Air Live®
Powered by OvisLink Corp.

# ES-4000 v2

Email Server Appliance

# User's Manual

www.airlive.com

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We, Manufacturer/Importer

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**5F., NO.6, Lane 130, Min-Chuan Rd.,**
**Hsin-Tien City, Taipei County, Taiwan**

Declare that the product

**Email Server Appliance**
**AirLive ES-4000 v2**
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| Clause | Description |
|---|---|
| ■ **EN 55022:1998/A1 :2000/A2:2003** | Limits and methods of measurement of radio disturbance characteristics of information technology equipmen |
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**Manufacturer/Importer**

Signature : Albert Yen

Name : **Albert Yen**

Position/ Title : **Vice President** (Stamp) Date : **2007/7/5**

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## CE Declaration of Conformity

This equipment complies with the requirements relating to electromagnetic compatibility,
EN 55022/A1/A2, EN 61000-3-2, EN 61000-3-3/A1, EN 55024/A1/A2, Class B.

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# Chapter 1 Introduction

Congratulations on your purchase of this outstanding ES-4000V2 Mail Server Appliance, this product is specifically designed for the office that has the need to install an easy maintained mail server in company.

Since email has become the most important communicating tool in the world, the network administrator always looks for a stable, powerful, and easy installed email server system. Now AirLive presents you a hardware-based Email Server Appliance, ES-4000V2, it provides POP3, SMTP, IMAP, Web mail server and Web disk function that make the equipment suitable for most users; with 160GB hard disk ES-4000V2 owns the capacity to handle plenty of users; and advanced managed function to customize each account for better performance.

## 1.1 Functions and Features

- **Web Server**
  ES-4000V2 not only provides mail server function, it also offers web server function to allow user creating company's website on same device. So user will not need to purchase further software or hardware for web service.
- **Remote Backup**
  ES-4000V2 will record every passing mail as the record, and user can select the schedule to backup the record to NAS or File Server. Those mail records can also be retrieved from NAS or File Server via ES-4000V2.
- **Shared Address Book**
  ES-4000V2 provides Shared Address for WebMail users; it can also connect to mail client software with LDAP service, such as Outlook Express, to search the destination address within Shared Address Book.
- **Anti-Virus**
  Built-in with Clam AV scan engine can filter malicious program in mail content, to prevent mail receiver from virus threat. The virus pattern can be updated regularly, and without any license fee.
- **Mail server transfer**
  It is very possible to lost mail during the period of a new mail server installation. ES-4000V2 provides a mechanism to check new mail from old mail server even in the process of DNS synchronized, and keep on receiving the mail.
- **Mail account transfer**
  ES-4000V2 provides a feature to transfer mail account from old mail server just in few configured steps. With learning systems, the administrator will not need to re-create all the account one by one.

- **DNS**

  Built-in with DNS server, administrator can setup the domain name resolution by himself, and will not need to spend money to deposit DNS service at ISP.

- **Web Mail**

  Sometimes users need to access email in public computer, such as cyber café, and it is not allowed or not properly to download private mail. Web mail function works to provide internet user to check mail via web browser, so users will be able to read or send email in anywhere.

- **Personal Web Disk**

  Instead of sending mail with attaching large file, user can store the file in Personal web disk and send out the address of hyperlink, and then Internet user will be able to download it without authentication.

- **Customize mail account**

  Each mail account can be customized based on company's policy, the contents include Mail size limitation, Mail box Quota, and Personal web disk quota.

- **HA**

  Built-in with HA (High Availability) function, the stored data can be synchronized with two ES-4000V2 devices, to prevent losing mail in case a mail server crashes.

- **Embedded with 160G Hard Disk**

  ES-4000V2 embedded with 160GB IDE hard disk to store the mail, and users can replace the hard disk by themselves, it supports to format the hard disk as its original capacity. The maximum size is up to 350GB.

- **Easy installation and useful mail system**

  Just few steps of installation, a useful mail server with POP3, SMTP, IMAP, Web Mail and Web Disk function can be deployed and ready for use.

## 1.2 Front Panel

Figure 1-1 Front Panel

| LED | Color | Status | Description |
|---|---|---|---|
| **POWER** | Green | On | Power on the device |
| **Hard Disk** | Green | Blinking | Data reading / accessing |
| **Port1** | Green | Blinking | Sending / Receiving |
| | | On | 100 Mbps |
| | Orange | On | 1000 Mbps |
| | - | Off | 10 Mbps |
| **Port2** | Green | Blinking | Sending / Receiving |
| | | On | 100 Mbps |
| | Orange | On | 1000 Mbps |
| | - | Off | 10 Mbps |

**Ports:**

| Port | Description |
|---|---|
| **AC Power** | Input voltages ranging from 100 ~ 240 VAC, and with a maximum power output of 85 watts. |
| **Port 1** | Use this port to connect to a router, DSL modem, Cable modem, or Switch. |
| **Port 2** | Use this port to connect another ES-4000V2 device for HA function |
| **Console Port** | 9-pin serial port connector for checking setting and restore to the factory setting |

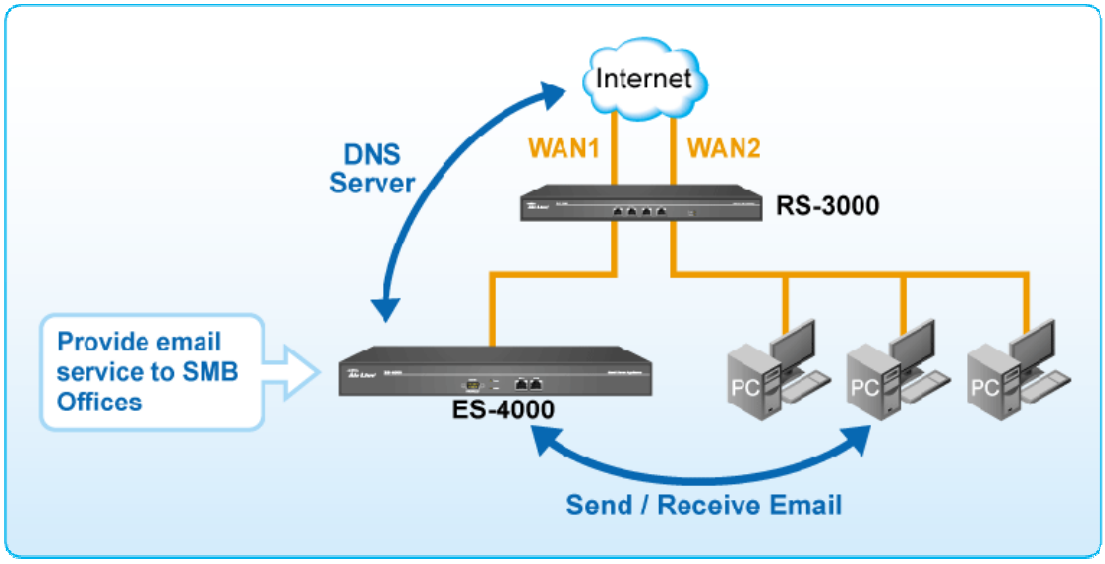
## 1.3 Packing List

- ES-4000V2 Mail Server Appliance
- Installation CD-ROM
- Quick Installation Guide
- CAT-6 UTP Fast Ethernet cable x 2
- RS-232 cable
- Power code
- Accessories

# Chapter 2 Product Deployment

## 2.1 Deployment

ES-4000V2 features Mail Server function to offer mail service for LAN users. Co-work with RS-3000 Anti-spam function can improve more complete mail security, and save the time and human resource to arrange lots of mal-mails.



## 2.2 Software Installation

***Step1.*** Connect the MIS engineer's PC and ES-4000V2's port 1 to the same Hub / Switch, and launch the browser (IE or Netscape) to link the ES-4000V2 appliance. The default IP address is http : //192.168.1.1

***Step2.*** Administrator will be requested for **User Name** and **Password** when entering ES-4000V2 system. (Figure 2-1)

- **User Name** : admin
- **Password** : airlive
- Click **OK**.

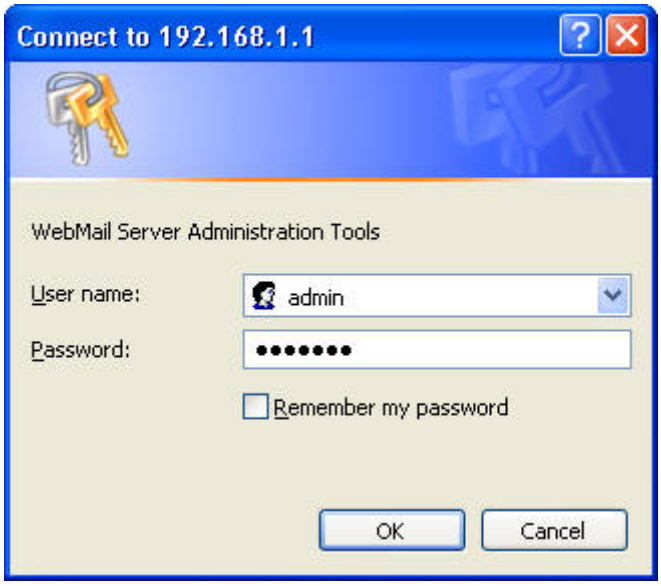



**Figure 2-1 Login page**

***Step3.*** When user first uses the ES-4000V2 management interface, system will automatically enter **Install Wizard.** It will guide user to make settings. Click **Next**. (Figure 2-2)

**Figure 2-2 Enter the setting wizard**

***Step4.*** Select the language and character encoding. (Figure 2-3)

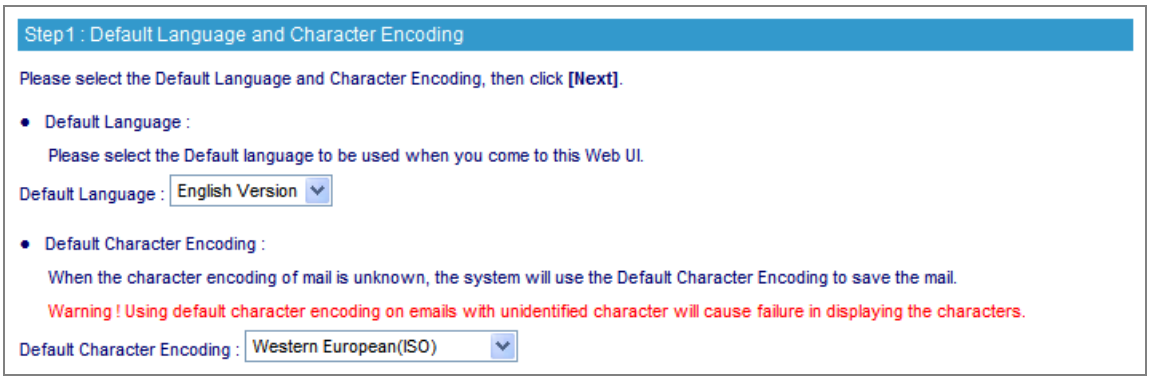



**Figure 2-3 Select the language and character encoding**

When system can not identify the data character encoding that is going to be saved into database, it will use the default setting.

***Step5.*** Go to System ( Interface, enter the following setting: (Figure 2-4)

- Provide a valid IP address of the LAN subnet along with its mask, default gateway and DNS sever address.

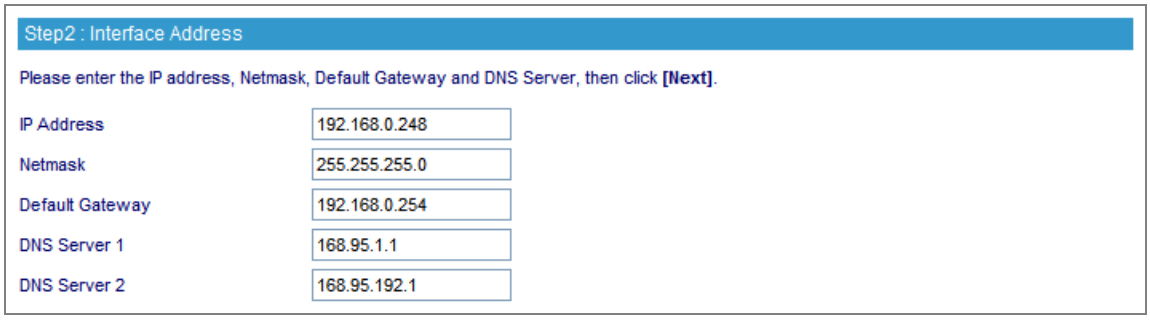



**Figure 2-4 Interface setting**

Please refer to LAN segment setting to set up interface address. For example, if the LAN segment is 172.16.X.X, then any changes made must be within the same segment in order to take effect.

The following table lists the standard virtual IP range, all external real IPs are forbidden.

| |
|---|
| 10.0.0.0 ~ 10.255.255.255 |
| 172.16.0.0 ~ 172.31.255.255 |
| 192.168.0.0 ~ 192.168.255.255 |

***Step6.*** Go to **System → Synchronize System Clock,** enable **Synchronize with an Internet Time Server** and set up offset hours from GMT to assure the correct time. (Figure 2-5)

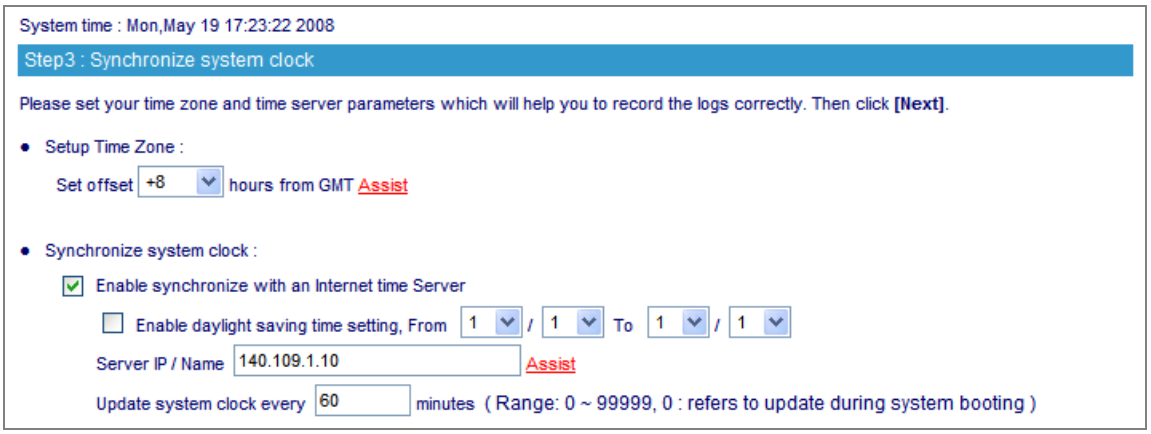



**Figure 2-5 Synchronize time setting**

If the local area executes the daylight saving time, then enable the **Daylight Saving Time Setting.**

***Step7.*** Enter corresponding domain alias. (Figure 2-6)

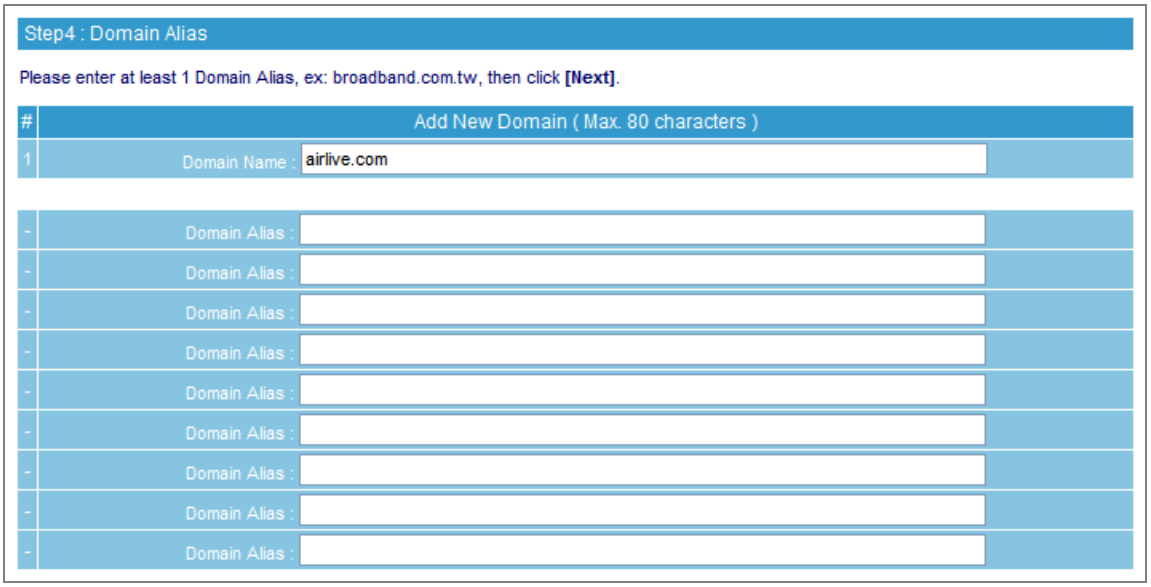



**Figure 2-6 Domain alias setting**

***Step8.*** Apply permitted mail relay segments and domains. (Figure 2-7)

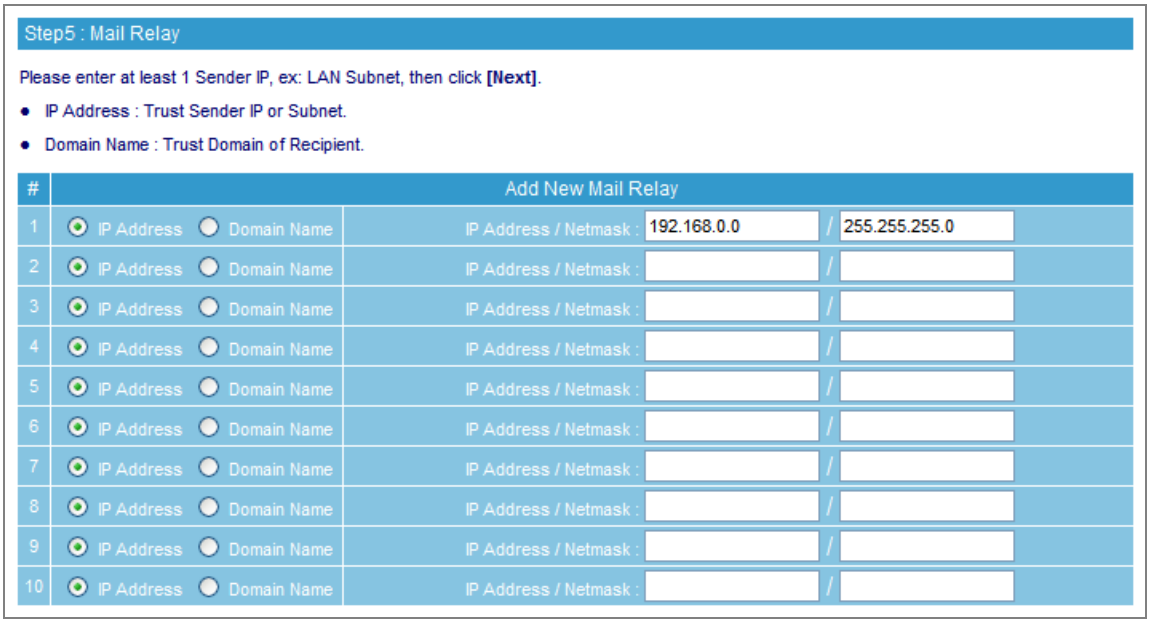



**Figure 2-7 Mail relay setting**

***Step9.*** If resolving domain name is needed, please enable the **DNS Setting** option. Once the **DNS Setting** is enabled, the install wizard will take you to a further DNS setting after you click **Finish**. (Figure 2-8)

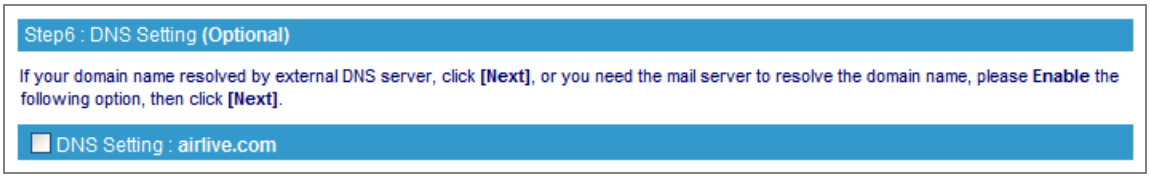



**Figure 2-8 Install completed**

***Step10.*** Set up account learning approach and default value for new account. (Figure 2-9)

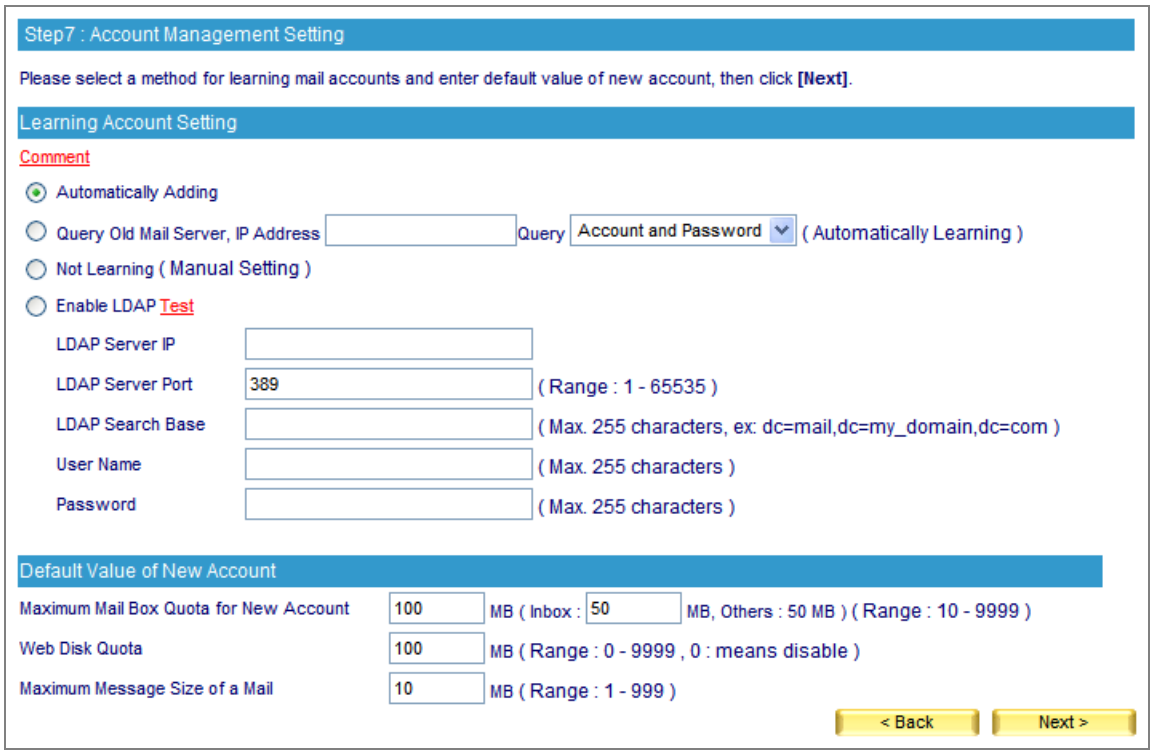



**Figure 2-9 Setup account learning approach and default value for new account**

***Step11.*** If necessary, select to enable HA feature and configure the IP address of another ES-4000V2. Both devices will synchronize the database when the connection builds up. (Figure 2-10)

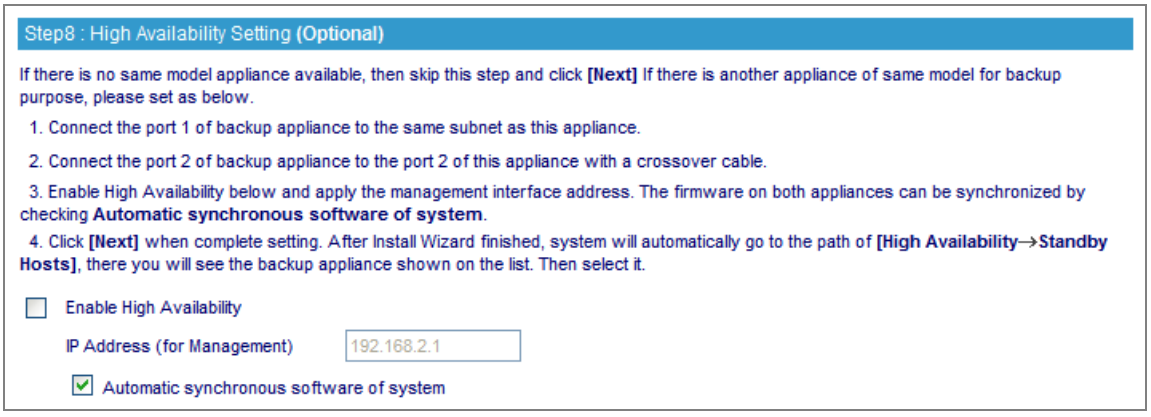



**Figure 2-10 High Availability setting**

***Step12.*** Prompt users that the listed ports below should be remaining open on Perimeter Gateway while ES-4000V2 is functioning. (Figure 2-12)

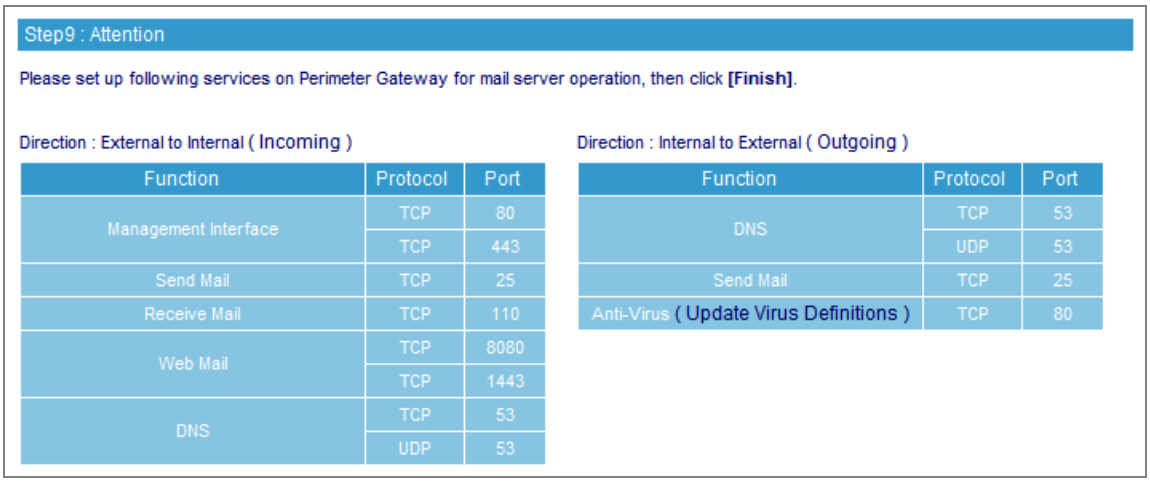



**Figure 2-12 Attention**

***Step13.*** Click **Finish.**

# Chapter 3 Basic Installation Guide

## 3.1 Setup RS-3000 and ES-4000V2 to build up your Mail Server

This example will introduce the procedure about how to set up ES-4000V2 Mail server system, and configure ES-4000V2 Anti-Virus, RS-3000 Anti-Spam to filter out the mal-mail.

**Environment Definition:**

RS-3000:

WAN IP address – 60.250.158.64, 61.229.45.101

LAN IP address – 192.168.1.1

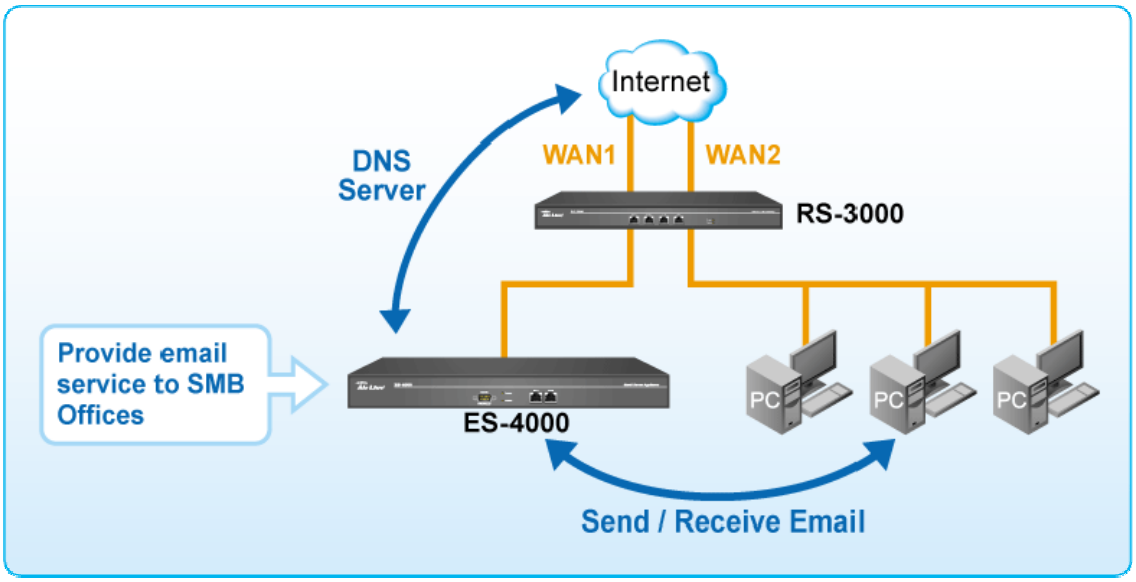
DMZ IP address – 192.168.3.1

ES-4000V2:

IP address: 192.168.3.254, Subnet mask: 255.255.255.0, Default gateway: 192.168.3.1

Domain name: airlive.com

**Application:**



**Procedure Guide:**

1. Apply and register a domain name at Service provider
2. **RS-3000:** Setup WAN ports
3. **ES-4000V2:** Follow wizard to setup mail server
4. **ES-4000V2:** Create mail account
5. **ES-4000V2:** Enable and Configure Anti-Virus function
6. **RS-3000: Policy Object → Address → DMZ** – Create ES-4000V2 LAN IP address at DMZ in order to be configured at RS-3000 policy.
7. **RS-3000: Policy Object → Services → Custom** – Create the non-standard port number for Web Mail service, and assign a name as WebMail
8. **RS-3000: Policy Object → Services → Group** – Create two service groups as **Mail_Incoming** and **Mail_Outgoing** to group the necessary services of ES-4000V2 for RS-3000 configuration
9. **RS-3000:** Create **Virtual Server** setting to assign specific WAN IP address, Services, and ES-4000V2 IP
10. **RS-3000:** Create **Outgoing Policy** and allow LAN user to access Internet
11. **RS-3000:** Create **DMZ to WAN** Policy and allow ES-4000V2 to connect Internet with specific services
12. **RS-3000:** Create **WAN to DMZ** Policy and allow mail to reach ES-4000V2
13. **RS-3000: Mail Security → Configure** – Define the relay permission for mail clients
14. **RS-3000: Mail Security → Anti-Spam** – Enable Anti-Spam feature
15. **RS-3000:** Disable Anti-Virus feature
16. Verify the configuration result

**Step-by-step Configuration:**

***Step1.*** Apply and register a domain name at Service provider, for example **airlive.com**.

***Step2.*** Setup ready RS-3000 WAN interface.

***Step3.*** Follow the ES-4000V2 wizard to setup mail server.

**1. Select the language and character encoding. (Figure 3-1)**

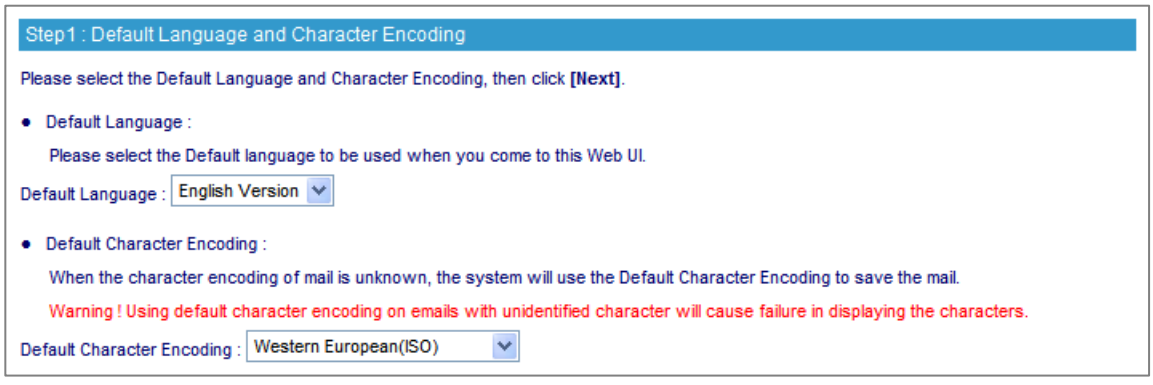



**Figure 3-1 Select the language and character encoding**

2. **Setup ES-4000V2 IP address. (Figure 3-2)**

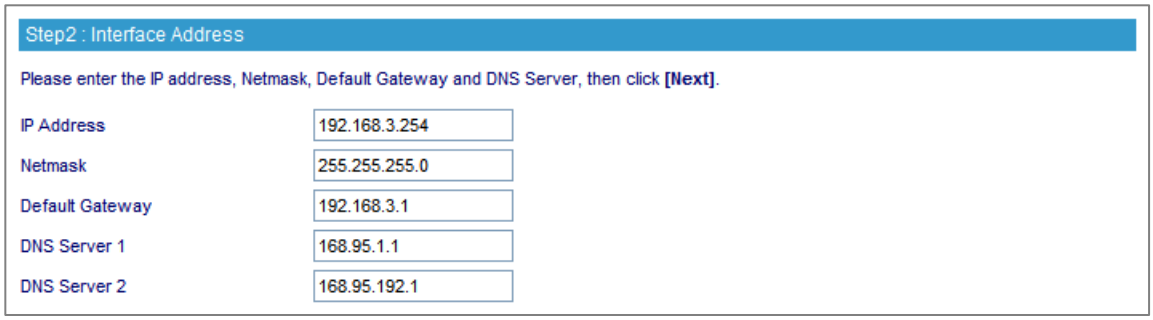



Figure 3-2 Interface setting

3. **Configure the correct time zone setting. (Figure 3-3)**

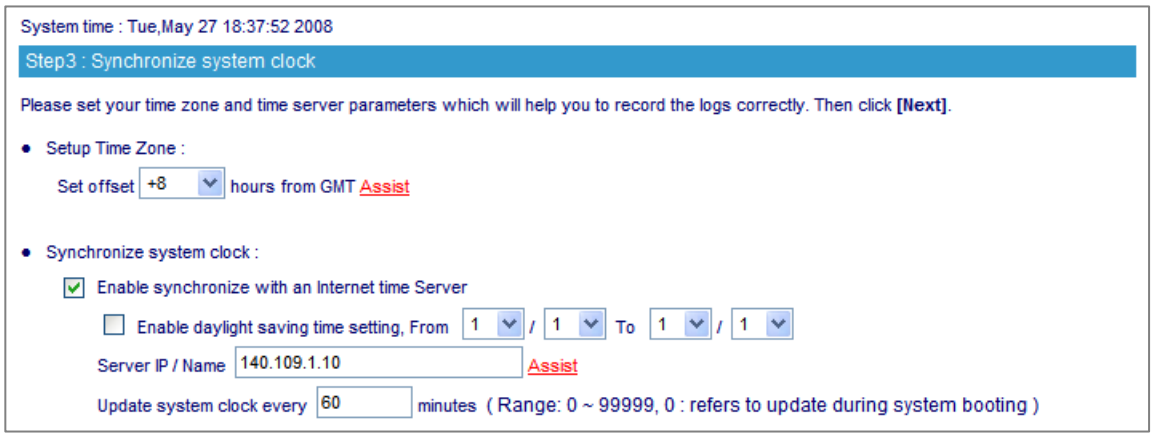



Figure 3-3 Synchronize time setting

4. **Enter corresponding domain alias. (Figure 3-4)**

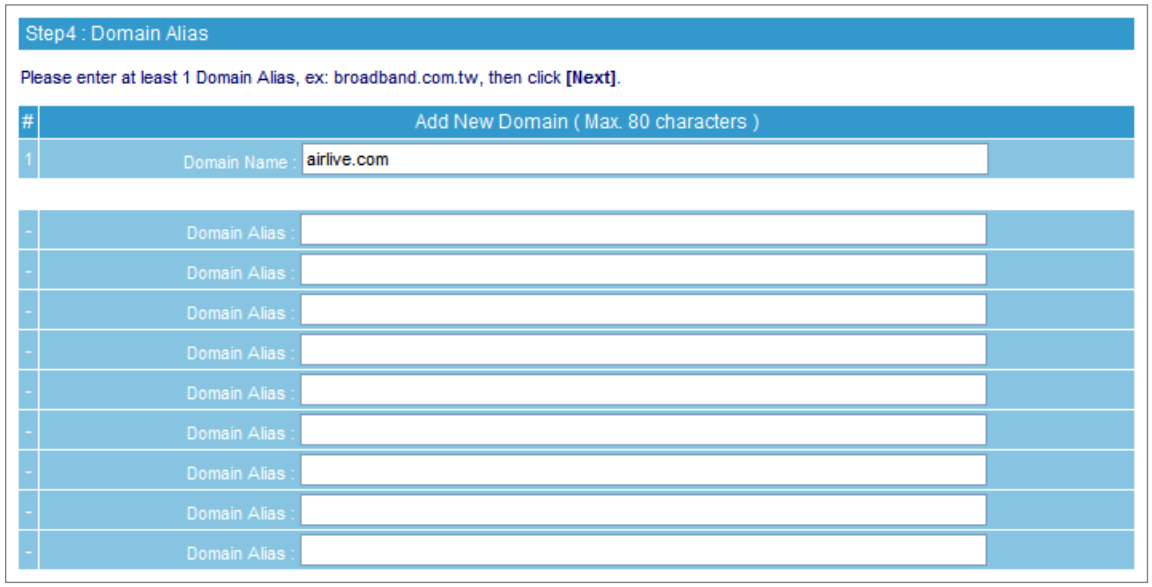



Figure 3-4 Domain Name setting

5. **Apply permitted mail relay segments and domains. (Figure 3-5)**

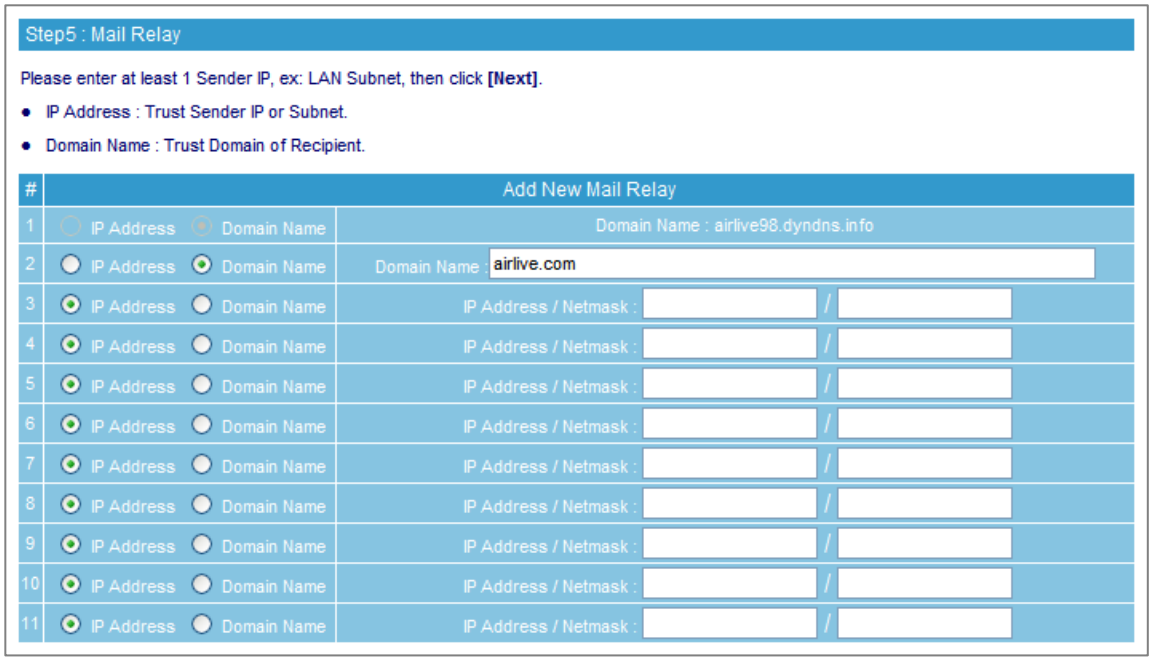



Figure 3-5 Mail relay setting

6. **Skip DNS setting and press Next. (Figure 3-6)**

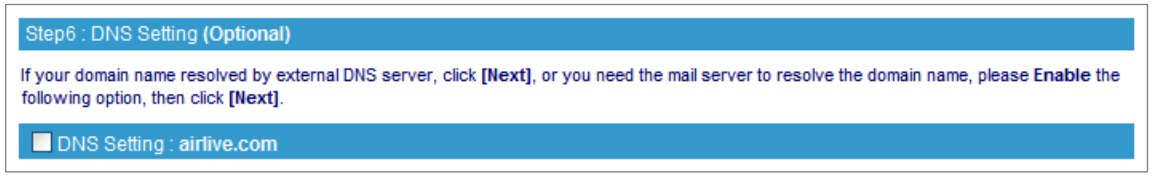



Figure 3-6 Install completed

7. **Select Not Learning for Account Management Setting. (Figure 3-7)**

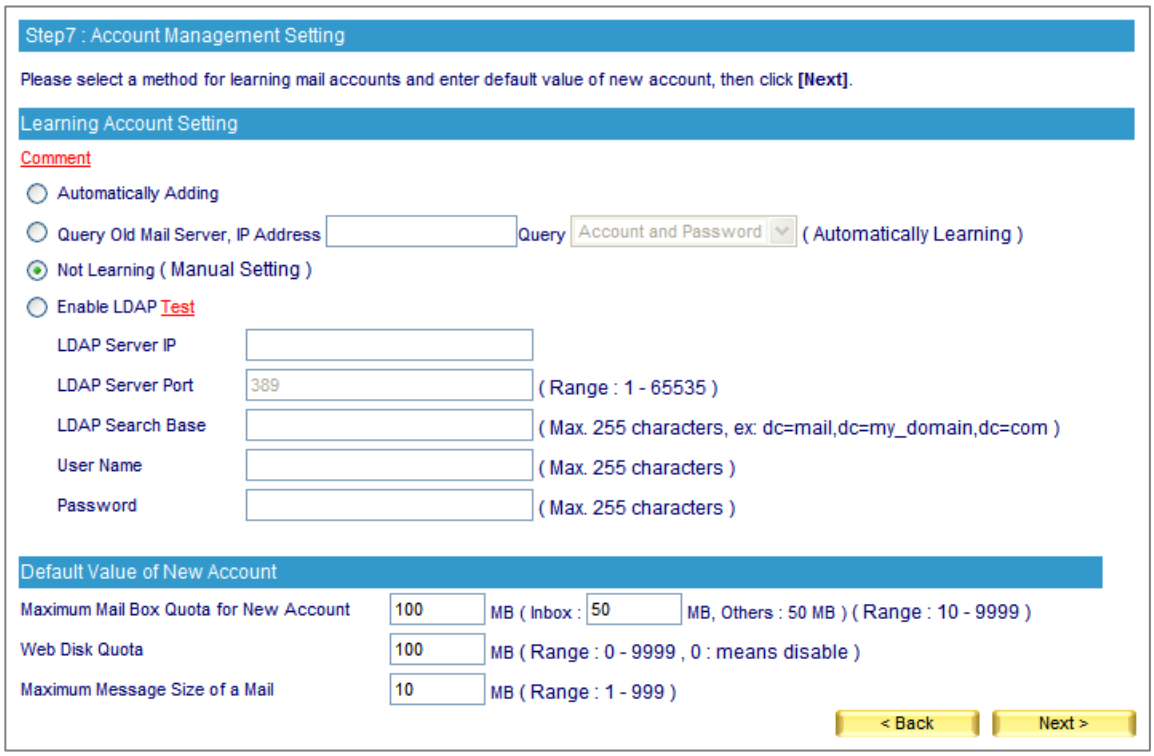



Figure 3-7 Account Management Setting

### 8. Skip High Availability Setting. (Figure 3-8)

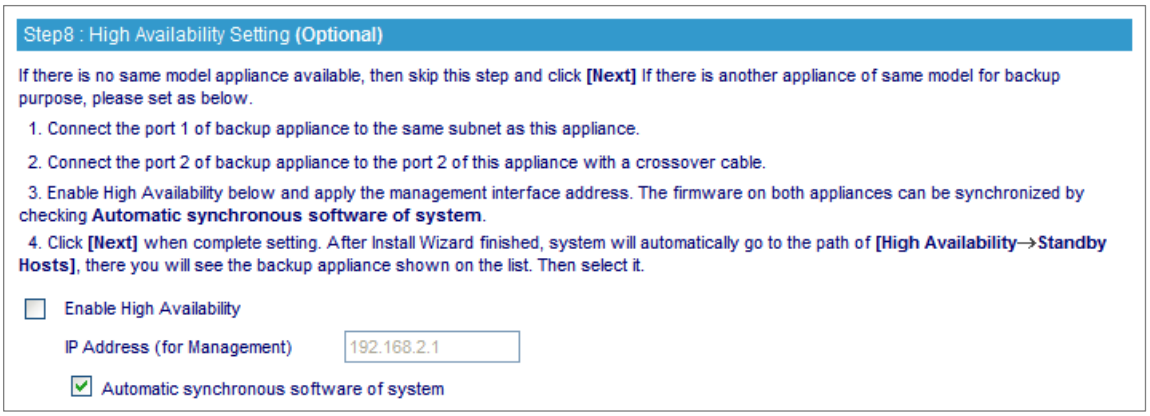



Figure 3-8 High Availability setting

### 9. Finish the wizard setting. (Figure 3-9)

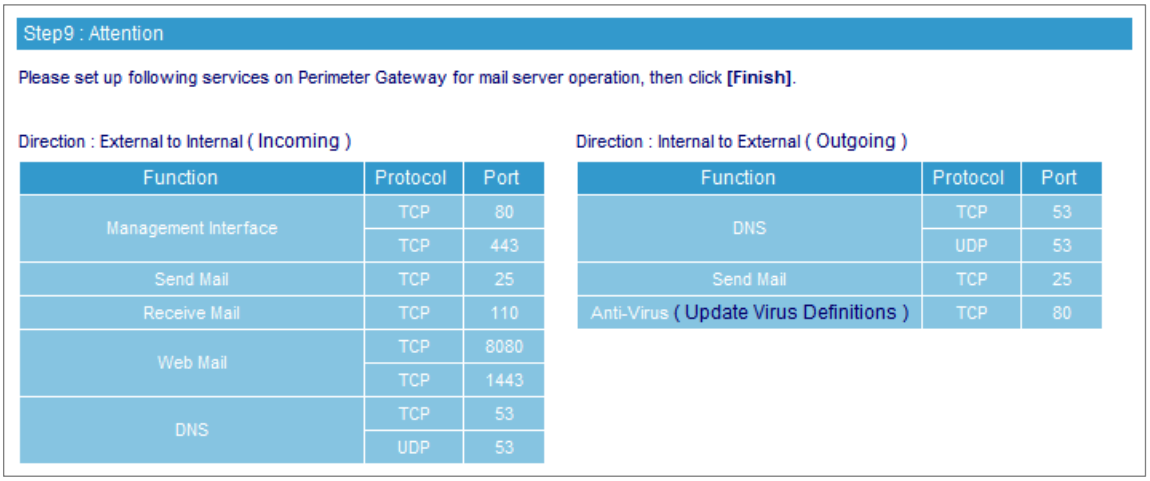



Figure 3-9 Finish Wizard setting

***Step4.*** ES-4000V2 **Mail Management → Individual**: Add a test mail account “jacky” as the example, and enter the password. (Figure 3-10)

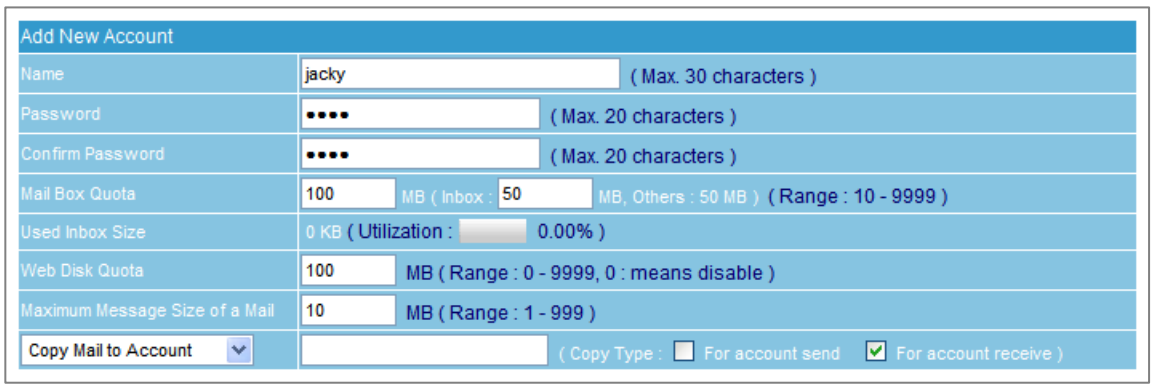



Figure 3-10 Create mail client account

***Step5.*** Configure ES-4000V2 Anti-Virus function. (Figure 3-11)

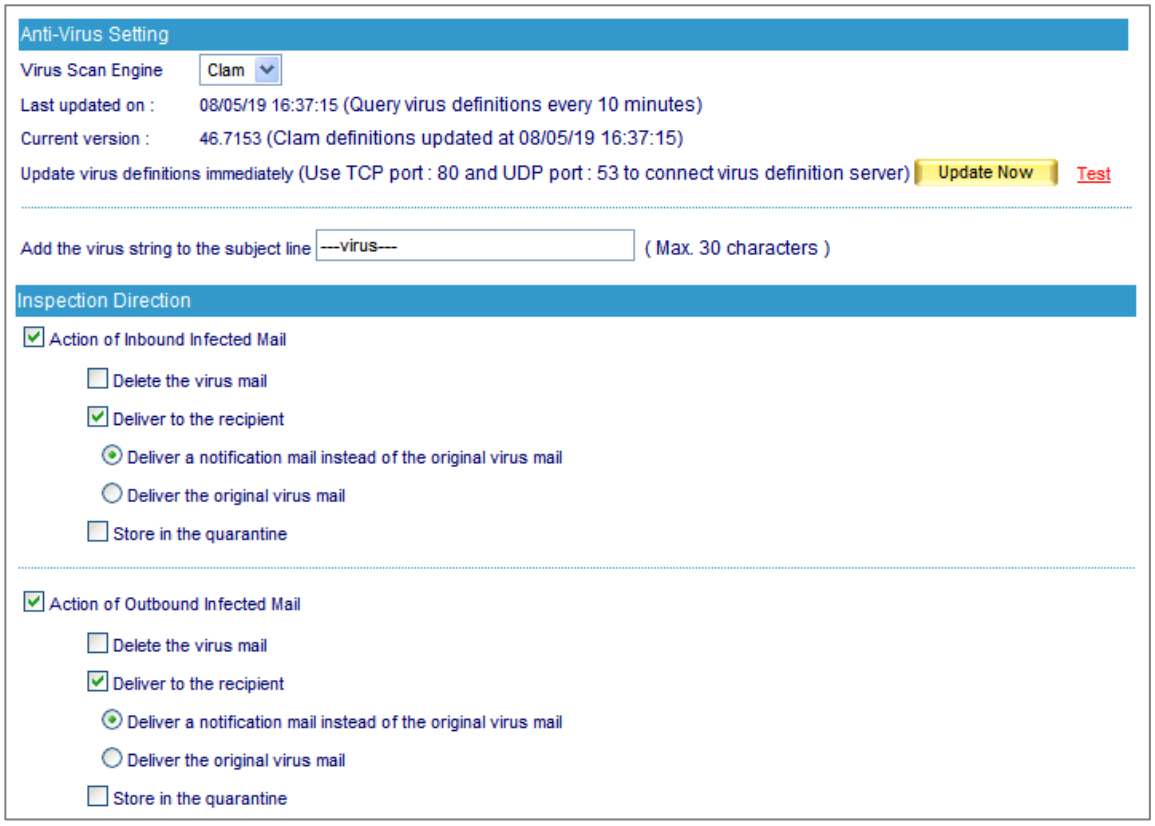



**Figure 3-11 Configure Anti-Virus setting**

***Step6.*** Create ES-4000V2 LAN IP address at DMZ in order to be configured at RS-3000 policy. (Figure 3-12)

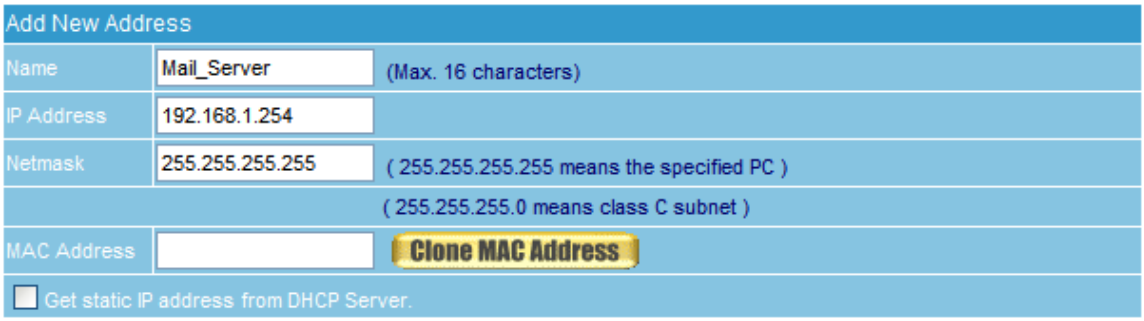



**Figure 3-12 Define Mail Address at RS-3000 DMZ**

***Step7.*** Create the necessary services of ES-4000V2 on ES-3000 **Policy Object → Service → Custom**

- Define Web Mail protocol with TCP 8080 and TCP 1443 on ES-3000. (Figure 3-13)

