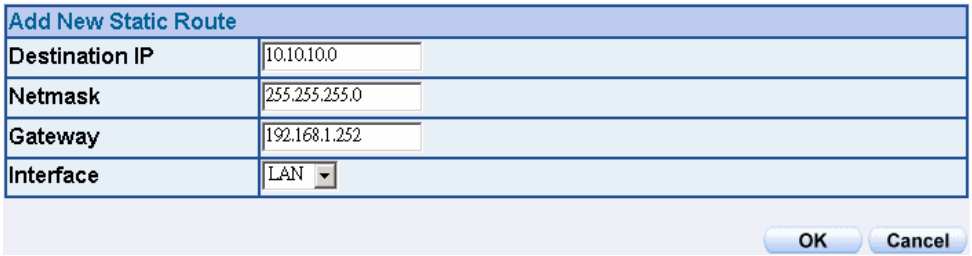


Figure2-14 Add New Static Route3

STEP 4 . Adding successful. At this time the computer of 192.168.10.1/24, 192.168.20.1/24 and 192.168.1.1/24 can connect with each other and connect to Internet by NAT (Figure 2-15)

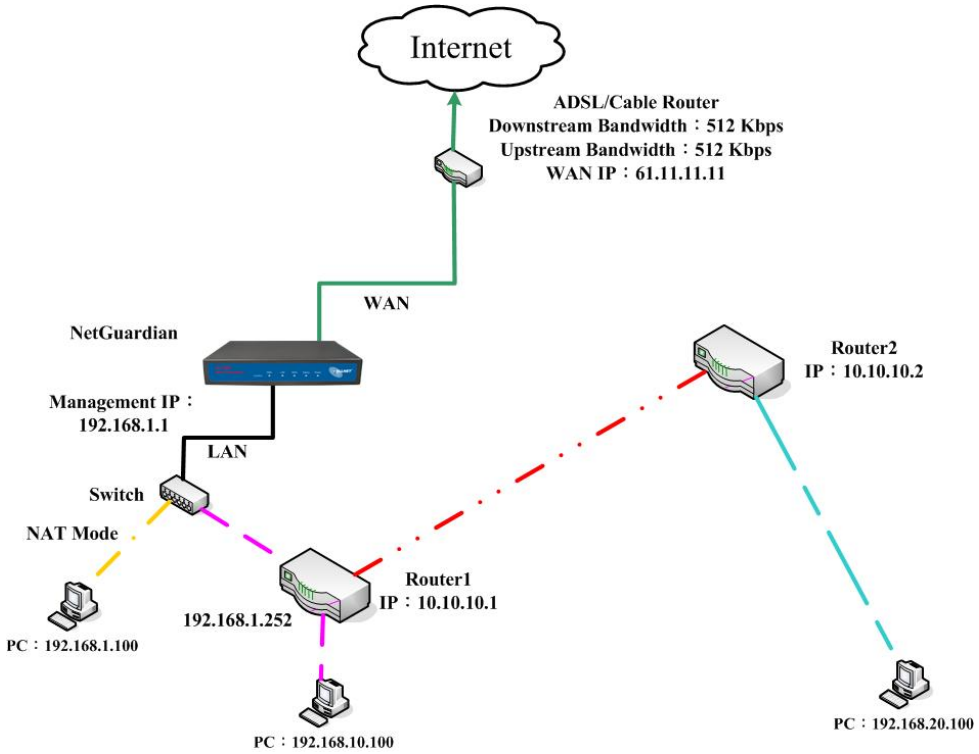


Figure 2-15 Route Table Setting

DHCP Setting

STEP 1．Select **DHCP** in **Settings** and enter the following settings:

- **Domain Name**：Enter the Domain Name of DHCP
- **DNS Server 1**: Enter the distributed IP address of DNS Server1.
- **DNS Server 2**: Enter the distributed IP address of DNS Server2.
- **WINS Server 1**: Enter the distributed IP address of WINS Server1.
- **WINS Server 2:** Enter the distributed IP address of WINS Server2.
- **LAN Interface:**
  - **Client IP Address Range 1:** Enter the starting and the ending IP address dynamically assigning to DHCP clients. The default value is 192.168.1.2 to 192.168.1.254 (it must be in the same subnet)
  - **Client IP Address Range 2:** Enter the starting and the ending IP address dynamically assigning to DHCP clients. But it must in the same subnet as **Client IP Address Range 1** and the range cannot be repeated.
- **DMZ Interface:** the same as LAN Interface. (DMZ works only if to start DMZ Interface)
- **Leased Time:** Enter the leased time for DHCP. The default time is 24 hours.
- Click **OK** and DHCP setting is completed. (Figure2-16)

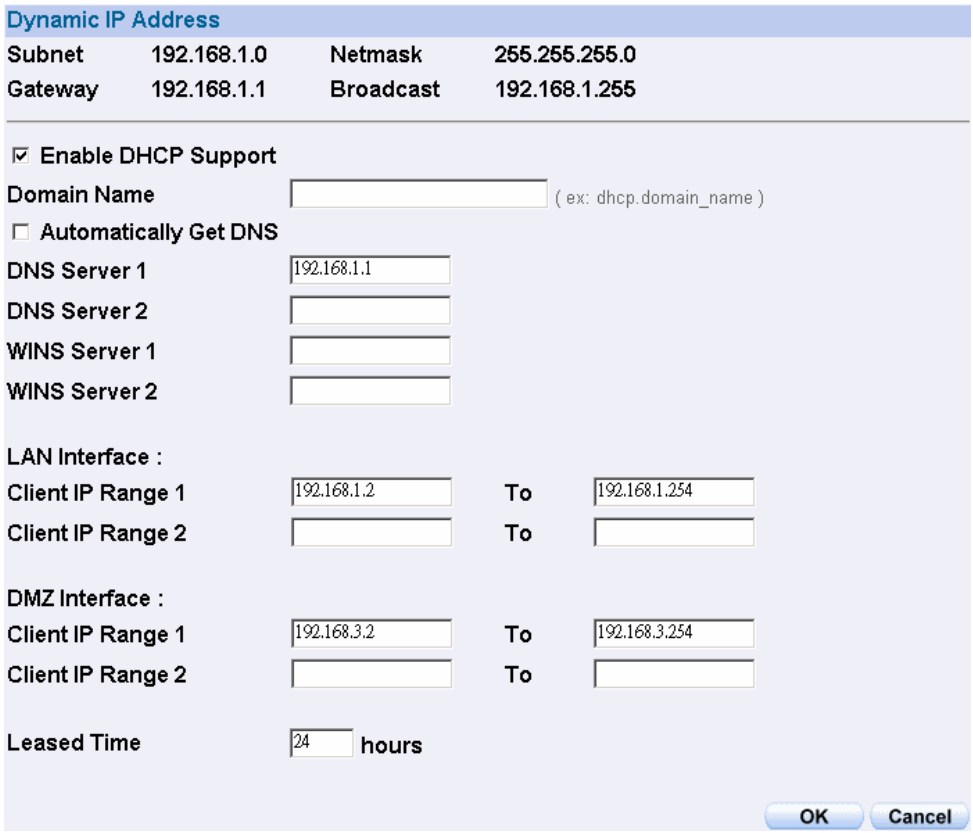


Figure2-16 DHCP WebUI

When selecting **Automatically Get DNS**, the DNS Server will lock it as LAN Interface IP.

Dynamic DNS Settings

STEP 1． Select **Dynamic DNS** in **System** function and enter the following setting: (Figure2-17).

- Click **New Entry** button
- **Service Provider**：Select service provider
- **Automatically fill in the WAN IP**：Check to automatically fill in the WAN IP
- **User Name**：Enter the registered user name
- **Password**：Enter the password
- **Domain name**：Enter host domain name
- Click **OK** to complete adding Dynamic DNS. (Figure2-18)

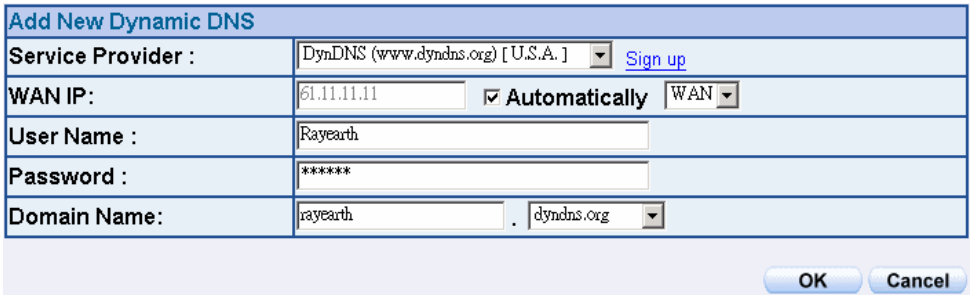


Figure2-17 DDNS WebUI

Figure 2-18 Complete DDNS Setting

Chart				
Explanation	Update successfully	Incorrect username or password	Connecting to server	Unknown error

 If System Administrator had not registered a DDNS account, click on **Sign up** then can enter the website of the provider.

 If you do not select **Automatically fill in the WAN IP** and then you can enter a specific IP in **WAN IP** field. Let DDNS to correspond to that specific IP address.

Adding a new Hosts Table

STEP 1． Select **Host Table** in **Settings** function and enter the following setting:

- Click on **New Entry**
- **Host Name:** The domain name of the server
- **Virtual IP Address:** The virtual IP address that Host Table mapped to
- Click **OK** and complete adding Host Table. (Figure2-19)

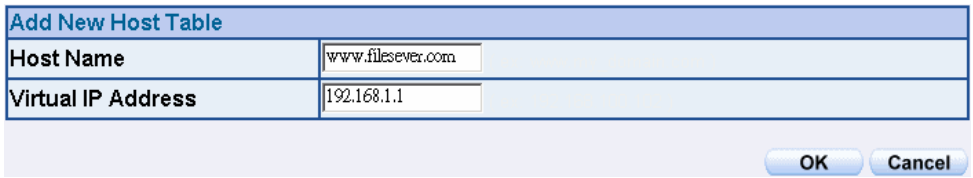


Figure2-19 Add New Host Table WebUI

To use Host Table, the user PC's first DNS Server must be the same as the LAN Port or DMZ Port IP of ALL7007. That is, the default gateway.

Language

Select the Language version (**English Version**/ **Traditional Chinese Version** or **Simplified Chinese Version**) and click **OK**. (Figure2-20)

Figure2-20 Language Setting WebUI

Chapter 3

Interface

In this chapter, the **Administrator** can set up the IP addresses for the office network. The Administrator may configure the IP addresses of the LAN network, the WAN network, and the DMZ network. The netmask and gateway IP addresses are also configured in this section.

Define the required fields of Interface

LAN:

- Using the LAN **Interface**, the Administrator can set up the LAN network of ALL7007.

Ping:

- Select this function to allow the LAN users to ping the Interface IP Address.

WebUI:

- Select to enable the user to enter the WebUI of ALL7007 from Interface IP.

WAN:

- The System Administrator can set up the WAN network of ALL7007.

Connect Mode:

- Display the current connection mode:
  - PPPoE (ADSL user)
  - Dynamic IP Address (Cable Modem User)
  - Static IP Address

Auto Disconnect:

- The PPPoE connection will automatically disconnect after a length of idle time (no activities). Enter the amount of idle time before disconnection in the field. Enter “0” if you do not want the PPPoE connection to disconnect at all.

DMZ:

- The Administrator uses the DMZ Interface to set up the DMZ network.
- The DMZ includes:
  - **NAT Mode**：In this mode, the DMZ is an independent virtual subnet. This virtual subnet can be set by the Administrator but cannot be the same as LAN Interface.
  - **Transparent Mode:** In this mode, the DMZ and WAN Interface are in the same subnet.

We set up four Interface Address examples in this chapter:

No.	Suitable Situation	Example	Page
Ex1	**LAN**	Modify LAN Interface Settings	**47**
Ex2	**WAN**	Setting WAN Interface Address	**48**
Ex3	**DMZ**	Setting DMZ Interface Address (NAT Mode)	**52**
Ex4	**DMZ**	Setting DMZ Interface Address (Transparent Mode)	**53**

Modify LAN Interface Settings

STEP 1．Select **LAN** in **Interface** and enter the following setting:

- Enter the new **IP Address** and **Netmask**
- Select **Ping** and **WebUI**
- Click **OK** (Figure3-1)

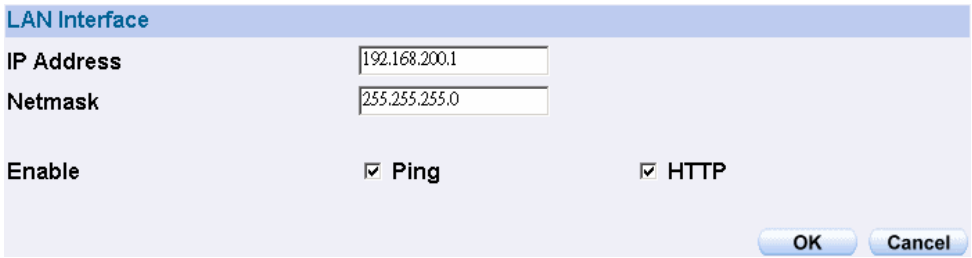


Figure3-1 Setting LAN Interface WebUI

The default LAN IP Address of ALL7007 is 192.168.1.1. After the Administrator setting the new LAN IP Address on the computer , he/she have to restart the System to make the new IP address effective. (when the computer obtain IP by DHCP)

Do not cancel WebUI selection before not setting Permitted IPs yet. It will cause the Administrator cannot be allowed to enter the ALL7007's WebUI from LAN.

Setting WAN Interface Address

STEP 1．Select **WAN** in **Interface** and click **Modify**

STEP 2．Select the Connecting way:

- **PPPoE (ADSL User)** (Figure3-2):
  1. Select **PPPoE**
  2. Enter **User Name** as an account
  3. Enter **Password** as the password
  4. Select **Dynamic** or **Fixed** in **IP Address provided by ISP**. If you select Fixed, please enter IP Address, Netmask, and Default Gateway.
  5. Enter **Max. Downstream Bandwidth** and **Max. Upstream Bandwidth**. (According to the flow that user apply)
  6. Select **Ping** and **WebUI**
  7. Click **OK**

Figure3-2 PPPoE Connection

If the connection is PPPoE, you can choose **Service-On-Demand** for WAN Interface to connect automatically when disconnect (suggested); or to set up **Auto Disconnect if idle** (not recommend)

- **Dynamic IP Address (Cable Modem User)** (Figure3-3)**:**

1. Select **Dynamic IP Address (Cable Modem User)**
2. Click **Renew** in the right side of IP Address and then can obtain IP automatically.
3. If the MAC Address is required for ISP then click on **Clone MAC Address** to obtain MAC IP automatically.
4. **Hostname:** Enter the hostname provided by ISP.
5. **Domain Name:** Enter the domain name provided by ISP.
6. **User Name** and **Password** are the IP distribution method according to Authentication way of DHCP+ protocol (like ISP in China)
7. Enter **Max. Downstream Bandwidth** and **Max. Upstream Bandwidth** (According to the flow that user apply)
8. Select **Ping** and **WebUI**
9. Click **OK**

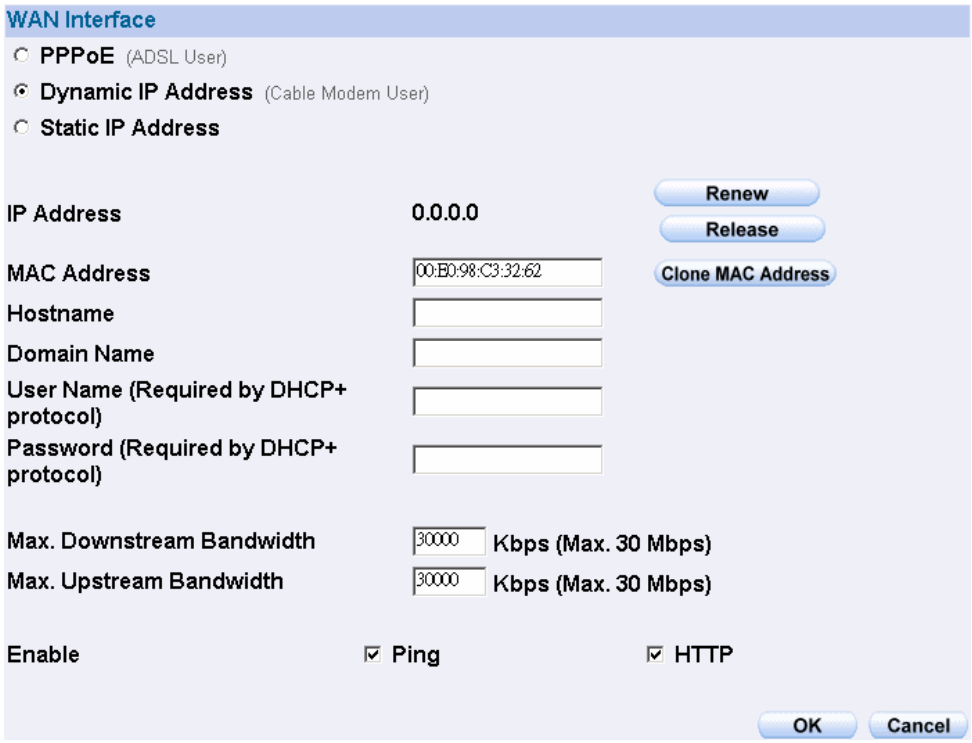


Figure3-3 Dynamic IP Address Connection

■ **Static IP Address** (Figure3-4)

1. Select **Static IP Address**
2. Enter **IP Address**, **Netmask**, and **Default Gateway** that provided by ISP
3. Enter **DNS Server1** or **DNS Server2**
4. Enter **Max. Downstream Bandwidth** and **Max. Upstream Bandwidth** (According to the flow that user apply)
5. Select **Ping** and **WebUI**
6. Click **OK**

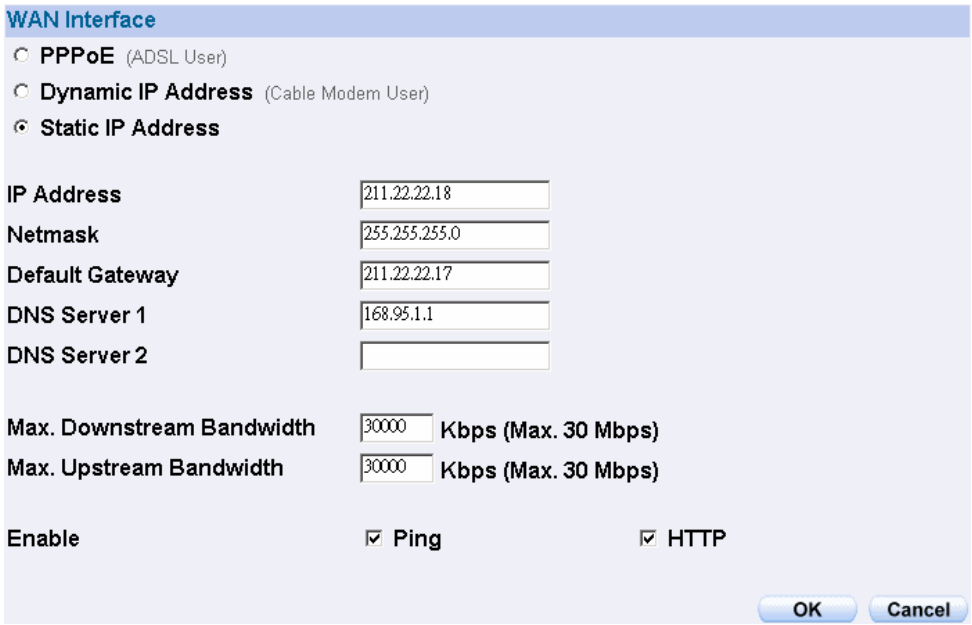


Figure3-4 Static IP Address Connection

When selecting **Ping** and **WebUI** on **WAN** network Interface, users will be able to ping the ALL7007 and enter the WebUI WAN network. It may influence network security. The suggestion is to **Cancel Ping** and **WebUI** after all the settings have finished. And if the System Administrator needs to enter UI from WAN, he/she can use **Permitted IPs** to enter.

Setting DMZ Interface Address (NAT Mode)

STEP 1．Click **DMZ** Interface in **Interface** function

STEP 2．Select **NAT Mode** in **DMZ** Interface

- Select **NAT** in **DMZ Interface**
- Enter **IP Address** and **Netmask**

STEP 3．Select **Ping** and **WebUI**

STEP 4．Click **OK** (Figure3-5)

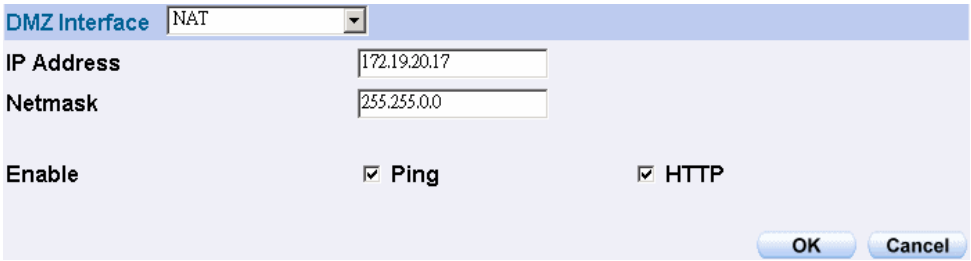


Figure3-5 Setting DMZ Interface Address (NAT Mode) WebUI

Setting DMZ Interface Address (Transparent Mode)

STEP 1．Select **DMZ** Interface

STEP 2．Select **Transparent Mode** in **DMZ** Interface

- Select **DMZ_Transparent** in **DMZ Interface**
- Enter **IP Address** and **Netmask**

STEP 3．Select **Ping** and **WebUI**

STEP 4．Click **OK** (Figure3-6)

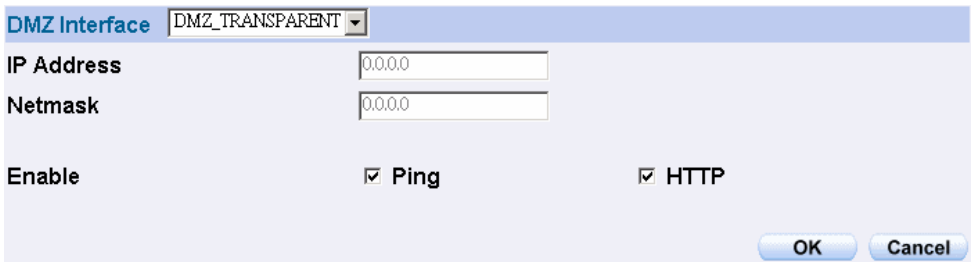


Figure3-6 Setting DMZ Interface Address (Transparent Mode) WebUI

In WAN, the connecting way must be **Static IP Address** and can choose **Transparent Mode** in **DMZ.**

Chapter 4

Address

The ALL7007 allows the Administrator to set Interface addresses of the LAN network, LAN network group, WAN network, WAN network group, DMZ and DMZ group.

An IP address in the Address Table can be an address of a computer or a sub network. The Administrator can assign an easily recognized name to an IP address. Based on the network it belongs to, an IP address can be an LAN IP address, WAN IP address or DMZ IP address. If the Administrator needs to create a control policy for packets of different IP addresses, he can first add a new group in the LAN Group or the WAN Group and assign those IP addresses into the newly created group. Using group addresses can greatly simplify the process of building control policies.

 With easily recognized names of IP addresses and names of address groups shown in the address table, the Administrator can use these names as the source address or destination address of control policies. The address table should be setup before creating control policies, so that the Administrator can pick the names of correct IP addresses from the address table when setting up control policies.

Define the required fields of Address

Name:

- The System Administrator set up a name as IP Address that is easily recognized.

IP Address:

- It can be a PC's IP Address or several IP Address of Subnet. Different network area can be: Internal IP Address, External IP Address, and DMZ IP Address.

Netmask:

- When correspond to a specific IP, it should be set as: 255.255.255.255.
- When correspond to several IP of a specific Domain. Take 192.168.100.1 (C Class subnet) as an example, it should be set as: 255.255.255.0.

MAC Address:

- Correspond a specific PC's MAC Address to its IP; it can prevent users changing IP and accessing to the net service through policy without authorizing.

Get Static IP address from DHCP Server:

- When enable this function and then the IP obtain from DHCP Server automatically under LAN or DMZ will be distributed to the IP that correspond to the MAC Address.

We set up two Address examples in this chapter:

No	Suitable Situation	Example	Page
Ex1	**LAN**	Under DHCP circumstances, assign the specific IP to static users and restrict them to access FTP net service only through policy.	**57**
Ex2	**LAN Group WAN**	Set up a policy that only allows partial users to connect with specific IP (External Specific IP)	**60**

Under DHCP situation, assign the specific IP to static users and restrict them to access FTP net service only through policy

STEP 1．Select **LAN** in **Address** and enter the following settings:

- Click **New Entry** button (Figure4-1)
- **Name:** Enter Rayearth
- **IP Address:** Enter 192.168.3.2
- **Netmask:** Enter 255.255.255.255
- **MAC Address :** Enter the user's MAC Address （00:B0:18:25:F5:89）
- Select **Get static IP address from DHCP Server**
- Click **OK** (Figure4-2)

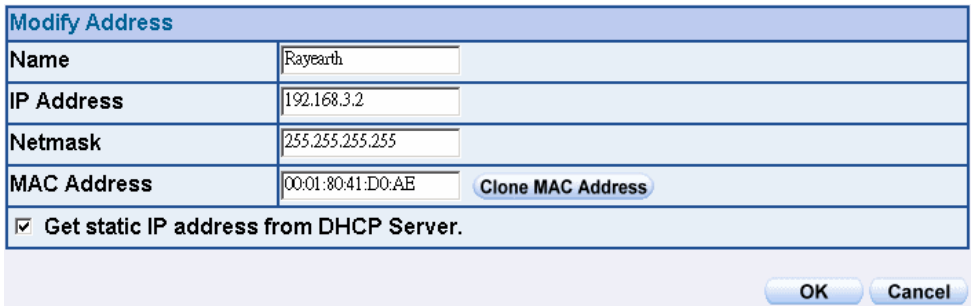


Figure4-1 Setting LAN Address Book WebUI

Figure4-2 Complete the Setting of LAN

STEP 2．Adding the following setting in **Outgoing Policy**: (Figure4-3)

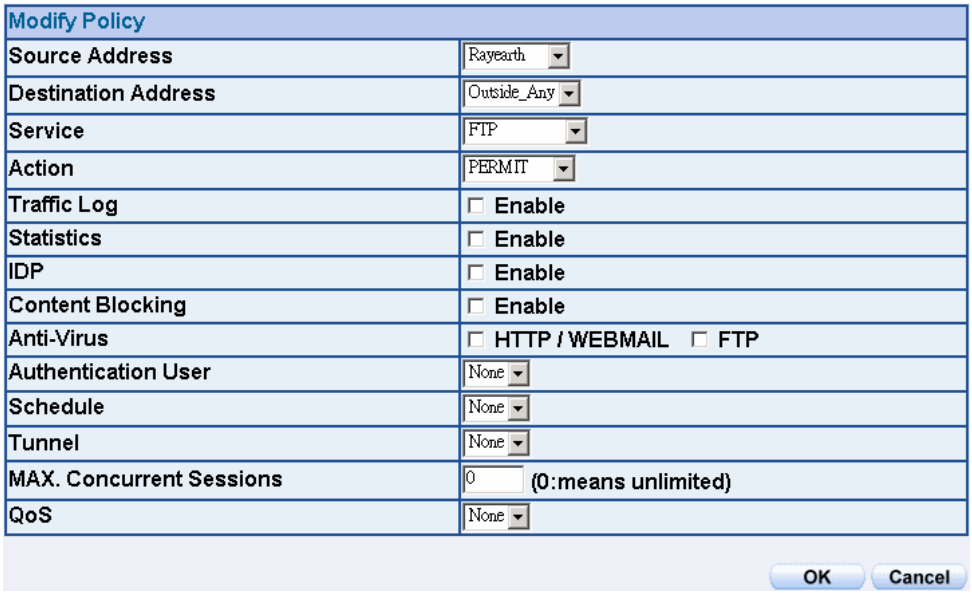


Figure4-3 Add a Policy of Restricting the Specific IP to Access to Internet

STEP 3．Complete assigning the specific IP to static users in **Outgoing Policy** and restrict them to access FTP net service only through policy: (Figure4-4)

Figure4-4 Complete the Policy of Restricting the Specific IP to Access to Internet

 When the System Administrator setting the **Address** Book, he/she can choose the way of clicking on Clone MAC Address to make the ALL7007 to fill out the user's MAC Address automatically.

 In **LAN** of **Address** function, the ALL7007 will default an **Inside Any** address represents the whole LAN network automatically. Others like WAN, DMZ also have the **Outside Any** and **DMZ Any** default address setting to represent the whole subnet.

 The setting mode of WAN and DMZ of Address are the same as LAN; the only difference is WAN cannot set up MAC Address.

Setup a policy that only allows partial users to connect with specific IP (External Specific IP)

STEP 1 . Setting several LAN network Address. (Figure4-5)

Name	IP / Netmask	MAC Address	Configure
Inside_Any	0.0.0.0/0.0.0.0		In Use
Rayearth	192.168.1.2/255.255.255.255	00:01:80:41:D0:AE	Modify Remove
Josh	192.168.1.4/255.255.255.255		Modify Remove
SinSan	192.168.1.5/255.255.255.255	00:01:80:41:D0:88	Modify Remove
Daniel	192.168.1.7/255.255.255.255	00:01:80:41:43:17	Modify Remove
Luke	192.168.1.8/255.255.255.255		Modify Remove

New Entry

Figure4-5 Setting Several LAN Network Address

STEP 2． Enter the following settings in **LAN Group** of **Address**:

- Click **New Entry** (Figure4-6)
- Enter the **Name** of the group
- Select the users in the **Available Address** column and click **Add**
- Click **OK** (Figure4-7)

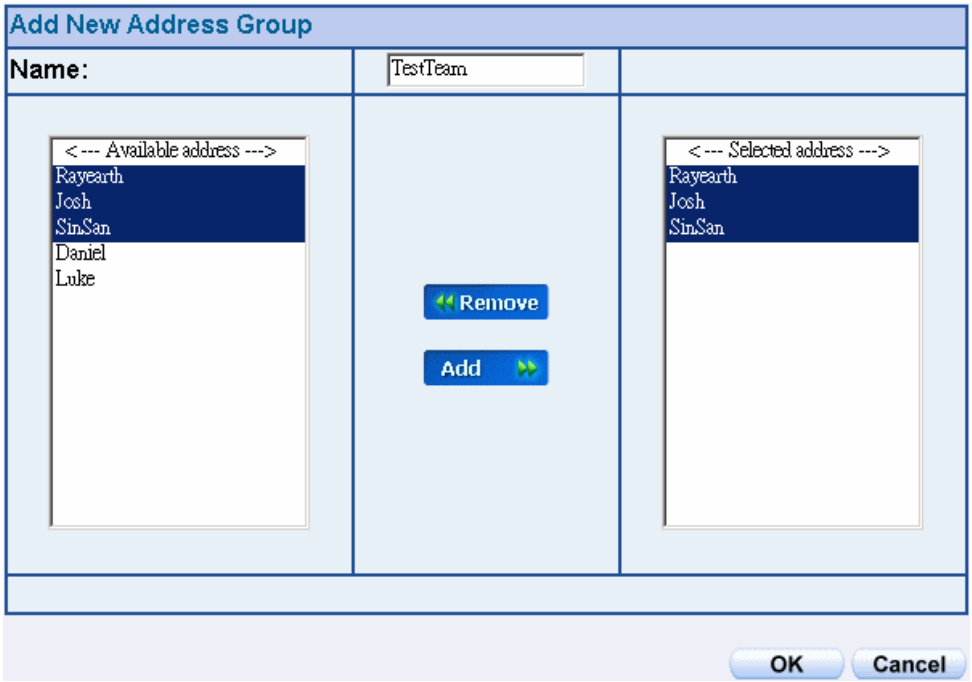


Figure4-6 Add New LAN Address Group

Figure4-7 Complete Adding LAN Address Group

The setting mode of **WAN Group** and **DMZ Group** of **Address** are the same as **LAN Group**.

STEP 3．Enter the following settings in **WAN** of **Address** function:

- Click **New Entry** (Figure4-8)
- Enter the following data (**Name, IP Address, Netmask**)
- Click **OK** (Figure4-9)

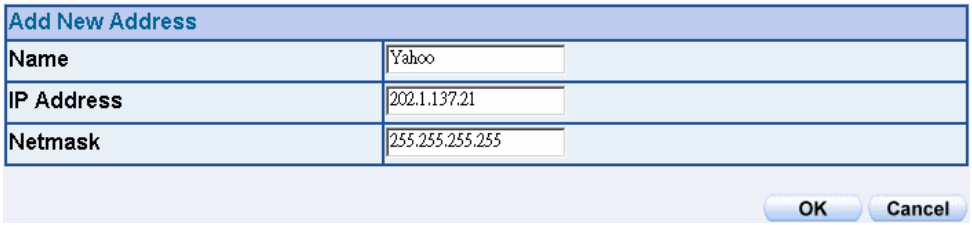


Figure4-8 Add New WAN Address

Figure4-9 Complete the Setting of WAN Address

STEP 4．To exercise STEP1~3 in **Policy** (Figre4-10, 4-11)

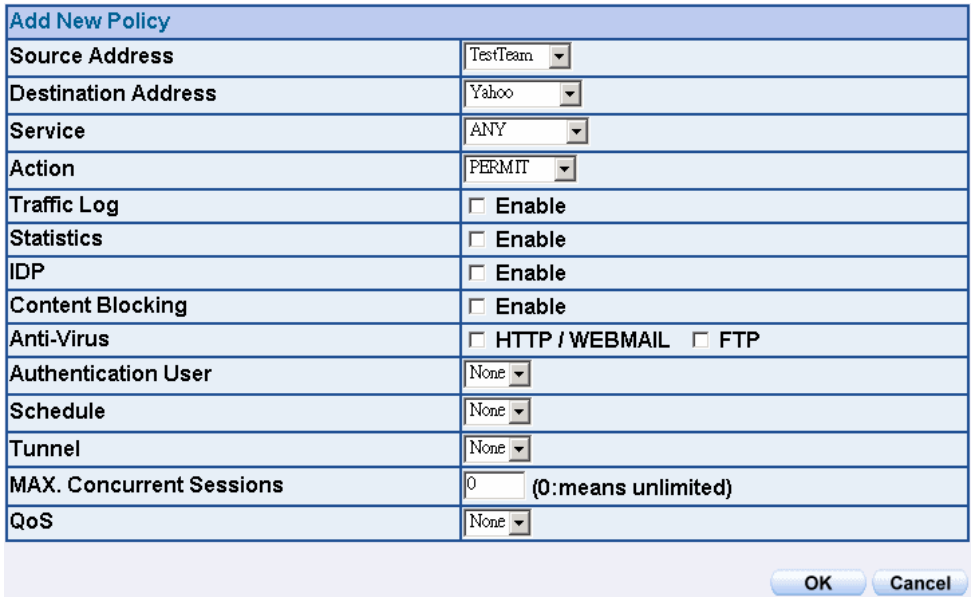


Figure4-10 To Exercise Address Setting in Policy

Figure4-11 Complete the Policy Setting

The **Address** function really take effect only if use with **Policy**.

Chapter 5

Service

TCP and UDP protocols support varieties of services, and each service consists of a TCP Port or UDP port number, such as TELNET (23), SMTP (21), SMTP (25), POP3 (110), etc. The ALL7007 includes two services: **Pre-defined Service** and **Custom Service**.

The common-use services like TCP and UDP are defined in the Pre-defined Service and cannot be modified or removed. In the custom menu, users can define other TCP port and UDP port numbers that are not in the pre-defined menu according to their needs. When defining custom services, the client port ranges from 1024 to 65535 and the server port ranges from 0 to 65535

In this chapter, network services are defined and new network services can be added. There are three sub menus under Service which are: **Pre-defined**, **Custom**, and **Group**. The Administrator can simply follow the instructions below to define the protocols and port numbers for network communication applications. Users then can connect to servers and other computers through these available network services.

How to use Service?

The Administrator can add new service group names in the **Group** option under **Service** menu, and assign desired services into that new group. Using service group the Administrator can simplify the processes of setting up control policies. For example, there are 10 different computers that want to access 5 different services on a server, such as HTTP, FTP, SMTP, POP3, and TELNET. Without the help of service groups, the Administrator needs to set up 50 (10x5) control policies, but by applying all 5 services to a single group name in the **Service** field, it takes only one control policy to achieve the same effect as the 50 control policies.

Define the required fields of Service

Pre-defined WebUI's Chart and Illustration:

Chart	Illustration
	Any Service
	TCP Service, For example：FTP, FINGER, HTTP, HTTPS , IMAP, SMTP, POP3, ANY, AOL, BGP, GOPHER, Inter Locator, IRC, L2TP, LDAP, NetMeeting, NNTP, PPTP, Real Media, RLOGIN, SSH, TCP ANY, TELNET, VDO Live, WAIS, WINFRAME, X-WINDOWS, …etc.
	UDP Service, For example：IKE, DNS, NTP, IRC, RIP, SNMP, SYSLOG, TALK, TFTP, UDP-ANY, UUCP,…etc.
	ICMP Service, Foe example：PING, TRACEROUTE…etc.

New Service Name:

- The System Manager can name the custom service.

Protocol:

- The protocol type to be used in connection for device, such as TCP and UDP mode

Client Port:

- The port number of network card of clients. (The range is 1024~65535, suggest to use the default range)

Server Port:

- The port number of custom service

We set up two Service examples in this chapter:

No	Suitable Situation	Example	Page
Ex1	**Custom**	Allow external user to communicate with internal user by VoIP through policy. (VoIP Port: TCP 1720, TCP 15325-15333, UDP 15325-15333)	**67**
Ex2	**Group**	Setting service group and restrict the specific users only can access to service resource that provided by this group through policy. (Group: HTTP, POP3, SMTP, DNS)	**71**

Allow external user to communicate with internal user by VoIP through policy. (VoIP Port: TCP 1720, TCP 15325-15333, UDP 15325-15333)

STEP 1． Set **LAN** and **LAN Group** in **Address** function as follows: (Figure5-1, 5-2)

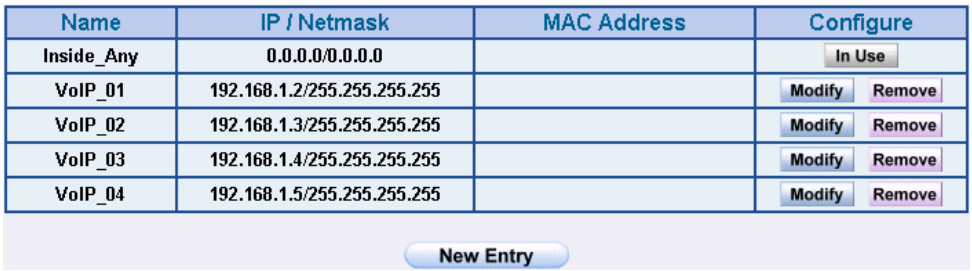


Figure5-1 Setting LAN Address Book WebUI

Figure5-2 Setting LAN Group Address Book WebUI

STEP 2． Enter the following setting in **Custom** of **Service** function:

- Click **New Entry** (Figure5-3)
- **Service Name**: Enter the preset name VoIP
- Protocol#1 select **TCP,** need not to change the **Client Port,** and set the **Server Port** as: 1720:1720
- Protocol#2 select **TCP**, need not to change the **Client Port,** and set the **Server Port** as: 15328:15333
- Protocol#3 select **UDP**, need not to change the **Client Port,** and set the **Server Port** as: 15328:15333
- Click **OK** (Figure5-4)

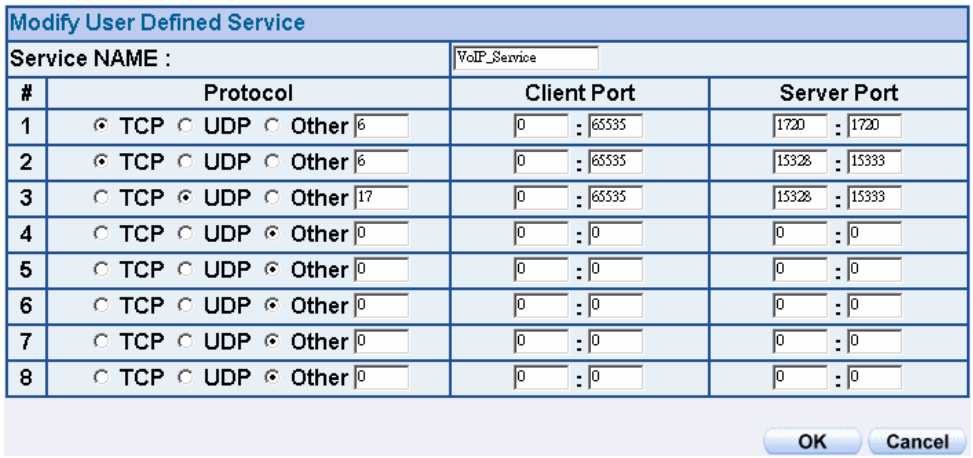


Figure5-3 Add User Define Service

Figure5-4 Complete the Setting of User Define Service of VoIP

 Under general circumstances, the range of port number of client is 1024-65535. Change the client range in **Custom** of is not suggested.

 If the port numbers that enter in the two spaces are different port number, then enable the port number under the range between the two different port numbers (for example: 15328:15333). And if the port number that enter in the two space are the same port number, then enable the port number as one (for example: 1720:1720).

STEP 3．Compare **Service** to **Virtual Server.** (Figure5-5)

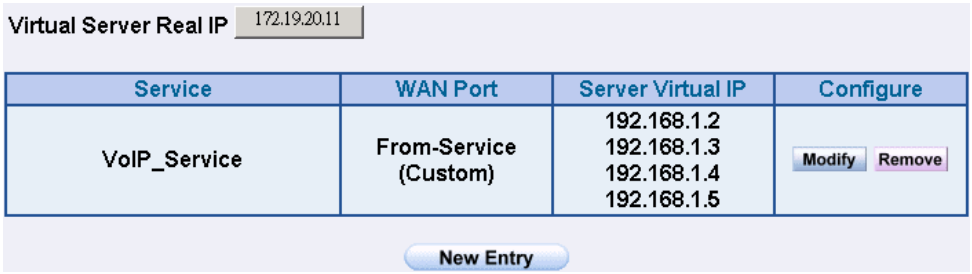


Figure5-5 Compare Service to Virtual Server

STEP 4．Compare **Virtual Server** to **Incoming Policy**. (Figure5-6)

Figure5-6 Complete the Policy for External VoIP to Connect with Internal VoIP

STEP 5．In **Outgoing Policy**, complete the setting of internal users using VoIP to connect with external network VoIP: (Figure5-7)

Figure5-7 Complete the Policy for Internal VoIP to Connect with External VoIP

Service must cooperate with **Policy** and **Virtual Server** that the function can take effect

Setting service group and restrict the specific users only can access to service resource that provided by this group through policy (Group: HTTP, POP3, SMTP, DNS)

STEP 1． Enter the following setting in **Group** of **Service**:

- Click **New Entry** (Figure 5-8)
- **Name:** Enter Main_Service
- Select HTTP, POP3, SMTP, DNS in **Available Service** and click **Add**
- Click **OK** (Figure 5-9)

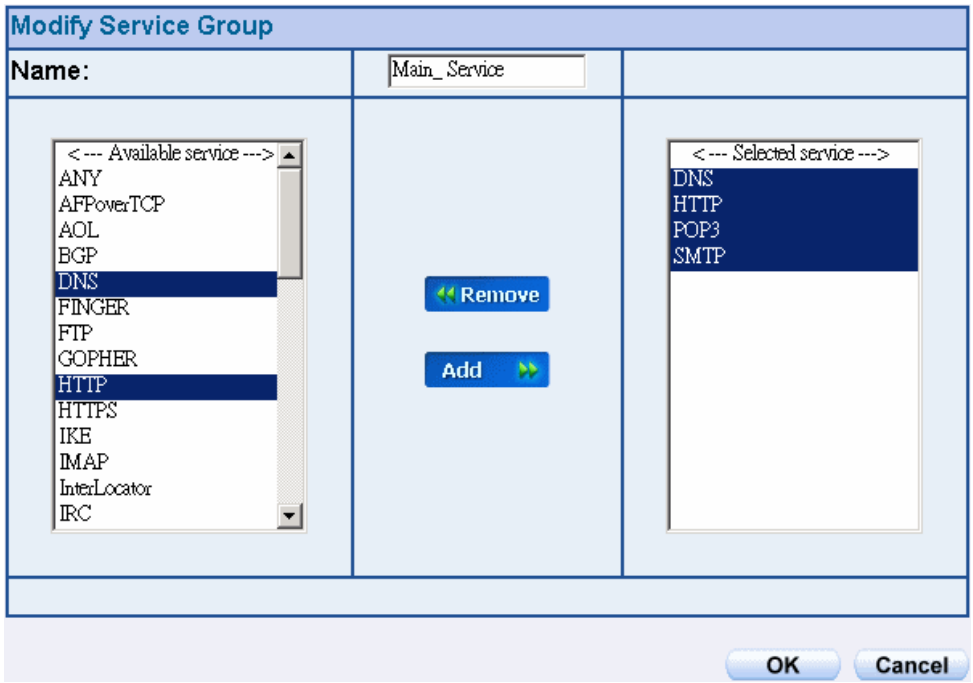


Figure5-8 Add Service Group

Figure5-9 Complete the setting of Adding Service Group

If you want to remove the service you choose from **Selected Service**, choose the service you want to delete and click **Remove**.

STEP 2 . In **LAN Group** of **Address** function, Setting an **Address Group** that can include the service of access to Internet. (Figure5-10)

Figure5-10 Setting Address Book Group

STEP 3 . Compare **Service Group** to **Outgoing Policy.** (Figure5-11)

Figure5-11 Setting Policy

Chapter 6

Schedule

In this chapter, the ALL7007 provides the Administrator to configure a schedule for policy to take effect and allow the policies to be used at those designated times. And then the Administrator can set the start time and stop time or VPN connection in **Policy** or **VPN**. By using the **Schedule** function, the Administrator can save a lot of management time and make the network system most effective.

How to use the Schedule?

The system Administrator can use schedule to set up the device to carry out the connection of Policy or VPN during several different time division automatically.

To configure the valid time periods for LAN users to access to Internet in a day

STEP 1．Enter the following in **Schedule**:

- Click **New Entry** (Figure6-1)
- Enter **Schedule Name**
- Set up the working time of Schedule for each day
- Click **OK** (Figure6-2)

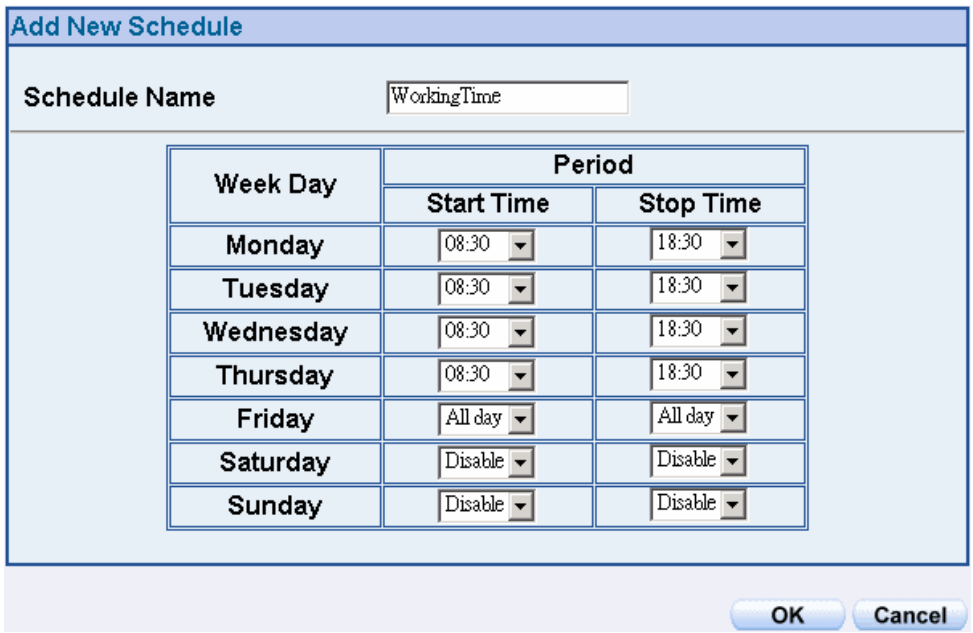


Figure6-1 Setting Schedule WebUI

Figure6-2 Complete the Setting of Schedule

STEP 2．Compare **Schedule** with **Outgoing Policy** (Figure6-3)

Figure6-3 Complete the Setting of Comparing Schedule with Policy

Chapter 7

QoS

By configuring the QoS, you can control the OutBound and InBound Upstream/Downstream Bandwidth. The administrator can configure the bandwidth according to the WAN bandwidth.

Downstream Bandwidth：To configure the Guaranteed Bandwidth and Maximum Bandwidth.

Upstream Bandwidth：To configure the Guaranteed Bandwidth and Maximum Bandwidth.

QoS Priority：To configure the priority of distributing Upstream/Downstream and unused bandwidth.

The ALL7007 configures the bandwidth by different QoS, and selects the suitable QoS through Policy to control and efficiently distribute bandwidth. The ALL7007 also makes it convenient for the administrator to make the Bandwidth to reach the best utility. (Figure7-1, 7-2)

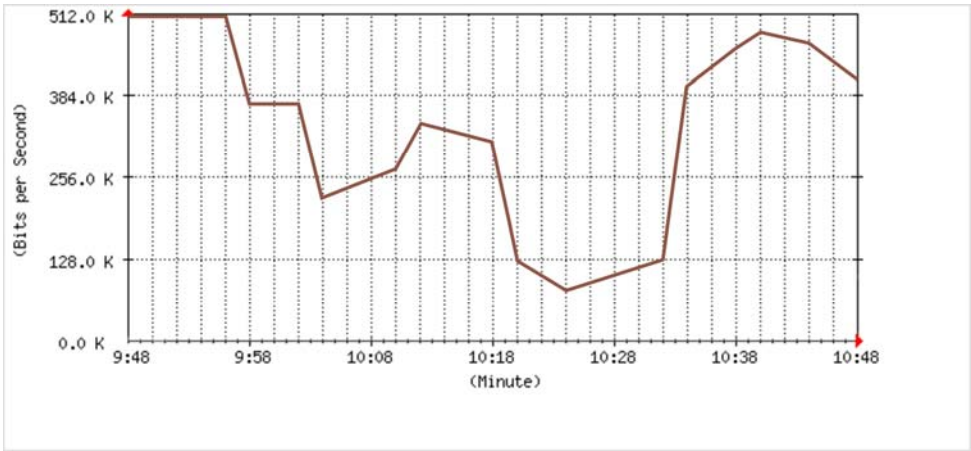


Figure7-1 the Flow Before Using QoS

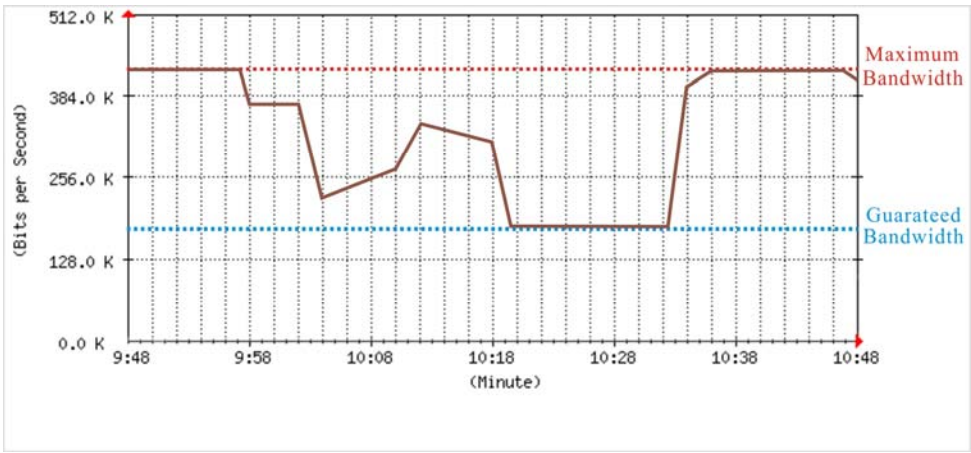


Figure7-2 the Flow After Using QoS (Max. Bandwidth: 400Kbps, Guaranteed Bandwidth: 200Kbps)

Define the required fields of QoS

WAN:

- Display WAN network

Downstream Bandwidth:

- To configure the Guaranteed Bandwidth and Maximum Bandwidth according to the bandwidth range you apply from ISP

Upstream Bandwidth:

- To configure the Guaranteed Bandwidth and Maximum Bandwidth according to the bandwidth range you apply from ISP

Priority:

- To configure the priority of distributing Upstream/Downstream and unused bandwidth.

Guaranteed Bandwidth:

- The basic bandwidth of QoS. The connection that uses the IPSec Autokey of VPN or Policy will preserve the basic bandwidth.

Maximum Bandwidth:

- The maximum bandwidth of QoS. The connection that uses the IPSec Autokey of VPN or Policy, which bandwidth will not exceed the amount you set.

We set up one QoS examples in this chapter:

No	Suitable Situation	Example	Page
Ex1	**QoS**	Setting a policy that can restrict the user's downstream and upstream bandwidth.	**81**

Setting a policy that can restrict the user's downstream and upstream bandwidth

STEP 1 . Enter the following settings in **QoS**:

- Click **New Entry** (Figure7-3)
- **Name:** The name of the QoS you want to configure.
- Enter the bandwidth in WAN.
- Select **QoS Priority**
- Click **OK** (Figure7-4)

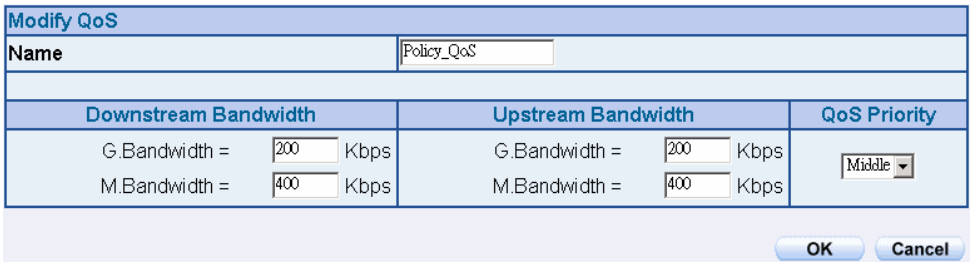


Figure7-3 QoS WebUI Setting

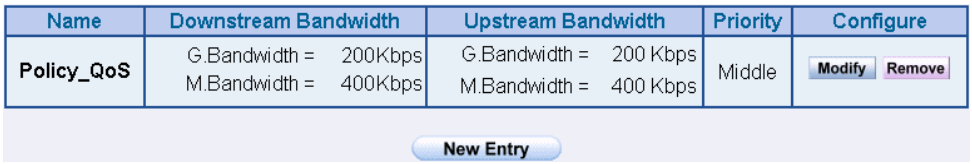


Figure7-4 Complete the QoS Setting

STEP 2．Use the QoS that set by STEP1 in **Outgoing Policy.** (Figure7-5, 7-6)

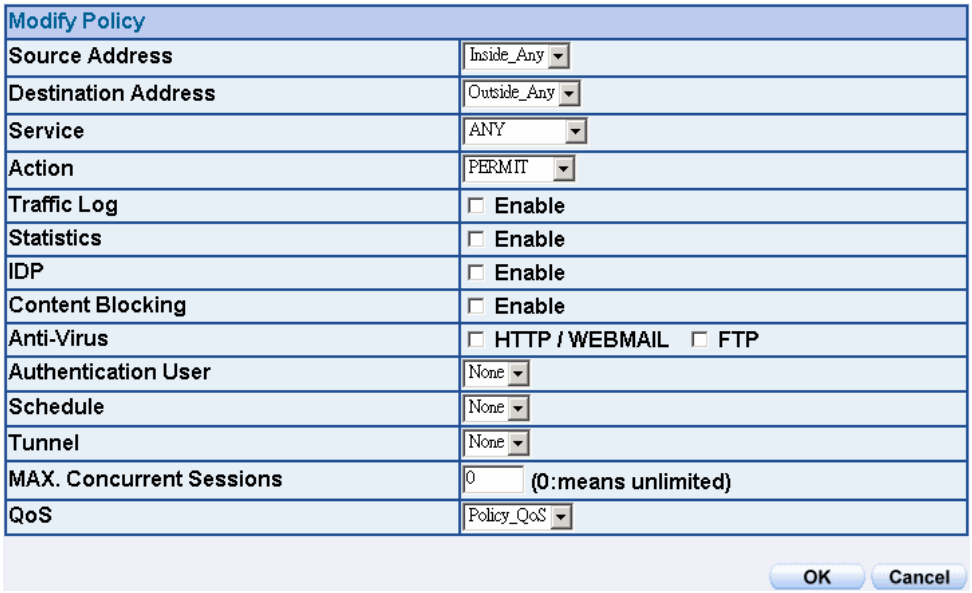


Figure7-5 Setting the QoS in Policy

Figure7-6 Complete Policy Setting

Chapter 8

Authentication

By configuring the Authentication, you can control the user's (Internal user or remote user who connect by VPN and IPSec) connection authority. The user has to pass the authentication to access to Internet.

The ALL7007 configures the authentication of LAN's user by setting account and password to identify the privilege. Or by the RADIUS that set by yourself. The system administrator can use this two mode to manage the Authentication.

Define the required fields of Authentication

Authentication Management

- Provide the Administrator the port number and valid time to setup ALL7007 authentication. (Have to setup the Authentication first)
  - **Authentication Port:** The internal user have to pass the authentication to access to the Internet when enable ALL7007.
  - **Re-Login if Idle:** When the internal user access to Internet, can setup the idle time after passing authentication. If idle time exceeds the time you setup, the authentication will be invalid. The default value is 30 minutes.
  - **URL to redirect when authentication succeed:** The user who had passes Authentication have to connect to the specific website. (It will connect to the website directly which the user want to login) The default value is blank.
  - **Messages to display when user login:** It will display the login message in the authentication WebUI. (Support HTML) The default value is blank (display no message in authentication WebUI)
    - Add the following setting in this function: (Figure8-1)

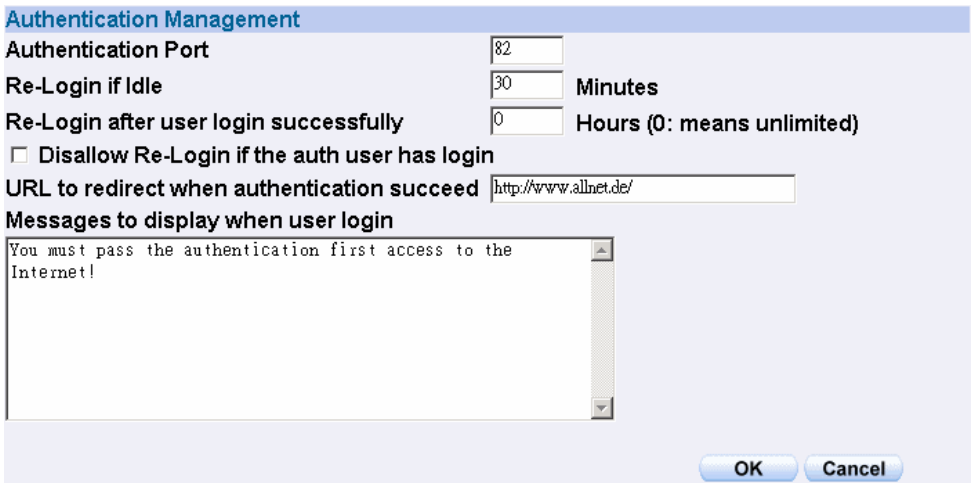


Figure8-1 Authentication Setting WebUI

- When the user connect to external network by Authentication, the following page will be displayed: (Figure8-2)

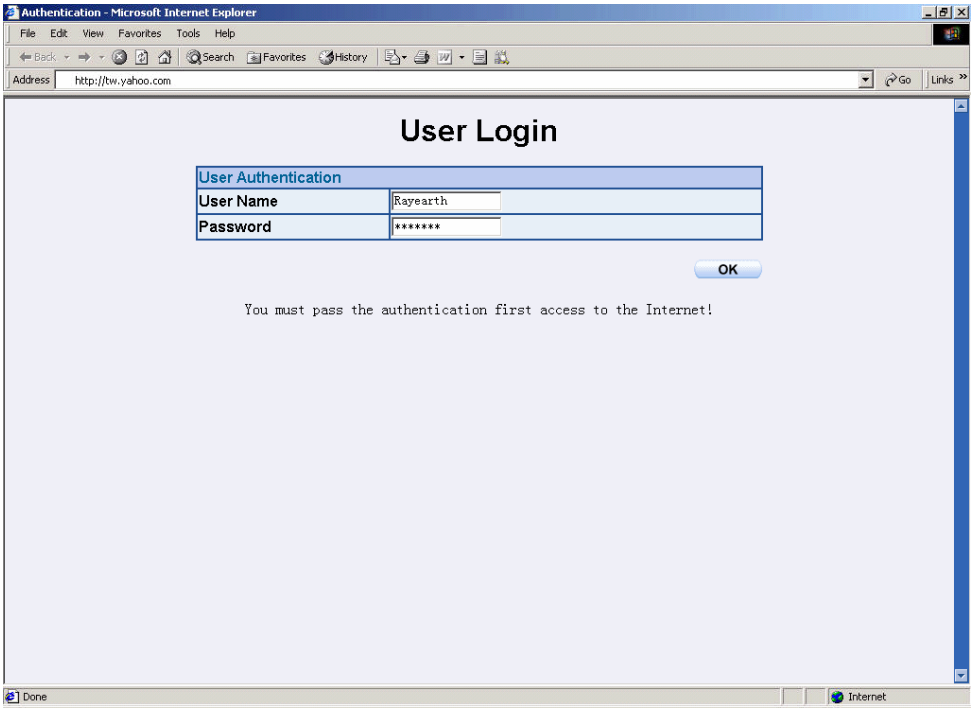


Figure8-2 Authentication Login WebUI

- It will connect to the appointed website after passing Authentication: (Figure8-3)

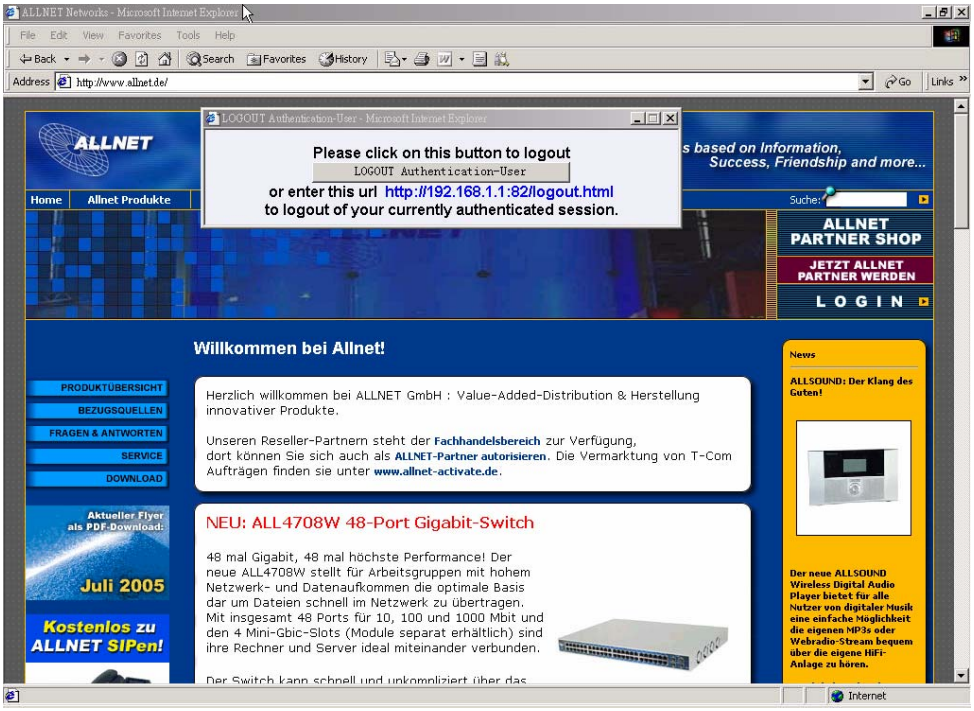


Figure8-3 Connecting to the Appointed Website After Authentication

If the user ask for authentication positively, can enter the LAN IP by the Authentication port number. And then the Authentication WebUI will be displayed.

Auth-User Name:

- The user account for Authentication you want to set.

Password:

- The password when setting up Authentication.

Confirm Password:

- Enter the password that correspond to Password

Shared Secret:

- The password for authentication of the ALL7007 and RADIUS Server

802.1xRADIUS:

- The Authentication to RADIUS Server of wireless network

We set up four Authentication examples in this chapter:

No	Suitable Situation	Example	Page
Ex1	**Auth User**	Setting a specific user to connect with external network only before passing the authentication of policy. （Adopt the built-in Auth User Function）	**89**
Ex2	**RADIUS**	Setting the users to connect with external network only before passing the authentication of policy. (Adopt the external RADIUS Server built-in Windows 2003 Server Authentication)	**93**
Ex3	**POP3**	Setting the users to connect with external network only before passing the authentication of policy. (Adopt the external POP3 Server Authentication)	**114**

Setting a specific user to connect with external network only before passing the authentication of policy. (Adopt the built-in Auth User Function)

STEP 1．Setting the user's Address in **LAN** of **Address** function. (Figure8-4)

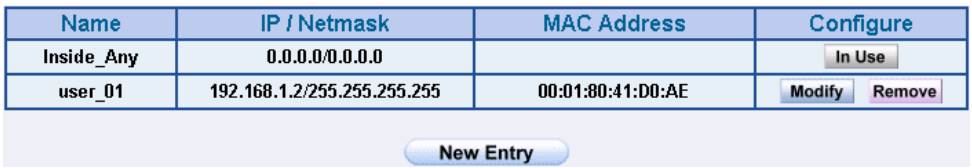


Figure8-4 LAN Address Setting

To use Authentication, the DNS Server of the user's network card must be the same as the LAN Interface Address of ALL7007.

STEP 2．Enter the following setting in **Auth** of **Authentication** function:

- Click **New User**
- **Auth-User Name:** Enter guest
- **Password:** Enter 1234
- **Confirm Password:** Enter 1234
- Click **OK**
- Complete Authentication Setting (Figure8-5)

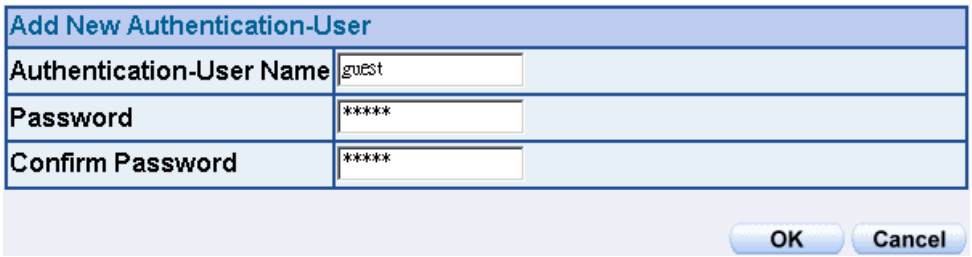


Figure8-5 Add New Auth-User WebUI

STEP 3 . Add a policy in **Outgoing Policy** and input the Address and Authentication of STEP1, 2 (Figure8-6, 8-7)

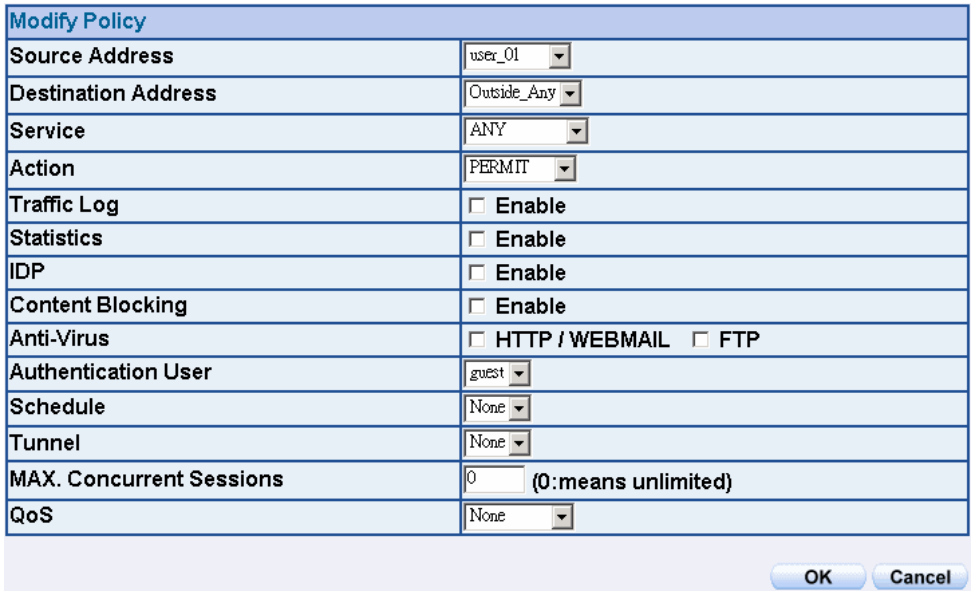


Figure8-6 Auth-User Policy Setting

Figure8-7 Complete the Policy Setting of Auth-User

STEP 4． When user_01 is going to access to Internet through browser, the authentication UI will appear in Browser. After entering the correct user name and password, click **OK** to access to Internet. (Figure8-8)

STEP 5． If the user does not need to access to Internet anymore and is going to logout, he/she can click **LOGOUT Auth-User** to logout the system. Or enter the Logout Authentication WebUI (http:// LAN Interface: Authentication port number/ logout.html) to logout (Figure8-9)

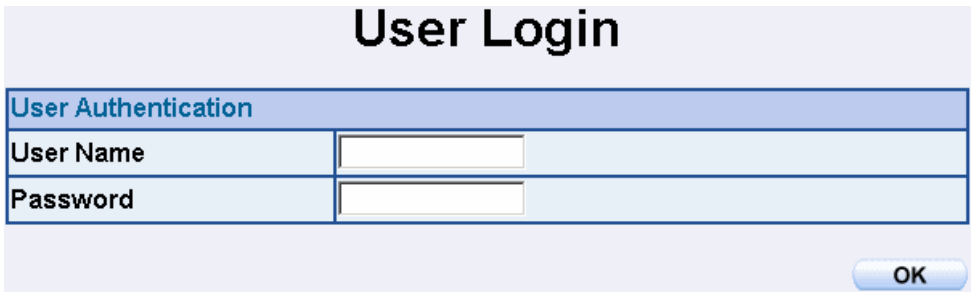


Figure8-8 Access to Internet through Authentication WebUI

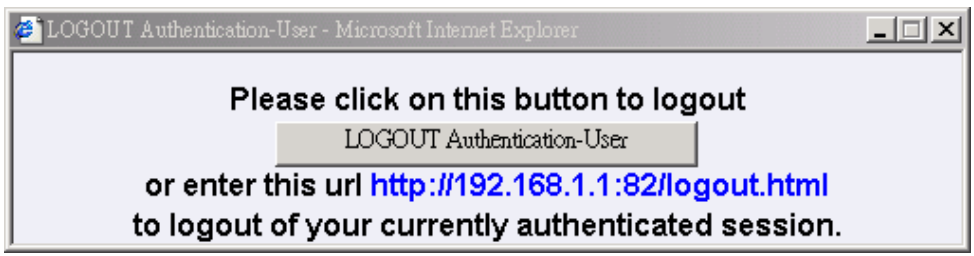


Figure8-9 Logout Auth-User WebUI

Setting the users to connect with external network only before passing the authentication of policy. (Adopt external RADIUS Server built-in Windows 2003 Server Authentication)

※ Windows 2003 RADIUS Server Setting Way

STEP 1． Click [Start] → [Control Panel] → [Add/Remove Program], Choose [Add/Remove Windows] and then you can see [Window Component Wizard]

STEP 2． Choose **Networking Services** and click **Details** (Figure8-10)

Figure8-10 Add Windows Components WebUI

STEP 3．Choose **Internet Authentication Service (IAS)** (Figure8-11)

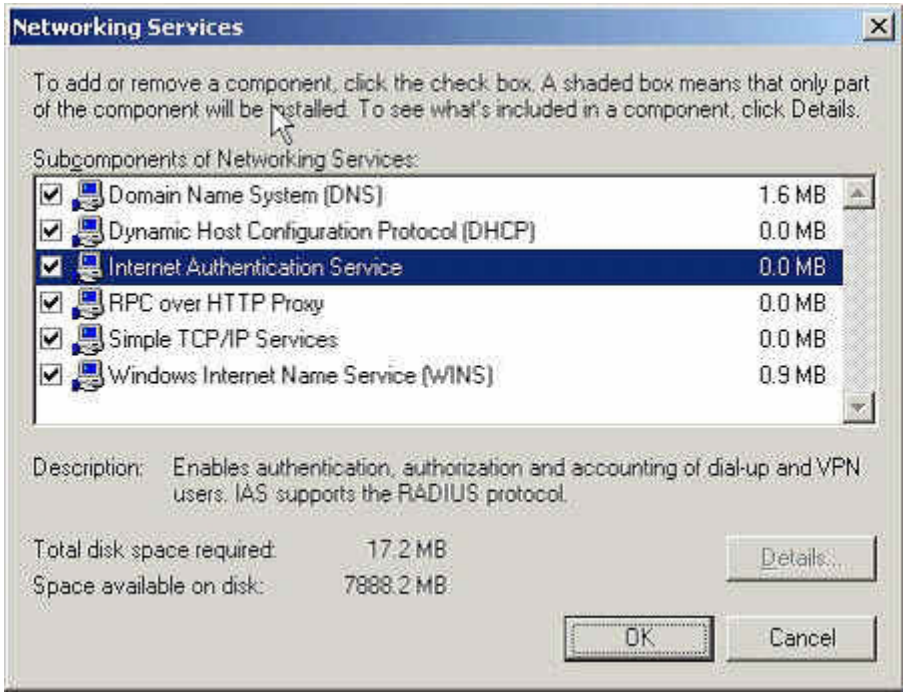


Figure8-11 Add New Internet Authentication Services WebUI

STEP 4 . Click [Start] → [Control Panel] → [Administrative Tools], Choose [Internet Authentication Service] (Figure8-12)

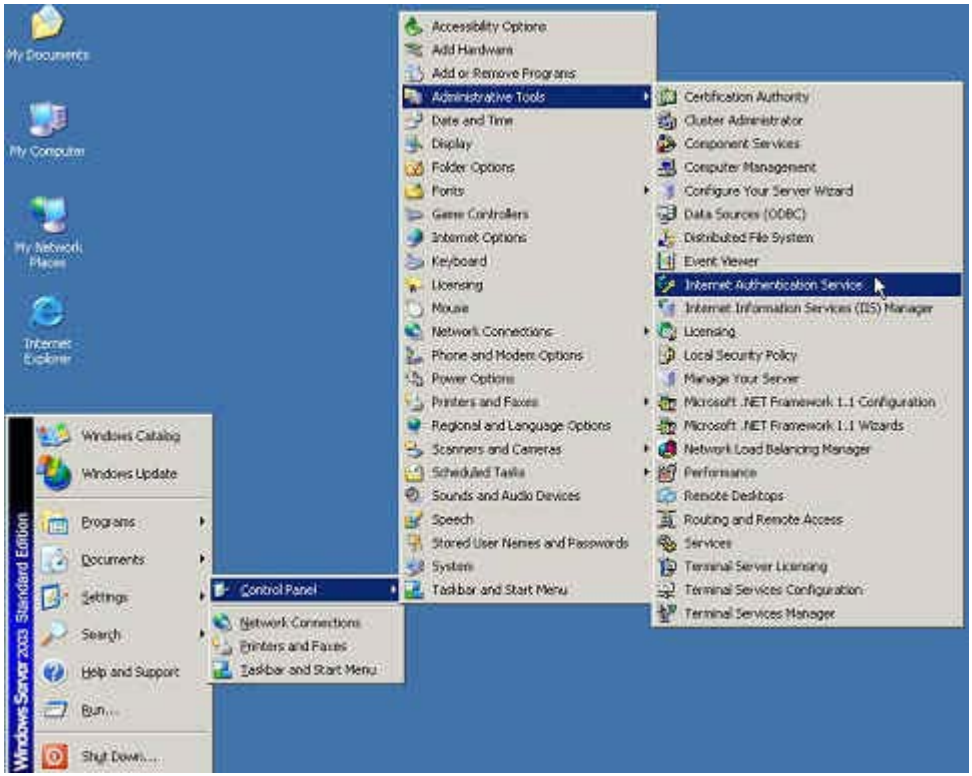


Figure8-12 Choose Internet Authentication Service

STEP 5 . Press right button on **RADIUS Clients** and choose **New RADIUS Client** (Figure8-13)

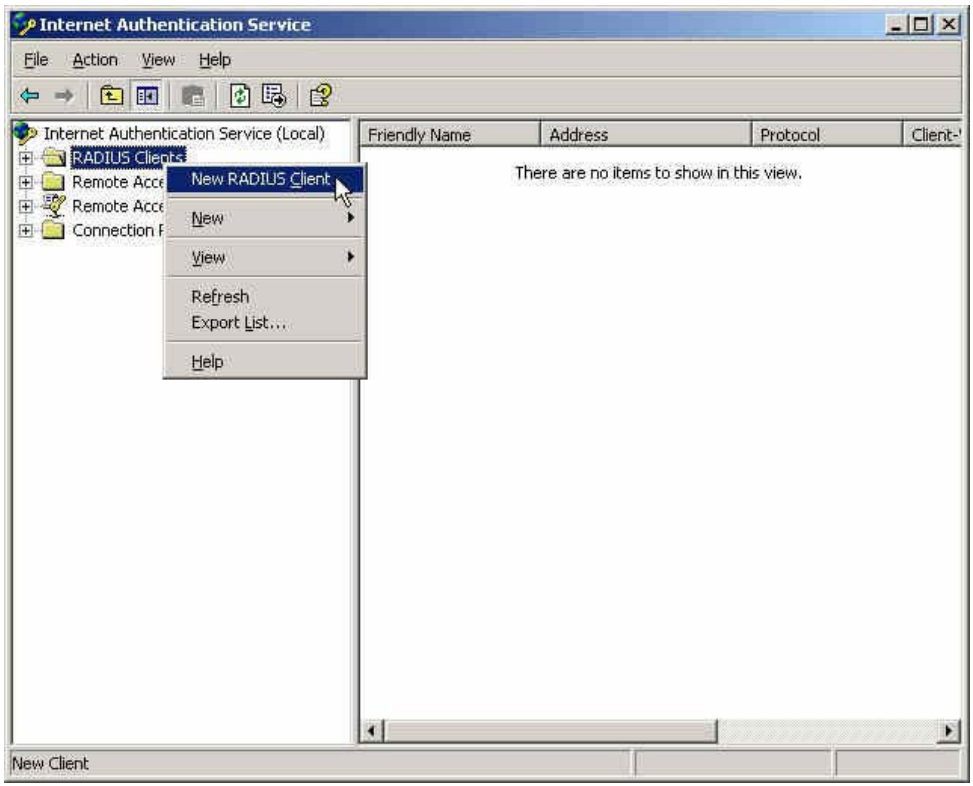


Figure8-13 Add New RADIUS Client

STEP 6 . Enter the **Name** and **Client Address** (also the ALL7007 IP) (Figure8-14)

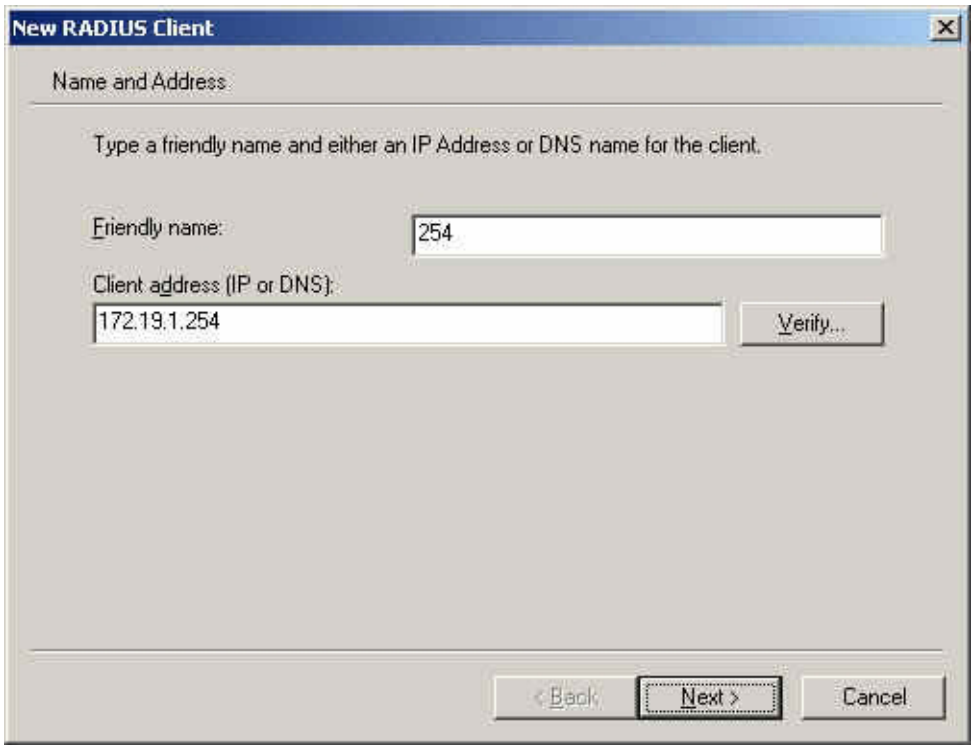


Figure8-14 Add New RADIUS Client Name and Address

STEP 7 . Choose **RADIUS Standard;** enter **Shared Secret** and **Confirm Shared Secret**. (The settings must be the same as RADIUS of ALL7007) (Figure8-15)

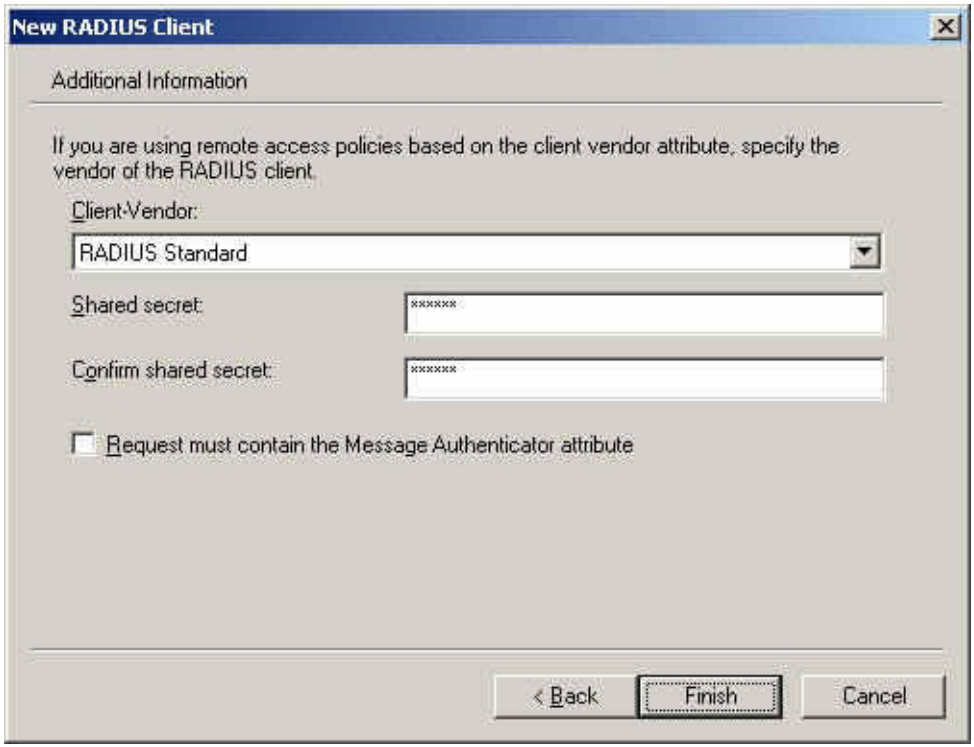


Figure8-15 Add New RADIUS Client and Password WebUI

STEP 8 . Press the right button on **Remote Access Policies** and select to add **New Remote Access Policy**. (Figure8-16)

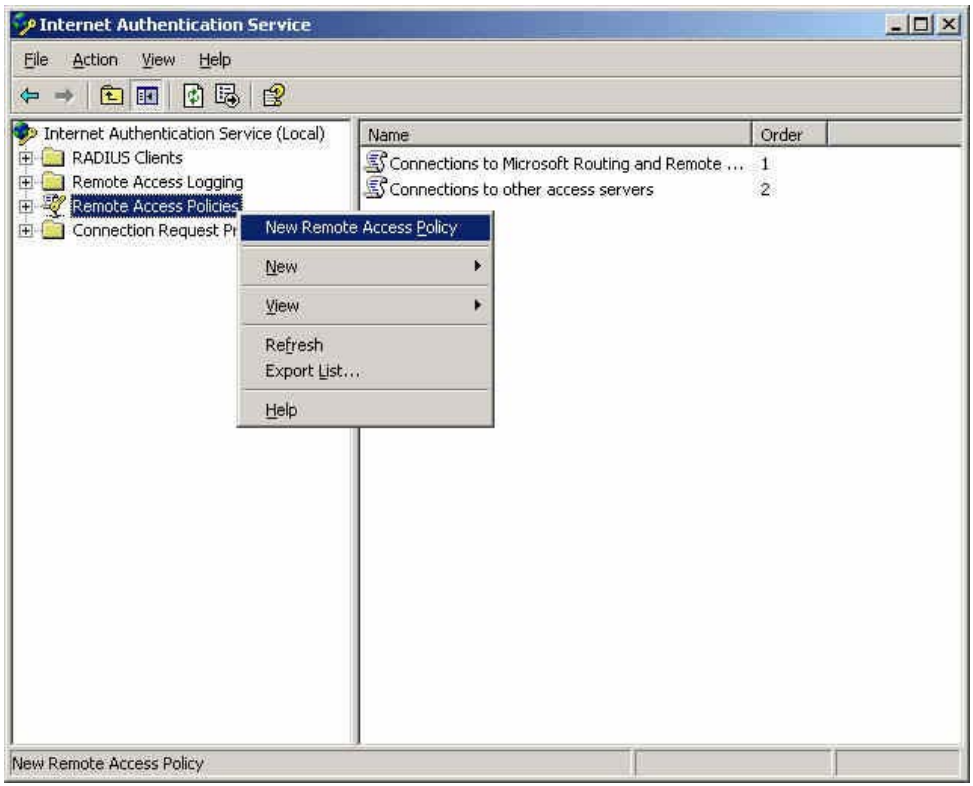


Figure8-16 Add New Remote Access Policy

STEP 9 . Select **Use the wizard to set up a typical policy for a common scenario** and enter the **Policy name**. (Figure8-17)

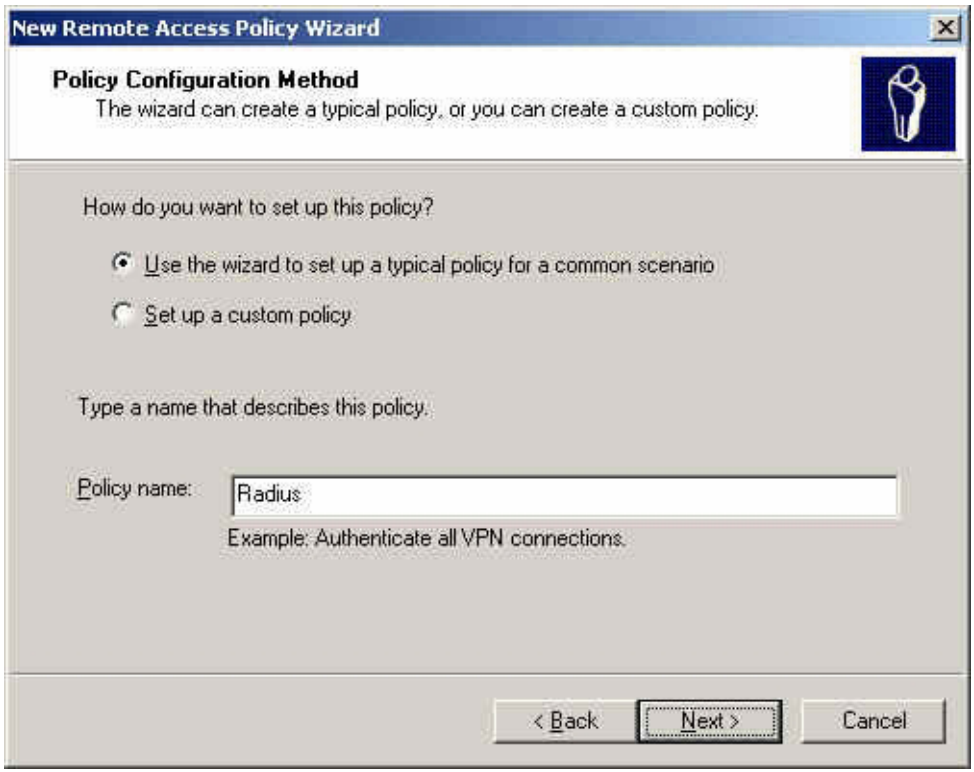


Figure8-17 Add Remote Access Policy and Name

STEP 10 . Select **Ethernet** (Figure8-18)

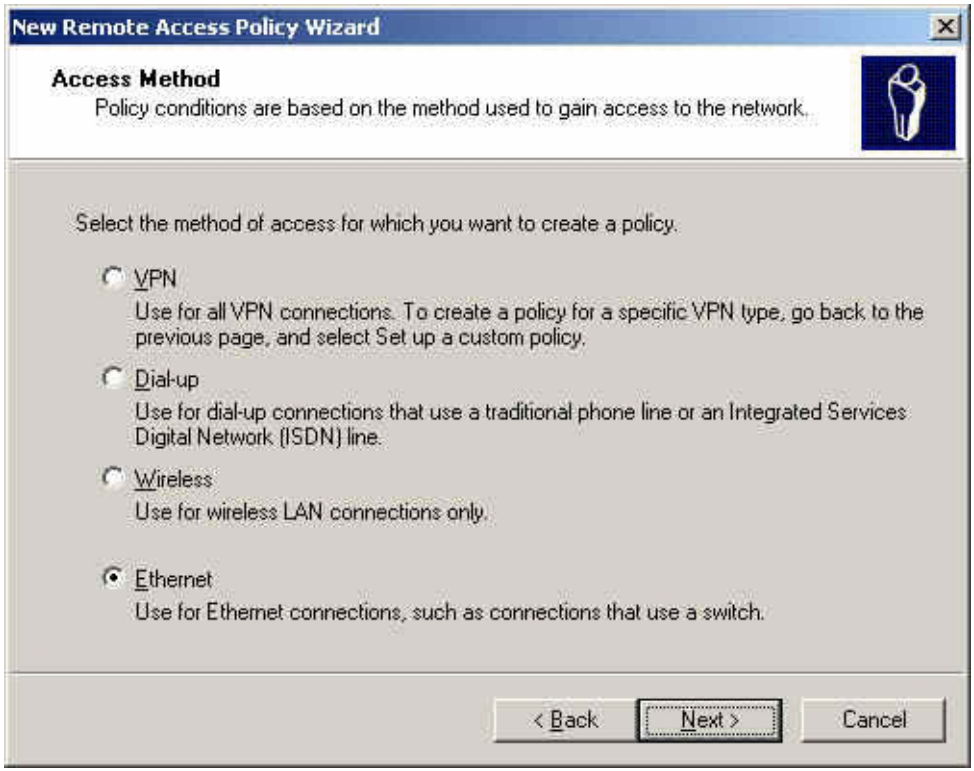


Figure8-18 Add New Remote Access Policy Method

STEP 11 . Choose **User** (Figure8-19)

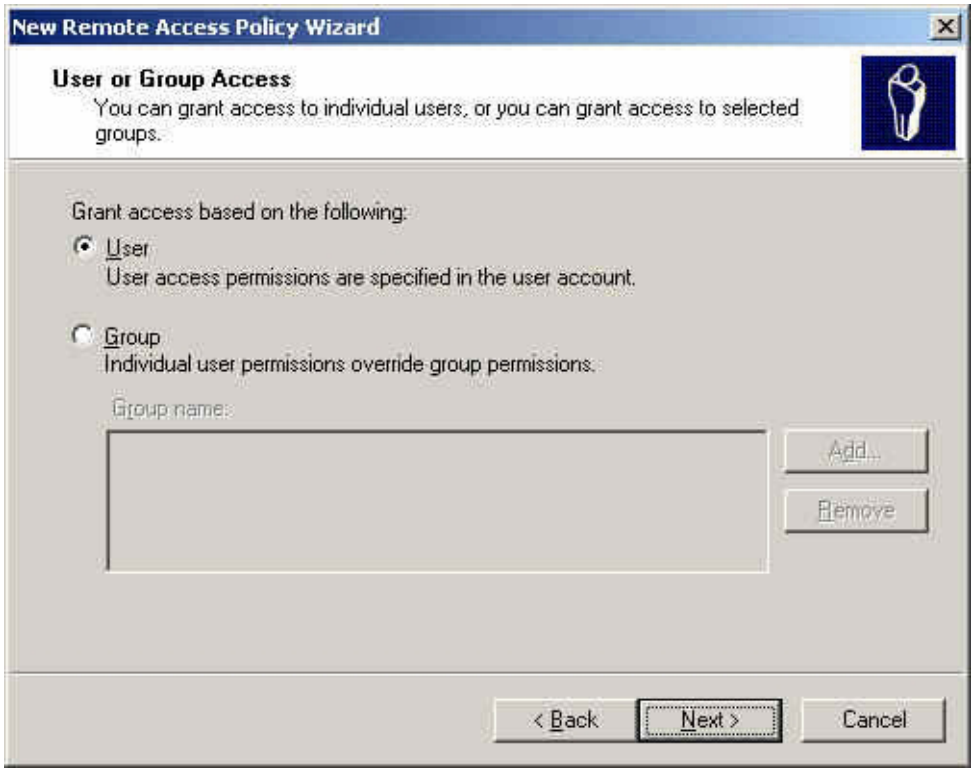


Figure8-19 Add New Remote Access Policy of User or Group Access

STEP 12．Select **MD5-Challenge** (Figure8-20)

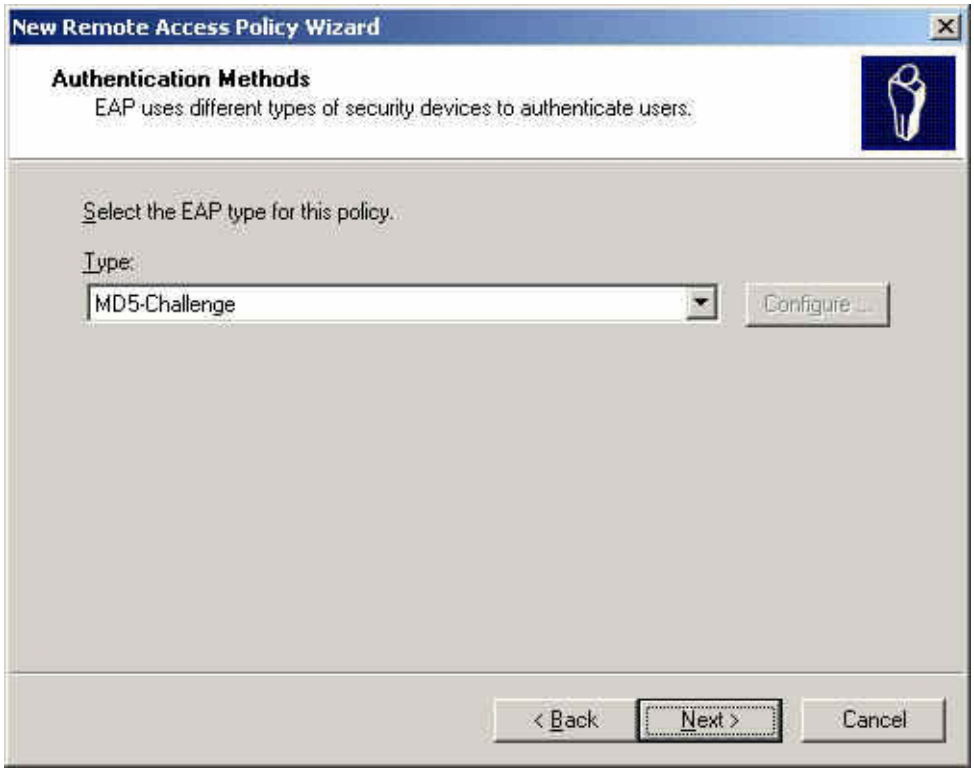


Figure8-20 Authentication Methods of Adding New Remote Access Policy

STEP 13 . Press the right button on **Radius** and choose **Properties**. (Figure8-21)

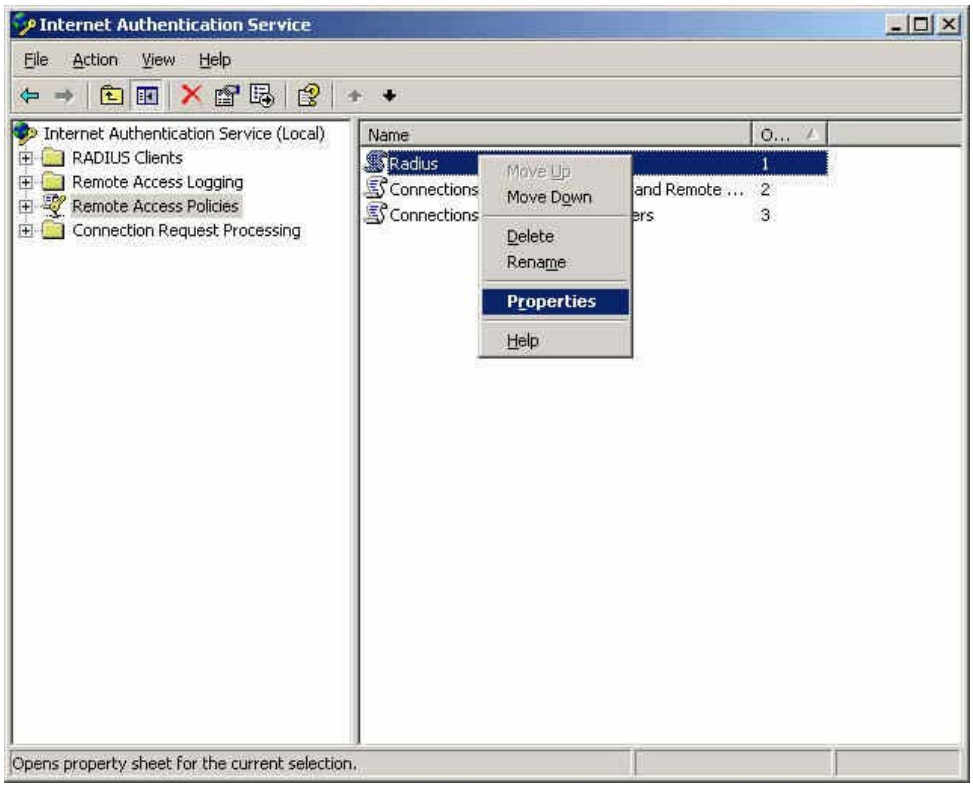


Figure8-21 Internet Authentication Service Setting WebUI

STEP 14 . Select **Grant remote access permission** and **Remove** the original setting, click **Add** to add a new one. (Figure8-22)

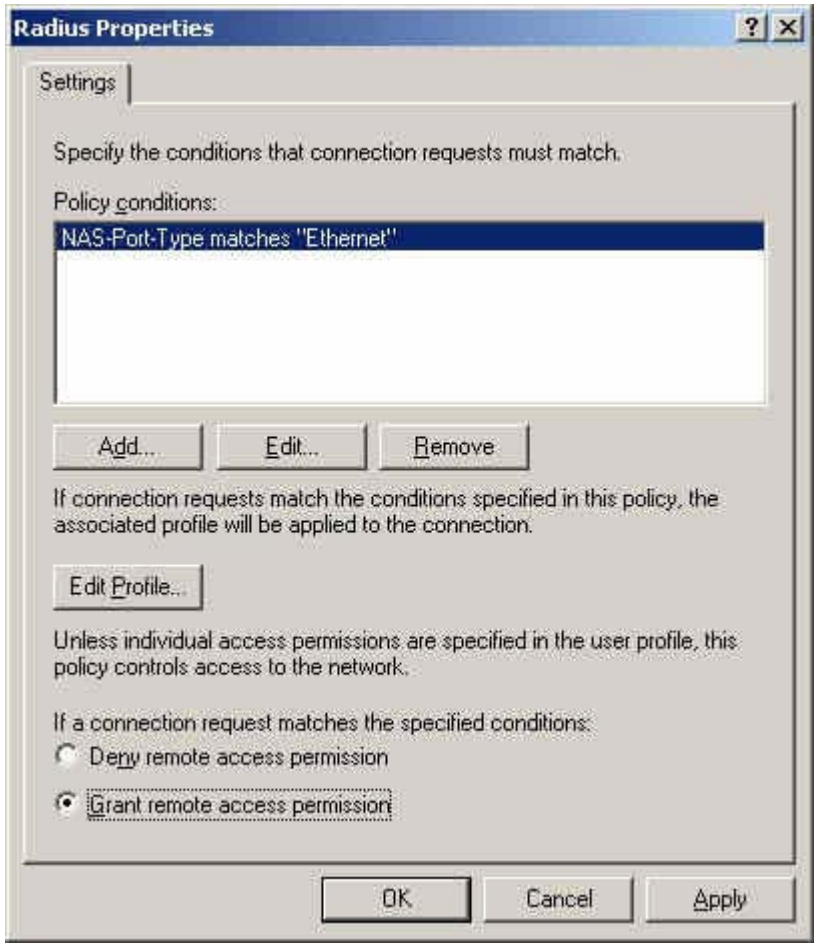


Figure8-22 RADIUS Properties Settings

STEP 15 . Add **Service-Type** (Figure8-23)

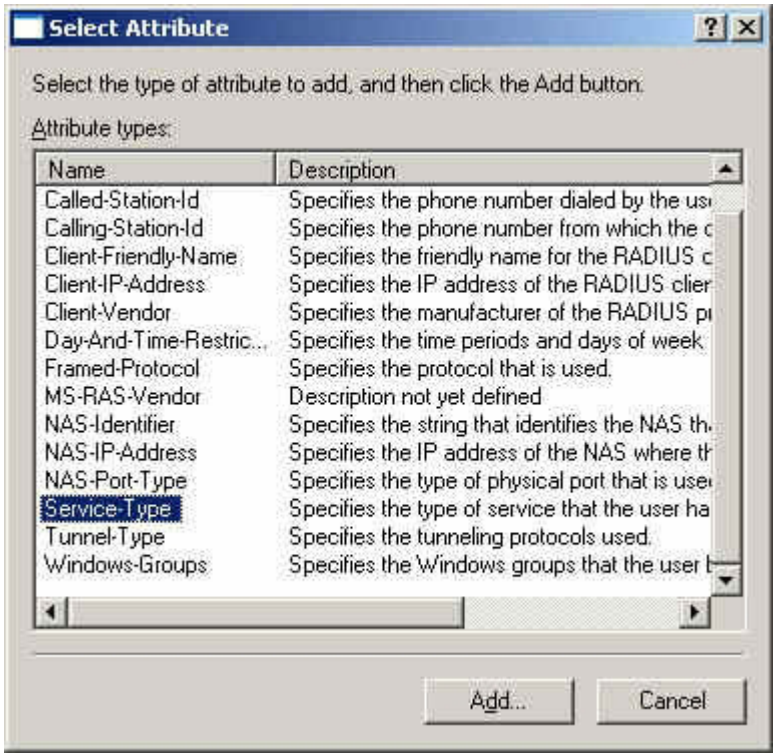


Figure8-23 Add New RADIUS Attribute

STEP 16． Add **Authenticate Only** from the left side. (Figure8-24)

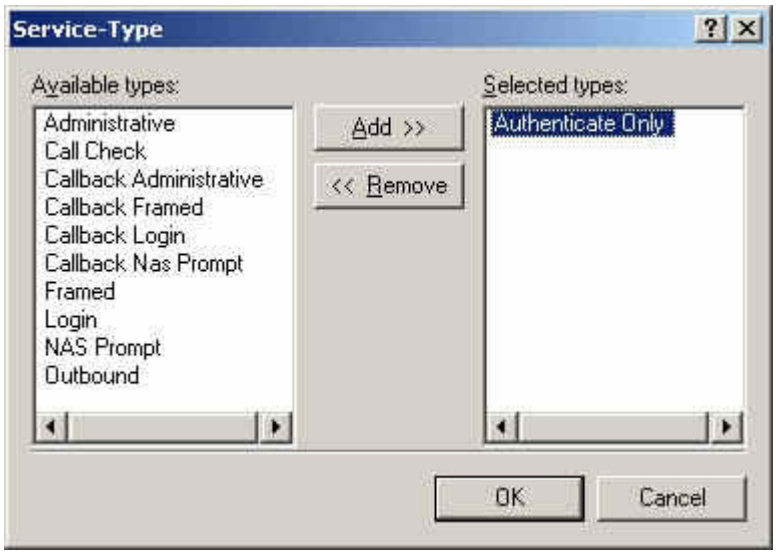


Figure8-24 Add RADIUS Service-Type

STEP 17 . Press **Edit Profile** button and select **Authentication** and select **Unencrypted authentication (PAP, SPAP)** (Figure8-25)

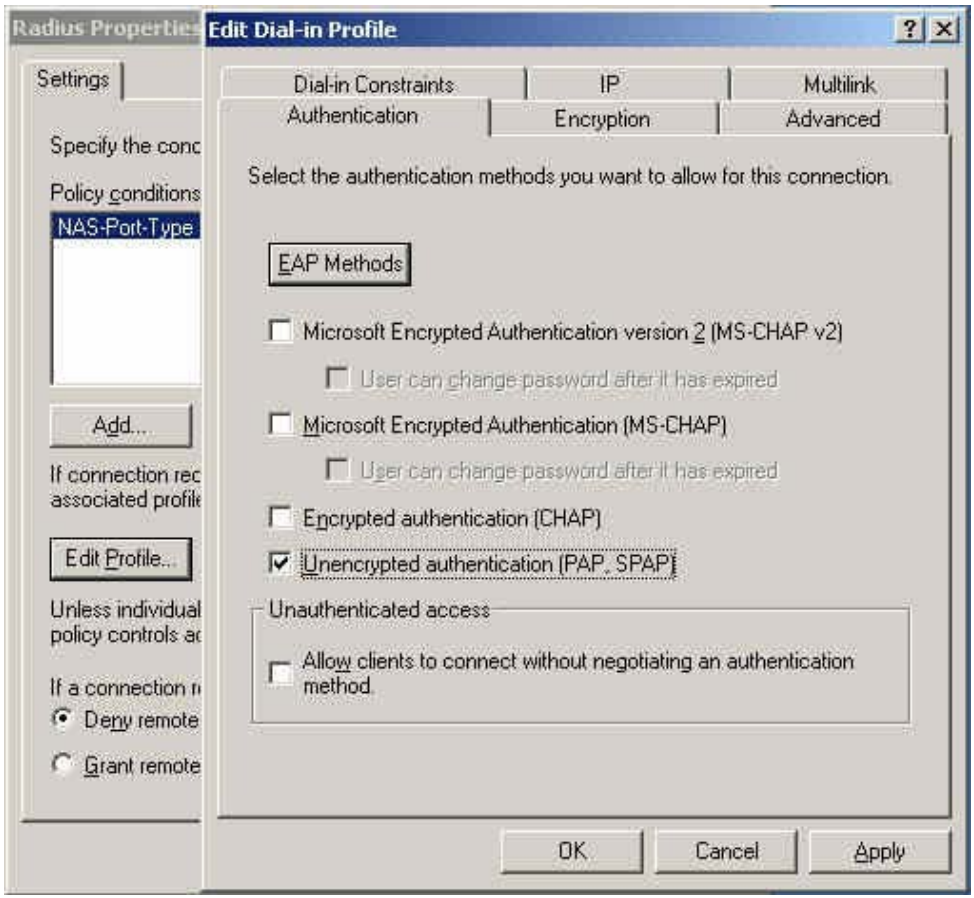


Figure8-25 Edit DADIUS Dial-in Property

STEP 18 . Add Auth User. Click [Start] → [Setting]→ [Control Panel] → [Administrative Tools], Choose [Computer Management] (Figure8-26)

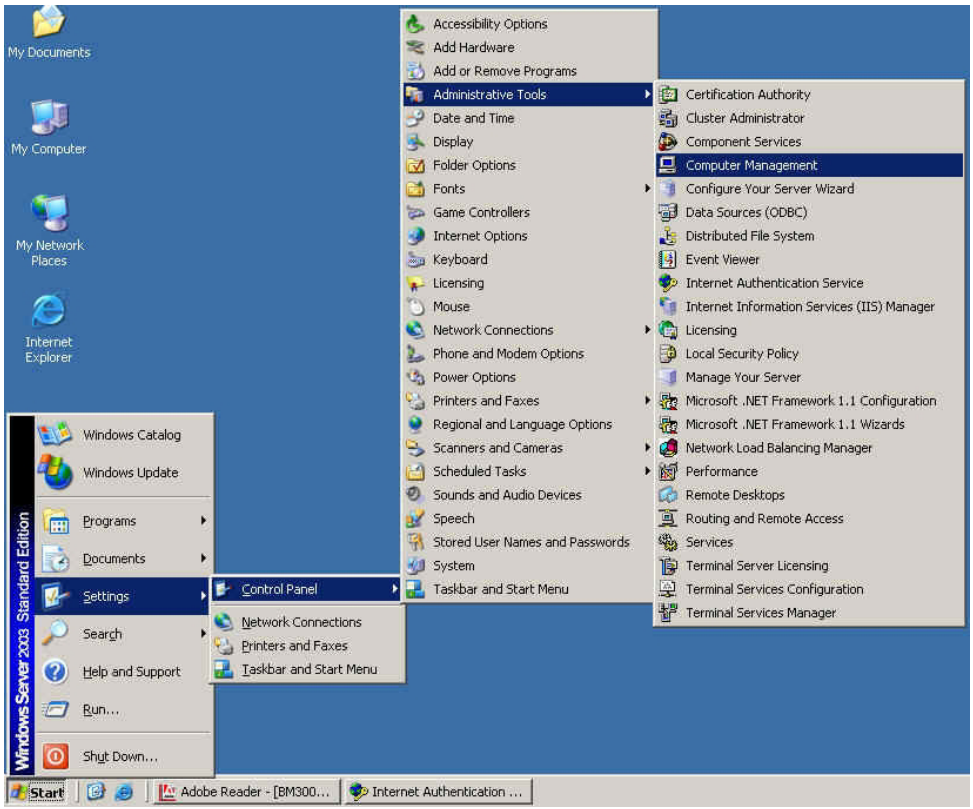


Figure8-26 Enter Computer Management

STEP 19 . Press the right button on the **Users** and select **New User**. (Figure8-27)

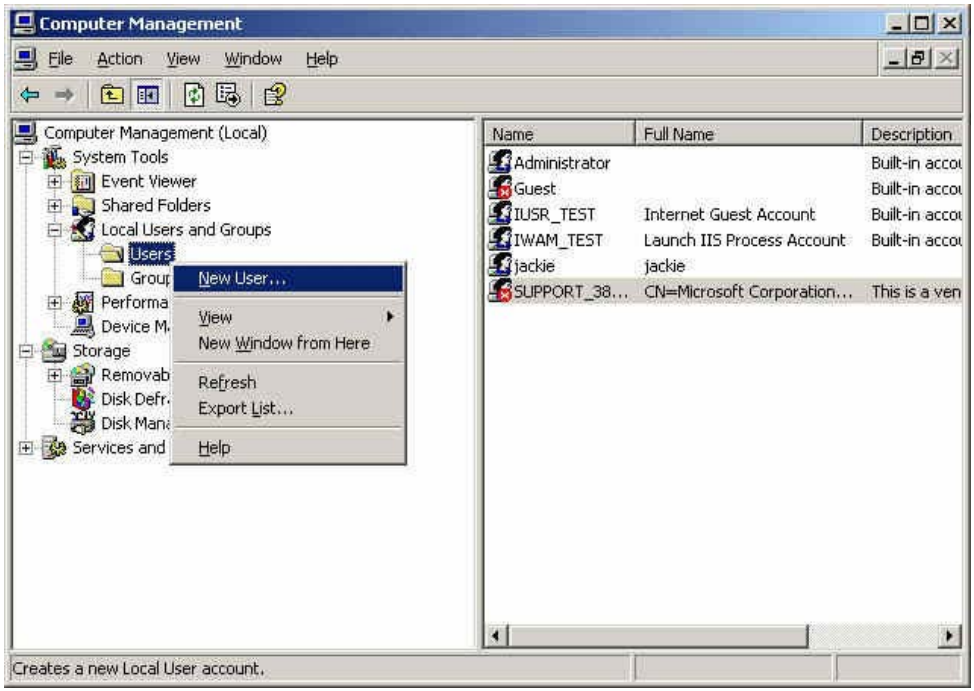


Figure8-27 Add New User

STEP 20 . Complete the setting of Windows 2003 RADIUS Server.