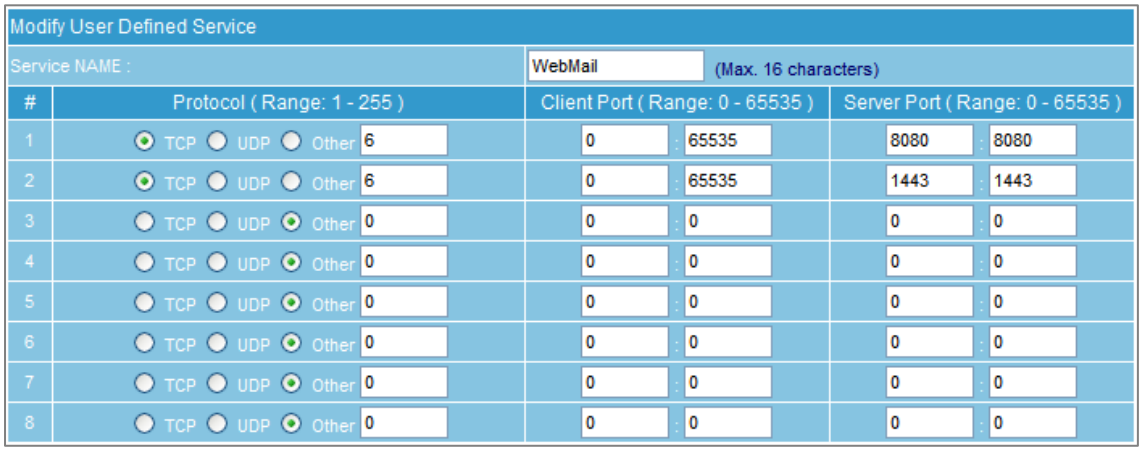



**Figure 3-13 Create Web Mail Service on RS-3000**

***Step8.*** Group the necessary services of ES-4000V2 on ES-3000 **Policy Object → Service → Group**

- Group Incoming Services including POP3, SMTP, Web Mail, SSL Web Mail, and DNS. (Figure 3-14)
- Group Outgoing Services including DNS, SMTP, and HTTP. (Figure 3-15)

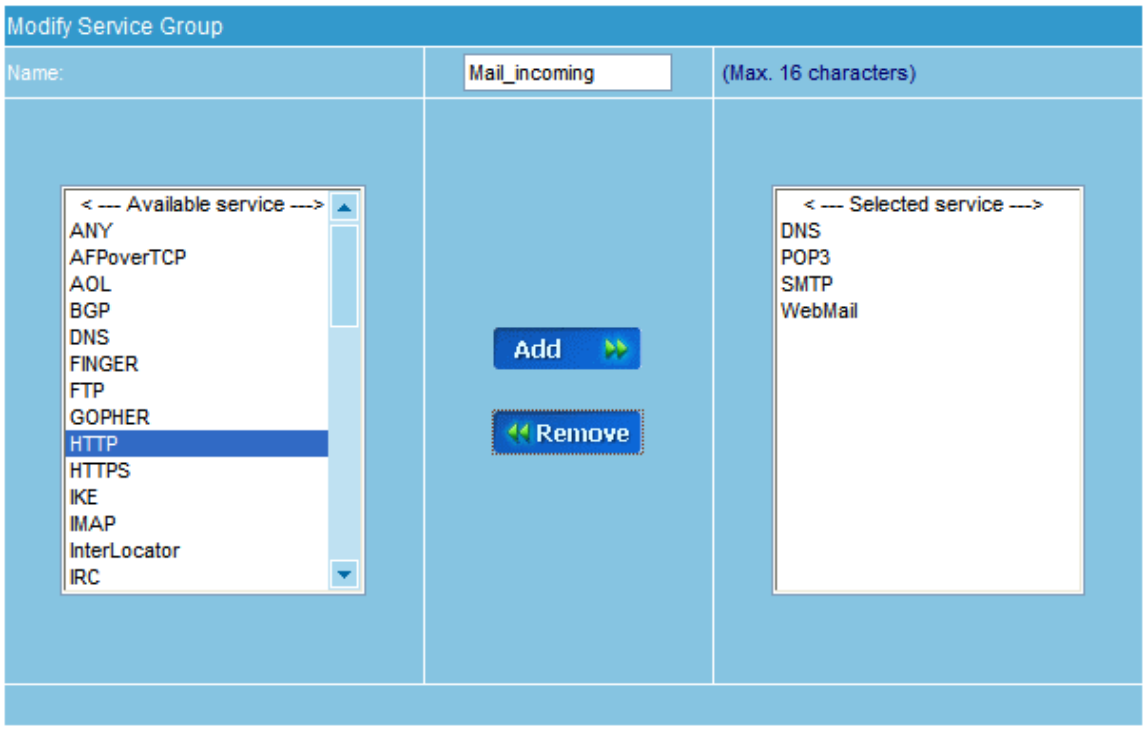



**Figure 3-14 RS-3000 Mail Incoming Services setting**

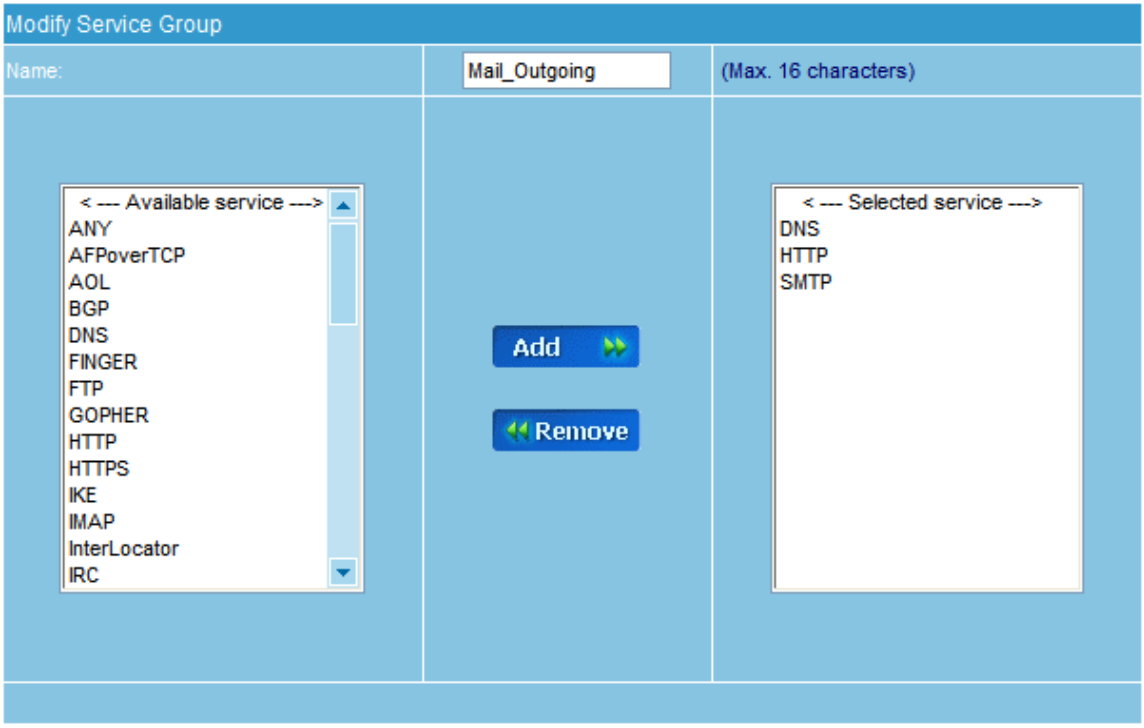



**Figure 3-15 RS-3000 Mail Outgoing Services setting**

***Step9.*** Configure RS-3000 Virtual Server function to redirect Incoming Services with dedicated LAN IP address of ES-4000V2, for example 192.168.1.254. (Figure 3-16)

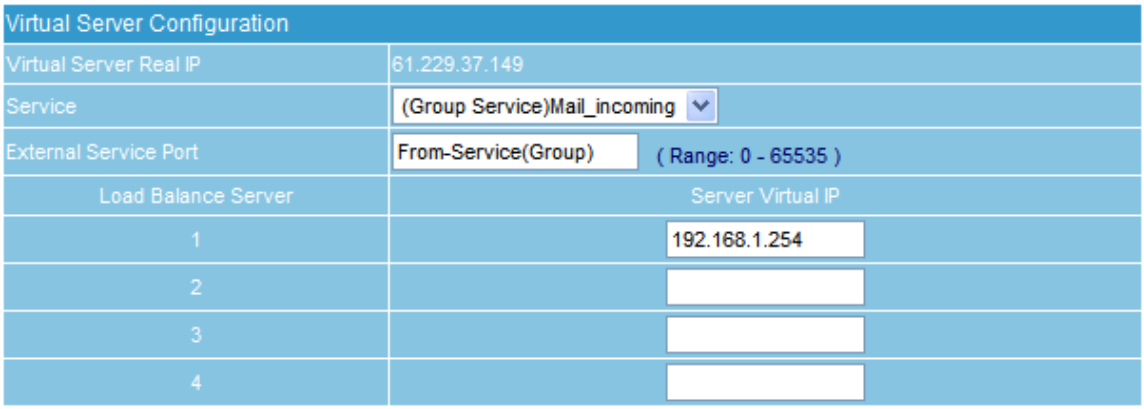



**Figure 3-16 RS-3000 Virtual Server setting**

***Step10.*** Create RS-3000 Outgoing Policy to allow LAN user accessing Internet. (Figure 3-17)

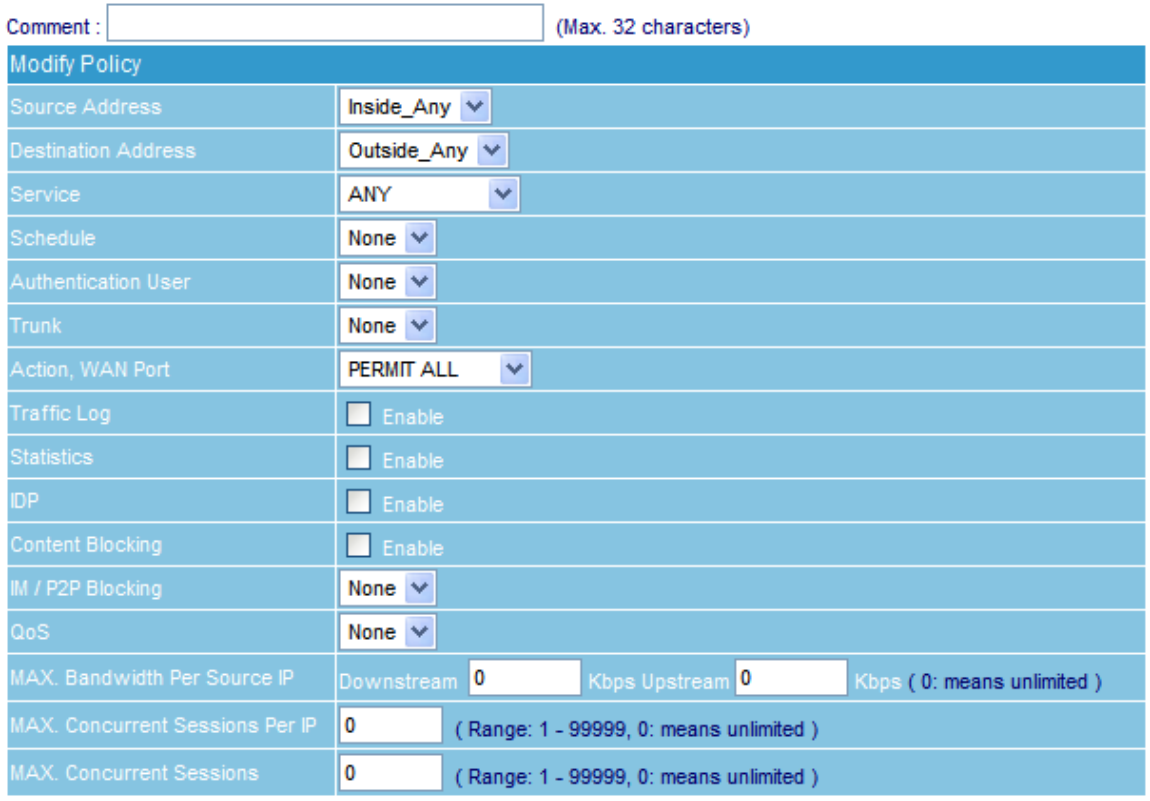



**Figure 3-17 Create RS-3000 Outgoing Policy setting**

***Step11.*** Create RS-3000 **DMZ to WAN** Policy and allow ES-4000V2 to connect Internet with specific services. (Figure 3-18)

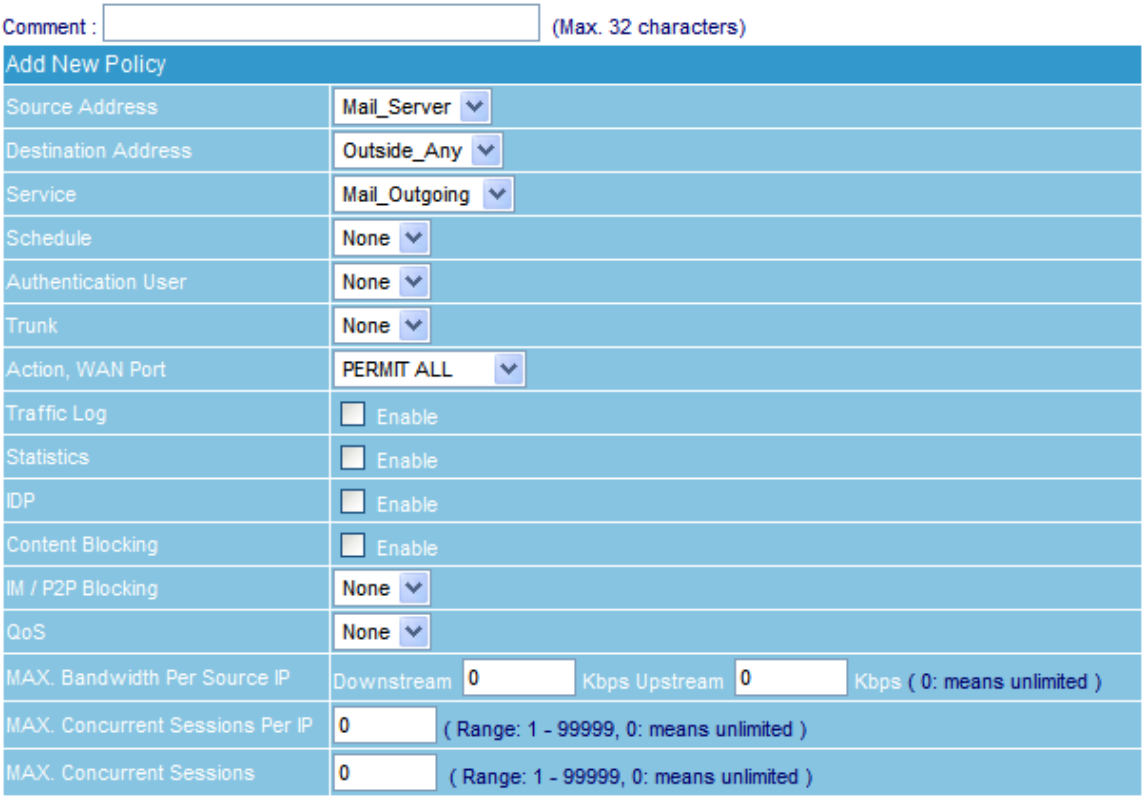



**Figure 3-18 Configure DMZ to WAN Policy**

***Step12.*** Create **WAN to DMZ** Policy and allow mail to reach ES-4000V2. (Figure 3-19)

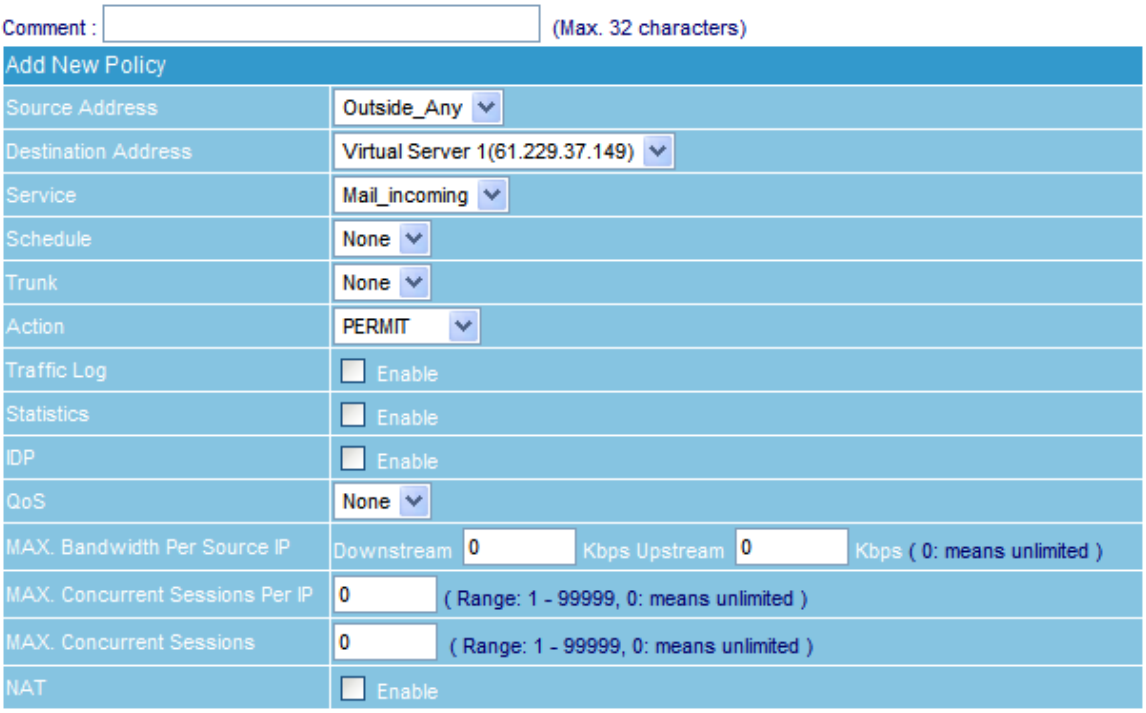



**Figure 3-19 Configure WAN to DMZ Policy**

***Step13.*** Define the relay permission for mail clients on RS-3000 Mail Security. (Figure 3-20)

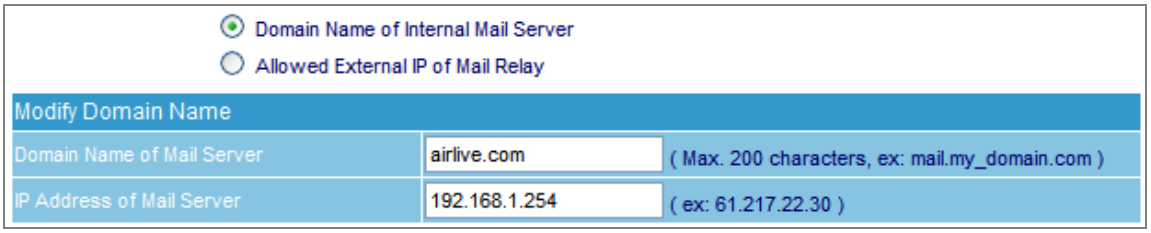



**Figure 3-20 Configure Mail Relay**

***Step14.*** Enable Anti-Spam feature. (Figure 3-21)

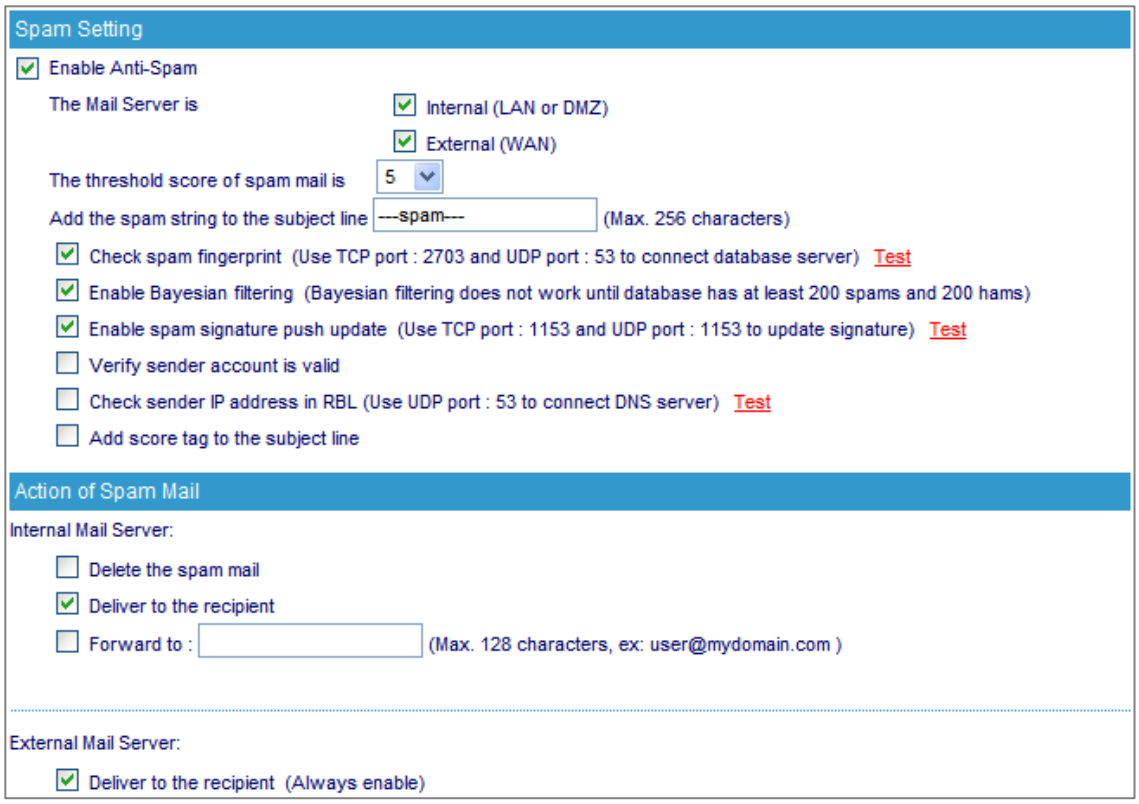



**Figure 3-21 Configure Anti-Spam**

***Step15.*** Disable Anti-Virus feature.

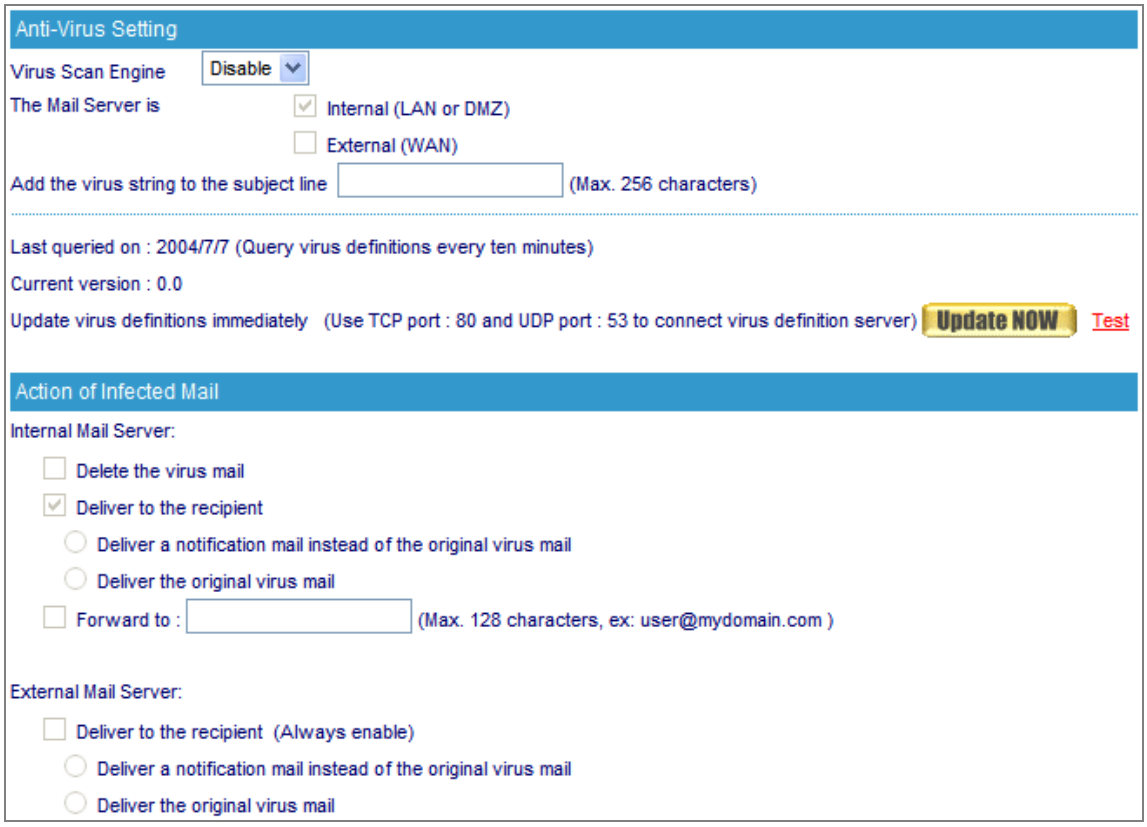



**Figure 3-22 Disable Anti-Virus**

## 3.2 Web Mail

### 3.2.1 How to use Web Mail

The example shows you how to use web mail:

***Step1.*** To use the web mail service, please type the default IP address 192.168.1.1 with the HTTP port (8080) or HTTPS port (1443) in the address of web browser.
For example, http://192.168.1.1:8080 or https://192.168.1.1:1443 (Using 8080 or 1443 depends on protocol type.) (Figure 3-23)

- Enter user account and password.
- Click **Login**.

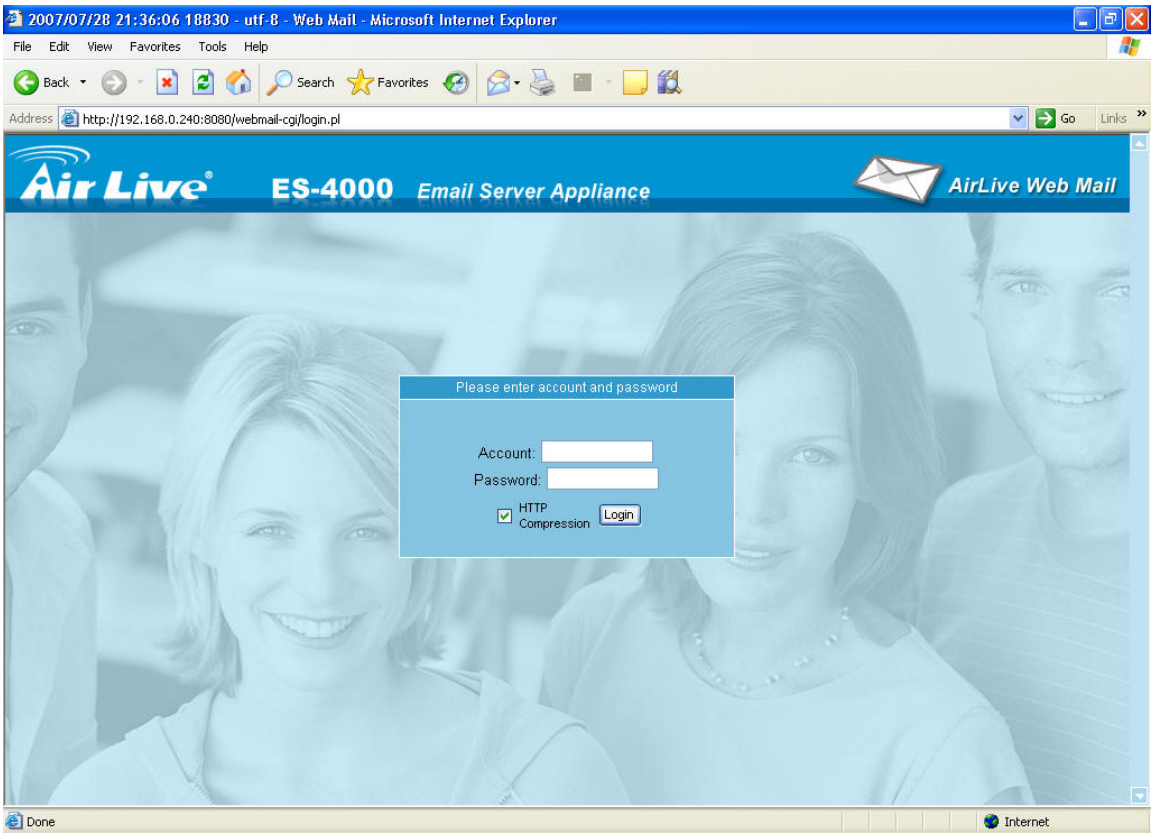



**Figure 3-23 Log in web mail**

***Step2.*** When user first uses web mail service, system will require user to enter basic information.

- Click **Continue**. (Figure 3-24)
- Select **language**, **timezone offset**, **sender address** and edit your **signature** below **User Preference**. (Figure 3-25)
- Click **Save**.
- Display preferences successfully saved. (Figure 3-26)
- Click **Continue**.

Figure 3-24 First use of web mail service

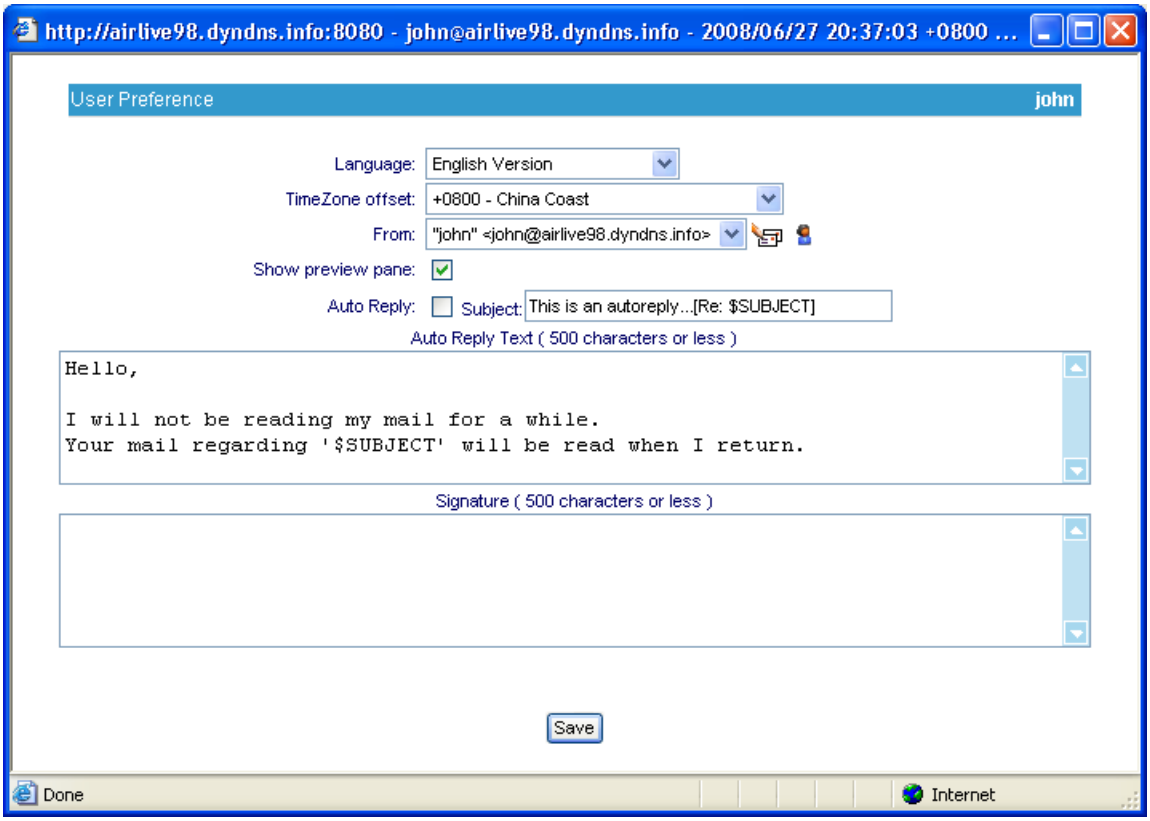



Figure 3-25 User Preference

Figure 3-26 Preferences successfully saved

***Step3.*** Web based mail for easy mail access. (Figure 3-27)

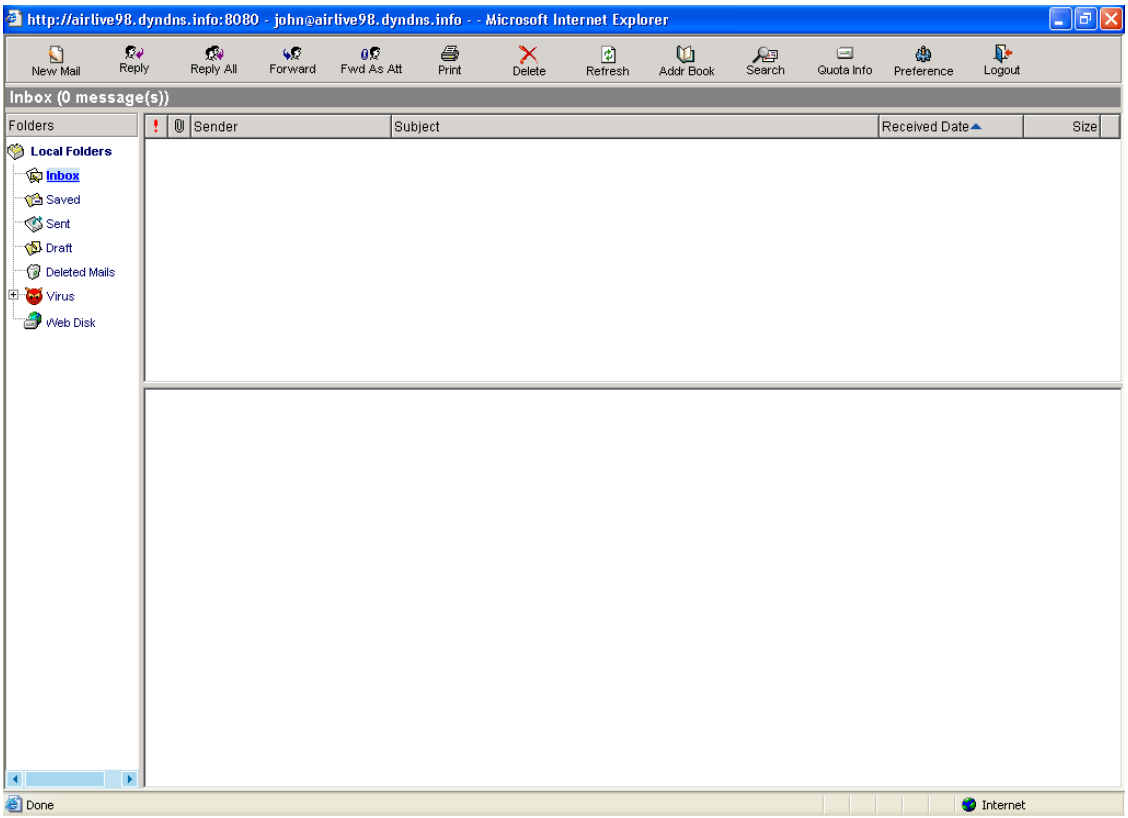



Figure 3-27 Web Mail Interface

### 3.2.2 How to configure Web Mail User Preference

Click **Preference** in the web-based mailbox main screen, and then set as below: (Figure 3-28)

- Click to edit sender name.
- Click sender name and the original name and mail address will be shown at the column.
- Rename the original name in **Name** field. (Figure 3-29)
- Click **Modify** to complete modification. (Figure 3-30)
- Click to edit personal information.
- After finished, click **Save**.
- Click **Save** in the **User Preference** screen to complete settings. (Figure 3-31)

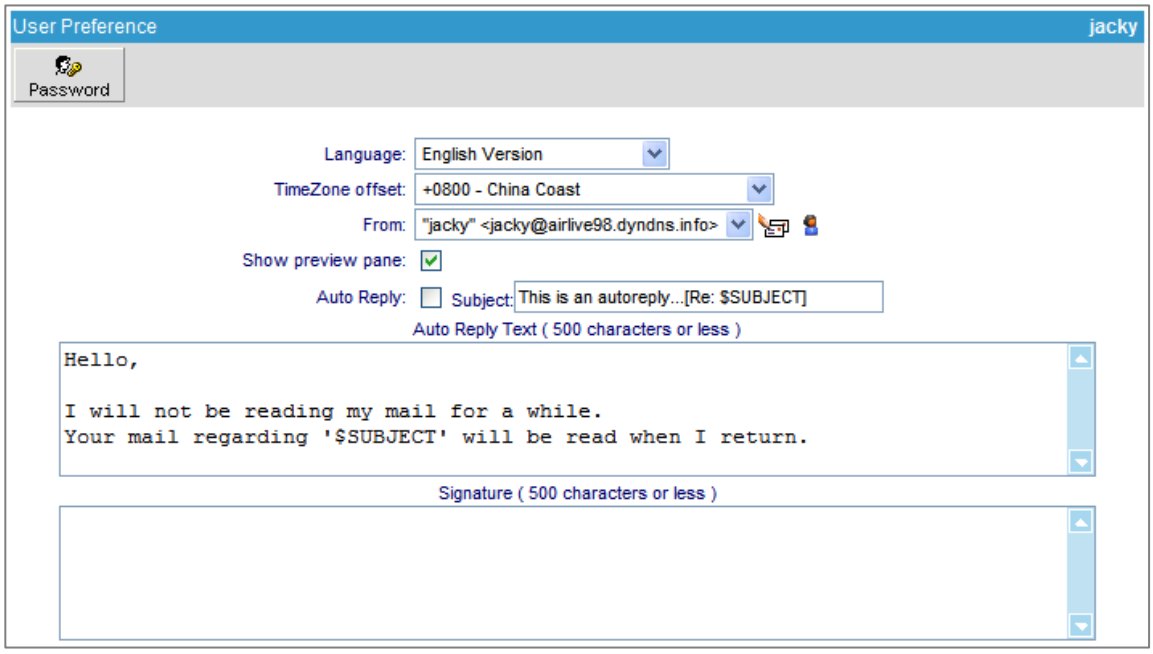



**Figure 3-28 User Preference**

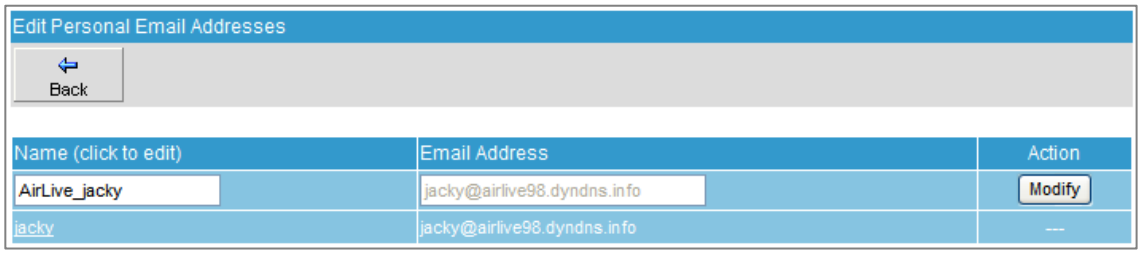



**Figure 3-29 Modifying the Sender Name**

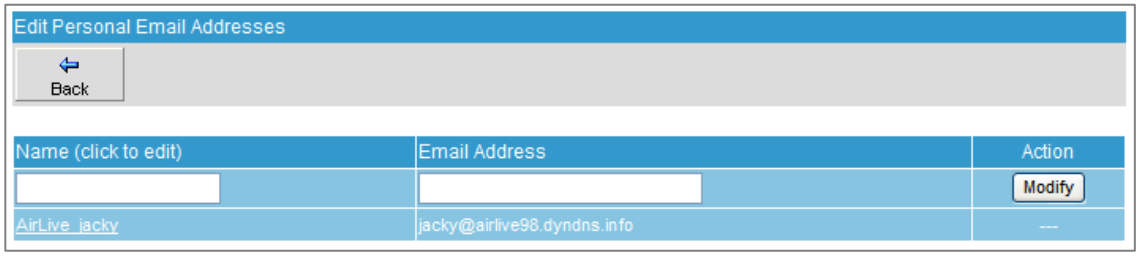



**Figure 3-30 Sender Name Successfully Modified**

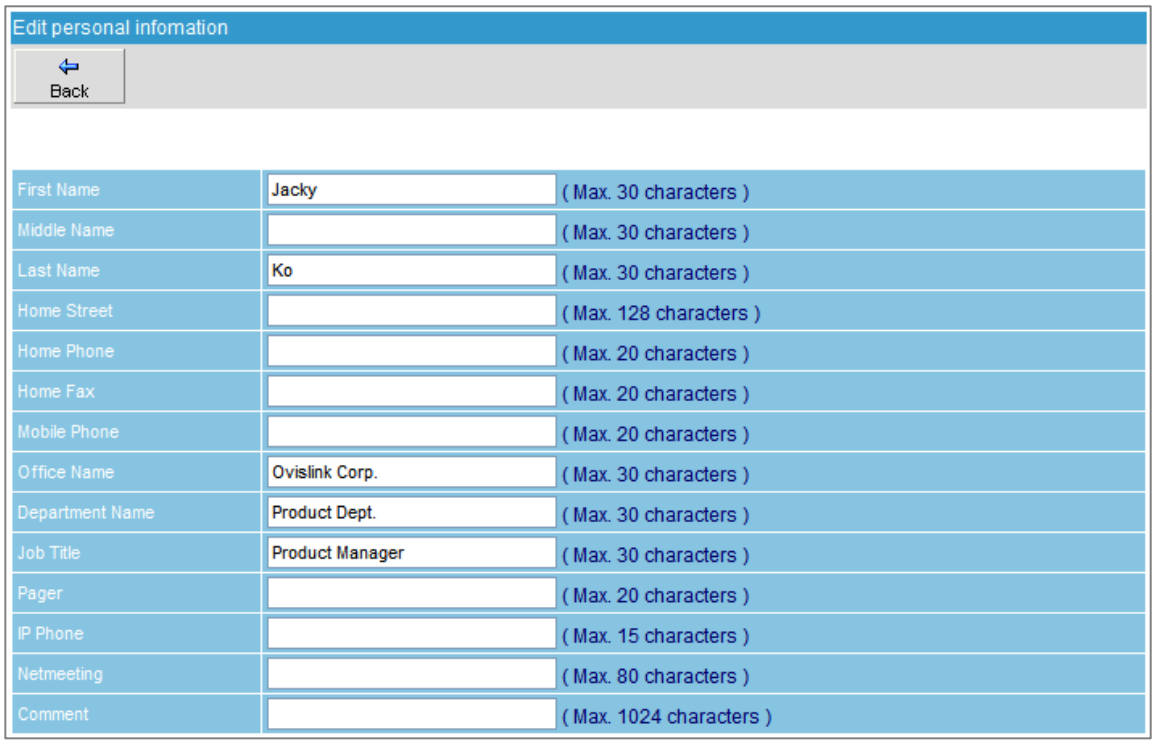



**Figure 3-31 Editing Personal Information**

### 3.2.3 Importing Address Book from Outlook Express

***Step1.*** To export the address book from Outlook Express, follow these steps:

- On the **File** menu, point to **Export**, and then click **Address Book**. (Figure 3-32)
- In the **Address Book Export Tool** dialog box, click **Text File (Comma Separated Values)**, and then click **Export**. (Figure 3-33)
- In the **CSV Export** dialog box, specify the storage path and the file name, and then click **Next**. (Figure 3-34)
- Tick the desired fields to export and then click **Finish**. (Figure 3-35)
- A dialog box says, “Address book export progress has completed.” Then, click OK. (Figure 3-36)