STEP 21．Enter **IP, Port** and **Shared Secret** (The setting must be the same as RADIUS Server) in **RADIUS** of **Authentication** (Figure8-28)

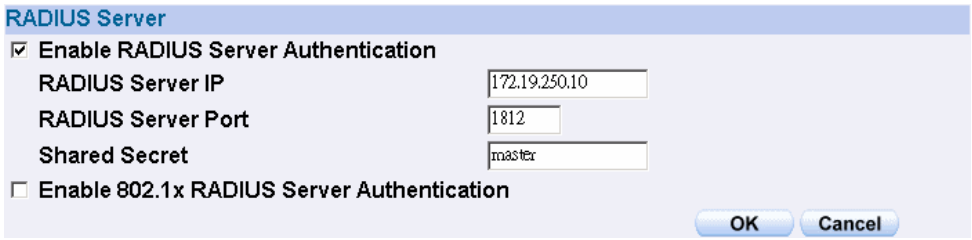


Figure8-28 Setting RADIUS Server

STEP 22．Add **Radius User** in **Auth User Group** of **Authentication**. (Figure8-29)

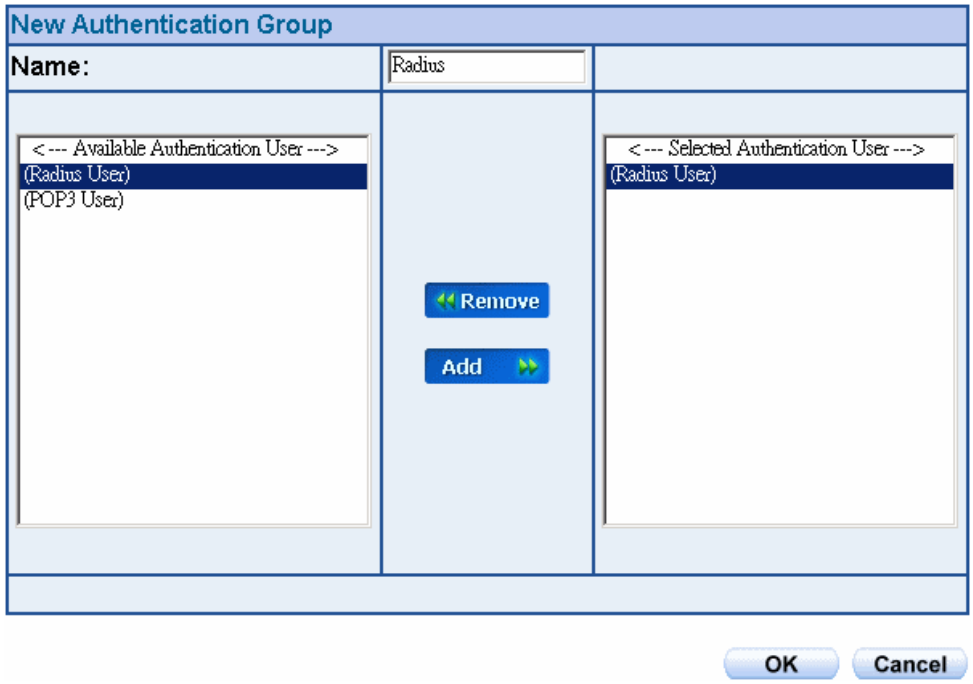


Figure8-29 Add New RADIUS Auth Group

STEP 23．Add a policy of **Auth User Group** (RADIUS) that set by **STEP 22** in **Outgoing Policy.** (Figure8-30, 8-31)

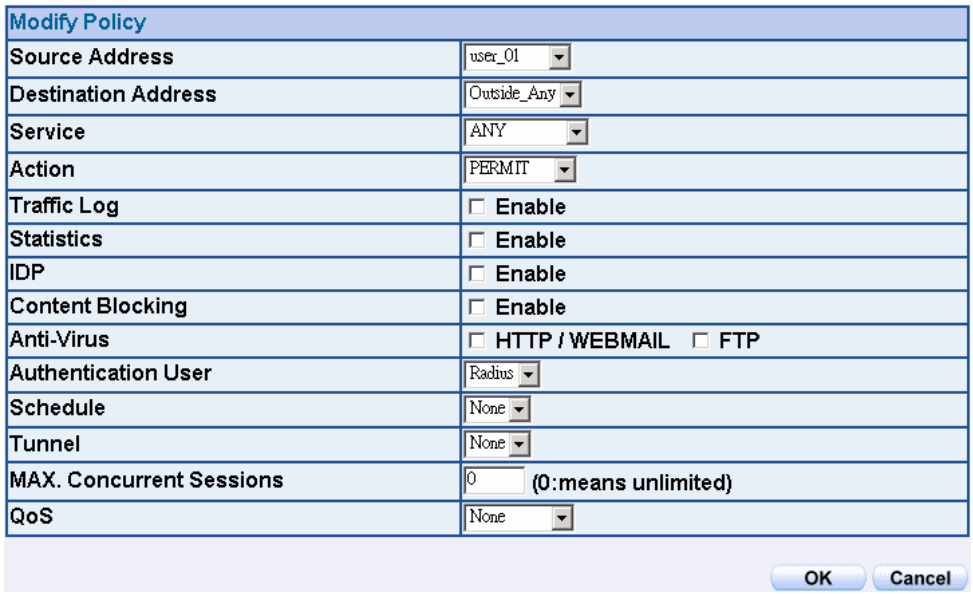


Figure8-30 RADIUS Authentication Policy Setting WebUI

Figure8-31 Complete RADIUS Authentication of Policy Setting

STEP 24 . When the user is going to connect with Internet through browser, the Authentication windows will appear in browser. After entering the correct account and password can connect with Internet through ALL7007. (Figure8-32)

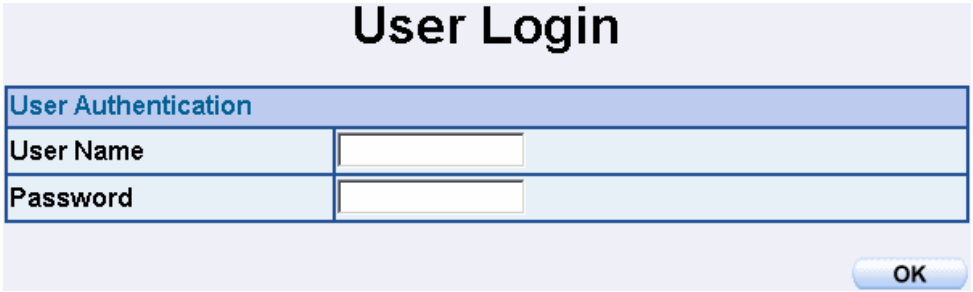


Figure8-32 Access to Internet by Authentication WebUI

Setting the users to connect with external network only before passing the authentication of policy. (Adopt the external POP3 Server Authentication)

STEP 1 . Enter the following setting in **POP3** in **Authentication** (Figure8-33)

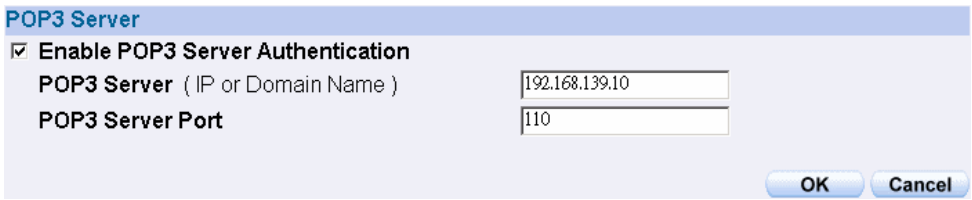


Figure8-33 POP3 Server Setting WebUI

STEP 2 . Add POP3 User in **New Authentication Group**. (Figure8-34)

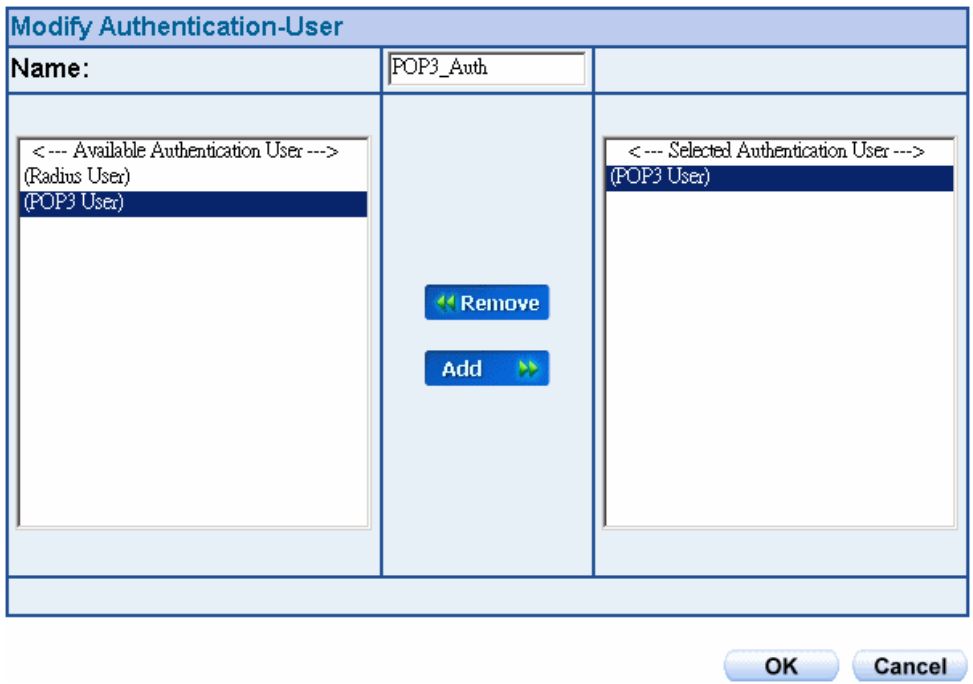


Figure8-34 Add New POP3 User WebUI

STEP 3 . Add a policy of **Authentication User Group** that set in STEP2 in **Outgoing Policy**. (Figure8-35, 8-36)

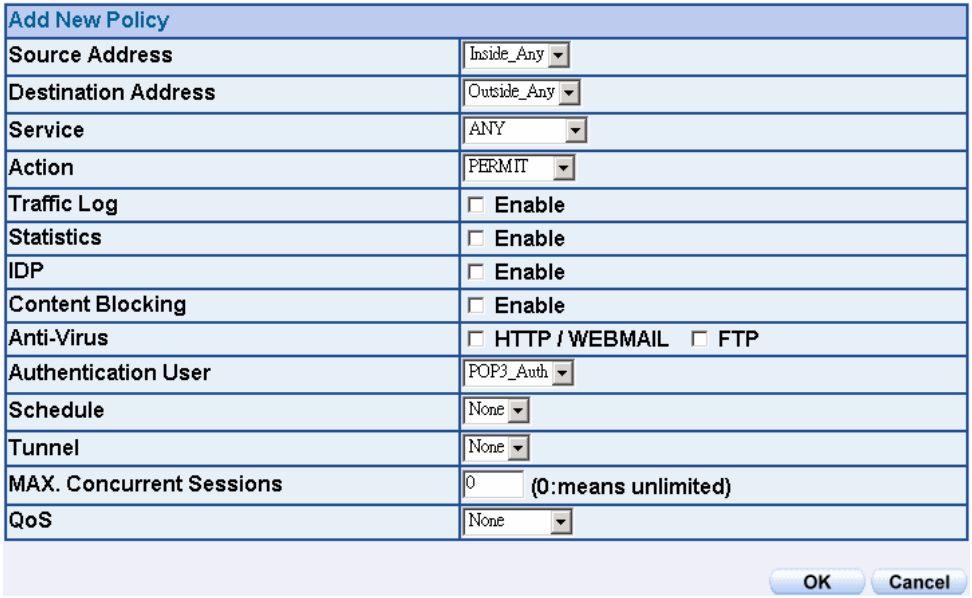


Figure8-35 POP3 Server Authentication Policy Setting

Figure8-36 Complete POP3 Server Authentication Policy Setting

STEP 4 . When the user is going to access to Internet by browser, the Authentication WebUI will display in the browser. After entering correct account and password, click on **OK** and then can access to Internet by ALL7007: (Figure8-37)

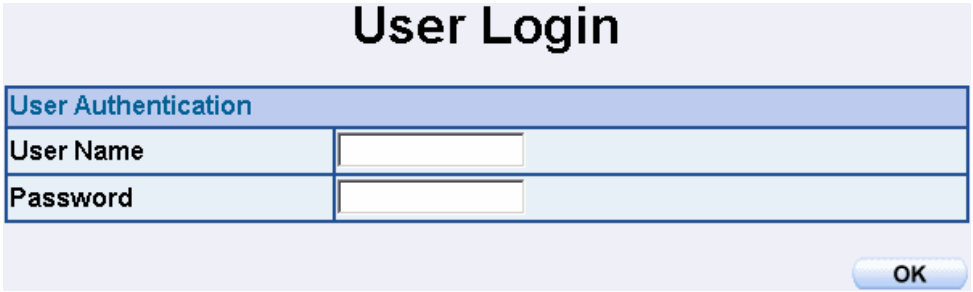


Figure8-37 the Authentication WebUI

Chapter 9

Content Blocking

Content Blocking includes「URL」,「Script」,「P2P」,「IM」,「Download」.

【URL Blocking】: The administrator can set up to “Allow” or “Restrict” entering the specific website by complete domain name, key words, and metacharacter (～and＊).

【Script Blocking】: The access authority of Popup, ActiveX, Java, Cookies

【P2P Blocking】: The authority of sending files by eDonkey, eMule, BitTorrent, and WinMX

【IM Blocking】: To restrict the authority of receiving video, file and message from MSN Messenger, Yahoo Messenger, ICQ, QQ, and Skype.

【Download Blocking】: To restrict the authority of download specific sub-name file, audio, and some common video by http protocol directly.

Define the required fields of Content Blocking

URL String:

- The domain name that restricts to enter or only allow entering.

Popup Blocking:

- Prevent the pop-up WebUI appearing

ActiveX Blocking:

- Prevent ActiveX packets

Java Blocking:

- Prevent Java packets

Cookies Blocking:

- Prevent Cookies packets

eDonkey Blocking:

- Prevent users to deliver files by eDonkey and eMule

BitTorrent Blocking:

- Prevent users to deliver files by BitTorrent

IM Blocking:

- Prevent users to login MSN Messenger, Yahoo Messenger, ICQ, QQ, and SKype

Audio and Video Types:

- Prevent users to transfer sounds and video file by http

Sub-name file Blocking:

- Prevent users to deliver specific sub-name file by http

All Type:

- Prevent users to send the Audio, Video types, and sub-name file…etc. by http protocol.

We set up five Content Blocking examples in this chapter:

No	Suitable Situation	Example	Page
Ex1	**URL Blocking**	Restrict the Internal Users only can access to some specific Website	**121**
Ex2	**Script Blocking**	Restrict the Internal Users to access to Script file of Website.	**124**
Ex3	**P2P Blocking**	Restrict the Internal Users to access to the file on Internet by P2P.	**126**
Ex4	**IM Blocking**	Restrict the Internal Users to send message, files, video and audio by Instant Messaging.	**128**
Ex5	**Download Blocking**	Restrict the Internal Users to access to video, audio, and some specific sub-name file from http protocol directly.	**130**

Restrict the Internal Users only can access to some specific Website

※URL Blocking:

Symbol: ～ means open up; ＊ means metacharacter

Restrict not to enter specific website: Enter the 「complete domain name」 or 「key word」of the website you want to restrict in **URL String**. For example: www.kcg.gov.tw or gov.

Only open specific website to enter:

1. Add the website you want to open up in URL String. While adding, you must enter the symbol “~” in front of the 「complete domain name」 or 「key word」 that represents to open these website to enter”. For example: ~www.kcg.gov.tw or ~gov.
2. After setting up the website you want to open up, enter an order to “forbid all” in the last URL String; means only enter ＊ in URL String.

 **Warning!** The order to forbid all must be placed at last forever. If you want to open a new website, you must delete the order of forbidding all and then enter the new domain name. At last, re-enter the “forbid all” order again.

STEP 1．Enter the following in **URL** of **Content Blocking** function:

- Click **New Entry**
- **URL String:** Enter ~yahoo, and click **OK**
- Click **New Entry**
- **URL String:** Enter ~google, and click **OK**
- Click **New Entry**
- **URL String**: Enter ＊, and click **OK**
- Complete setting a URL Blocking policy (Figure9-1)

Figure9-1 Content Blocking Table

STEP 2 . Add a **Outgoing Policy** comparing to **Content Blocking** function: (Figure9-2)

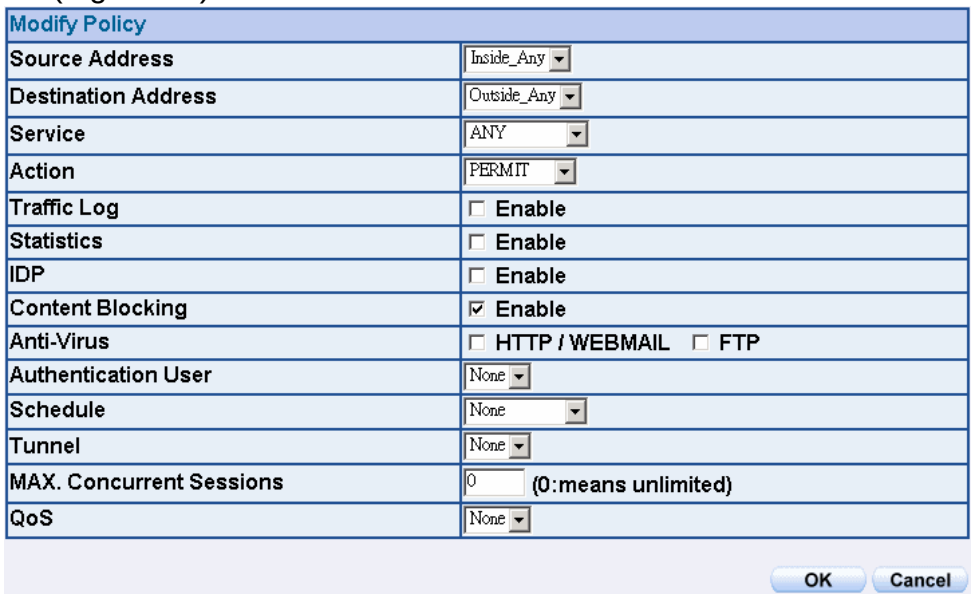


Figure9-2 URL Blocking Policy Setting

STEP 3 . Complete the policy of permitting the internal users only can access to some specific website in **Outgoing Policy** function: (Figure9-3)

Figure9-3 Complete Policy Settings

Afterwards the users only can browse the website that include “yahoo” and “google” in domain name by the above policy.

Restrict the Internal Users to access to Script file of Website

STEP 1． Select the following data in **Script** of **Content Blocking** function:

- Select **Popup** Blocking
- Select **ActiveX** Blocking
- Select **Java** Blocking
- Select **Cookies** Blocking
- Click **OK**
- Complete the setting of Script Blocking (Figure9-4)

Figure9-4 Script Blocking WebUI

STEP 2．Add a new **Outgoing Policy** comparing to **Content Blocking** function: (Figure9-5)

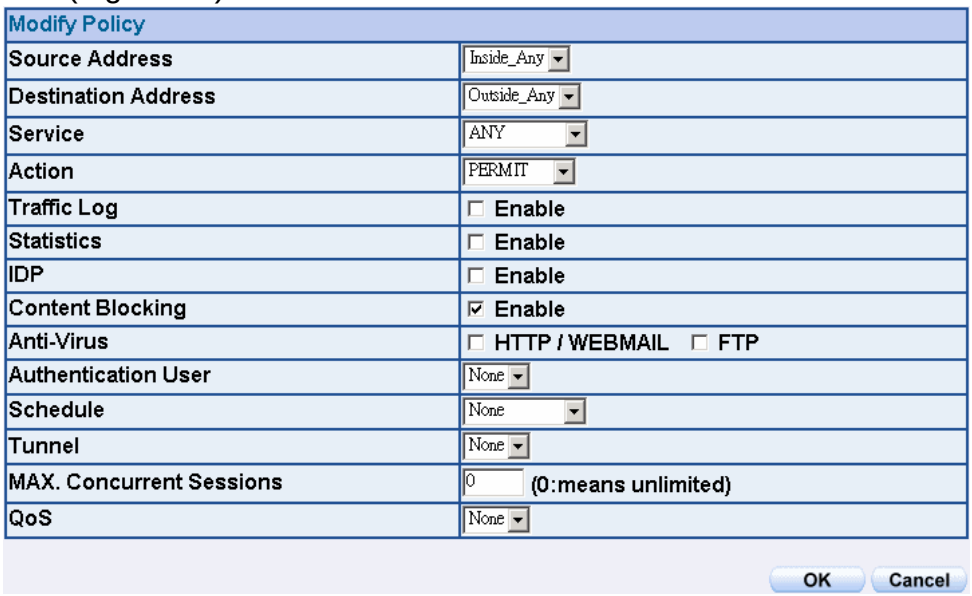


Figure9-5 New Policy of Script Blocking Setting

STEP 3．Complete the policy of restricting the internal users to access to Script file of Website in **Outgoing Policy**: (Figure9-6)

Figure9-6 Complete Script Blocking Policy Setting

The users may not use the specific function (like JAVA, cookie…etc.) to browse the website through this policy. It can forbid the user browsing stock exchange website…etc.

Restrict the Internal Users to access to the file on Internet by P2P

STEP 1 . Select the following data in **P2P** of **Content Blocking** function**:**

- Select **eDonkey Blocking**
- Select **BitTorrent Blocking**
- Select **WinMX Blocking**
- Click **OK**
- Complete the setting of P2P Blocking (Figure9-7)

Figure9-7 P2P Blocking WebUI

STEP 2．Add a new **Outgoing Policy** comparing to **Content Blocking** function: (Figure9-8)

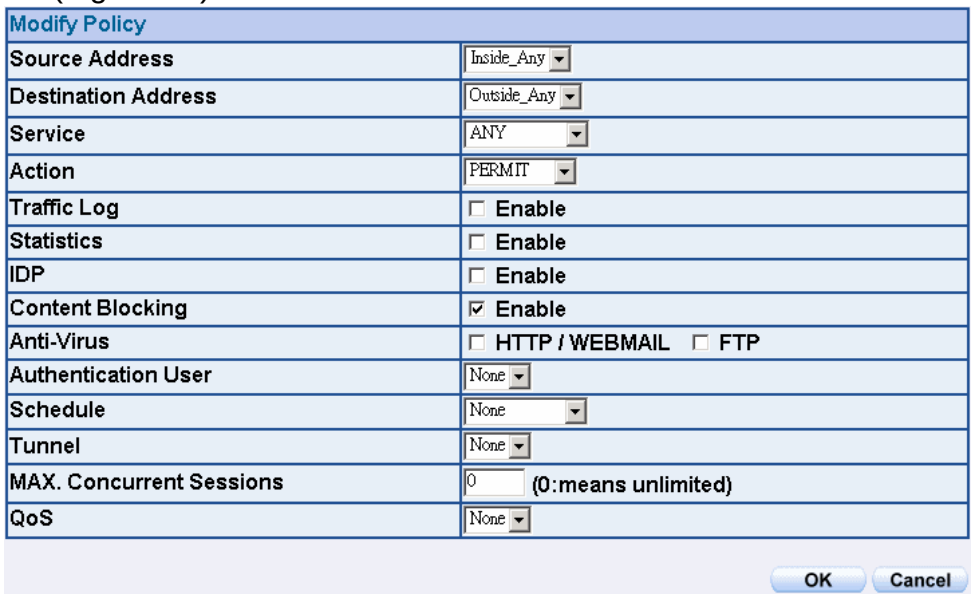


Figure9-8 Add New Policy of P2P Blocking

STEP 3．Complete the policy of restricting the internal users to access to the file on Internet by P2P in **Outgoing Policy**: (Figure9-9)

Figure9-9 Complete P2P Blocking Policy Setting

P2P Transfer will occupy large bandwidth so that it may influence other users. And P2P Transfer can change the service port free so it is invalid to restrict P2P Transfer by **Service**. Therefore, the system manager must use **P2P Blocking** in **Content Blocking** to restrict users to use P2P Transfer efficiently.

Restrict the Internal Users to send message, files, video and audio by Instant Messaging

STEP 1．Enter as following in **IM Blocking** of **Content Blocking** function:

- Select **MSN Messenger, Yahoo Messenger, ICQ Messenger, QQ Messenger** and **Skype.**
- Click **OK**
- Complete the setting of IM Blocking. (Figure9-10)

Figure9-10 IM Blocking WebUI

STEP 2．Add a new **Outgoing Policy** comparing to **Content Blocking** function: (Figure9-11)

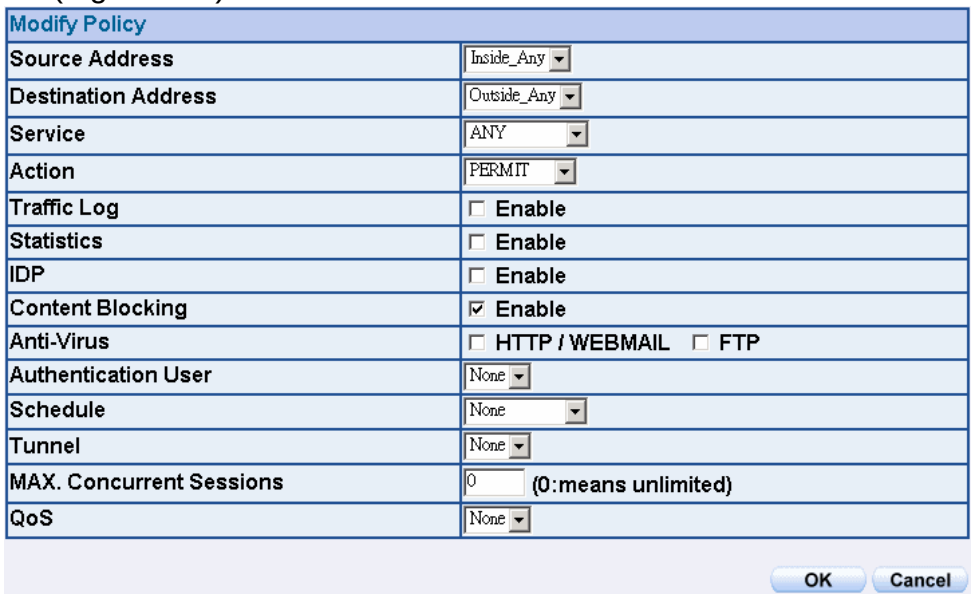


Figure9-11 Add New IM Blocking Policy

STEP 3．Complete the policy of restricting the internal users to send message, files, audio, and video by instant messaging in **Outgoing Policy:** (Figure9-12)

Figure9-12 Complete IM Blocking Policy Setting

Restrict the Internal Users to access to video, audio, and some specific sub-name file from http protocol directly

STEP 1 . Enter the following settings in **Download** of **Content Blocking** function**:**

- Select **All Types Blocking**
- Click **OK**
- Complete the setting of Download Blocking. (Figure9-13)

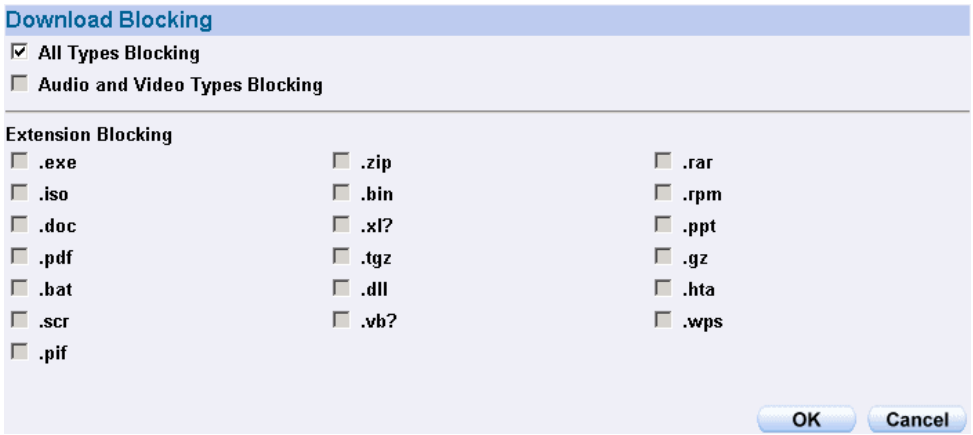


Figure9-13 Download Blocking WebUI

STEP 2． Add a new **Outgoing Policy** comparing to **Content Blocking** function: (Figure9-14)

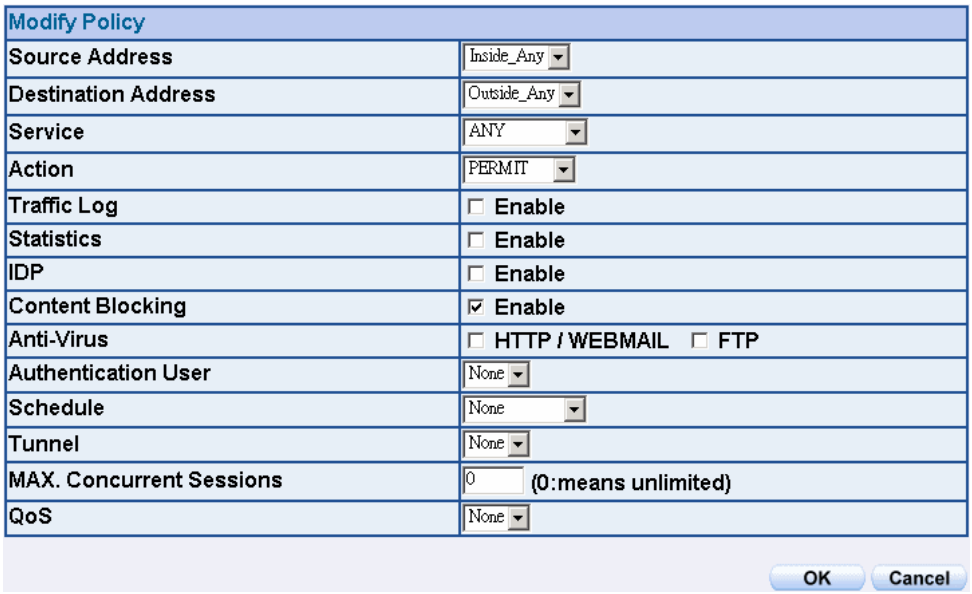


Figure9-14 Add New Download Blocking Policy Setting

STEP 3． Complete the **Outgoing Policy** of restricting the internal users to access to video, audio, and some specific sub-name file by http protocol directly: (Figure9-15)

Figure9-15 Complete Download Blocking Policy Setting

Chapter 10

Virtual Server

The real IP address provided from ISP is always not enough for all the users when the system manager applies the network connection from ISP. Generally speaking, in order to allocate enough IP addresses for all computers, an enterprise assigns each computer a private IP address, and converts it into a real IP address through ALL7007's NAT (Network Address Translation) function. If a server that provides service to WAN network is located in LAN networks, external users cannot directly connect to the server by using the server's private IP address.

The ALL7007's Virtual Server function can solve this problem. A Virtual Server has set the real IP address of the ALL7007's WAN network interface to be the Virtual Server IP. Through the Virtual Server function, the ALL7007 translates the Virtual Server's IP address into the private IP address in the LAN network.

Virtual Server owns another feature know as one-to-many mapping. This is when one real server IP address on the WAN interface can be mapped into four LAN network servers provide the same service private IP addresses. This option is useful for Load Balancing, which causes the Virtual Server to distribute data packets to each private IP addresses (which are the real servers) by session. Therefore, it can reduce the loading of a single server and lower the crash risk. And can improve the work efficiency.

In this chapter, we will have detailed introduction and instruction of **Mapped IP** and **Server 1/2/3/4**:

Mapped IP: Because the Intranet is transferring the private IP by NAT Mode (Network Address Translation). And if the server is in LAN, its IP Address is belonging to Private IP Address. Then the external users cannot connect to its private IP Address directly. The user must connect to the ALL7007's WAN subnet's Real IP and then map Real IP to Private IP of LAN by the ALL7007. It is a one-to one mapping. That is, to map all the service of one WAN Real IP Address to one LAN Private IP Address.

Server 1/2/3/4: Its function resembles Mapped IP's. But the Virtual Server maps one to many. That is, to map a Real IP Address to 1~4 LAN Private IP Address and provide the service item in Service.

Define the required fields of Virtual Server

WAN IP：

- WAN IP Address (Real IP Address)

Map to Virtual IP：

- Map the WAN Real IP Address into the LAN Private IP Address

Virtual Server Real IP：

- The WAN IP address which mapped by the Virtual Server.

Service name (Port Number)：

- The service name that provided by the Virtual Server.

External Service Port：

- The WAN Service Port that provided by the virtual server. If the service you choose only have one port and then you can change the port number here. (If change the port number to 8080 and then when the external users going to browse the Website; he/she must change the port number first to enter the Website.)

Server Virtual IP：

- The virtual IP which mapped by the Virtual Server.

We set up four Virtual Server examples in this chapter:

No.	Suitable Situation	Example	Page
Ex1	**Mapped IP**	Make a single server that provides several services such as FTP, Web, and Mail, to provide service by policy.	**136**
Ex2	**Virtual Server**	Make several servers that provide a single service, to provide service through policy by Virtual Server. (Take Web service for example)	**140**
Ex3	**Virtual Server**	The external user use VoIP to connect with VoIP of LAN. (VoIP Port: TCP 1720, TCP 153210-15333, UDP 153210-15333)	**143**
Ex4	**Virtual Server**	Make several servers that provide several same services, to provide service through policy by Virtual Server. (Take HTTP, POP3, SMTP, and DNS Group for example)	**147**

Preparation

Apply for two ADSL that have static IP
(WAN static IP is 61.11.11.10~ 61.11.11.14)

Make a single server that provides several services such as FTP, Web, and Mail, to provide service by policy

STEP 1． Setting a server that provide several services in LAN, and set up the network card's IP as 192.168.1.100. DNS is External DNS Server.

STEP 2． Enter the following setting in **LAN** of **Address** function: (Figure10-1)

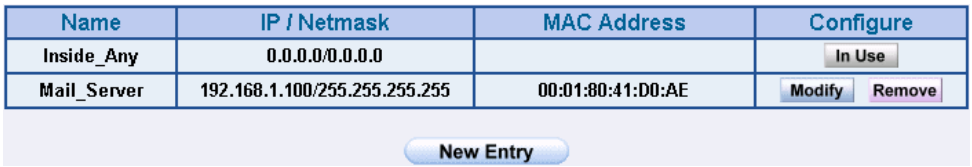


Figure10-1 Mapped IP Settings of Server in Address

STEP 3． Enter the following data in **Mapped IP** of **Virtual Server** function:

- Click **New Entry**
- **WAN IP:** Enter 61.11.11.12 (click **Assist** for assistance)
- **Map to Virtual IP:** Enter 192.168.1.100
- Click **OK**
- Complete the setting of adding new mapped IP (Figure10-2)

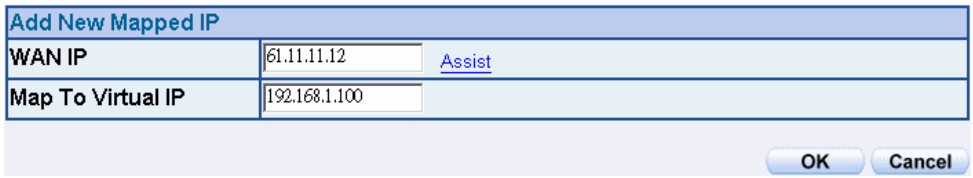


Figure10-2 Mapped IP Setting WebUI

STEP 4 . Group the services (DNS, FTP, HTTP, POP3, SMTP…) that provided and used by server in **Service** function. And add a new service group for server to send mails at the same time. (Figure10-3)

Figure10-3 Service Setting

STEP 5 . Add a policy that includes settings of STEP3, 4 in **Incoming Policy.** (Figure10-4)

Figure10-4 Complete the Incoming Policy

STEP 6 . Add a policy that includes STEP2, 4 in **Outgoing Policy**. It makes the server to send e-mail to external mail server by mail service. (Figure10-5)

Figure10-5 Complete the Outgoing Policy

STEP 7 . Complete the setting of providing several services by mapped IP. (Figure10-6)

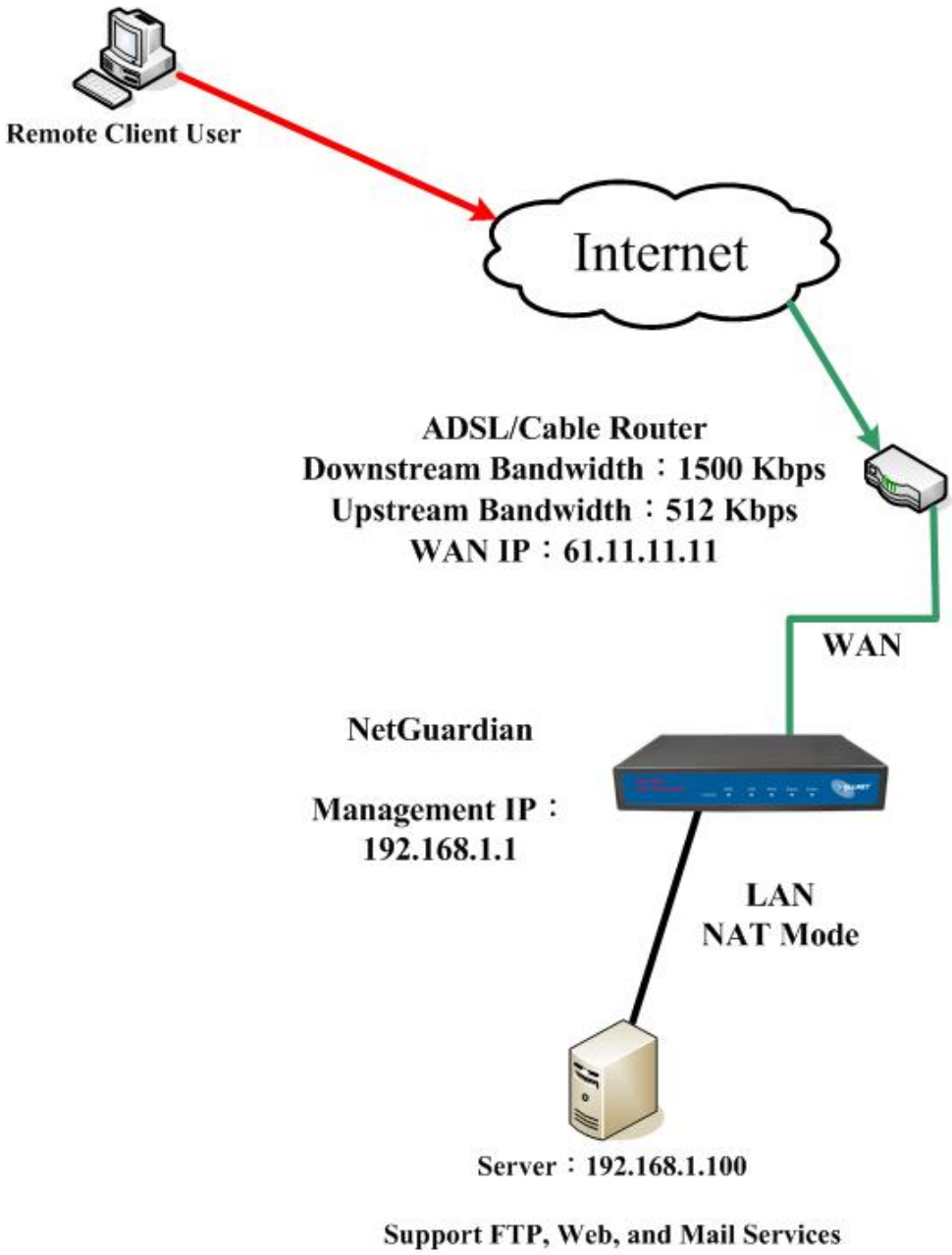


Figure10-6 A Single Server that Provides Several Services by Mapped IP

Strong suggests **not** to choose **ANY** when setting Mapped IP and choosing service. Otherwise the Mapped IP will be exposed to Internet easily and may be attacked by Hacker.

Make several servers that provide a single service, to provide service through policy by Virtual Server (Take Web service for example)

STEP 1． Setting several servers that provide Web service in LAN network, which IP Address is 192.168.1.101, 192.168.1.102, 192.168.1.103, and 192.168.1.104

STEP 2．Enter the following data in **Server 1** of **Virtual Server** function:

- Click the button next to **Virtual Server Real IP** (“**click here to configure**”) in **Server 1**
- **Virtual Server Real IP:** Enter 61.11.11.12 (click **Assist** for assistance)
- Click **OK** (Figure10-7)

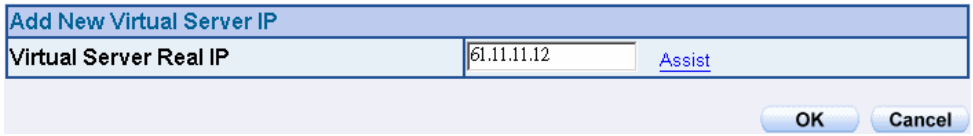


Figure10-7 Virtual Server Real IP Setting

- Click **New Entry**
- **Service:** Select HTTP (80)
- **External Service Port:** Change to 8080
- **Load Balance Server1:** Enter 192.168.1.101
- **Load Balance Server2:** Enter 192.168.1.102
- **Load Balance Server3:** Enter 192.168.1.103
- **Load Balance Server4:** Enter 192.168.1.104
- Click **OK**
- Complete the setting of Virtual Server (Figure10-8)

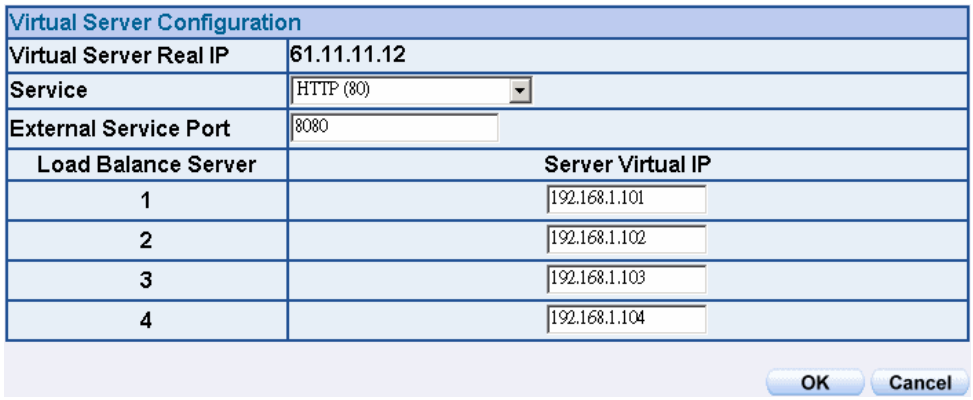


Figure10-8 Virtual Server Configuration WebUI

STEP 3． Add a new policy in **Incoming Policy**, which includes the virtual server, set by STEP2. (Figure10-9)

Source	Destination	Service	Action	Option	Configure	Move
Outside_Any	Virtual Server 1 (61.11.11.12)	HTTP(8080)	✔		Modify Remove	To 1

New Entry

Figure10-9 Complete Virtual Server Policy Setting

In this example, the external users must change its port number to 8080 before entering the Website that set by the Web server.

STEP 4． Complete the setting of providing a single service by virtual server. (Figure10-10)

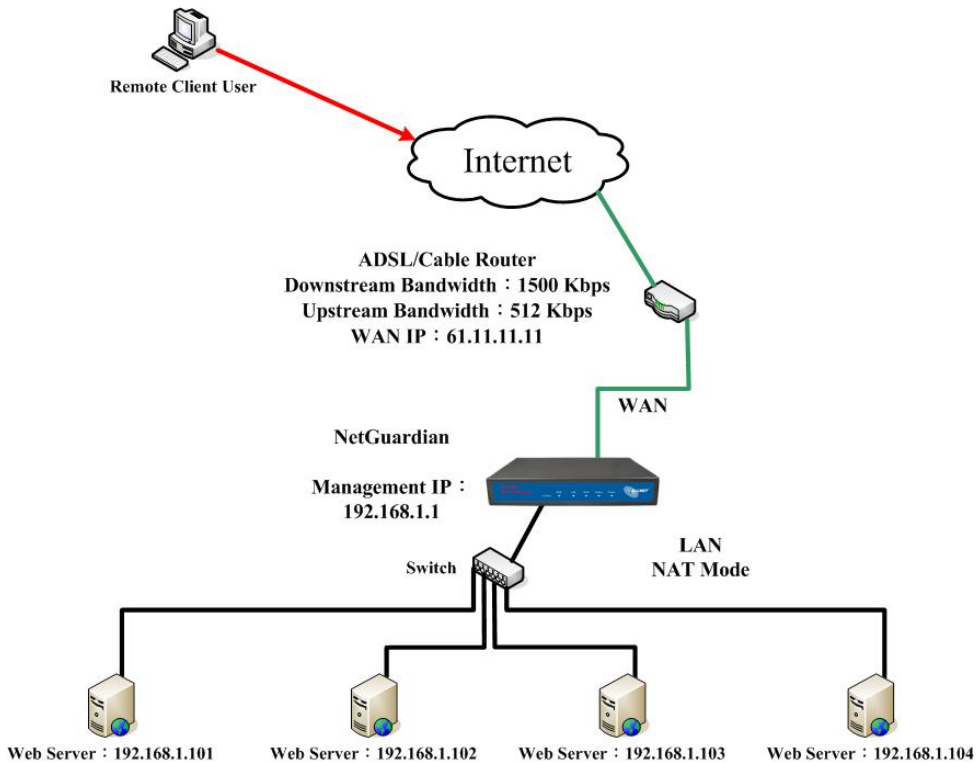


Figure10-10 Several Servers Provide a Single Service by Virtual Server

The external user use VoIP to connect with VoIP of LAN (VoIP Port: TCP 1720, TCP 153210-15333, UDP 153210-15333)

STEP 1．Set up VoIP in LAN network, and its IP is 192.168.1.100

STEP 2．Enter the following setting in **LAN** of **Address** function: (Figure10-11)

Figure10-11 Setting LAN Address WebUI

STEP 3．Add new VoIP service group in **Custom** of **Service** function. (Figure10-12)

Figure10-12 Add Custom Service

STEP 4．Enter the following setting in **Server1** of **Virtual Server** function:

- Click the button next to **Virtual Server Real IP** (“**click here to configure**”) in **Server1**
- **Virtual Server Real IP:** Enter 61.11.11.12 (click **Assist** for assistance) (Use WAN)
- Click **OK** (Figure10-13)

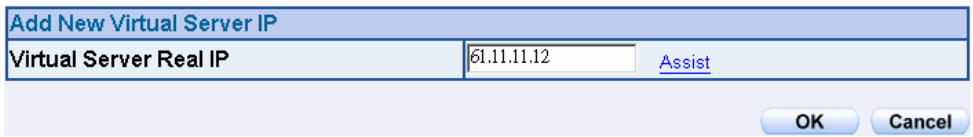


Figure10-13 Virtual Server Real IP Setting WebUI

- Click **New Entry**
- **Service:** Select (Custom Service) VoIP_Service
- **External Service Port:** From-Service (Custom)
- **Load Balance Server1:** Enter 192.168.1.100
- Click **OK**
- Complete the setting of Virtual Server (Figure10-14)

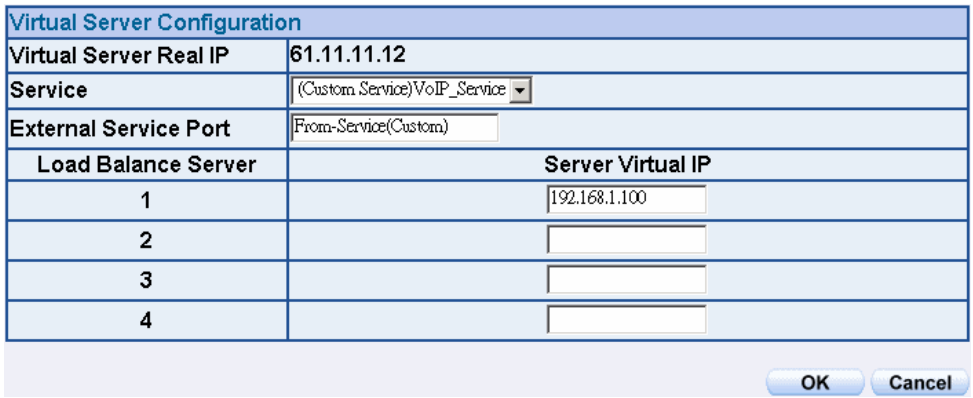


Figure10-14 Virtual Server Configuration WebUI

When the custom service only has one port number, then the external network port of **Virtual Server** is changeable; On the contrary, if the custom service has more than one port network number, then the external network port of **Virtual Server** cannot be changed.

STEP 5． Add a new **Incoming Policy,** which includes the virtual server that set by STEP4: (Figure10-15)

Figure10-15 Complete the Policy includes Virtual Server Setting

STEP 6． Enter the following setting of the internal users using VoIP to connect with external network VoIP in **Outgoing Policy**: (Figure10-16)

Figure10-16 Complete the Policy Setting of VoIP Connection

STEP 7 . Complete the setting of the external/internal user using specific service to communicate with each other by Virtual Server. (Figure10-17)

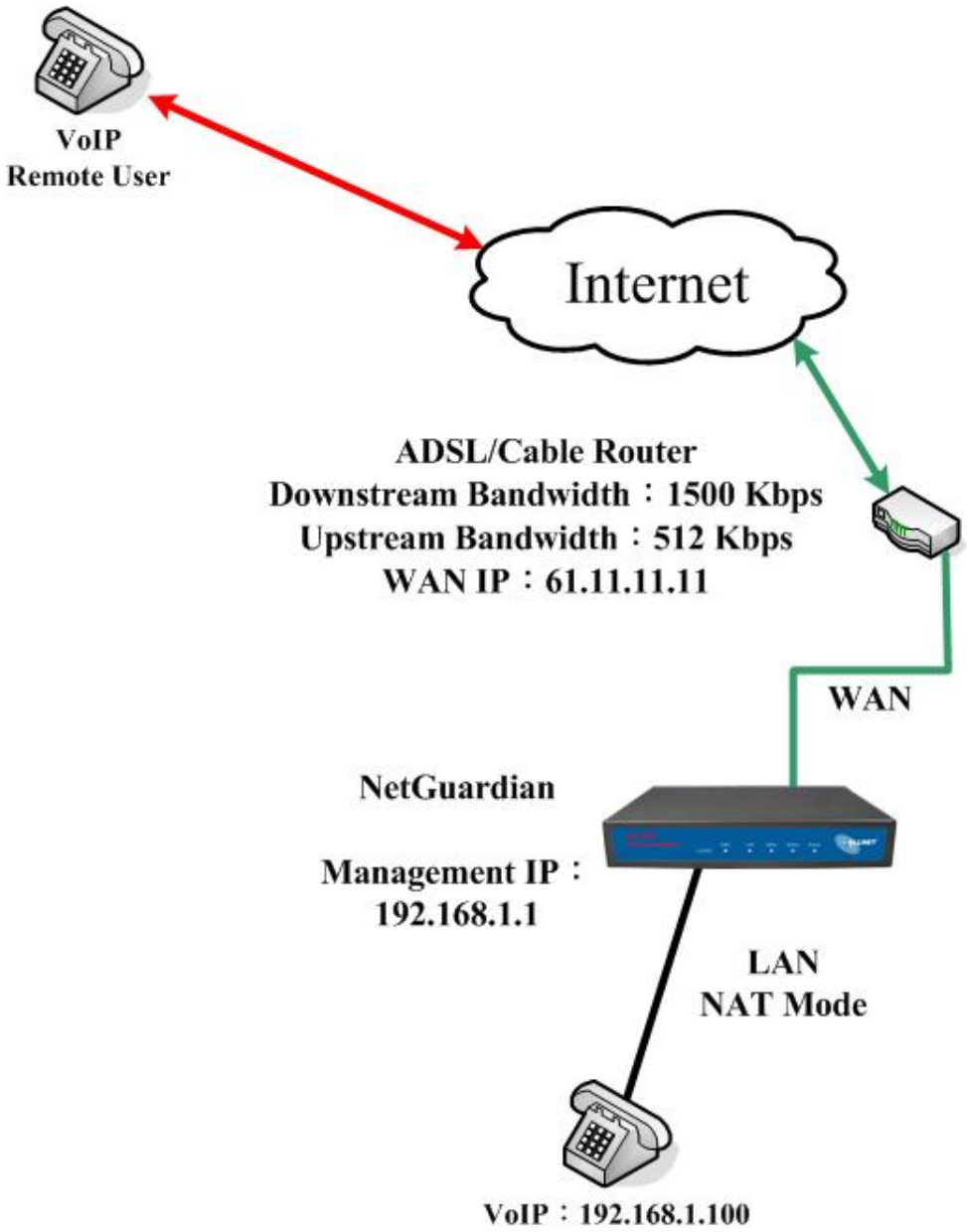
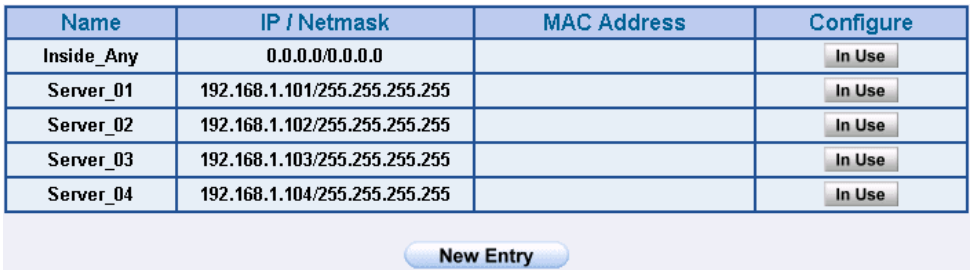


Figure10-17 Complete the Setting of the External/Internal User using specific service to communicate with each other by Virtual Server

Make several servers that provide several same services, to provide service through policy by Virtual Server. (Take HTTP, POP3, SMTP, and DNS Group for example)

STEP 1 . Setting several servers that provide several services in LAN network. Its network card's IP is 192.168.1.101, 192.168.1.102, 192.168.1.103, 192.168.1.104 and the DNS setting is External DNS server.

STEP 2 . Enter the following in **LAN** and **LAN Group** of **Address** function: (Figure10-18, 10-19)



Name	IP / Netmask	MAC Address	Configure
Inside_Any	0.0.0.0/0.0.0.0		In Use
Server_01	192.168.1.101/255.255.255.255		In Use
Server_02	192.168.1.102/255.255.255.255		In Use
Server_03	192.168.1.103/255.255.255.255		In Use
Server_04	192.168.1.104/255.255.255.255		In Use

New Entry

Figure10-18 Mapped IP Setting of Virtual Server in Address

Name	Member	Configure
Sever_Group	Server_01, Server_02, Server_03...	Modify Remove

New Entry

Figure10-19 Group Setting of Virtual Server in Address

STEP 3 . Group the service of server in **Custom** of **Service**. Add a Service Group for server to send e-mail at the same time. (Figure10-20)

Group name	Service	Configure
Mail_Service	DNS,HTTP,POP3...	Modify Remove
Main_Service	DNS,FTP,HTTP...	Modify Remove

New Entry

Figure10-20 Add New Service Group

STEP 4．Enter the following data in **Server1** of **Virtual Server**:

- Click the button next to **Virtual Server Real IP** (“**click here to configure**”) in **Server1**
- **Virtual Server Real IP:** Enter 61.11.11.12 (click **Assist** for assistance)
- Click **OK** (Figure10-21)

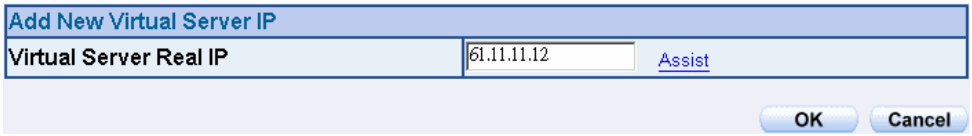


Figure10-21 Virtual Server Real IP Setting

- Click **New Entry**
- **Service:** Select (Group Service) Main_Service
- **External Service Port:** From-Service (Group)
- Enter the server IP in Load Balance Server
- Click **OK**
- Complete the setting of Virtual Server (Figure10-22)

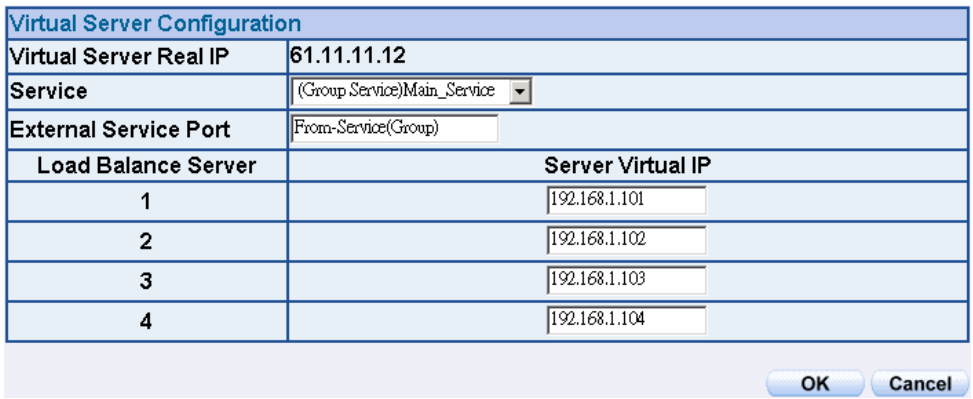


Figure10-22 Virtual Server Configuration WebUI

STEP 5． Add a new **Incoming Policy,** which includes the virtual server that set by STEP 3: (Figure10-23)

Figure10-23 Complete Incoming Policy Setting

STEP 6． Add a new policy that includes the settings of STEP2, 3 in **Outgoing Policy.** It makes server can send e-mail to external mail server by mail service. (Figure10-24)

Figure10-24 Complete Outgoing Policy Setting

STEP 7 . Complete the setting of providing several services by Virtual Server. (Figure10-25)

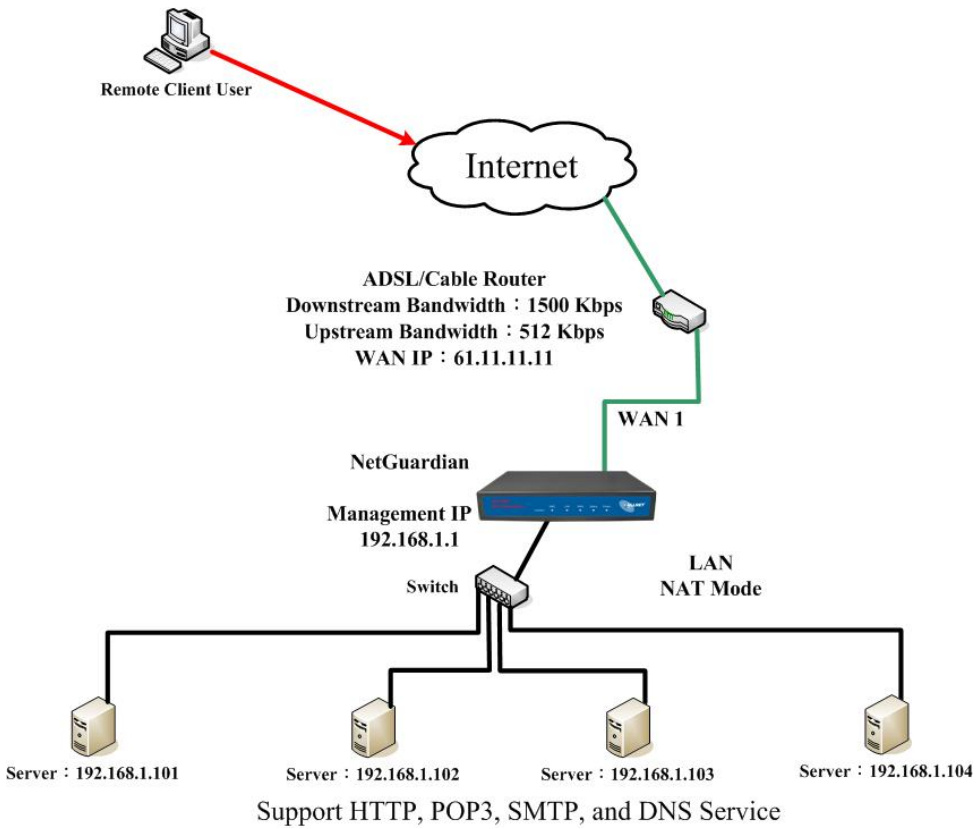


Figure10-25 Complete the Setting of Providing Several Services by Several Virtual Server

Chapter 11

VPN

The ALL7007 adopts VPN to set up safe and private network service. And combine the remote Authentication system in order to integrate the remote network and PC of the enterprise. Also provide the enterprise and remote users a safe encryption way to have best efficiency and encryption when delivering data. Therefore, it can save lots of problem for manager.

【IPSec Autokey】：The system manager can create a VPN connection using Autokey IKE. Autokey IKE (Internet Key Exchange) provides a standard method to negotiate keys between two security gateways. Also set up IPSec Lifetime and Preshared Key of the ALL7007.

【PPTP Server】： The System Manager can set up VPN-PPTP Server functions in this chapter.

【PPTP Client】： The System Manager can set up VPN-PPTP Client functions in this chapter

How to use VPN?

To set up a Virtual Private Network (VPN), you need to configure an Access Policy include IPSec Autokey, PPTP Server, or PPTP Client settings of Tunnel to make a VPN connection.

Define the required fields of VPN:

RSA:

- A public-key cryptosystem for encryption and authentication.

Preshared Key:

- The IKE VPN must be defined with a Preshared Key. The Key may be up to 128 bytes long.

ISAKMP (Internet Security Association Key Management Protocol):

- An extensible protocol-encoding scheme that complies to the Internet Key Exchange (IKE) framework for establishment of Security Associations (SAs).

Main Mode:

- This is another first phase of the Oakley protocol in establishing a security association, but instead of using three packets like in aggressive mode, it uses six packets.

Aggressive mode:

- This is the first phase of the Oakley protocol in establishing a security association using three data packets.

AH (Authentication Header):

- One of the IPSec standards that allows for data integrity of data packets.

ESP (Encapsulating Security Payload):

- One of the IPSec standards that provides for the confidentiality of data packets.

DES (Data Encryption Standard):

- The Data Encryption Standard developed by IBM in 1977 is a 64-bit block encryption block cipher using a 56-bit key.

Triple-DES (3DES):

- The DES function performed three times with either two or three cryptographic keys.

AES (Advanced Encryption Standard):

- An encryption algorithm yet to be decided that will be used to replace the aging DES encryption algorithm and that the NIST hopes will last for the next 20 to 30 years.

NULL Algorithm:

- It is a fast and convenient connecting mode to make sure its privacy and authentication without encryption. NULL Algorithm doesn't provide any other safety services but a way to substitute ESP Encryption

SHA-1 (Secure Hash Algorithm-1):

- A message-digest hash algorithm that takes a message less than 264 bits and produces a 160-bit digest.

MD5:

- MD5 is a common message digests algorithm that produces a 128-bit message digest from an arbitrary length input, developed by Ron Rivest.

GRE/IPSec:

- The device Select GRE/IPSec (Generic Routing Encapsulation) packet seal technology.

Define the required fields of IPSec Function

i:

- To display the VPN connection status via icon。

Chart	--		
Meaning	Not be applied	Disconnect	Connecting

Name:

- The VPN name to identify the IPSec Autokey definition. The name must be the only one and cannot be repeated.

Gateway IP:

- The WAN interface IP address of the remote Gateway.

IPSec Algorithm:

- To display the Algorithm way.

Configure:

- Click **Modify** to change the argument of IPSec; click **Remove** to remote the setting. (Figure11-1)

Figure11-1 IPSec Autokey WebUI

Define the required fields of PPTP Server Function

PPTP Server:

- To select Enable or Disable

Client IP Range:

- Setting the IP addresses range for PPTP Client connection

i:

- To display the VPN connection status via icon。

Chart	--		
Meaning	Not be applied	Disconnect	Connecting

User Name:

- Display the PPTP Client user's name when connecting to PPTP Server.

Client IP:

- Display the PPTP Client's IP address when connecting to PPTP Server.

Uptime:

- Display the connection time between PPTP Server and Client.

Configure:

- Click **Modify** to modify the PPTP Server Settings or click **Remove** to remove the setting (Figure11-2)

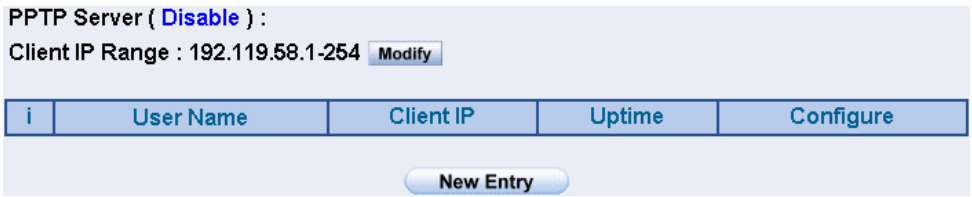


Figure11-2 PPTP Server WebUI

Define the required fields of PPTP Client Function

i:

- To display the VPN connection status via icon。

Chart	--		
Meaning	Not be applied	Disconnect	Connecting

User Name:

- Displays the PPTP Client user's name when connecting to PPTP Server.

Server IP or Domain Name:

- Display the PPTP Server IP addresses or Domain Name when connecting to PPTP Server.

Encryption:

- Display PPTP Client and PPTP Server transmission, whether opens the encryption authentication mechanism.

Uptime:

- Displays the connection time between PPTP Server and Client.

Configure:

- Click **Modify** to change the argument of PPTP Client; click **Remove** to remote the setting. (Figure11-3)

Figure11-3 PPTP Client WebUI

Define the required fields of Tunnel Function

i:

- To display the VPN connection status via icon。

Chart	--		
Meaning	Not be applied	Disconnect	Connecting

Name:

- The VPN name to identify the VPN tunnel definition. The name must be the only one and cannot be repeated.

Source Subnet:

- Displays the Source Subnet.

Destination Subnet:

- Displays the Destination Subnet.

IPSec / PPTP:

- Displays the Virtual Private Network's(IPSec Autokey, PPTP Server, PPTP Client) settings of Tunnel function.

Configure:

- Click **Modify** to change the argument of VPN Tunnel; click **Remove** to remote the setting.(Figure11-4)

Figure11-4 VPN Tunnel Web UI

We set up two VPN examples in this chapter:

No.	Suitable Situation	Example	Page
Ex1	**IPSec Autokey**	Setting IPSec VPN connection between two ALL7007	**159**
Ex2	**PPTP**	Setting PPTP VPN connection between two ALL7007	**165**

Setting IPSec VPN connection between two ALL7007

Preparation

Company A **WAN IP: 61.11.11.11**
LAN IP: 192.168.10.X
Company B **WAN IP: 211.22.22.22**
LAN IP: 192.168.20.X

This example takes two ALL7007 as work platform. Suppose Company A 192.168.10.100 create a VPN connection with Company B 192.168.20.100 for downloading the sharing file.

The Default Gateway of Company A is the LAN IP of the ALL7007 192.168.10.1. Follow the steps below:

STEP 1. Enter the default IP of Gateway of Company A's ALL7007, 192.168.10.1 and select **IPSec Autokey** in **VPN**. Click **New Entry**. (Figure11-5)

Figure11-5 IPSec Autokey WebUI

STEP 2. In the list of **IPSec Autokey**, fill in Name with **VPN_A.** (Figure11-6)

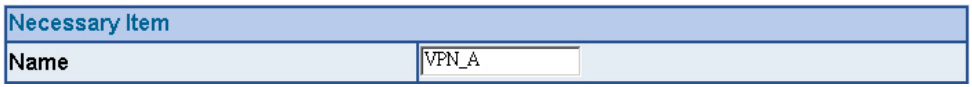


Figure11-6 IPSec Autokey Name Setting

STEP 3. Select **Remote Gateway-Fixed IP or Domain Name** In **To Destination** list and enter the IP Address.(Figure11-7)

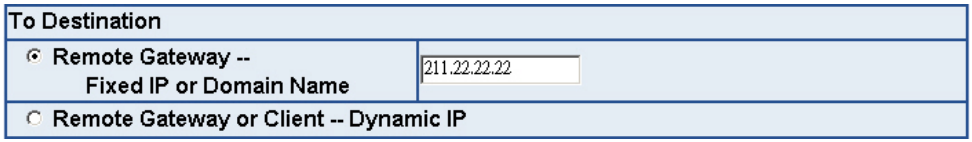


Figure11-7 IPSec To Destination Setting

STEP 4. Select Preshare in **Authentication Method** and enter the **Preshared Key** (max: 100 bits) (Figure11-8)

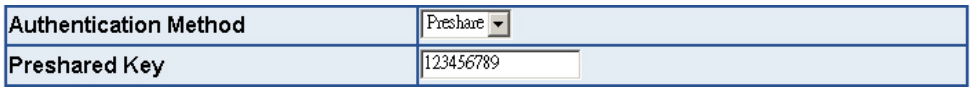


Figure11-8 IPSec Authentication Method Setting

STEP 5. Select **ISAKMP Algorithm** in **Encapsulation** list. Choose the Algorithm when setup connection. Please select ENC Algorithm (**3DES/DES/AES**), AUTH Algorithm (**MD5/SHA1**), and Group (**GROUP1, 2,5**). Both sides have to choose the same group. Here we select 3DES for ENC Algorithm, MD5 for AUTH Algorithm, and GROUP1 for group. (Figure11-9)

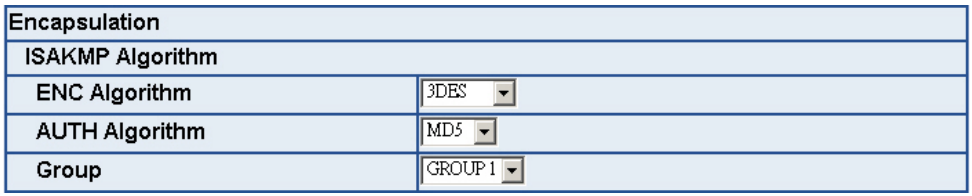


Figure11-9 IPSec Encapsulation Setting

STEP 6. You can choose Data Encryption + Authentication or Authentication Only to communicate in **IPSec Algorithm** list:

ENC Algorithm: **3DES/DES/AES/NULL**

AUTH Algorithm: **MD5/SHA1**

Here we select 3DES for ENC Algorithm and MD5 for AUTH Algorithm to make sure the encapsulation way for data transmission (Figure11-10)

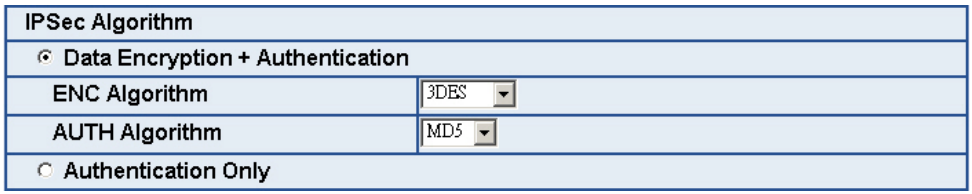


Figure11-10 IPSec Algorithm Setting

STEP 7. After selecting GROUP1 in **Perfect Forward Secrecy**, enter 3600 seconds in **ISAKMP Lifetime**, enter 28800 seconds in **IPSec Lifetime**, and selecting Main mode in **Mode**. (Figure11-11)

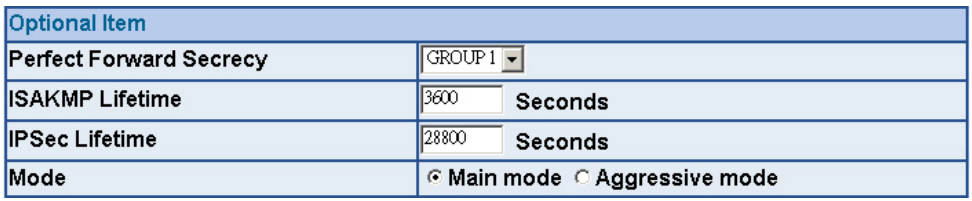


Figure11-11 IPSec Perfect Forward Secrecy Setting

STEP 8. Complete the IPSec Autokey setting. (Figure11-12)

Figure11-12 Complete Company A IPSec Autokey Setting

STEP 9. Enter the following setting in **Tunnel** of **VPN** function**:** (Figure11-13)

- Enter a specific Tunnel **Name**.
- **From Source:** Select LAN
- **From Source Subnet / Mask:** Enter 192.168.10.0 / 255.255.255.0.
- **To Destination:** Select To Destination Subnet / Mask.
- **To Destination Subnet / Mask:** Enter 192.168.20.0 / 255.255.255.0.
- **IPSec / PPTP Setting:** Select VPN_A.
- Select **Show remote Network Neighborhood**.
- Click **OK**. (Figure11-14)

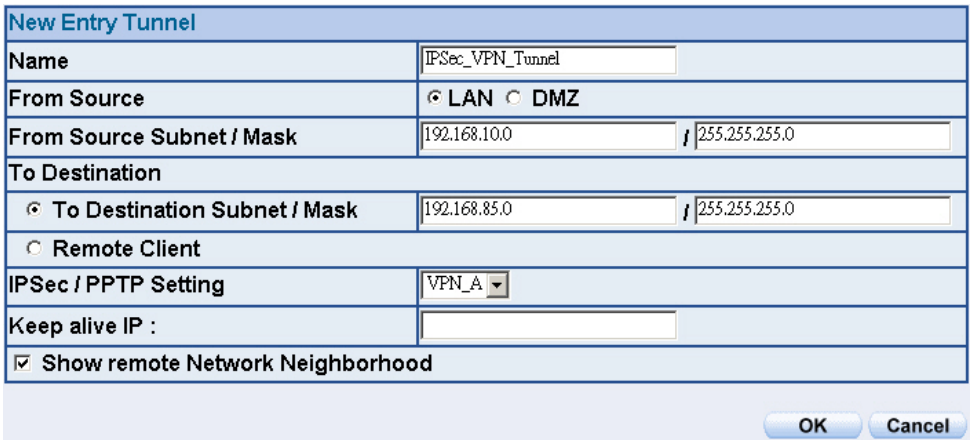


Figure11-13 New Entry Tunnel Setting

Figure11-14 Complete New Entry Tunnel Setting

STEP 10. Enter the following setting in **Outgoing Policy:**(Figure11-15)

- **Authentication User:** Select All_NET.
- **Schedule:** Select Schedule_1.
- **QoS:** Select QoS_1.
- **Tunnel:** Select IPSec_VPN_Tunnel.
- Click **OK**.(Figure11-16)

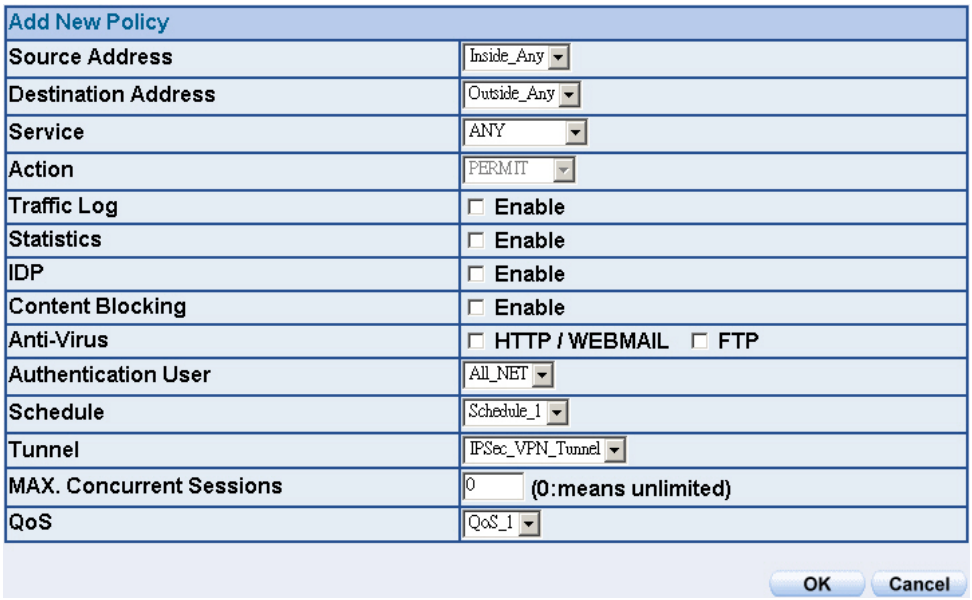


Figure11-15 Setting the VPN Tunnel Outgoing Policy

Figure11-16 Complete the VPN Tunnel Outgoing Policy Setting

STEP 11. Enter the following setting in **Incoming Policy:** (Figure11-17)

- **Schedule:** Select Schedule_1.
- **QoS:** Select QoS_1.
- **Tunnel:** Select IPSec_VPN_Tunnel.
- Click **OK**.(Figure11-18)

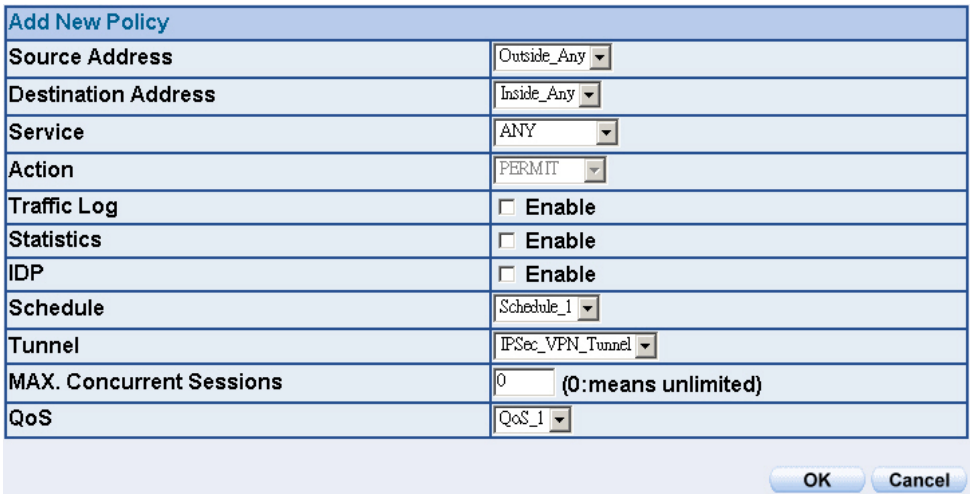


Figure11-17 Setting the VPN Tunnel Incoming Policy

Figure11-18 Complete the VPN Tunnel Incoming Policy Setting

The Default Gateway of Company B is the LAN IP of the ALL7007 192.168.20.1. Follow the steps below:

STEP 1. Enter the following setting in **Multiple Subnet** of **System Configure** function**:** (Figure11-19)

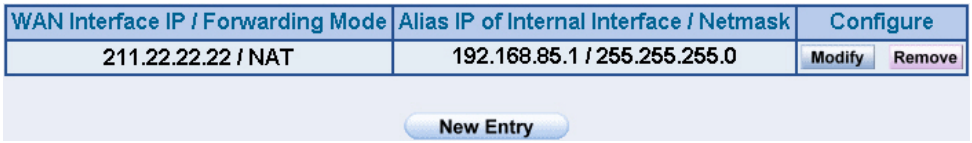


Figure11-19 Multiple Subnet Setting

STEP 2. Enter the default IP of Gateway of Company B's ALL7007, 192.168.20.1 and select **IPSec Autokey** in **VPN**. Click **New Entry**. (Figure11-20)

Figure11-20 IPSec Autokey Web UI

STEP 3. In the list of **IPSec Autokey**, fill in Name with **VPN_B**. (Figure11-21)

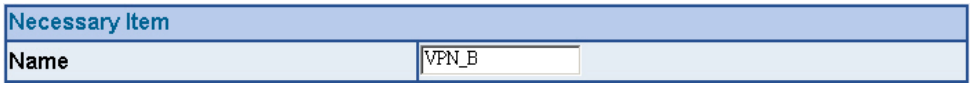


Figure11-21 IPSec Autokey Name Setting

STEP 4. Select **Remote Gateway-Fixed IP or Domain Name** In **To Destination** list and enter the IP Address.(Figure11-22)

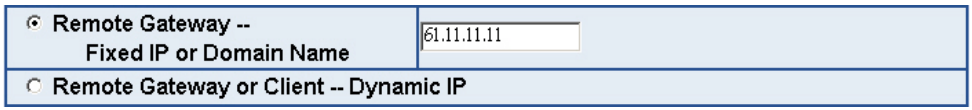


Figure11-22 IPSec To Destination Setting

STEP 5. Select Preshare in **Authentication Method** and enter the **Preshared Key** (max: 100 bits) (Figure11-23)

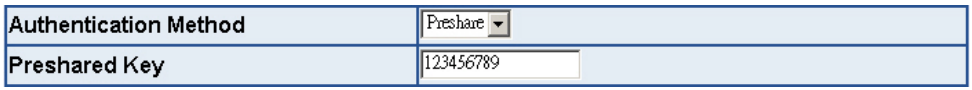


Figure11-23 IPSec Authentication Method Setting

STEP 6. Select **ISAKMP Algorithm** in **Encapsulation** list. Choose the Algorithm when setup connection. Please select ENC Algorithm (**3DES/DES/AES**), AUTH Algorithm (**MD5/SHA1**), and Group (**GROUP1, 2,5**). Both sides have to choose the same group. Here we select 3DES for ENC Algorithm, MD5 for AUTH Algorithm, and GROUP1 for group. (Figure11-24)

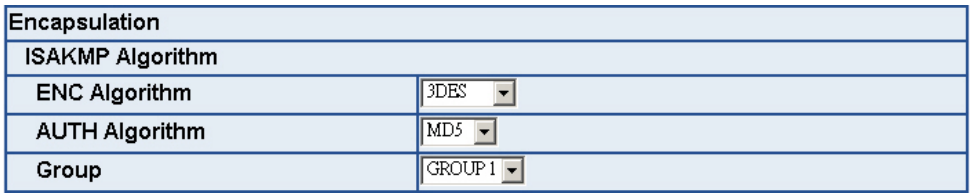


Figure11-24 IPSec Encapsulation Setting

STEP 7. You can choose Data Encryption + Authentication or Authentication Only to communicate in **IPSec Algorithm** list:

ENC Algorithm: **3DES/DES/AES/NULL**

AUTH Algorithm: **MD5/SHA1**

Here we select 3DES for ENC Algorithm and MD5 for AUTH Algorithm to make sure the encapsulation way for data transmission. (Figure11-25)

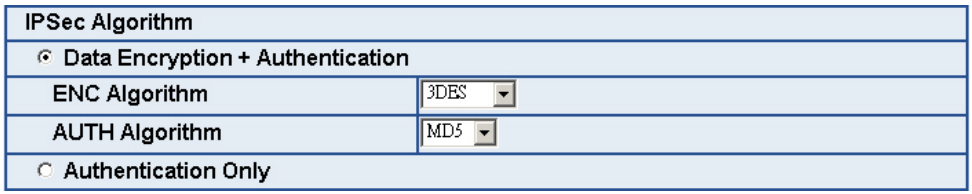


Figure11-25 IPSec Algorithm Setting

STEP 8. After selecting GROUP1 in **Perfect Forward Secrecy**, enter 3600 seconds in **ISAKMP Lifetime**, enter 28800 seconds in **IPSec Lifetime**, and selecting Main mode in **Mode**. (Figure11-26)

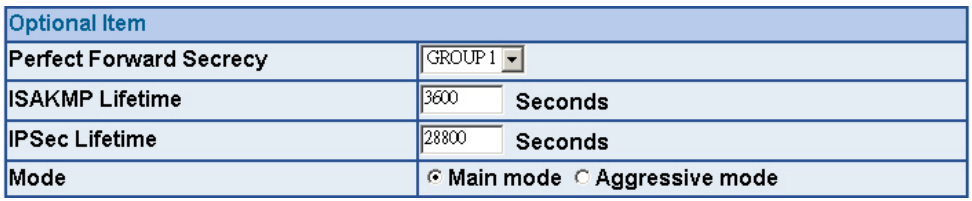


Figure11-26 IPSec Perfect Forward Secrecy Setting

STEP 9. Complete the IPSec Autokey setting. (Figure11-27)

Figure11-27 Complete Company B IPSec Autokey Setting

STEP 10. Enter the following setting in **Tunnel** of **VPN** function**:** (Figure11-28)

- Enter a specific Tunnel **Name**.
- **From Source:** Select LAN
- **From Source Subnet / Mask:** Enter 192.168.20.0 / 255.255.255.0.
- **To Destination:** Select To Destination Subnet / Mask.
- **To Destination Subnet / Mask:** Enter 192.168.10.0 / 255.255.255.0.
- **IPSec / PPTP Setting:** Select VPN_B.
- Select **Show remote Network Neighborhood**.
- Click **OK**. (Figure11-29)

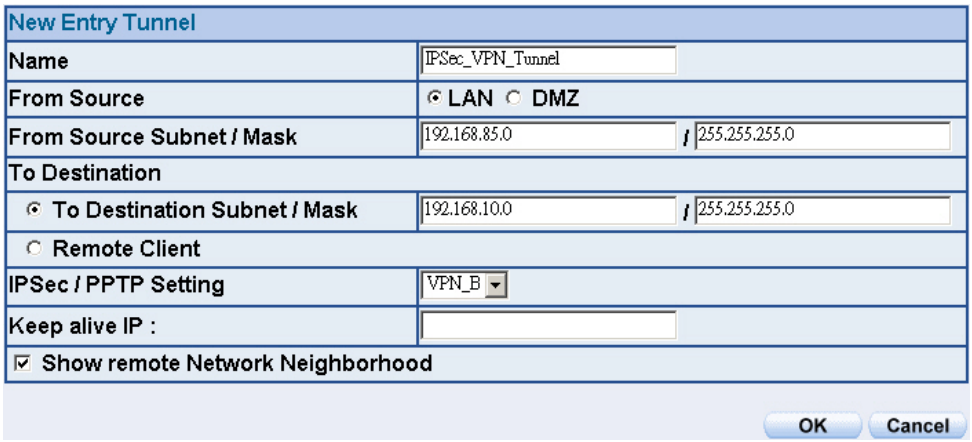


Figure11-28 New Entry Tunnel Setting

Figure11-29 Complete New Entry Tunnel Setting

STEP 11. Enter the following setting in **Outgoing Policy:** (Figure11-30)

- **Authentication User:** Select All_NET.
- **Schedule:** Select Schedule_1.
- **QoS:** Select QoS_1.
- **Tunnel:** Select IPSec_VPN_Tunnel.
- Click **OK**.(Figure11-31)

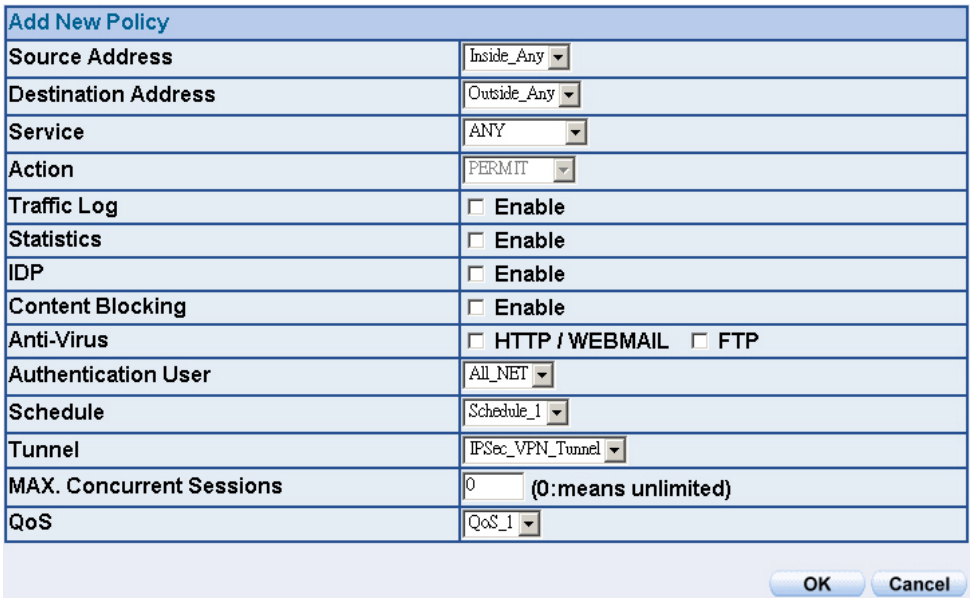


Figure11-30 Setting the VPN Tunnel Outgoing Policy

Figure11-31 Complete the VPN Tunnel Outgoing Policy Setting

STEP 12. Enter the following setting in **Incoming Policy:** (Figure11-32)

- **Schedule:** Select Schedule_1.
- **QoS:** Select QoS_1.
- **Tunnel:** Select IPSec_VPN_Tunnel.
- Click **OK**.(Figure11-33)

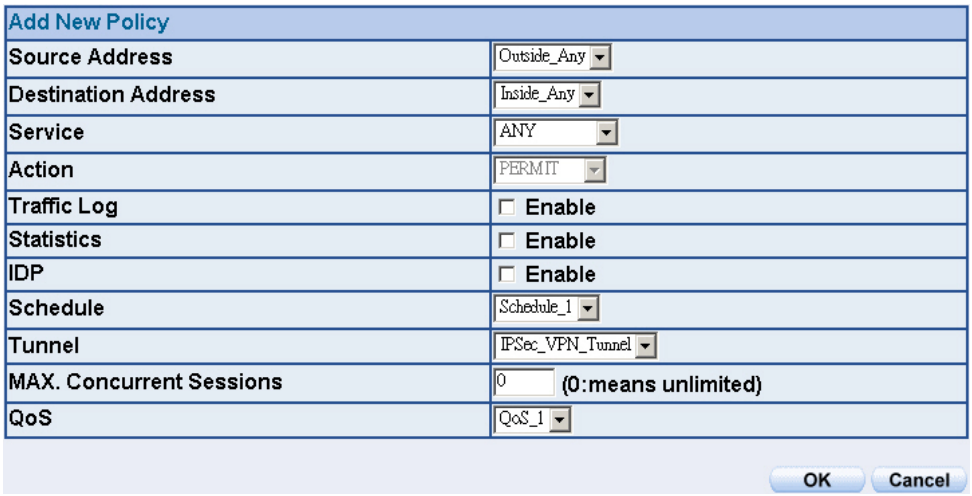


Figure11-32 Setting the VPN Tunnel Incoming Policy

Figure11-33 Complete the VPN Tunnel Incoming Policy Setting

STEP 13. Complete IPSec VPN Connection. (Figure11-34)

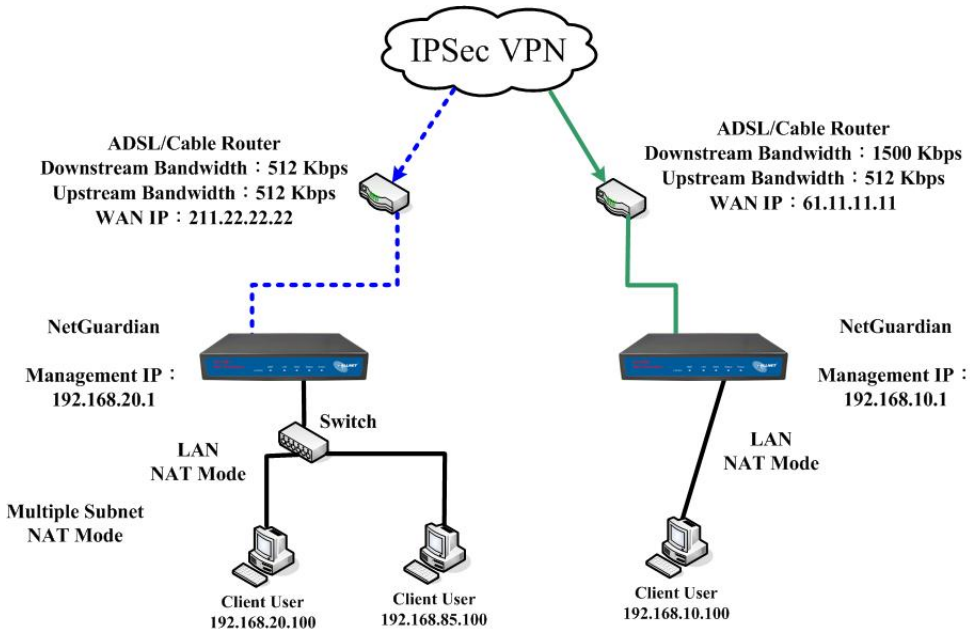


Figure11-34 IPSec VPN Connection Deployment

Setting PPTP VPN connection between two ALL7007

Preparation

Company A **WAN IP: 61.11.11.11**
LAN IP: 192.168.10.X
Company B **WAN IP: 211.22.22.22**
LAN IP: 192.168.20.X

This example takes two ALL7007 as flattop. Suppose Company B 192.168.20.100 is going to have VPN connection with Company A 192.168.10.100 and download the resource.

The Default Gateway of Company A is the LAN IP of the ALL7007 192.168.10.1. Follow the steps below:

STEP 1. Enter **PPTP Server** of **VPN** function in the ALL7007 of Company A.

Select **Modify** and enable PPTP Server:

- Select **Encryption**.
- **Client IP Range**: Enter 192.44.75.1-254.
- Idle Time: Enter 0. (Figure11-35)

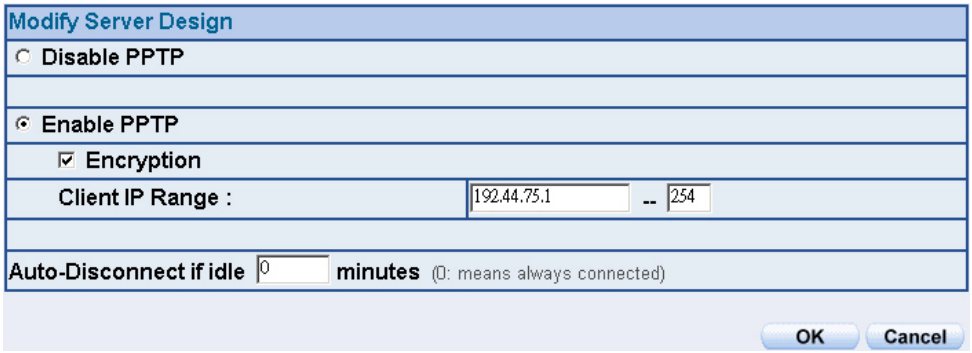


Figure11-35 Enable PPTP VPN Server Settings

Idle Time: the setting time that the VPN Connection will auto-disconnect under unused situation. (Unit: minute)

STEP 2. Add the following settings in **PPTP Server** of **VPN** function in the ALL7007 of Company A:

- Select **New Entry**. (Figure11-36)
- **User Name**: Enter PPTP_Connection.
- **Password**: Enter 123456789.
- **Client IP assigned by**: Select **IP Range**.
- Click **OK**. (Figure11-37)

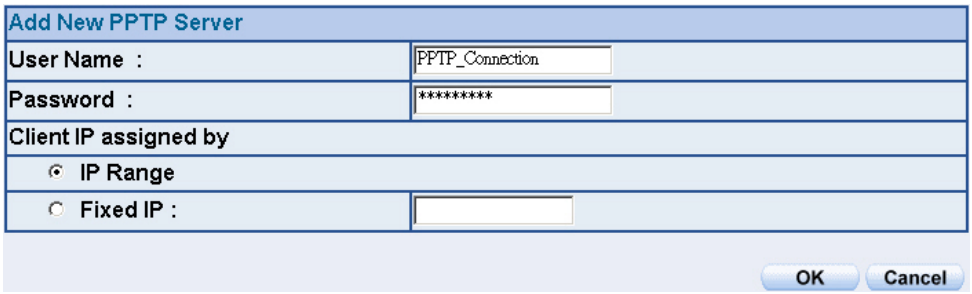


Figure11-36 PPTP VPN Server Setting

Figure11-37 Complete PPTP VPN Server Setting

STEP 3. Enter the following setting in **Tunnel** of **VPN** function**:** (Figure11-38)

- Enter a specific Tunnel **Name**.
- **From Source:** Select LAN
- **From Source Subnet / Mask:** Enter 192.168.10.0 / 255.255.255.0.
- **To Destination:** Select To Destination Subnet / Mask.
- **To Destination Subnet / Mask:** Enter 192.168.20.0 / 255.255.255.0.
- **IPSec / PPTP Setting:** Select PPTP_Server_PPTP_Connection.
- Select **Show remote Network Neighborhood**.
- Click **OK**. (Figure11-39)

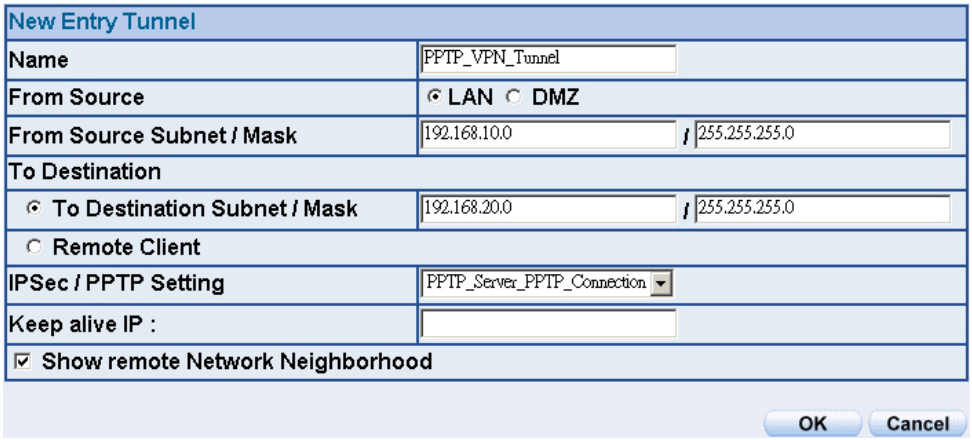


Figure11-38 New Entry Tunnel Setting

Figure11-39 Complete New Entry Tunnel Setting

STEP 4. Enter the following setting in **Outgoing Policy:** (Figure11-40)

- **Authentication User:** Select All_NET.
- **Schedule:** Select Schedule_1.
- **QoS:** Select QoS_1.
- **Tunnel:** Select PPTP_VPN_Tunnel.
- Click **OK**.(Figure11-41)

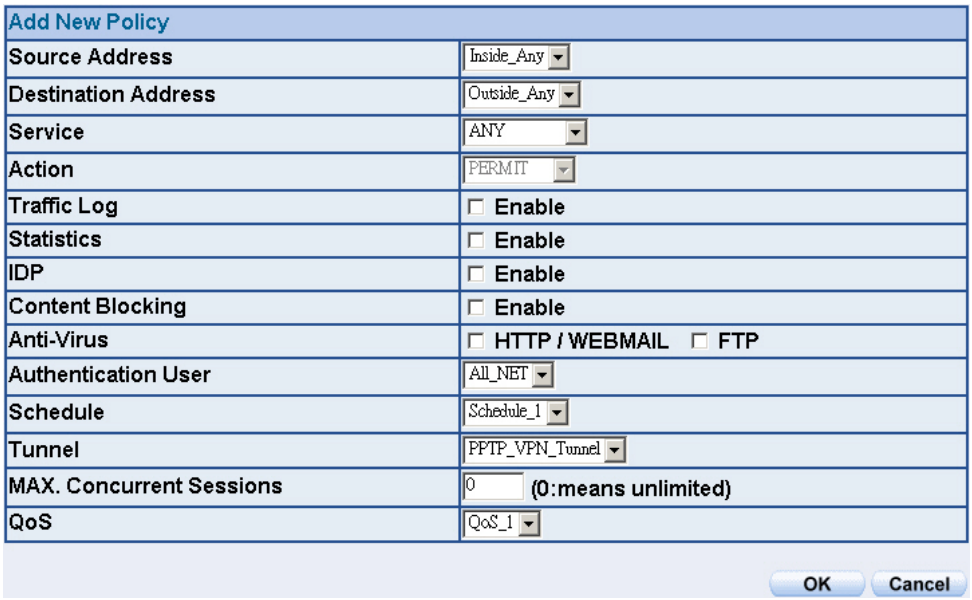


Figure11-40 Setting the VPN Tunnel Outgoing Policy

Figure11-41 Complete the VPN Tunnel Outgoing Policy Setting

STEP 5. Enter the following setting in **Incoming Policy:** (Figure11-42)

- **Schedule:** Select Schedule_1.
- **QoS:** Select QoS_1.
- **Tunnel:** Select PPTP_VPN_Tunnel.
- Click **OK**.(Figure11-43)

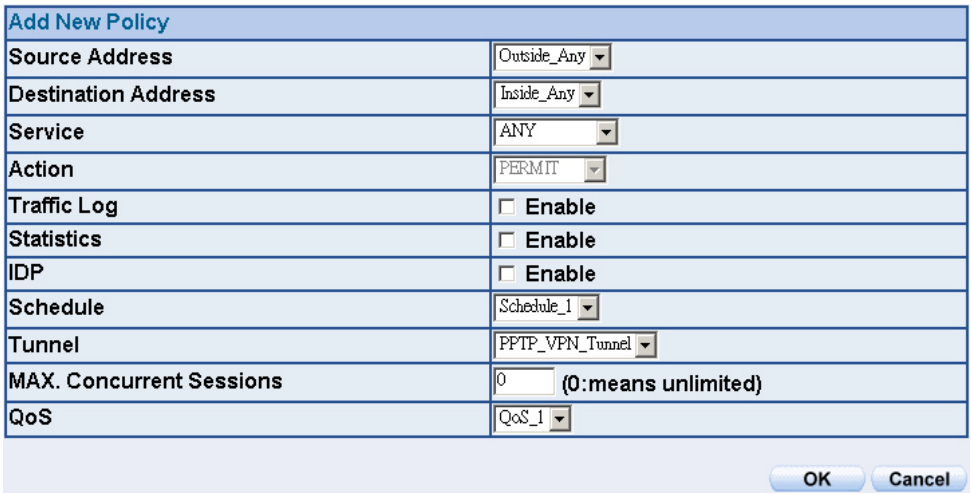


Figure11-42 Setting the VPN Tunnel Incoming Policy

Figure11-43 Complete the VPN Tunnel Incoming Policy Setting

The Default Gateway of Company B is the LAN IP of the ALL7007 192.168.20.1. Follow the steps below:

STEP 1. Add the following settings in **PPTP Client** of **VPN** function in the ALL7007 of Company B:

- Click **New Entry** Button. (Figure11-44)
- **User Name**: Enter PPTP_Connection.
- **Password**: Enter123456789.
- **Server IP or Domain Name**: Enter 61.11.11.11.
- Select **Encryption**.
- Click **OK**. (Figure11-45)

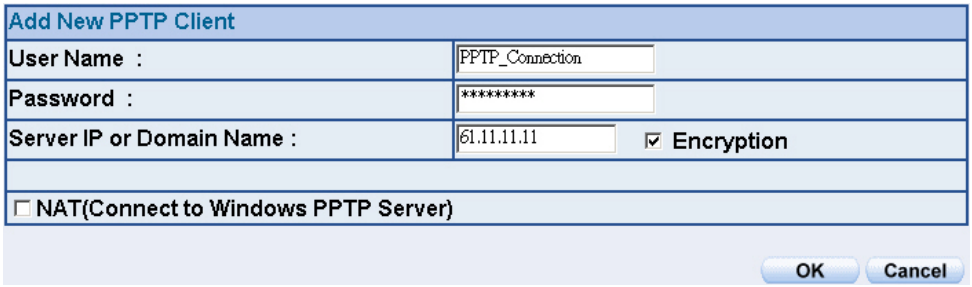


Figure 11-44 PPTP VPN Client Setting

Figure 11-45 Complete PPTP VPN Client Setting

STEP 2. Enter the following setting in **Tunnel** of **VPN** function**:** (Figure11-46)

- Enter a specific Tunnel **Name**.
- **From Source:** Select LAN
- **From Source Subnet / Mask:** Enter 192.168.20.0 / 255.255.255.0.
- **To Destination:** Select To Destination Subnet / Mask.
- **To Destination Subnet / Mask:** Enter 192.168.10.0 / 255.255.255.0.
- **IPSec / PPTP Setting:** Select PPTP_Client_PPTP_Connection.
- Select **Show remote Network Neighborhood**.
- Click **OK**. (Figure11-47)

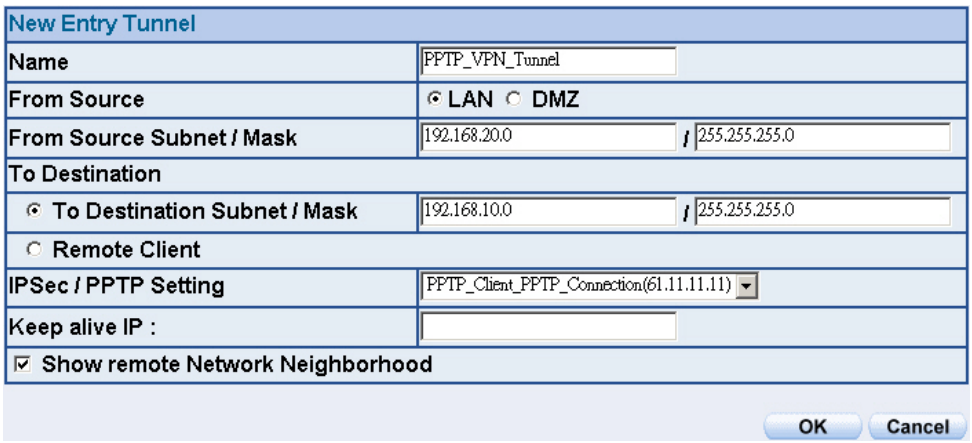


Figure11-46 New Entry Tunnel Setting

Figure11-47 Complete New Entry Tunnel Setting

STEP 3. Enter the following setting in **Outgoing Policy:** (Figure11-48)

- **Authentication User:** Select All_NET.
- **Schedule:** Select Schedule_1.
- **QoS:** Select QoS_1.
- **Tunnel:** Select PPTP_VPN_Tunnel.
- Click **OK**.(Figure11-49)

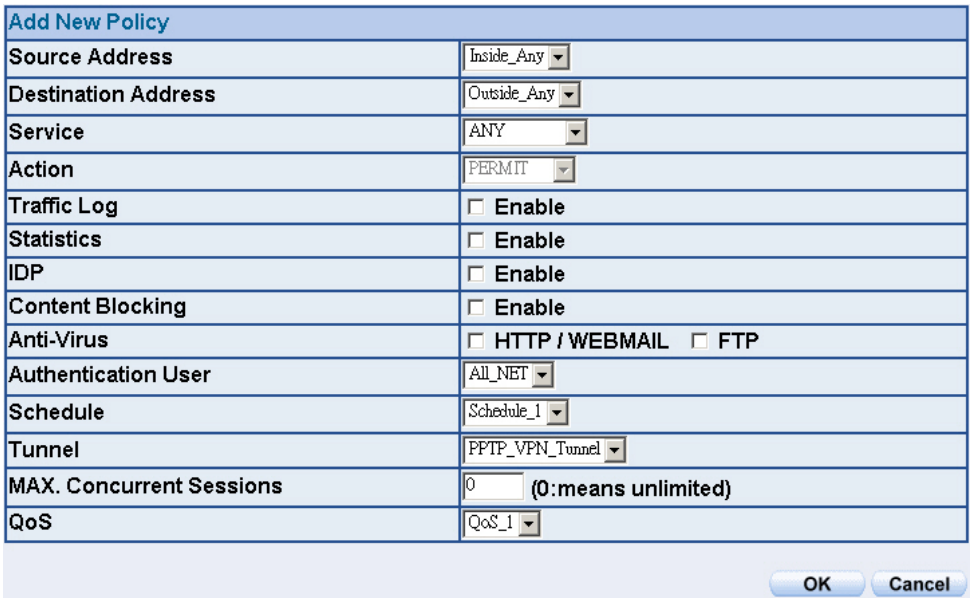


Figure11-48 Setting the VPN Tunnel Outgoing Policy

Figure11-49 Complete the VPN Tunnel Outgoing Policy Setting

STEP 4. Enter the following setting in **Incoming Policy:** (Figure11-50)

- **Schedule:** Select Schedule_1.
- **QoS:** Select QoS_1.
- **Tunnel:** Select PPTP_VPN_Tunnel.
- Click **OK**.(Figure11-51)

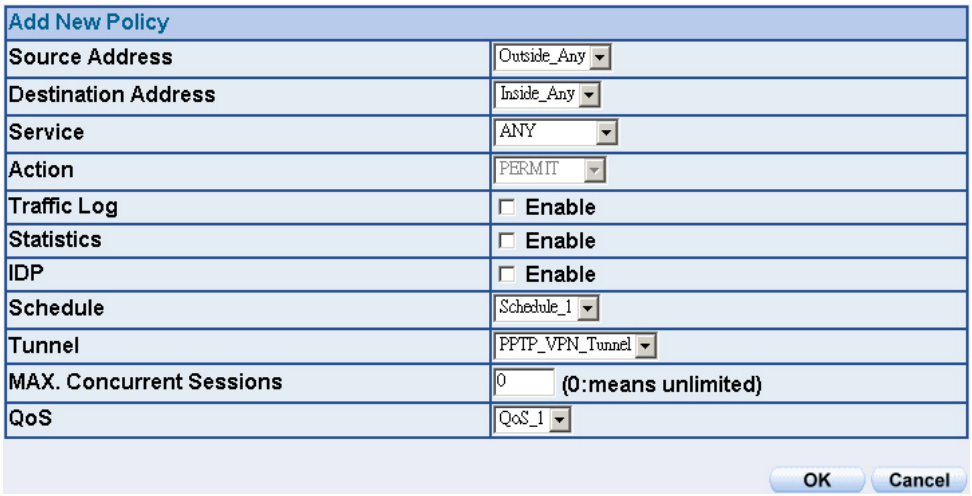


Figure11-50 Setting the VPN Tunnel Incoming Policy

Figure11-51 Complete the VPN Tunnel Incoming Policy Setting

STEP 5. Complete PPTP VPN Connection. (Figure11-52)

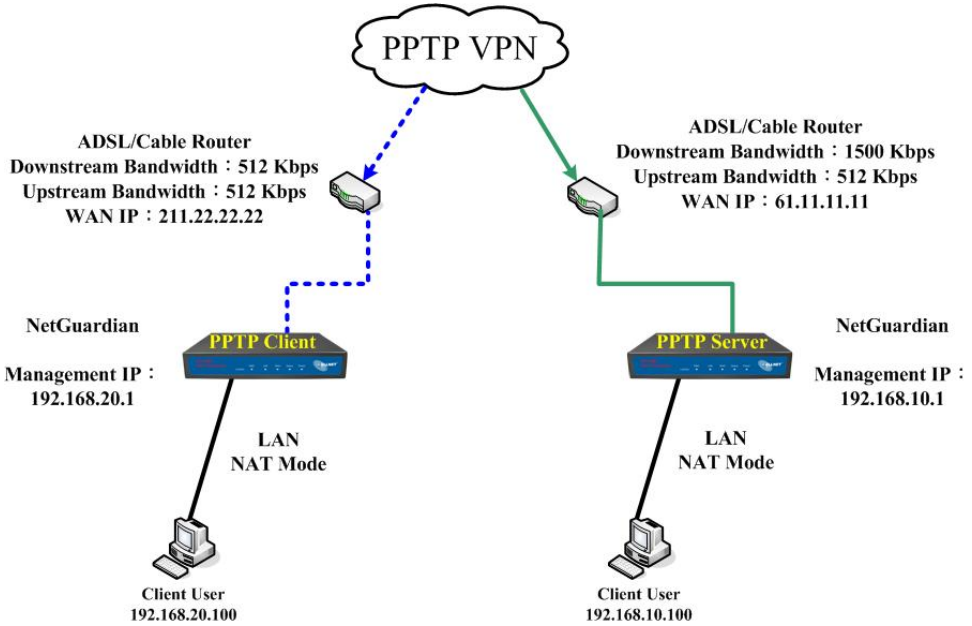


Figure 11-52 PPTP VPN Connection Deployment

Chapter 12

Policy

Every packet has to be detected if it corresponds with Policy or not when it passes the ALL7007. When the conditions correspond with certain policy, it will pass the ALL7007 by the setting of Policy without being detected by other policy. But if the packet cannot correspond with any Policy, the packet will be intercepted.

The parameter of the policy includes Source, Destination, Service, Action, WAN Port, Logging, Statistics, Content Blocking, Authentication User, Schedule, Alarm Threshold, QoS, Max. Concurrent Sessions, Quota Per Session, and Quota Per Day.Control policies decide whether packets from different network objects, network services, and applications are able to pass through the ALL7007.

How to use Policy?