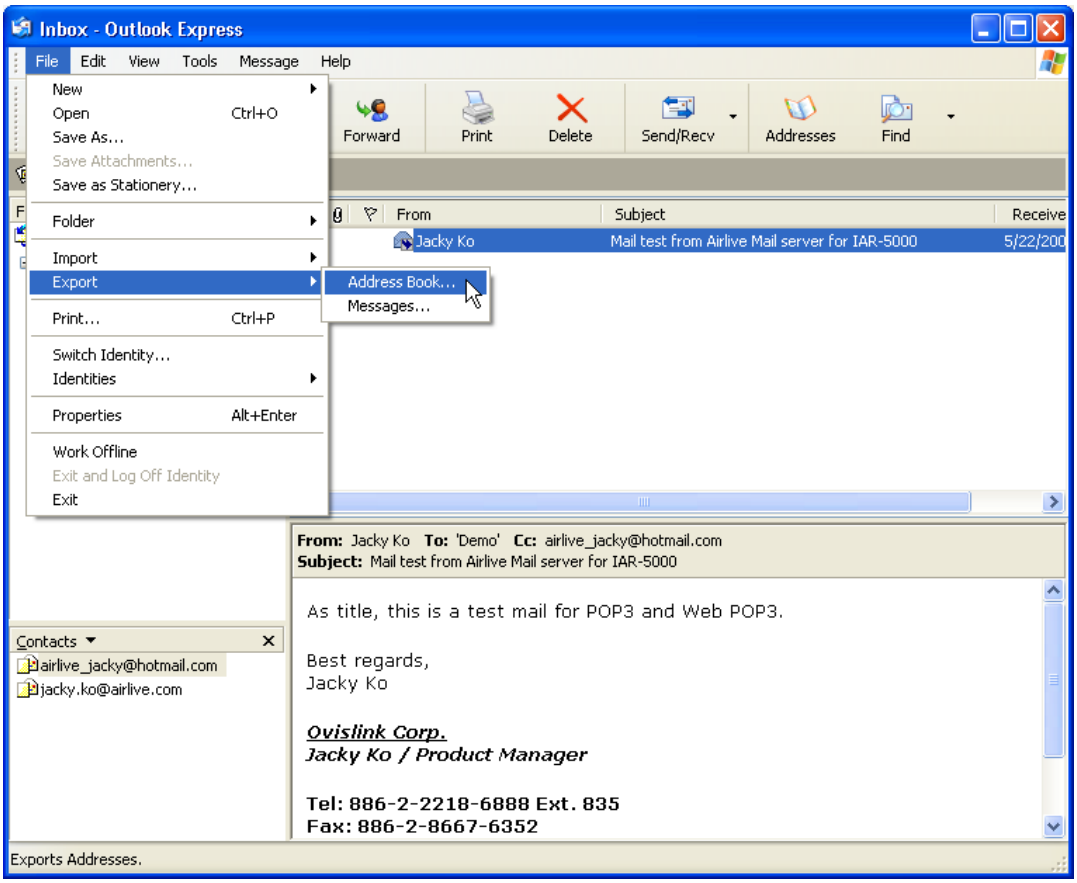



**Figure 3-32 Selecting Address Book on the File Menu**

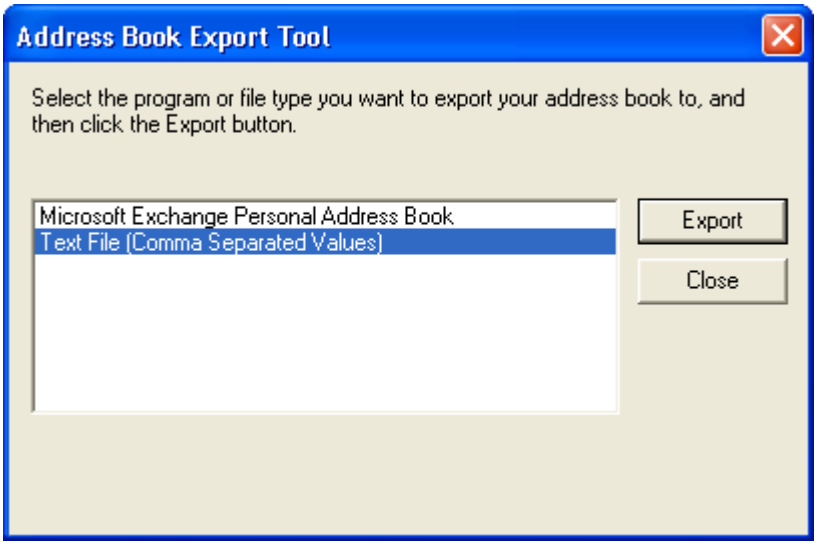



Figure 3-33 Selecting a File Type to Export

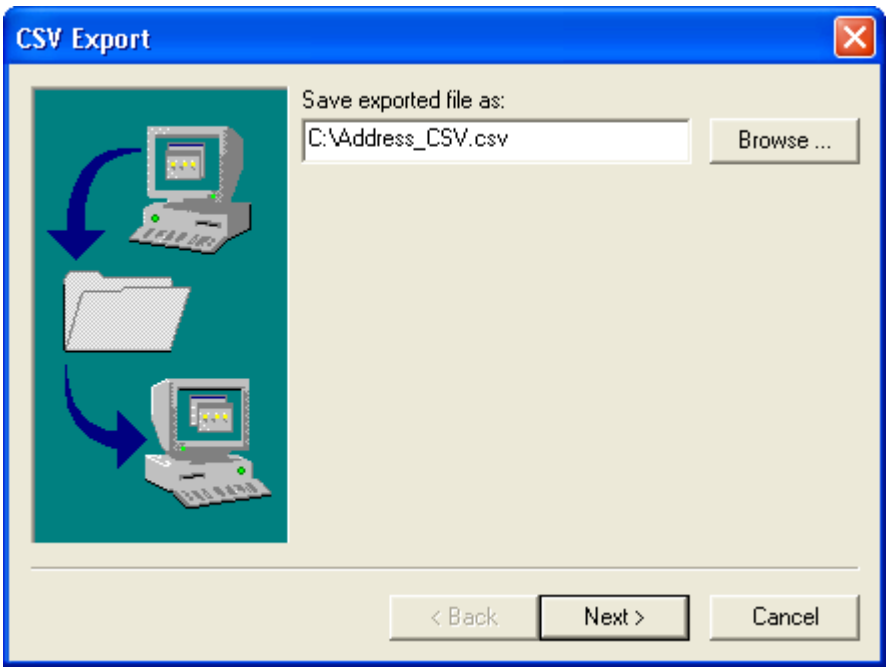



Figure 3-34 Specifying the Storage Path and File Name

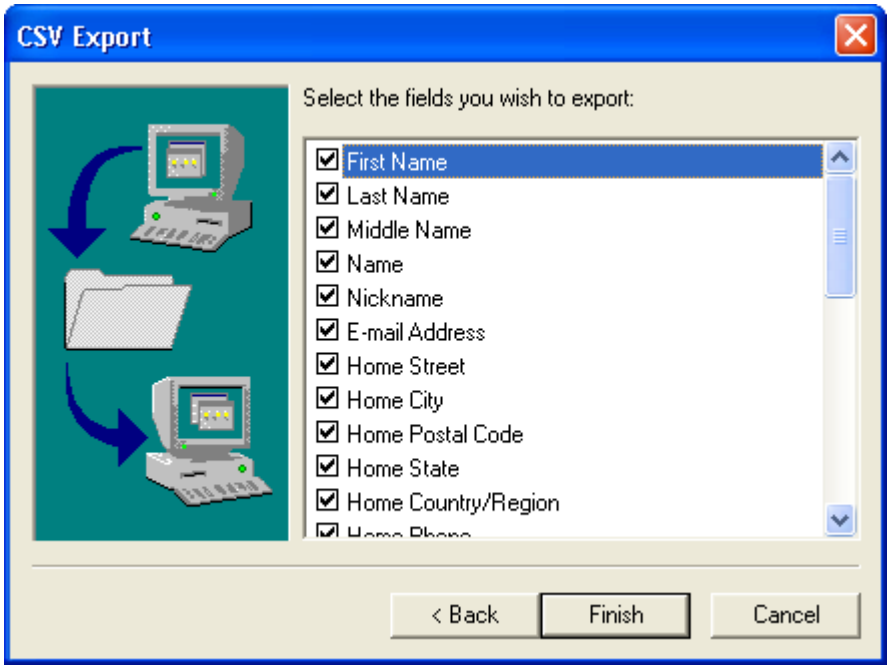



Figure 3-35 Selecting the Desired Fields to Export

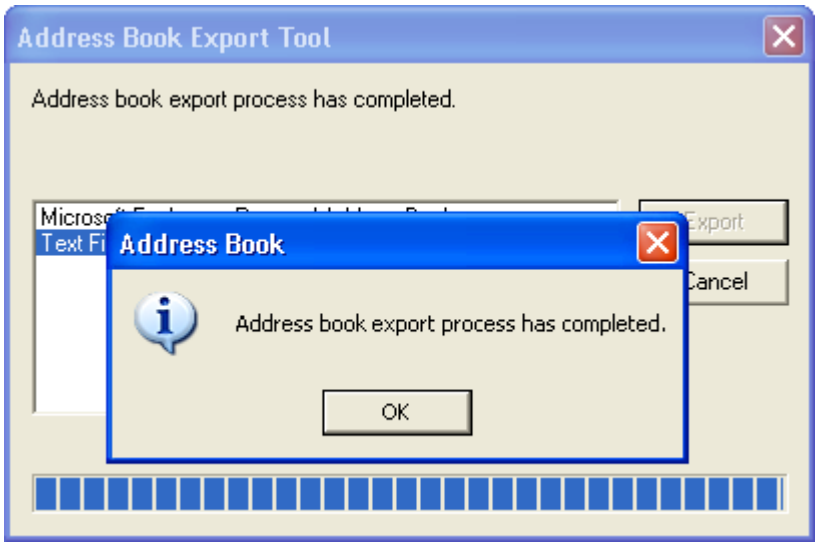



Figure 3-36 Export Process Completed

***Step2.*** To import the address book, follow these steps:

- Click Address Book. (Figure 3-37)
- Click **Import**. (Figure 3-38)
- Locate the file by clicking **Browse**.
- Select “CSV (first line contains field names.csv)” as file format.
- Select “English Version” for **Charset**.
- Click **Import**. (Figure 3-39, 3-40)

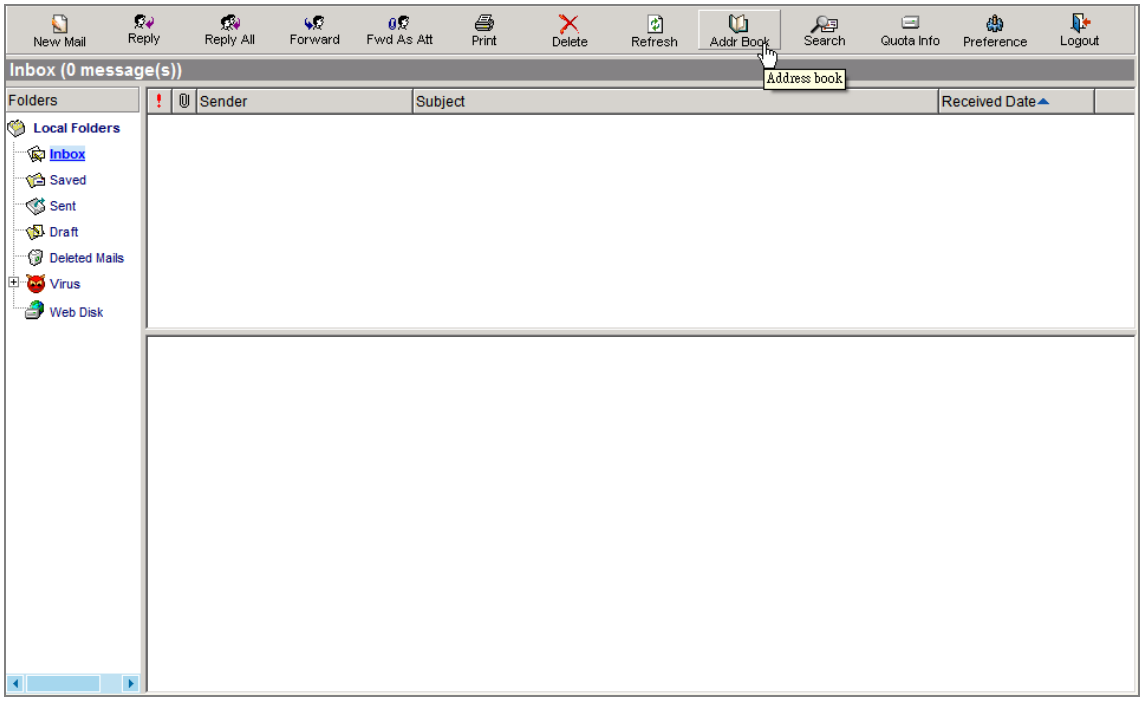



**Figure 3-37 Clicking into Address Book**

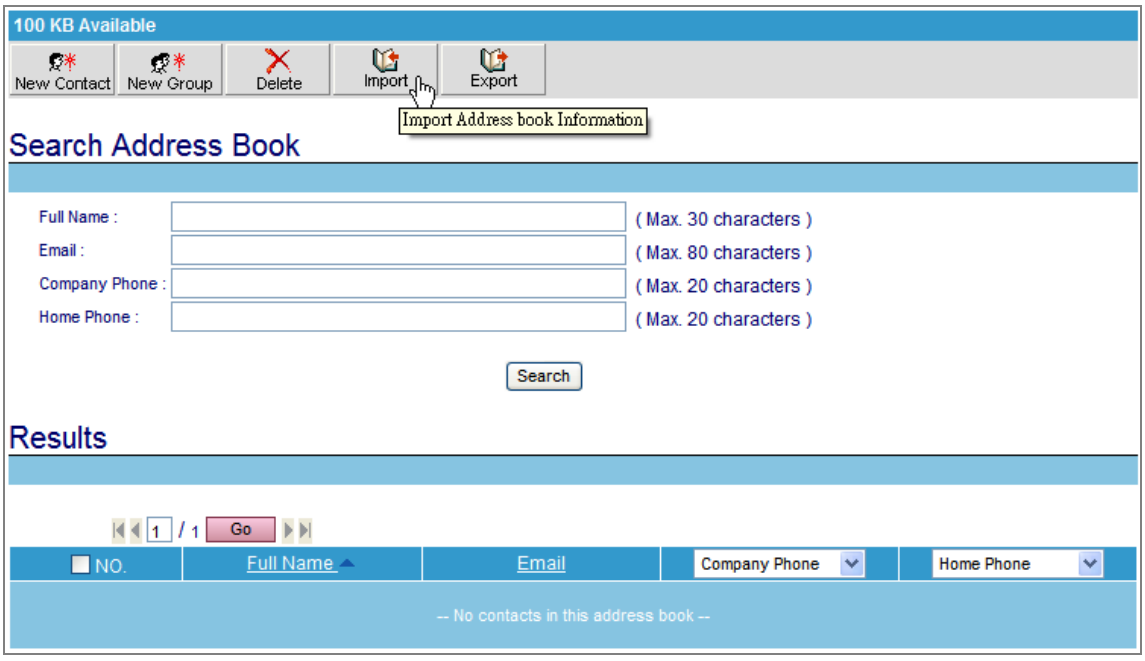



**Figure 3-38 Clicking into Import Screen**

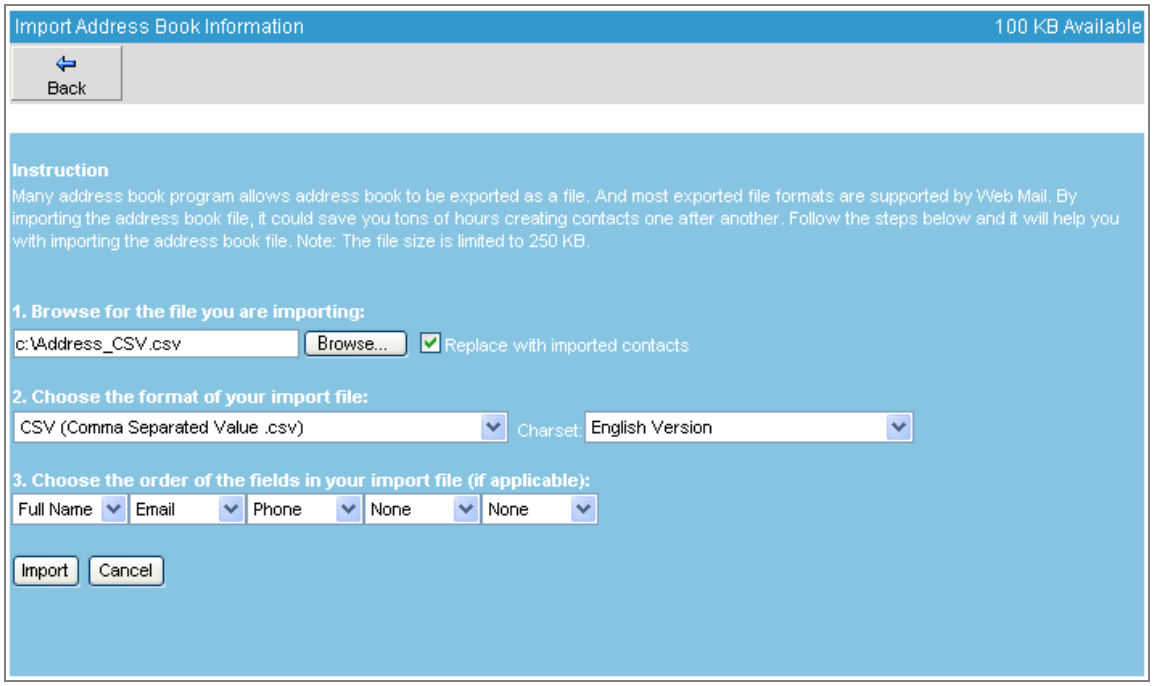



**Figure 3-39 Clicking into Import Screen**

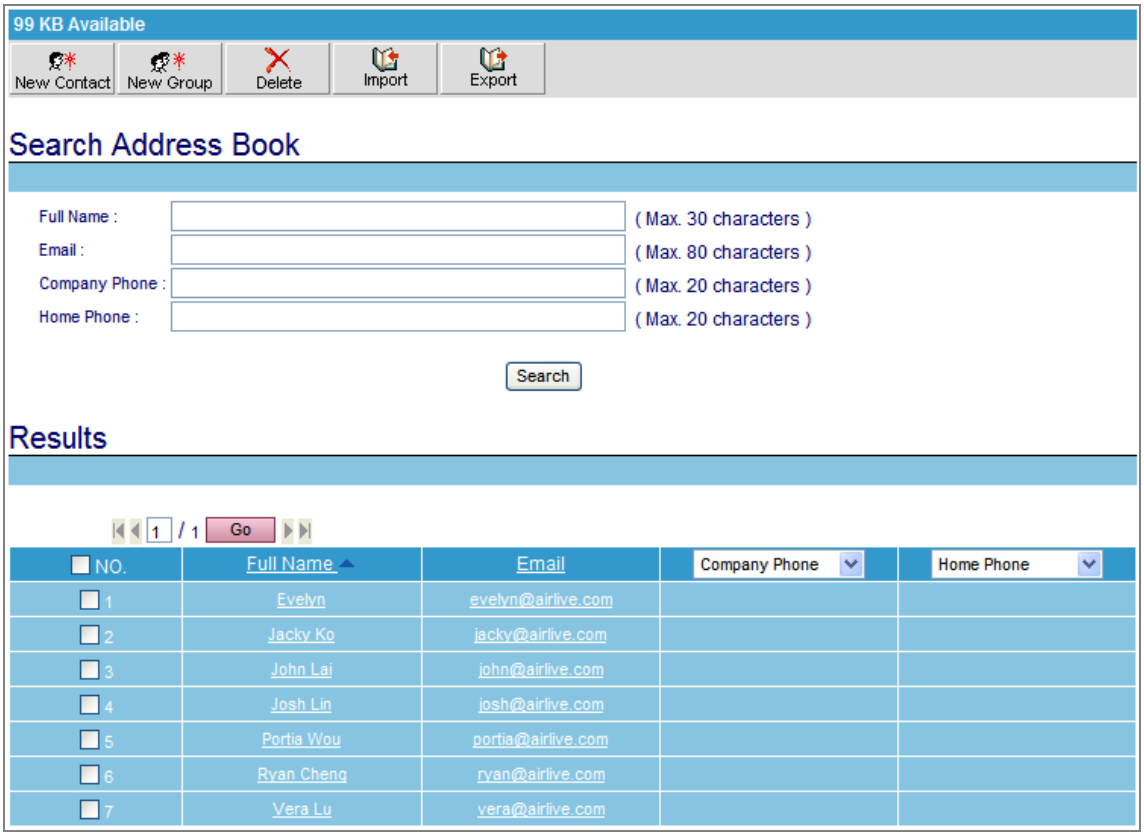



**Figure 3-40 Address Book Successfully Imported**

### 3.2.4 Using Web Disk to Transfer Large File

***Step1.*** Click **Web Disk** tab in the web-based mailbox main screen, and then: (Figure 3-41)

- Locate the file by clicking **Browse** under the **Upload File to Web Disk** bar.
- Click **Upload** button. (Figure 3-42, Figure 3-43)

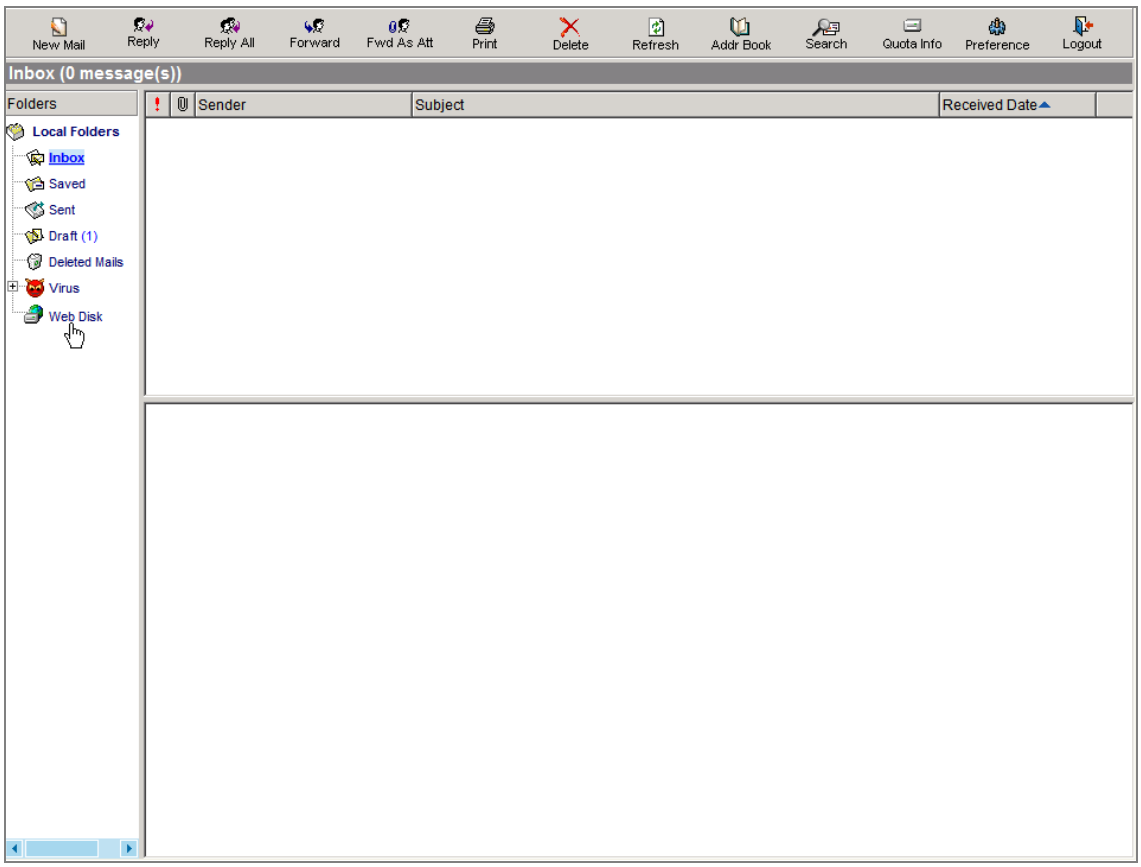



**Figure 3-41 Select Web Disk on the web-based mailbox main screen**

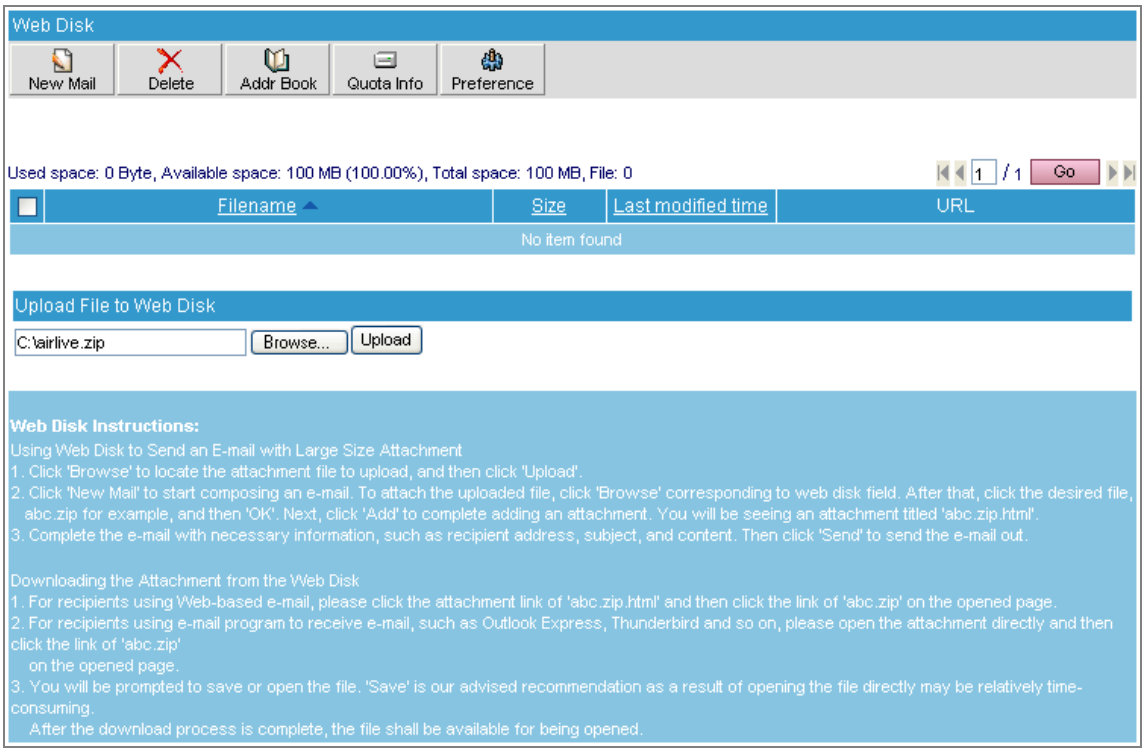



**Figure 3-42 Uploading a File to ES-4000V2's Built-in Web Disk**

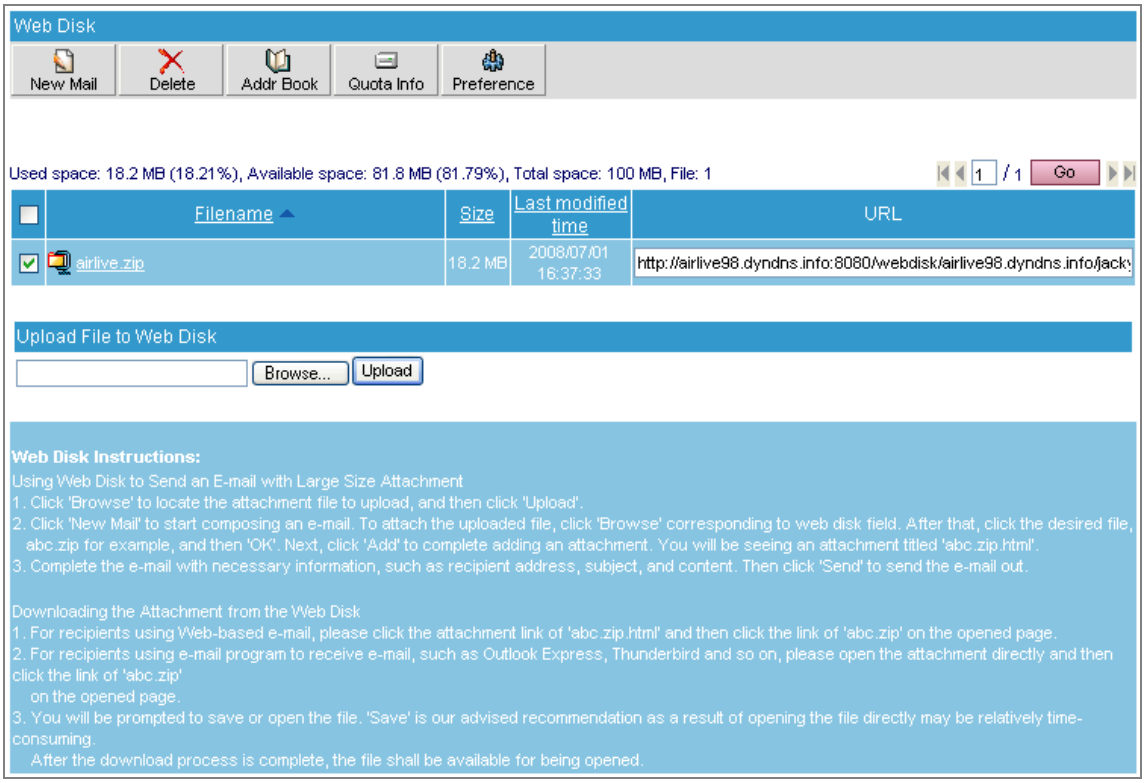



**Figure 3-43 File Uploaded**

***Step2.*** Click **New Mail** in the web-based mailbox main screen, and then: (Figure 3-44)

- In the **Attachment** column, click **Browse** corresponding to **Web Disk** field.
- Click the desired file and then click **OK**. (Figure 3-45)
- Click **Add** corresponding to **Web Disk** field. (Figure 3-46)
- Complete this e-mail with necessary information, such as subject, content and recipient address.
- Click **Send**. (Figure 3-47)

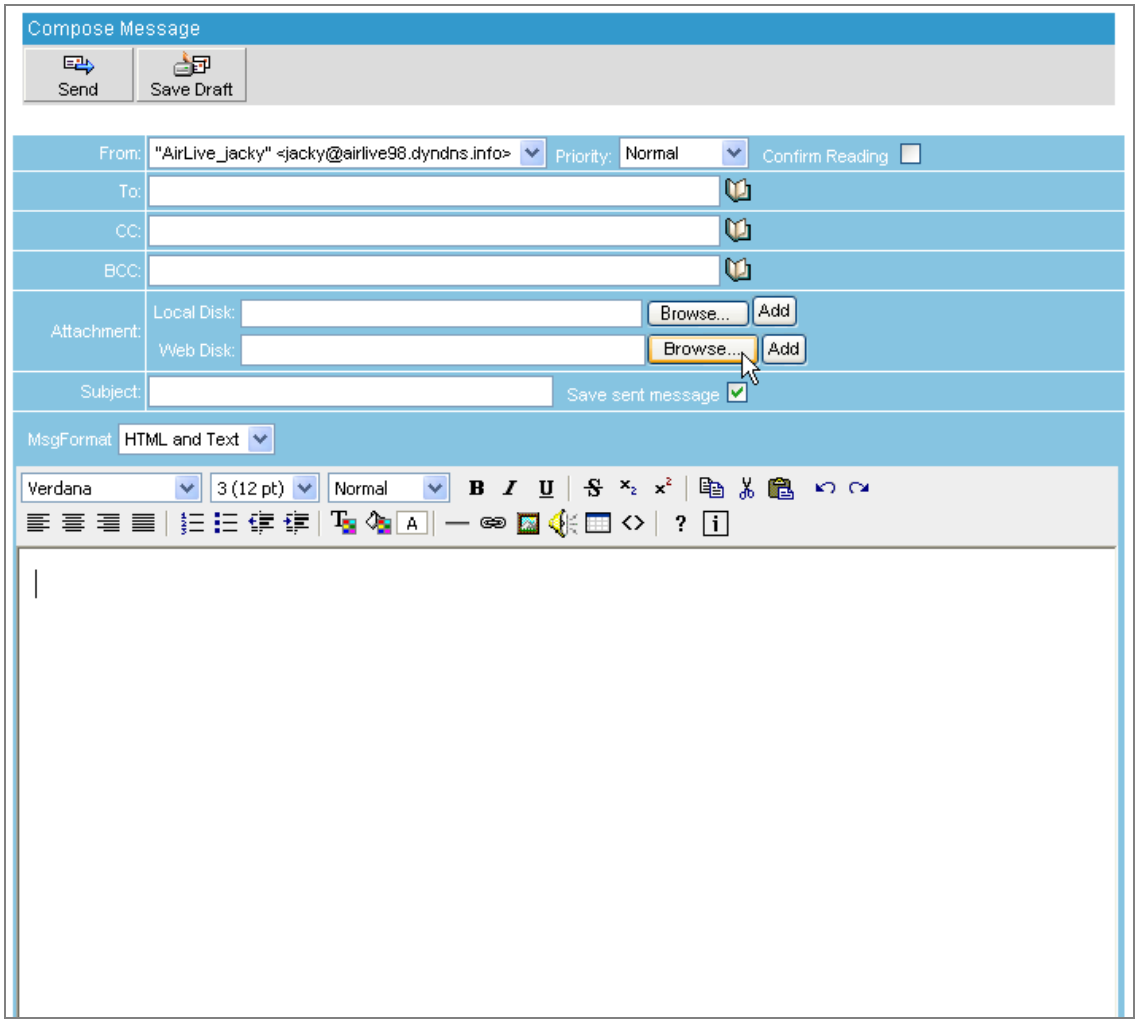



**Figure 3-44 Click Brows on Web Mail main screen**

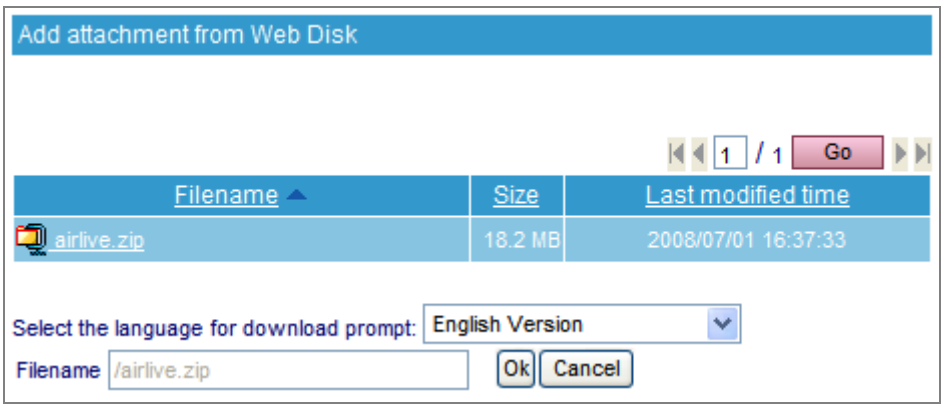



**Figure 3-45 Adding an Attachment from Web Disk**

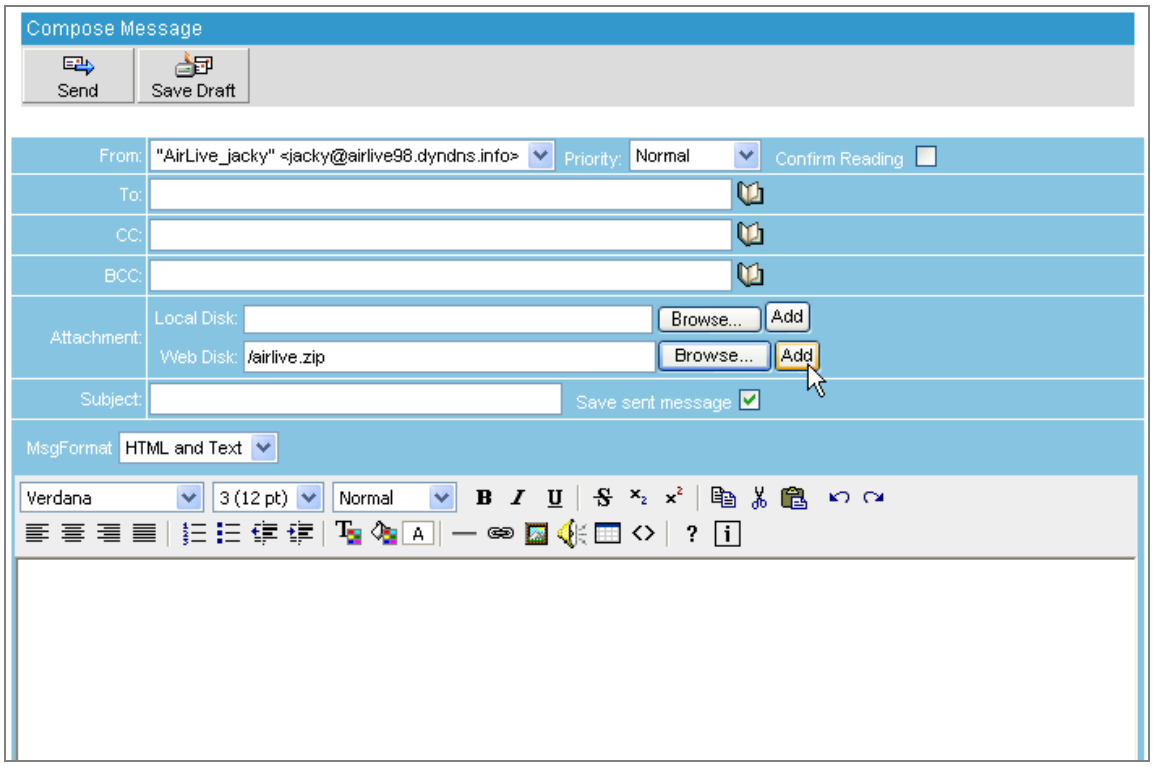



**Figure 3-46 Click Add to add hyperlink file to receiver**

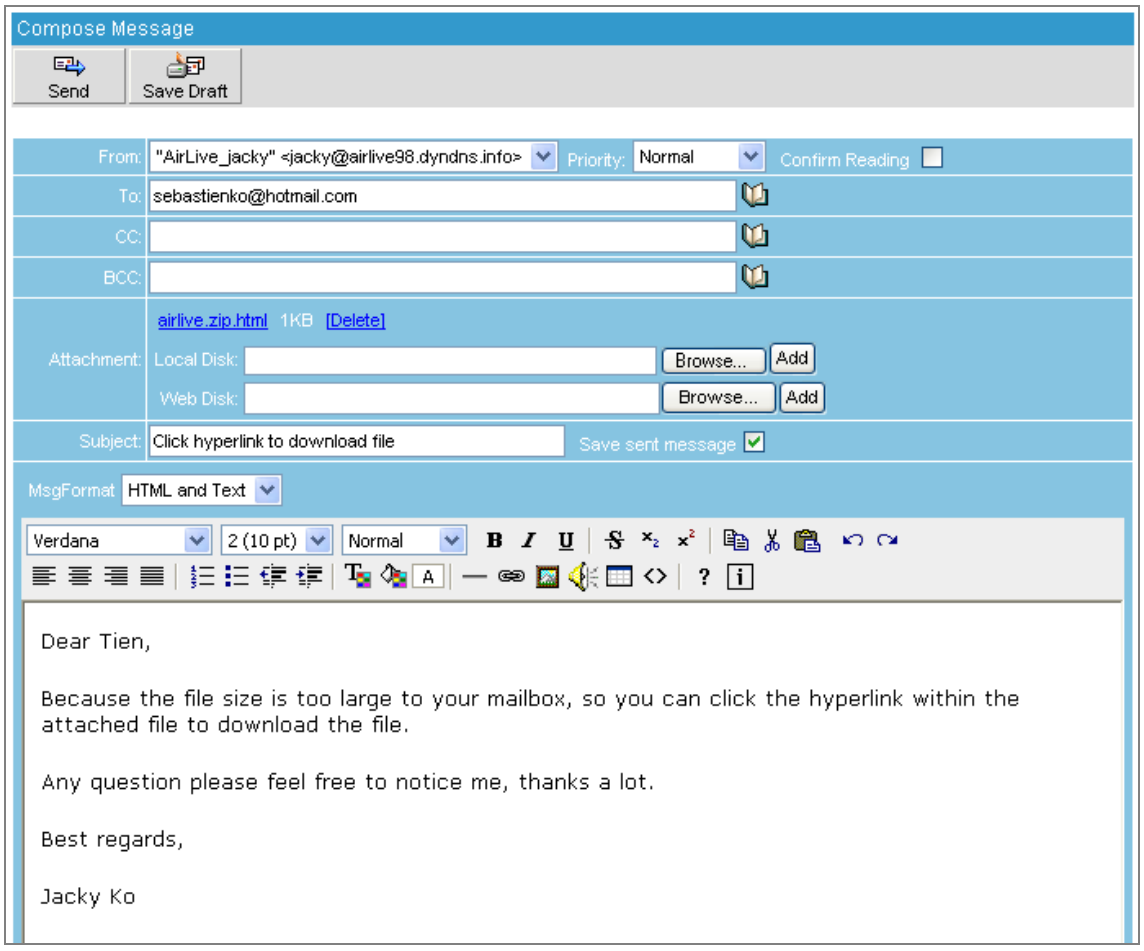



**Figure 3-47 Sending out the Message**

***Step3.*** The recipient opens the attachment and then download the attachment file through a HTML page provided by ES-4000V2 device: (Figure 3-48, Figure 3-49)

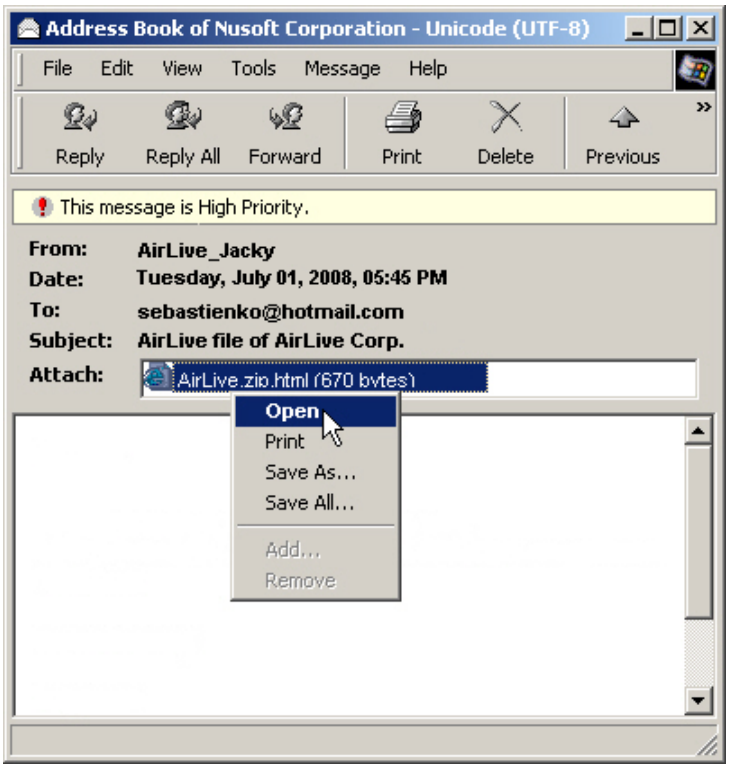



**Figure 3-48 Opening the Attachment**

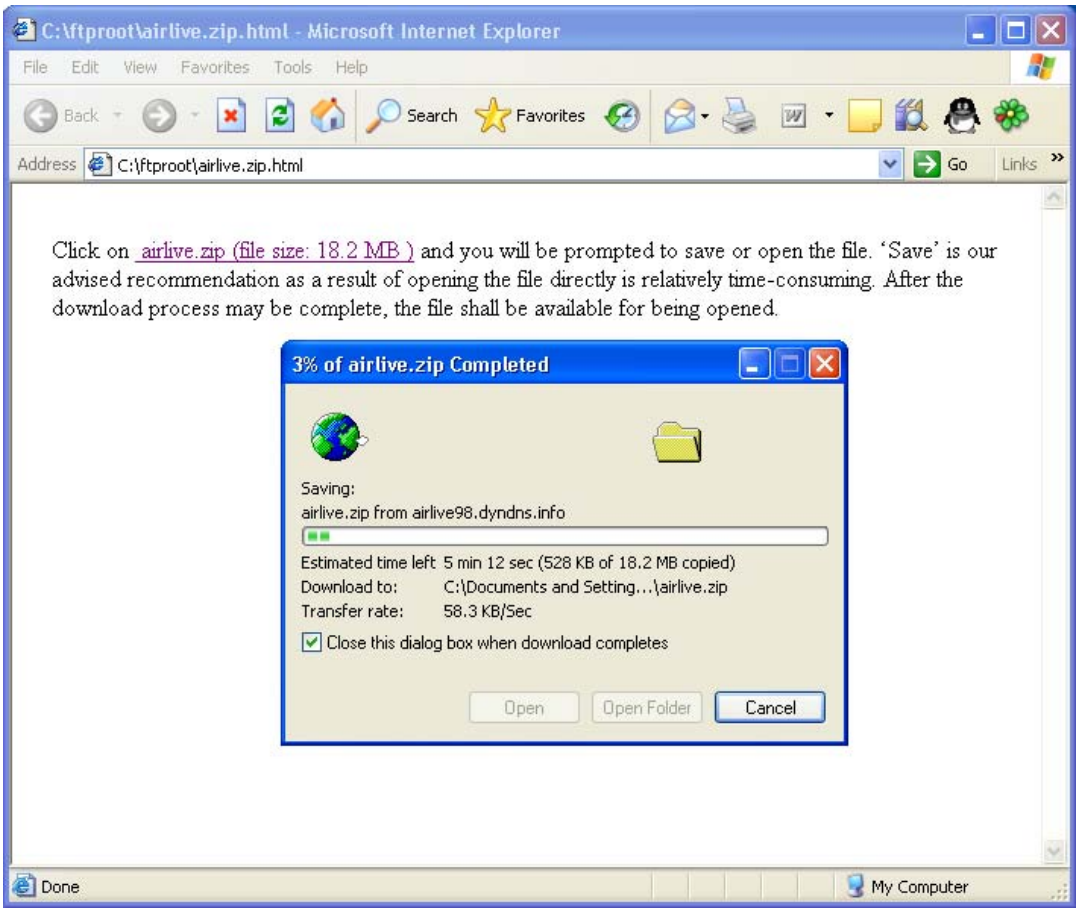



**Figure 3-49 Opening the Attachment**

# Chapter 4 System

The system administration refers to the competency to manage the ES-4000V2. In this Chapter, it will be defined as the Admin, Interface IP, Setting, Date/ Time, Language, Logout and Software Update.

ES-4000V2 is managed by the main system administrator. The main system administrator can add or delete any system settings and monitor the system status. Other sub administrators have no competency to modify the system settings (sub administrators' names are set by the main system administrator), but only monitor the system status.

## 4.1 Admin

**Name**

- The name of system administrator and sub administrator. **Admin** is the default name of system administrator in ES-4000V2 and it can not be canceled, whereas sub administrators' names can be changed or canceled.
- The default system administrator can add or modify other sub administrators, and also can decide whether a sub administrator has the competency to write into system or not.

The default system administrator account and password is **admin** and **airlive**.

**Privilege**

- The administrator who has the competency to **read / write,** can change the system settings, monitor the system status, and to add **/** delete other administrators.
- Sub administrators with medium privilege are allowed to modify settings and monitor status, whereas those who are given low privilege can only read.

**Password / New Password / Confirm Password**

- To add or modify the main /sub administrator password.

### Adding a Sub Admin

***Step1.*** In **Admin Setting** window, click the **New Sub Admin**.

***Step2.*** In **Add New Sub Admin** window, enter the following information : (Figure 4-1)

- **Sub Admin :** sub_admin
- **Password :** 12345
- **Confirm Password :** 12345
- **Privilege** set **Low**.

If a new sub admin was given high privilege, which will make him a main admin. Otherwise, else two options represent sub admin.

***Step3.*** Click **OK** to register a new admin, or click **Cancel** to cancel.

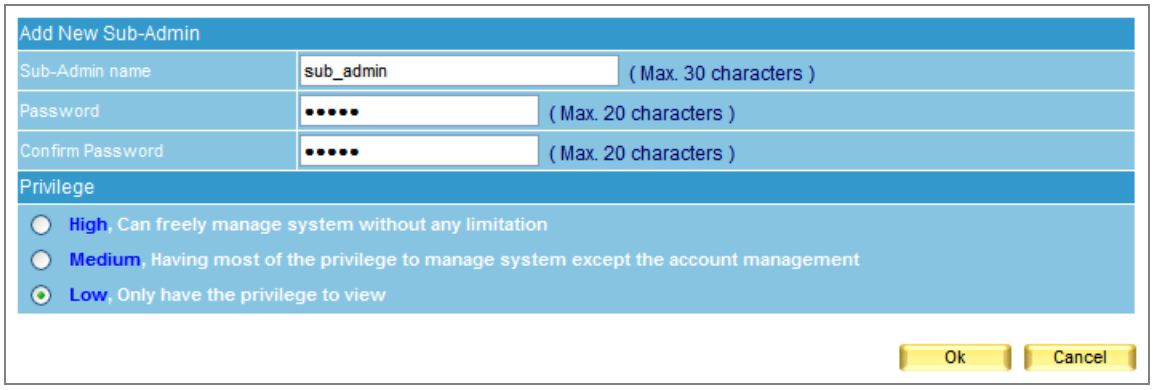



**Figure 4-1 Add a sub admin**

## Modifying Admin's Password

***Step1.*** Select an admin that you want to modify, then click **Modify** in the configure column in cope with that admin.

***Step2.*** In **Modify Admin Password** window, enter the following information :

- **Password :** airlive
- **New Password :** 52364
- **Confirm Password :** 52364 (Figure 4-2)

***Step3.*** Click **OK** to change the password or click **Cancel** to cancel the setting.

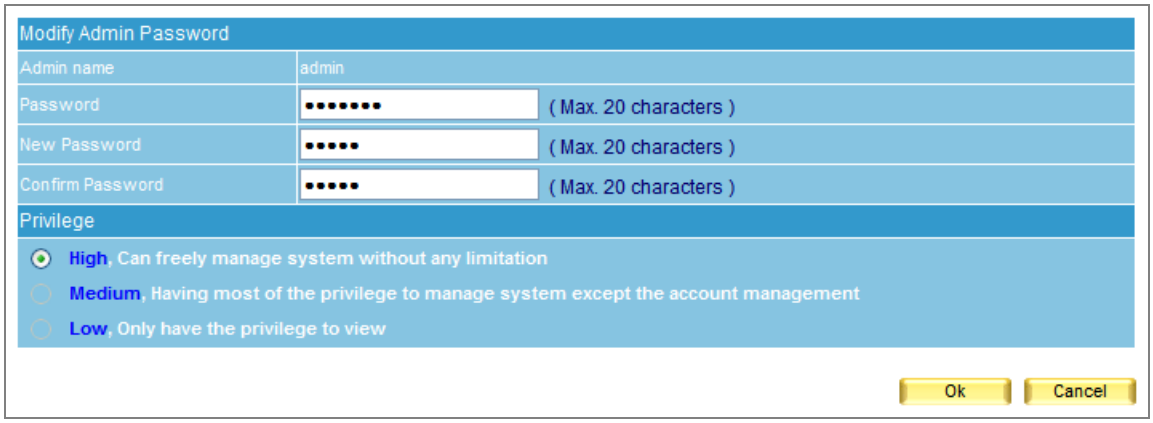



**Figure 4-2 To change the admin password**

## 4.2 Interface

### Interface → Interface Address

- The administrator can set the IP login information in ES-4000V2.

### Interface Address Setting

***Step1.*** Go to System → Interface, enter the following setting :

- In IP Address, Netmask and Default Gateway fields, enter a valid IP of the LAN subnet.
- Enter DNS server 1 or DNS server 2.
- Click OK. (Figure 4-3)

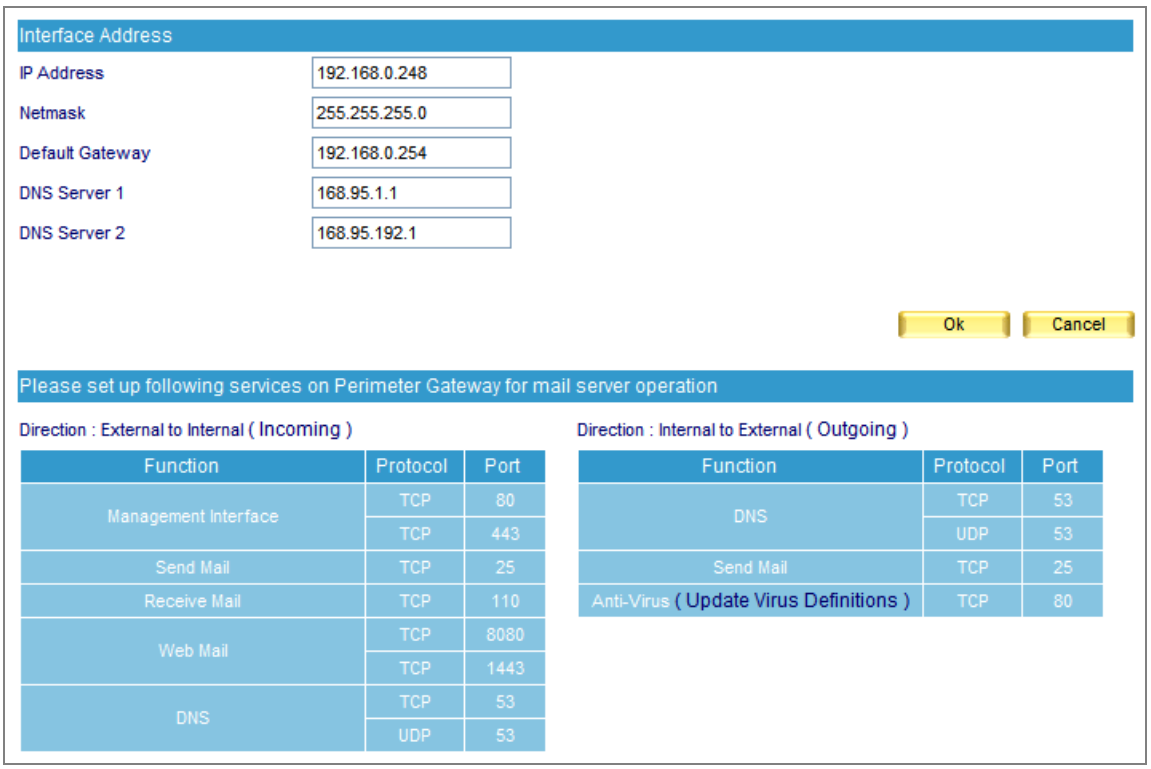



**Figure 4-3 The interface address setting**

## 4.3 Setting

### Setting

- **Configuration**

  Allow system administrator to import / export system settings or reset the factory setting or format the built-in hard disk.

- **Backup System Setting to Local**

  System settings can backup to the storage section of built-in hard disk automatically or manually. It can be used for restoring the system settings or downloading system settings as a file onto local computer for archive purpose.

- **Format Hard Disk**

  Allow system administrator to format the built-in hard disk.

- **Device Name Setting**

  System administrator can enter the name of both company and device.

- **Send Mail Alert Notification / Report**

  When user enables this function, operating log or system error will be timely reported to the system administrator via e-mail.

- **Management Port of WebUI**

  ES-4000V2 allows system administrator to perform remote control from everywhere through web browser. The port number for HTTP or HTTPS protocol is alterable.

The port number is required for accessing the management interface from external network. User can choose to select HTTP or HTTPS based on the requirement. The port number has to be appended to the management IP address, such as http:// 172.16.1.254:8080 or https://172.16.1.254:1025.

- **Default Character Encoding of Mail**

  The device will use the default character encoding on e-mails with unspecified character encoding.

- **The Maximum Entries to be Displayed Per Page**

  It determines the maximum entries shown per page on each kind of list.

- **Storage Time of Log**

  It decides the storage time of event log, connection track and quarantined e-mails.

### Exporting System Setting to Client

***Step1.*** Go to **System → Setting → Configuration, click** Download next to **Export System Setting to Client**.

***Step2.*** When confirmation dialogue box **File Download** appears, click **Save** button, and it will show where the file will be saved. Click **Save** button again. The system setting file will be copied to the appointed directory. (Figure 4-4)

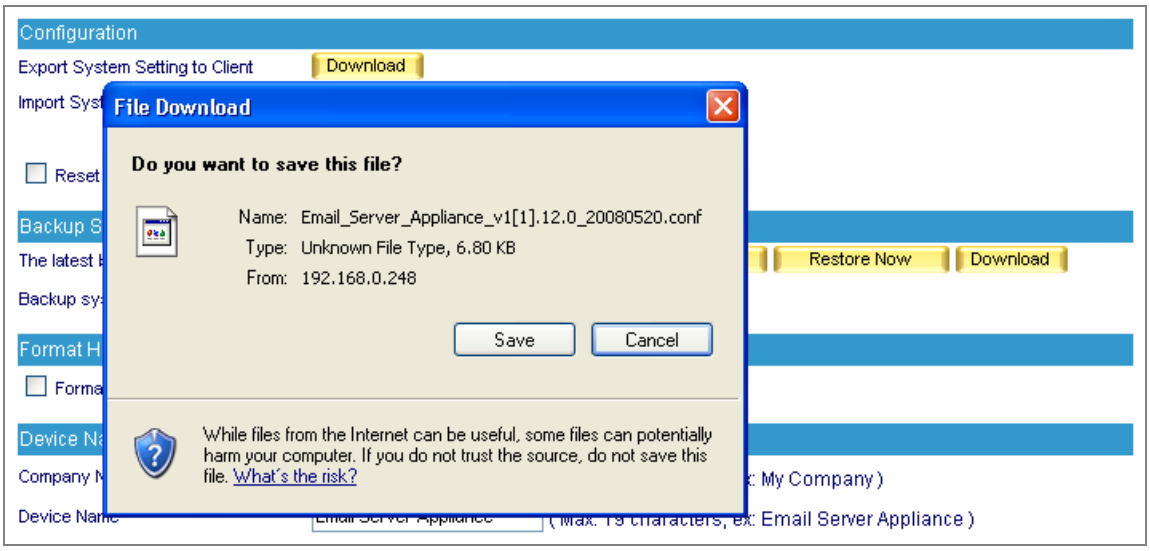



**Figure 4-4 Choose a folder to save the export file**

## Importing System Setting to Client

***Step1.*** Go to **System → Setting → Configuration**; click **Browse** next to **Import System Setting to Client**.

***Step2.*** In **Choose File** window, go to the directory where the ES-4000V2 system setting file was stored and select the file, then click **Open**. (Figure 4-5)

***Step3.*** Click the lower right **OK**, the window will closed.

***Step4.*** Click **OK** on the confirmation dialogue box, the setting will be imported to ES-4000V2. (Figure 4-6)

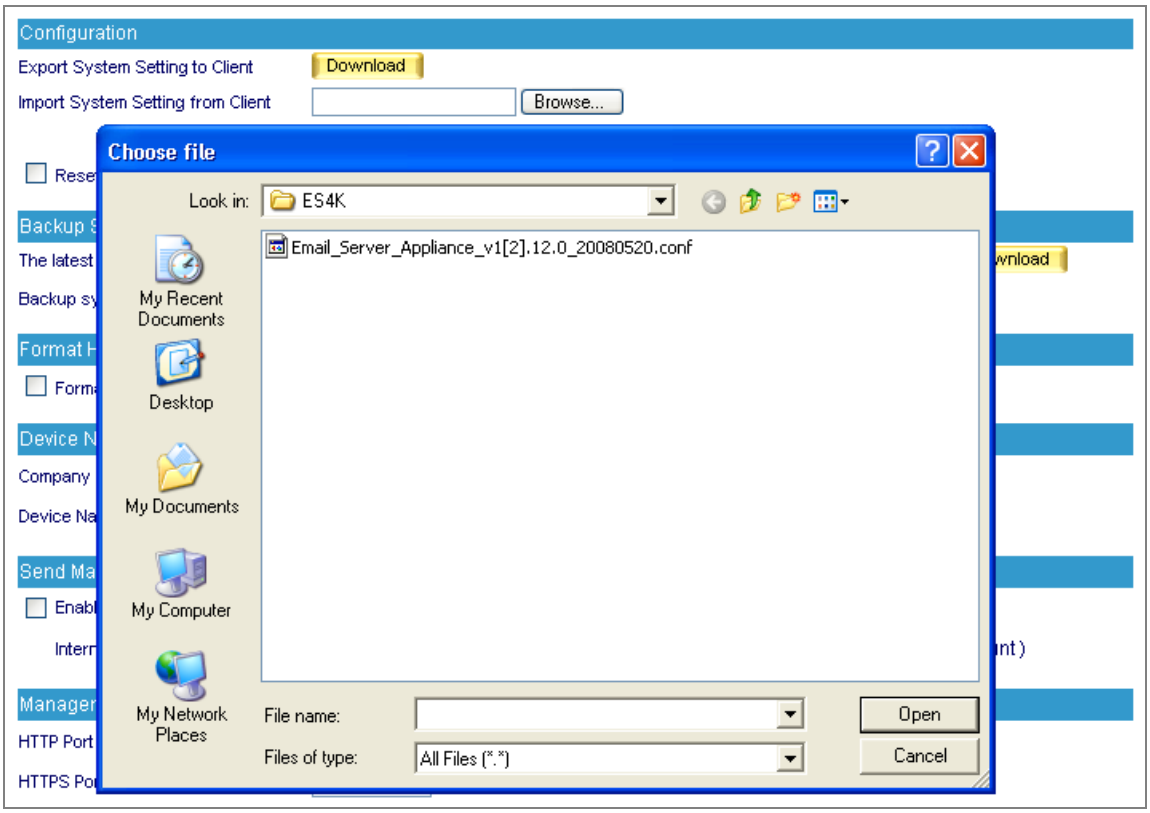



**Figure 4-5 Import system setting file**

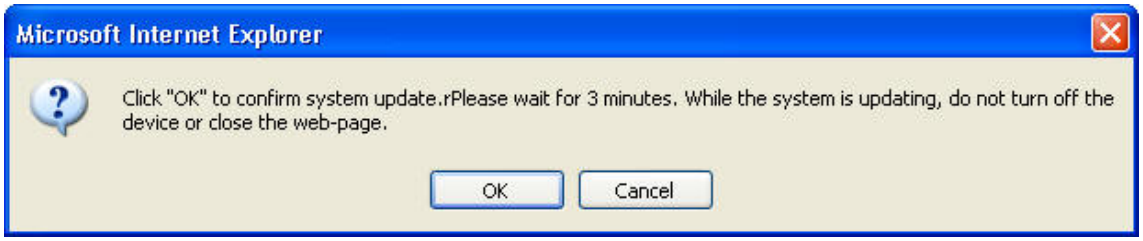



**Figure 4-6 Confirm to import system setting**

## Resetting Factory Setting & Formatting Built-in Hard Disk

***Step1.*** Go to **System → Setting → Configuration**, select Reset Factory Setting and Format Hard Disk.

***Step2.*** Click **OK** on the lower right, it will start restoring to the factory setting and formatting the built-in hard disk at the same time. (Figure 4-7)

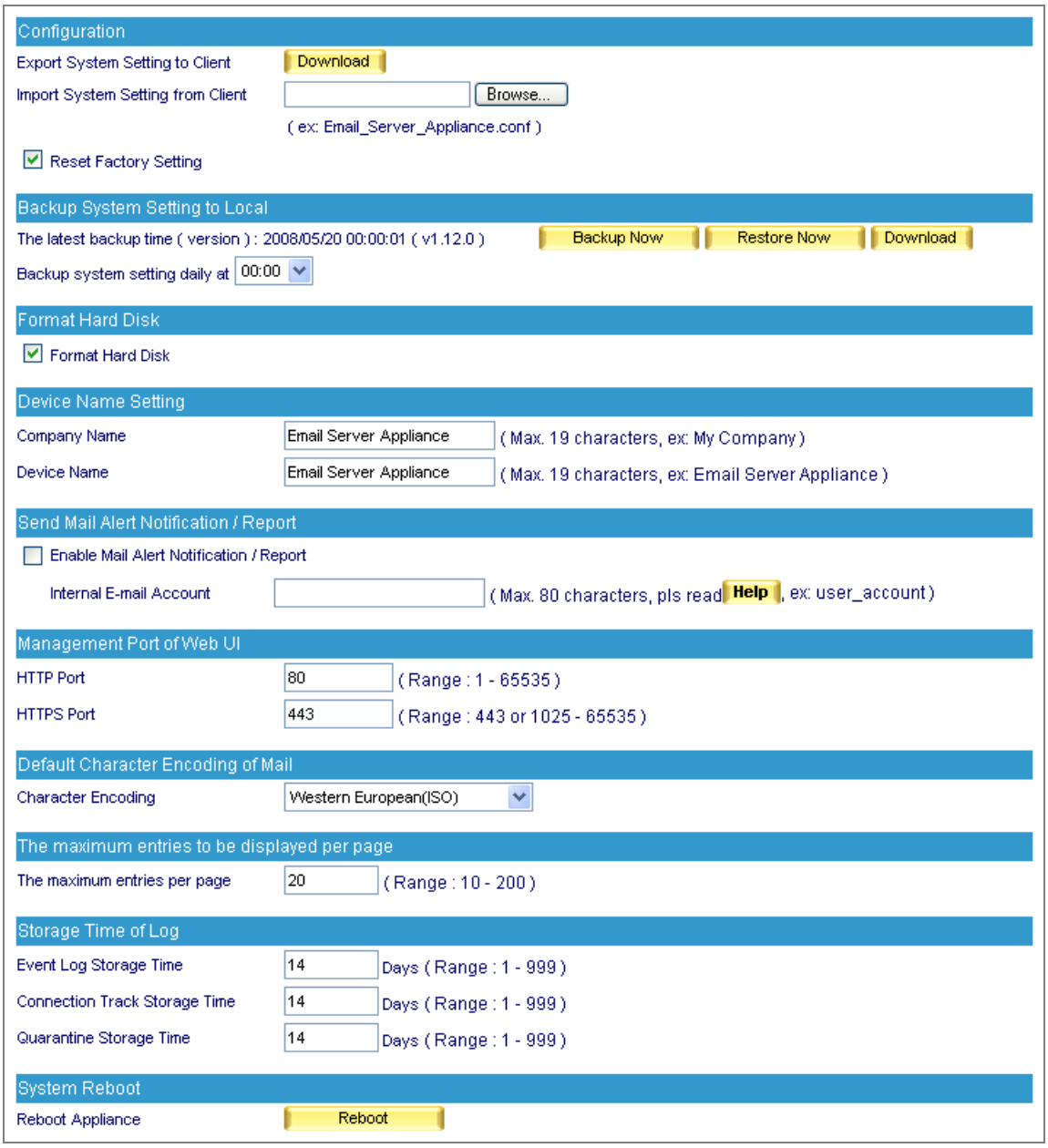



**Figure 4-7 Reset factory setting and format hard disk**

## Mail Notice Setting

***Step1.*** Enter the name of the company in the blank field next to **Company Name**.

***Step2.*** Enter “ES-4000V2” in the blank field next to **Device Name**.

***Step3.*** Tick **Enable Mail Alert Notification / Report**.

***Step4.*** Enter an internal email address in **Internal E-mail Account** field.

***Step5.*** Click **OK** on the lower right to set the function of message alarm. (Figure 4-8)

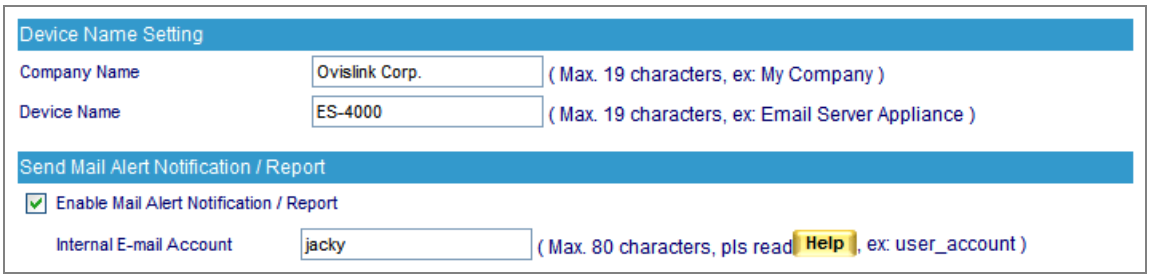



**Figure 4-8 Enable the instant message alarm**

## Rebooting System

***Step1.*** Click **Reboot** on the right of **Reboot Appliance.**

***Step2.*** A confirmation dialogue box saying “**Are you sure to reboot?”** appears.

***Step3.*** Click **OK** to reboot, or click **Cancel** to cancel reboot. (Figure 4-9)

**Figure 4-9 Reboot Appliance**

## 4.4 Date/Time

### Date / Time

- **Synchronize System Clock**

  This option can synchronize system clock with the administrator's PC or the external time server.

- **GMT**

  The international standard time (Greenwich Mean Time : GMT)

- **Daylight Saving Time**

  Daylight saving time (also called DST, or Summer Time) is a portion of the year in which a region's local time is advanced by an hour from its standard official time.

### Date / Time Setting

***Step1.*** Select **Enable Synchronize with an Internet Time Server.** (Figure 4-10)

***Step2.*** Click on the **Set Offset Hours from GMT** pull-down menu, and choose the correct time.

***Step3.*** Enter the server IP address in **Server IP / Name** field.

***Step4.*** Enter the frequency of updating time in **Update System Clock Every Minutes**.

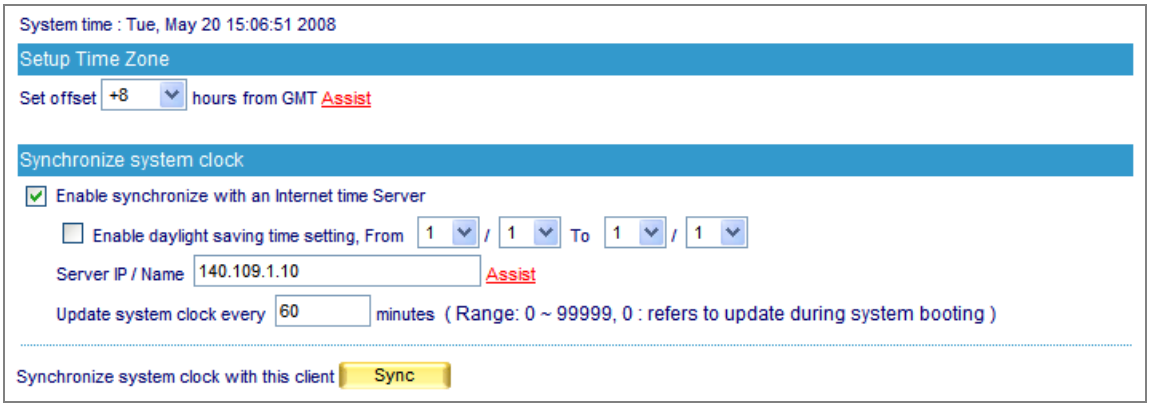



**Figure 4-10 Time setting**

Click **Sync** button, the system time will synchronize with the administrator's computer.

The reference for setting up the **Set offset hours from GMT** and **Server IP** is available in **Assist.**

If the local area executes the daylight saving time, then **Enable the Daylight Saving Time Setting.**

## 4.5 Software Update

To update firmware, please go to **System → Software Update** and follow the steps below:

***Step1.*** Version Number indicates the current version that is running. Log onto Internet to obtain the latest version of firmware and download it onto the ES-4000V2 built-in hard disk.

***Step2.*** Click Browse, then Choose File window pops up, after that, please select the latest firmware from the directory where it was saved earlier.

***Step3.*** Click the lower right **OK**, it will start running the update procedure. (Figure 4-11)

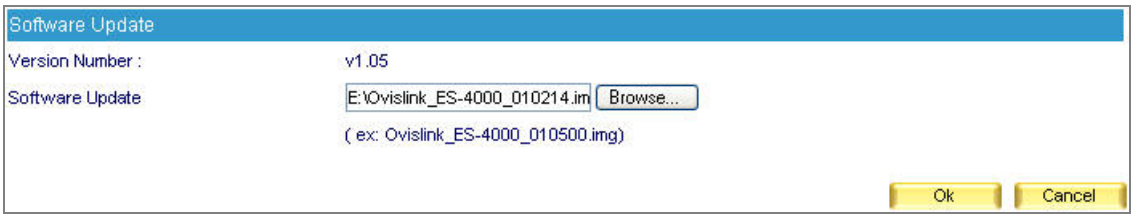



**Figure 4-11 Software Update**

It takes about 3 minutes to run through the update process, and will automatically reboot after the system is updated. Please do not turn off the power, disconnect the Internet or close the Web UI while running update. These acts might cause an error in the system. (Running the update in the local area network is strongly recommended.)

# Chapter 5 DNS Setting

Generally speaking, DNS server is either set up by an IT company or set up by oneself. ES-4000V2 has the function of resolving domain name which enables user to set up a DNS server on user's own without any expanded cost. While setting up DNS, please direct the registered domain name to the ES-4000V2's IP address beforehand. (All types of domain name need to be resolved by a DNS server, whether it's an address type or a mail exchanger one.)

In this chapter, it will walk you through **DNS Setting** with detailed utilization description.

## DNS Setting

**Domain Name:**

- It refers to a website address that user applies from ISP. An IP address like 198.68.20.78 is not easy for computer users memorizing, therefore, the domain names intend to replace the figure-pattern addresses with meaningful letter-pattern ones, such as www.airlive.com

  The website address is composed of two parts, host name and domain name. Web browsers type address like www.yahoo.com to log onto its webpage while it's physical IP is 66.218.71.84. And DNS server is the one who plays the role of mapped domain name and physical IP address together.

**Enable DNS Zone**

- Allows users to activate DNS and set up the address mapping policies. (Figure 5-1)

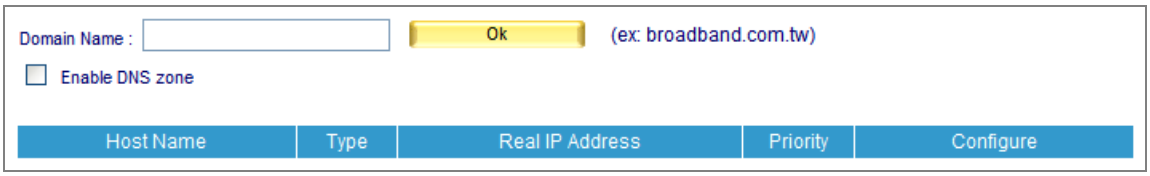



Figure 5-1 DNS setting

**DNS Configuration**

- Foremost, register the IP address on IDNs (International Domain Names) official website.

  1. Then register airlive.com as domain name

  2. Supposed that IP segment are given as follow:

     61.11.11.10 ~ 61.11.11.14

     211.22.22.18 ~ 211.22.22.30

  3. Set up primary host name server as:

     Host Name: dns1.airlive.com

     IP Address: 61.11.11.11

     Set up secondary host name server as:

     Host Name: dns2.airlive.com

     IP Address: 211.22.22.22

**Select Type:** It is divided into three types, namely **Address** (**A**), **Canonical NAME** (**CNAME**) and **Mail eXchanger** (**MX**).

## 5.1 A (Address)

This is used to map up IP addresses and domain names.

**Ex.** Build up the mapping between domain names and IP addresses. (Table 5-1)

| Domain Names | Type | IP Address |
|---|---|---|
| host1.airlive.com | A | 61.11.11.12 |
| host2.airlive.com | A | 61.11.11.13 |
| host2.airlive.com | A | 211.22.22.23 |

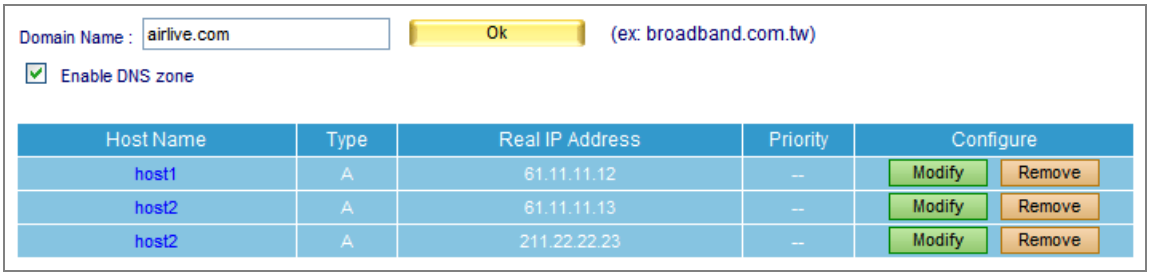



**Table 5-1 Mapping table of domain name and IP address**

"**A**" represents IP address. Each domain name is assigned to a corresponding IP address. The table above indicates that host2 is assigned to two IP addresses, so it lists out two entries corresponding to host2. Every DNS inquiry might have one responding address or above and is sorted in address-sorting style or round-robin style.

## 5.2 CNAME (Canonical NAME)

This type allows mapped domain names to have one website address or above available for web browsers at the same time. Type CNAME is capable of mapping a type "**A**" mapped domain name, yet it is not recommended mapping a type "**CNAME**" domain name.

**Ex.** Type CNAME as Alias is to map up real domain name. (Table 5-2)

| Domain Name | Type | IP Address |
|---|---|---|
| host23.airlive.com | A | 61.11.11.14 |
| host5.airlive.com | CNAME | host23.airlive.com |

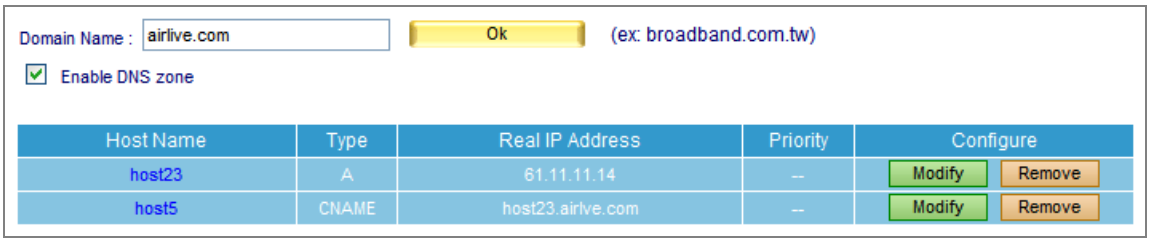



**Table 5-2 Mapping table of CNAME**

The table above indicates that host5.airlive.com (Alias) is mapping to host23.airlive.com (domain name). Thus, pinging host5.airlive.com under DOS mode will have the result of 61.11.11.14.

## 5.3 MX (eXchanger)

It served as a mail agent for DNS server and a window to the outside for mail services. In spite of ailing for mail server replacement, the mail server could be back to function in no time just by modifying the DNS address.

**Ex.1:**

"MX", also known as "Mail eXchanger", is a type of resource record especially designed for mail service. (Table 5-3)

| Domain Name | Type | IP Address |
|---|---|---|
| host25.airlive.com | A | 211.22.22.24 |
| mail.airlive.com | MX | host25.airlive.com |

**Table 5-3 Mapping table of mail eXchanger**

Under DOS mode, type **nslookup -type=MX mail.airlive.com**, you will find that mail.airlive.com is mapping to host25.airlive.com (the mail eXchanger) and its IP address 211. 22. 22. 24.

1. “nslookup” is the instruction of locating a DNS server.
2. “-type” defines the DNS type.
3. “mail.airlive.com” is the inquired DNS name.

For example, the customer service department of Test company wants to email to mary@mail.airlive.com, a mail server (test.com.tw) served as a SMTP server decides where and how to send the mail by inquiring the target DNS server.

The MX record of the inquiry of mail.airlive.com is as followed: (Table 5-4)

| Domain Name | Type | IP Address |
|---|---|---|
| host3.airlive.com | A | 61.11.11.10 |
| mail.airlive.com | MX | host3.airlive.com |

**Table 5-4 MX Record of the inquiry of mail.airlive.com**

Therefore, mail will go to host3.airlive.com according to SMTP Protocol.

- **Name:** Customize a DNS host name.
- **Reverse:** reverse a domain name lookup of its IP address. Domain mapping distinguish into forward mapping and reverse mapping. Forward mapping served as a translator, a translator transforms a letter-pattern address into a figure-pattern address. On the other hand, reverse mapping goes the other way around.

**Ex.2:**

Take Ex. 1 for instance, use **nslookup** instruction to verify if forward mapping and reverse mapping function normally. The processes are as followed.

C: \>nslookup host1.airlive.com ---------->forward requiring
Server: dns.hinet.net
Address: 168.95.1.1

Name: host1.airlive.com
Address: 61.11.11.12

C: \>nslookup 61.11.11.12 ---------->reverse inquiring
Server: dns.hinet.net
Address: 168.95.1.1

Name: host1.airlive.com
Address: 61.11.11.12

Result shows that 61.11.11.12 is mapping host1.airlive.com

## 5.4 SPF (Sender policy FrameWork)

SPF (Sender Policy Framework) is a type of verification process that is used to prevent fake e-mail addresses by identifying the authenticity of the e-mail sender and filtering out spam.

**How SPF Works**

To apply the SPF verification process, two important things must be done to both the sending and receiving end of the e-mail.

1. The DNS server must be added a SPF record at sender end.
2. The Mail server must enable the SPF verification function into order to make SPF working. (Figure 5-2)

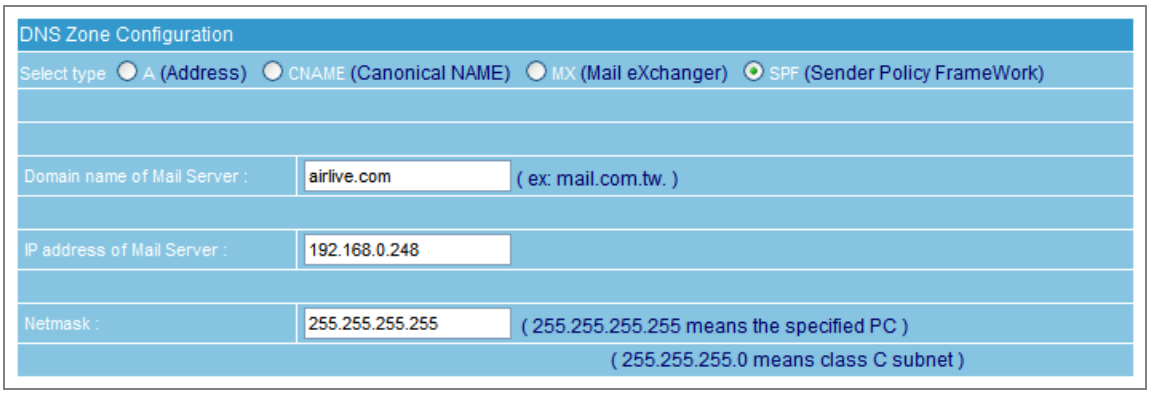



**Figure 5-2 SPF setting**

For example, suppose someone sends out a spam pretending to be an e-mail from AirLive mail server to your e-mail address.

When this spam e-mail is sent to an account with SPF enabled, the account will ask AirLive mail server for the SPF record based on the e-mail's IP address to check if the IP really came from AirLive.

If AirLive mail server confirms the SPF verification, then the e-mail will pass the account's SPF verification and be sent to the receiver.

On the other hand, if the e-mail does not pass the SPF verification it shall be viewed as junk mail. This means that even if the e-mail is really being sent out from AirLive, yet if AirLive mail server doesn't provide SPF record checking at that time, the e-mail that won't go through the receiver account's SPF verification will still be viewed as junk mail.

The SPF checking process needs the sender account to set up SPF record to provide verification checking in order to send and receive normally. It works best when more people use this verification process to completely put the set up to use. The number of corporations that currently have SPF record checking is still quite small, thus under this condition the SPF process at the receiving end that filters out any junk mail will provide the sender with a great deal of inconvenience.

## 5.5 Example

**Further Description:**

DNS directing indicates by which DNS server is managing and in which DNS has detailed domain name information. Any specific information can be obtained in the DNS server, such as physical address of website or mail server. Thus, continuous Internet connection and accurate DNS record must be assured.

According to international practice, DNS system must be directed to 2 DNS servers. It is to ensure domain name inquiry works in case one of them breaks down the other can act as substitute. This promises you a well-functional domain name, apart from that, providing a better domain name inquiring service for global Internet users.

## Example: Setup a host name server

**Procedure:**

1. Register airlive.com as domain name.
2. Set primary host name server as 61.11.11.11 and domain name as
   dns1.airlive.com
   Set secondary host name server as 211.22.22.22 and domain name as
   dns2.airlive.com
3. Required for T1or ADSL Internet connection
4. Servers required for resolving:
   www.airlive.com (192.168.1.100) Web server
   mail.airlive.com (192.168.1.101) E-Mail server

***Step1.*** Apply to ISP for two fixed IP ADSL or T1. Supposed that the appointed IP addresses are as followed:

61.11.11.10 ~ 61.11.11.14
211.22.22.18 ~ 211.22.22.30

Register the IP address on IDNs (International Domain Names) official website:

- Primary Host Name Server
  Host Name: dns1.airlive.com
  IP Address: 61.11.11.11
- Secondary Host Name Server
  Host Name: dns2.airlive.com
  IP Address: 211.22.22.22

Domain name must map the fixed IP address when registering the IP address on IDNs (International Domain Names) official website.

***Step2.*** Set up DNS according to the settings below: (Table 5-5)

| Domain Name | Type | IP Address | Reverse | Priority |
|---|---|---|---|---|
| airlive.com. | A | 61.11.11.11 | Enabled | -- |
| airlive.com. | A | 211.22.22.22 | Enabled | -- |

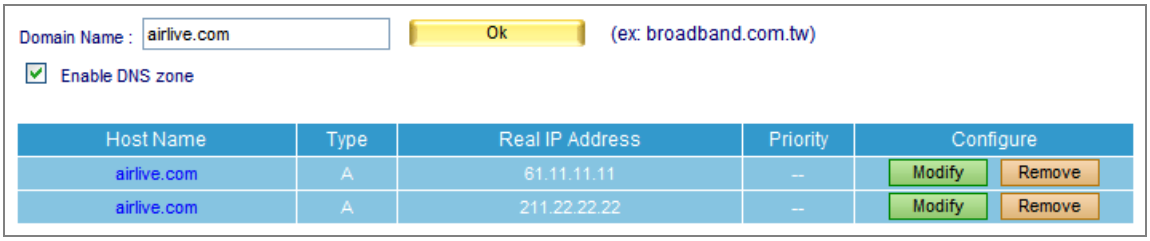



**Table 5-5 Mapping table of domain name and IP address**

As seen from Table 5-5, verifying forward mapping and reverse mapping for correctness with nslookup instruction are as followed:

C: \>nslookup airlive.com
Server: dns.hinet.net
Address: 168.95.1.1

Name: airlive.com
Address: 61.11.11.11, 211.22.22.22------->examine IP for correctness (forward mapping)

C: \>nslookup 61.11.11.11
Server: dns.hinet.net
Address: 168.95.1.1

Name: airlive.com ---------->examine domain name for correctness (reverse mapping)
Address: 61.11.11.11

Secondary DNS can act as substitute while primary DNS is down, it keeps domain name available for use.

***Step3.*** Set up DNS according to the settings below: (Table 5-6)

| Domain Name | Type | IP Address | Priority |
|---|---|---|---|
| web.airlive.com | A | 61.11.11.11 | -- |
| web.airlive.com | A | 211.22.22.22 | -- |
| www.airlive.com | CNAME | web.airlive.com | -- |

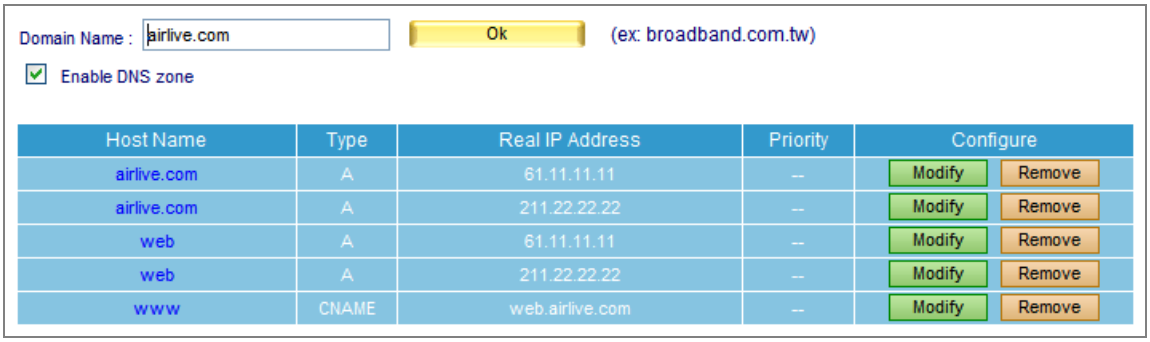



**Table 5-6 CNAME record of www.airlive.com**

As seen from Table 5-6, verifying forward mapping for correctness with **nslookup** instruction is as followed:

C: \>nslookup
Default Server: dns.hinet.net
Address: 168.95.1.1

> server 61.11.11.11 ---------->switch to your DNS server
Default Server: web.airlive.com
Address: 61.11.11.11

> www.airlive.com ---------->lookup for real domain name (forward mapping)
Server: web.airlive.com
Address: 61.11.11.11

Name: web.airlive.com ----------> domain name of www.airlive.com
Address: 61.11.11.11, 211.22.22.22 ---------->mapping IP of web.airlive.com
Alias: www.airlive.com ---------->CNAME of web.airlive.com

According to aforementioned, web.airlive.com is used to map host name and its IP address. And www.airlive.com, a CNAME of web.airlive.com, offers inquiry ability and redirection to web.airlive.com.

As seen from Tab. 4-6, it can be inferred that when browsing www.airlive.com visitors enter different server according to the browsing sequence.
1st visitor enter server 61.11.11.11
2nd visitor enter server 211.22.22.22
3rd visitor enter server 61.11.11.11
4th visitor enter server 211.22.22.22
5th visitor enter server 61.11.11.11
6th visitor enter server 211.22.22.22
.
.
**(User are distributed to servers alternatively)**

As seen from Table 5-7, the smaller figure it is, the higher priority it gets. For example, the user A wants to email to mary@mail.airlive.com, a mail server (mail.airlive.com) served as a SMTP server decides where and how to send the mail by inquiring the target DNS server.

The MX record of the inquiry of mail.airlive.com is as followed: (Table 5-7)

| Domain Name | Type | Address | Reverse | Priority |
|---|---|---|---|---|
| mail.airlive.com | MX | smtp1.airlive.com | X | 1 |
| mail.airlive.com | MX | smtp2.airlive.com | X | 2 |

**Table 5-7 MX record of mail.airlive.com**

For figure 1 has the highest priority, server will try to deliver the mail to smtp1.airlive.com due to its first priority. If delivery failed, then the mail goes to smtp2.airlive.com the secondary priority.

## Mapping between Servers (Web / FTP / Mail) and Domain Name

### Preparation

1. Apply to ISP for two fixed IP ADSL Internet connections

（The fixed IP of WAN1 is 61.11.11.10 ~ 61.11.11.14）

（The fixed IP of WAN2 is 211.22.22.18 ~ 211.22.22.30）

2. Apply to ISP for airlive.com as domain name

3. Register the IP address on IDNs (International Domain Names) official website.

### Primary Host Name Server

Host Name: dns1.airlive.com

IP Address: 61.11.11.11

### Secondary Host Name Server

Host Name: dns2.airlive.com

IP Address: 211.22.22.22

***Step1.*** Settings of Web, FTP, Mail Server are as followed :

- Web server : 61.11.11.12
- FTP server : 211.22.22.20
- Mail server : 61.11.11.11 and 211.22.22.22

***Step2.*** Go to **DNS Setting → Setting**, click **New Entry**.

***Step3.*** Fill in the blank field with registered domain name airlive.com, then click **OK** and check **Enable DNS Zone**, finally click **New Entry**. (Figure 5-3)

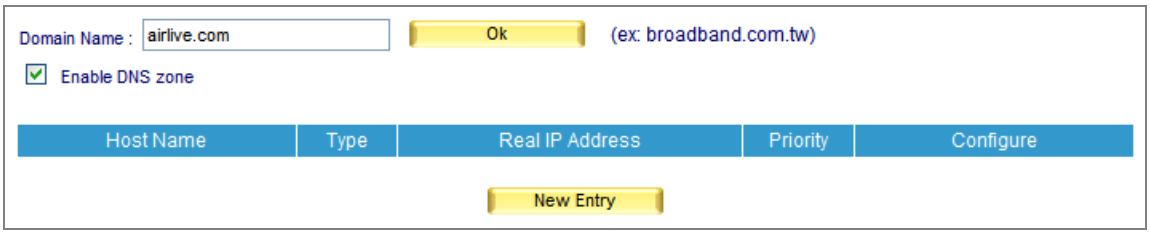



**Figure 5-3 Add a domain name**

***Step4.*** In DNS Zone Configuration, add the first entry :

- **Select type:** A（Address）
- **Name:** airlive.com. (Be aware there is a dot sign “.” behind the domain name.)
- **Address:** 61.11.11.11
- Click **OK**. (Figure 5-4)
- Primary DNS mapping setup completed.

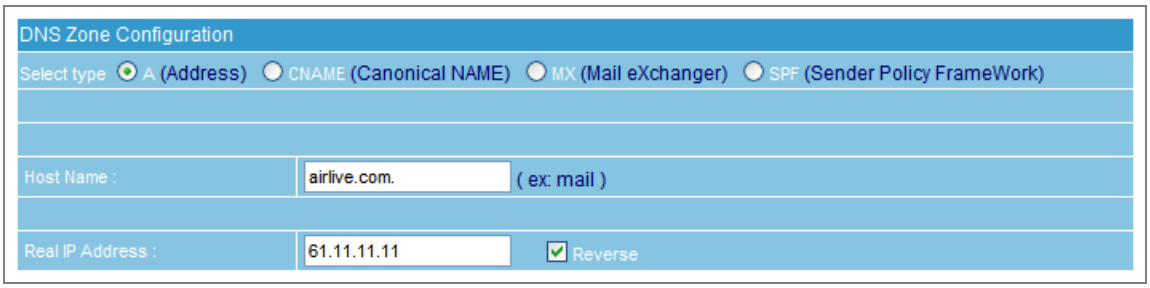



**Figure 5-4 Primary DNS mapping setup**

***Step5.*** In DNS Zone Configuration, add the second entry :

- **Select type :** A（Address）
- **Name :** airlive.com. (Be aware there is a dot sign “.” behind the domain name.)
- **Address :** 211.22.22.22
- Click **OK**. (Figure 5-5)
- Secondary DNS mapping setup completed.

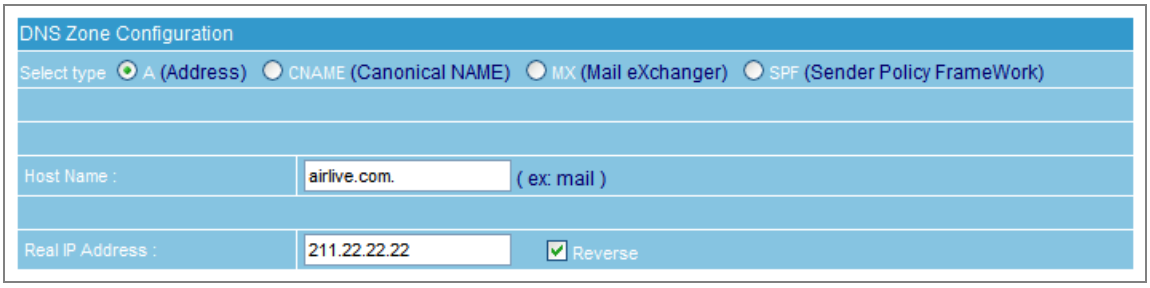



**Figure 5-5 Secondary DNS mapping setup**

***Step6.*** In DNS Zone Configuration, add the third entry :

- **Select type :** A（Address）
- **Name :** www
- **Address :** 61.11.11.12
- Click **OK**. (Figure 5-6)
- Mapping record between web server and IP setup completed.

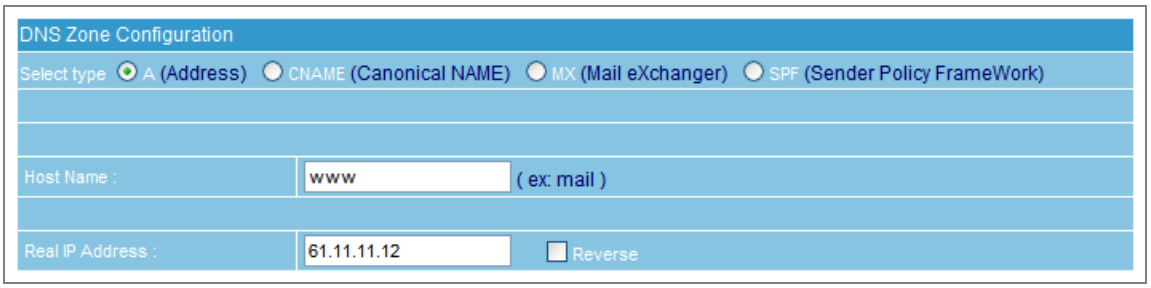



**Figure 5-6 Mapping record between web server and IP setup**

***Step7.*** In DNS Zone Configuration, add the forth entry :

- **Select type :** A（Address）
- **Name :** FTP
- **Address :** 211.22.22.20
- Click **OK**. (Figure 5-7)
- Mapping record between FTP server and IP setup completed.

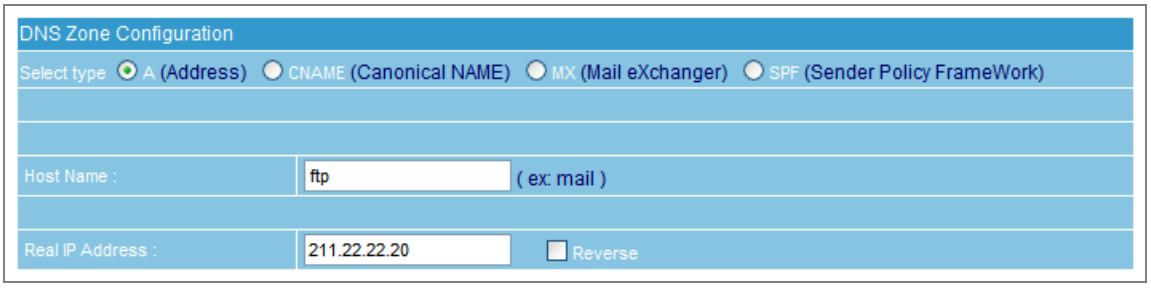



**Figure 5-7 Mapping record between FTP server and IP setup**

***Step8.*** In DNS Zone Configuration, add the fifth entry :

- **Select type :** MX（mail eXchanger）
- **Name :** mail
- **Mail server :** airlive.com
- Click **OK**. (Figure 5-8)
- Mapping record between mail server and IP setup completed.

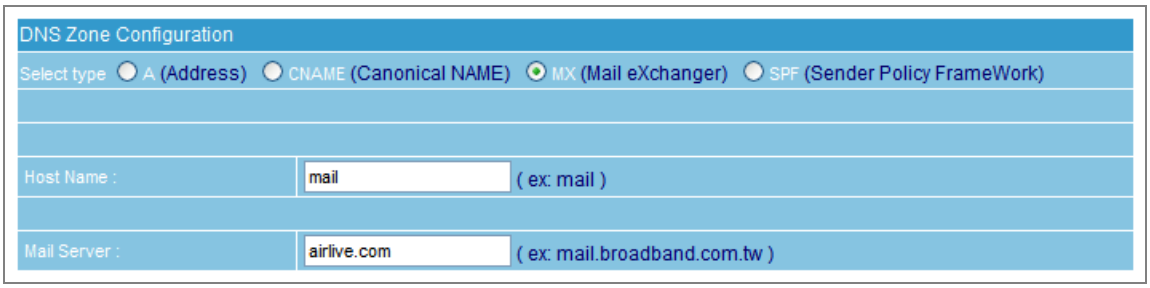



**Figure 5-8 Mapping record between mail server and IP setup**

***Step9.*** Setup completed. (Figure 5-9)

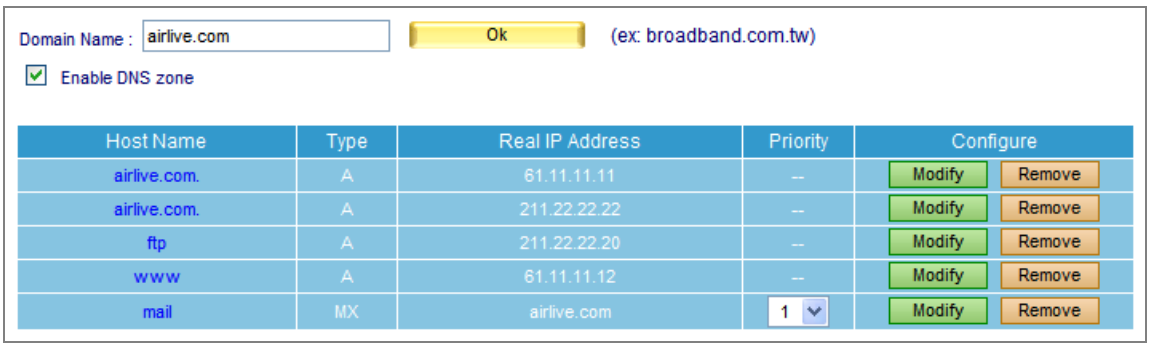



**Figure 5-9 Setup completed**

***Step10.*** The easy memorized addresses facilitate external inquiries.

- Web server : www.airlive.com
- FTP server : ftp.airlive.com
- Mail server : mail.airlive.com

# Chapter 6 Web Server Setting

The key to a thriving business is to provide your potential customers with a stable, reliable access to your company website. Accordingly, ES-4000V2 makes website building cost effective and expeditious for you by integrating the web server. It meets your demand on building up a company website.

## 6.1 Setting

The main function of ES-4000V2 Web Server is described as following: (Figure 6-1)

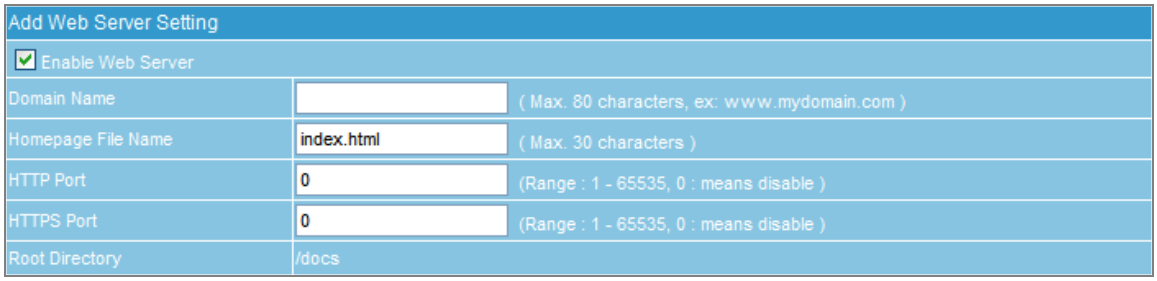



**Figure 6-1 Web Server Setting**

**Domain Name**

- The address of your website.

**Homepage File Name**

- The default webpage of your website. It is usually named as “index.html” or “index.shtml”.

**HTTP Port**

- The HTTP port for browsing your website.

**HTTPS Port**

- The HTTPS port for browsing your website.

**Root Directory**

- The top-most directory in your website hierarchy where all files of your website are stored. “/docs” is the root directory by default.

**Web Server File and Folder Setting**

- Allows you to publish the folder index, create alias, enable authentication, etc.
- Allows you to change the root directory accordingly.
- Allows you to upload multiple files at once by file compression. You may extract the compressed file after uploaded. Currently, it supports TAR, TAR.GZ, TGZ, TAR.BZ2, ZIP, GZ, and BZ2 files.

For the time being, the Web Server supports merely a few computer languages (i.e., JavaScript, HTML, SHTML, XML), excluding those which require execution on the Web Server, such as C, Perl, ASP, and PHP.