The device uses policies to filter packets. The policy settings are: source address, destination address, services, permission, packet log, packet statistics, and flow alarm. Based on its source addresses, a packet can be categorized into:

(1) **Outgoing:** The source IP is in LAN network; the destination is in WAN network. The system manager can set all the policy rules of Outgoing packets in this function

(2) **Incoming:** The source IP is in WAN network; the destination is in LAN network. (For example: Mapped IP, Virtual Server) The system manager can set all the policy rules of Incoming packets in this function

(3) **WAN to DMZ:** The source IP is in WAN network; the destination is in DMZ network. (For example: Mapped IP, Virtual Server) The system manager can set all the policy rules of WAN to DMZ packets in this function

(4) **LAN to DMZ:** The source IP is in LAN network; the destination is in DMZ network. The system manager can set all the policy rules of LAN to DMZ packets in this function

(5) **DMZ to LAN:** The source IP is in DMZ network; the destination is in LAN network. The system manager can set all the policy rules of DMZ to LAN packets in this function

(6) **DMZ to WAN:** The source IP is in DMZ network; the destination is in WAN network. The system manager can set all the policy rules of DMZ to WAN packets in this function

 All the packets that go through ALL7007 must pass the policy permission (except VPN). Therefore, the LAN, WAN, and DMZ network have to set the applicable policy when establish network connection.

Define the required fields of Policy

Source and Destination:

- Source IP and Destination IP is according to the ALL7007's point of view. The active side is the source; passive side is destination.

Service:

- It is the service item that controlled by Policy. The user can choose default value or the custom services that the system manager set in **Service** function.

Action, WAN Port:

- Control actions to permit or reject packets that delivered between LAN network and WAN network when pass through ALL7007 (See the chart and illustration below)

Chart	Name	Illustration
	Permit all WAN network Interface	Allow the packets that correspond with policy to be transferred by WAN Port
	DENY ALL	Reject the packets that correspond with policy to be transferred by WAN Port

Option:

- To display if every function of Policy is enabled or not. If the function is enabled and then the chart of the function will appear (See the chart and illustration below)

Chart	Name	Illustration
	Logging	Enable traffic log
	Statistics	Enable traffic statistics
	Schedule	Enable the policy to automatically execute the function in a certain time
	Content Blocking	Enable Content Blocking

Logging:

- Record all the packets that go through policy.

Statistics:

- Chart of the traffic that go through policy

Content Blocking:

- To restrict the packets that passes through the policy

Schedule:

- Setting the policy to automatically execute the function in a certain time

Alarm Threshold:

- Setting a maximum flow rate (in Kbytes/Sec). An alarm will be sent if flow rates are higher than the specified value

MAX. Concurrent Sessions:

- Set the concurrent sessions that permitted by policy. And if the sessions exceed the setting value, the surplus connection cannot be set successfully.

Move:

- Every packet that passesALL7007 is detected from the front policy to the last one. So it can modify the priority of the policy from the selection.

We set up four Policy examples in this chapter:

No.	Suitable Situation	Example	Page
Ex1	**Outgoing**	Set up the policy that can monitor the internal users. (Take Logging, Statistics, Alarm Threshold for example)	**189**
Ex2	**Outgoing**	Forbid the users to access to specific network. (Take specific WAN IP and Content Blocking for example)	**192**
Ex3	**Incoming**	The external user control the internal PC through remote control software (Take pcAnywhere for example)	**197**
Ex4	**WAN to DMZ** **DMZ to WAN** **LAN to DMZ**	Set a Mail Server to allow the internal and external users to receive and send e-mail under DMZ Transparent Mode	**199**

Set up the policy that can monitor the internal users. (Take Logging and Statistics for example)

STEP 1． Enter the following setting in **Outgoing Policy**:

- Click **New Entry**
- Select **Logging**
- Select **Statistics**
- Click **OK** (Figure12-1)

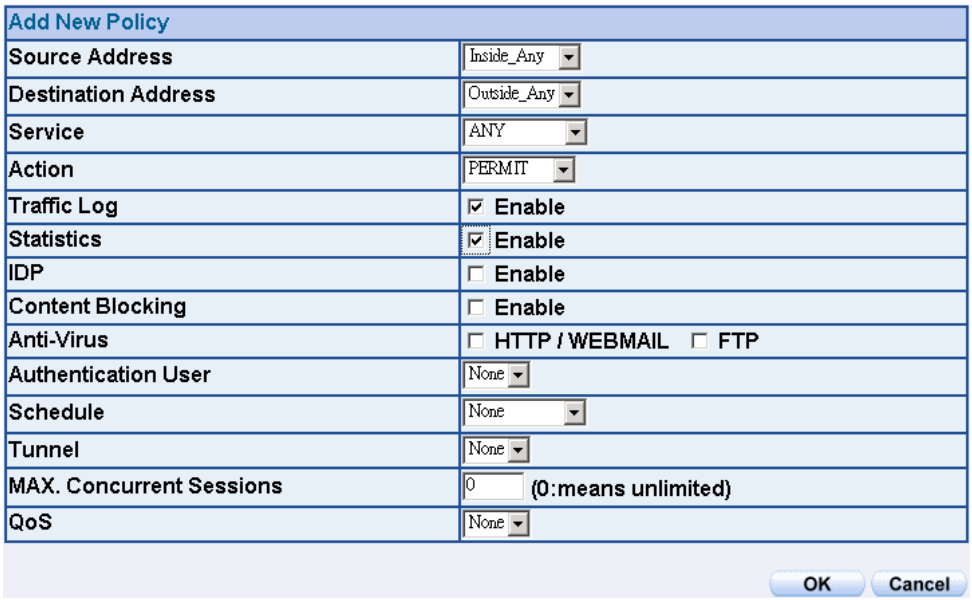


Figure12-1 Setting the different Policies

STEP 2． Complete the setting of Logging, Statistics, and Alarm Threshold in **Outgoing Policy**: (Figure12-2)

Figure12-2 Complete Policy Setting

STEP 3． To obtain the information in **Traffic Log** function if you want to monitor all the packets of ALL7007. (Figure12-3)

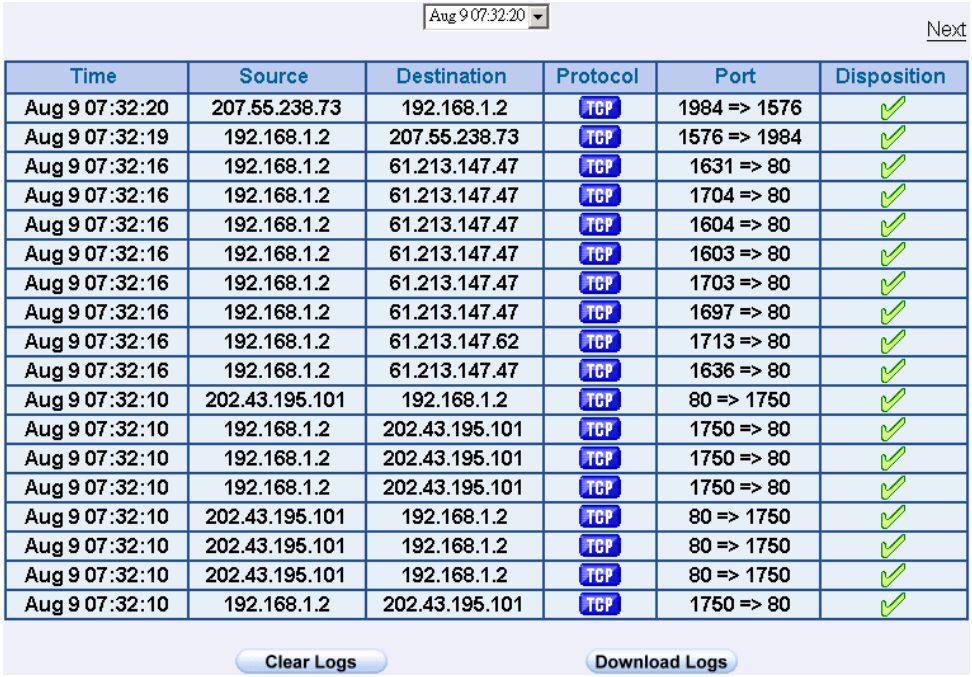


Figure12-3 Traffic Log Monitor WebUI

STEP 4．To display the traffic record that through Policy to access to Internet in **Policy Statistics** of **Statistics** function. (Figure12-4)

Figure12-4 Statistics WebUI

Forbid the users to access to specific network. (Take specific WAN IP and Content Blocking for example)

STEP 1． Enter the following setting in **URL Blocking, Script Blocking, P2P Blocking, IM Blocking,** and **Download Blocking** in **Content Blocking** function: (Figure12-5, 12-6, 12-7, 12-8, 12-9)

Figure12-5 URL Blocking Setting

Figure12-6 Script Blocking Setting

Figure12-7 P2P Blocking Setting

Figure12-8 IM Blocking Setting

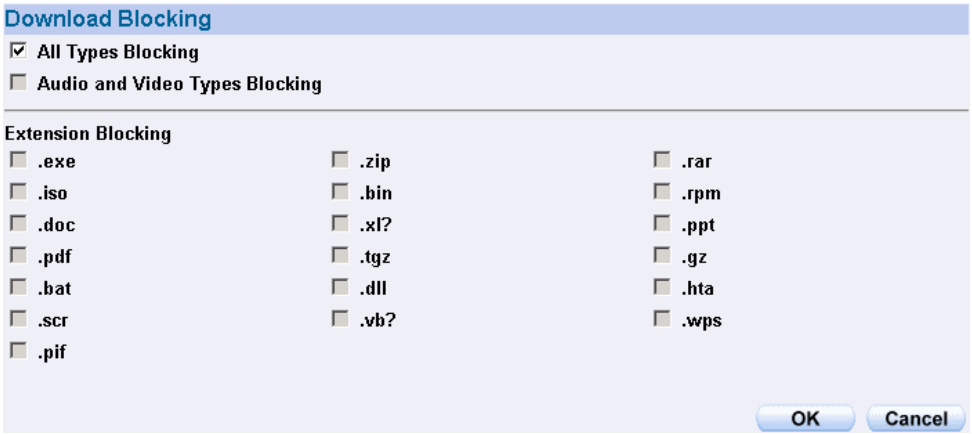


Figure12-9 Download Blocking Setting

1. **URL Blocking** can restrict the Internal Users only can access to some specific Website.
2. **Script Blocking** can restrict the Internal Users to access to Script file of Website. (Java, Cookies…etc.) (Ex: Stock Exchange Market Net)
3. **P2P Blocking** can restrict the Internal Users to access to the file on Internet by P2P. (eDonkey, BT)
4. **IM Blocking** can restrict the Internal Users to send message, files, audio, and video by instant messaging. (Ex: MSN Messenger, Yahoo Messenger, QQ, ICQ, and Skype)
5. Download Blocking can restrict the Internal Users to access to video, audio, and some specific sub-name file by http protocol directly.

STEP 2 . Enter as following in **WAN** and **WAN Group** of **Address** function: (Figure12-10, 12-11)

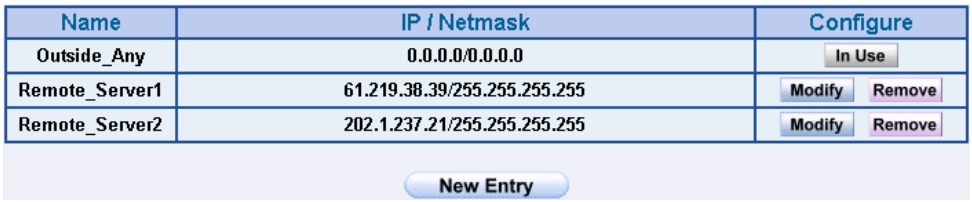


Figure12-10 Setting the WAN IP that going to block

Figure12-11 WAN Address Group

The System Administrator can group the custom address in **Address**. It is more convenient when setting policy rule.

STEP 3．Enter the following setting in **Outgoing Policy:**

- Click **New Entry**
- **Destination Address:** Select WAN_Group that set by STEP 2. (Blocking by IP)
- **Action:** Select **DENY ALL**
- Click **OK** (Figure12-12)

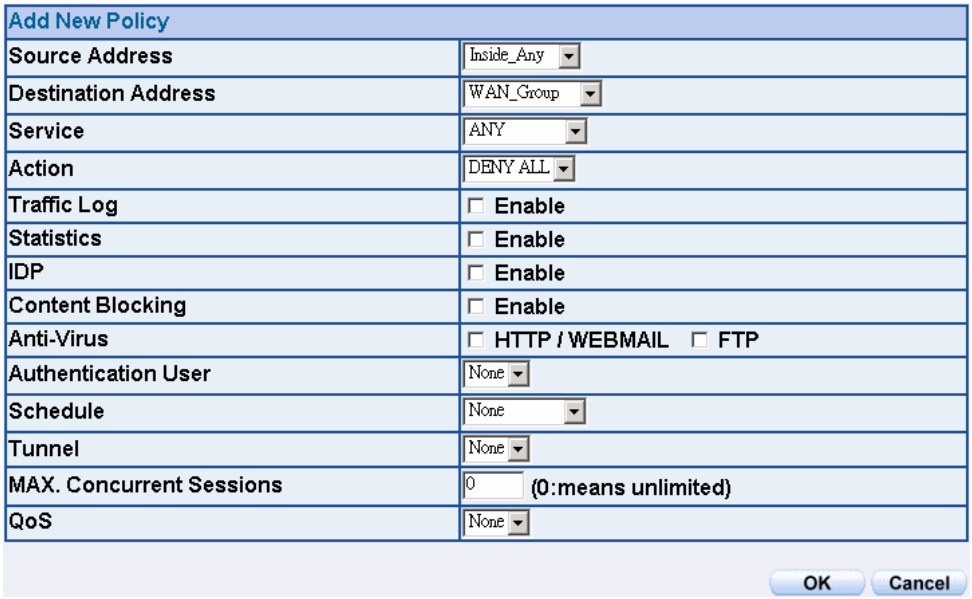


Figure12-12 Setting Blocking Policy

STEP 4 . Enter the following setting in **Outgoing Policy**:

- Click **New Entry**
- Select **Content Blocking**
- Click **OK** (Figure12-13)

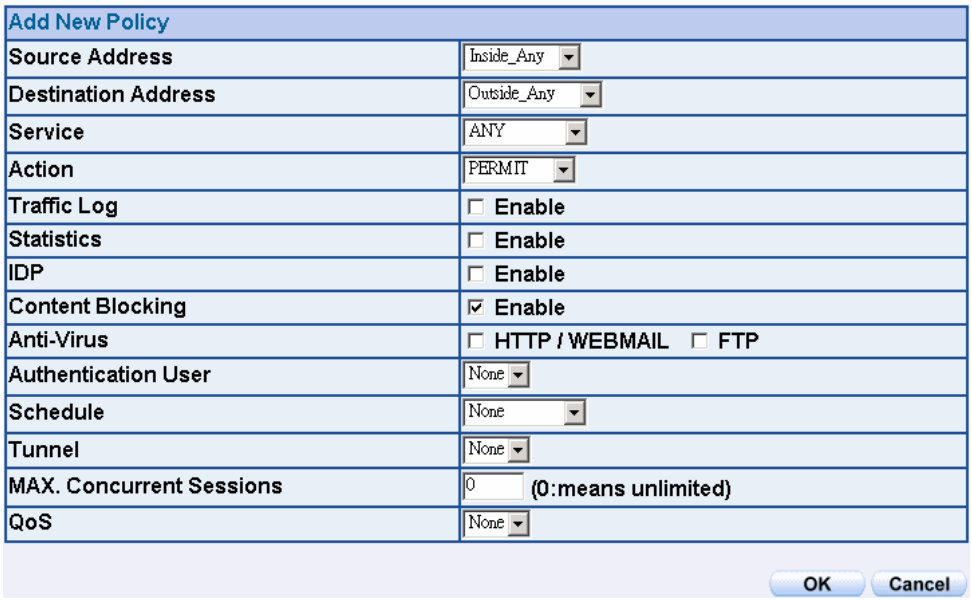


Figure12-13 Setting Content Blocking Policy

STEP 5 . Complete the setting of forbidding the users to access to specific network. (Figure12-14)

Figure12-14 Complete Policy Setting

Deny in Policy can block the packets that fit in with the policy rule. The System Administrator can put the policy rule in the first priority to prevent the user connecting with specific IP.

The external user control the internal PC through remote control software (Take pcAnywhere for example)

STEP 1 . Set up a Internal PC controlled by external user, and Internal PC's IP Address is 192.168.1.2

STEP 2 . Enter the following setting in **Server 1** of **Virtual Server** function**:** (Figure12-15)

Figure12-15 Setting Virtual Server

STEP 3．Enter the following in **Incoming Policy**:

- Click **New Entry**
- **Destination Address:** Select Server 1 (61.11.11.12)
- **Service:** Select PC-Anywhere (5631-5632)
- Click **OK** (Figure12-16)

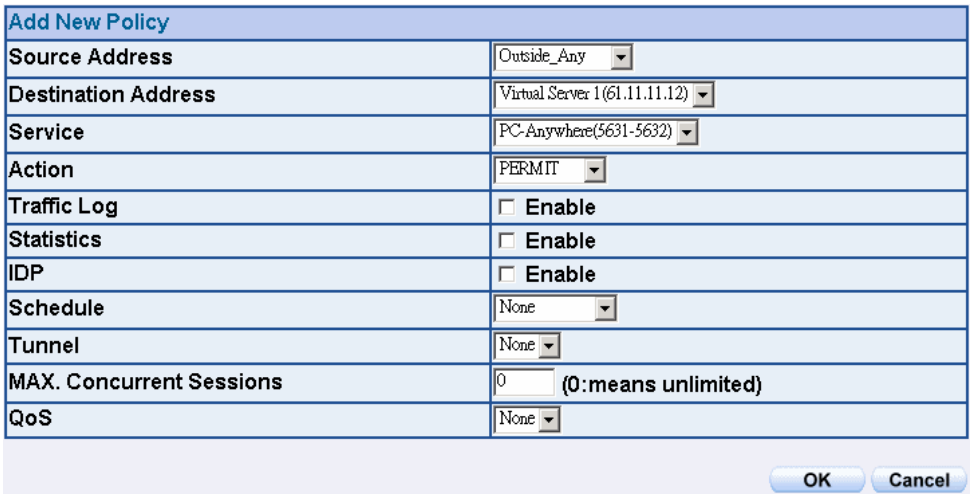


Figure12-16 Setting the External User Control the Internal PC Policy

STEP 4．Complete the policy for the external user to control the internal PC through remote control software. (Figure12-17)

Figure12-17 Complete Policy Setting

Set a Mail Server to allow the internal and external users to receive and send e-mail under DMZ Transparent Mode

STEP 1 . Set a Mail Server in **DMZ** and set its network card's IP Address as 61.11.11.12. The DNS setting is external DNS Server.

STEP 2 . Add the following setting in **DMZ** of **Address** function**:** (Figure12-18)

Name	IP / Netmask	MAC Address	Configure
DMZ_Any	0.0.0.0/0.0.0.0		In Use
Mail_Server	61.11.11.12/255.255.255.255	00:01:80:41:D0:AE	Modify Remove

New Entry

Figure12-18 The Mapped Name in Address Book of Mail Server

STEP 3 . Add the following setting in **Group** of **Service** function: (Figure12-19)

Group name	Service	Configure
E-Mail	DNS,POP3,SMTP	Modify Remove

New Entry

Figure12-19 Setting up a Service Group that has POP3, SMTP, and DNS

STEP 4 . Enter the following setting in **WAN to DMZ Policy**:

- Click **New Entry**
- **Destination Address:** Select Mail_Server
- **Service:** Select E-mail
- Click **OK** (Figure12-20)

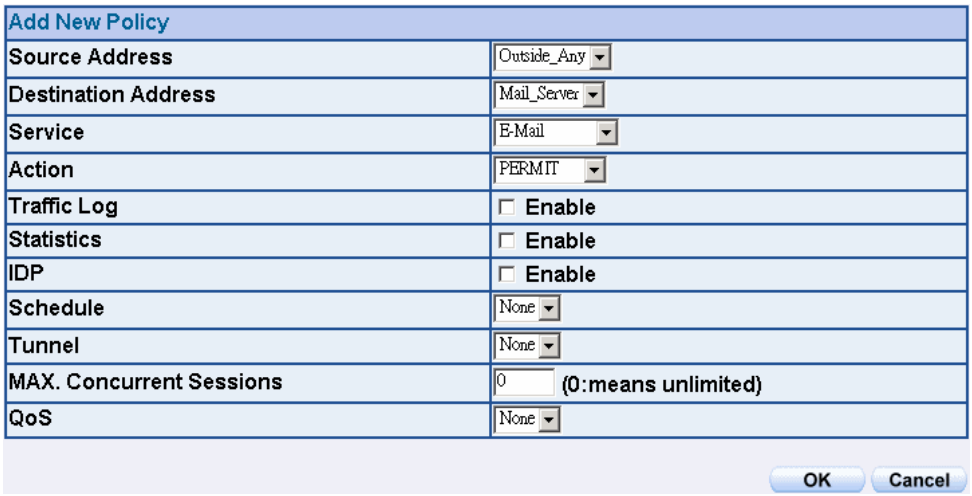


Figure12-20 Setting a WAN to DMZ Policy to access Mail Service

STEP 5 . Complete the **WAN to DMZ** policy to access mail service. (Figure12-21)

Figure12-21 Complete the Policy to access Mail Service by WAN to DMZ

STEP 6．Add the following setting in **LAN to DMZ Policy**:

- Click **New Entry**
- **Destination Address:** Select Mail_Server
- **Service:** Select E-mail
- Click **OK** (Figure12-22)

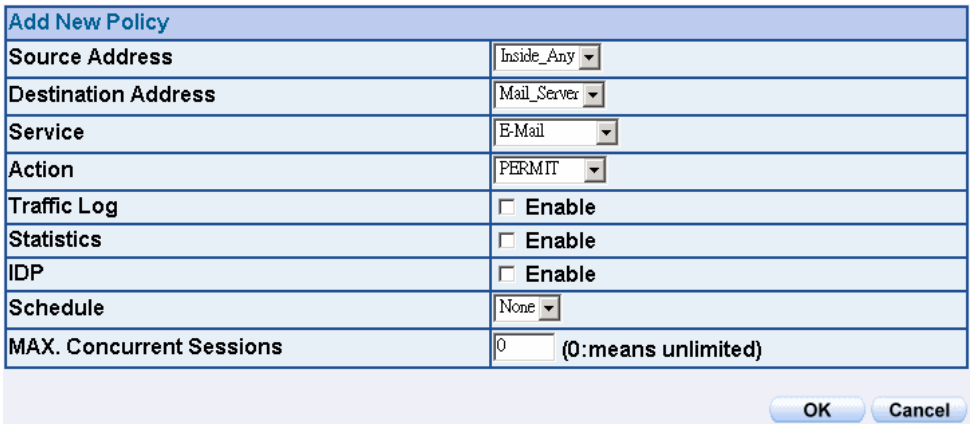


Figure12-22 Setting a LAN to DMZ Policy to access Mail Service

STEP 7．Complete the **LAN to DMZ** policy to access mail service (Figure12-23)

Figure12-23 Complete the LAN to DMZ Policy to access Mail Service

STEP 8 . Add the following setting in **DMZ to WAN Policy**:

- Click **New Entry**
- **Source Address:** Select Mail_Server
- **Service:** Select E-mail
- Click **OK** (Figure12-24)

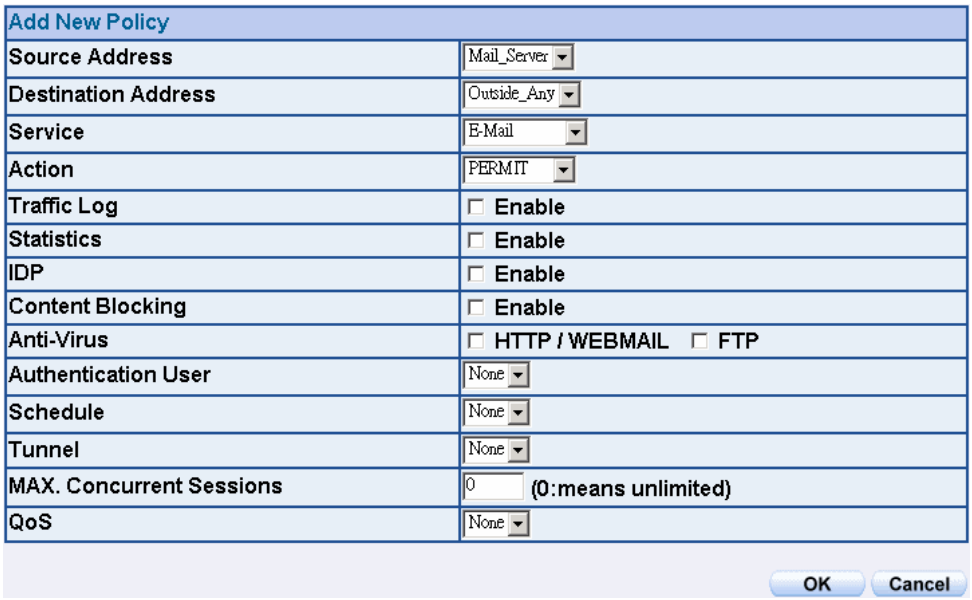


Figure12-24 Setting the DMZ to WAN Policy of Mail Service

STEP 9 . Complete the **DMZ to WAN** policy to access to mail service. (Figure12-25)

Figure12-25 Complete the DMZ to WAN Policy to access to Mail Service

Chapter 13

Configure

According to the Mail Security Configure function, it means the dealing standard towards mail of ALL7007. In this chapter, it is defined as Setting and Mail Relay.

 After scanning the mails that sent to Internal Mail Server by **Anti-Spam** and **Anti-Virus** function of ALL7007, then to setup the relevant setting in **Mail Relay** function.

Define the required fields of Setting:

Scanned Mail Setting:

- It can setup to deal with the size of mail in order to judge if to scan the mail or not.

Unscanned Mail Setting:

- According to the unscanned mail, it can add an unscanned message in the mail subject.
  - For example, add the following setting in this function:
    1. The scanned mail size is less than 200Kbytes
    2. Add the message to the subject line --Unscanned--
    3. Click OK (Figure13-1)

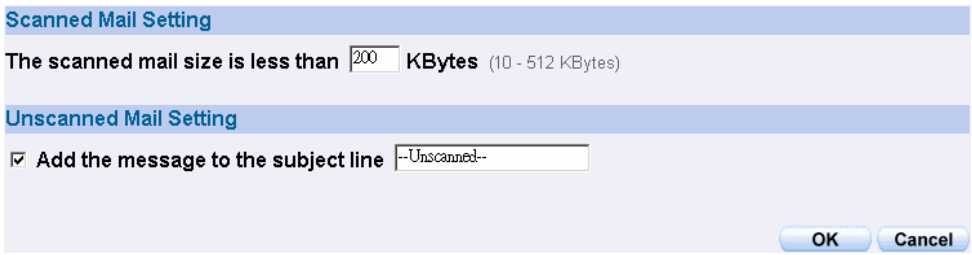


Figure13-1 Scanned Mail Setting

- When receive unscanned mail, it will add the tag in front of the e-mail subject. (Figure13-2)

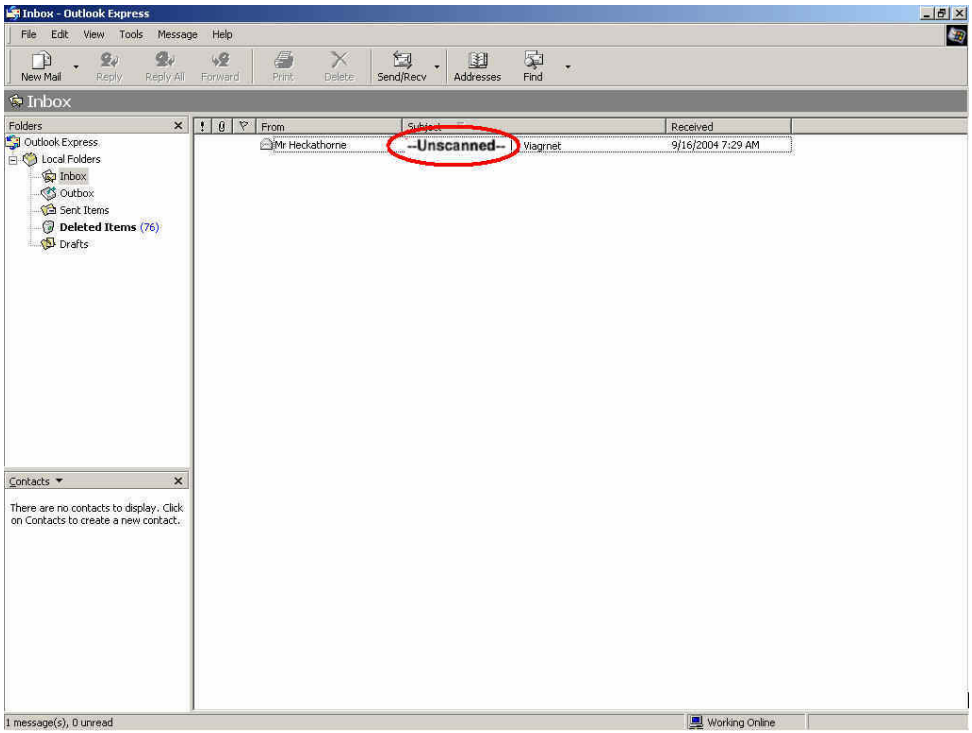


Figure13-2 The Unscanned Mail Subject WebUI

To setup ALL7007 as Gateway (Mail Server is in DMZ, Transparent Mode)

Preparation

WAN Port IP: 61.11.11.11

Mail Server IP: 61.11.11.12

Map the DNS Domain Name that apply from ISP (broadband.com.tw) to DNS Server IP (setup MX record is Mail Server IP)

When external sender to send mail to the recipient account in broadband.com.tw, add the following Mail Relay setting:

STEP 1．Add the following setting in **Mail Relay** function of **Configure**:

- Select **Domain Name of Internal Mail Server**
- **Domain Name of Mail Server:** Enter the Domain Name
- **IP Address of Mail Server:** Enter the IP address that Mail Server's domain name mapped to
- **Mail Relay** setting is complete. The mails from external and its destination mail server have to be in the domain name setting, that can be received by ALL7007 and be sent to the appointed mail server after filtering. (Figure13-3)

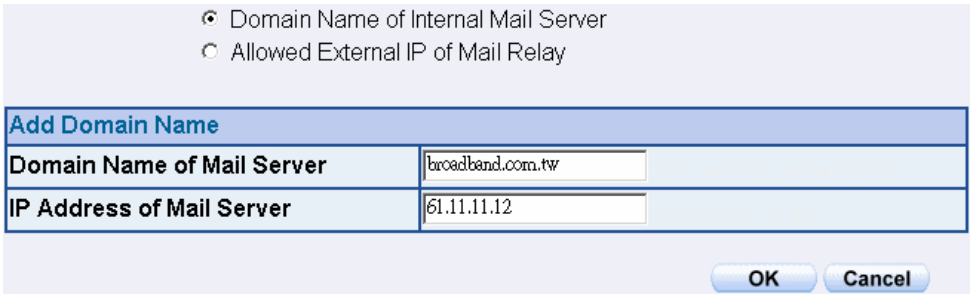


Figure13-3 Mail Relay Setting WebUI

To setup ALL7007 between the original Gateway and Mail Server (Mail Server is in DMZ, Transparent Mode)

Preparation

The Original Gateway's LAN Subnet: 172.16.1.0/16

WAN Port IP: 61.11.11.11

ALL7007's WAN Port IP: 172.16.1.12

Mail Server IP: 172.16.1.13

Map the DNS Domain Name (broadband.com.tw) to DNS Server IP (setup MX record is Mail Server IP)

When LAN (172.16.1.0/16) user use the sender account of broadband.com.tw mail server to send mail to the recipient account in external mail server, have to add the following mail relay setting

STEP 1．Add the first setting in **Mail Relay** function of **Configure**:

- Select **Domain Name of Internal Mail Server**
- **Domain Name of Mail Server:** Enter the Domain Name
- **IP Address of Mail Server:** Enter the IP address that Mail Server's domain name mapped to (Figure13-4)

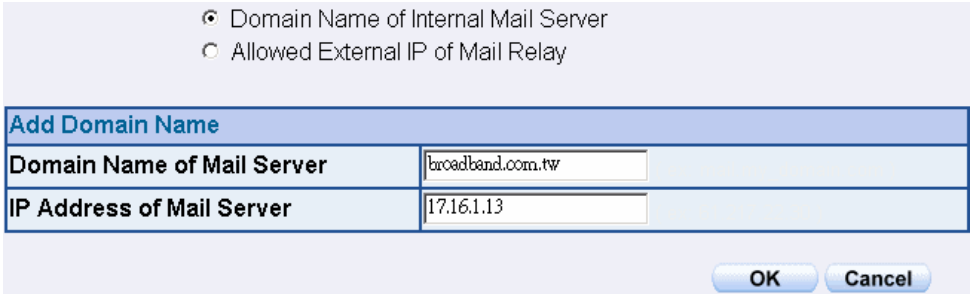


Figure13-4 The First Mail Relay Setting WebUI

STEP 2．Add the second setting in **Mail Relay** function of **Configure**:

- Select **Allowed External IP of Mail Relay**
- **IP Address:** Enter the IP Address of external sender
- Enter the **Netmask**
- Complete Mail Relay setting (Figure13-5)

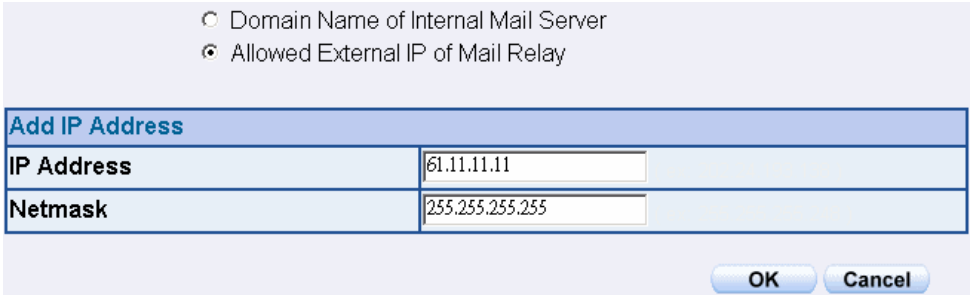


Figure13-5 The Second Mail Relay Setting WebUI

The Headquarters setup ALL7007 as Gateway (Mail Server is in DMZ, Transparent Mode) to make the Branch Company's employees can send mails via Headquarters' Mail Server

Preparation

WAN Port IP of ALL7007: 61.11.11.11
Mail Server IP: 61.11.11.12
WAN Port IP of the Branch Company's Firewall: 211.22.22.22

Map the DNS Domain Name (broadband.com.tw) to DNS Server IP (setup MX record is Mail Server IP)

When the branch company's users send mail to the external mail server's recipient account by mail server's sender account of broadband.com.tw, add the following Mail Relay setting:

STEP 1．Add the first setting in **Mail Relay** function of **Configure**:

- Select **Domain Name of Internal Mail Server**
- **Domain Name of Mail Server:** Enter the Domain Name
- **IP Address of Mail Server:** Enter the IP address that Mail Server's domain name mapped to (Figure13-6)

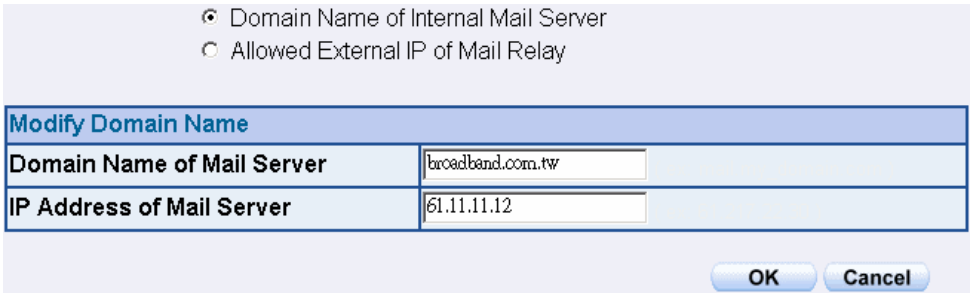


Figure13-6 The First Mail Relay Setting WebUI

STEP 2．Add the second setting in **Mail Relay** function of **Configure**:

- Select **Allowed External IP of Mail Relay**
- **IP Address:** Enter the IP Address of external sender
- Enter the **Netmask**
- Complete Mail Relay setting (Figure13-7)

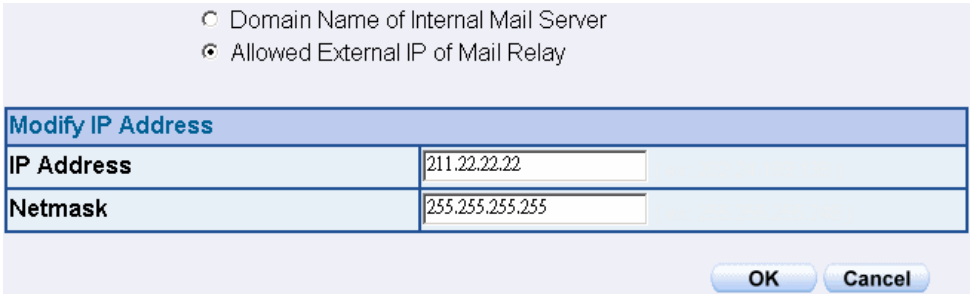


Figure13-7 The Second Mail Relay Setting WebUI

Chapter 14

Anti-Spam

ALL7007 can filter the e-mails that are going to send to the mail server of enterprise. In order to make sure the e-mail account that communicates with outside won’t receive a mass advertisement or Spam mail, meanwhile, it can reduce the burden of mail server. Also can prevent the users to pick up the message he/she needs from a mass of useless mails; or delete the needed mail mistakenly while deleting mails. It will raise the work efficiency of the employees and will not lose the important information of enterprise.

In this chapter, we will have the detailed illustration about **Anti-Spam:**

Define the required fields of Setting:

Spam Setting:

- It can choose the inspection way of the mails, where the mail server is placed in Internal (LAN or DMZ) or External (WAN)
- It can inspect all of the mails that are sent to the enterprise. Also can add score tag or message to the subject line of Spam mail while it exceeds the standard. After filtering if the mails still don’t reach the standard, it will only add score tag to the subject of the spam mail.
- It also can check sender address in blacklist of anti-spam website to determine if it is spam mail or not

Action of Spam Mail:

- The mail that considered as spam mail can be coped with **Delete mail**, **Deliver to the recipient**, **Forward to** another mail account
  - After setup the relevant settings in **Mail Relay** function of **Configure**, add the following settings in this function:
    1. The Mail Server is placed in **Internal (LAN or DMZ)**
    2. **The threshold score**: Enter 5
    3. **Add the message to the subject line**: Enter ---spam---
    4. Select **Add score tag to the subject line**
    5. Select **Deliver to the recipient**
    6. Click **OK** (Figure14-1)

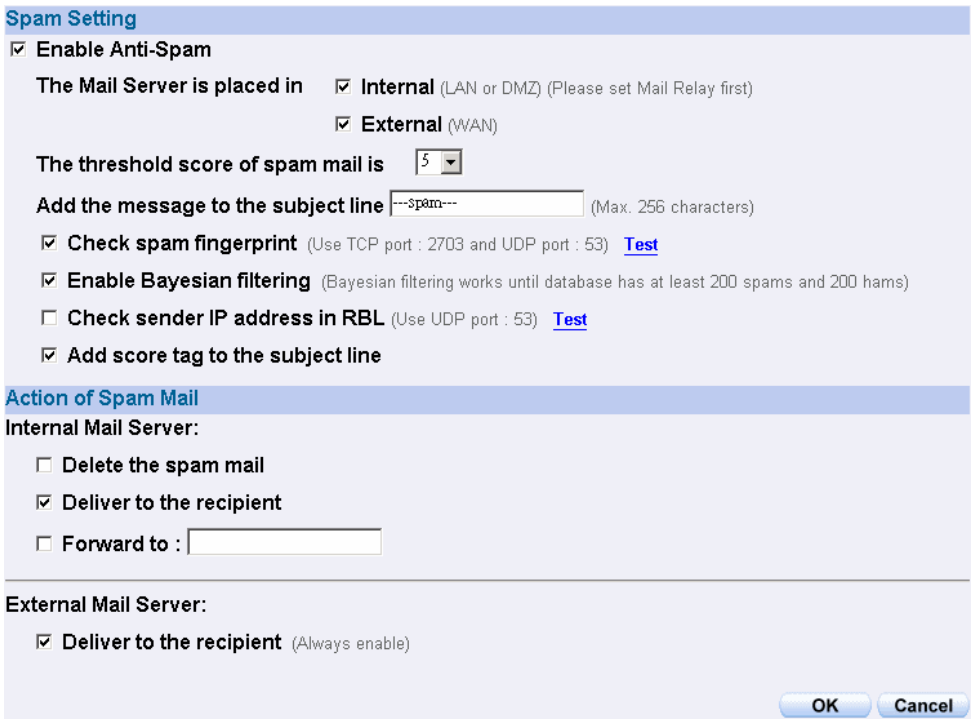


Figure14-1 Anti-Spam Setting WebUI

- When receive Spam mail, it will add **score tag** and **message** in front of the subject of the E-mail. (Figure14-2)

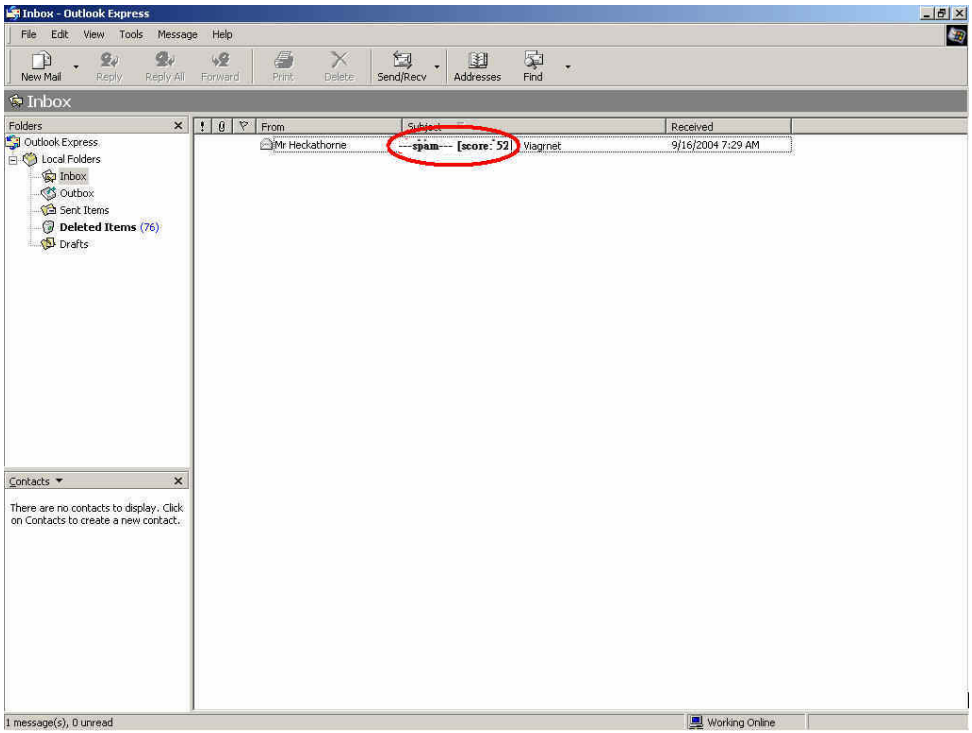


Figure14-2 the subject of the mail that considered as spam mail WebUI

- When receive Ham mail, it will only add **score tag** in front of the e-mail's subject (Figure14-3)

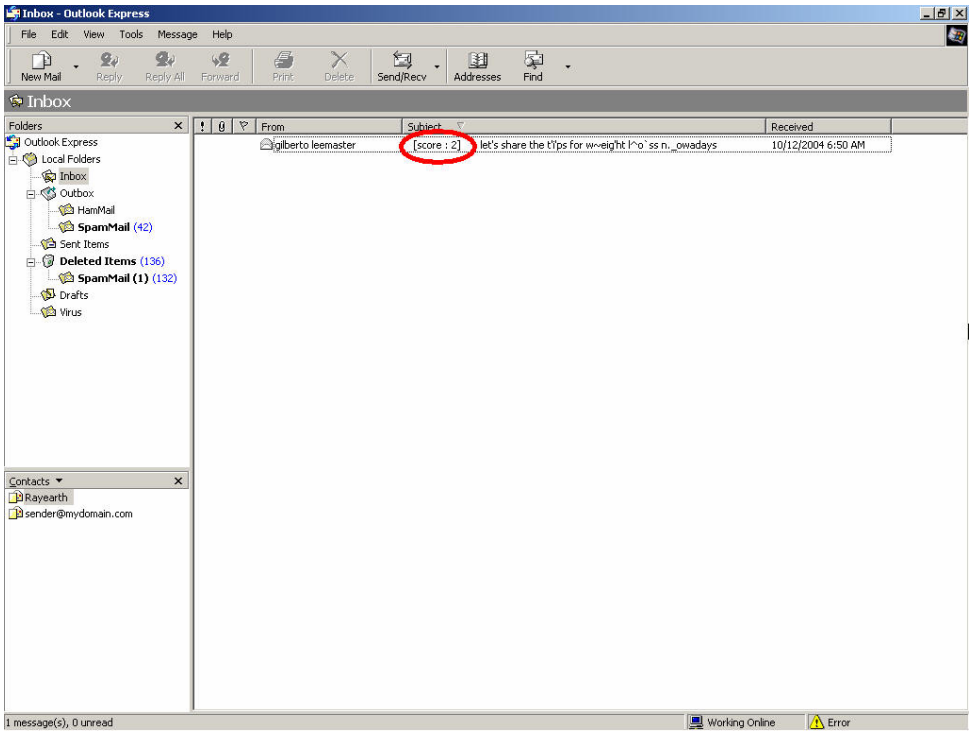


Figure14-3 the subject of the mail that considered as Spam mail WebUI

Define the required fields of Rule

Rule Name:

- The name of the custom spam mail determination rule

Comment:

- To explain the meaning of the custom rule

Combination:

- Add: It must be fit in with all of the custom rule mails that would be considered as spam mail or ham mail.
- Or: Only be fit in with one of the custom rule mails that would be considered as spam mail or ham mail.

Classification:

- When setting as **Spam**, it will classify the mails that correspond to the rule as spam mail.
- When setting as **Ham (Non-Spam)**, it will classify the mails that correspond to the rule as ham mail.

Action:

- Only when **Classification** is set as **Spam** that will enable this function. Because only spam mail needs to be handled.
- You can choose to Delete mail, Deliver to the recipient, or Forward to another mail account

Auto-Training:

- When **Classification** is set as **Spam** and enable this function, and then the mails that correspond to this rule will be trained to identify as spam mail according to the setting time in Training function
- When **Classification** is set as **Ham (Non-Spam)** and enable this function, and then the mails correspond to this rule will be trained to identify as ham (non-spam) mail according to the setting time in Training function

Item:

- To judge if it is spam mail or not according to the Header, Body, Size of the mail.
- The Header items to detect the mail are: Received, Envelope-To, Form, To, Cc, Bcc, Subject, Sender, Reply-To, Errors-To, Message-ID, and Date.

Condition:

- When **Item** is set as **Header** and **Body**, the available conditions are: Contains, Does Not Contain, Is Equal To, Is Not Equal To, Starts With, Ends With, Exist and Does Not Exist.
- When **Item** is set as **Size**, the available conditions are: More Than, Is Equal To, Is Not Equal To and Less Than.

Pattern:

- Enter the relevant value in **Item** and **Condition** field. For example: **From** Item and use **Contains** Condition, and enter josh as a characteristics. Afterward when the sender and receiver’s mail account has josh inside and then it will be considered as spam mail or ham mail

Define the required fields of Whitelist

Whitelist:

- To determine the mail comes from specific mail address that can send to the recipient without being restricted.

Direction:

- 【**From**】：To judge the sending address of the mail
- 【**To**】：To judge the receiving address of the mail

Define the required fields of Blacklist

Blacklist:

- To determine the mail comes from specific mail address that cannot be sent to the recipient.

Define the required fields of Training

Training Database:

- The System Manager can Import or Export Training Database here.

Spam Mail for Training:

- The System Manager can import the file which is not determined as spam mail here. To raise the judgment rate of spam mail after the ALL7007 learning the file.

Ham Mail for Training:

- The System Manager can import the file which is determined as spam mail here. To raise the judgment rate of ham mail after the ALL7007 learning the file

Training time:

- The System Manager can set the training time for ALL7007 to learn the import file each day here.

Define the required fields of Spam Mail

Top Total Spam:

- To show the top chart that represent the spam mail that recipient receive and send

 In **Top Total Spam** report, you can choose to display the scanned mails that sent to **Internal Mail Server** or received from **External Mail Server.**

 In **Top Total Spam** report, it can sort the mail according to Recipient, Total Spam and Scanned Mail.

Advance Instruction:

When talking to Mail Server, it is the medium of sending or receiving all the e-mail in Internet. The indicative way of the e-mail is: acoount@server.name. In front of the @ means the account; behinds the @ mean the Master's name.

When you send e-mail to josh@yahoo.com.tw, your sending software will go to DNS Server to find the mail Master name, mapped IP, and MX record first. If there is a mapped MX record and then the e-mail will be delivered to the MX Master first, and then be delivered to the destination (yahoo.com.tw) by MX Master (means the Master of yahoo.co.tw). If it maps to several MX records, and then the e-mail will be deliver to the first priority Master. And if there is no MX record, the e-mail will deliver to your mail master only after searching for mapped IP. And then your mail master can deliver it to the mail master of yahoo.com.tw. The master of yahoo.com.tw will deliver the mail to every recipient according to the account in front of the @.

The flow of delivering e-mail:

The three key element of sending e-mail are: MUA, MTA, MDA

- **MUA (Mail User Agent):** The PC of client cannot send mail directly. It must deliver mail by MUA. No matter to send or to receive the mail, the Client user still has to use mail system by MUA that provided by operation system. For example: Outlook Express in Windows is MUA. The main function of MUA is to receive or send e-mail from mail master and provide the function for users to browse and edit mail
- **MTA (Mail Transfer Agent):** When the user sending or receiving mails, they are both completed by MTA. Basically, its functions are as below:

1. To receive the mail that sent by external master: when receiving the mails from external; only if the recipient exists in MTA internal account then this mail will be received by MTA.
2. To send mail for user: Only if the user has the authority to use MTA, and then the mail can be sent by MTA.
3. To let user to receive his/her own mail: The user can take the mails to his/her own PC from mail master.

 Generally the Mail Server we refer to is talking about MTA.

- **MDA (Mail Delivery Agent):** To let the mail that received by MTA be put in the Mailbox according to its destination. Or by MTA to send the mail to the next MTA.

To introduce the delivery procedure of the mail by two Send and Receive way:

If the user wants to send the mail, the steps can be divided as follows:

- Use MUA to send mail to MTA: Enter the following setting while the user write e-mail by MUA:

    1. The e-mail address and the mail server of the sender (To receive the MTA that sent by MTA from the sender)
    2. The e-mail address and the mail server of the recipient (To receive the MTA that sent from the external master)

After the user writing e-mail by MUA, and use the sending function of MUA, it will deliver the mail to the MTA you appoint to.

- When MTA receive the mail from itself, it will hand over to MDA to deliver the mail to the mailbox of the user's account: In the received mail, if the destination is Mail Server it means MTA itself. Meanwhile, MTA will transfer the mail to MDA and put the mail in the recipient's mailbox.
- MTA will transfer the mail again; if the recipient of the mail is not the internal account, then the mail will be transferred again. This function is called Relay
- Remote MTA receive the mail that sent by local MTA: Remote MTA will receive the mail that sent by local MTA and transfer the mail to its MDA. Meanwhile, the mail will be saved in remote MTA and applied for the user to download.

And the action of user to receive mail is as follows:

The PC that used by remote user will connect to his/her MTA directly, to ask MTA to check if its mailbox has mails or not. After MTA check by MDA, it will transfer the mail to the user's MUA. Meanwhile, according to MUA setting, MTA will choose to delete the Mailbox or to preserve it. (For the next time when user receive the mail again, the preserved mail will be downloaded again)

 The protocol of send/receive e-mail is as follows:

1. Sending e-mail: It is a function of the process of sending the mail from MUA to MTA, and transfer mail from MTA to the next MTA. At present, most of the mail server uses SMTP Protocol (Simple Mail Transfer Protocol), and the Port Number is 25.
2. Receiving e-mail: MUA connect to MTA user's Mailbox by POP (Post Office Protocol) in order to read or download the mail in user's mailbox. At present, common POP Protocol is POP3 (Post Office Protocol version 3), and the Port Number is 110.

 Generally, a MTA that provides sending/receiving mail function needs two protocols at least. They are SMTP and POP3. And as long as your MUA and MTA support SMPT and POP3, then they can connect with each other.

 After MTA analyzing the received mail and if the recipient is not in the master account, then MTA will transfer the mail to the next MTA. This function is called Relay.

 If anyone can deliver the mail by one of the mail server, we called this **Open Relay** mail server. To avoid this question, most of the mail server's default value will not open up Relay function. It only will open up Relay function according to **Localhost.** Therefore, MTA can receive the mail that indicative of the recipient is the internal account of MTA mail server. So there is no problem in receiving the mail. However it causes some problems because MTA only setup some standard IP and Subnet to open their Relay function. So in the range of this setting, the Client can send/receive mail very free. As for the mail from the IP source without standard will be blocked completely. In this case, there comes **Simple Mail Transfer Protocol** to solve the problem.

 Simple Mail Transfer Protocol is when MUA send mail to MTA; the master will ask to detect the account and password of MUA sender. And then MTA can provide the Relay function after authentication without setup Relay function according to some trusting domain or IP. By Authentication, MTA will analyze the relevant authentication information of the sender. After passing the authentication that will accept mail and send the mail, otherwise; MTA will not receive the mail.

We set up five Anti-Spam examples in this chapter:

To detect if the mail from External Mail Server is spam mail or not

STEP 1． In **LAN Address** to permit a PC receiving the mail from external mail server. Its network card is set as 192.168.139.12, and the DNS setting is DNS server.

STEP 2． In **LAN** of **Address** function, add the following settings: (Figure14-4)

Figure14-4 Mapped IP of Internal User's PC in Address Book

STEP 3． Add the following setting in **Group** of **Service**. (Figure14-5)

Figure14-5 Service Group that includes POP3, SMTP, or DNS

STEP 4． Add the following setting in **Outgoing Policy**: (Figure14-6)

Figure14-6 Outgoing Policy Setting

STEP 5 . Add the following setting in **Setting** of **Anti-Spam** function: (Figure14-7)

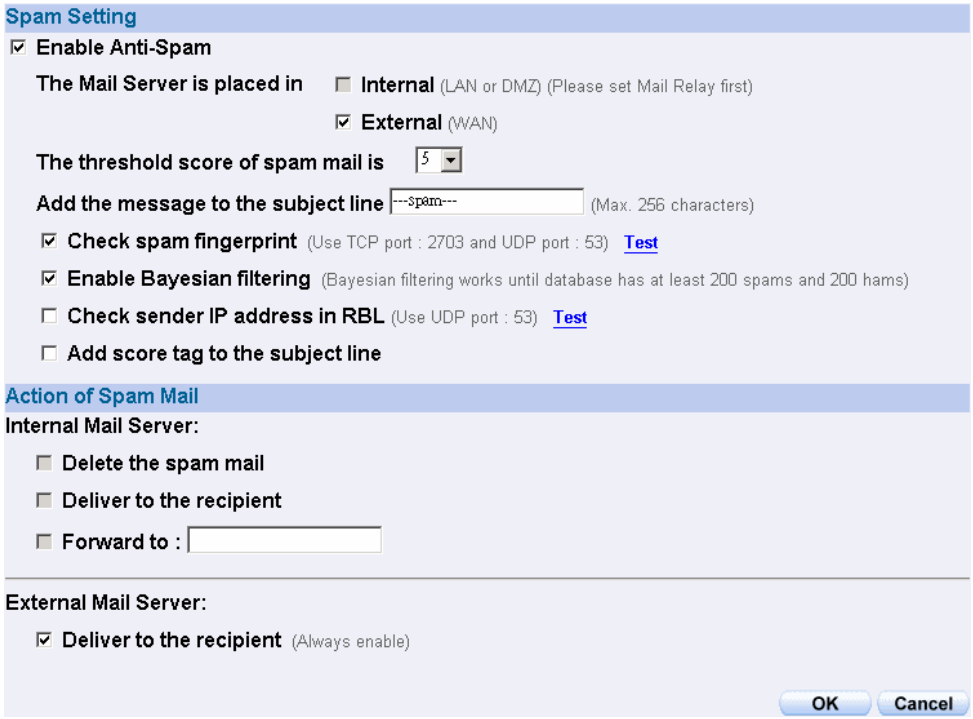


Figure14-7 Action of Spam Mail and Spam Setting

Anti-Spam function is enabled in default status. So the System Manager does not need to set up the additional setting and then the ALL7007 will filter the spam mail according to the mails that sent to the internal mail server or received from external mail server. (Figure14-8)

Figure14-8 Default Value of Spam Setting

When only filter the mail that internal users received from external server:

1. In **Action of Spam Mail**, no matter choose **Delete mail, Deliver to the recipient,** or **Forward to,** it will add the message on the subject line of spam mail and send it to the recipient.
2. Also can use **Rule, Whitelist, Blacklist** or **Training** function to filter the spam mail.

STEP 6 . When the internal users are receiving the mail from external mail account (js1720@ms21.pchome.com.tw), the ALL7007 will filter the mail at the same time and the chart will be in the **Spam Mail** in **Anti-Spam** function. (At this time, choose **External** to see the mail account chart) (Figure14-9)

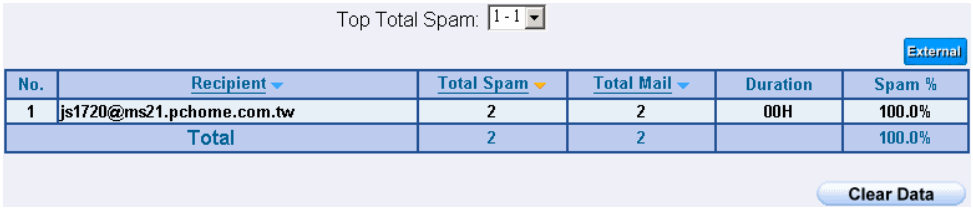


Figure14-9 Report Function Chart

To setup the relevant settings in **Mail Relay** function of **Configure**, so that can choose to display the scanned mails that sent to Internal Mail Server.

Take ALL7007 as Gateway and use Whitelist and Blacklist to filter the mail. (Mail Server is in DMZ and use Transparent Mode)

STEP 1． Set up a mail server in **DMZ** and set its network card IP as 61.11.11.12. The DNS setting is external DNS server, and the Master name is broadband.com.tw

STEP 2． Enter the following setting in **DMZ** of **Address** function: (Figure14-10)

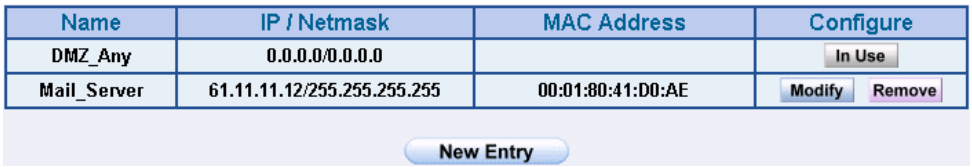


Figure14-10 Mapped Name Setting in Address of Mail Server

STEP 3． Enter the following setting in **Group** in **Service** function: (Figure14-11)

Figure14-11 Setting Service Group that include POP3, SMTP or DNS

STEP 4． Enter the following setting in **WAN to DMZ Policy**: (Figure14-12)

Figure14-12 WAN to DMZ Policy Setting

STEP 5 . Enter the following setting in **DMZ to WAN Policy**: (Figure14-13)

Figure14-13 DMZ to WAN Policy Setting

STEP 6 . Enter the following setting in **Mail Relay** function of **Setting**: (Figure14-14)

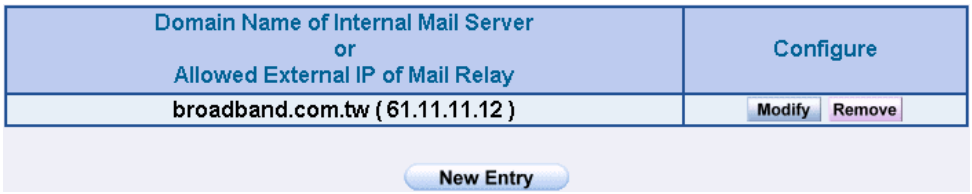


Figure14-14 Mail Relay Setting of External Mail to Internal Mail Server

Mail Relay function makes the mails that sent to DMZ's mail server could be relayed to its mapped mail server by ALL7007

STEP 7． Enter the following setting in **Setting** function of **Anti-Spam**: (Figure14-15)

Figure14-15 Spam Setting and Action of Spam Mail

When select **Delete mail** in **Action of Spam Mail**, and then the other functions (**Deliver to the recipient**, or **Forward to**) cannot be selected. So when ALL7007 had scanned spam mail, it will delete it directly. But still can check the relevant chart in **Spam Mail** function.

Action of Spam Mail here is according to the filter standard of **Blacklist** to take action about spam mail.

STEP 8． Enter the following setting in **Whitelist** of **Anti-Spam** function:

- Click **New Entry**
- **Whitelist:** Enter share2k01@yahoo.com.tw
- **Direction:** Select From
- Enable **Auto-Training**
- Click **OK** (Figure14-16)
- Enter **New Entry** again
- **Whitelist:** Enter josh@broadband.com.tw
- **Direction:** Select To
- Enable **Auto-Training**
- Click **OK** (Figure14-17)
- Complete setting (Figure14-18)

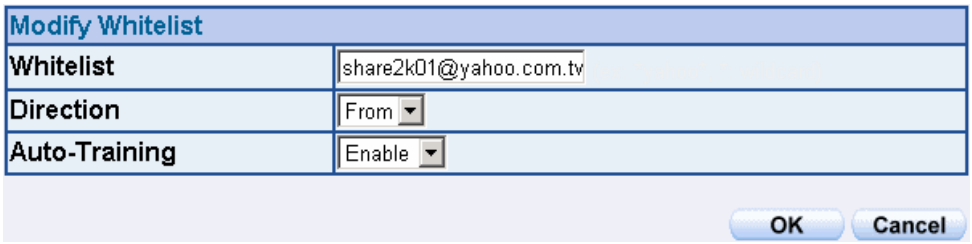


Figure14-16 Add Whitelist Setting 1

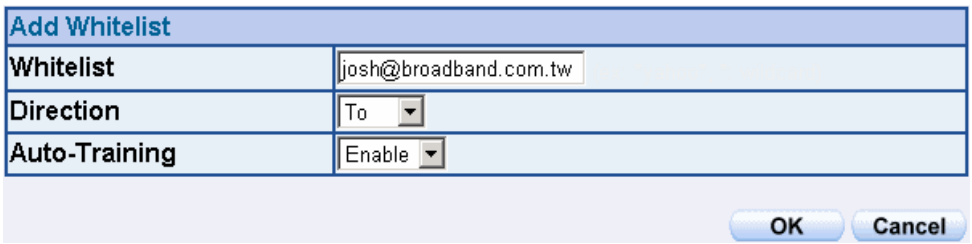


Figure14-17 Add Whitelist Setting 2

Figure14-18 Complete Whitelist Setting

When enable **Auto-Training** function, the mail that correspond to **Whitelist** setting will be trained as Ham Mail automatically according to the time setting in **Training** function.

STEP 9．Enter the following setting in **Blacklist** of **Anti-Spam** function:

- Enter **New Entry**
- **Blacklist:** Enter *yahoo*
- **Direction:** Select From
- Enable **Auto-Training**
- Click **OK** (Figure14-19)
- Complete the Setting (Figure14-20)

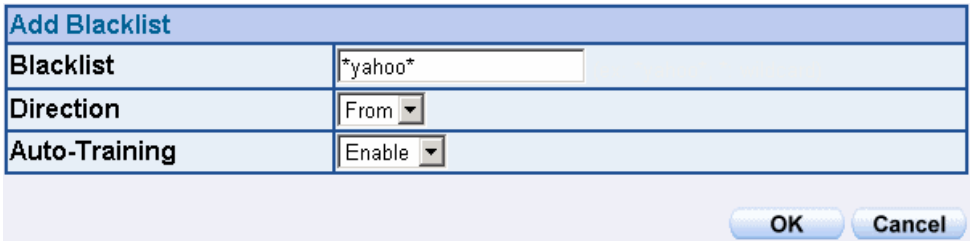


Figure14-19 Add Blacklist Setting

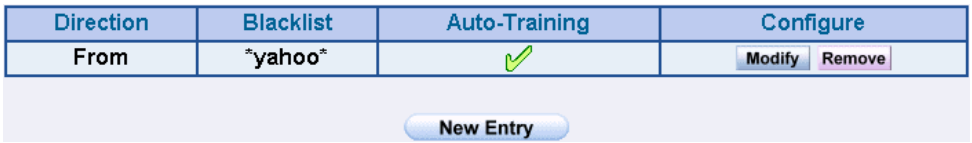


Figure14-20 Complete Blacklist Setting

When enable **Auto-Training** function, the mail that correspond to **Blacklist** setting will be trained as Spam Mail automatically according to the time setting in **Training** function.

The address of **Whitelist** and **Blacklist** can be set as complete mail address (For example: josh@broadband.com.tw) or the word string that make up of【*】(For example: *yahoo* means the e-mail account that includes “yahoo” inside)

The privilege of **Whitelist** is greater than **Blacklist**. So when ALL7007 is filtering the spam mail, it will adopt the standard of **Whitelist** first and then adopt **Blacklist** next.

STEP 10 . When the external yahoo mail account send mail to the recipient account of mail server of broadband.com.tw in ALL7007; josh@broadband.com.tw and steve@broadband.com.tw

- If the sender account is share2k01@yahoo.com.tw, then these two recipient accounts both will receive the mail that sent by this sender account.
- If it comes from other yahoo sender account (share2k003@yahoo.com.tw), and then there will only be josh@broadband.com.tw can receive the mail that sent from this sender account; the mail that sent to steve@broadband.com.tw will be considered as spam mail.
- After ALL7007 had filtered the mail above, it will bring the chart as follows in the **Spam Mail** function of **Anti-Spam**. (Figure14-21)

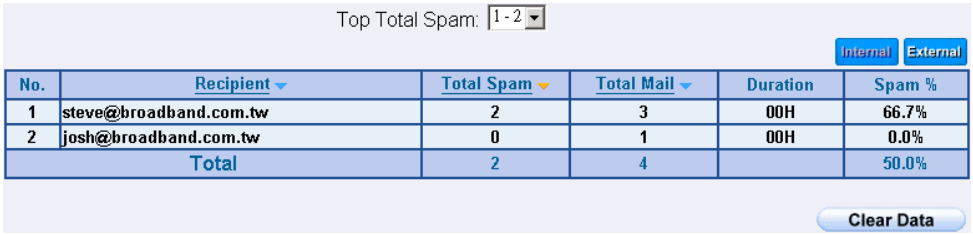


Figure14-21 Chart of Report Function

When clicking on **Remove** button in **Total Spam Mail,** the record of the chart will be deleted and the record cannot be checked in **Spam Mail** function.

Place ALL7007 between the original Gateway and Mail Server to set up the Rule to filter the mail. (Mail Server is in DMZ, Transparent Mode)

The LAN Subnet of enterprise's original Gateway: 172.16.1.0/16
The WAN IP of ALL7007: 172.16.1.12

STEP 1 . Setup a Mail Server in **DMZ** and its network card IP is 172.16.1.13. The DNS setting is external DNS Server. Its host name is broadband.com.tw

STEP 2 . Enter the following setting in **DMZ Address Book**: (Figure14-22)

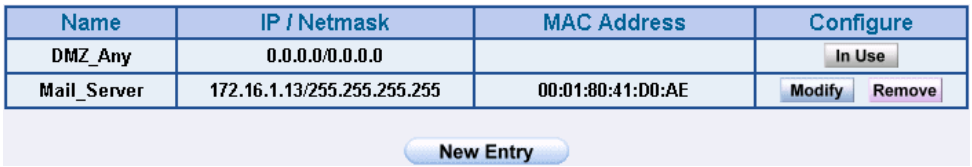


Figure14-22 Mapped IP Setting of Mail Server in Address Book

STEP 3 . Enter the following setting in **Service Group**. (Figure14-23)

Figure14-23 Setting Service Group includes POP3, SMTP or DNS

STEP 4．Enter the following setting in **WAN to DMZ Policy:** (Figure14-24)

Figure14-24 WAN to DMZ Policy Setting

STEP 5．Enter the following setting in **DMZ to WAN Policy:** (Figure14-25)

Figure14-25 DMZ to WAN Policy Setting

STEP 6．Add the following setting in **Mail Relay** in **Configure**: (Figure14-26)

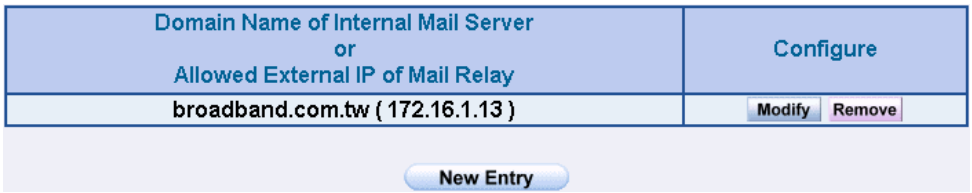


Figure14-26 Mail Relay Setting of External Mail to Internal Mail Server

STEP 7． Enter the following setting in **Rule** of **Anti-Spam** function:

- Enter **New Entry**
- **Rule Name:** Enter YahooMail
- **Comments:** Enter Yahoo Ham Mail
- **Combination:** Select Or
- **Classification:** Select Ham (Non-Spam)
- Enable **Auto-Training**
- In the first field **Item**: Select From; **Condition**: Select Contains; **Pattern**: share2k01
- Click **Next Row**
- In the second **Item** field: Select To; **Condition**: Select Contains; **Pattern:** josh (Figure14-27)
- Press **OK** (Figure14-28)

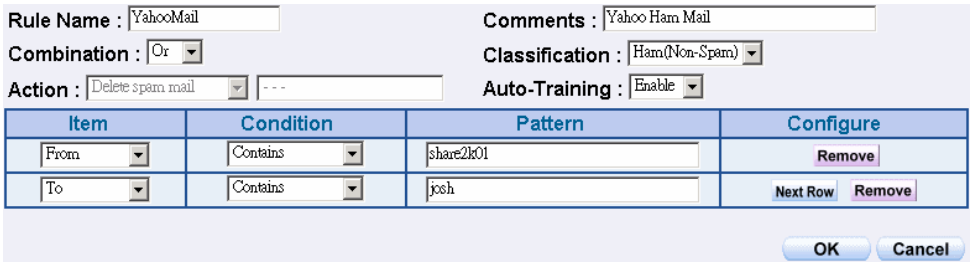


Figure14-27 The First Rule Item Setting

Figure14-28 Complete First Rule Setting

In **Rule** Setting, when **Classification** select as Ham (Non-Spam), the **Action** function is disabled. Because the mail that considered as Ham mail will send to the recipient directly.

STEP 8． Enter the following setting in **Rule** of **Anti-Spam** function:

- Enter **New Entry**
- **Rule Name:** Enter YahooSpamMail
- **Comments:** Enter Anti Yahoo Spam Mail
- **Combination:** Select And
- **Classification:** Select Spam
- **Action:** Select Deliver to the recipient
- Enable **Auto-Training**
- **Item**: Select From; **Condition**: Select Contains; **Pattern**: yahoo (Figure14-29)
- Press **OK** (Figure14-30)

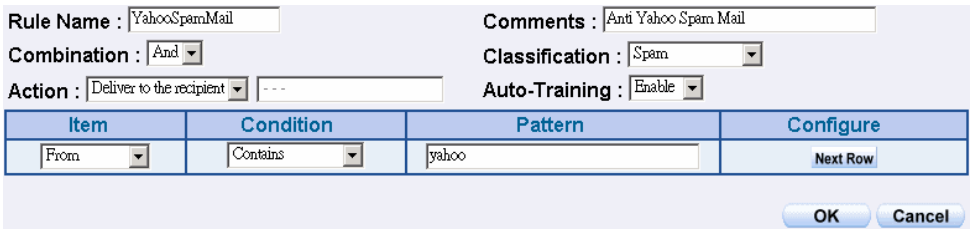


Figure14-29 The Second Rule Setting

Figure14-30 Complete the Second Rule Setting

In **Rule** Setting, when the **Classification** select as **Spam**, then the **Action** only can select **Delete the spam mail, Forward to,** or **Deliver to the recipient.**

The privilege of **Rule** is greater than **Whitelist** and **Blacklist**. And in **Rule** function, the former rule has the greater privilege. So when the ALL7007 is filtering the spam mail, it will take **Rule** as filter standard first and then is **Whitelist**; **Blacklist** is the last one be taken.

Select one of the mails in **Outlook Express**. Press the right key of the mouse and select **Content**, and select **Details** in the pop-up page. It will show all of the headers for the message to be taken as the reference value of **Condition** and **Item** of the **Rule**. (Figure14-31)

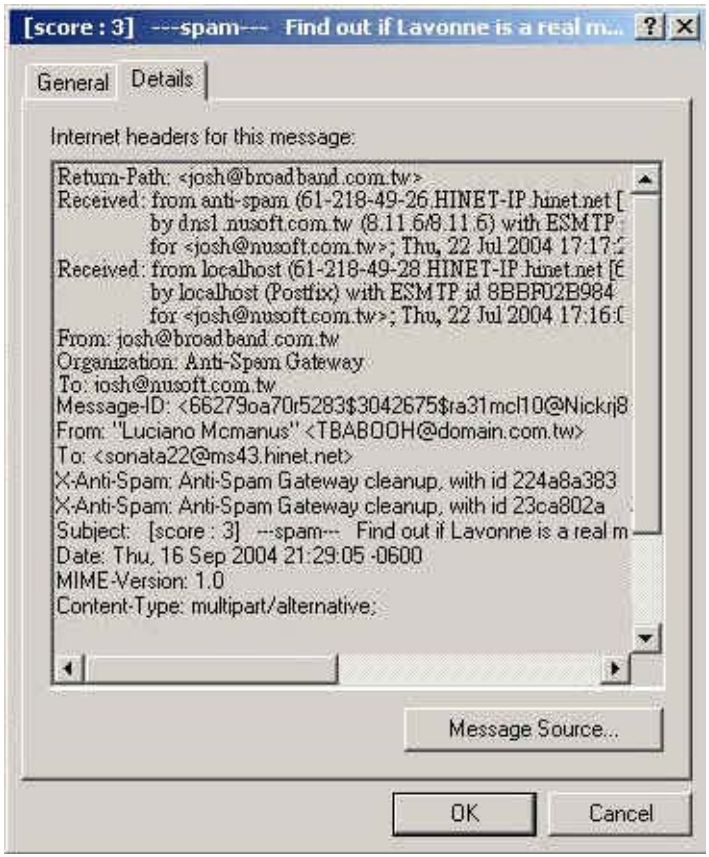


Figure14-31 The Detailed Data of the Mail

STEP 9 . When the external yahoo mail account send mail to the recipient account of mail server of broadband.com.tw in ALL7007; josh@broadband.com.tw and steve@broadband.com.tw

- If the sender account is share2k01@yahoo.com.tw, then these two recipient accounts both will receive the mail that sent by this sender account.
- If it comes from other yahoo sender account (share2k003@yahoo.com.tw), and then there will only be josh@broadband.com.tw can receive the mail that sent from this sender account; the mail that sent to steve@broadband.com.tw will be considered as spam mail.
- After ALL7007 had filtered the mail above, it will bring the chart as follows in the **Spam Mail** function of **Anti-Spam**. (Figure14-32)

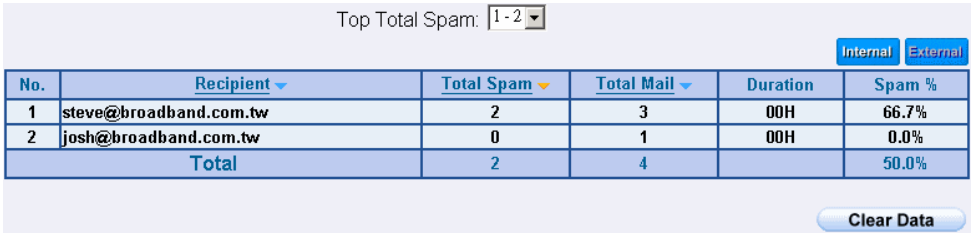


Figure14-32 Chart of Report Function

Use Training function of the ALL7007 to make the mail be determined as Spam mail or Ham mail after Training. (Take Outlook Express for example)

To make the spam mail that had not detected as spam mail be considered as spam mail after training.

STEP 1． Create a new folder SpamMail in **Outlook Express**:

- Press the right key of the mouse and select **New Folder**. (Figure14-33)
- In **Create Folder** WebUI and enter the Folder's Name as SpamMail, and then click on OK. (Figure14-34)

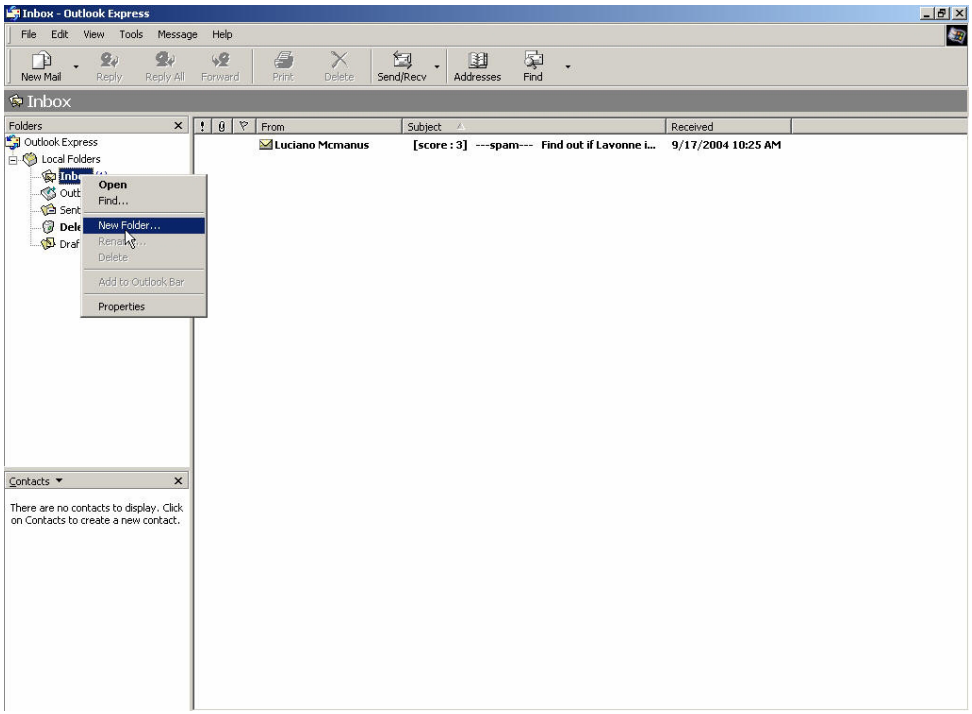


Figure14-33 Select New Folder Function WebUI

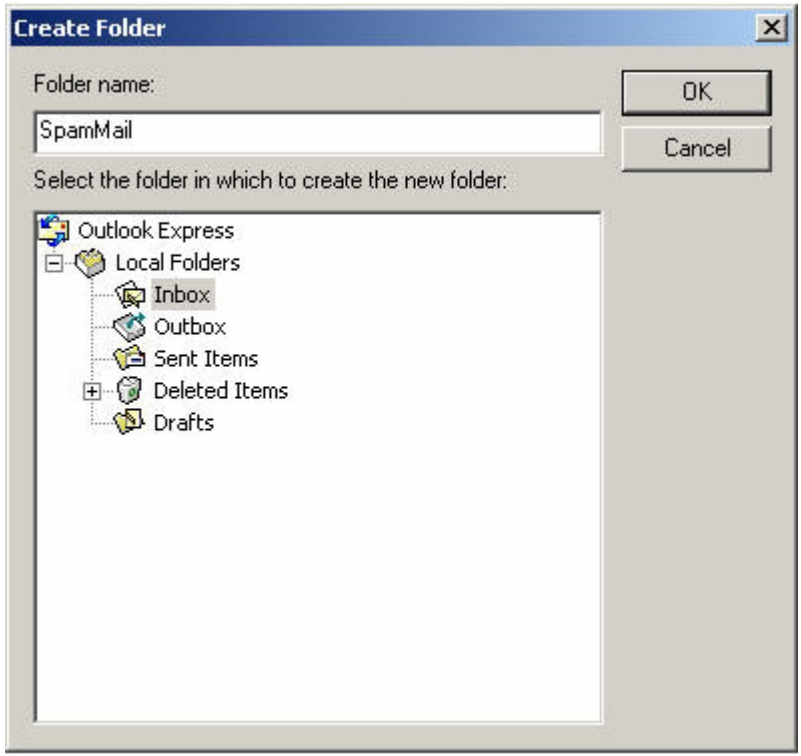


Figure14-34 Create Folder WebUI

STEP 2．In **Inbox-Outlook Express**, move spam mail to **SpamMail** Folder:

- In Inbox, select all of the spam mails that do not judge correctly and press the right key of the mouse and move to the folder. (Figure14-35)
- In **Move** WebUI, select **SpamMail** Folder and click **OK** (Figure14-36)

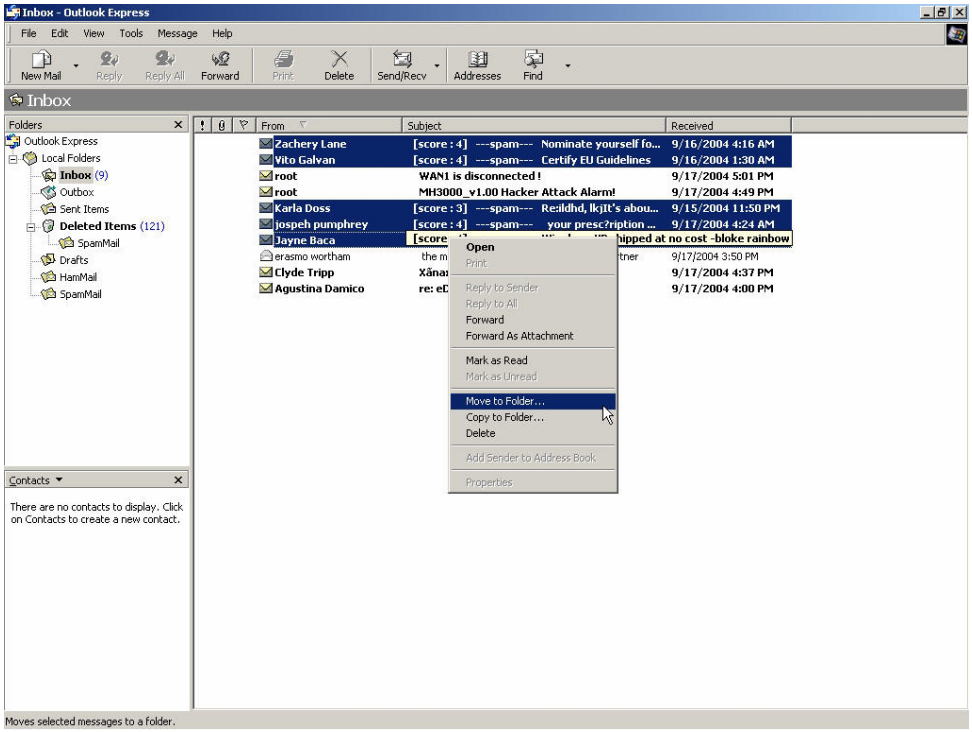


Figure14-35 Move Spam Mail WebUI

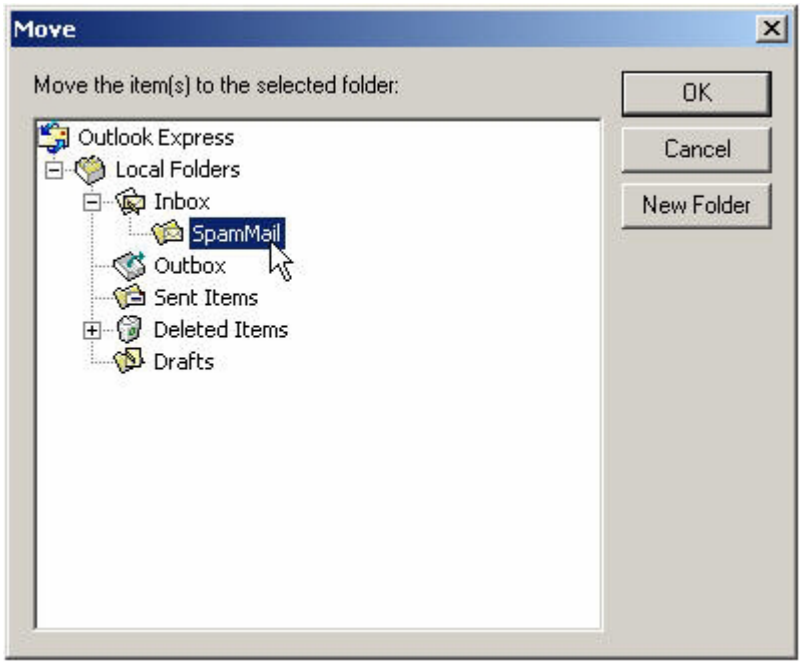


Figure14-36 Select Folder for Spam Mail to move to

STEP 3 . Compress the SpamMail Folder in **Outlook Express** to shorten the data and upload to ALL7007 for training:

- Select **SpamMail** Folder (Figure14-37)
- Select **Compact** function in selection of the folder (Figure14-38)

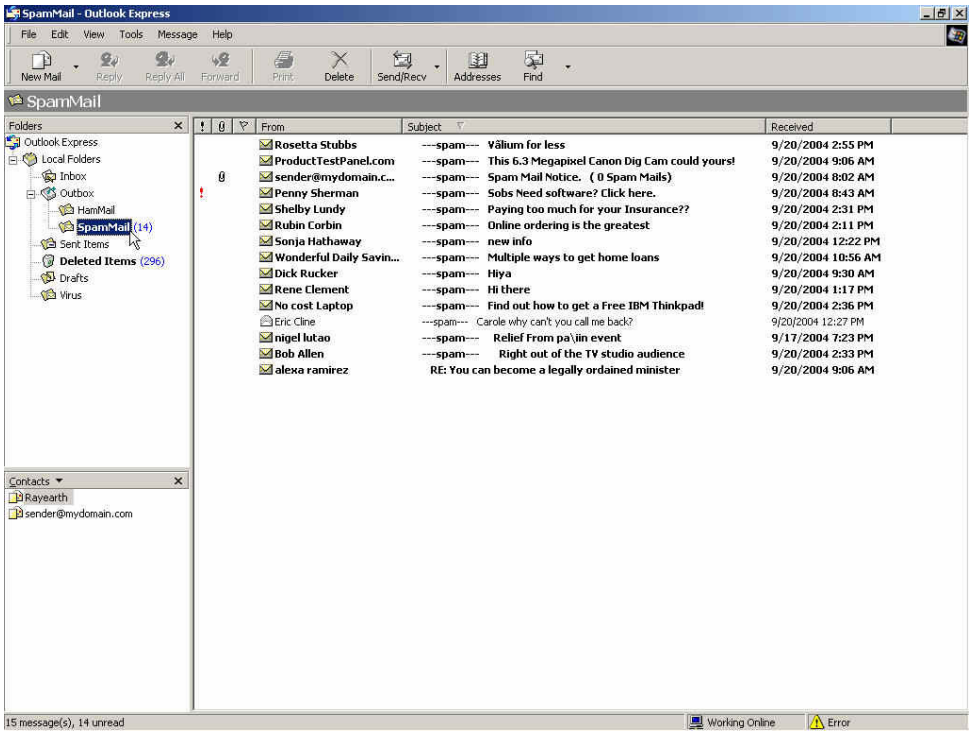


Figure14-37 Select SpamMail Folder

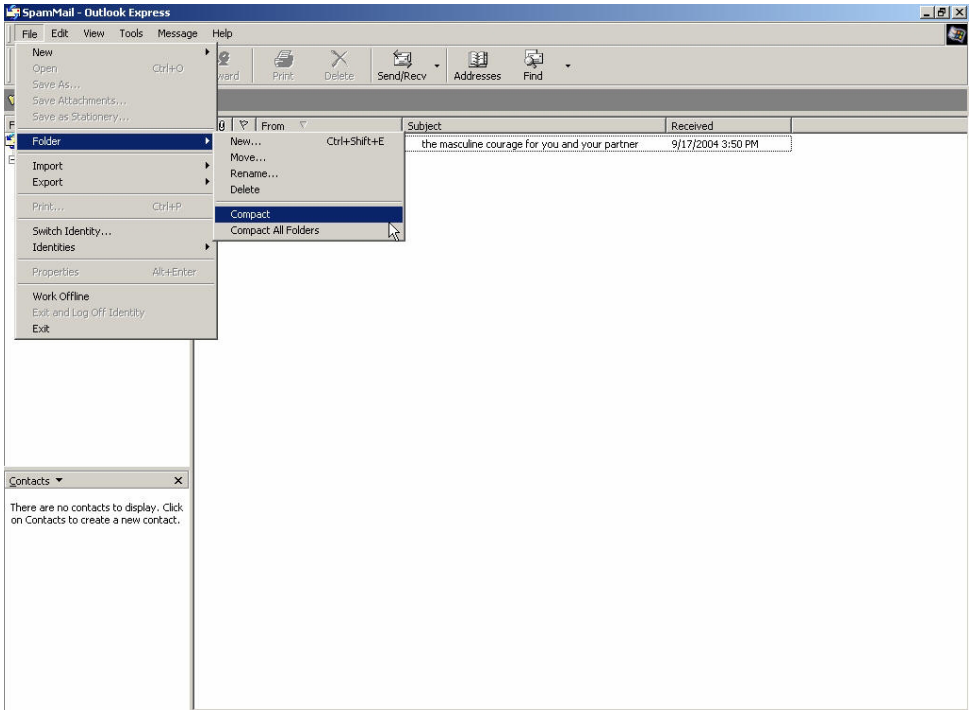


Figure14-38 Compact SpamMail Folder

STEP 4． To copy the route of SpamMail File in **Outlook Express** to convenient to upload the training to ALL7007:

- Press the right key of the mouse in SpamMail file and select **Properties** function. (Figure14-39)
- Copy the file address in **SpamMail Properties** WebUI. (Figure14-40)

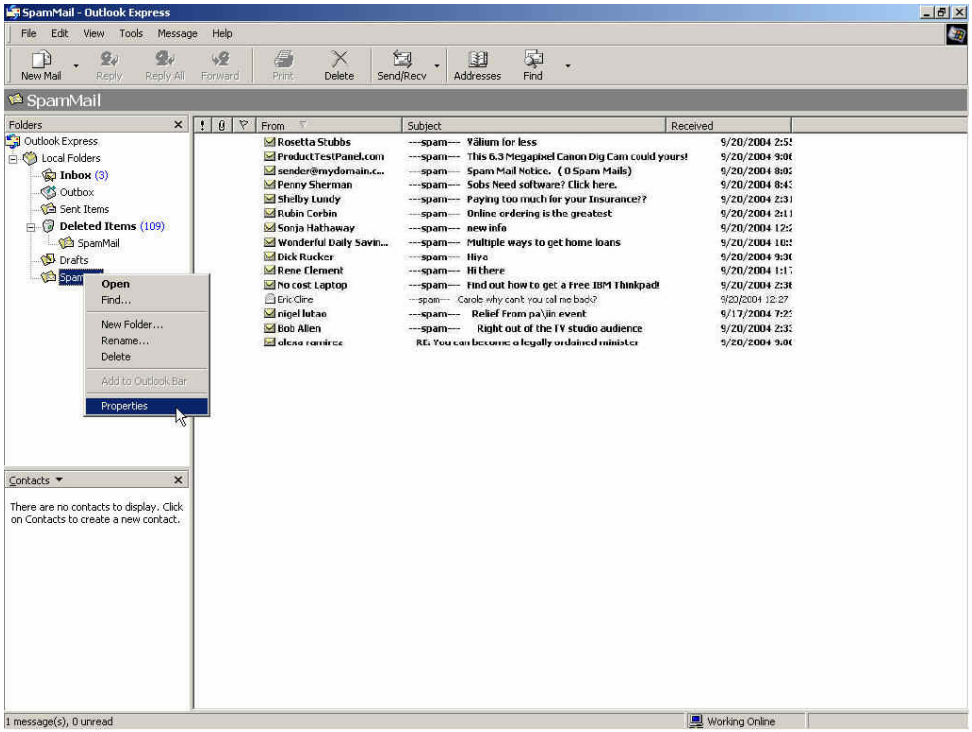


Figure14-39 Select SpamMail File Properties Function

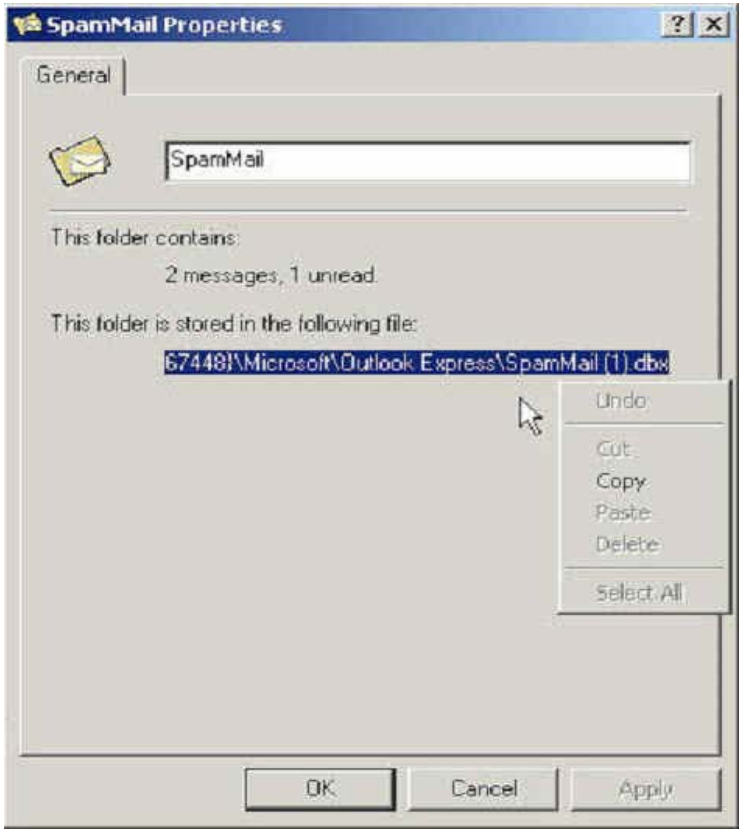


Figure14-40 Copy the File Address that SpamMail File Store

STEP 5 . Paste the route of copied from SpamMail file to the **Spam Mail for Training** field in **Training** function of **Anti-Spam**. And press **OK** to deliver this file to ALL7007 instantly and to learn the uploaded mail file as spam mail in the appointed time. (Figure14-41)

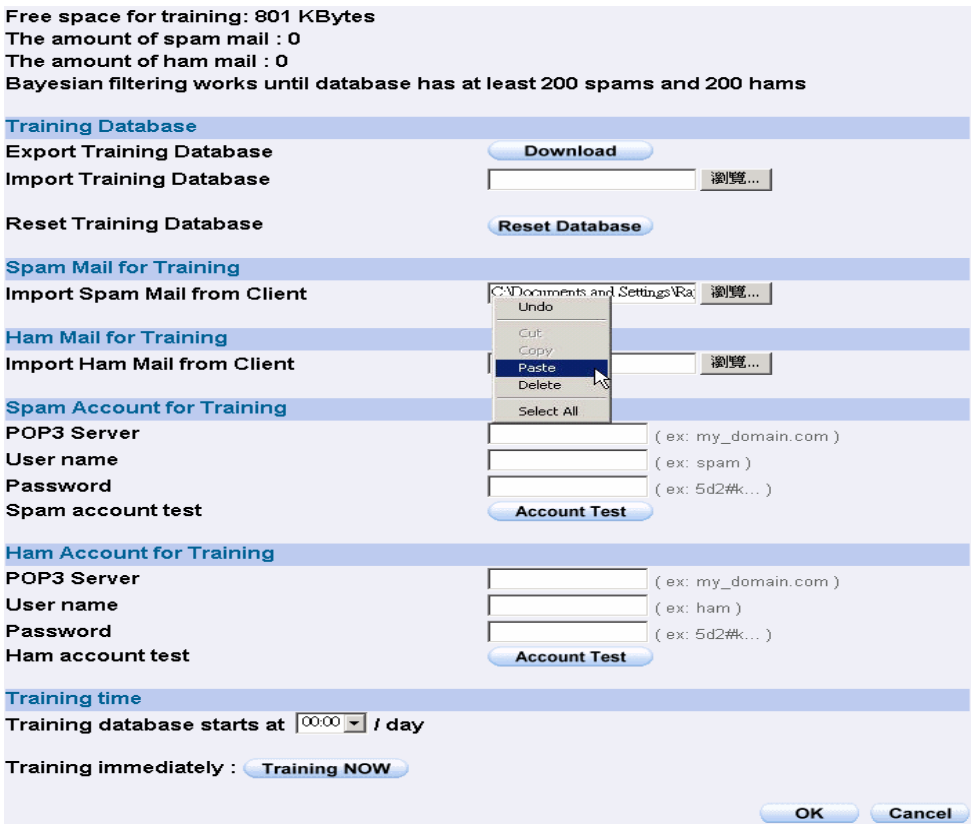


Figure14-41 Paste the File Address that SpamMail File Save to make ALL7007 to be Trained

The training file that uploads to ALL7007 can be any data file and not restricted in its sub-name, but the file must be ACS11 form.

When the training file of ALL7007 is Microsoft Office Outlook exporting file [.pst], it has to close Microsoft Office Outlook first to start Importing

STEP 6． Remove all of the mails in **SpamMail** File in **Outlook Express** so that new mails can be compressed and upload to ALL7007 to training directly next time.

- Select all of the mails in **SpamMail** File and press the right key of the mouse to select **Delete** function. (Figure14-42)
- Make sure that all of the mails in SpamMail file had been deleted completely. (Figure14-43)

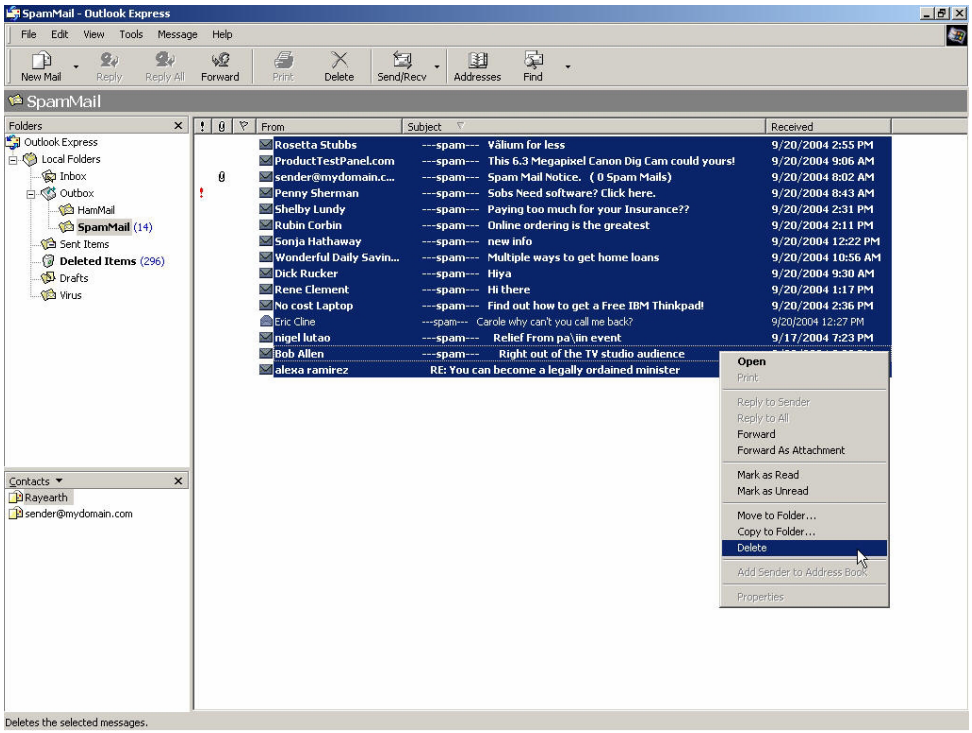


Figure14-42 Delete all of the mails in SpamMail File

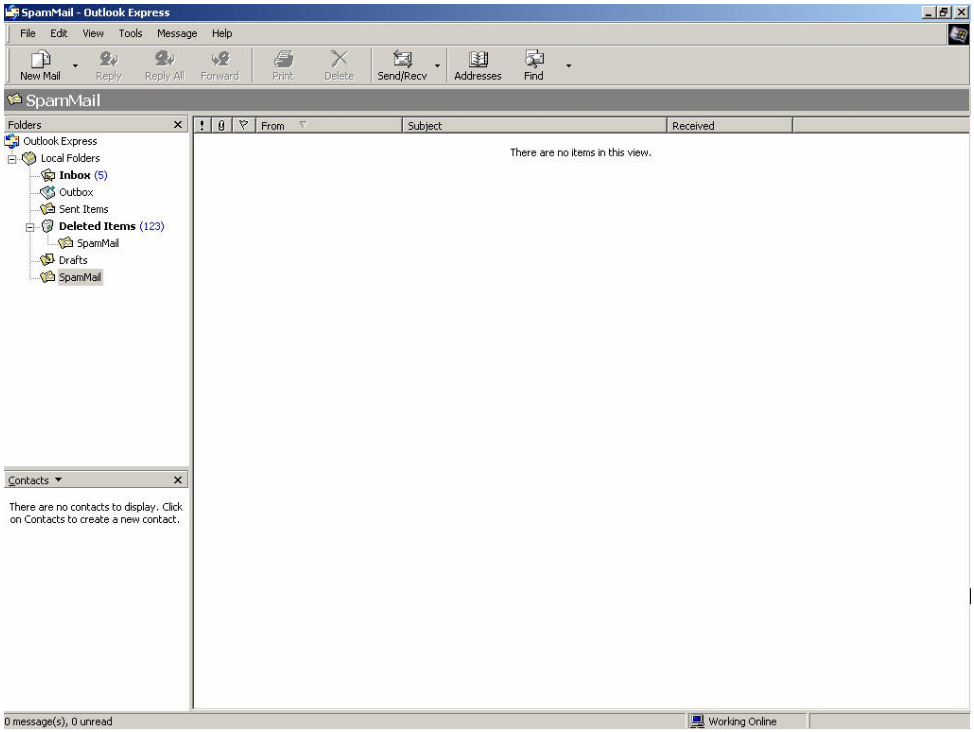


Figure14-43 Confirm that All of the Mail in SpamMail File had been Deleted

To make the mail that is judged as spam mail can be received by recipient after training.

STEP 1．Add a new **HamMail** folder in **Outlook Express**:

- Press the right key of the mouse in **Local Folders** and select **New Folder**. (Figure14-44)
- Enter HamMail in **Folder Name** in **Create Folder** WebUI and click **OK**. (Figure14-45)

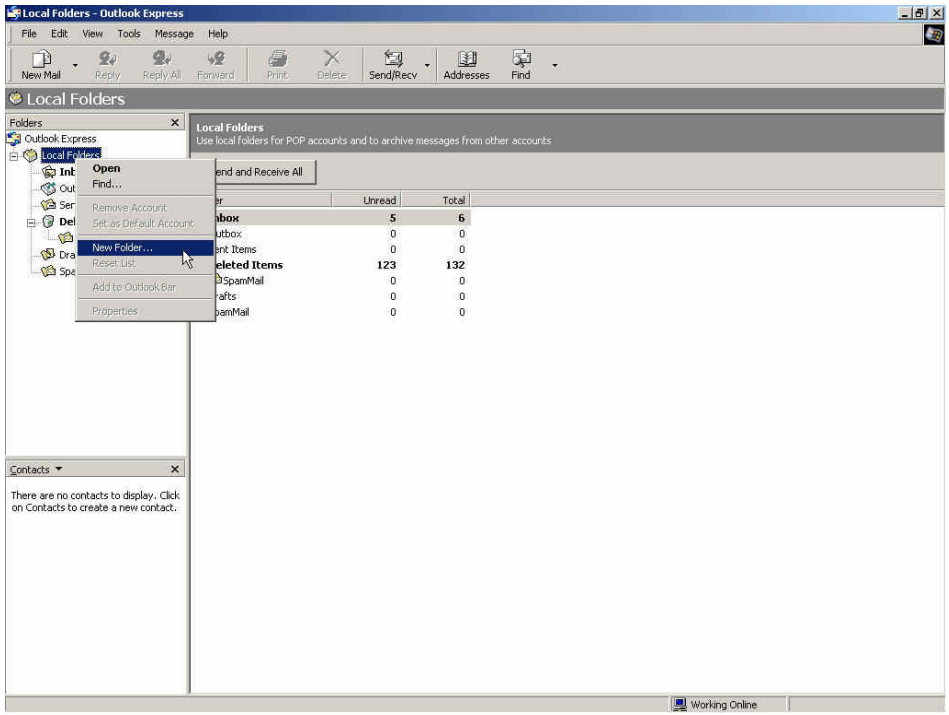


Figure14-44 Select Create New Folder Function WebUI

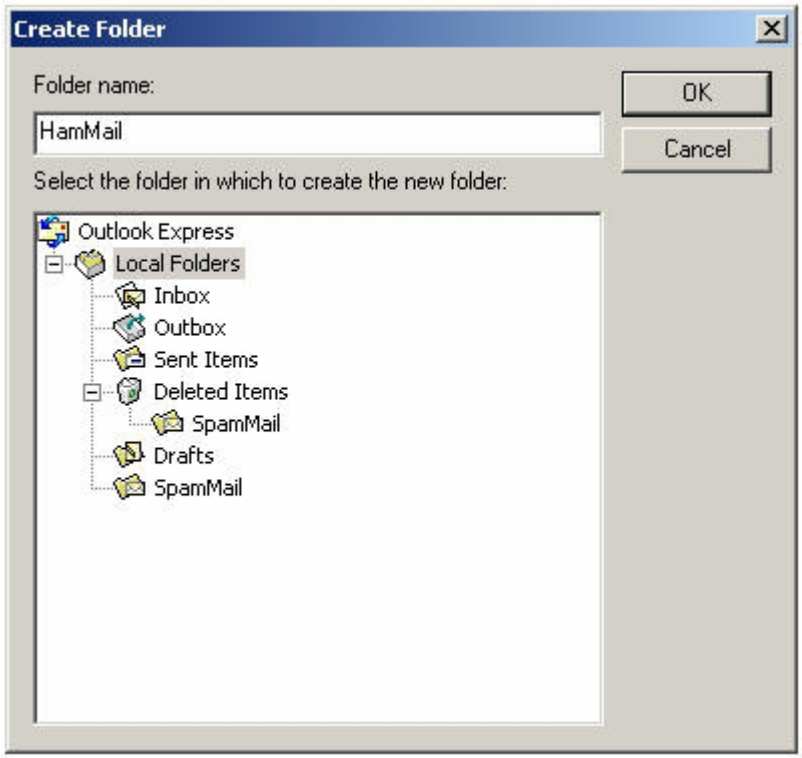


Figure14-45 Create Folder Function WebUI

STEP 2．In **Inbox-Outlook Express**, move spam mail to HamMail Folder:

- In Inbox, select the spam mail that all of the recipients need and press the right key of the mouse on the mail and choose **Move to Folder** function. (Figure14-46)
- Select HamMail folder in **Move** WebUI and click **OK.** (Figure14-47)

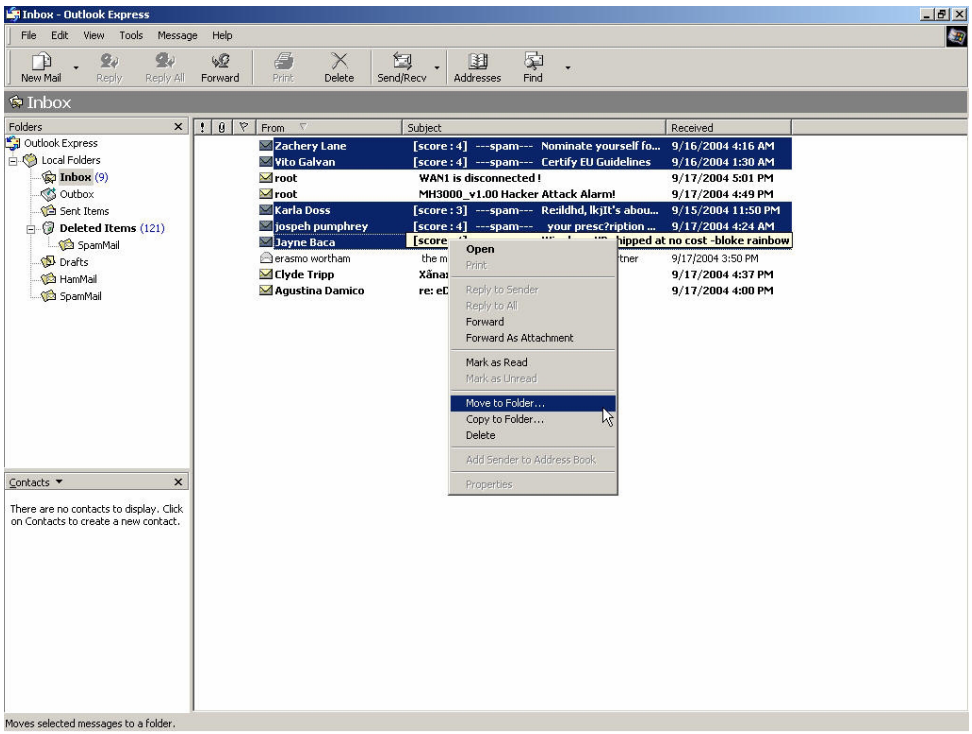


Figure14-46 Move the Needed Spam Mail WebUI

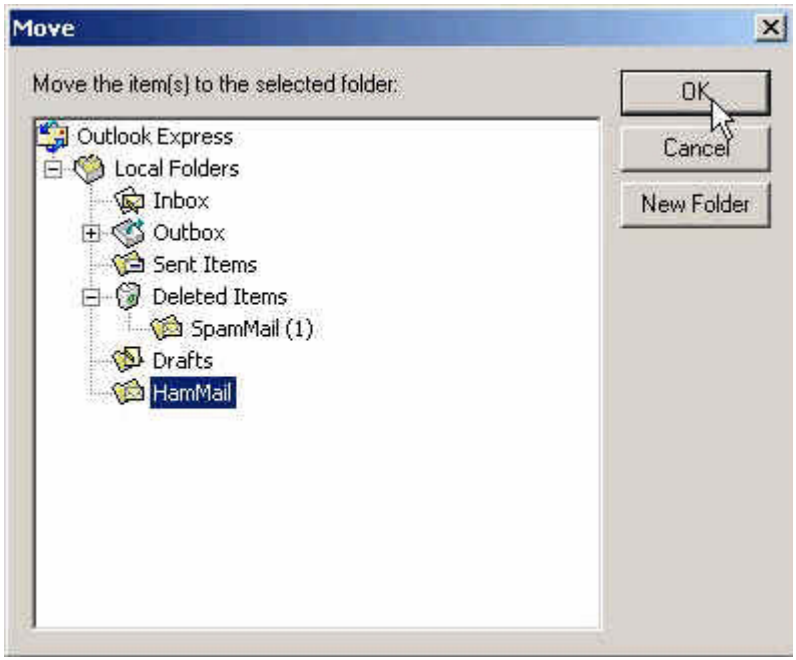


Figure14-47 Select the Folder for Needed Spam Mail to Move to

STEP 3 . Compact the HamMail folder in **Outlook Express** to shorten the data and upload to ALL7007 for training:

- Select HamMail File (Figure14-48)
- Select **Compact** function in selection of File (Figure14-49)