## 6.2 Example

### Using ES-4000V2 to Provide Web Service

***Step1.*** ***DNS Setting → Setting***: Create DNS entry to define web server address. (Figure 6-2)

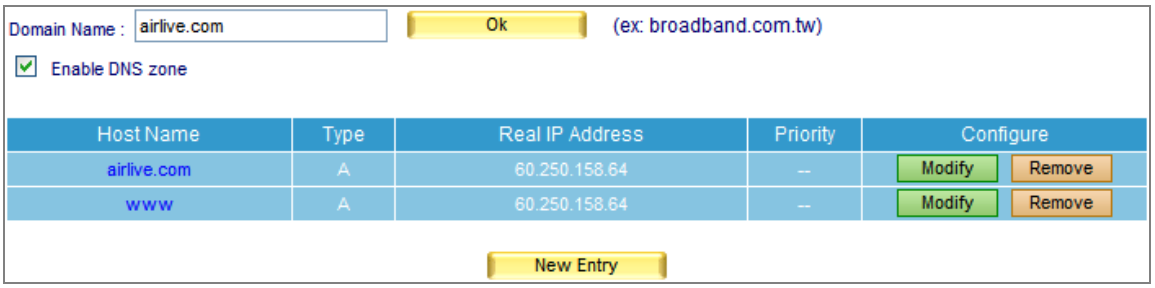



**Figure 6-2 The DNS configuration for Web Server**

***Step2.*** Navigate to ***Web Server Setting → Setting*** and then set as below:

- Click **New Entry**
- Tick **Enable Web Server**
- Type “airlive.com” in the **Domain Name** field
- Type “index.htm” in the **Homepage File Name** field
- Enter “888” in the **HTTP Port** field
- Enter “333” in the **HTTPS Port** field
- Click **OK** (Figure 6-3)
- Click **OK** in the dialogue box to confirm restarting the Web server. (Figure 6-4, 6-5)

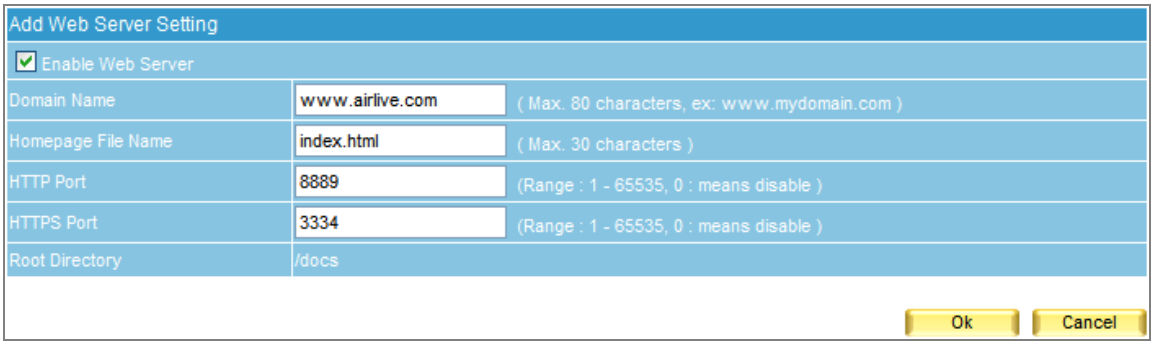



**Figure 6-3 Configure the Web Server**

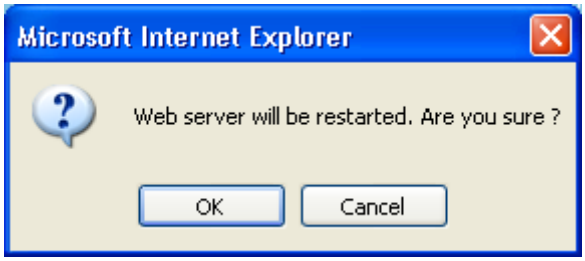



**Figure 6-4 Confirming to restart the Web server**

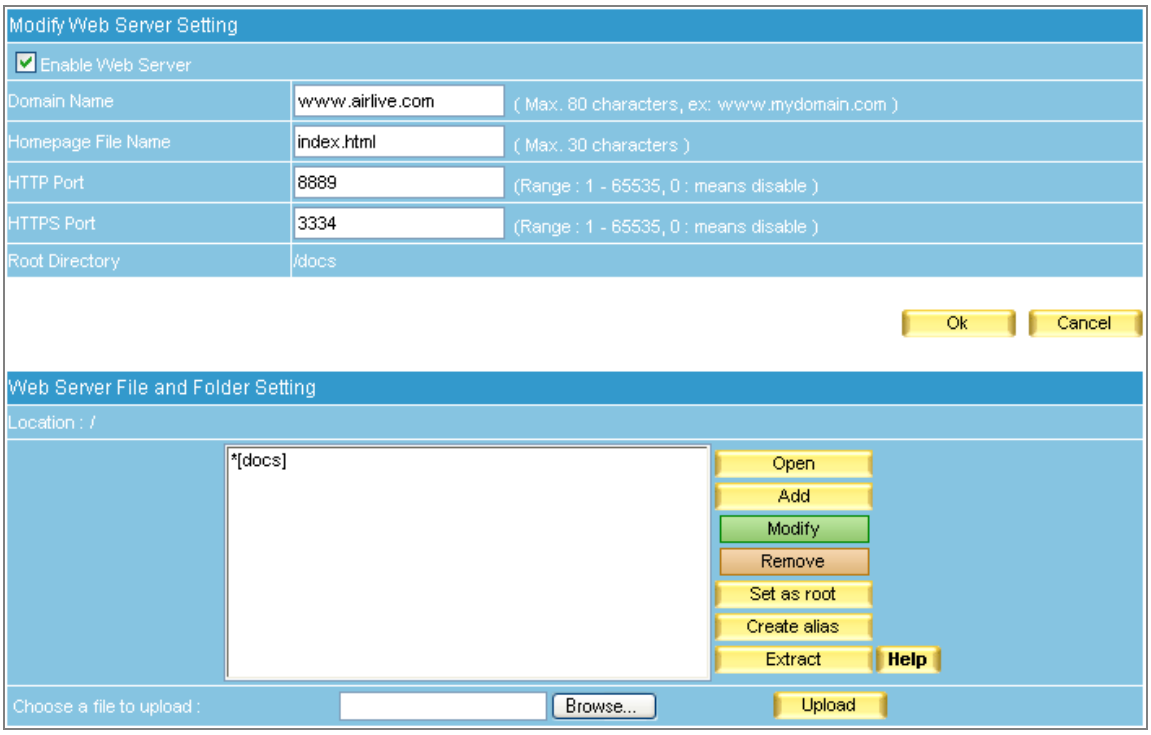



**Figure 6-5 Web server setting completed**

***Step3.*** In the **Web Server File and Folder Setting** section, upload your website onto the Web server:

- Select the default root directory "*[docs]" and then click **Open** on the right. (Figure 6-6)
- Compress all the content of your website as a ZIP file.
- Use **Browse** to locate the ZIP file and then click **Upload**. (Figure 6-7)
- Select the ZIP file and then click **Extract** on the right. (Figure 6-8)
- Select the ZIP file and then click **Remove** on the right. (Figure 6-9)
- Click **OK** (Figure 6-10)
- Click **OK** in the dialogue box to confirm restarting the Web server. (Figure 6-11, 6-12)
- Now you may visit your website at "http://www.airlive.com.tw:8889" or "https://www.airlive.com.tw:3334". (Figure 6-13)

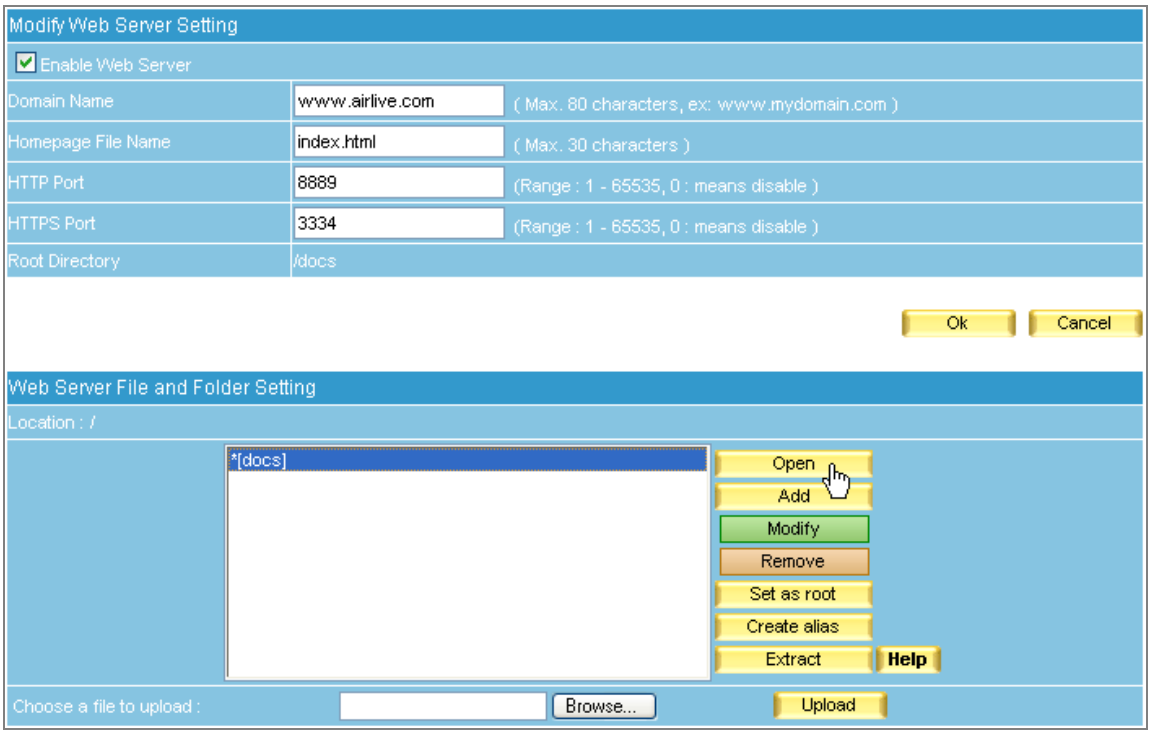



**Figure 6-6 Opening the root directory**

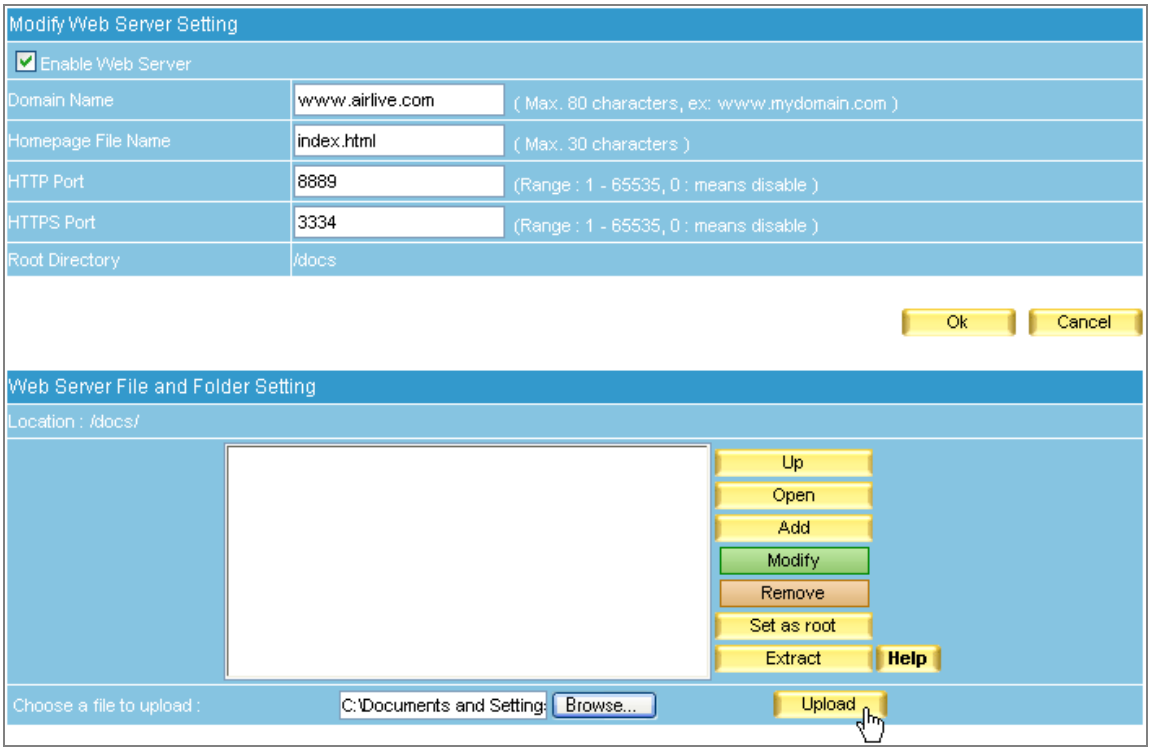



**Figure 6-7 Uploading Your Website onto the Web Server**

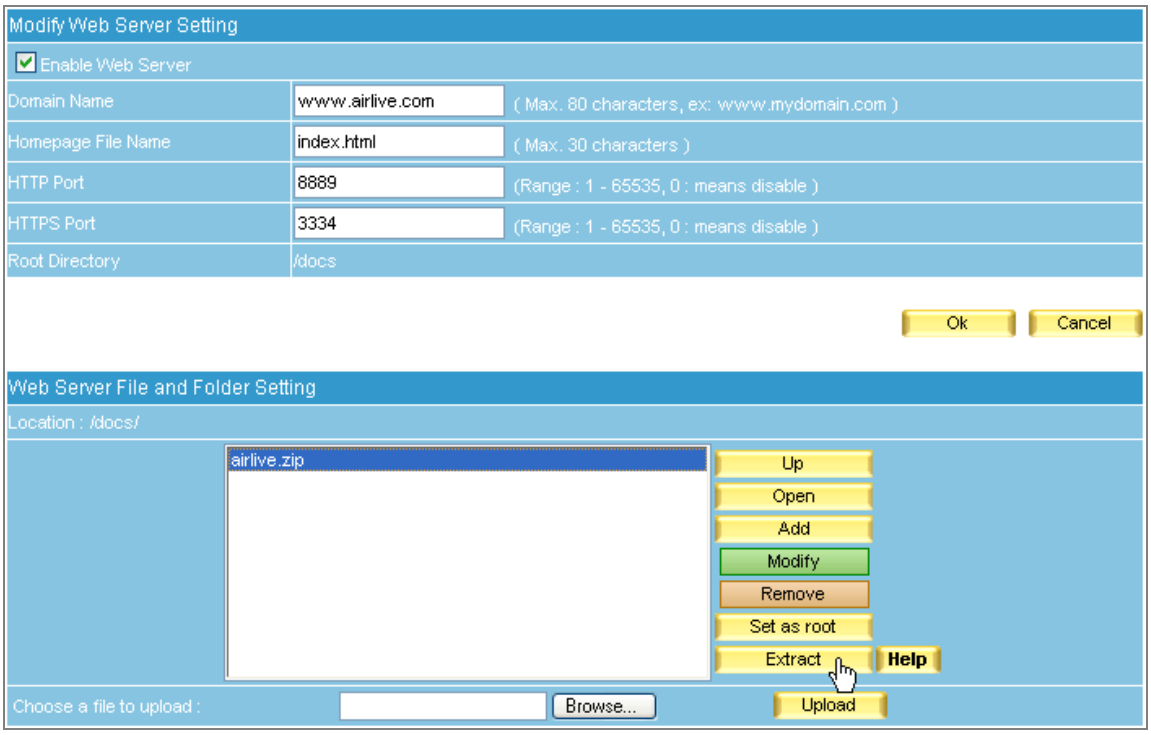



**Figure 6-8 Selecting the ZIP File to Extract**

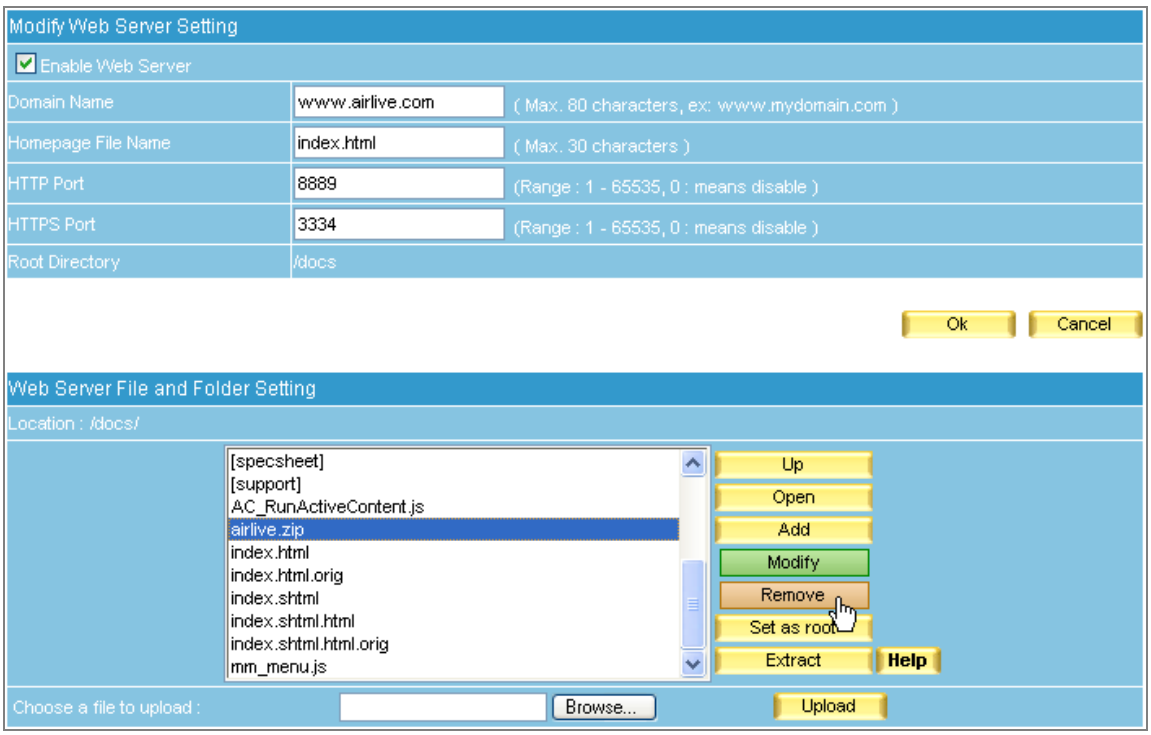



**Figure 6-9 Selecting the ZIP File to Remove**

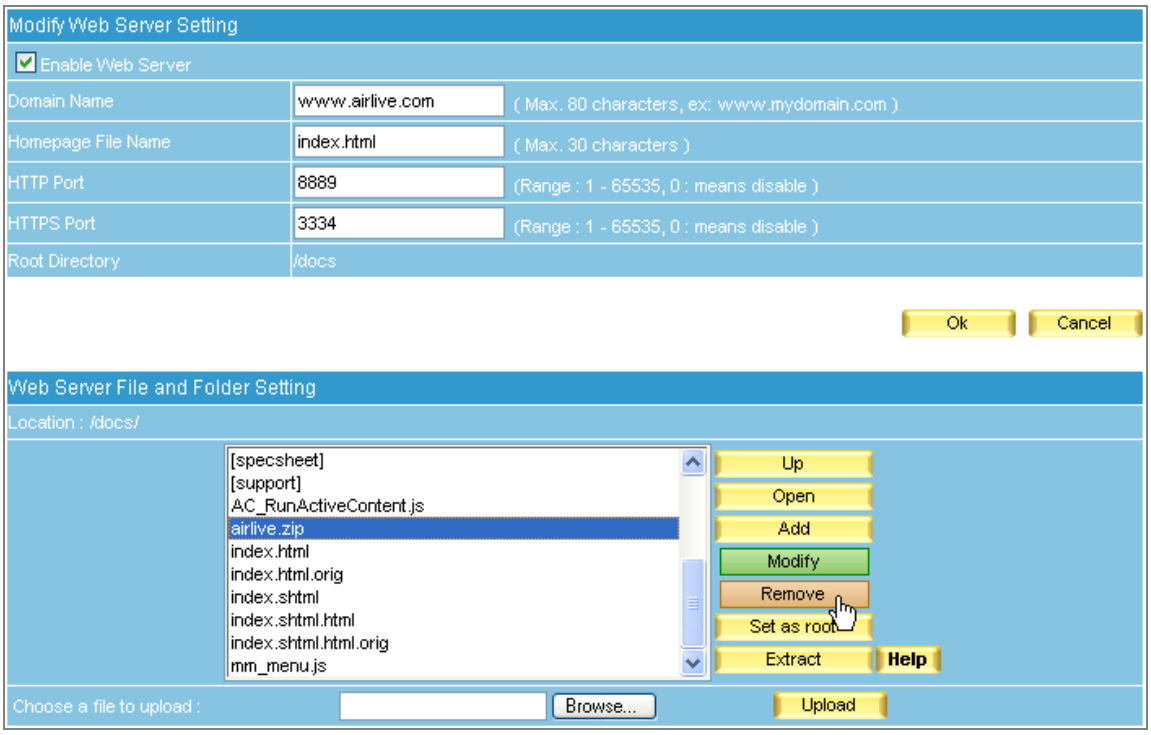



Figure 6-10 Website Uploaded

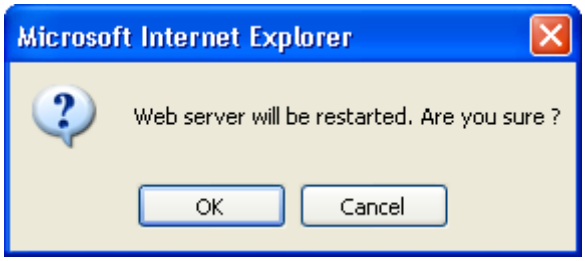



Figure 6-11 Confirming to Restart the Web Server

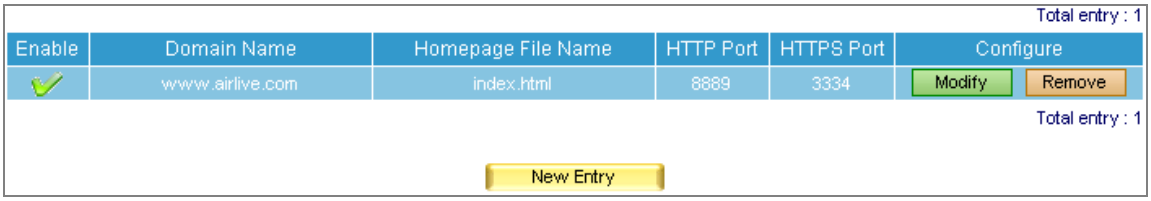



Figure 6-12 Web Server Restarted

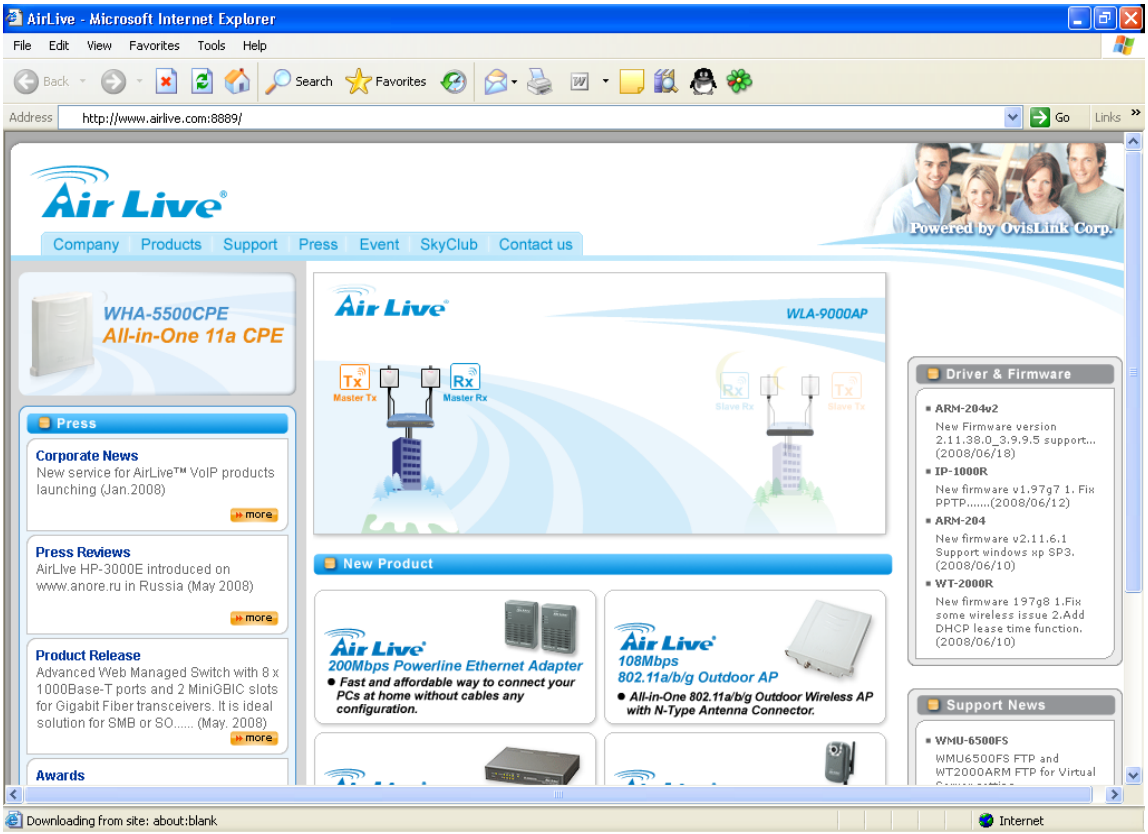



Figure 6-13 Visiting Your Own Website

***Step4.*** In the **Web Server File and Folder Setting** section, set as below:

- Click **Add**. (Figure 6-14)
- Specify the folder name and tick **Publish the Folder Index**.
- Specify the alias name (e.g. /download/) and tick **Enable Folder Alias**.
- Tick **Enable Authentication** and configure the related fields accordingly.
- Click **OK**. (Figure 6-15)
- Select "[spec]" and then click **Open** on the right. (Figure 6-16)
- Use **Browse** to locate the desirable file to upload and then click **Upload**. (Figure 6-17)
- Click **OK**. (Figure 6-18)
- Click **OK** in the dialogue box to confirm restarting the Web server. (Figure 6-19, 6-20)
- Now you may access the files stored on the Web server through the folder index at "http://www.airlive.com:8889/download/" or "https://www.airlive.com.tw:3334/download/" upon authentication. (Figure 6-21, 6-22, 6-23)

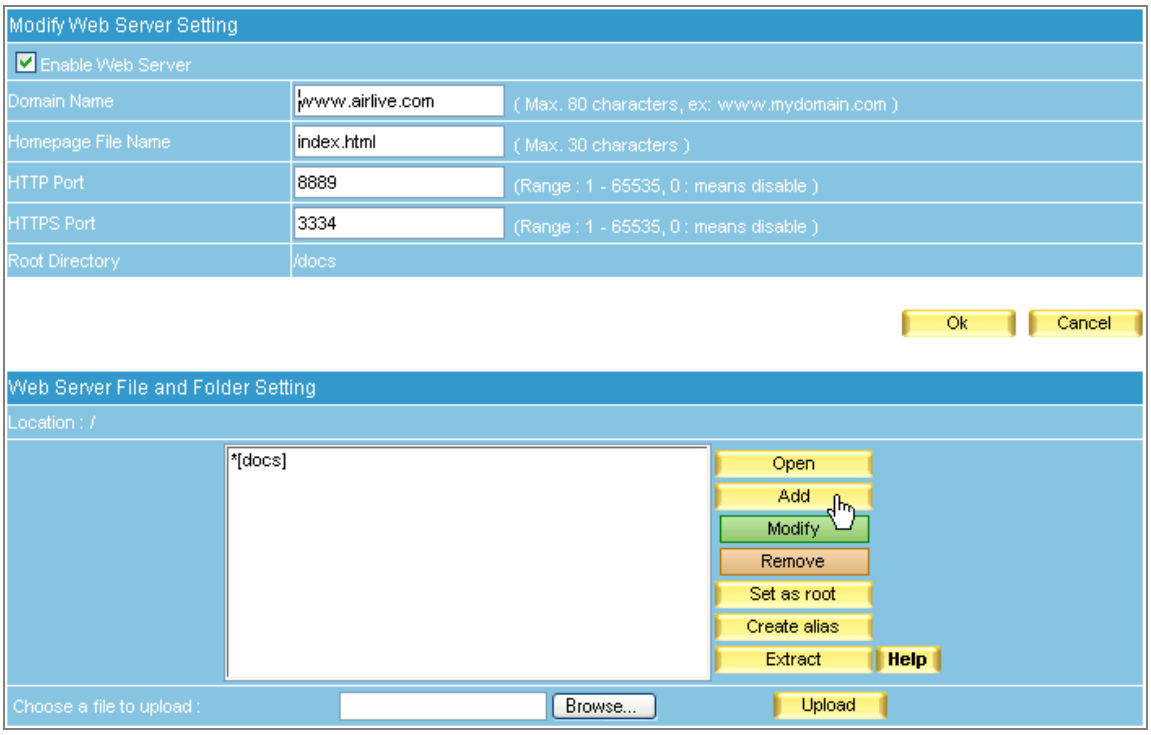



**Figure 6-14 Adding a New Folder**

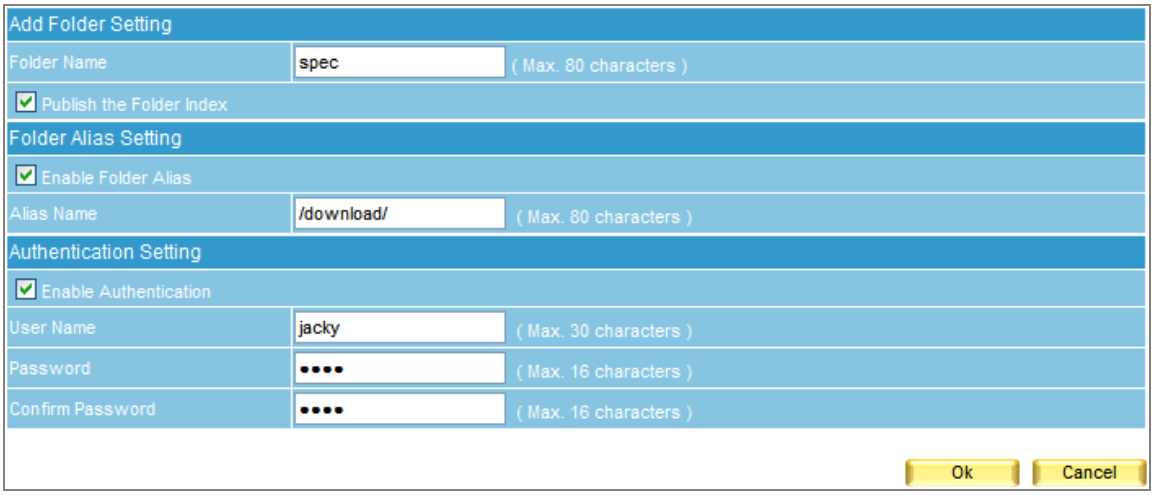



**Figure 6-15 The Related Settings of a Folder**

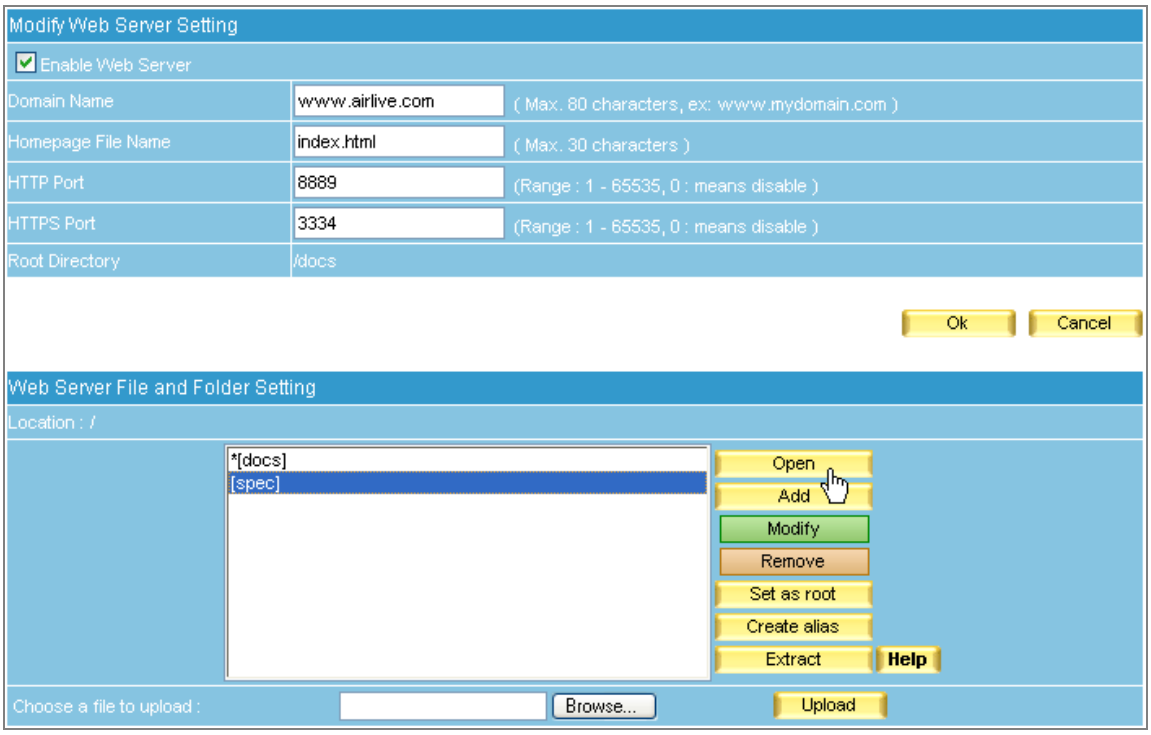



Figure 6-16 Opening a Folder

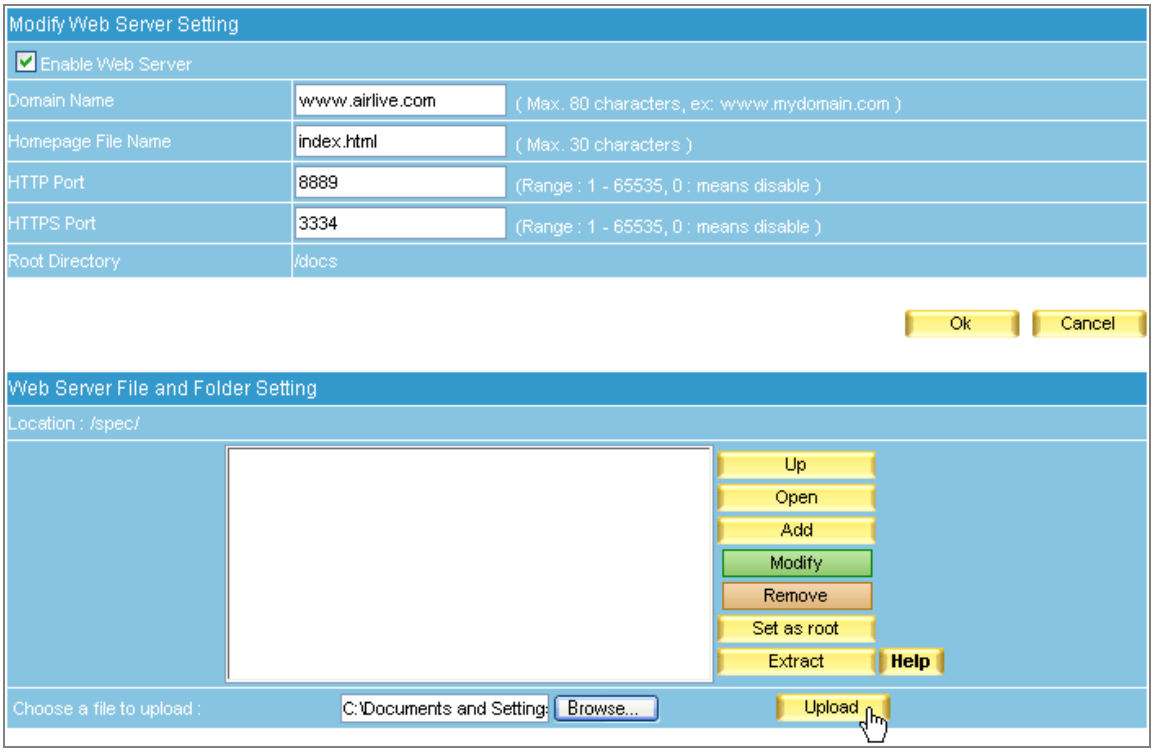



Figure 6-17 Uploading a File

**Figure 6-18 File Uploaded**

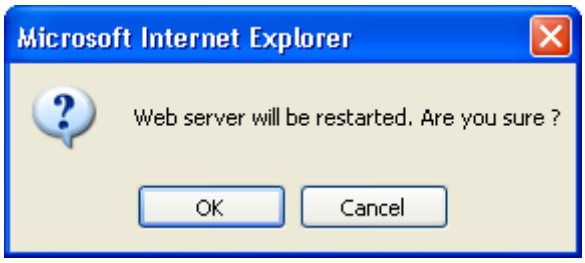



**Figure 6-19 Confirming to Restart the Web Server**

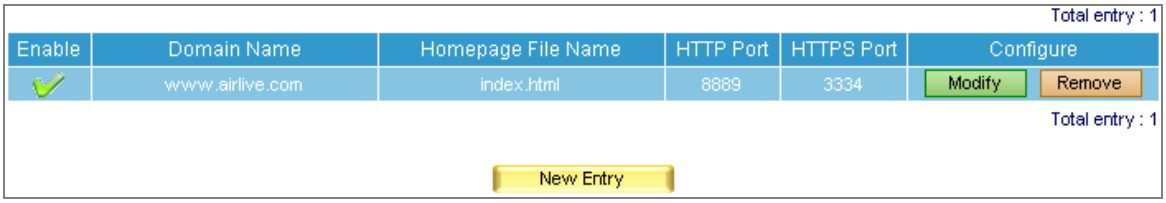



**Figure 6-20 Web Server Restarted**

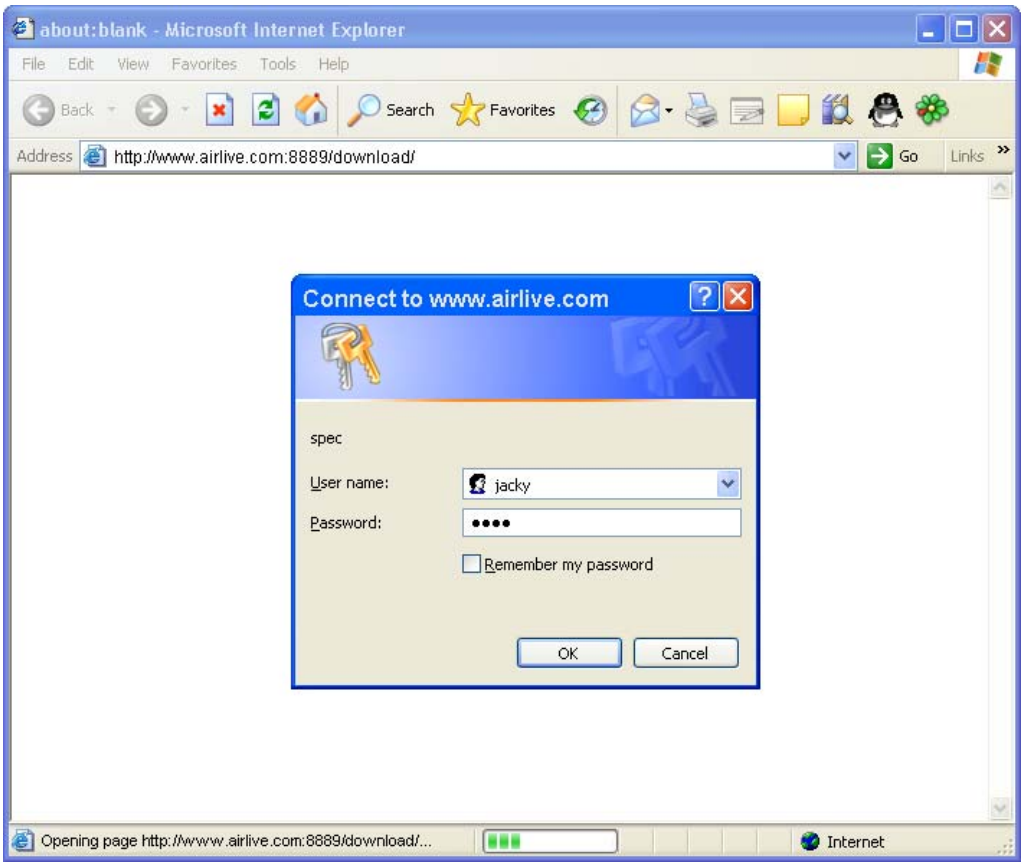



Figure 6-21 The Authentication Dialogue Window

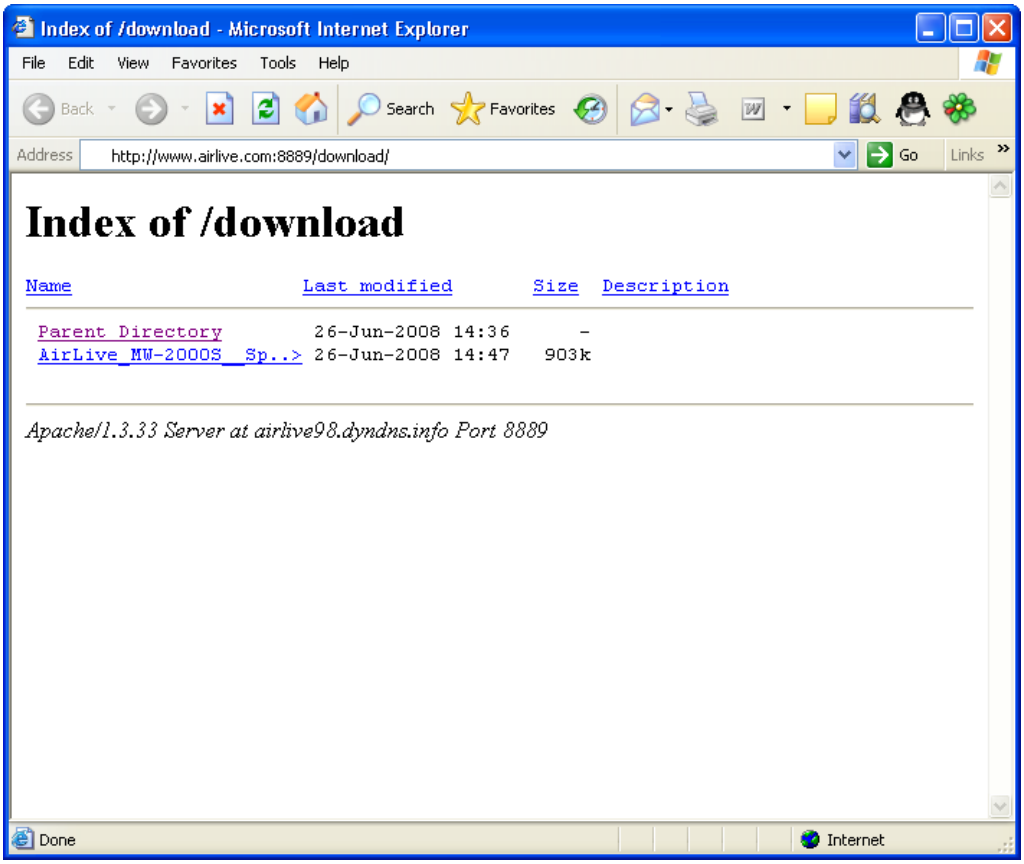



Figure 6-22 Browsing for the Desirable File

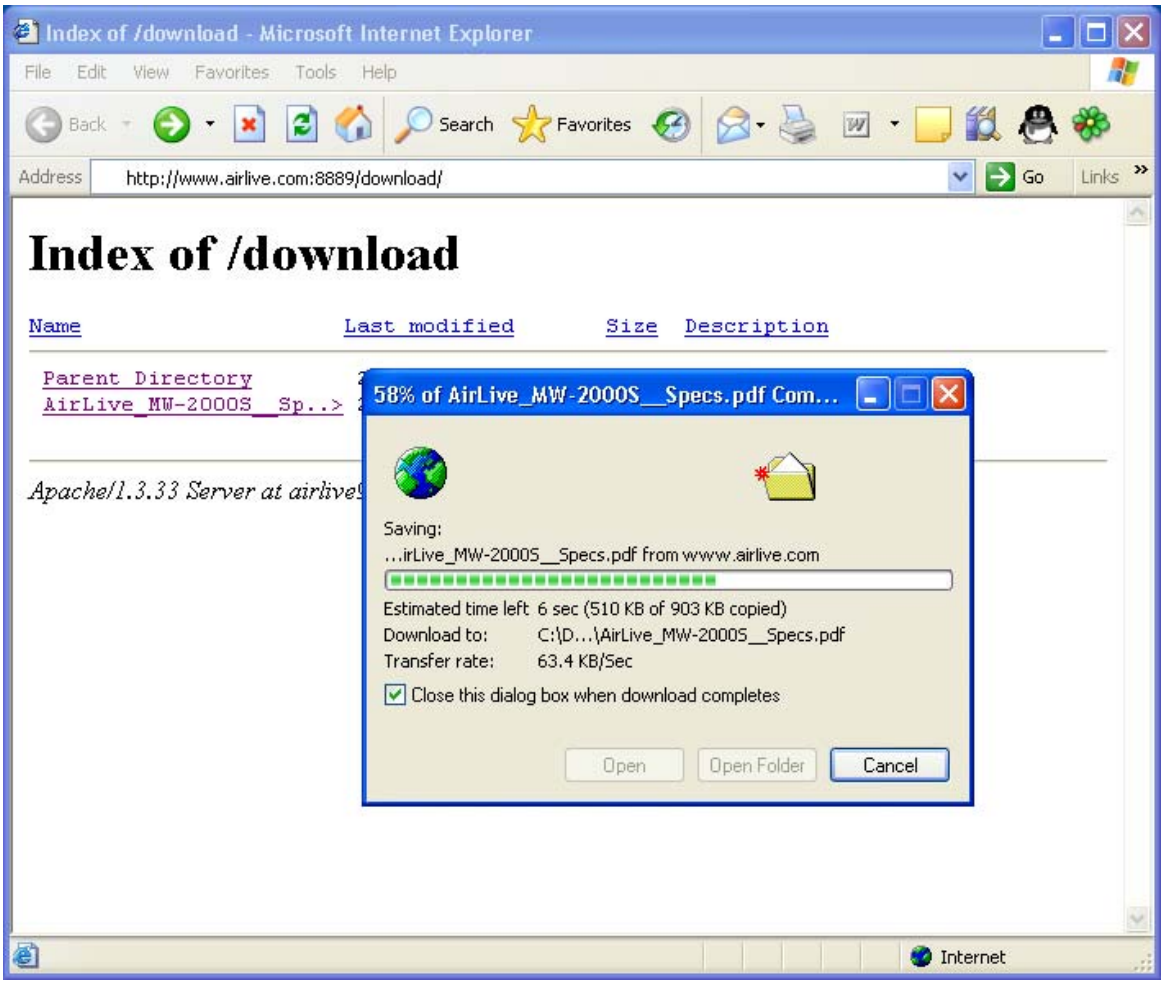



**Figure 6-23 Downloading the Desirable File**

# Chapter 7 Mail Management

## 7.1 Configure

Mail configure refers to policies of mail services, it is divided into three parts, namely mail management, domain alias and mail relay.

**Mail setting:**

- Determines of which cryptographic method and port number will be used in each service
- Assigns a port exclusively for logging to web mail interface.
- Apply the physical IP address for sharing files in web disk.
- Determines the maximum amount of simultaneous connection of sending mail.
- Determines the maximum duration of a mail lifetime in Queue.
- Restricts mail delivery services with local SMTP authentication.
- Auditing outgoing mails for security's sake with mail gateway

### 7.1.1 Setting

**Mail Setting Definition:**

**Max. Simultaneous Connections of Send Mail:**
Define the capacity of ES-4000V2 to handle the mails simultaneously. The available range is from 1 to 9999, and the default setting is 50.

**Max. Lifetime of a Mail in Queue:**
What if users' mails failed the delivery, the mail will save in ES-4000V2 queue and waiting for the next delivery. Users can define the lifetime of mail in queue, when the lifetime is end, the mail will be removed from queue and return a failure notification to sender.

**Enable Local SMTP Authentication:**
When SMTP authentication enabled, users must meet one of the requirements listed below to process mail delivery.
1. Either sender's source IP address or recipient's domain name must exist on the Mail Relay list.
2. Sender has to apply the correct user name and password to SMTP authentication.

**Enable Inbox Quota Auto-Adjustment:**
When enabled, the device will:
1. Alert both the user and system administrator about the insufficient space upon inbox usage of 80%.
2. Delete older mails until the usage has lowered to 70% as well as alert both the user and system administrator about the insufficient space upon inbox usage of 90%.

**Default Value of New Account:**

- Allocates the default size of mailbox, Inbox, Web Disk and the maximum size of incoming mails. (The settings here does not apply to those settings made in individual mail management )
  - Below is an example for your reference :
    1. Tick **Enable SMTP**
    2. Select **TLS+SSL** from the pull-down menu for **Security Session**
    3. Enter “25” for **SMTP** and “465” for **SMTPS**
    4. Tick **Enable POP3**
    5. Select **TLS+SSL** from the pull-down menu for **Security Session**
    6. Enter “110” for **POP3** and “995” for **POPS**
    7. Tick **IMAP**
    8. Select **TLS+SSL** from the pull-down menu for **Security Session**
    9. Enter “143” for **IMAP** and “993” for **IMAPS**
    10. Tick **Enable Web Mail**
    11. **Web Mail Port: HTTP** set as **8080** and **HTTPS** set as **1443**
    12. Apply **Public IP Address** to **Domain Name of Web Mail**
    13. **Maximum Simultaneous Connections of Send Mail :** 50
    14. **Maximum Lifetime of a Mail in Queue :** 4 hours
    15. Tick **Enable Local SMTP Authentication**.
    16. Tick **Enable Inbox Quota Auto-Adjustment**.
    17. Click **OK**. (Figure 7-1)

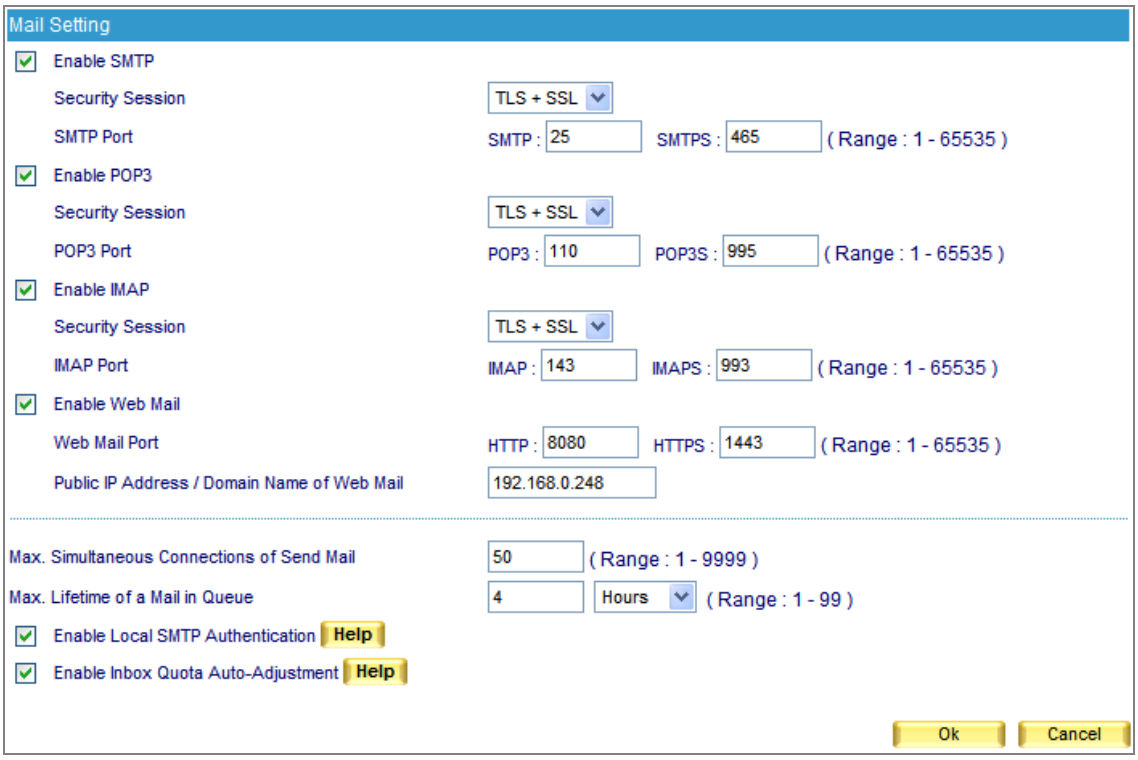



**Figure 7-1 Mail management configuration**

**Transport Layer Security** (**TLS**) and its predecessor, **Secure Sockets Layer** (**SSL**), are cryptographic protocols that provide secure communications on the Internet. There are slight differences between SSL and TLS, but the protocol remains substantially the same. However, TLS used to operate at transport layer, which now has changed into alternations between application layer and transport layer.

Once **Inbox Quota Auto-Adjustment** is enabled, ES-4000V2 will check each built-in mail account for available inbox storage. Both the account user and the system administrator will receive an e-mail notification about inbox usage reaching 80%; when inbox usage reaches 90%, the device will send out an e-mail notification as well as delete the older e-mail messages until the usage has lowered to 70%.