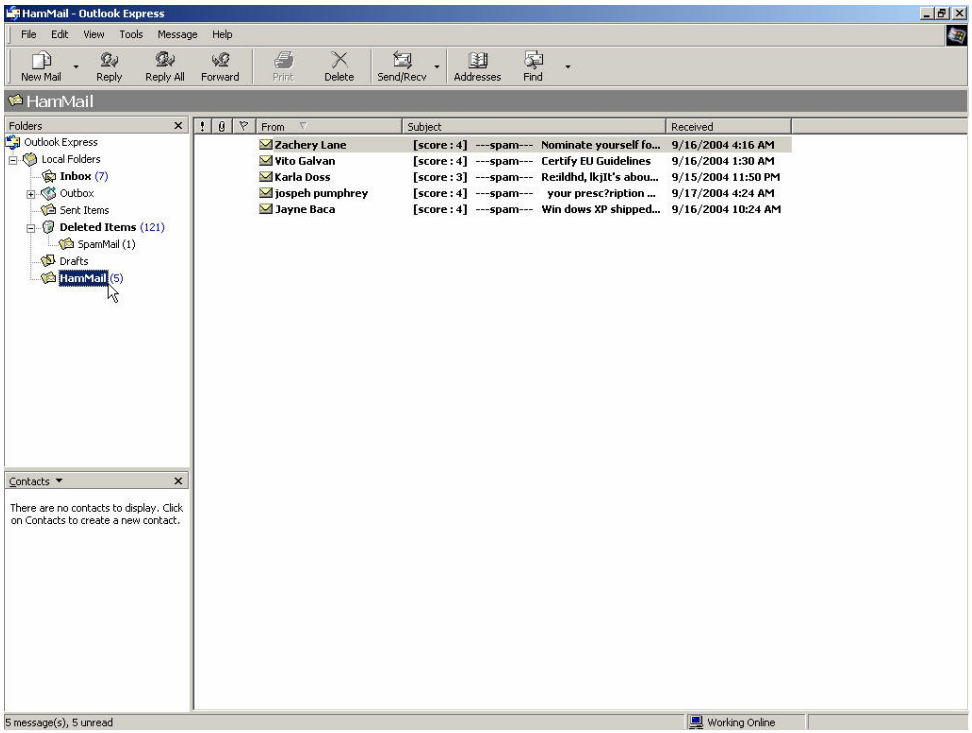


Figure14-48 Select HamMail File

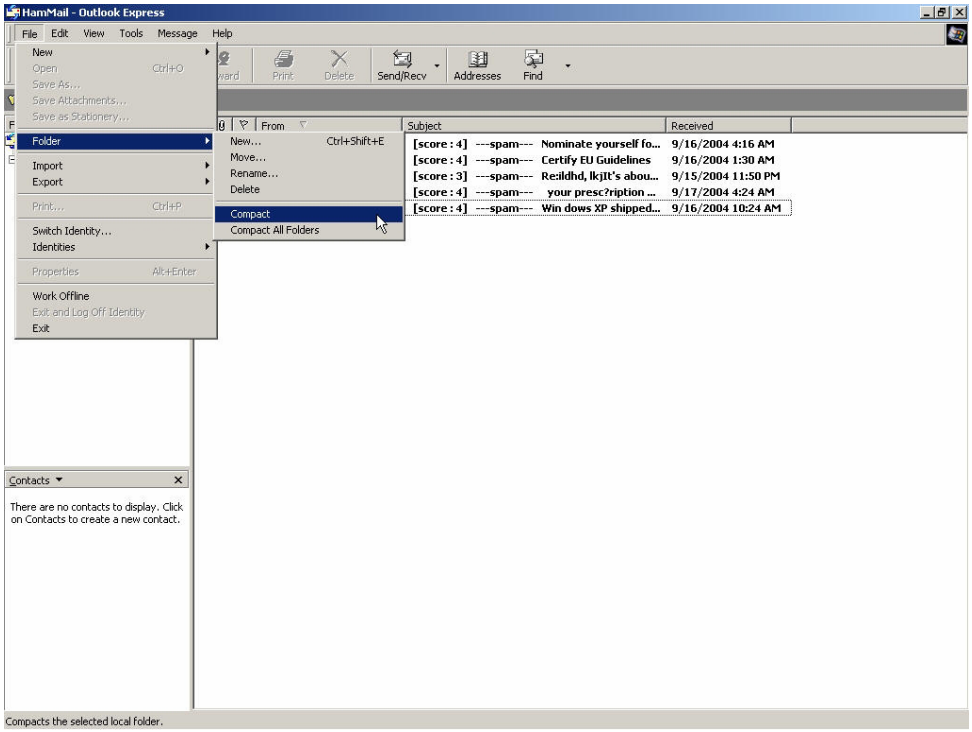


Figure14-49 Compact HamMail File

STEP 4 . To copy the route of HamMail Folder in **Outlook Express** to convenient to upload the training to ALL7007:

- Press the right key of the mouse in HamMail file and select **Properties** function. (Figure14-50)
- Copy the file address in HamMail **Properties** WebUI. (Figure14-51)

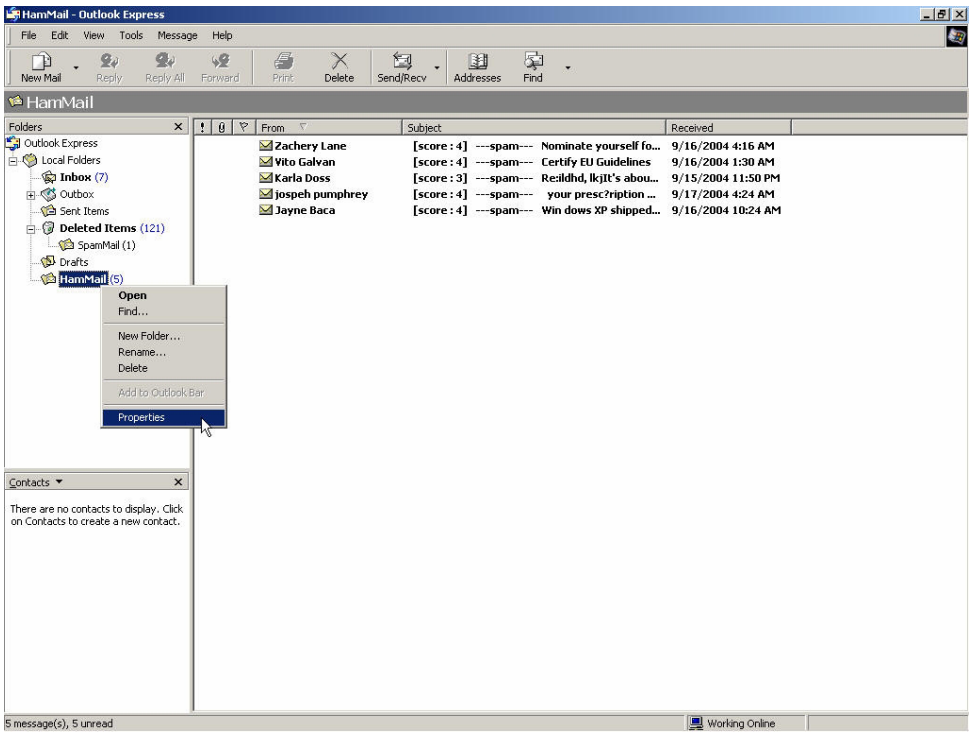


Figure14-50 Select Properties of HamMail File WebUI

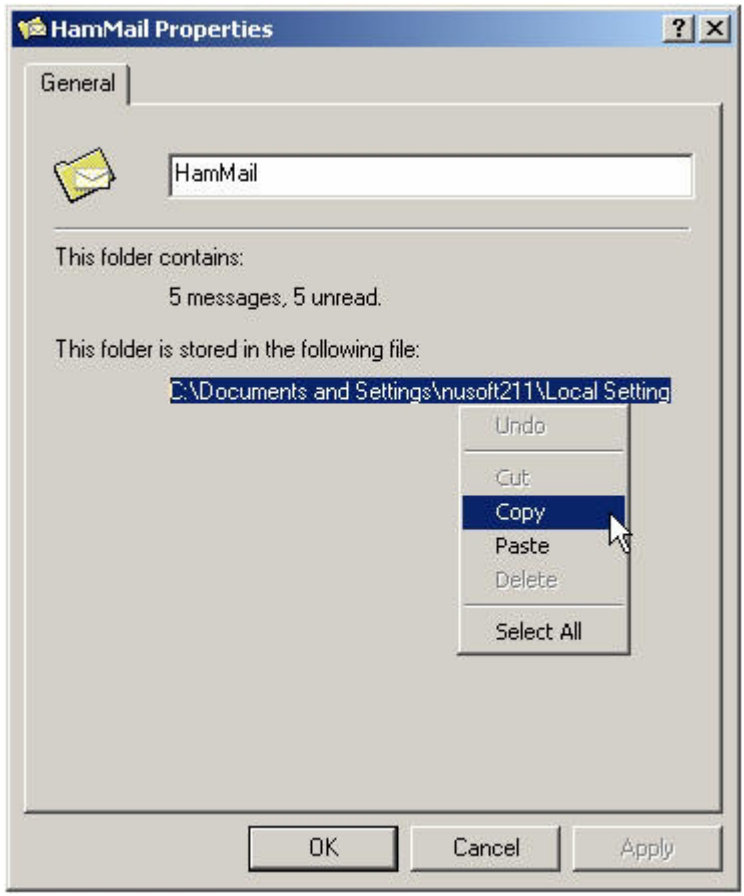


Figure14-51 Copy the File Address that HamMail File Store

STEP 5 . Paste the route of copied HamMail file to the **Ham Mail for Training** field in **Training** function of **Anti-Spam**. And press **OK** to transfer this file to the ALL7007 instantly and to learn the uploaded mail file as ham mail in the appointed time. (Figure14-52)

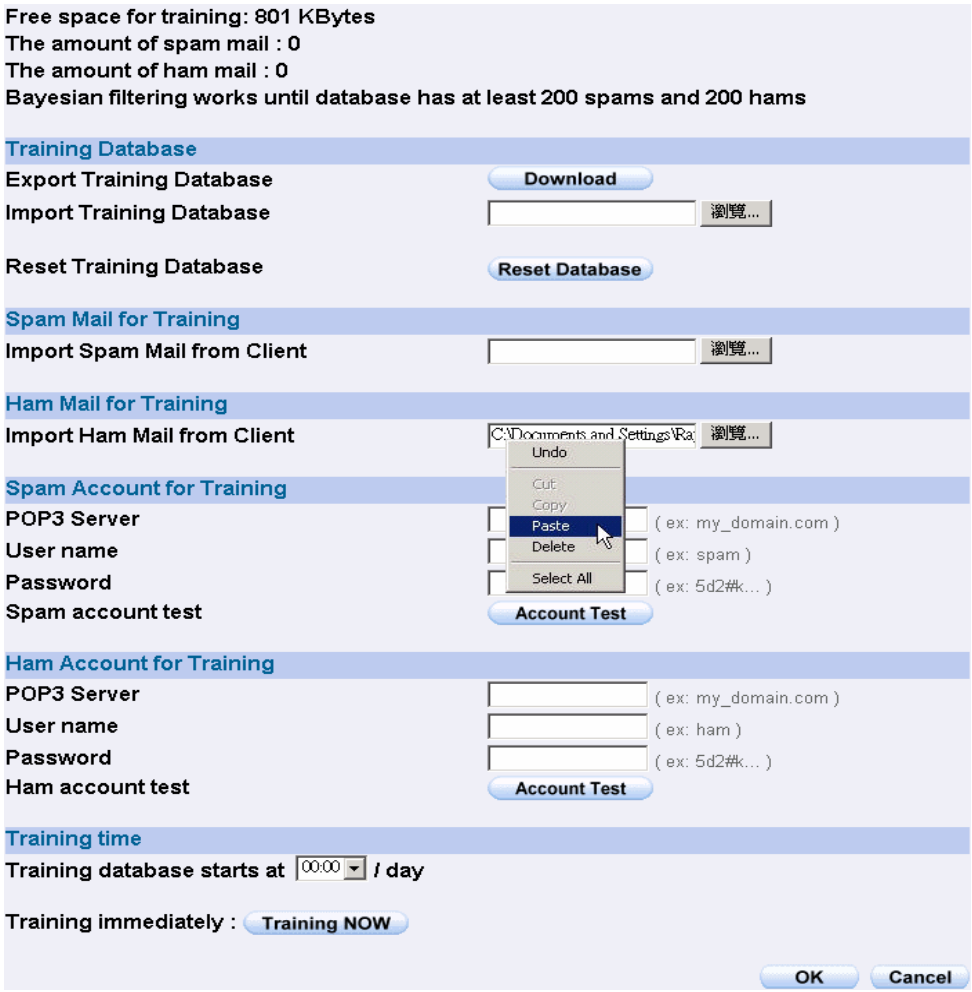


Figure14-52 Paste the File Address that HamMail File Save to make ALL7007 to be Trained

STEP 6． Remove all of the mails in **HamMail** File in **Outlook Express** so that new mails can be compressed and upload to ALL7007 to training directly next time.

- Select all of the mails in **HamMail** and press the right key of the mouse to select **Delete** function. (Figure14-53)
- Make sure that all of the mails in HamMail file had been deleted completely. (Figure14-54)

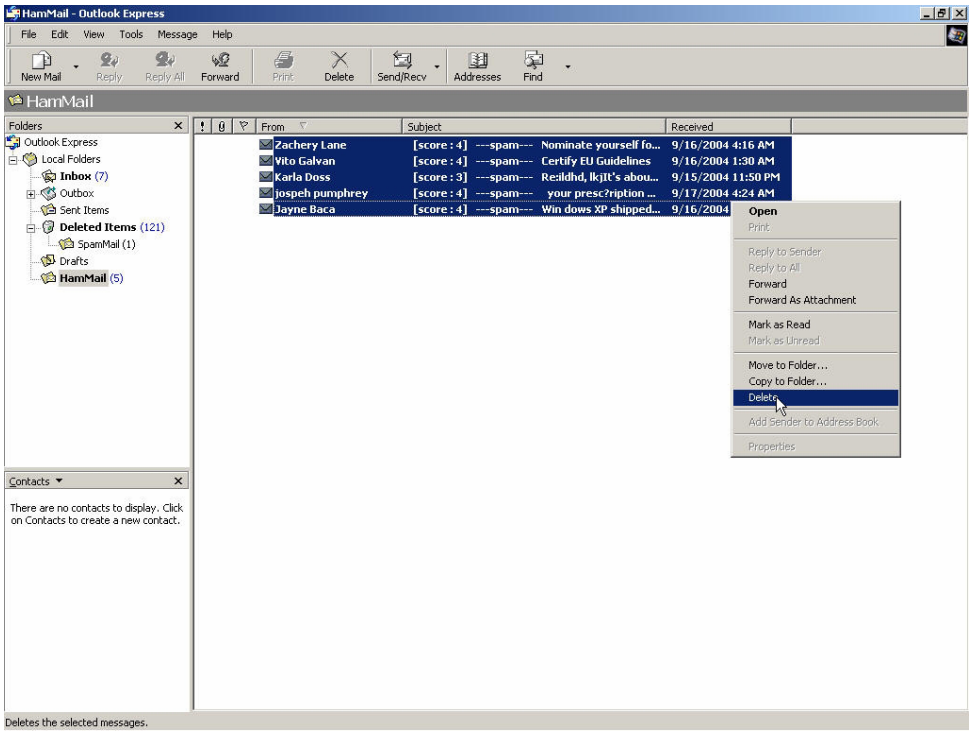


Figure14-53 Delete All of Mails in HamMail File

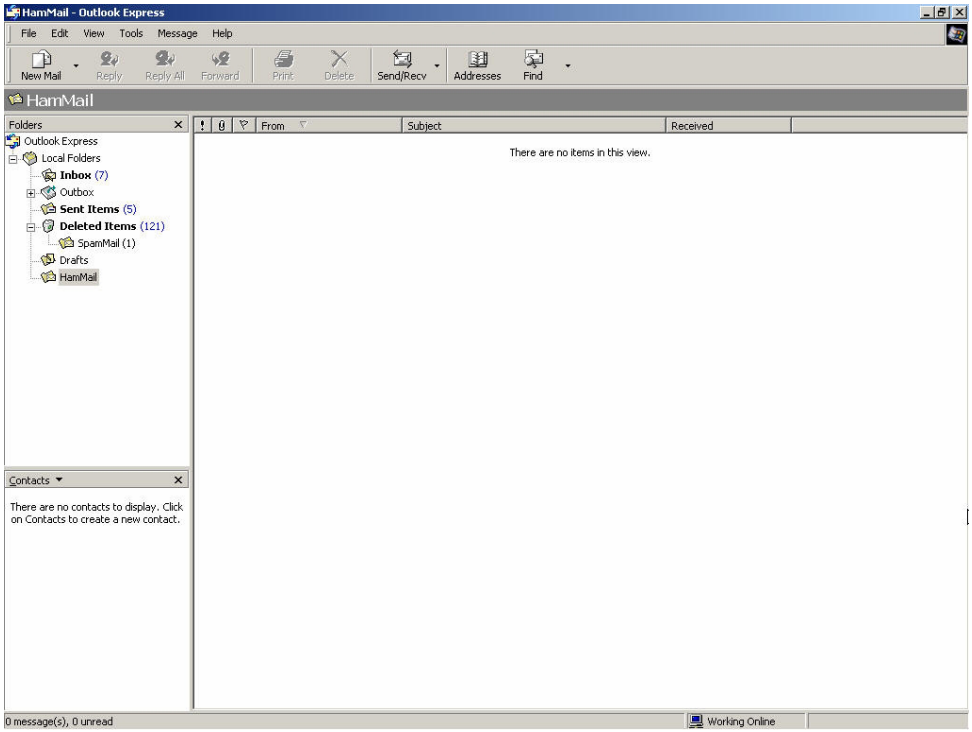


Figure14-54 Make Sure all of the Mails in HamMail File had been Deleted

Use Spam(Ham) account for training function to let Bayesian Filtering have high resolution

STEP 1. Create a spam account in mail server.(ex: spam@nusec.com.tw)

STEP 2. Create a ham(non-spam) account in mail server.(ex: ham@nusec.com.tw)

STEP 3. Enter settings as follows in **Spam Account for Training** item to receive mail of the account: spam@nusec.com.tw in **Training** of **Anti-Spam** function**:**

- **POP3 Server:** Enter nusec.com.tw.
- **User Name:** Enter spam.
- **Password:** Enter spam.
- Enter **OK**.

STEP 4. Enter settings as follows in **Ham Account for Training** item to receive mail of the account: ham@nusec.com.tw in **Training** of **Anti-Spam** function**:**

- **POP3 Server:** Enter nusec.com.tw.
- **User Name:** Enter ham.
- **Password:** Enter ham.
- Enter **OK**. (Figure14-55)

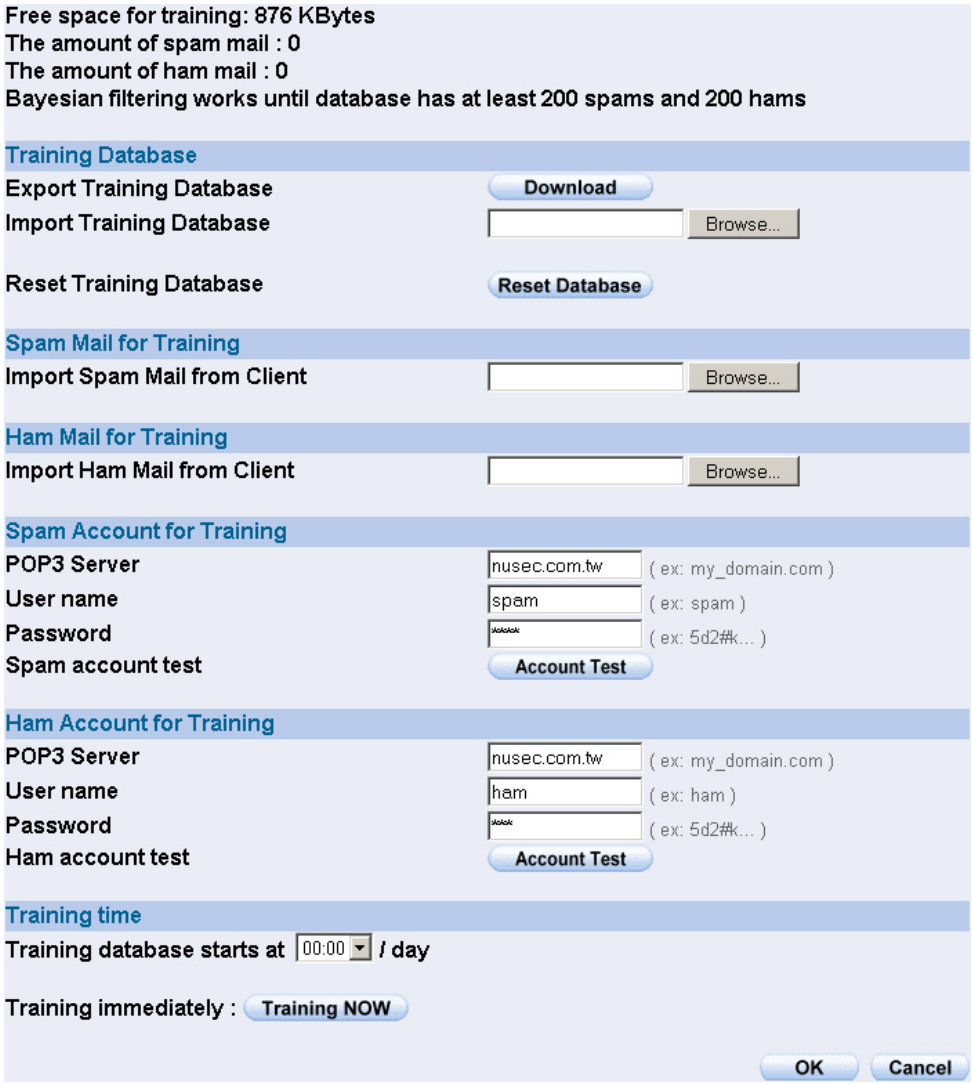


Figure14-55 Spam and Ham Account for Training settings

Training the mail to be spam mail

STEP 5. Forward the spam mail in **Inbox** of **Outlook Express** as attachment to the spam mail response account:

- Click the mouse right key and select **Forward As Attachment** function on all selected spam mail in **Inbox**.(Figure14-56)
- In **New Mail** window, **To**: Enter spam@nusec.com.tw, **Subject:** Enter Spam, mail content is blank, and Click **Send**.(Figure14-57)

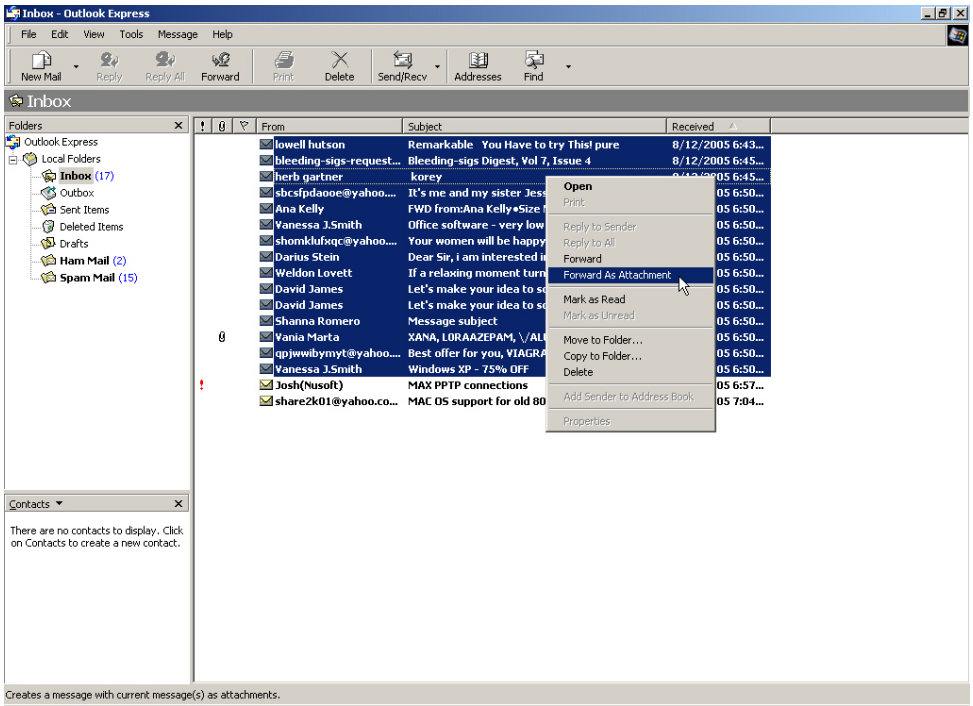


Figure 14-56 Select spam mail

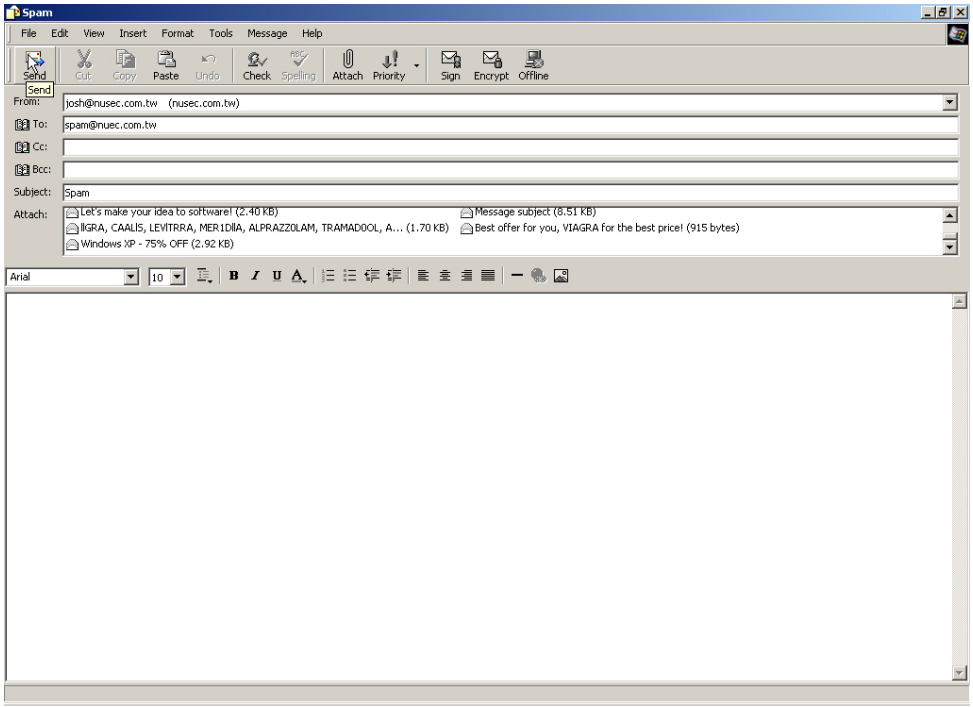


Figure 14-57 Forward spam mail

Training the mail to be ham(non-spam) mail

STEP 6. Forward the ham mail in **Inbox** of **Outlook Express** as attachment to the ham(non-spam) mail response account:

- Click the mouse right key and select **Forward As Attachment** function on all selected ham(non-spam) mail in **Inbox**.(Figure14-58)
- In **New Mail** window, **To**: Enter ham@nusec.com.tw, **Subject:** Enter Ham, mail content is blank, and Click **Send**.(Figure14-59)

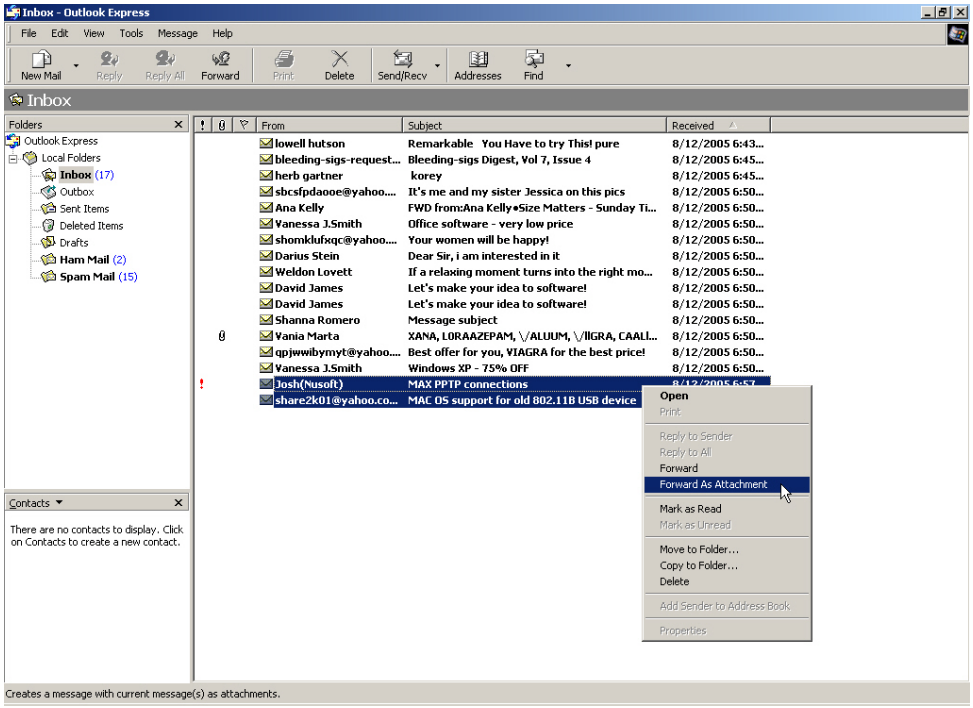


Figure 14-58 Select ham(non-spam) mail

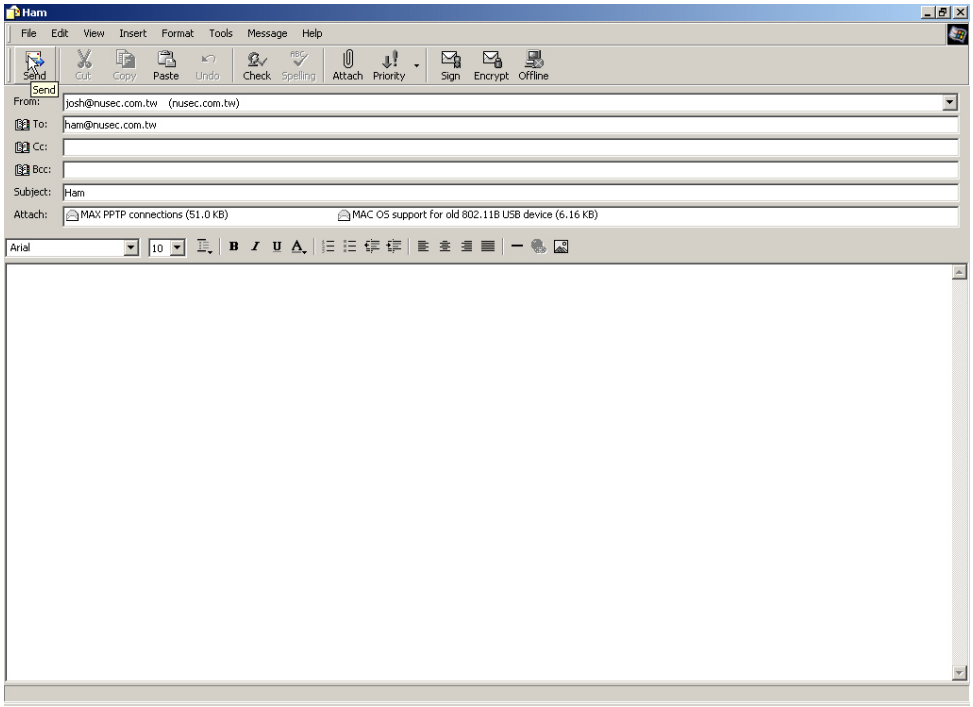


Figure 14-59 Forward ham(non-spam) mail

STEP 7. Multi Security Firewall will retrieve mail from account(“spam@nusec.com.tw” and “ham@nusec.com.tw”) at a fixed time, and training the mail to be spam or ham(non-spam) mail at specific time.(Figure14-60)

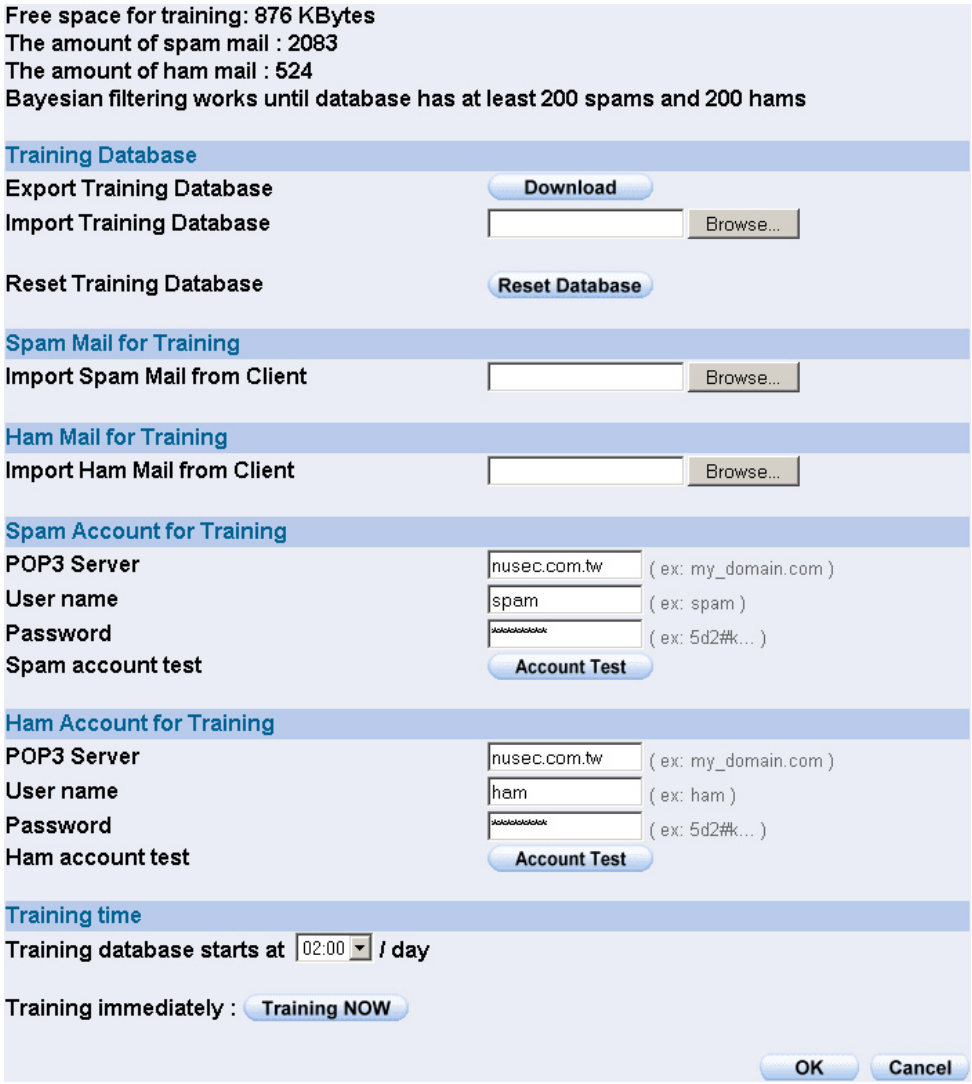


Figure 14-60 Set the training time

Chapter 15

Anti-Virus

ALL7007 can scan the mail that sent to Internal Mail Server and prevent the e-mail account of enterprise to receive mails include virus so that it will cause the internal PC be attacked by virus and lose the important message of enterprise.

In this chapter, we will have the detailed illustration about **Anti-Virus:**

Define the required fields of Setting:

Anti-Virus Settings:

- It can detect the virus according to the mails that sent to internal mail server or receive from external mail server.
- It will add warning message in front of the subject of the mail that had been detected have virus. If after scanning and do not discover virus then it will not add any message in the subject field.
- It can set up the time to update virus definitions for each day. Or update virus definitions immediately (Synchronize). It will show the update time and version at the same time.

Action of Infected Mail:

- The mail that had been detected have virus can choose to Delete mail, Deliver to the recipient, or Forward to another mail account

◆ After setup the relevant settings in **Mail Relay** function of **Configure**, add the following settings in this function:

1. **Virus Scanner:** Select Clam
2. **The Mail Server is placed in** Internal (LAN or DMZ)
3. **Add the message to the subject line** ---virus---
4. Select **Remove virus mail and the attached file**
5. Select **Deliver to the recipient**
6. Click **OK** (Figure15-1)

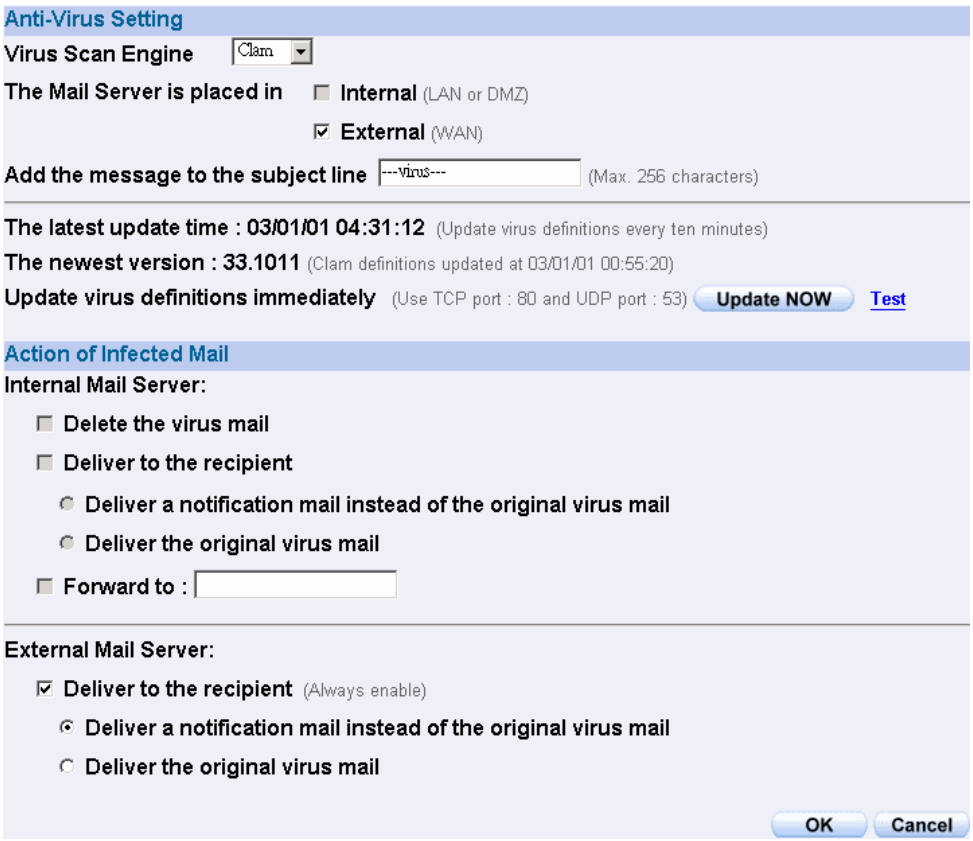


Figure15-1 Anti-Virus Settings WebUI

◆ Add the message ---virus---in the subject line of infected mail (Figure15-2)

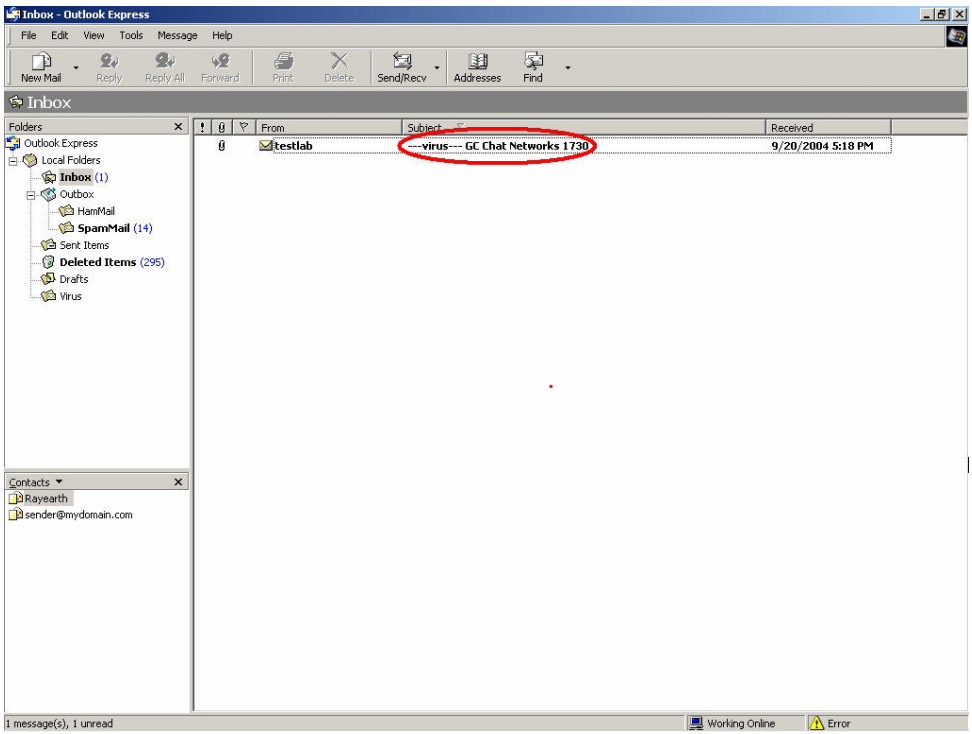


Figure15-2 The Subject of Infected Mail WebUI

When select Disable in **Virus Scanner,** it will stop the virus detection function to e-mail.

Define the required fields of Virus Mail:

Top Total Virus:

- To show the top chart that represent the virus mail that the recipient receives and the sender sent

 In **Top Total Virus** Report, it can choose to display the scanned mail that sent to **Internal** Mail Server or received from **External** Mail Server

 In **Top Total Virus**, it can sort the mail according to Recipient and Sender, Total Virus and Scanned Mail.

We set up two Anti-Virus examples in this chapter:

No.	Example	Page
Ex 1	To detect if the mail that received from external Mail Server have virus or not.	**278**
Ex 2	To detect the mail that send to Internal Mail Server have virus or not. (Mail Server is in LAN, NAT Mode)	**282**

To detect if the mail that received from external Mail Server have virus or not

STEP 1． In **LAN Address** to permit a PC receiving the mail from external mail server. Its network card is set as 192.168.139.12, and the DNS setting is DNS server.

STEP 2． In **LAN** of **Address** function, add the following settings: (Figure15-3)

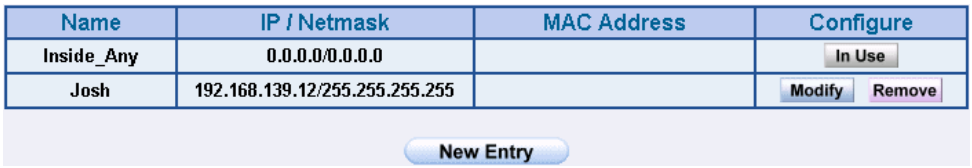


Figure15-3 Mapped IP of Internal User's PC in Address Book

STEP 3． Add the following setting in **Group** of **Service**. (Figure15-4)

Figure15-4 Service Group that includes POP3, SMTP, or DNS

STEP 4． Add the following setting in **Outgoing Policy**: (Figure15-5)

Figure15-5 Outgoing Policy Setting

STEP 5 . Add the following setting in **Setting** of **Anti-Virus** function: (Figure15-6)

- **Virus Scanner:** Select Clam
- **The Mail Server is placed in** External (WAN)
- **Add the message to the subject line:** ---virus---
- Select **Remove virus mail and the attached file** (Figure15-6)

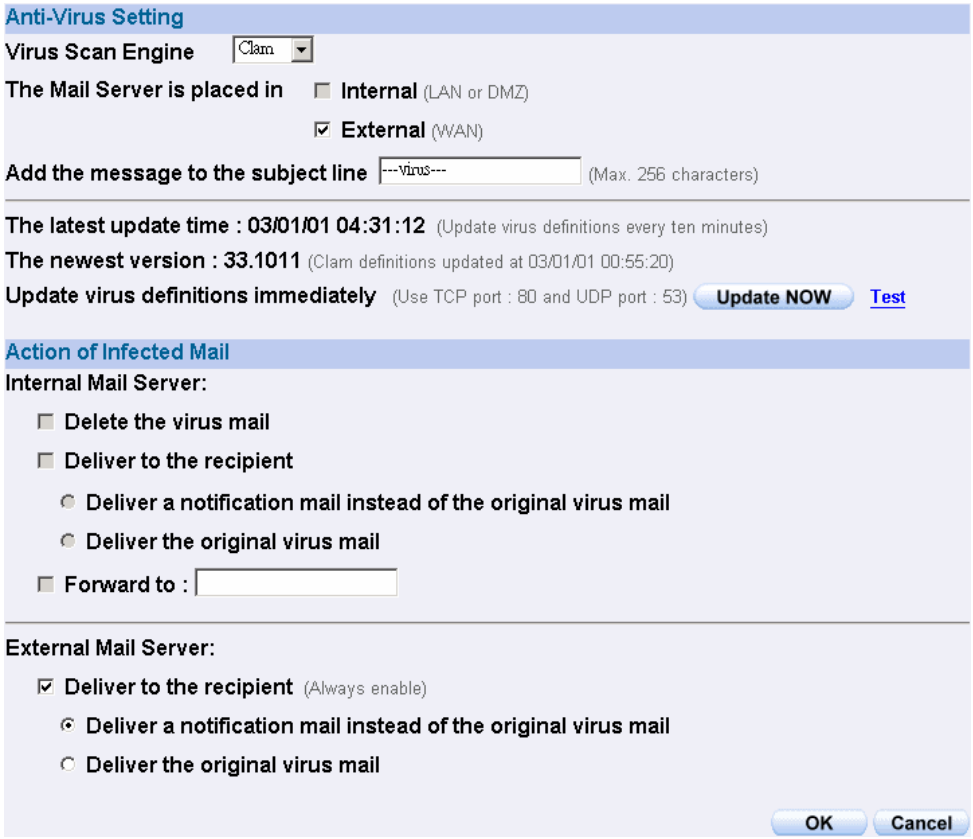


Figure15-6 Action of Infected Mail and Anti-Virus Settings

Anti-Virus function is enabled in default status. So the System Manager does not need to set up the additional setting and then the ALL7007 will scan the mails automatically, which sent to the internal mail server or received from external mail server. (Figure15-7)

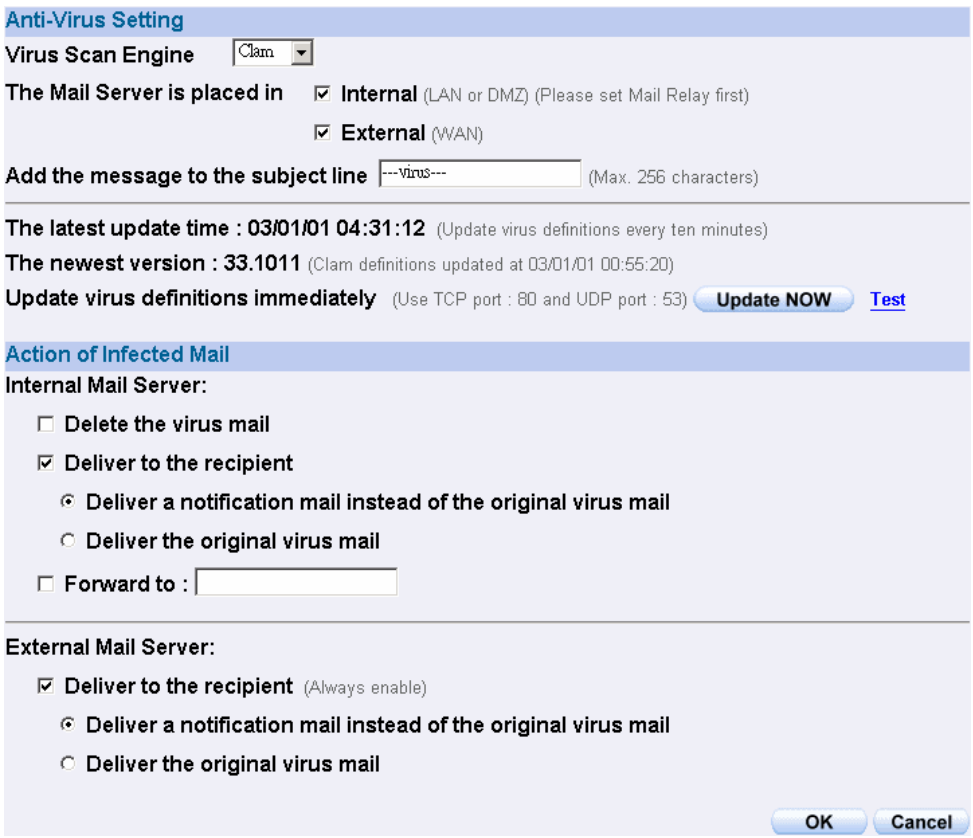


Figure15-7 Default Value of Virus Mail Setting

When only scan the mail that internal users received from external server:

1. In **Action of Virus Mail**, no matter choose **Delete mail, Deliver to the recipient,** or **Forward to,** it will add the message in the subject line of infected mail and send it to the recipient.

STEP 6． When the internal users are receiving the mail from external mail account (js1720@ms21.pchome.com.tw), the ALL7007 will scan the mail at the same time and the chart will be in the **Virus Mail** in **Anti-Virus** function. (At this time, choose **External** to see the mail account chart) (Figure15-8)

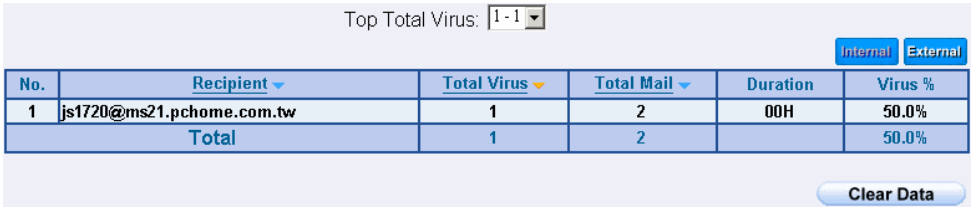


Figure15-8 Report Function Chart

To setup the relevant settings in **Mail Relay** function of **Configure**, so that can choose to display the scanned mail that sent to Internal Mail Server.

To detect the mail that send to Internal Mail Server have virus or not. (Mail Server is in LAN, NAT Mode)

WAN IP of ALL7007: 61.11.11.12
LAN Subnet of ALL7007: 192.168.2.0/24

STEP 1 . Set up a mail server in **LAN** and set its network card IP as 192.168.2.12. The DNS setting is external DNS server, and the Master name is broadband.com.tw

STEP 2 . Enter the following setting in **LAN** of **Address** function: (Figure15-9)

Figure15-9 Mapped IP Setting in Address of Mail Server

STEP 3 . Enter the following setting in **Group** in **Service** function: (Figure15-10)

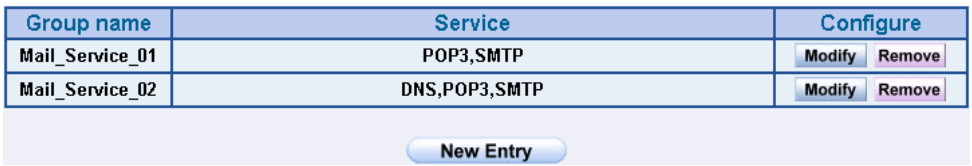


Figure15-10 Setting Service Group that include POP3, SMTP or DNS

STEP 4 . Enter the following setting in **Server1** in **Virtual Server** function: (Figure15-11)

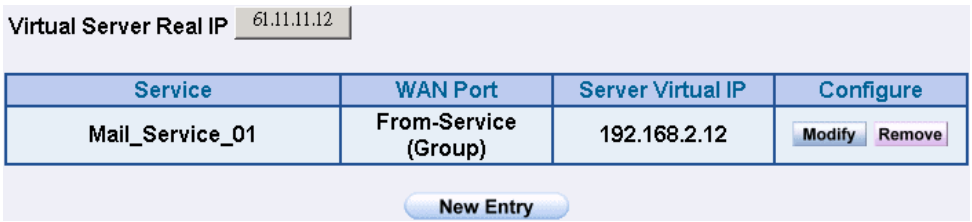


Figure15-11 Virtual Server Setting WebUI

STEP 5 . Enter the following setting in **WAN to LAN Policy**: (Figure15-12)

Figure15-12 WAN to LAN Policy Setting

STEP 6 . Enter the following setting in **LAN to WAN Policy**: (Figure15-13)

Figure15-13 LAN to WAN Policy Setting

STEP 7 . Enter the following setting in **Mail Relay** function of **Configure**: (Figure15-14)

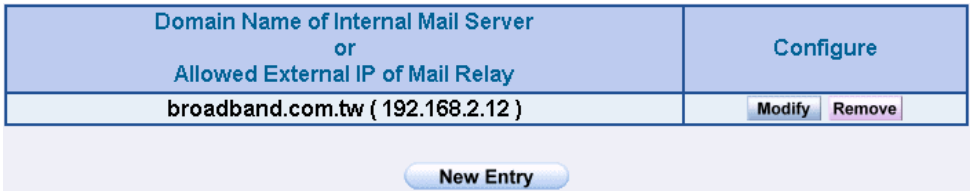


Figure15-14 Mail Relay Setting of External Mail to Internal Mail Server

Mail Relay function makes the mails that sent to LAN's mail server could be relayed to its mapped mail server by ALL7007.

STEP 8． Add the following setting in **Setting** of **Anti-Virus** function:

- **Virus Scanner:** Select Clam
- **The Mail Server is placed in** Internal (LAN or DMZ)
- **Add the message to the subject line**: ---virus---
- Select **Remove virus mail and the attached file**
- **Action of Infected Mail:** Select Deliver to the recipient (Figure15-15)

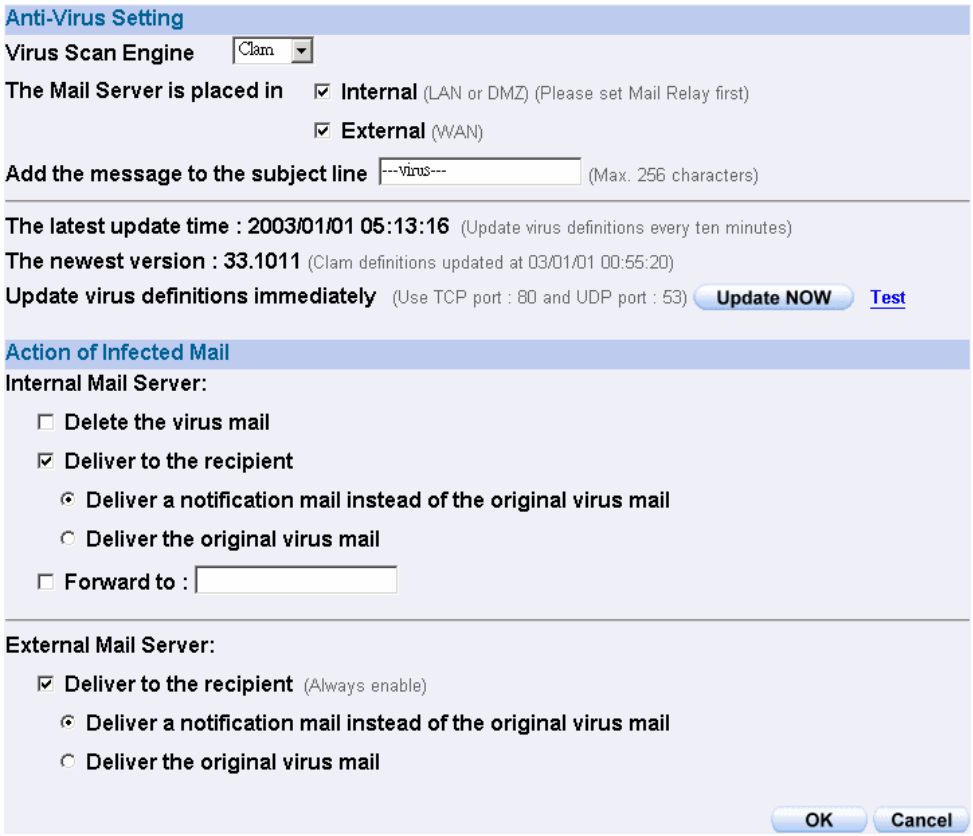


Figure15-15 Infected Mail Definition and Action of Infected Mail

When select **Delete mail** in **Action of Infected Mail**, and then the other functions (**Deliver to the recipient**, or **Forward to**) cannot be selected. So when ALL7007 had scanned mail that have virus, it will delete it directly. But still can check the relevant chart in **Virus Mail** function.

STEP 9 . When the external yahoo mail account sends mail to the recipient account of mail server of broadband.com.tw in ALL7007; josh@broadband.com.tw

- If the mails are from the sender account, share2k01@yahoo.com.tw, which include virus in the attached file.
- If it comes from other yahoo sender account share2k003@yahoo.com.tw, which attached file is safe includes no virus.
- After ALL7007 had scanned the mails above, it will bring the chart as follows in the **Virus Mail** function of **Anti-Virus**. (Figure15-16)

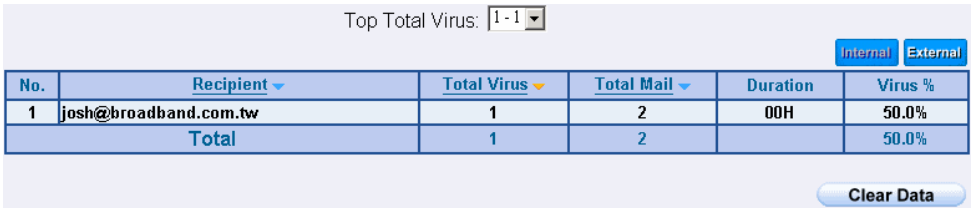


Figure15-16 Report Chart

When clicking on **Remove** button in **Total Virus Mail,** the record of the chart will be deleted and the record cannot be checked in **Virus Mail** function.