For client users using e-mail program, ES-4000V2 device requires the configuration of e-mail protocols and port numbers. Below is an example on how to configure the port numbers in Outlook Express:

1. On the menu bar, click **Tools** and then **Accounts…**. (Figure 7-2)

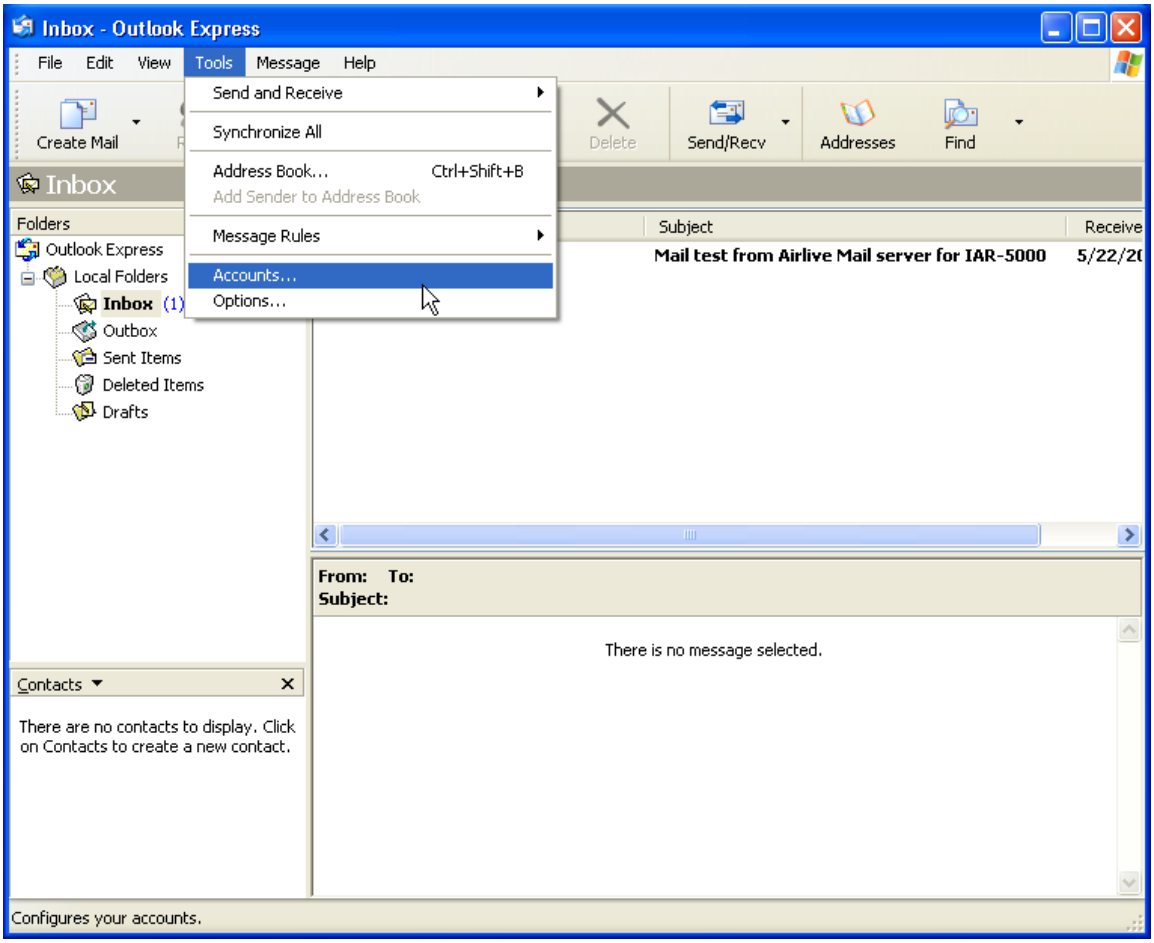



**Figure 7-2 Opening Internet Accounts**

2. Click **Mail** tab and then the desired account to change. Next, click **Properties** on the right. (Figure 7-3)

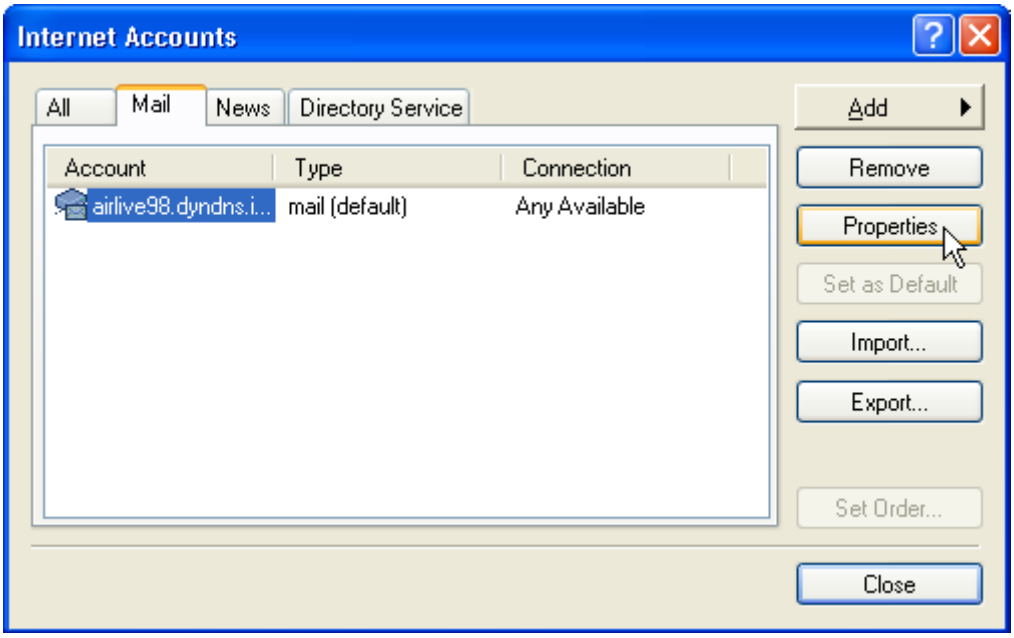



**Figure 7-3 Opening Internet Accounts**

3. In the **Properties** window, click **Advanced** tab to adjust the port numbers for SMTP and POP3 protocols. When finished, click **OK**. (Figure 7-4)

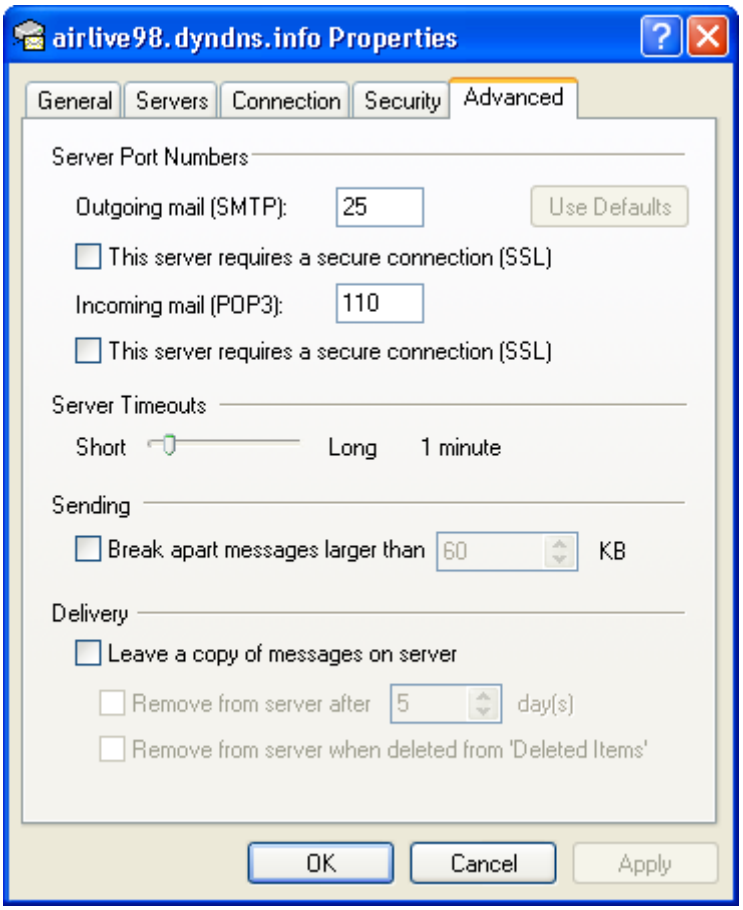



**Figure 7-4 Server Port Number Settings**

4. Close **Internet Accounts** window. (Figure 7-5)

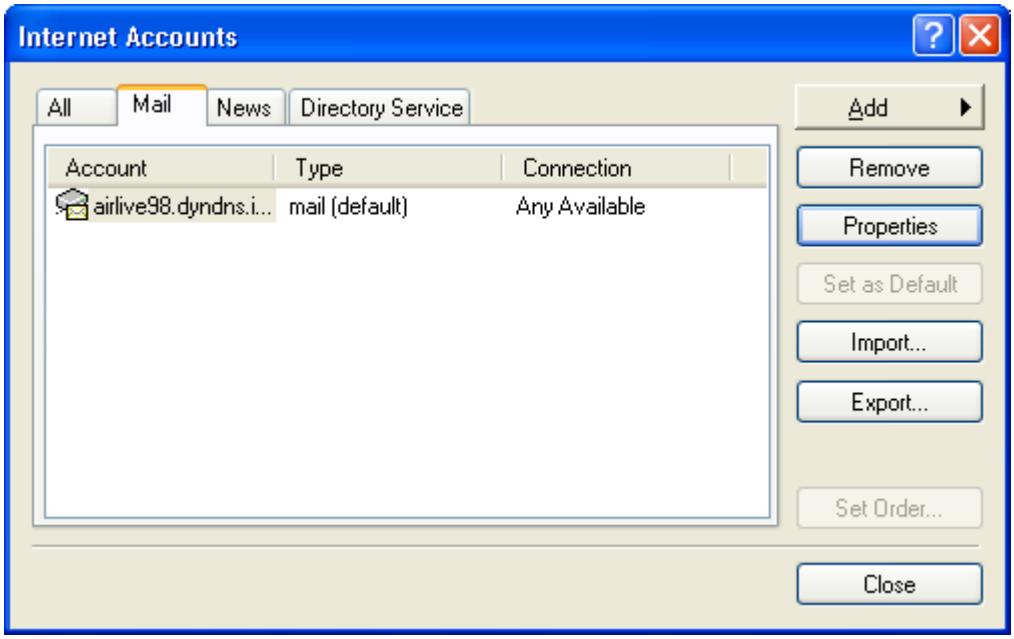



**Figure 7-5 Closing Internet Accounts**

### 7.1.2 Web Mail Logo

ES-4000V2 allows user to upload a background picture as web mail wallpaper. The image file should be limited as:

Max. File Size: 1 Mbytes

Resolution: 1022 x 622 pixels

File Types: jpg, jpeg, jpe, gif, bmp, png... (Figure 7-6)

**Figure 7-6 Upload picture as wallpaper**

If user would like to check the display, click “Preview” and verify the image. (Figure 7-7)

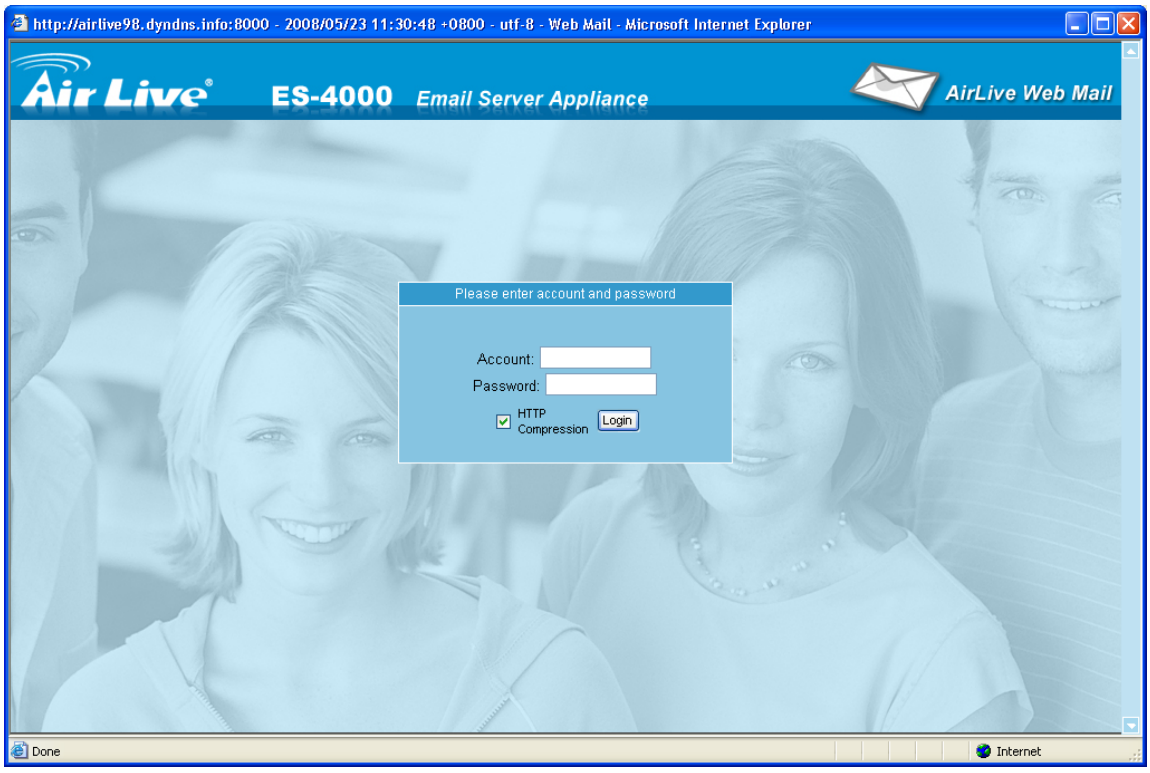



**Figure 7-7 Homepage of Web Mail**

### 7.1.3 Domain Alias

**Apply Registered Domain Name to Mail Server**

***Step1.*** After registered domain name from IDNs (International Domain Names), please apply it to ES-4000V2 mail server.

***Step2.*** Go to **Mail Management → Configure → Domain Alias**, refer to following example to set up :

- Click **New Entry** to add first entry.
- Apply registered domain name. ( airlive.com )
- Click **OK** to complete the first entry. (Figure 7-8, 7-9)
- Click **New Entry** to enter second entry.
- If users need to apply the other registered domain name, they can create the second one. ( airlivesec.com )
- Click **OK** to complete the second entry. (Figure 7-10, 7-11)

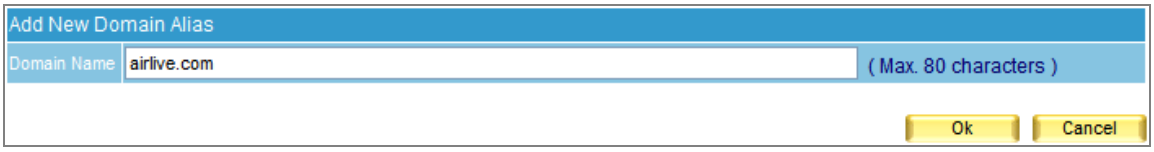



**Figure 7-8 Enter the first entry of domain name**

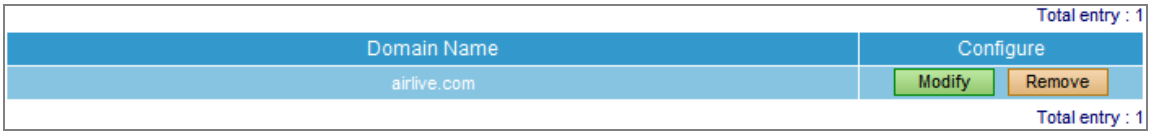



**Figure 7-9 The first entry setup completed**

**Figure 7-10 Enter the second entry of domain name**

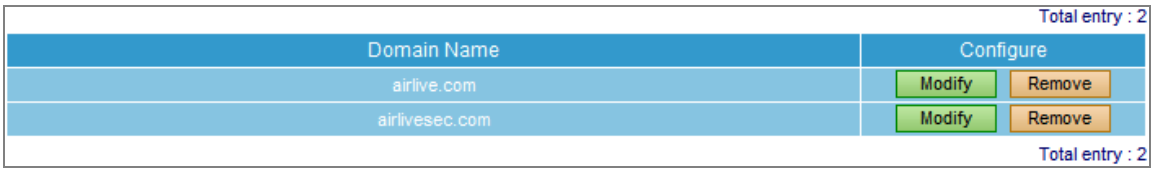



**Figure 7-11 The second entry setup completed**

***Step3.*** When an external sender sends email to Josh the internal user, whether it goes to jacky@airlive.com or jacky@airlivesec.com, the mail will be saved in user Josh's Inbox waiting to be viewed.

### 7.1.4 Mail Relay

### EX. Setting Up Authentic IP and Domain Name for Mail Relay

**Preparation**

**Perimeter Firewall** set as **192.168.0.0 / 24**

**ES-4000V2 Virtual IP Address** set as **192.168.0.248**

**ES-4000V2 Physical IP Address** set as **60.250.158.64**

Map registered domain name “airlive.com” to DNS IP address which is to assign mail server IP to MX record.

***Step1.*** Enable internal senders to send mails, please go to **Mail Management → Configure → Mail Relay** for settings :

- Click **New Entry** to enter the first entry.
- Check **IP Address**. (This enables relay to this IP address)
- **IP address** set as 192.168.0.0
- **Netmask** set as 255.255.255.0
- Click **OK** to complete the first entry. (Figure 7-12, 7-13)
- Click **New Entry** to enter the second entry.
- **IP address** set as 60.250.158.64
- **Netmask** set as 255.255.255.255
- Click **OK** to complete the second entry. (Figure 7-14, 7-15)

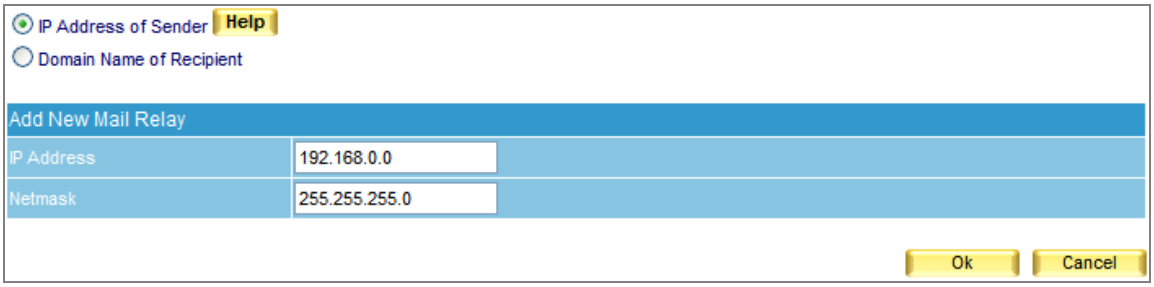



**Figure 7-12 Enter the first entry to enable relay**

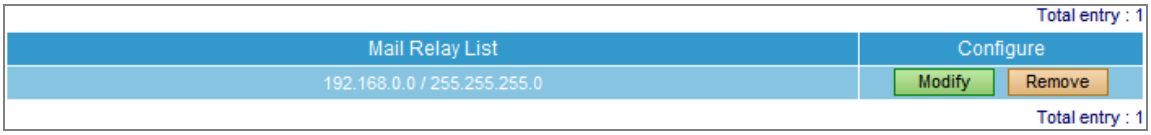



**Figure 7-13 Complete the first entry**

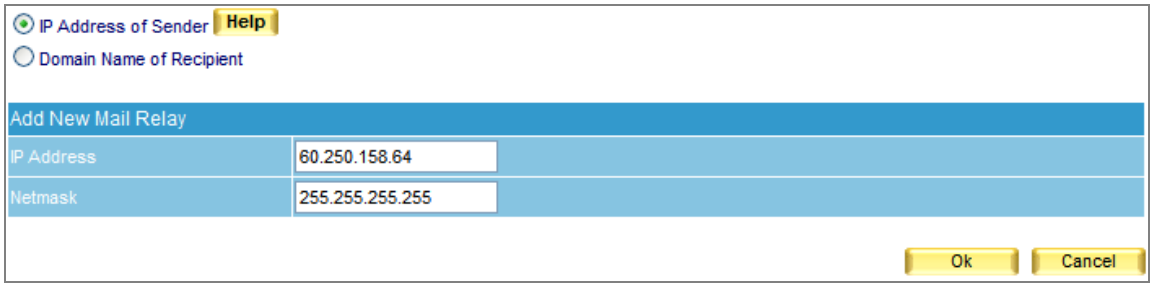



Figure 7-14 Enter the second entry to enable relay

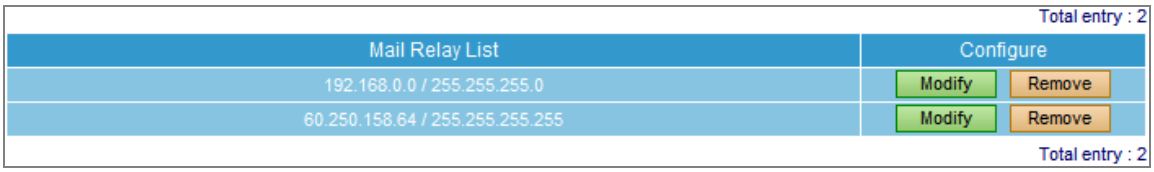



Figure 7-15 Complete the second entry

***Step2.*** Enable external senders to send mails via relay, please go to **Mail Management → Configure → Mail Relay** for settings :

- Click **New Entry**.
- Check **Domain Name**. (This enables relay to this Domain name)
- **Domain Name** set as hotmail.com
- Click **OK** to complete the setup process. (Figure 7-16, 7-17)

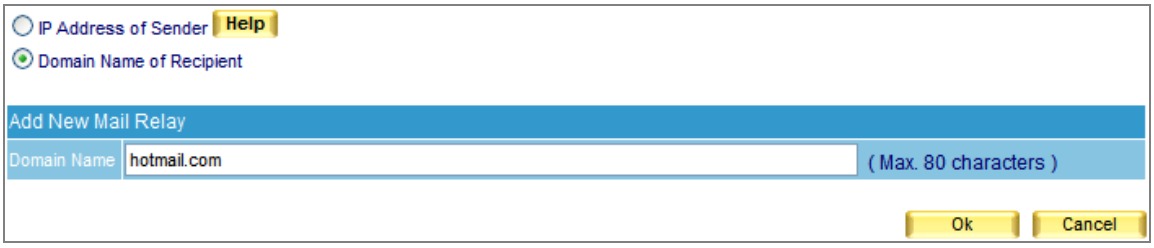



Figure 7-16 Enter an domain name to enable relay

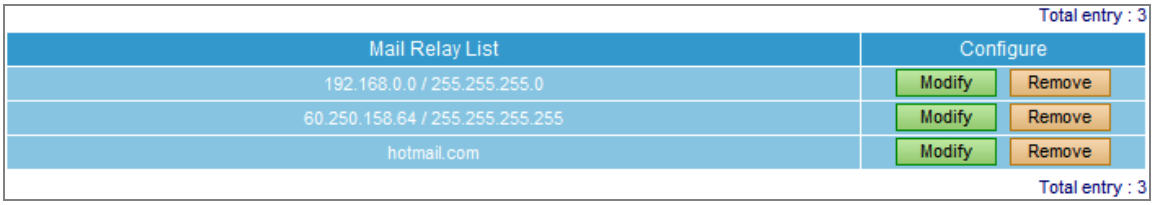



Figure 7-17 Domain name setup completed

When **Local SMTP Authentication** is activated, internal accounts sending mails off-site does not required setting up the **Relay**.

### 7.1.5 Mail Signatures

Enable Mail Signature function will add the signature on all outgoing mails.

***Step1.*** On **Mail Management → Configure → Mail Signature** setting, add a new entry.

- Click **Add signatures to all outgoing messages**.
- Fill in the content you want to publish on the message.
- Press OK to finish the setting. (Figure 7-18)

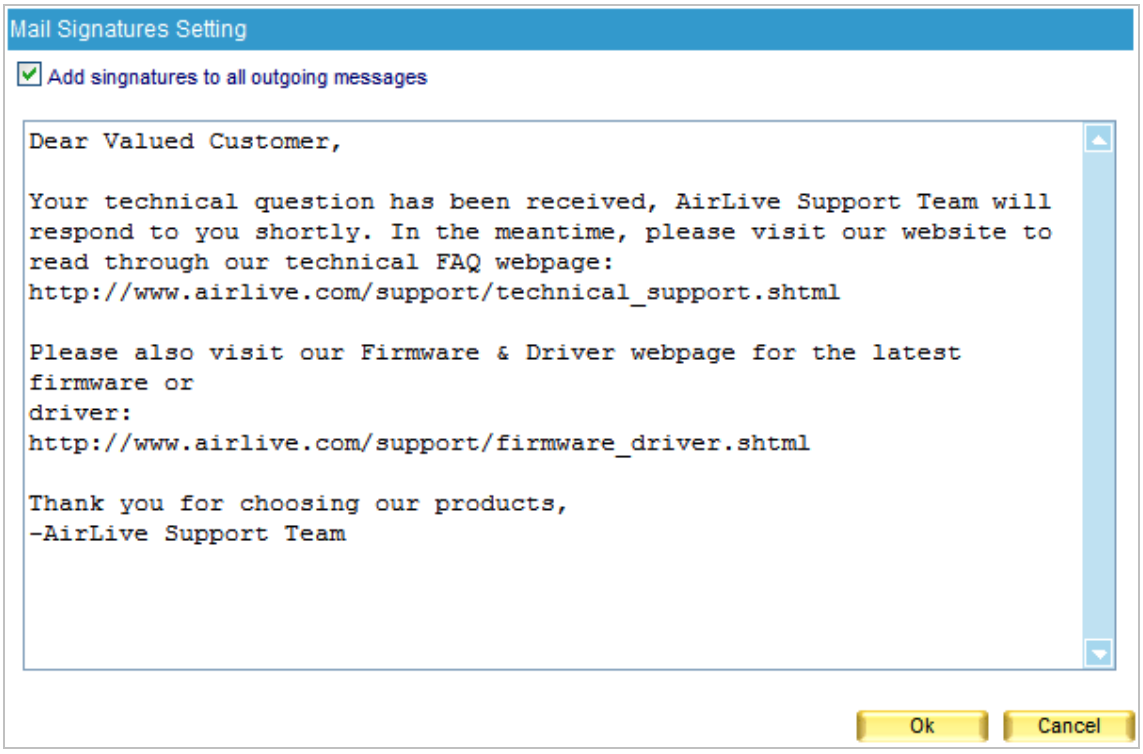



**Figure 7-18 Mail Signature setting**

***Step2.*** User will fine the message on the bottom of mail content for all outgoing mails. (Figure 7-19)

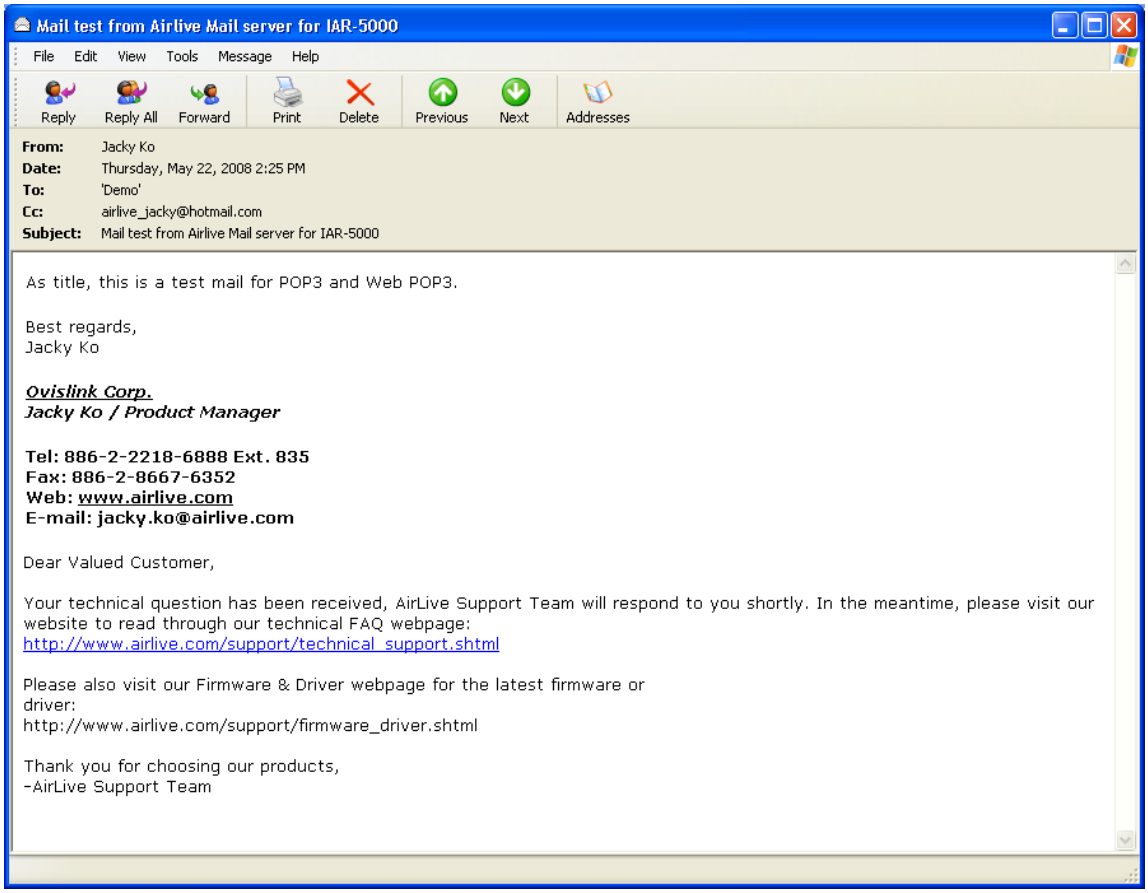



**Figure 7-19 Recipient receives mail with signature**

### 7.1.6 Mail Gateway

**IP Address of Mail Gateway:**

Enter the mail gateway IP address in this column, to let users use some services (for example: mail backup, auditing...) provided by the specific mail gateway.

**Example: Assigning a Mail Server to Process E-Mails from Specific Domains or E-Mail Addresses**

***Step1.*** Decides using which mail server to relay e-mail messages.

***Step2.*** Under **Mail Management > Configure > Mail Gateway**, refer to the steps below to make settings: (Figure 7-20)

- Click **New Entry**.
- Specify of which **Domain Name / Mail Address** is to be relayed.
- Specify a mail server in the **Mail Server IP / Domain Name** field.
- Specify a port number for creating a SMTP connection with the mail server.
- Determine whether to employ SMTP authentication accordingly.
- Click **OK** to complete settings. (Figure 7-21)

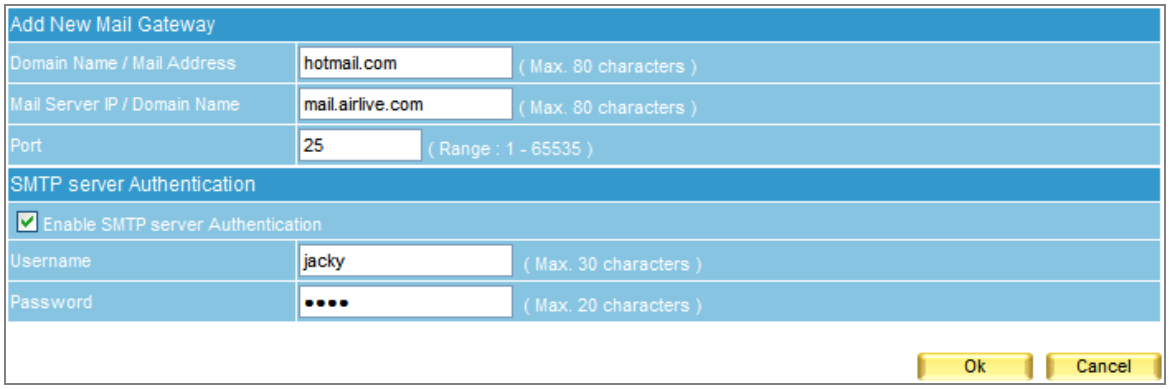



**Figure 7-20 Mail Gateway Settings**

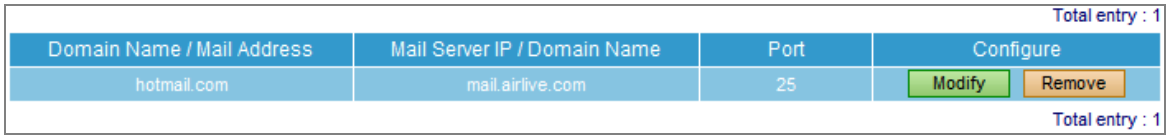



**Figure 7-21 Mail Gateway Setting Completed**

***Step3.*** E-mails sent from the ES-4000V2's mail accounts to the domain name / mail address you specified will be relayed by the mail server you designated

Supposed the **Domain Name / Mail Address** setting is given an asterisk (*), then e-mail delivery to the mail accounts, except for those of ES-4000V2, will be processed by the relay server you designated.

## 7.2 Account Management

The most troublesome step of setting up a mail server is creating e-mail accounts. With approaching like ***Automatically Adding***, ***Query Old / LDAP mail server***, and ***Import*** function, e-mail accounts can be created or transferred in just no time.

### 7.2.1 Setting

◆ **Learning Account Setting:**

Once recipient has logged in ES-4000V2, mail account will automatically be created on ES-4000V2 according to the account and password that has logged in; Or via communicating with the old mail server or the LDAP server, mail account will be imported as an internal account when the authentication is specified.

◆ **Automatically Adding:**

- Check **Automatically Adding**.
- Click **OK**. (Figure 7-22)
- Once recipient has logged in ES-4000V2, an internal account will be immediately created on ES-4000V2 according to recipient's account and password.

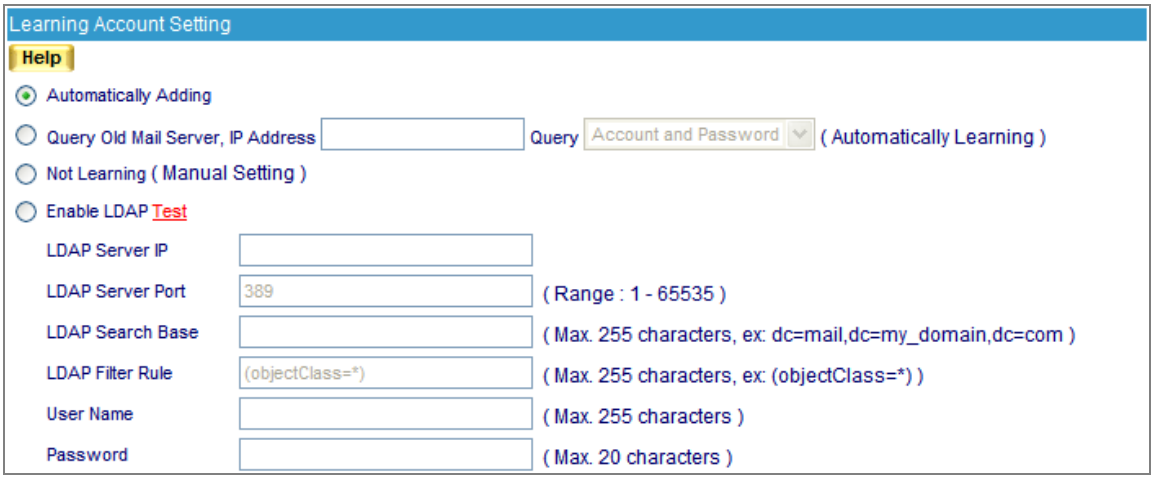



**Figure 7-22 Automatically Adding**

◆ **Query Old Mail Server:**

- Check **Query Old Mail Server** and apply its IP address to the blank field.
- Click **OK**. (Figure 7-23)
- When recipient has logged in ES-4000V2, **with the old mail server's authentication**, mail account will automatically be created on ES-4000V2 according to recipient's account and password. Meanwhile, ES-4000V2 will start to retrieve mails on the old mail server until all mails are all being transferred.

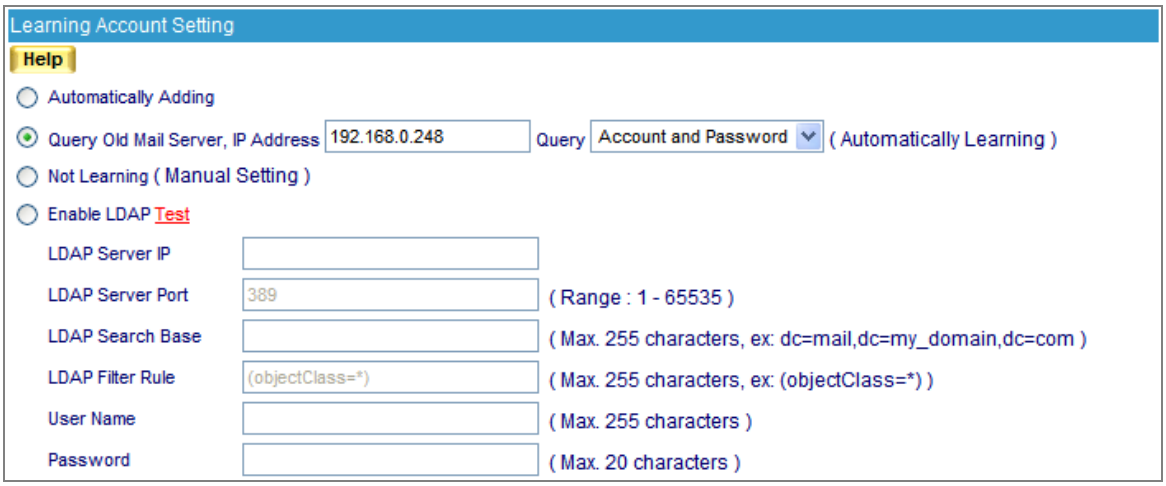



**Figure 7-23 Transfer accounts and mails from old mail server**

- **Not Learning (Manual Setting):**
  - Check **Not Learning**.
  - Click **OK**. (Figure 7-24)
  - ES-4000V2 will not create any account automatically; the mail account must be created by manually.

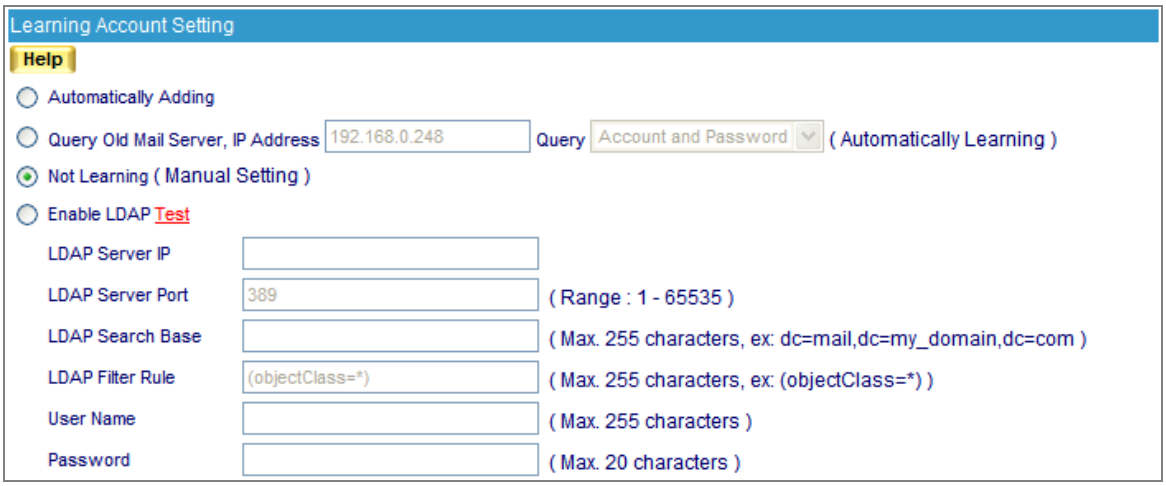



**Figure 7-24 Not Learning**

◆ **Import Account from LDAP server:**

- Check **Enable LDAP** and apply correlative addresses and settings.
- Click **OK**. (Figure 7-25)
- When recipient has logged in ES-4000V2, **with the LDAP mail server's authentication**, mail account will automatically be created on ES-4000V2 according to recipient's account and password.

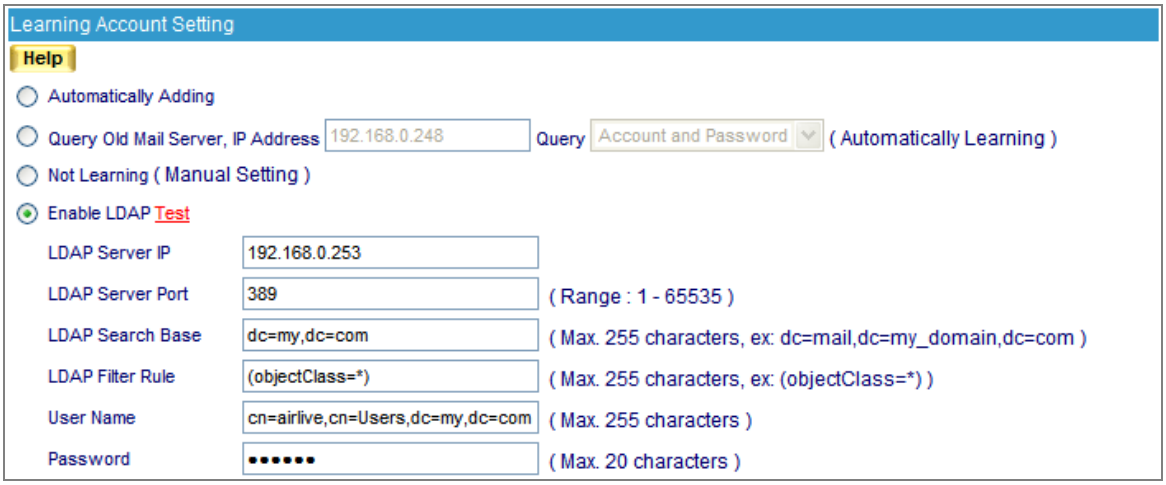



**Figure 7-25 Using LDAP authentication to create new account**

◆ **Default Settings for New Account:**

Configure **Default Value of New Account** to define the default setting for each new account. (Figure 7-26)

- **Web Mail**, **POP3**, **IMAP**, **SMTP Inbound**, **SMTP Outbound:** Enable
- **Maximum Mail Box Quota for New Account**: 100MB (Inbox set as 50 MB)
- **Maximum Web Disk Quota for New Account** : 100MB
- **Maximum Message Size of a Mail** : 10MB

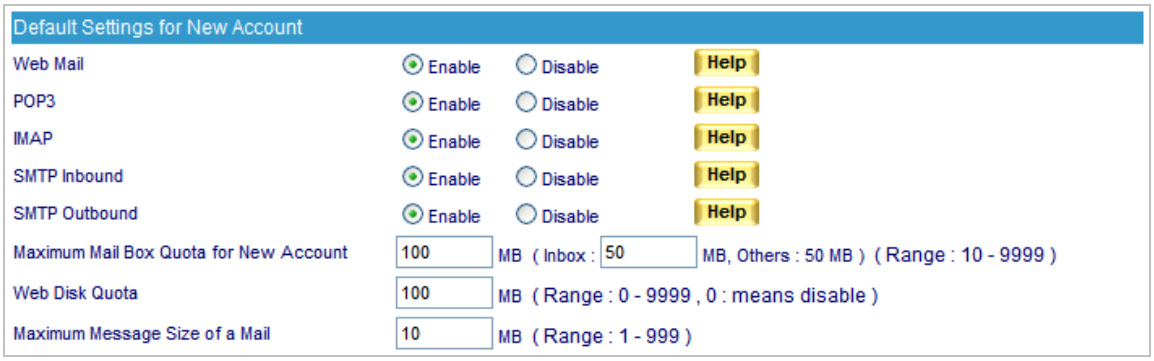



**Figure 7-26 Configure Default Value of New Account**

### 7.2.2 Individual

**Definition:**

◆ **Export Account:**

To export exist accounts for backup and rearrangement, please go to **Mail Management → Account Management → Individual**:

- Click **Download** next to **Export Account**.
- Click **Save** in the confirmation dialogue box, then select folder for storage, after that, click **Save**. (Figure 7-27)

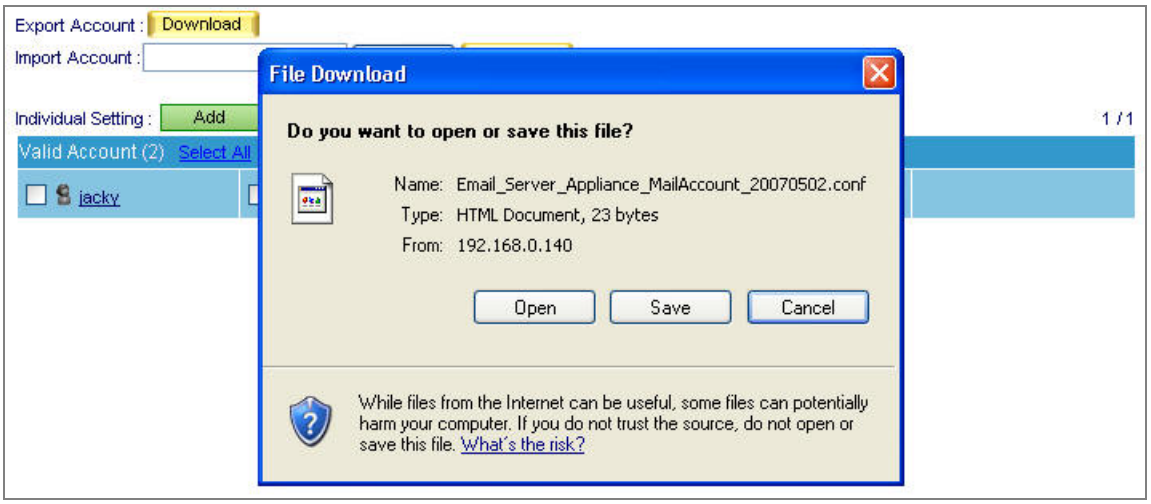



**Figure 7-27 Export existed accounts**

◆ **Import Account:**

To use arranged account list, go to **Mail Management → Account Management → Individual**:

- Click **Browse** to select the folder where the account list file is saved, then click **Upload**. (Figure 7-28)
- Choose file type in the **Import File Type** window, and then click **Upload**. (Figure 7-29)
- Click **OK** in the confirmation dialogue box to complete import. (Figure 7-30)

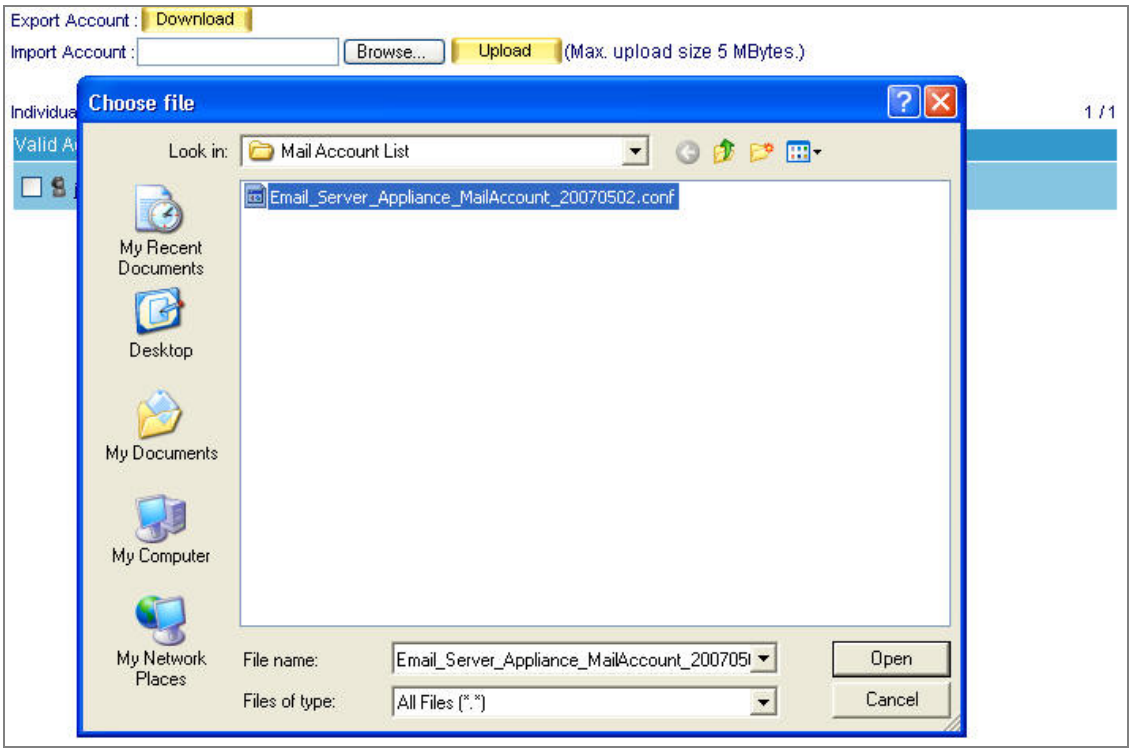



Figure 7-28 Choose account list file to import

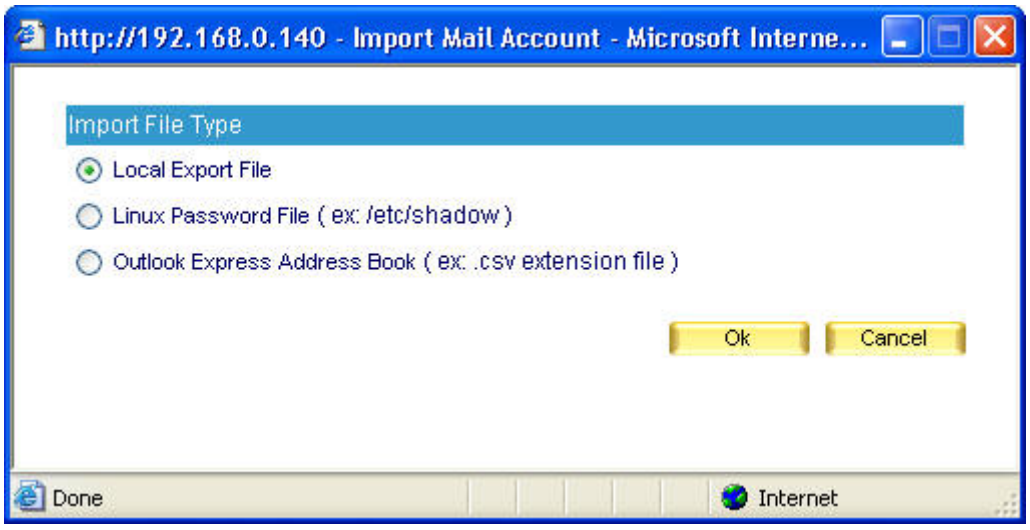



Figure 7-29 Choose import file type

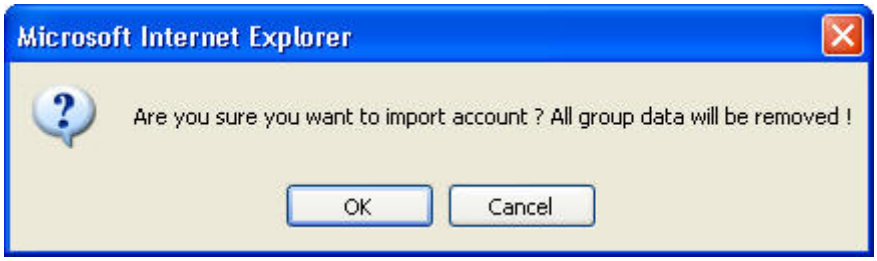



Figure 7-30 Confirm to import accounts

◆ **Individual Setting:**

To adjust individual setting, please go to **Mail Management → Account Management → Individual**:

- Click Add to Individual Setting.
- Enter account information in the Add New Account window. (Figure 7-31)
- Click OK to complete adding new account. (Figure 7-32)
- Check unwanted account, and then click **Remove** next to **Individual Setting.**
- Click **OK** in the confirmation dialogue box. (Figure 7-33)

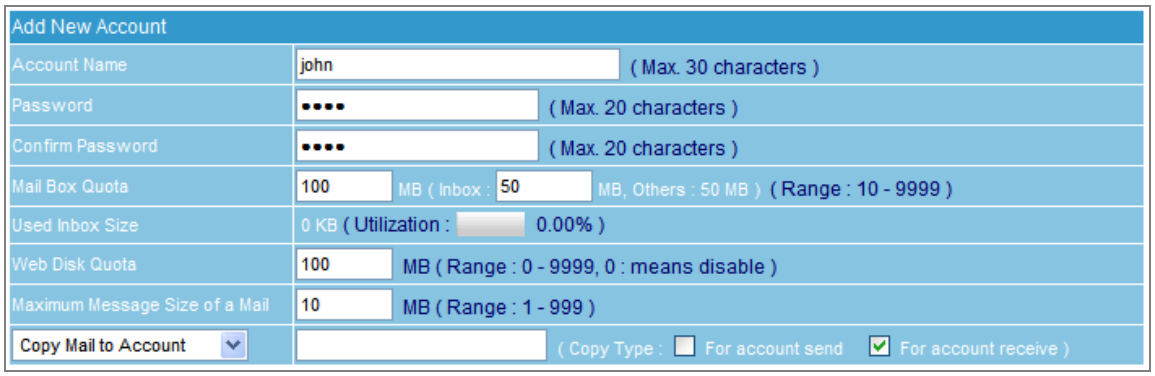



**Figure 7-31 Add a new account**

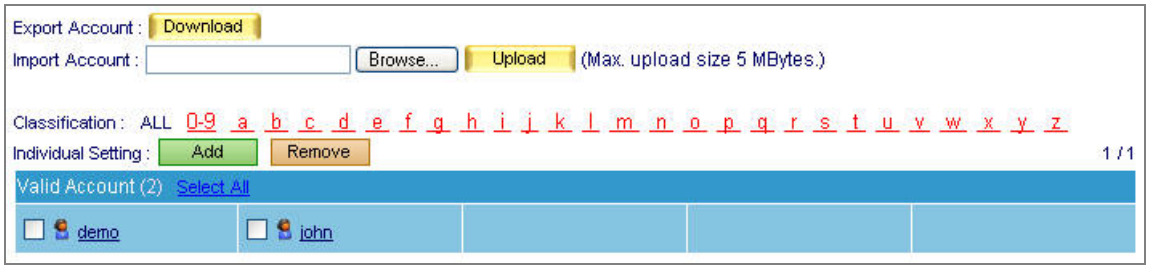



**Figure 7-32 New account is added**

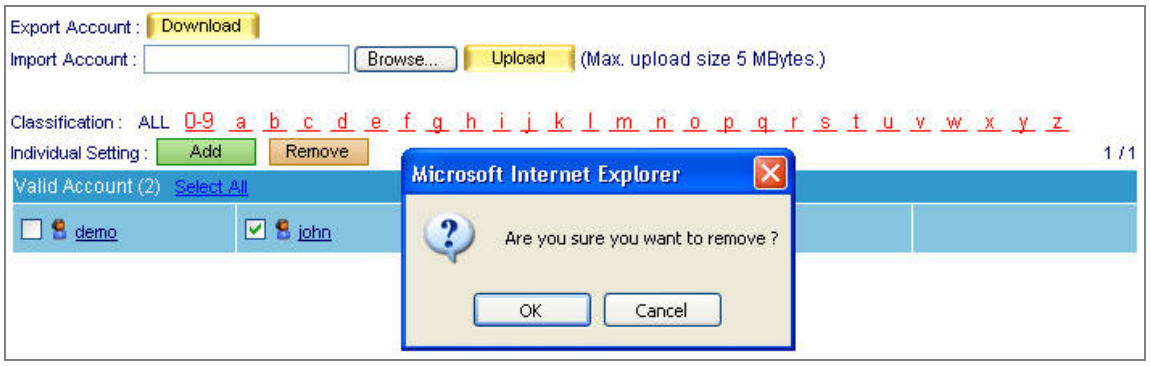



**Figure 7-33 Remove an account**

Auditing specific account can be achieved by forwarding or duplicating every mail into an assigned mailbox.

User can find the user quickly with Classification function. Just click the first letter of name and it will display the account list started with specific letter.

### 7.2.3 Group

In the path of **Mail Management → Account Management → Group**, set as followed:

- Click **Add** next to **Group Setting**.
- Name the group and select group member, then click the lower right **OK** in the **Add New Group** screen. (Figure 7-34, 7-35)
- Mails that go to a group account will be distributed to each group member.

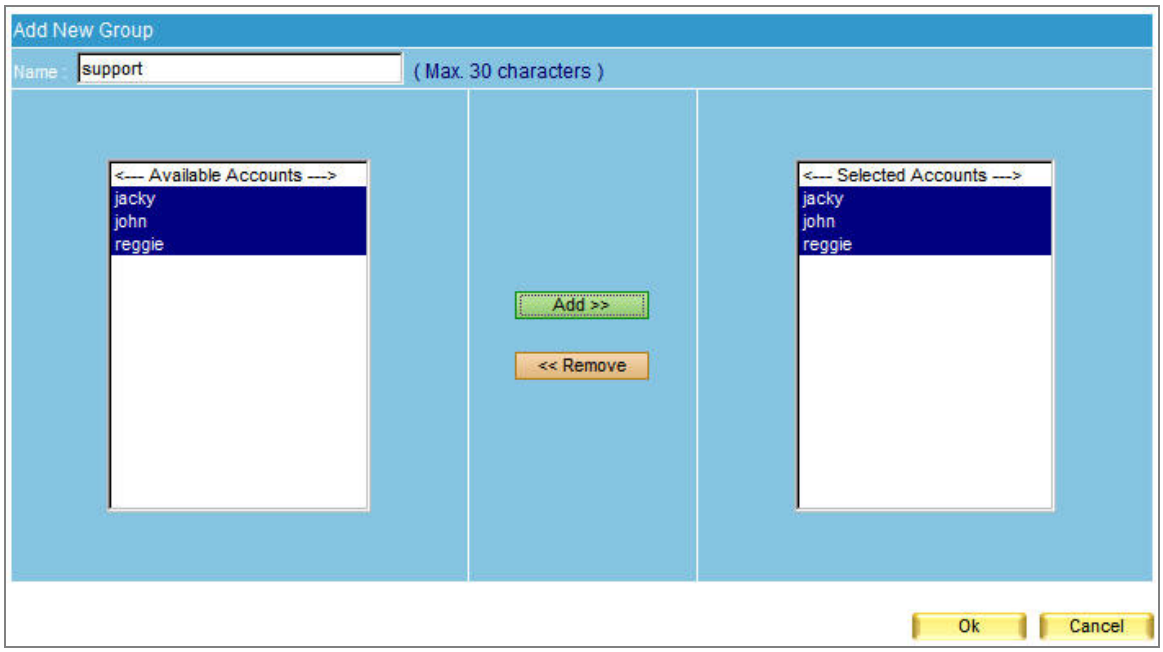



**Figure 7-34 Add new group**

**Figure 7-35 Complete forming a group**

### 7.2.4 Shared Address Book

User can search the target via Name, E-mail Address, Company Name, Office Name, and Job Title, and find out the matched one in ES-4000V2 Shared Address Book records.

◆ **Export Address Book:**

To export the address book, go to **Mail Management → Account Management → Shared Address Book**:

- Click **Download** next to Export Account Book.
- Click **Save** in the confirmation dialogue box, then select folder for storage, after that, click **Save**. (Figure 7-36)

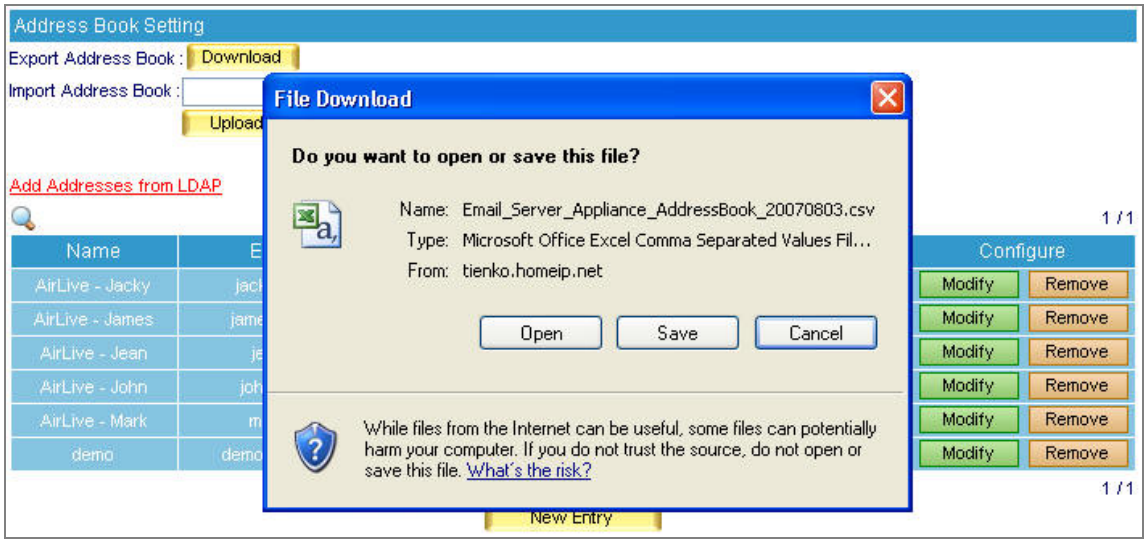



**Figure 7-36 Export Address Book**

System administrator may add detailed information to each contact in **Shared Address Book**.

◆ **Import Address Book:**

To import Address book, go to **Mail Management → Account Management → Shared Address Book**:

- Click **Browse** to select the folder where the account list file is saved, then click **Open**. (Figure 7-37)
- Choose file type in the **Import File Type** window, and then click **Upload**.
- Click **OK** in the confirmation dialogue box to complete import. (Figure 7-38)

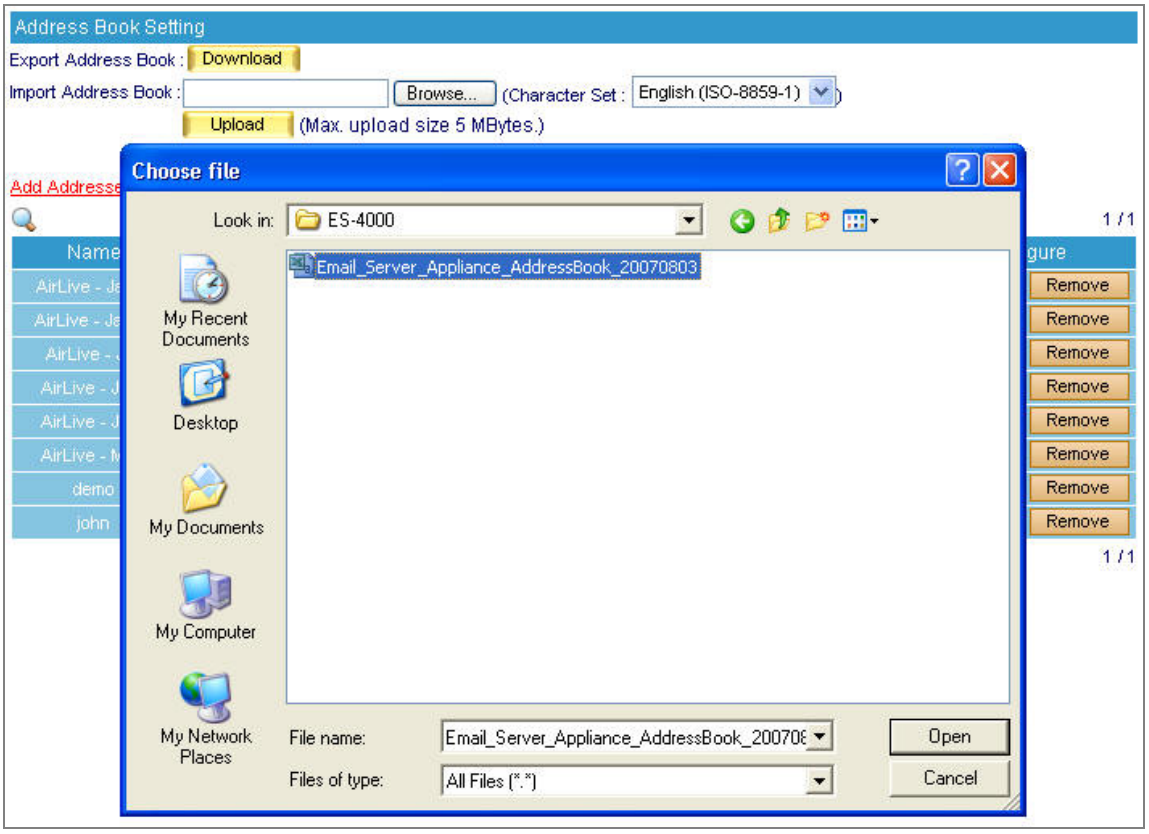



**Figure 7-37 Choose file to import Address Book**

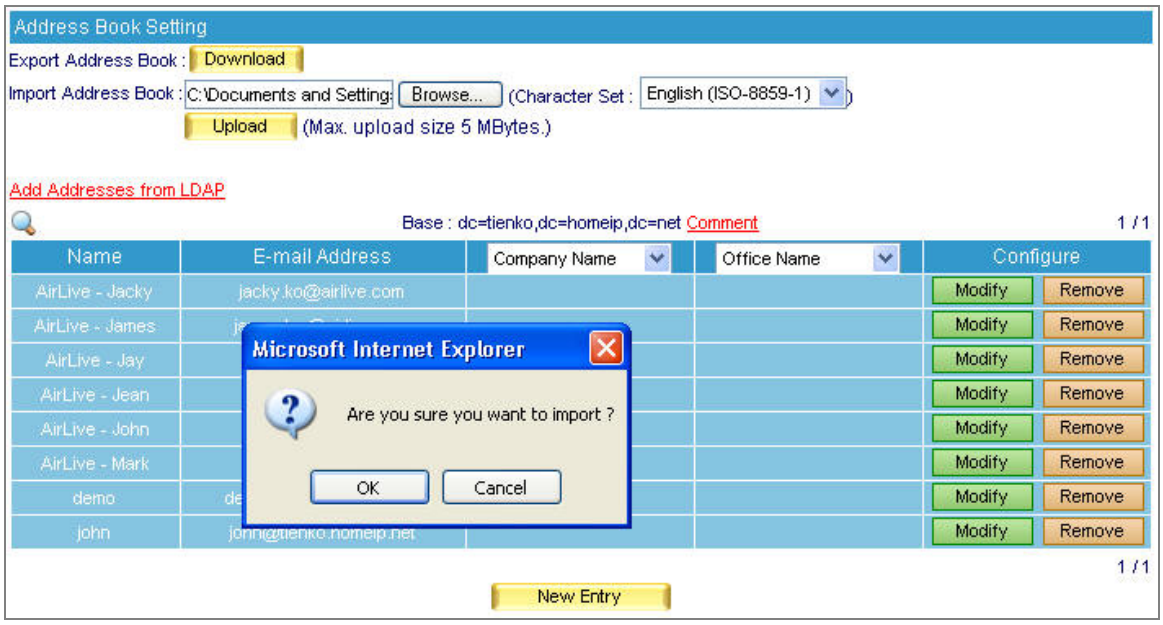



**Figure 7-38 Confirm to import Address Book**

◆ **Import Address Book from LDAP Server:**

To add contacts from a LDAP server, select **Mail Management → Account Management → Shared Address Book** and then set as below:

- Click on the hyperlink **Add Addresses from LDAP**, then enter all the necessary information in the pop-up window. (Figure 7-39)
- After finishing filling in each field, click **OK** to complete importing addresses from a LDAP server. (Figure 7-40)

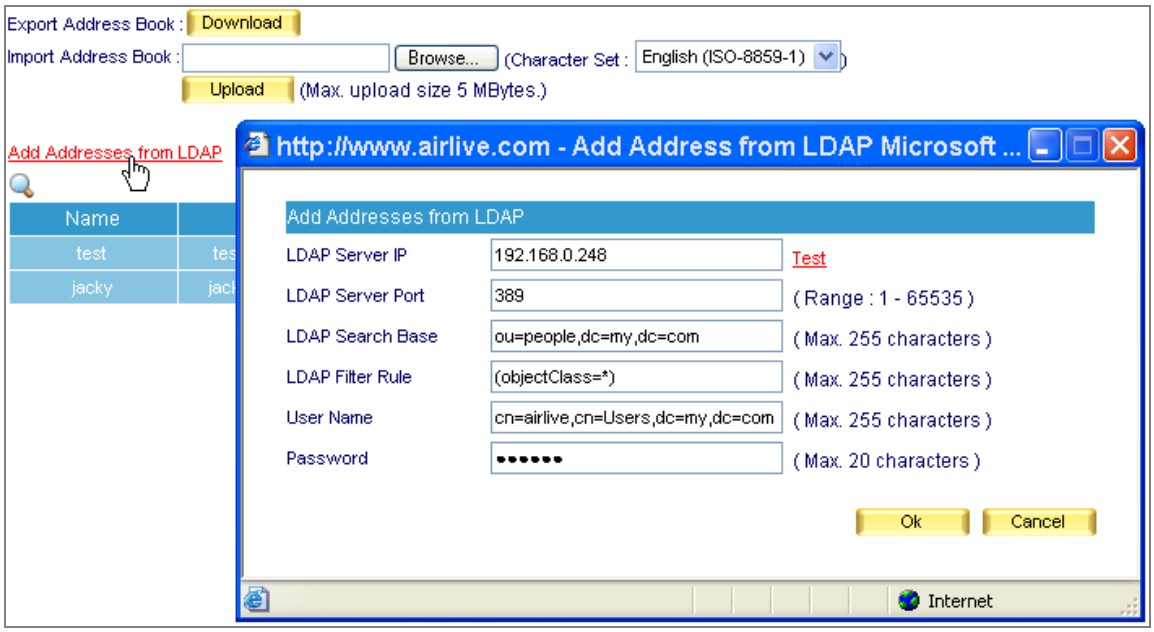



**Figure 7-39 Importing Contacts from a LDAP Server**

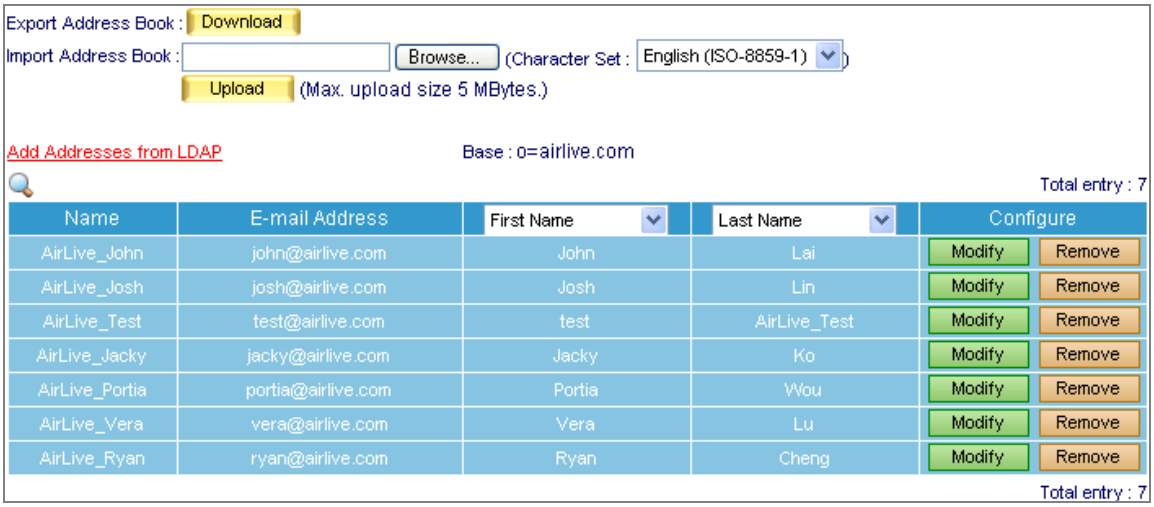
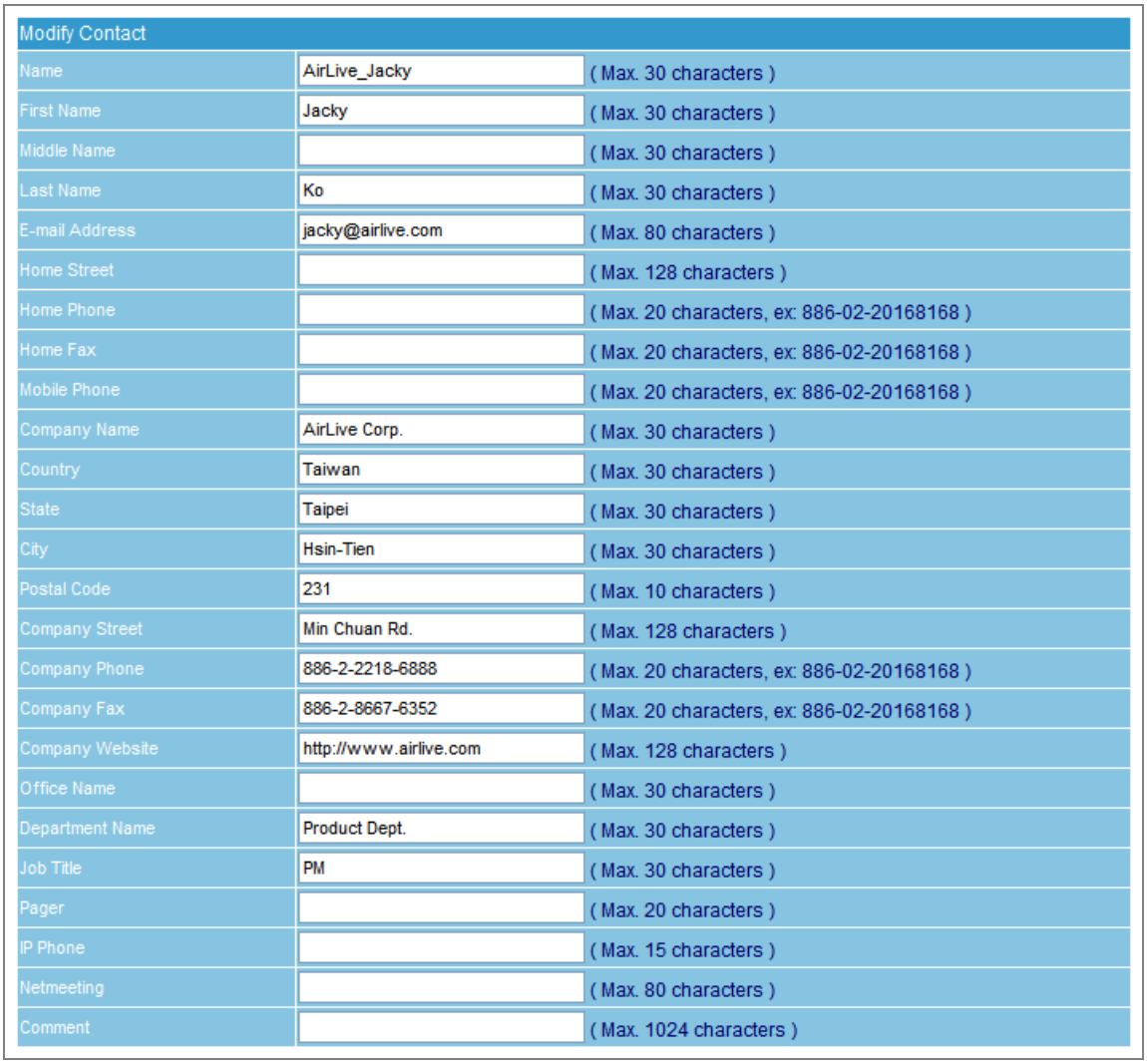



**Figure 7-40 Contacts Imported from LDAP server**

◆ **Modify Address Book from LDAP Server:**

To add or modify Address books information:

- Click on **New Entry** on the bottom.
- In the **Add Contact** screen, fill out the contact's information. (Figure 7-41)
- Click **OK** to complete adding new contact. (Figure 7-42)
- Remove the unwanted contact by clicking **Remove** button.
- Click **OK** in the dialogue box to confirm deletion. (Figure 7-43)



| Modify Contact | | |
|---|---|---|
| Name | AirLive_Jacky | ( Max. 30 characters ) |
| First Name | Jacky | ( Max. 30 characters ) |
| Middle Name | | ( Max. 30 characters ) |
| Last Name | Ko | ( Max. 30 characters ) |
| E-mail Address | jacky@airlive.com | ( Max. 80 characters ) |
| Home Street | | ( Max. 128 characters ) |
| Home Phone | | ( Max. 20 characters, ex: 886-02-20168168 ) |
| Home Fax | | ( Max. 20 characters, ex: 886-02-20168168 ) |
| Mobile Phone | | ( Max. 20 characters, ex: 886-02-20168168 ) |
| Company Name | AirLive Corp. | ( Max. 30 characters ) |
| Country | Taiwan | ( Max. 30 characters ) |
| State | Taipei | ( Max. 30 characters ) |
| City | Hsin-Tien | ( Max. 30 characters ) |
| Postal Code | 231 | ( Max. 10 characters ) |
| Company Street | Min Chuan Rd. | ( Max. 128 characters ) |
| Company Phone | 886-2-2218-6888 | ( Max. 20 characters, ex: 886-02-20168168 ) |
| Company Fax | 886-2-8667-6352 | ( Max. 20 characters, ex: 886-02-20168168 ) |
| Company Website | http://www.airlive.com | ( Max. 128 characters ) |
| Office Name | | ( Max. 30 characters ) |
| Department Name | Product Dept. | ( Max. 30 characters ) |
| Job Title | PM | ( Max. 30 characters ) |
| Pager | | ( Max. 20 characters ) |
| IP Phone | | ( Max. 15 characters ) |
| Netmeeting | | ( Max. 80 characters ) |
| Comment | | ( Max. 1024 characters ) |

**Figure 7-41 Adding a Contact**

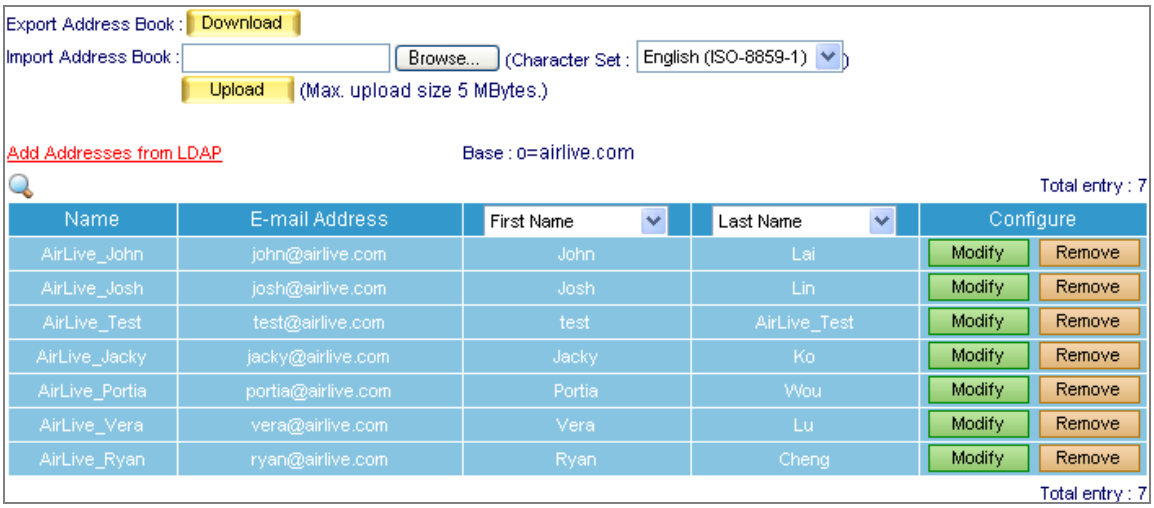



**Figure 7-42 New Contact Added**

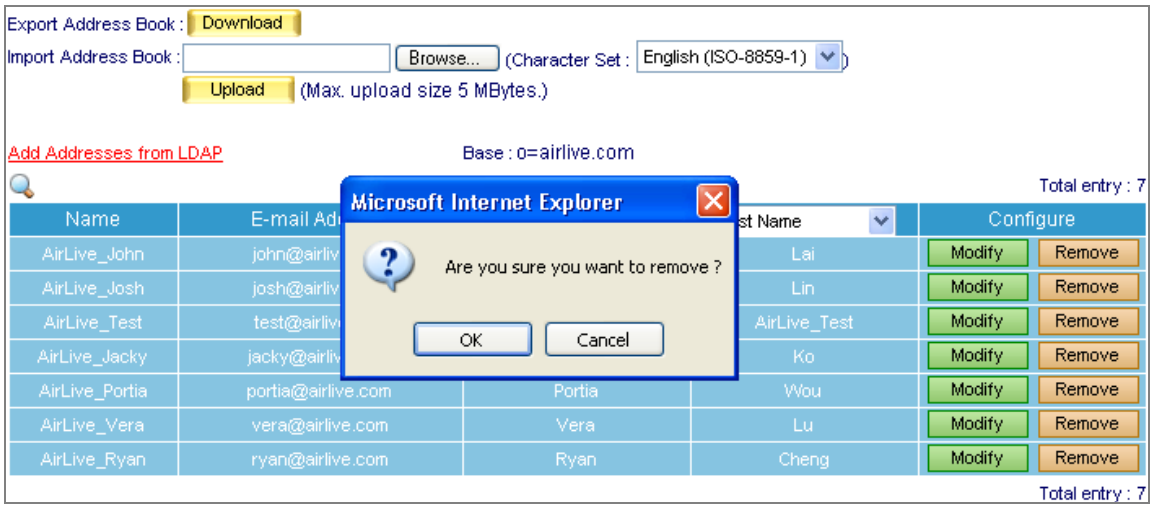



**Figure 7-43 Removing a Contact**

◆ **Search Address Book:**

- Go to **Mail Management → Account Management → Shared Address Book**
- Click the search icon
- Type keyword in the column of **"E-Mail Address**".
- Press Search button
- Display the searching result. (Figure 7-44)

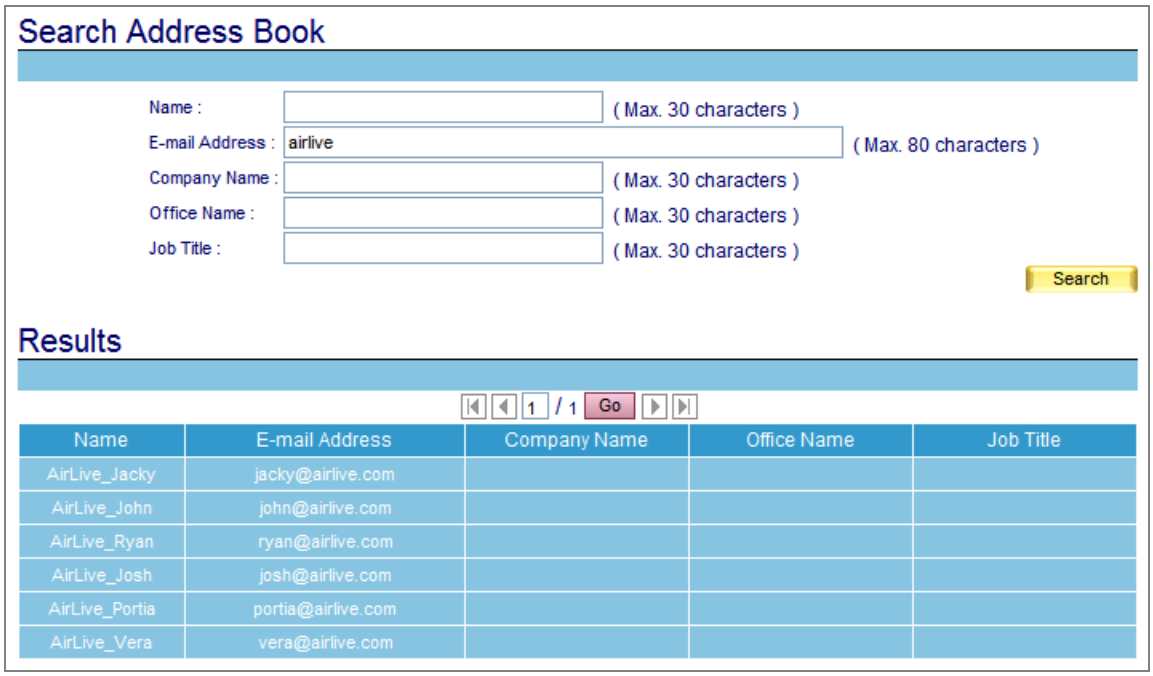



**Figure 7-44 Address Book searching result**

When you create ES-4000V2 mail account, it will also create a copy in Shared Address Book.

User can choose two displayed item in Shared Address Book list, the items include First Name, Middle Name, Last Name, Home Street, Home Phone, Home Fax, Mobile Phone, Company Name, Country, State, City, Postal Code, Company Street, Company Phone, Company Fax, Company Website, Office Name, Department Name, Job Title, Pager, IP Phone, and Netmeeting.

◆ **Search user mail address via Outlook Express:**

Shared Address Book is not only co-worked with ES-4000V2 Web Mail, user's mail address also can be searched by Mail client software. We take Outlook Express as example to demonstrate how to search:

- Open Outlook Express **Address Book**. (Figure 7-45)
- Select **Main Identity's Contacts → Tools → Accounts…** function. (Figure 7-46)
- Press **Add…** button and follow the wizard to configure setting.
  (Figure 7-47, 7-48, 7-49, 7-50)
- Select the new created Internet account and press **Properties…** button.
  (Figure 7-51)
- Highlight and copy ES-4000V2 Shared Address Book LDAP directory. (Figure 7-52)
- Paste ES-4000V2 LDAP directory to Advanced setting, click OK and close the setting (Figure 7-53)
- Press Find People button and the windows will show up to allow user searching target. User can also specify the condition to search the specific target.
  (Figure 7-54, 7-55)

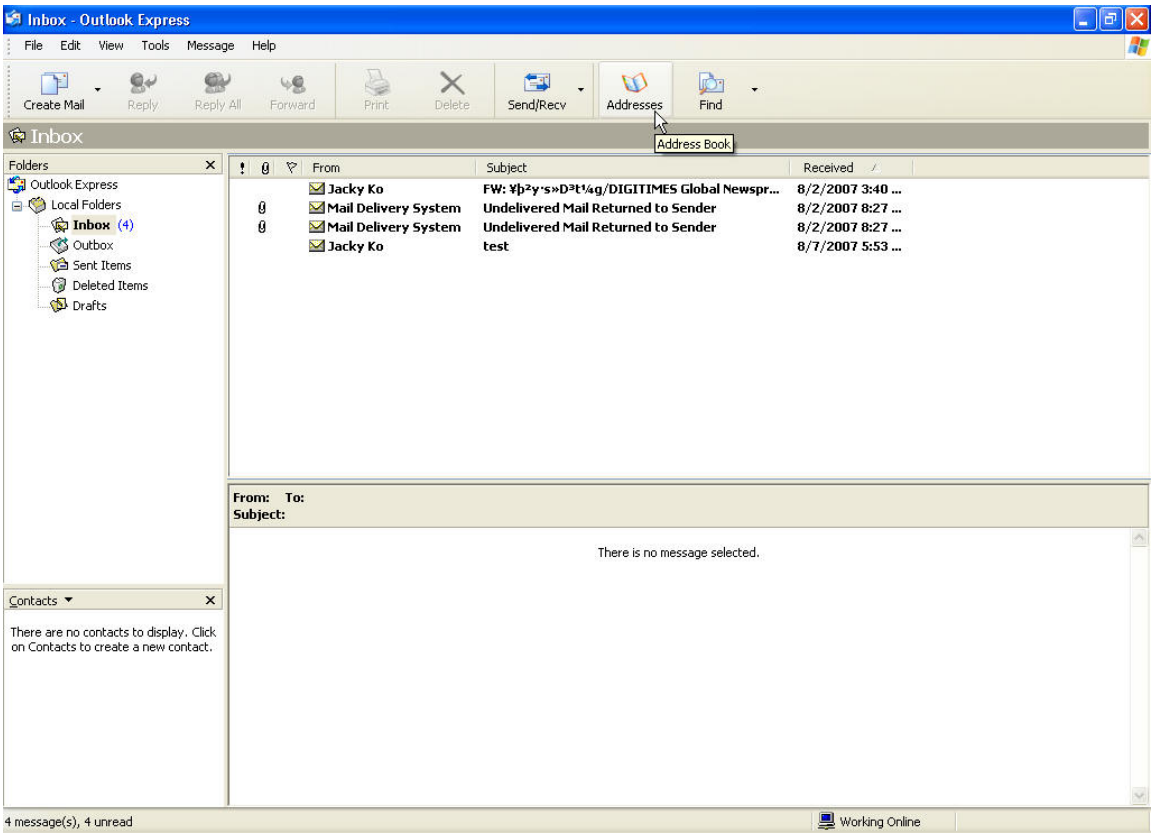



**Figure 7-45 Open Outlook Express Address Book**

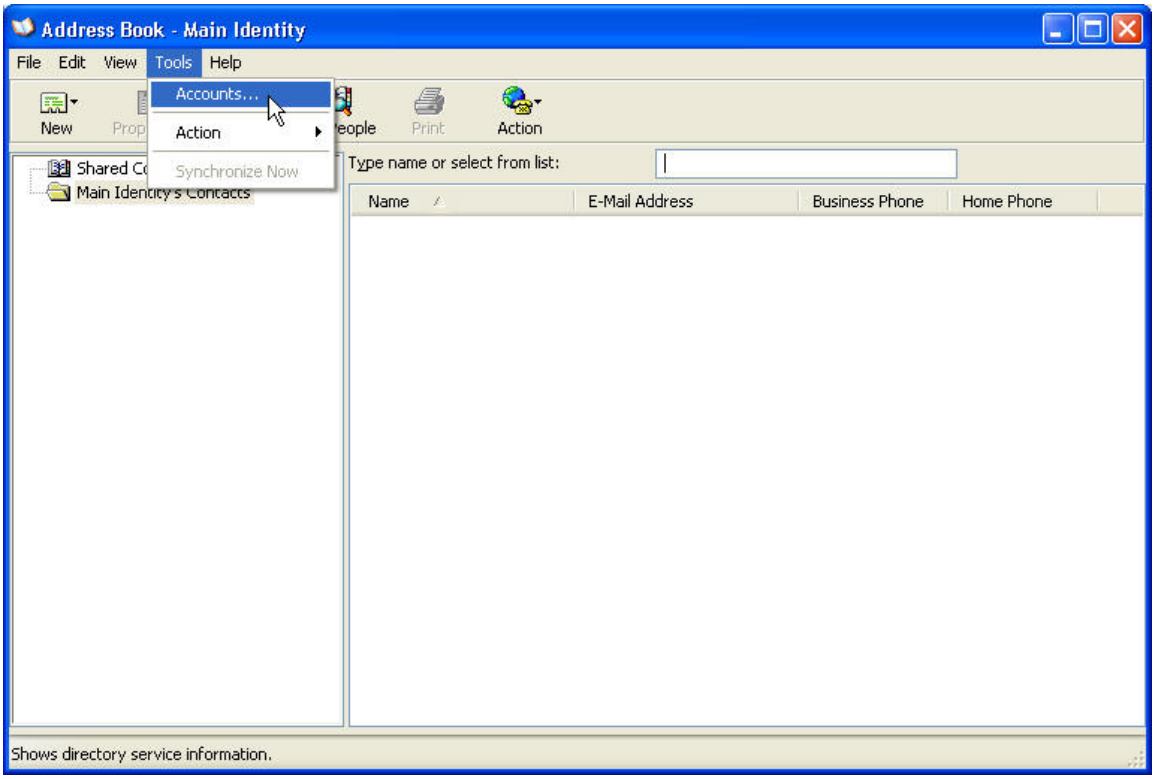



Figure 7-46 Open Internet Accounts managed windows

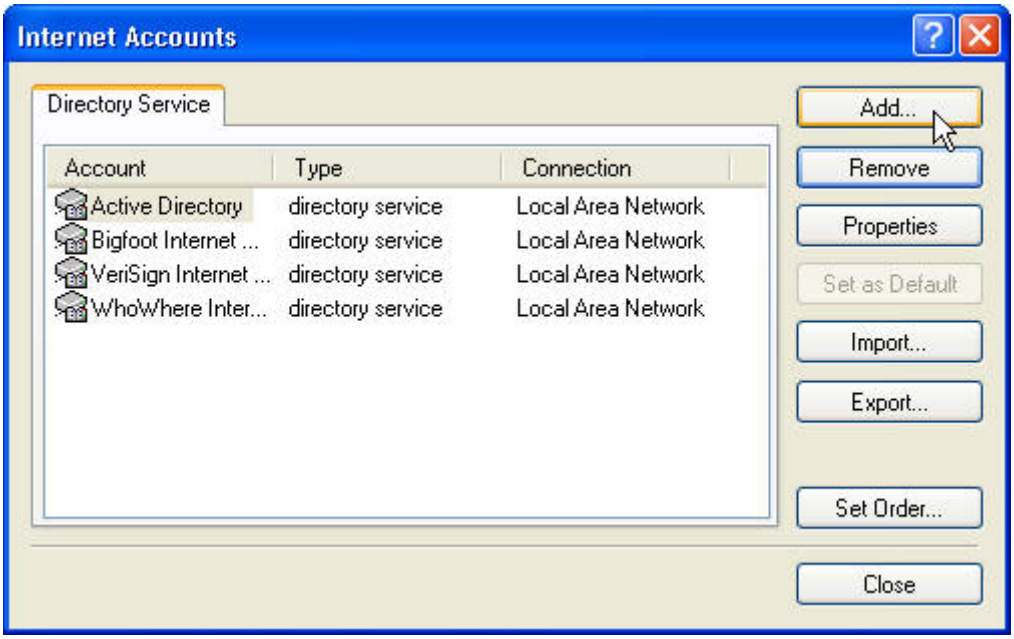



Figure 7-47 Create new Internet Account

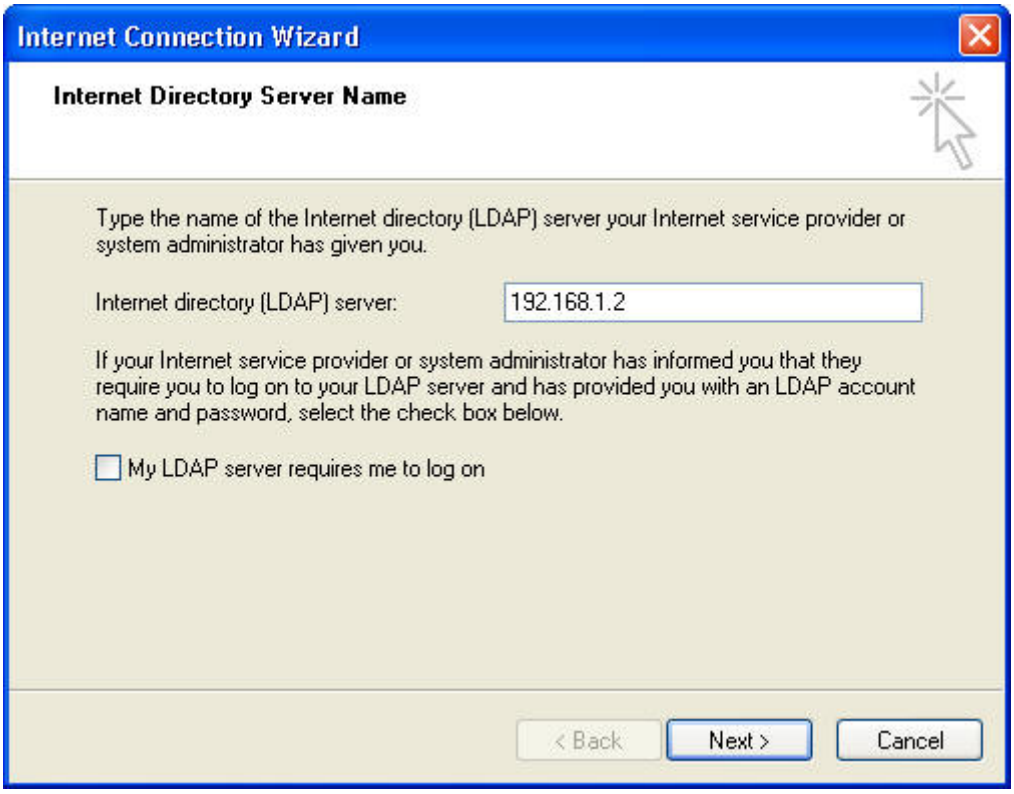



**Figure 7-48 Define LDAP server IP address**

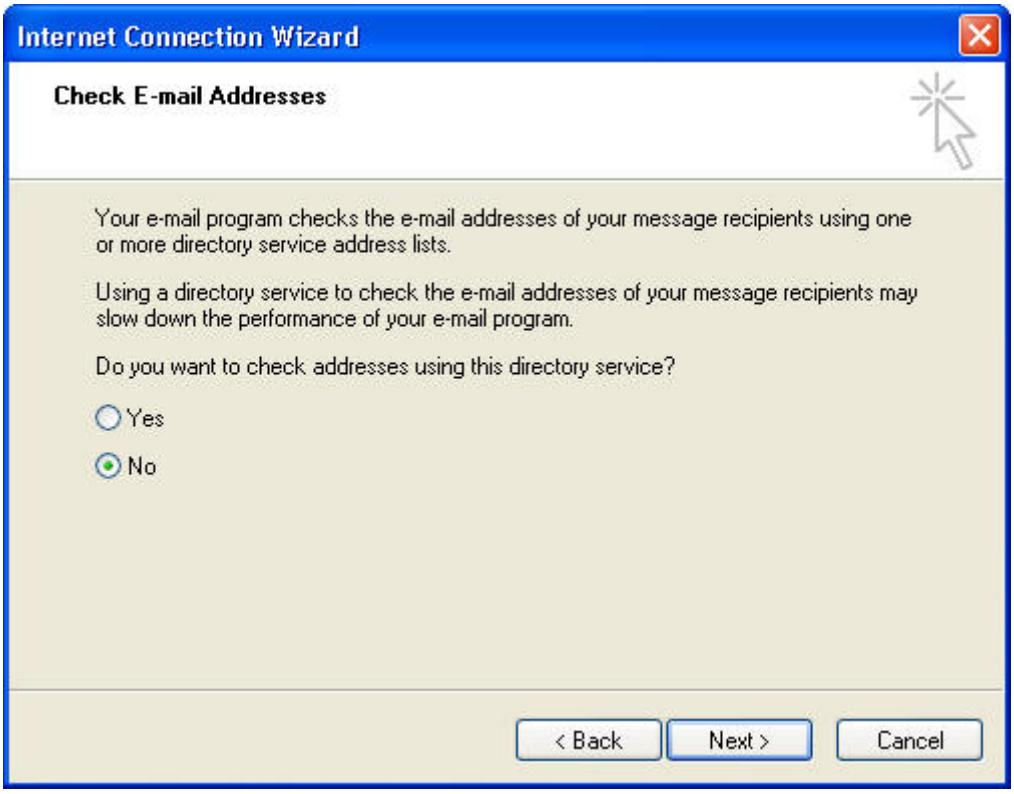



**Figure 7-49 Do not check Email Address due to the setting is incomplete**

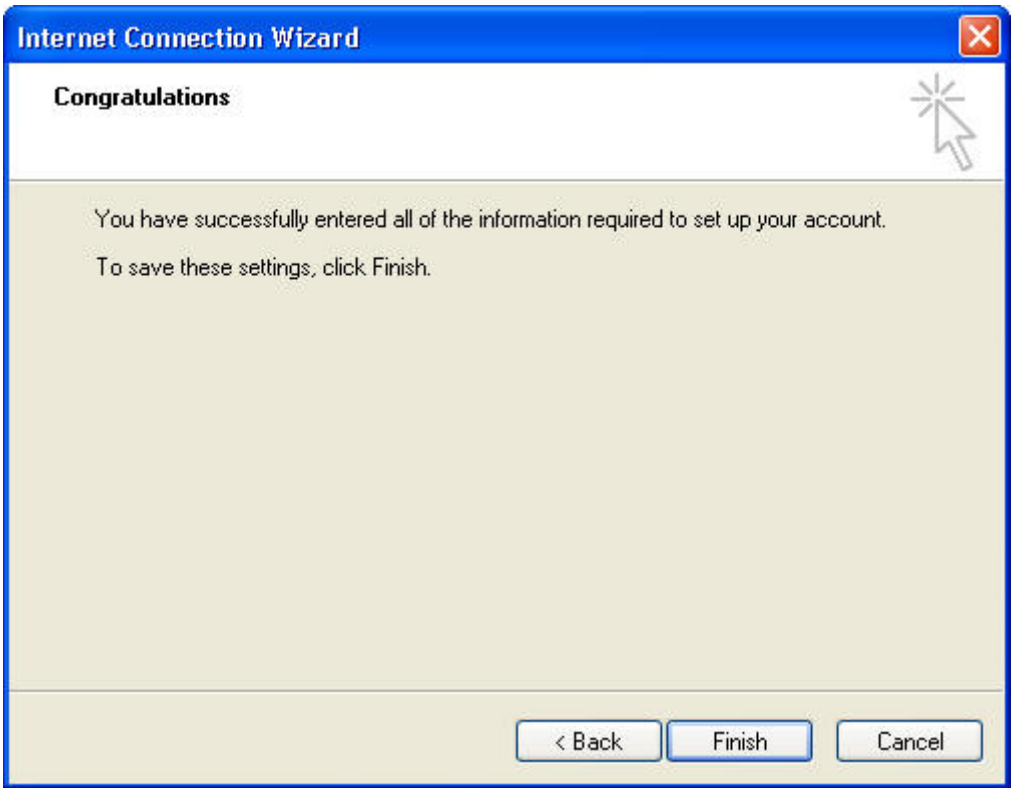



Figure 7-50 Click Finish to complete the setting

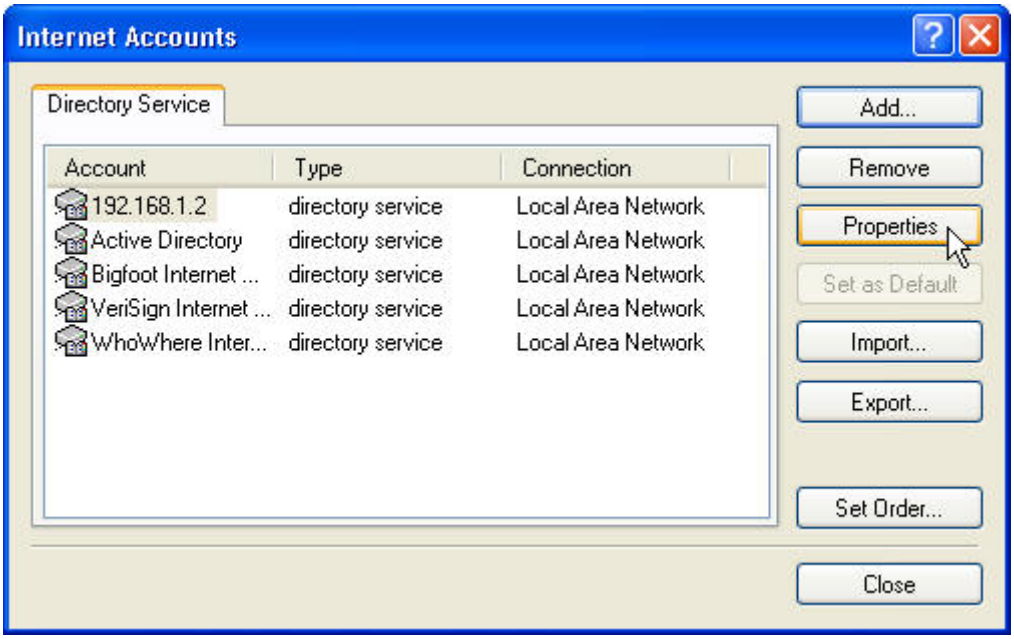



Figure 7-51 Select new created Internet Account and Click Properties for more setting