Chapter 16

Configure

ALL7007 can aim at abnormal traffic and packets content to inspect and alert, and handle by the obstructive, separateness, interference, or alarm to administrator way to prevent suspicious program invade the host. So when ALL7007 detects the attack behavior come from internal or external, it can provide the protection to network and obstruct to the attack behavior, let the network can still work normally and increase the information transmission security.

According to the IDP Configure function, it means the dealing standard towards attack behavior of ALL7007. In this chapter, it is defined as Setting.

Define the required fields of Setting:

IDP Setting:

- It can update signature definitions for every 30 minutes. Or update signature definitions immediately. It will show the update time and version at the same time.
- It can detect virus to the file which have no encryption and compression.
- Virus scan engine:
  - Clam: It is the system default setting can be free used immediately.

 ALL7007 can test if can connect to IDP server to update the signature definitions on internet by **Test** function.

Set default action of all signatures:

- According to attack behavior's threat to divide: high risk, medium risk, and low risk. The different risk attack behavior can be handled by the pass, drop, and log action.

  - Add the following settings in this function:
    1. Select **Enable Anti-Virus**.
    2. Click **OK**.
    3. **High Risk**: Select drop and log function.
    4. **Medium Risk**: Select drop and log function.
    5. **Low Risk**: Select pass and log function.
    6. Click **OK**. (Figure16-1)
    7. Enable IDP function in policy.

Figure16-1 IDP Setting

◆ When the attack behavior which conform signature will produce log as follows in **Log** function of **IDP Report**: (Figure16-2)

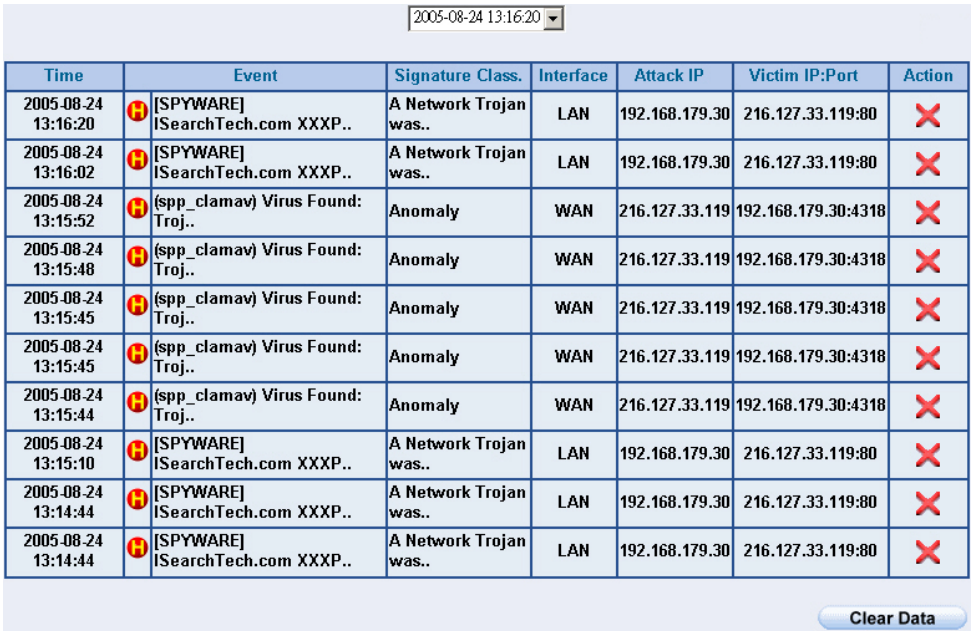


Figure16-2 IDP Log

Chapter 17

Signature

Provide relative compare rule to different attack behavior, include two sections: **Pre-defined** and **Custom**.

Pre-defined signatures can detect and prevent to intrusive pattern which can be discovered at present. These signatures can not be modifyed and deleted. **Custom** signatures can let user to according there requirement to detect and prevent the internal and external attack behavior which is outside of **Pre-defined** signatures.

Define the required fields of Signature

Pre-defined:

- It can be divided: Backdoor, DDoS, DoS, Exploit, NetBIOS, and Spyware category, they have the respectively subordinate attack signature.
- It can change handling action of each category and its respective subordinate signature: Pass, Drop, or Log.
- It can show the attribute of all attack signatures which are Name, Risk, Action, and Log.

Name:

- The System Manager can name the signature.

Protocol:

- Setting the protocol which want to be detected and prevented, it can be divided: TCP, UDP, ICMP and IP.

Source Port:

- Setting the port number is used by the attack end PC.(The range can be 1024~65535).

Destination Port:

- Setting the port number is used by the PC which is attacked.(The range can be 1024~65535).

Risk:

- Define the threat about attack packets.

Action:

- The handling action to attack packets.

Content:

- Setting the attack packets content.

Use Pre-defined and Custom signature settings to detect and prevent attack behaviors

STEP 1. Enter the following setting in **Setting** of **Configure** function: (Figure17-1)

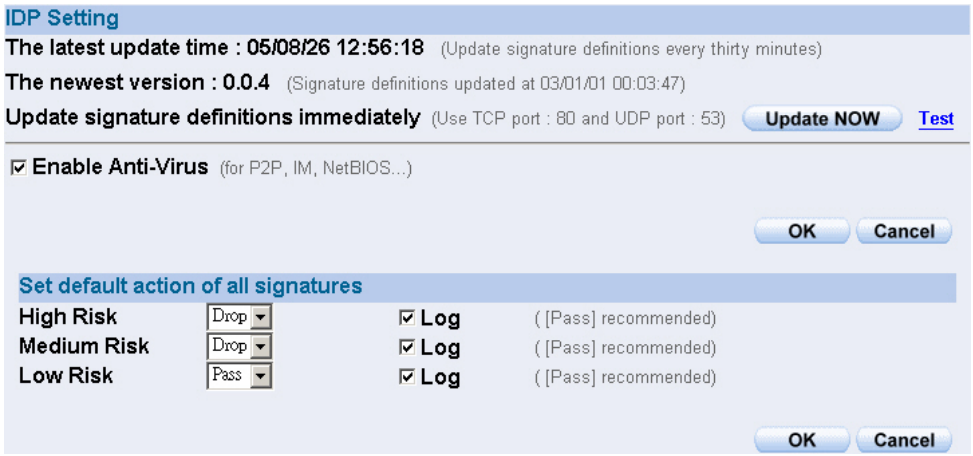


Figure17-1 IDP Setting

STEP 2. Enter the following setting in **Custom** of **Signature** function:

- Click **New Entry**.(Figure17-2)
- **Name**: Enter Software_Crack_Website.
- **Protocol**: Select TCP.
- **Source Port**: Enter 0:65535.
- **Destination Port**: Enter 80:80.
- **Risk**: Select High.
- **Action**: Select Drop and enable Log function.
- **Content**: Enter cracks.(Figure17-3)

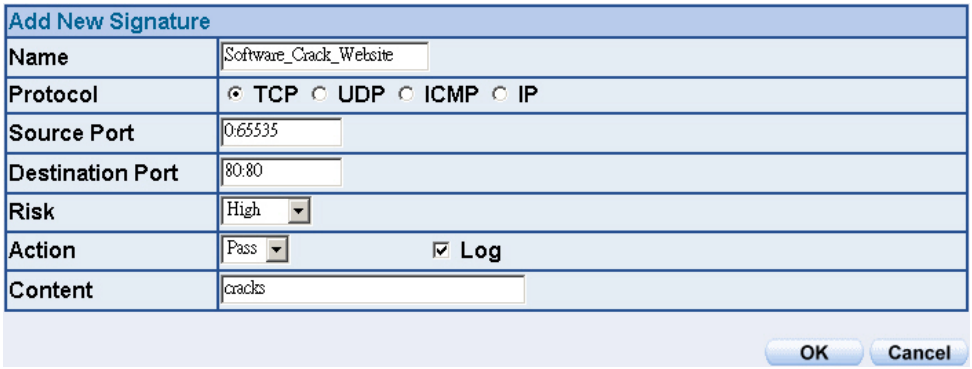


Figure17-2 Custom Signature Setting

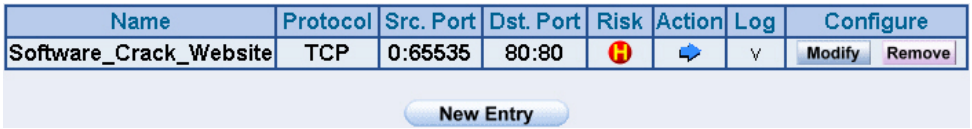


Figure17-3 Complete Custom Signature Setting

Content can fill in the character string which want to detect, or transform the ASCII code into hexa-decimals (ex.: cracks can transform into |63 726,163 6b 73|).

STEP 3. Enter the following settings in **Outgoing Policy** which enable the **IDP** function: (Figure17-4, 17-5)

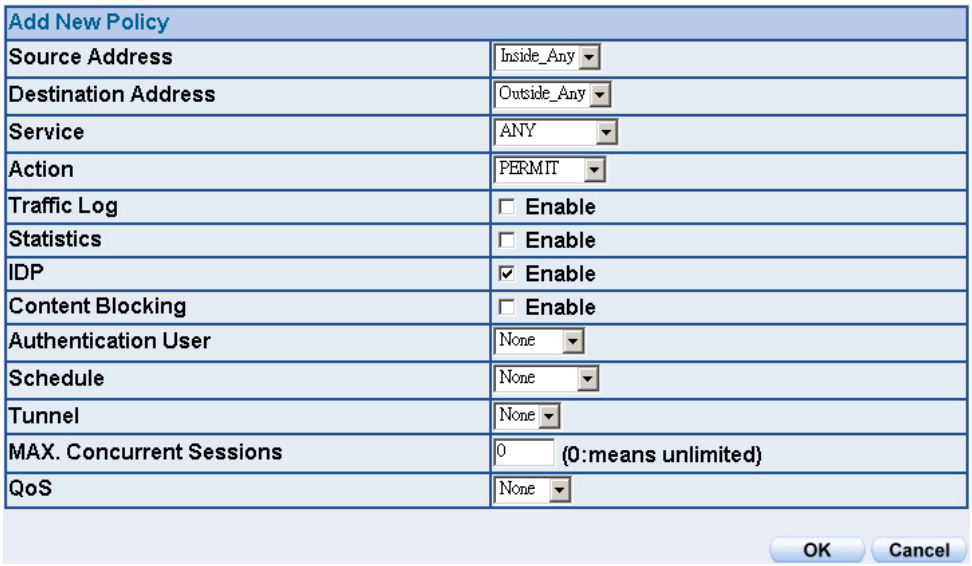


Figure17-4 IDP Policy Setting

Figure17-5 Complete IDP Policy Setting

Chapter 18

IDP Report

MUS-MS300 can make intrusion detection and prevention record to be Log report, let the enterprise to know the data transmission security of overall network.

In this chapter, we will have the detailed illustration about **IDP Report**:

STEP 1. In **Log** of **IDP Report** function, it will display the situation about intrusion detection and prevention of ALL7007. (Figure18-1)

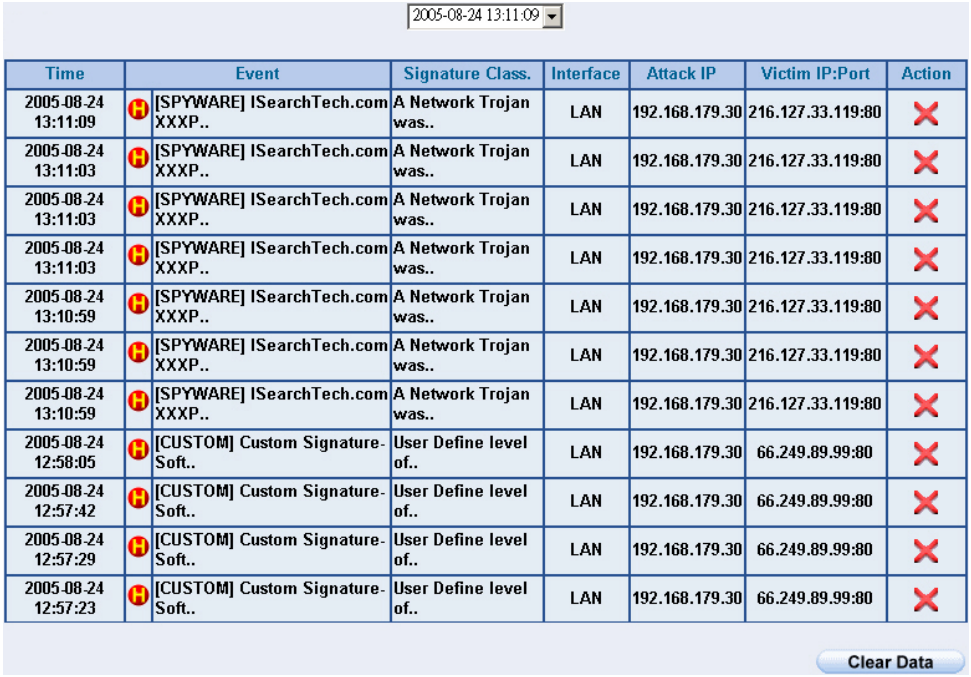


Figure18-1 IDP Log

The relevant chart illustration of **Log**:

1.**Action**:

Icon		
	Pass	Drpo

2.**Risk**:

Icon			
	High Risk	Medium Risk	Low Risk

Chapter 19

LOG

The ALL7007 supports **Traffic Log** and **Event Log** to monitor and record services, connection times, and the source and destination network address. The Administrator may also download the log files for backup purposes. The Administrator mainly uses the Log menu to monitor the traffic passing through the ALL7007.

Log records all connections that pass through the ALL7007's control policies. **Traffic Log**'s parameters are setup when setting up control policies. Traffic logs record the details of packets such as the start and stop time of connection, the duration of connection, the source address, the destination address and services requested, for each control policy. **Event Log** record the contents of System Configuration changes made by the Administrator such as the time of change, settings that change, the IP address used to log on, etc.

How to use the Log

The Administrator can use the log data to monitor and manage the device and the networks. The Administrator can view the logged data to evaluate and troubleshoot the network, such as pinpointing the source of traffic congestions.

We set up four LOG examples in the chapter:

No.	Suitable Situation	Example	Page
Ex 1	**Traffic Log**	To detect the information and Protocol port that users use to access to Internet or Intranet by ALL7007.	**301**
Ex 2	**Event Log**	To record the detailed management events (such as Interface and event description of ALL7007) of the Administrator	**305**
Ex 3	**Connection Log**	To detect event description of WAN Connection	**308**
Ex 4	**Log Backup**	To save or receive the records that sent by the ALL7007	**311**

To detect the information and Protocol port that users use to access to Internet or Intranet by ALL7007

STEP 1． Add new policy in **DMZ to WAN** of **Policy** and select **Enable Logging**: (Figure19-1)

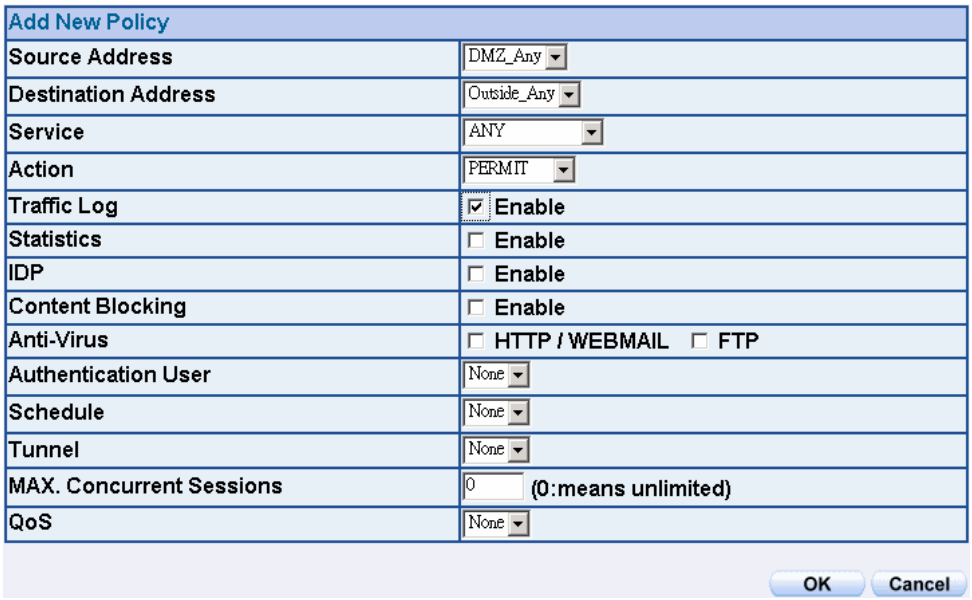


Figure19-1 Logging Policy Setting

STEP 2． Complete the Logging Setting in **DMZ to WAN Policy**: (Figure19-2)

Figure19-2 Complete the Logging Setting of DMZ to WAN

STEP 3 . Click **Traffic Log**. It will show up the packets records that pass this policy. (Figure19-3)

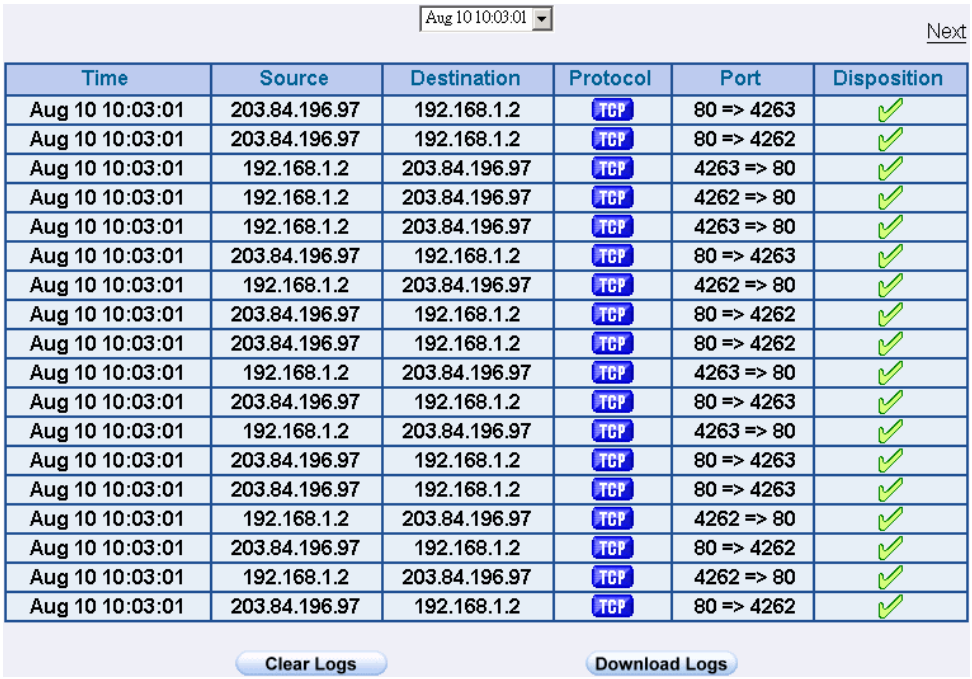


Figure19-3 Traffic Log WebUI

STEP 4 . Click on **Download Logs** and select **Save** in **File Download** WebUI. And then choose the place to save in PC and click **OK**; the records will be saved instantly. (Figure19-4)

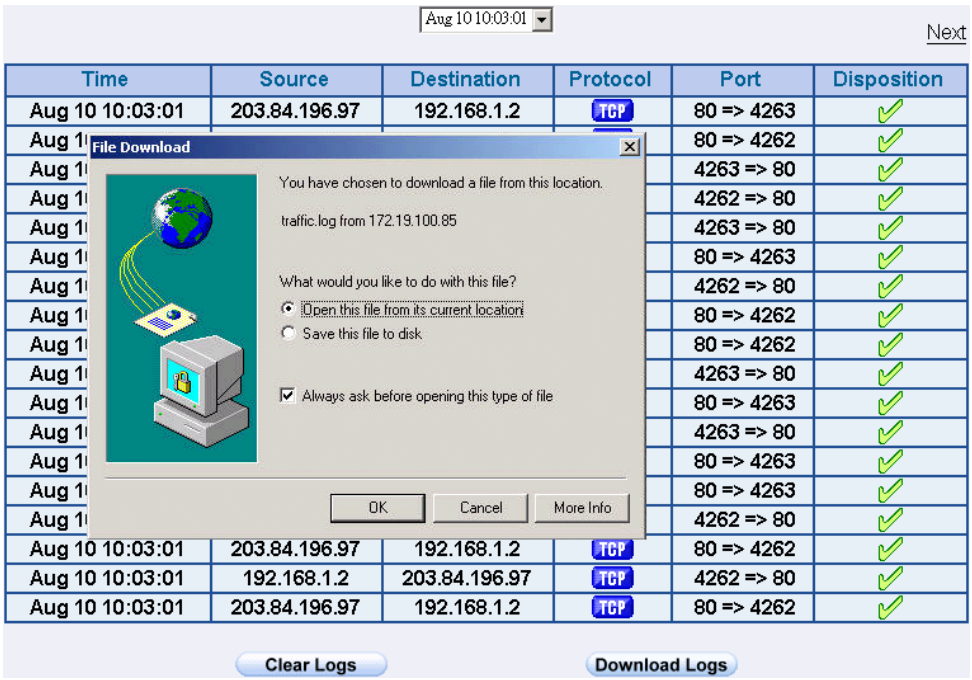


Figure19-4 Download Traffic Log Records WebUI

STEP 5 . Click **Clear Logs** and click **OK** on the confirm WebUI, the records will be deleted from the ALL7007 instantly. (Figure19-5)

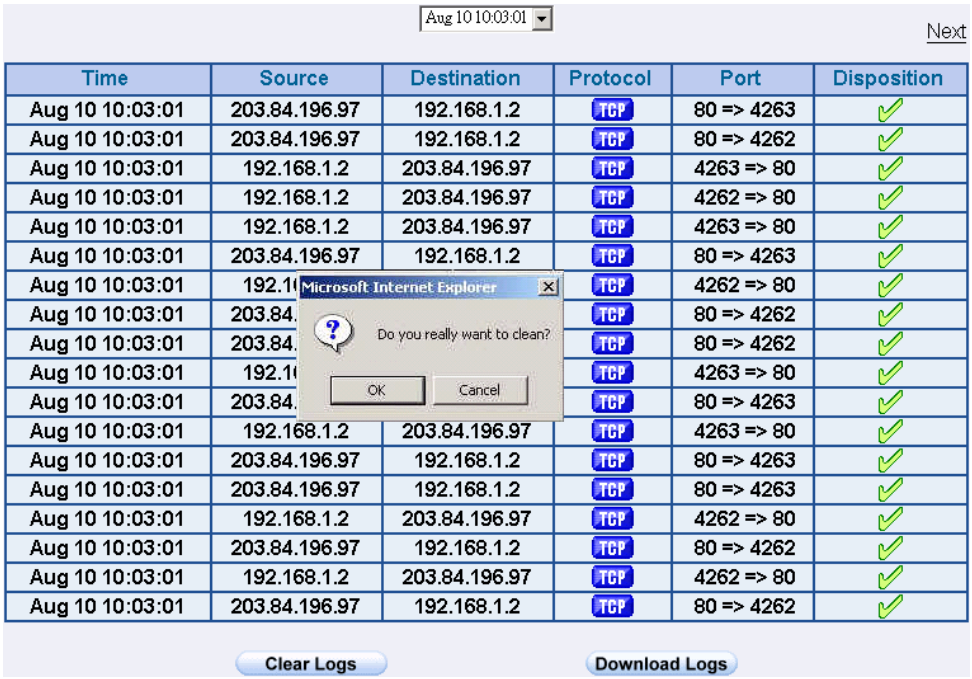
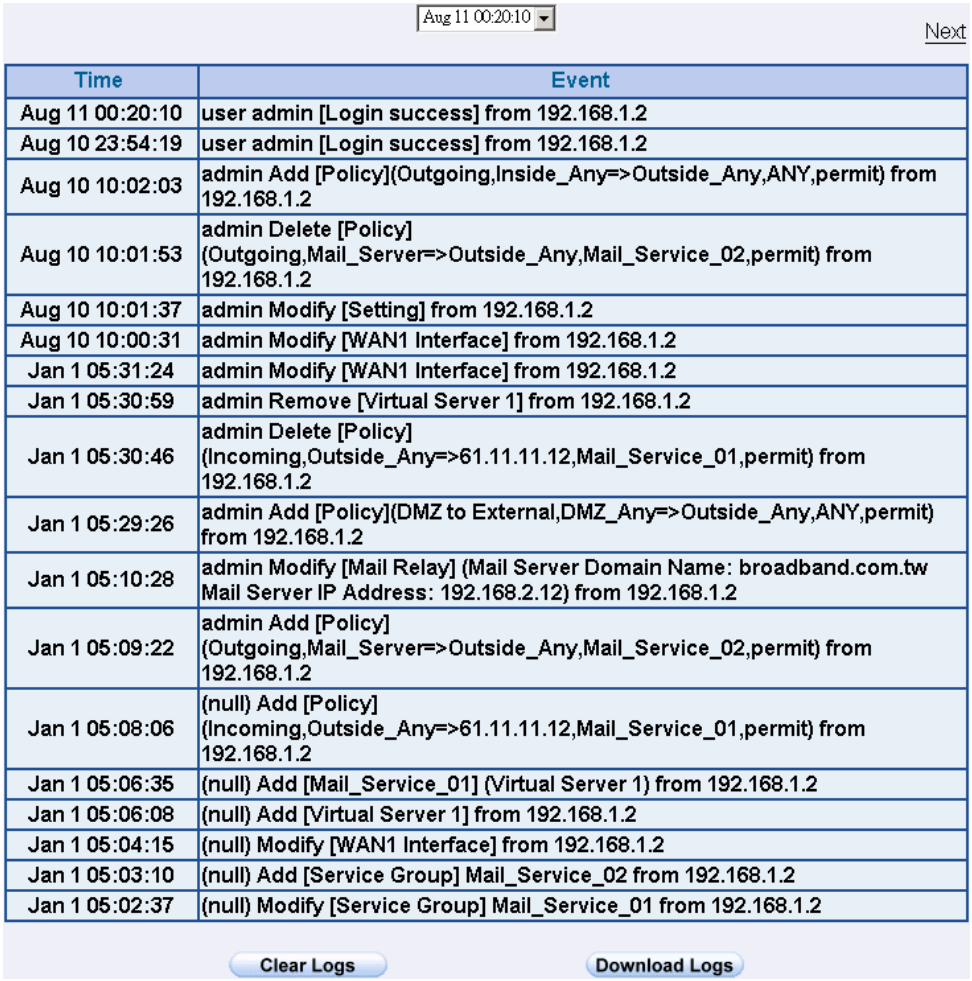


Figure19-5 Clearing Traffic Log Records WebUI

To record the detailed management events (such as Interface and event description of ALL7007) of the Administrator

STEP 1 . Click **Event** log of **LOG**. The management event records of the administrator to login ALL7007 will show up (Figure19-6)



Time	Event
Aug 11 00:20:10	user admin [Login success] from 192.168.1.2
Aug 10 23:54:19	user admin [Login success] from 192.168.1.2
Aug 10 10:02:03	admin Add [Policy](Outgoing,Inside_Any=>Outside_Any,ANY,permit) from 192.168.1.2
Aug 10 10:01:53	admin Delete [Policy] (Outgoing,Mail_Server=>Outside_Any,Mail_Service_02,permit) from 192.168.1.2
Aug 10 10:01:37	admin Modify [Setting] from 192.168.1.2
Aug 10 10:00:31	admin Modify [WAN1 Interface] from 192.168.1.2
Jan 1 05:31:24	admin Modify [WAN1 Interface] from 192.168.1.2
Jan 1 05:30:59	admin Remove [Virtual Server 1] from 192.168.1.2
Jan 1 05:30:46	admin Delete [Policy] (Incoming,Outside_Any=>61.11.11.12,Mail_Service_01,permit) from 192.168.1.2
Jan 1 05:29:26	admin Add [Policy](DMZ to External,DMZ_Any=>Outside_Any,ANY,permit) from 192.168.1.2
Jan 1 05:10:28	admin Modify [Mail Relay] (Mail Server Domain Name: broadband.com.tw Mail Server IP Address: 192.168.2.12) from 192.168.1.2
Jan 1 05:09:22	admin Add [Policy] (Outgoing,Mail_Server=>Outside_Any,Mail_Service_02,permit) from 192.168.1.2
Jan 1 05:08:06	(null) Add [Policy] (Incoming,Outside_Any=>61.11.11.12,Mail_Service_01,permit) from 192.168.1.2
Jan 1 05:06:35	(null) Add [Mail_Service_01] (Virtual Server 1) from 192.168.1.2
Jan 1 05:06:08	(null) Add [Virtual Server 1] from 192.168.1.2
Jan 1 05:04:15	(null) Modify [WAN1 Interface] from 192.168.1.2
Jan 1 05:03:10	(null) Add [Service Group] Mail_Service_02 from 192.168.1.2
Jan 1 05:02:37	(null) Modify [Service Group] Mail_Service_01 from 192.168.1.2

Figure19-6 Event Log WebUI

STEP 2 . Click on **Download Logs** and select **Save** in **File Download** WebUI. And then choose the place to save in PC and click **OK**; the records will be saved instantly. (Figure19-7)

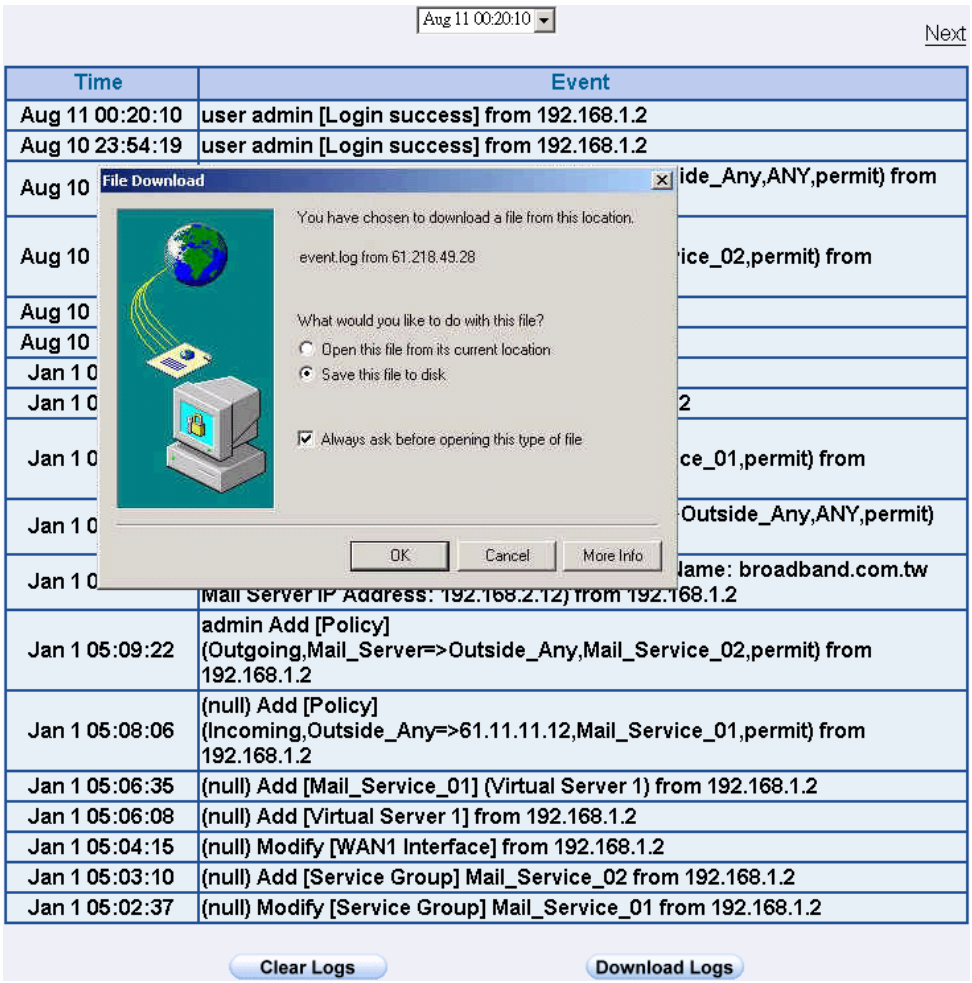


Figure19-7 Download Event Log Records WebUI

STEP 3 . Click **Clear Logs** and click **OK** on the confirm WebUI; the records will be deleted from the ALL7007. (Figure19-8)

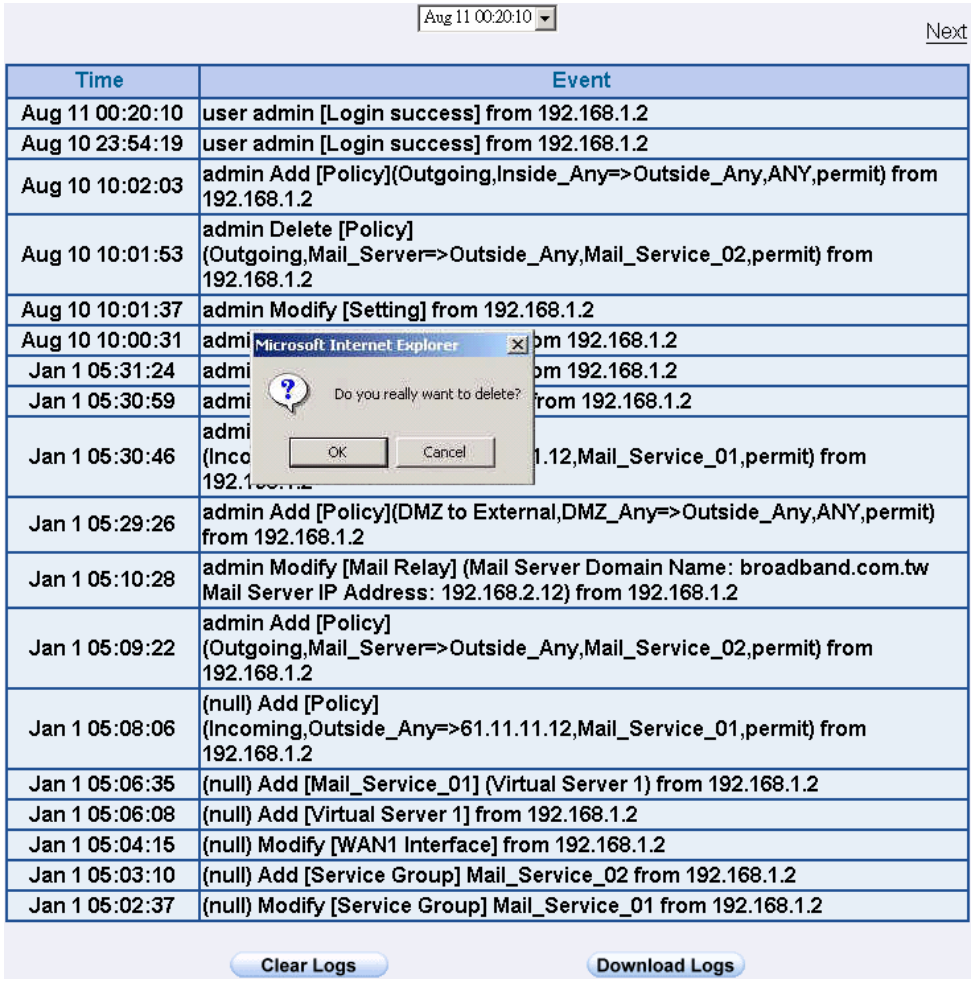


Figure19-8 Clearing Event Log Records WebUI

To Detect Event Description of WAN Connection

STEP 1． Click **Connection** in **LOG**. It can show up WAN Connection records of the ALL7007. (Figure19-9)

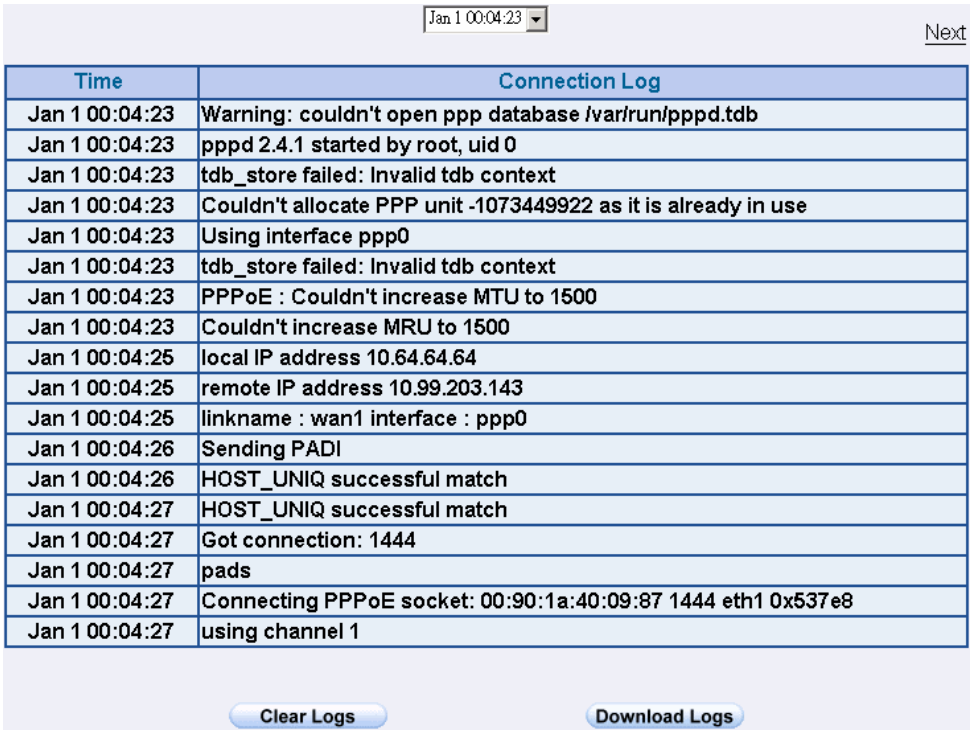


Figure19-9 Connection Records WebUI

STEP 2 . Click on **Download Logs** and select **Save** in **File Download** WebUI. And then choose the place to save in PC and click **OK**; the records will be saved instantly. (Figure19-10)

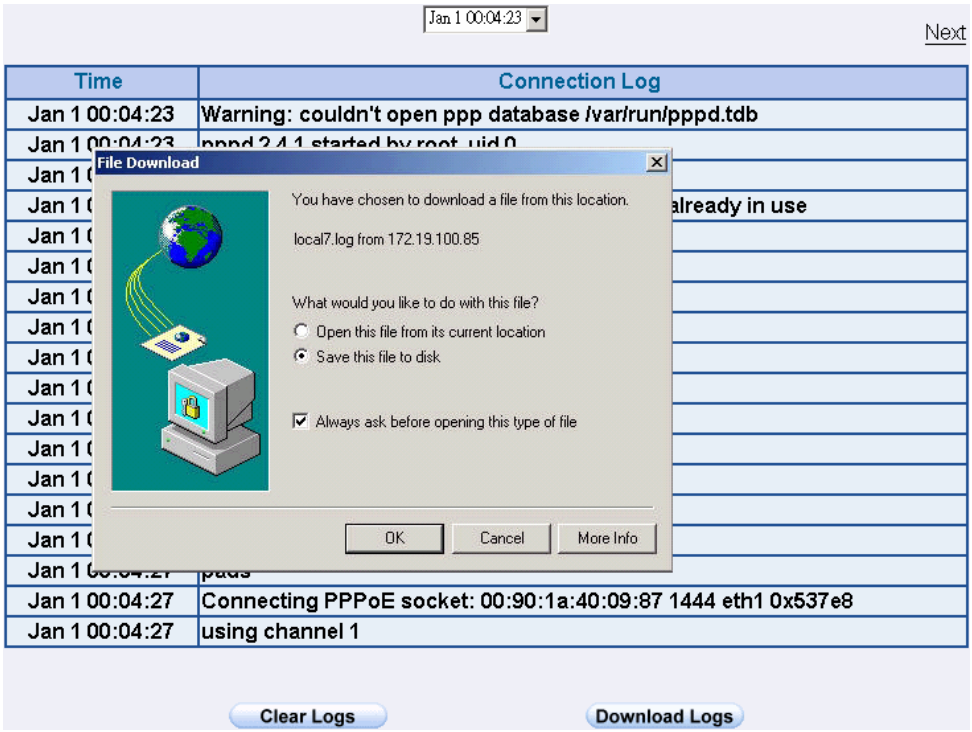


Figure19-10 Download Connection Log Records WebUI

STEP 3 . Click **Clear Logs** and click **OK** on the confirm WebUI, the records will be deleted from the ALL7007 instantly. (Figure19-11)

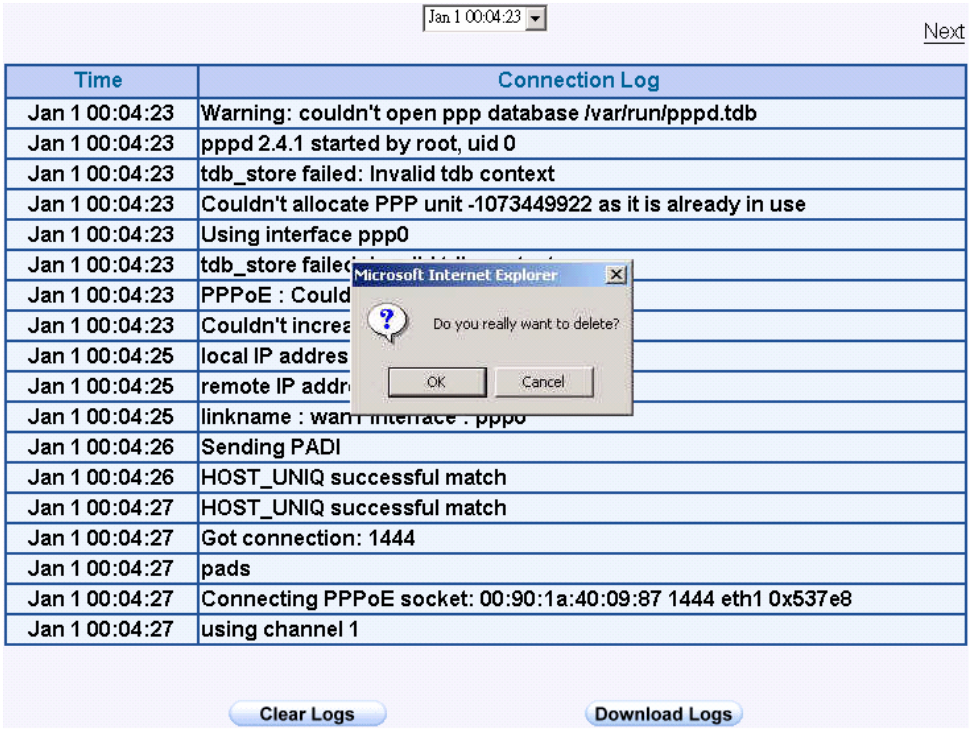


Figure19-11 Clearing Connection Log Records WebUI

To save or receive the records that sent by the ALL7007

STEP 1 . Enter **Setting** in **System**, select **Enable E-mail Alert Notification** function and set up the settings. (Figure19-12)

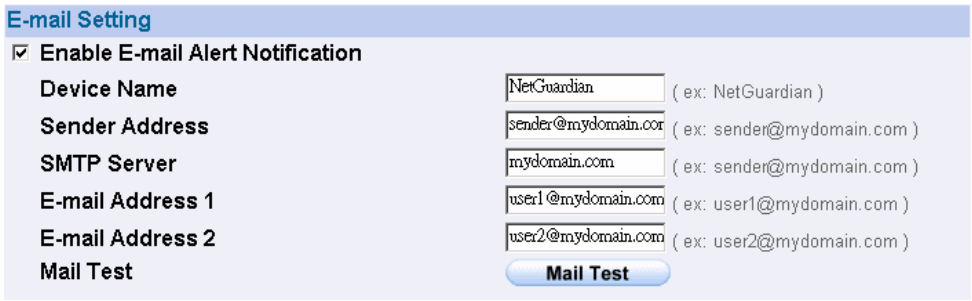


Figure19-12 E-mail Setting WebUI

STEP 2 . Enter **Log Backup** in **Log**, select **Enable Log Mail Support** and click **OK** (Figure19-13)

Figure19-13 Log Mail Configuration WebUI

After **Enable Log Mail Support,** every time when **LOG** is up to 300Kbytes and it will accumulate the log records instantly. And the device will e-mail to the Administrator and clear logs automatically.

STEP 3 . Enter **Log Backup** in **Log,** enter the following settings in **Syslog Settings**:

- Select **Enable Syslog Messages**
- Enter the IP in **Syslog Host IP Address** that can receive Syslog
- Enter the receive port in **Syslog Host Port**
- Click **OK**
- Complete the setting (Figure19-14)

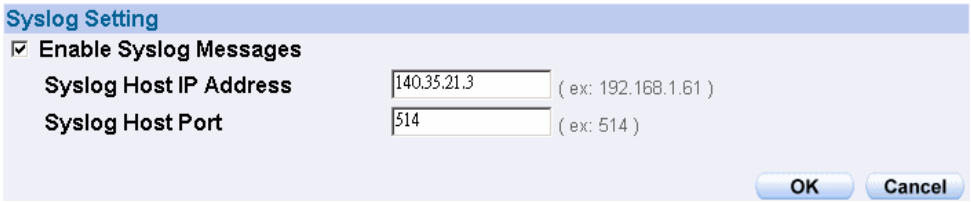


Figure19-14 Syslog Messages Setting WebUI

Chapter 20

Statistics

WAN Statistics: The statistics of Downstream/Upstream packets and Downstream/Upstream traffic record that pass WAN Interface

Policy Statistics: The statistics of Downstream/Upstream packets and Downstream/Upstream traffic record that pass Policy

In this chapter, the Administrator can inquire the ALL7007 for statistics of packets and data that passes across the ALL7007. The statistics provides the Administrator with information about network traffics and network loads.

Define the required fields of Statistics:

Statistics Chart:

- **Y-Coordinate**：Network Traffic（Kbytes/Sec）
- **X-Coordinate**：Time（Hour/Minute/Day）

Source IP, Destination IP, Service, and Action:

- These fields record the original data of Policy. From the information above, the Administrator can know which Policy is the Policy Statistics belonged to.

Time:

- To detect the statistics by minutes, hours, or days

Bits/sec, Bytes/sec, Utilization, Total:

- The unit that used by Y-Coordinate, which the Administrator can change the unit of the Statistics Chart here.
  - **Utilization**：The percentage of the traffic of the Max. Bandwidth that System Manager set in Interface function.
  - **Total:** To consider the accumulative total traffic during a unit time as Y-Coordinate

WAN Statistics

STEP 1． Enter **WAN** in **Statistics** function, it will display all the statistics of Downstream/Upstream packets and Downstream/Upstream record that pass **WAN** Interface. (Figure20-1)

- **Time:** To detect the statistics by minutes, hours, or days

WAN Statistics is the additional function of **WAN** Interface. When enable **WAN** Interface, it will enable **WAN Statistics** too.

STEP 2．Statistics Chart (Figure20-1)

- **Y-Coordinate**：Network Traffic（Kbytes/Sec）
- **X-Coordinate**：Time（Hour/Minute/Day）

Figure20-1 To Detect WAN Statistics

Policy Statistics

STEP 1 . If you had select **Statistics** in **Policy**, it will start to record the chart of that policy in **Policy Statistics**. (Figure20-2)

Source	Destination	Service	Action	Time
Inside_Any	Outside_Any	ANY	PERMIT	Minute Hour Day Week Month Year
DMZ_Any	Inside_Any	ANY	PERMIT	Minute Hour Day Week Month Year

Figure20-2 Policy Statistics Function

 If you are going to use **Policy Statistics** function, the System Manager has to enable the **Statistics** in **Policy** first.

STEP 2 . In the **Statistics** WebUI, find the network you want to check and click **Minute** on the right side, and then you will be able to check the Statistics chart every minute; click **Hour** to check the Statistics chart every hour; click **Day** to check the Statistics chart every day; click **Week** to check the Statistics chart every week; click **Month** to check the Statistics chart every month; click **Year** to check the Statistics chart every year

STEP 3．Statistics Chart (Figure20-3)

- **Y-Coordinate**：Network Traffic（Kbytes/Sec）
- **X-Coordinate**：Time（Hour/Minute）

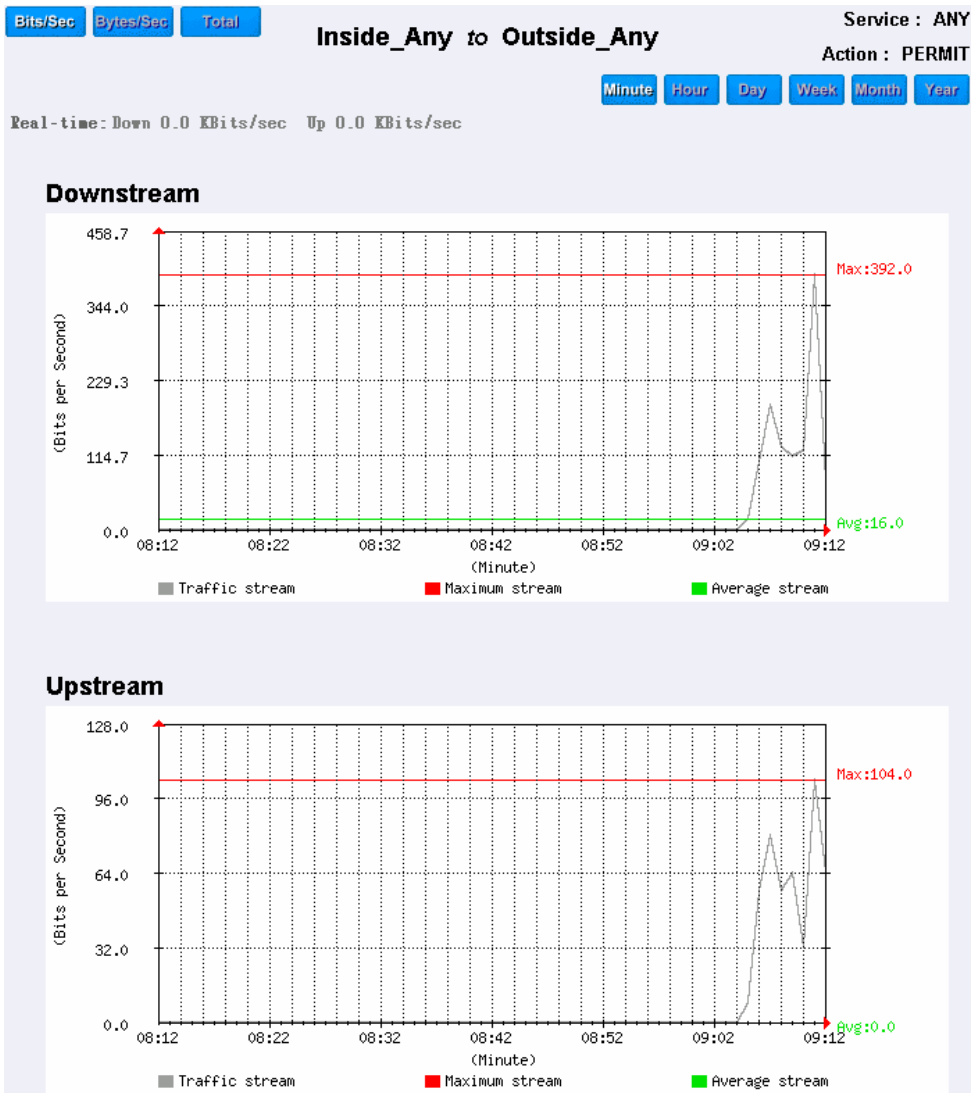


Figure20-3 To Detect Policy Statistics

Chapter 21

Status

The users can know the connection status in Status. For example: LAN IP, WAN IP, Subnet Netmask, Default Gateway, DNS Server Connection, and its IP…etc.

- **Interface Status:** Display all of the current Interface status of the ALL7007
- **ARP Table:** Record all the ARP that connect to the ALL7007
- **DHCP Clients:** Display the table of DHCP clients that are connected to the ALL7007.

Interface

STEP 1． Enter **Interface** in **Status** function; it will list the setting message for LAN, WAN, and DMZ Interface: (Figure21-1)

- **PPPoE Con. Time:** The last time of the ALL7007 to be enabled
- **MAC Address:** The MAC Address of the Interface
- **IP Address/ Netmask:** The IP Address and its Netmask of the Interface
- **Rx Pkts, Err. Pkts:** To display the received packets and error packets of the Interface
- **Tx Pkts, Err. Pkts:** To display the sending packets and error packets of the Interface
- **Ping, WebUI:** To display whether the users can Ping to the ALL7007 from the network Interface or not; or enter its WebUI
- **Forwarding Mode:** The connection mode of the Interface
- **Default Gateway:** To display the Gateway of WAN
- **DNS1:** The DNS1 Server Address provided by ISP
- **DNS2:** The DNS2 Server Address provided by ISP

Active Sessions Number : 16

System Uptime
0 Day 0 Hour 48 Min 42 Sec

	LAN	WAN	DMZ
Forwarding Mode	NAT	Static IP	NAT
Max. Downstream / Upstream	---	30000 / 30000 Kbps	---
PPPoE Con. Time	---	---	---
MAC Address	00:e0:98:c3:32:61	00:e0:98:c3:32:62	00:e0:98:c3:32:63
IP Address	192.168.1.1	172.19.20.11	192.168.2.1
Netmask	255.255.255.0	255.255.0.0	255.255.255.0
Default Gateway	---	172.19.1.254	---
DNS1	---	168.95.1.1	---
DNS2	---	0.0.0.0	---
Rx Pkts, Error Pkts	10194, 0	4490, 0	0, 0
Tx Pkts, Error Pkts	8238, 0	3333, 0	106, 0
Ping	✔	✔	✔
HTTP	✔	✔	✔

Figure21-1 Interface Status Function

ARP Table

STEP 1 . Enter **ARP Table** in **Status** function; it will display a table about IP Address, MAC Address, and the Interface information which is connecting to the ALL7007: (Figure21-2)

- **IP Address:** The IP Address of the network
- **MAC Address:** The identified number of the network card
- **Interface:** The Interface of the computer

IP Address	MAC Address	Interface
172.19.1.254	00:0C:7C:00:04:39	WAN
172.19.1.106	00:0C:76:B4:E4:CE	WAN
192.168.1.2	00:01:80:41:D0:AE	LAN

Figure21-2 ARP Table WebUI

DHCP Clients

STEP 1 . In **DHCP Clients** of **Status** function, it will display the table of DHCP Clients that are connected to the ALL7007: (Figure21-3)

- **IP Address:** The dynamic IP that provided by DHCP Server
- **MAC Address:** The IP that corresponds to the dynamic IP
- **Leased Time:** The valid time of the dynamic IP (Start/End) (Year/Month/Day/Hour/Minute/Second)

IP Address	MAC Address	Leased Time	
		Start	End
192.168.1.2	00:01:80:41:d0:ae	2005/8/11 9:20:23	2005/8/12 9:20:23

Figure21-3 DHCP Clients WebUI

Germering, den

27.04.05

CE-Kennzeichnung und EG-Konformitätserlärung

Für das folgend bezeichnete Erzeugnis

ALL7007 Anti-Spam Anti-Virus Firewall

CE-Kennzeichnung

Dieses Gerät erfüllt die Anforderungen der EU-Richtlinie:

89/336/EG Richtlinie des Rates zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über die elektromagnetische Verträglichkeit und die gegenseitige Anerkennung ihrer Konformität.

Die Konformität mit der o.a. Richtlinie wird durch das CE-Zeichen auf dem Gerät bestätigt.

EG Konformitätserklärung

Wird hiermit bestätigt, dass der ALLNET ALL7007 Anti-Spam Anti-Virus Firewall den Anforderungen entspricht, die in der Richtlinie des Rates zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über die elektromagnetische Verträglichkeit **(1989/336/EG)** festgelegt sind.

Zur Beurteilung des Erzeugnisses hinsichtlich elektromagnetischer Verträglichkeit wurden folgende Normen herangezogen:

EMI: EN 50022 :1998 (A1 :2000 Class B),
EN 61000-3-2 :2000 Class A,
EN 61000-3-3 :1995+A1 :2001

EMS: EN 55024 :1998 (A1 :2001)

Diese Erklärung wird verantwortlich für den Hersteller/Bevollmächtigten abgegeben:

ALLNET Computersysteme GmbH
Maistr. 2
82110 Germering

Die Konformitätserklärung kann unter der oben genannten Adresse oder im Internet unter http://www.allnet.de/ce-certificates/ eingesehen werden.