Figure 7-52 Highlight and copy ES-4000V2Shared Address Book LDAP directory

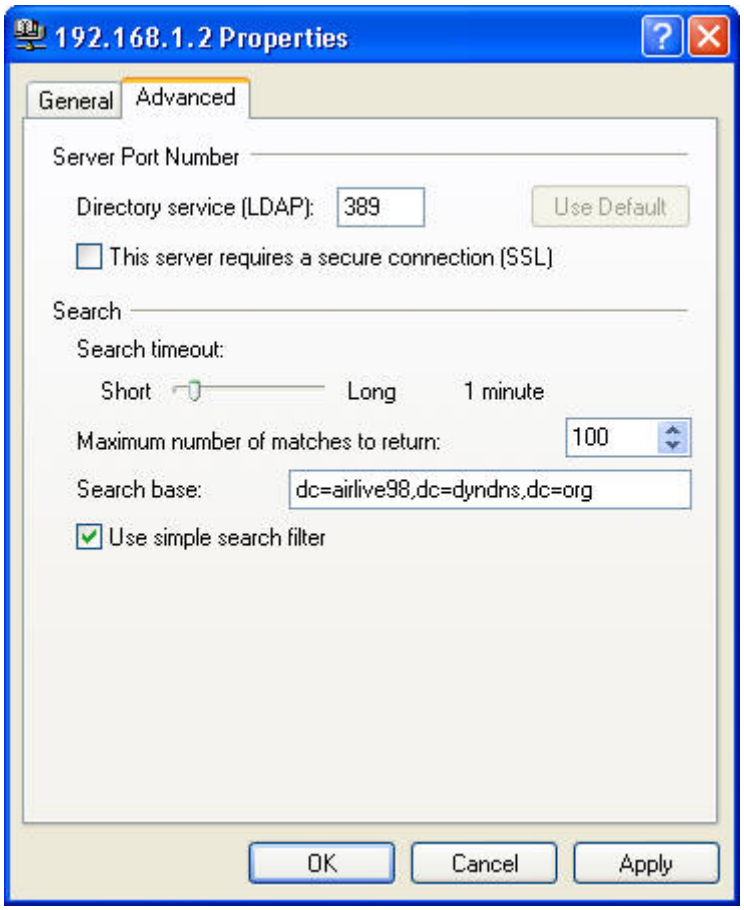



Figure 7-53 Configure LDAP server Advanced setting

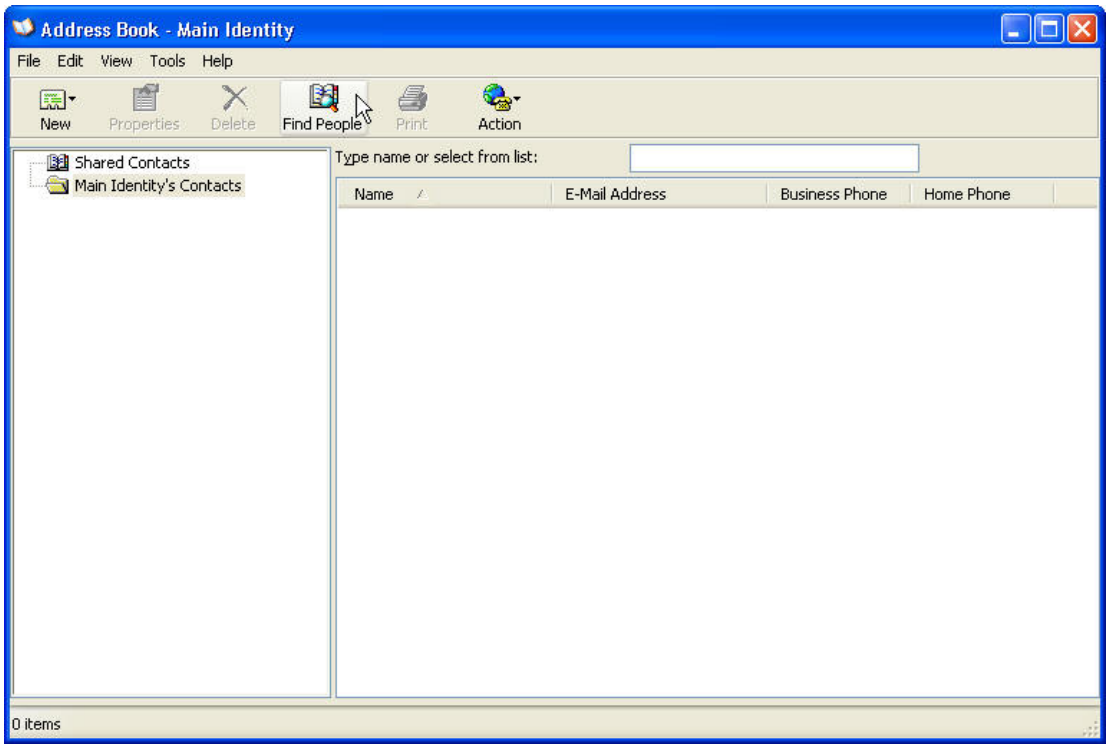



Figure 7-54 Press Find People button to search target

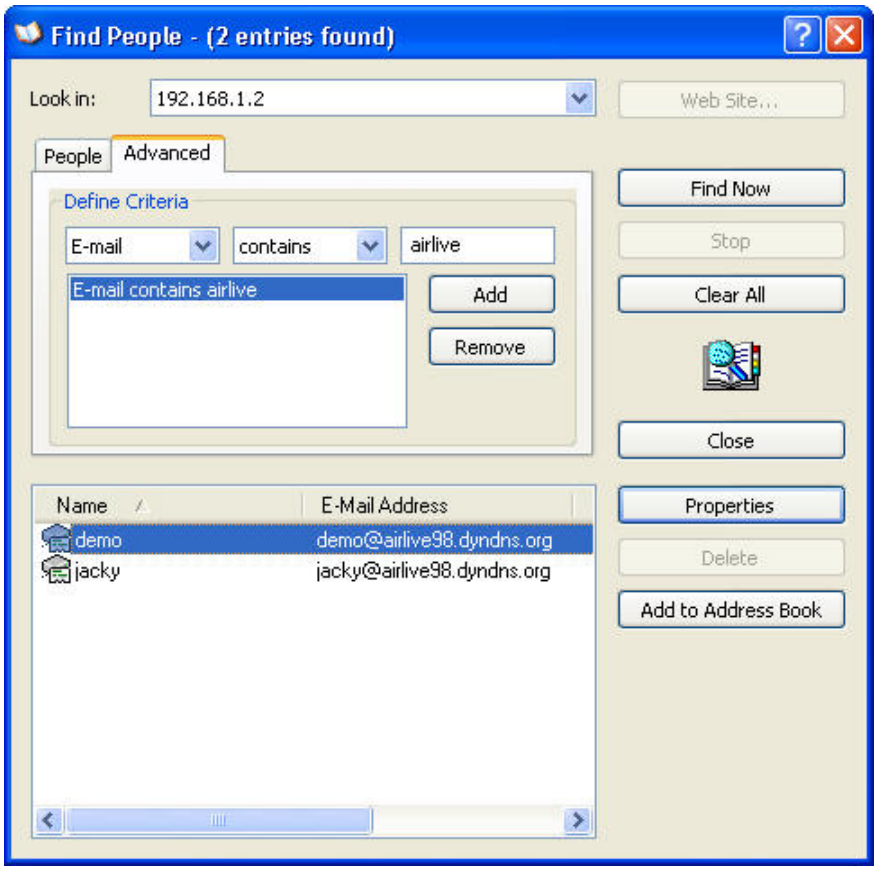



Figure 7-55 Select Advanced to define the searching condition and find the target

## 7.3 Queue

Detailed delivery status is available for MIS engineer to have a better understanding and be able to react to it on the spot.

### Monitoring Mail Delivery Status, Responding on the Spot

***Step1.*** Go to **Mail Management → Configure → Setting → Mail Setting**, set as followed:

- Set **Max. Lifetime of a Mail in Queue** as 4 hours. (Figure 7-56)
- When delivery is failed, system will keep trying to resend the mail to recipient periodically in the storage time.

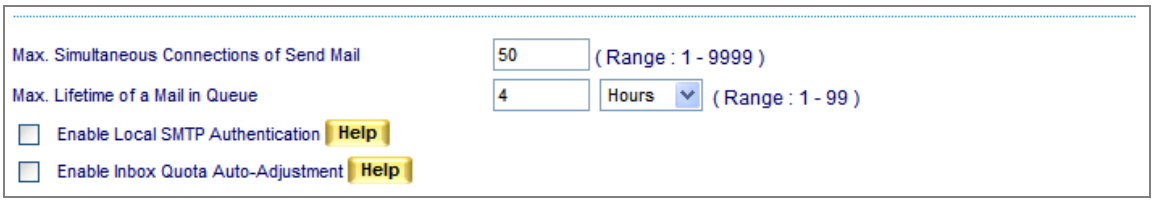



**Figure 7-56 Maximum lifetime of a mail in queue**

***Step2.*** Go to **Mail Management → Queue → Unsent Mail**, mail status is always obtainable:

- When delivering a mail, it shows its processing procedure. (Figure 7-57)
- Factor caused failed delivery is at hand and by clicking **Resend Now** to resume sending. (Figure 7-58, Figure 7-59)
- System will keep on resending mail to recipient until mail is successfully delivered in the storage time.
- A specific mail or all mails in Queue may be removed to terminate the delivery. (Figure 7-60, Figure 7-61)

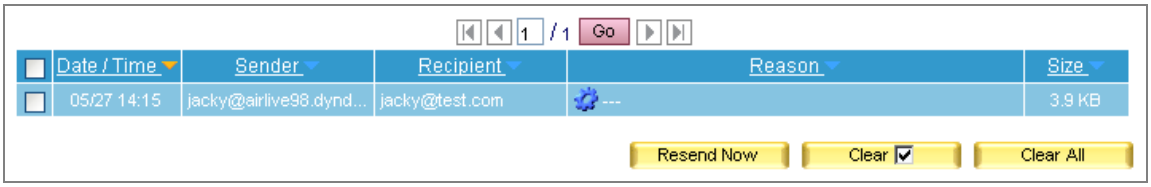



**Figure 7-57 E-Mails under Process**

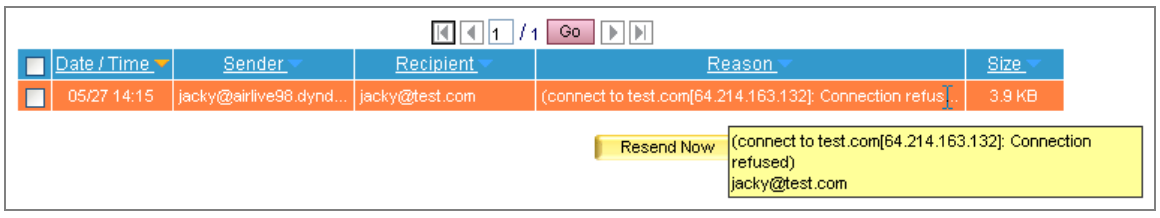



**Figure 7-58 Failed Delivery**

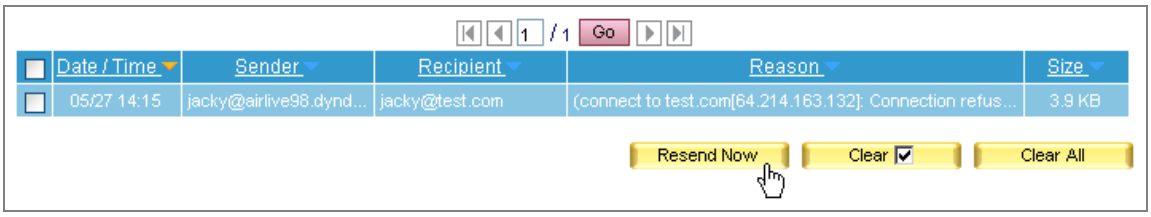



**Figure 7-59 Resuming a Failed Delivery**

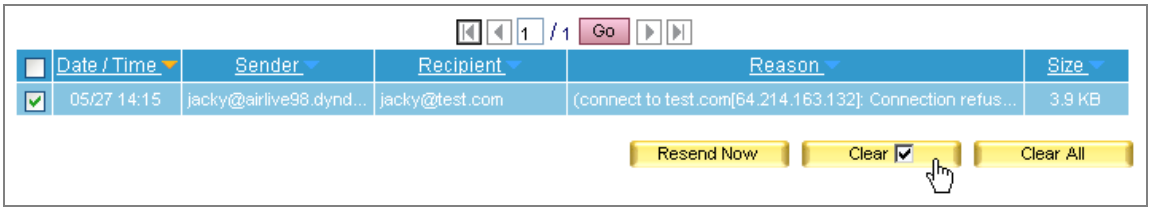



**Figure 7-60 Erasing an E-Mail Delivery**

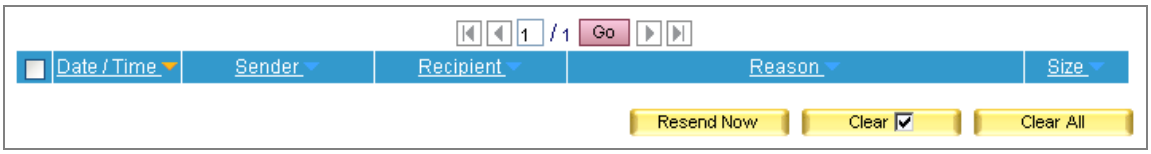



**Figure 7-61 Queue Emptied**

## 7.4 Connection Track

Whether it is receiving, or sending, or retrieving e-mails from mail server, ***Connection Track*** has the detailed log corresponding to each e-mail process. By which system administrator may use as reference to manage and adjust e-mail service.

### 7.4.1 Outbound SMTP

- User can use date, IP address, sender, recipient and content as keyword to search matched records stored in ES-4000V2.
  - To use this feature, please follow the steps below:
    1. Press icon to enter the web page for searching mail log. (Figure 7-62)

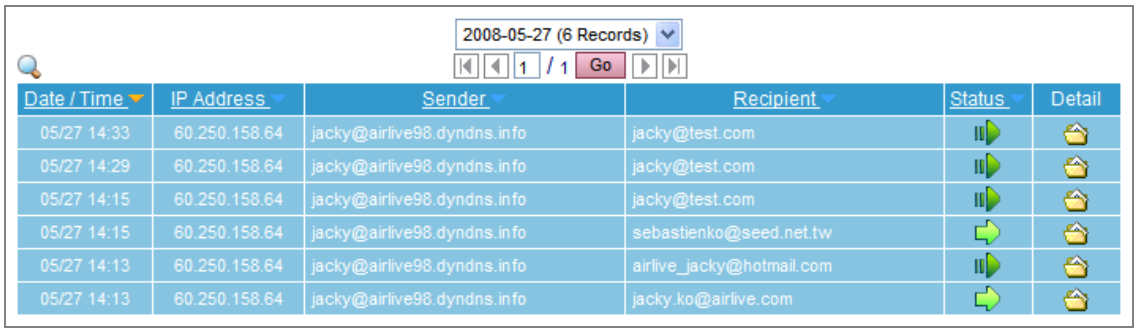



**Figure 7-62 Outbound SMTP**

    2. Enable searching duration and assign a period of time.
    3. Input a sender as keyword.
    4. Select **All Types** for status.
    5. Click **Search**.
    6. Shows results. (Figure 7-63)

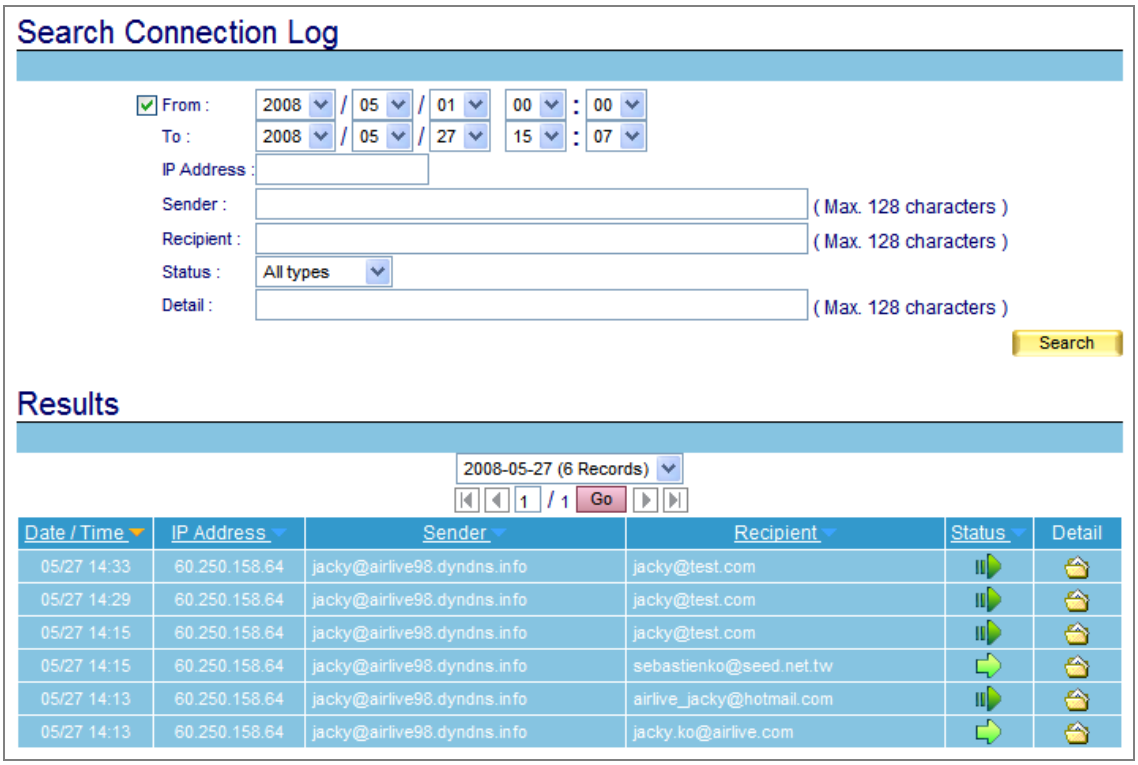



**Figure 7-63 Search for specific record**

### 7.4.2 Inbound SMTP

- User can use date, IP address, sender, recipient and content as keyword to search matched records stored in ES-4000V2.
  - To use this feature, please follow the steps below:
    1. Press icon to enter the web page for searching mail log. (Figure 7-64)

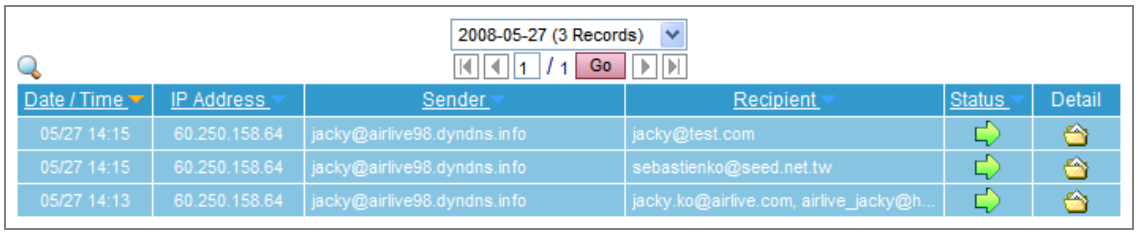



Figure 7-64 Inbound SMTP

    2. Enable searching duration and assign a period of time.
    3. Input a sender as keyword.
    4. Select **All Types** for status.
    5. Click **Search.**
    6. Shows results. (Figure 7-65)

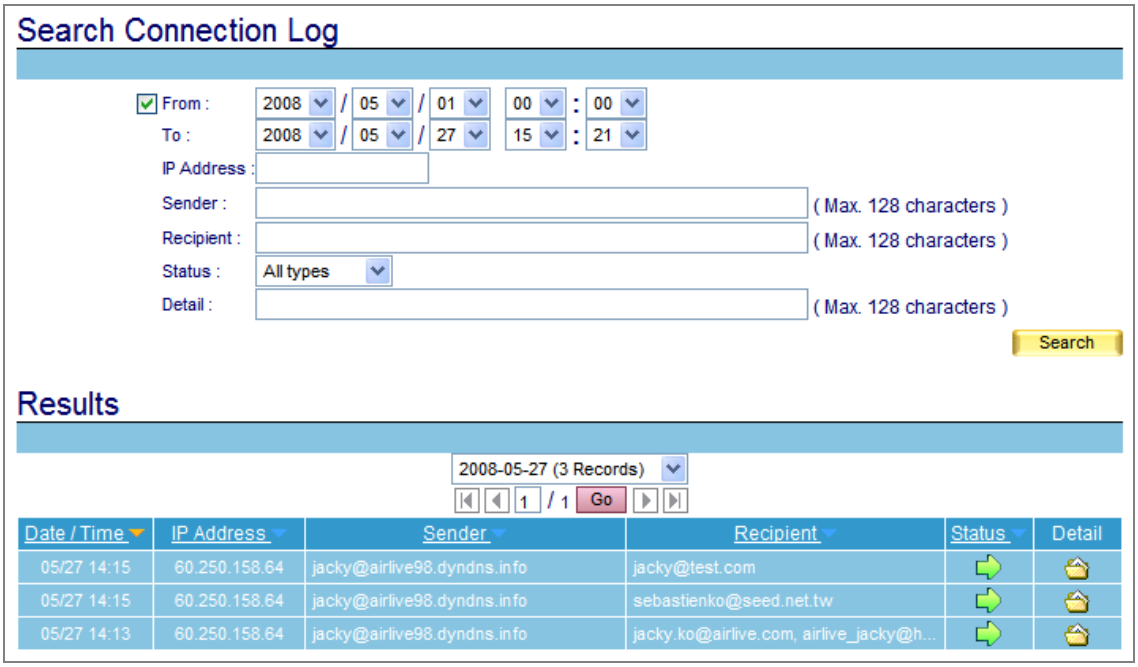



Figure 7-65 Search for specific record

### 7.4.3 POP3 / IMAP

- User can use date, IP address, sender, recipient and content as keyword to search matched records stored in ES-4000V2.
  - To use this feature, please follow the steps below:
    1. Press icon to enter the web page for searching mail log. (Figure 7-66)

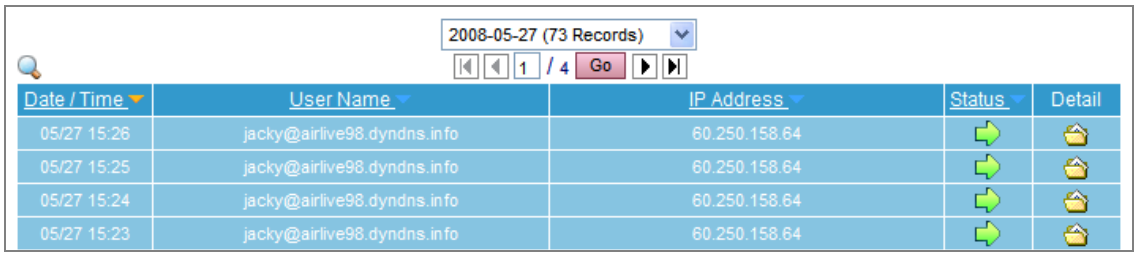



**Figure 7-66 POP3 / IMAP**

    2. Enable searching duration and assign a period of time.
    3. Select **All Types** for status.
    4. Click **Search**.
    5. Shows results. (Figure 7-67)

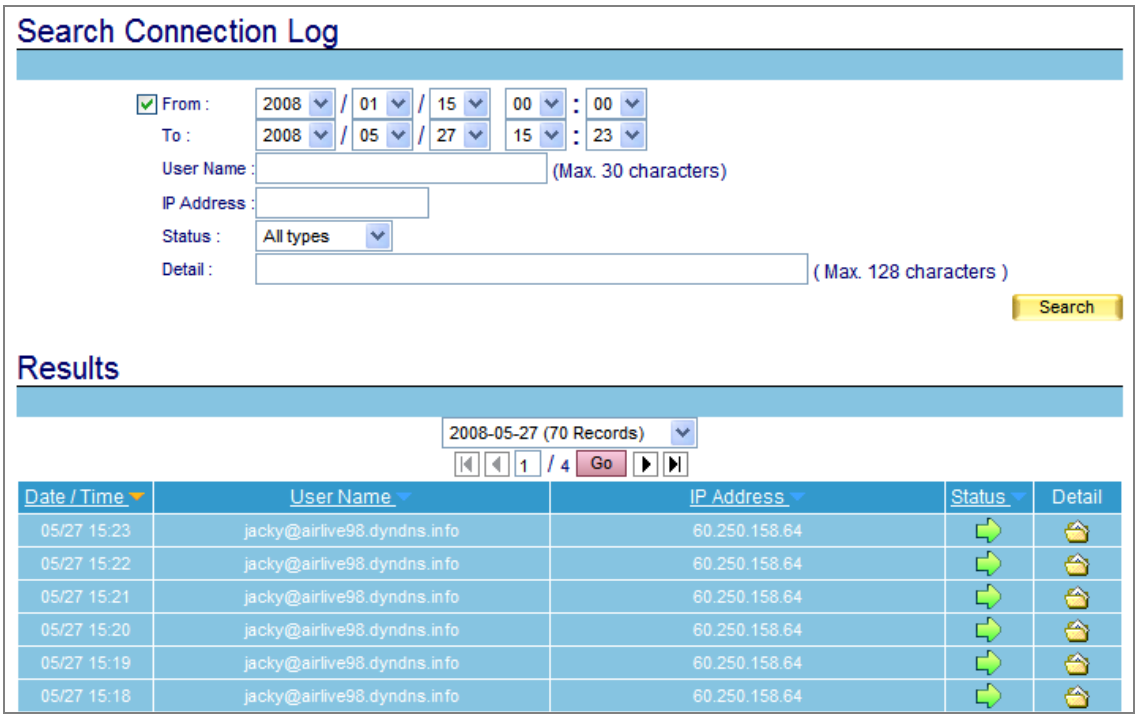



**Figure 7-67 Search for specific record**

Search results will be sorted by day, MIS engineer can use pull-down menu to choose records of specific day.

## Viewing Mail Log of Outgoing Mail

***Step1.*** Go to **Mail Management → Connection Track → Outbound SMTP**, there it shows mail log of outgoing mails. (Figure 7-68)

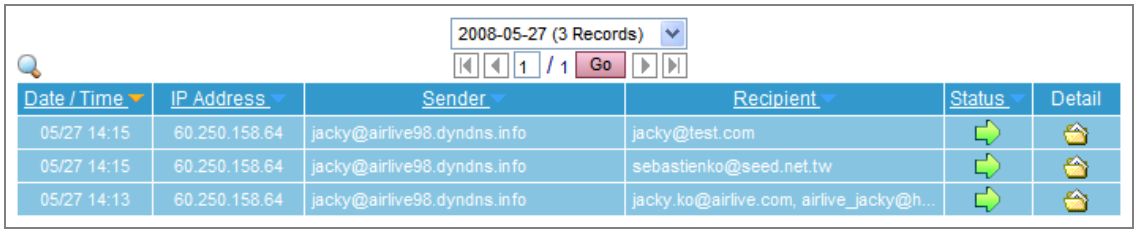



**Figure 7-68 Mail log of Outbound SMTP**

***Step2.*** Click **Detail** for detail information. (Figure 7-69)

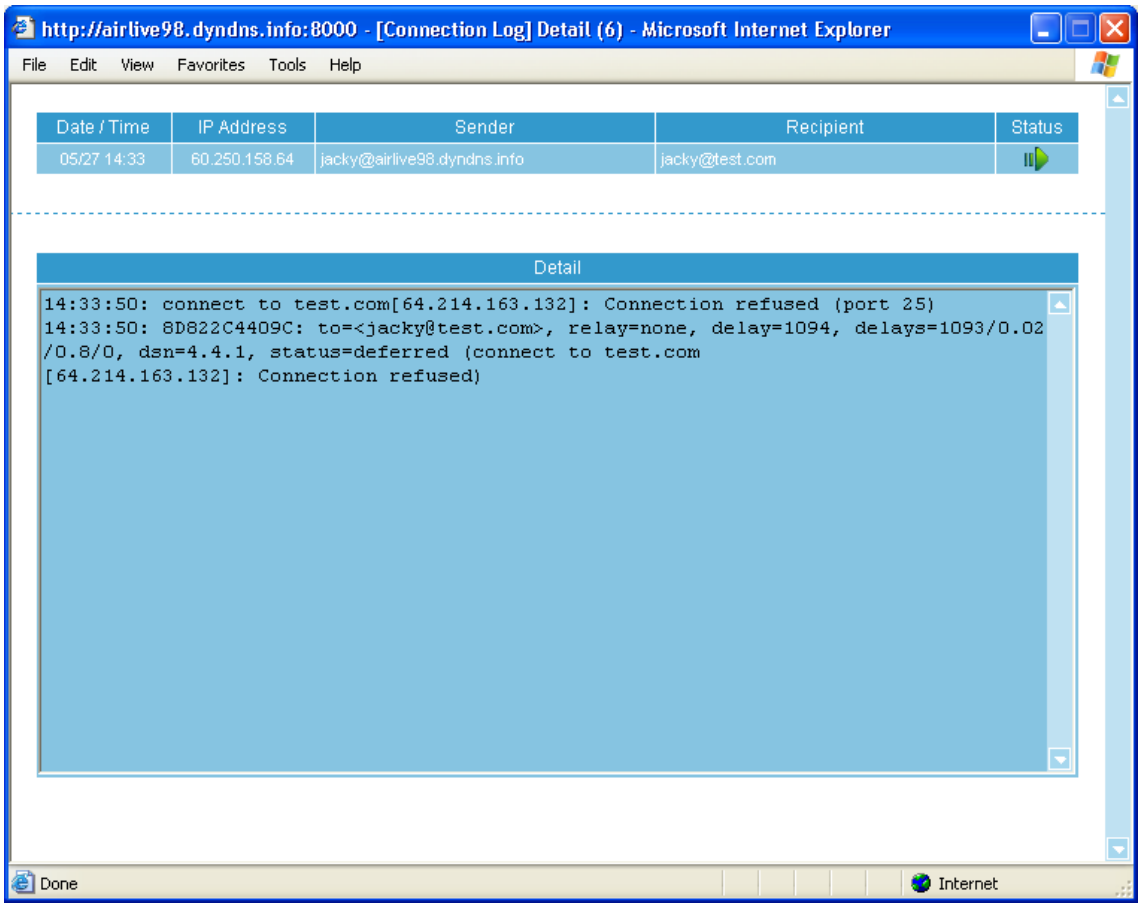



**Figure 7-69 Details of mail log**

## Viewing Mail Log of Incoming Mail

***Step1.*** Go to **Mail Management → Connection Track → Inbound SMTP**, there it shows mail log of incoming mails. (Figure 7-70)

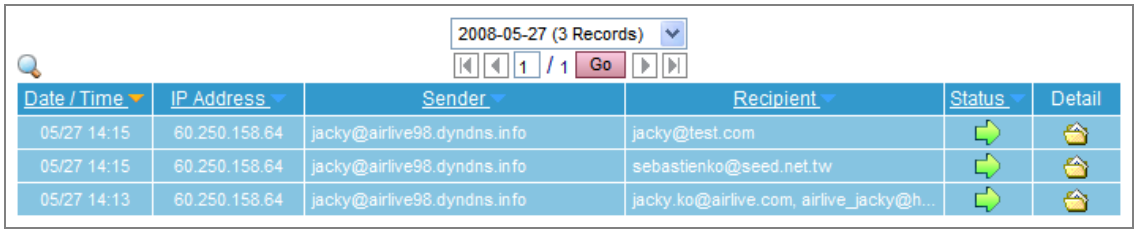



**Figure 7-70 Mail log of Inbound SMTP**

***Step2.*** Click **Detail** for detail information. (Figure 7-71)

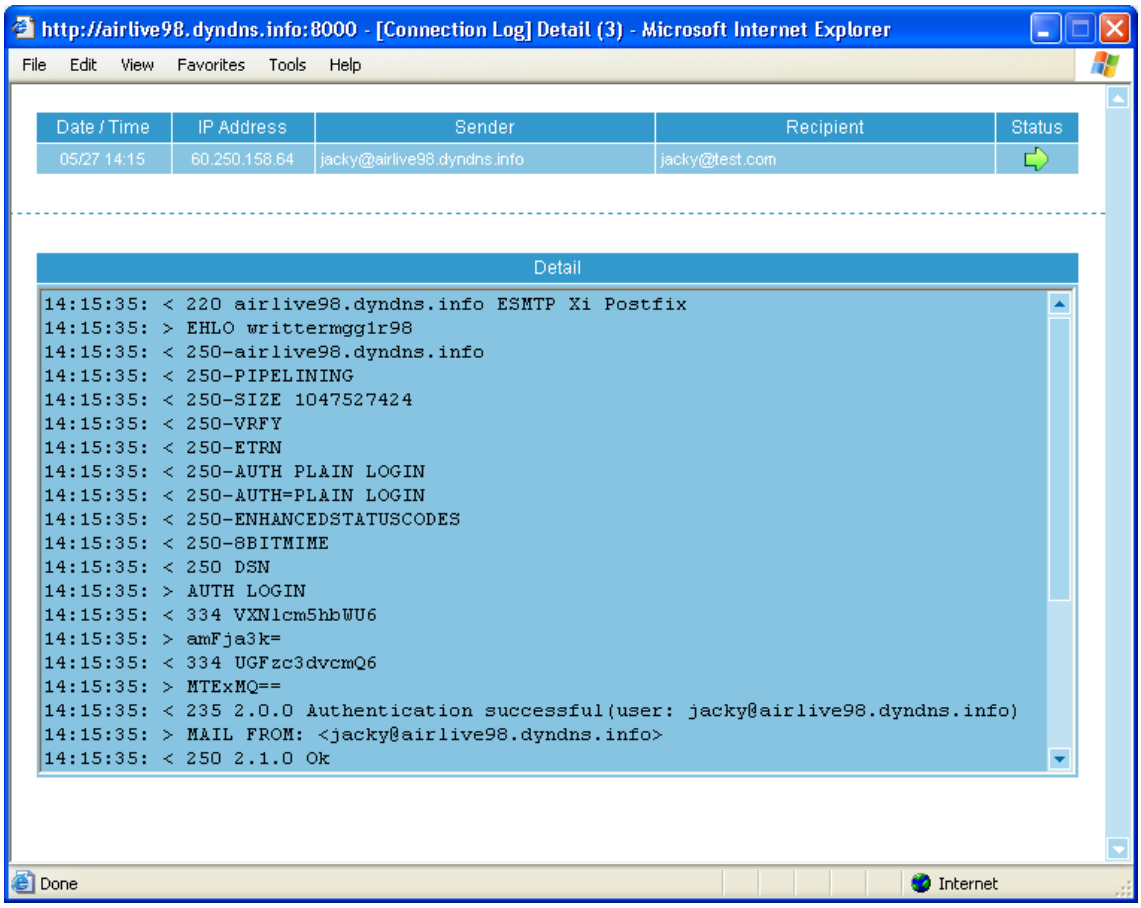



**Figure 7-71 Details of mail log**

## Viewing Mail Log of Retrieved Mails from ES-4000V2

***Step1.*** Go to **Mail Management → Connection Track → POP3 / IMAP**, there it shows mail log of retrieved mails from ES-4000V2. (Figure 7-72)

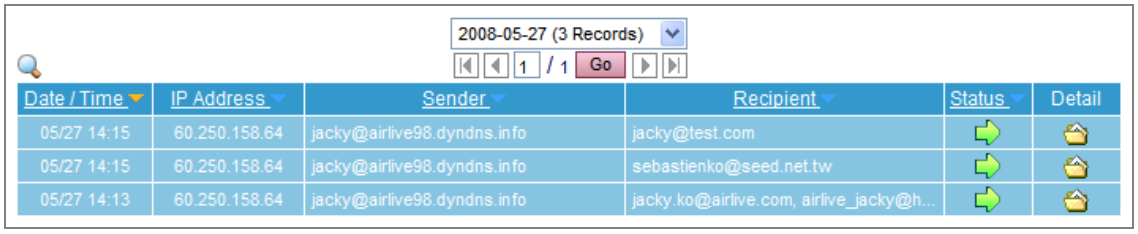



**Figure 7-72 Mail log of POP3**

***Step2.*** Click **Detail** for detail information. (Figure 7-73)

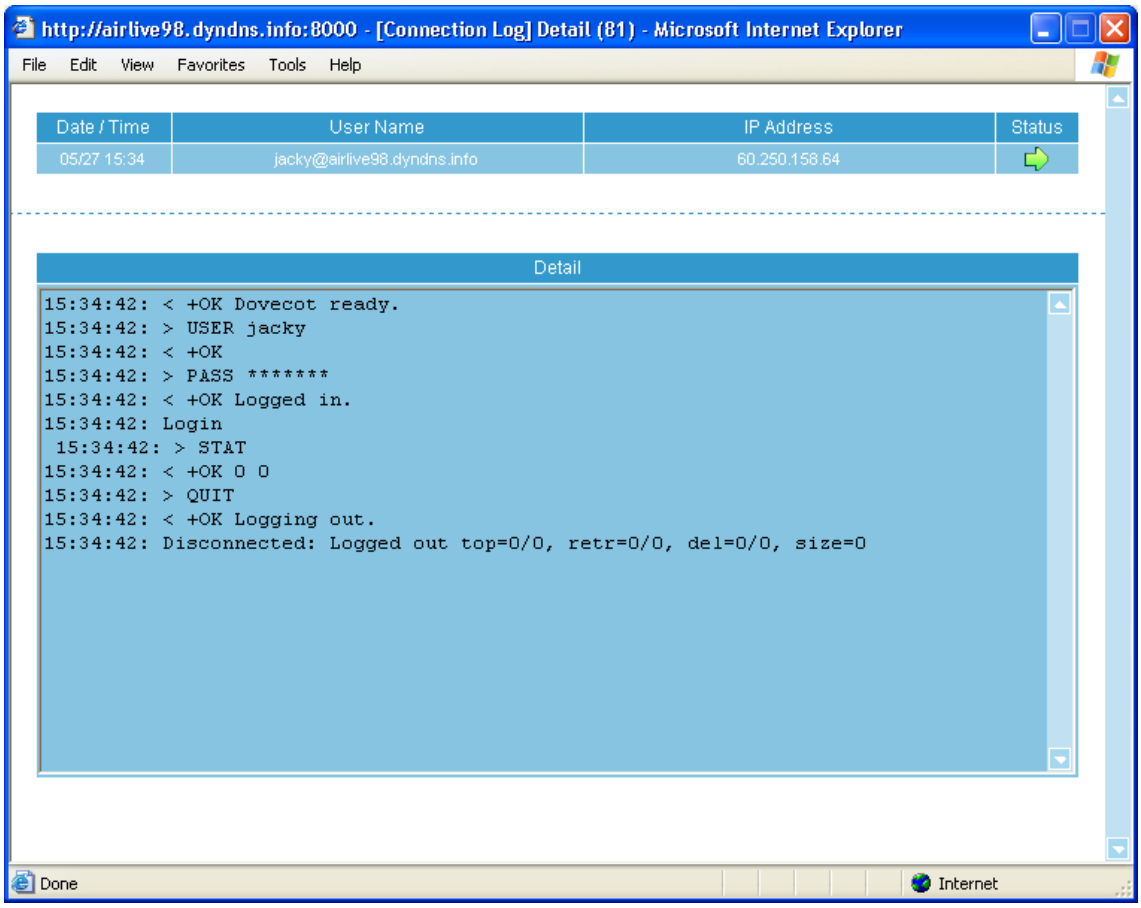



**Figure 7-73 Details of mail log**

# Chapter 8 Mail Security

Sending or receiving mails through ES-4000V2 can avoid enterprise from ceasing function due to affected by virus mail. Keep your business always running and money-making.

In this chapter, it has detailed instruction about using Anti-Virus.

## 8.1 Configure

Mail Security Configure item is the foundation of ES-4000V2 Anti-Virus engine to filter email; the feature is divided as **Setting** and **Mail Notice**.

### 8.1.1 Setting

**Definition**

**Scanned Mail Setting:**

- To define virus mail size as the standard, if virus mail size exceeds the definition, the mail will not be scanned.

**Unscanned Mail Setting:**

- Those mails that skip the scan can be added the message to the subject.

**Mail Notice Message Setting:**

- Administrator can define the subject and message contents of Mail notice. If leave both column a blank, the notice message will be sent as default contents.

**Quarantine Setting:**

- Check to disallow user to retrieve mail from quarantine. (Figure 8-1)

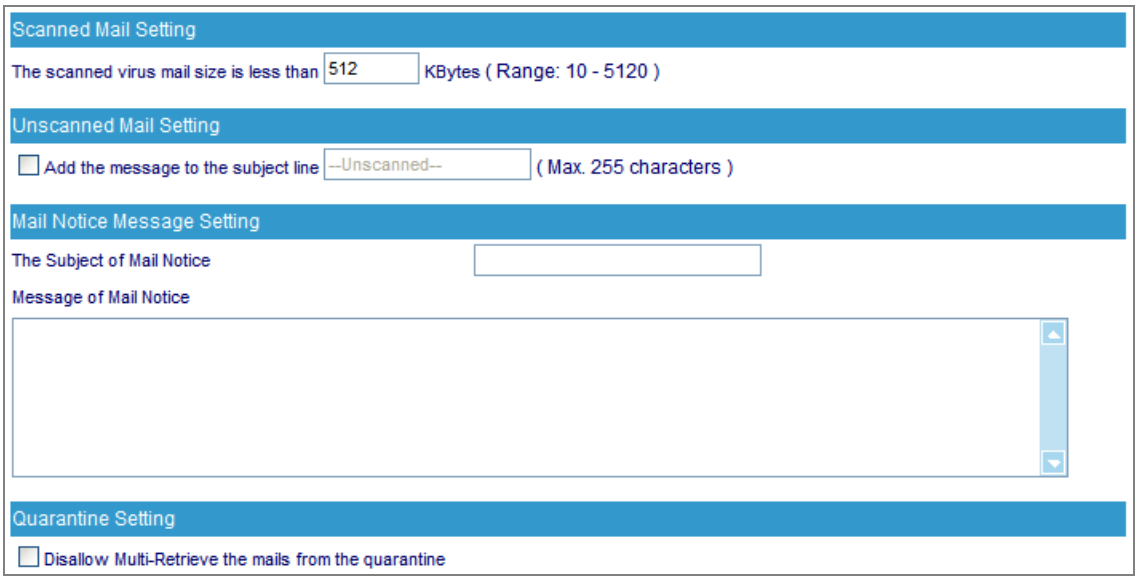



Figure 8-1 Scanned Mail Setting

### 8.1.2 Mail Notice

Mail Notice feature is not just to inform the mail report, administrator can also retrieve the mail from Mail Notice.

The example will show you the procedure and demonstrate how to retrieve the mail.

***Step1.*** In the path of **Mail Security → Configure → Mail Notice**, there you can select notice accounts: (Figure 8-2)

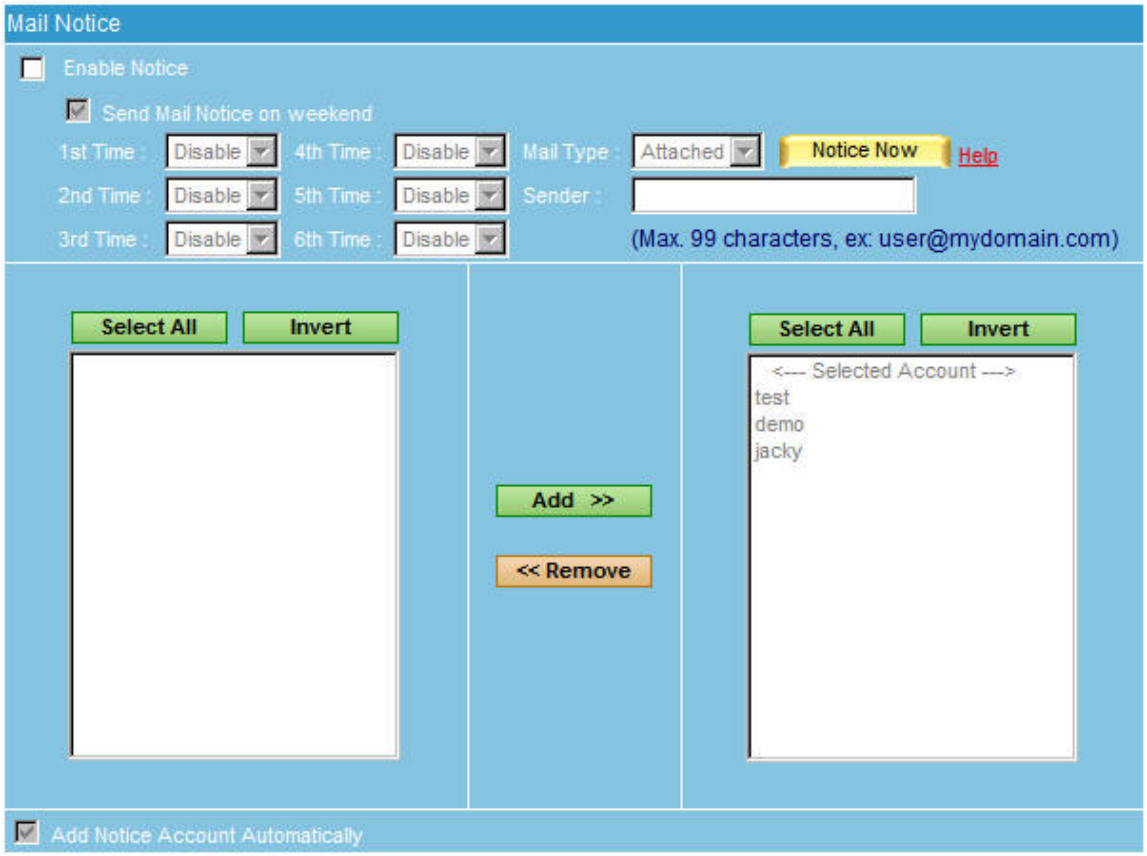



**Figure 8-2 Notice account list**

***Step2.*** In the path of **Mail Security → Configure → Mail Notice**, select or input setting as below:

- Check **Enable Notice**
- Check **Send Mail Notice on Weekend**
- Select **00:00** for **1st time**
- Select **04:00** for **2nd time**
- Select **08:00** for **3rd time**
- Select **12:00** for **4th time**
- Select **16:00** for **5th time**
- Select **20:00** for **6th time**
- Select **HTML** for **Mail Type**
- **Sender** sets as **notice@aitlive.com** (Default)

- Choose accounts for mail notice and click **Add**. The selected accounts list on the right shows result.
- Enable **Add Notice Account Automatically**
- Click **OK**
- When a new account is created on ES-4000V2, this account will be automatically created in **Selected Accounts** and receiving mail notice periodically. (Figure 8-3)

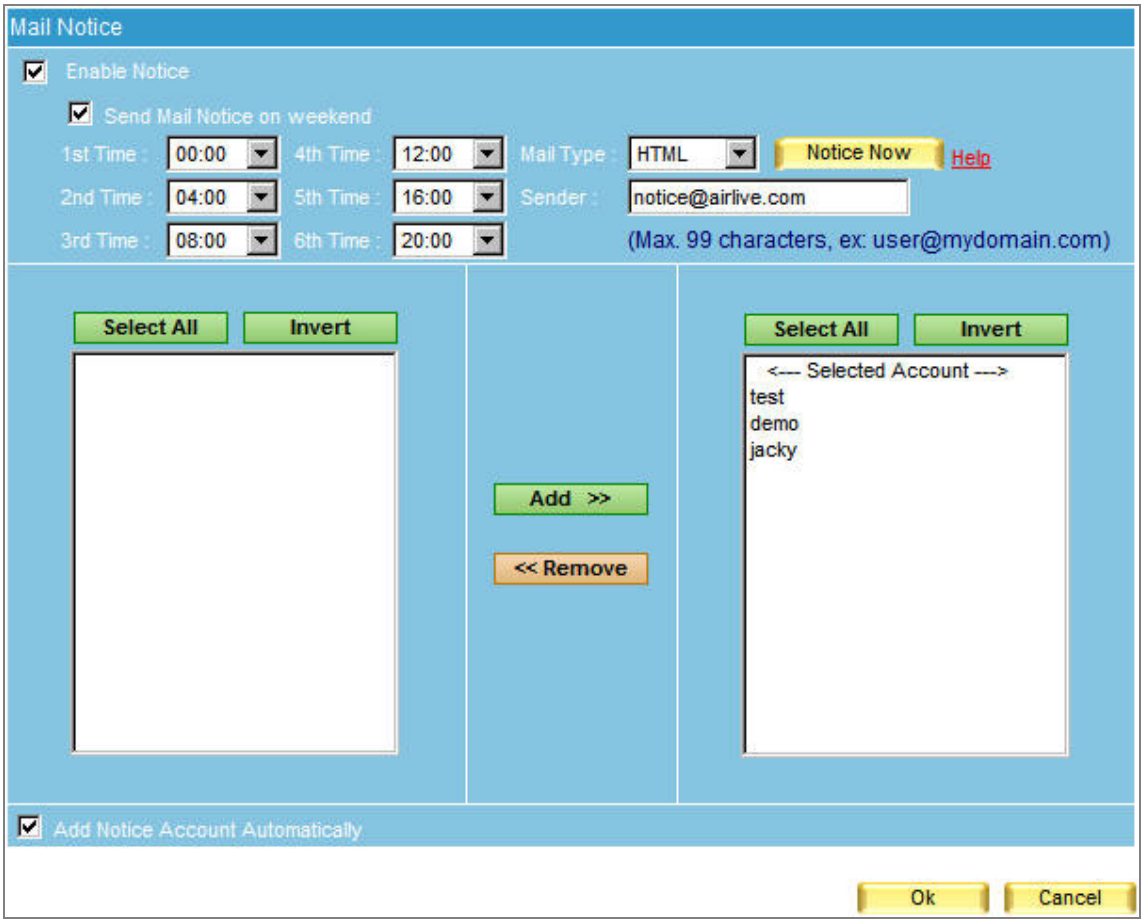



**Figure 8-3 Mail notice settings**

1. When inbound or outbound mails are inspected as virus mails, and those mails happen to be the mails of **Selected Account**, system will send mail notice to those accounts. Account user can decide whether to retrieve quarantined mails or not.
2. Recipient will not receive any mail notice if there is not any virus mail exist.
3. Administrator can use **Select All** or **Invert** to remove accounts from **Selected Account**, so as to cancel mail notice.
4. If **Send Mail Notice on Weekend** is disabled, mail notice will be issuing according to the 1st time setting on Monday.
5. If **Add Notice Account Automatically** is disabled, new created account will not be receiving mail notice.

***Step3.*** When receiving mail notice, recipient can:

- Retrieve incoming mail by clicking **Retrieve** in the **Inbound List**. (Figure 8-4)
- After system resend mail, it shows completed. (Figure 8-5)
- Resend outgoing mail by clicking **Resend** in the **Outbound List**. (Figure 8-6)
- After system resend mail, it shows completed. (Figure 8-7)

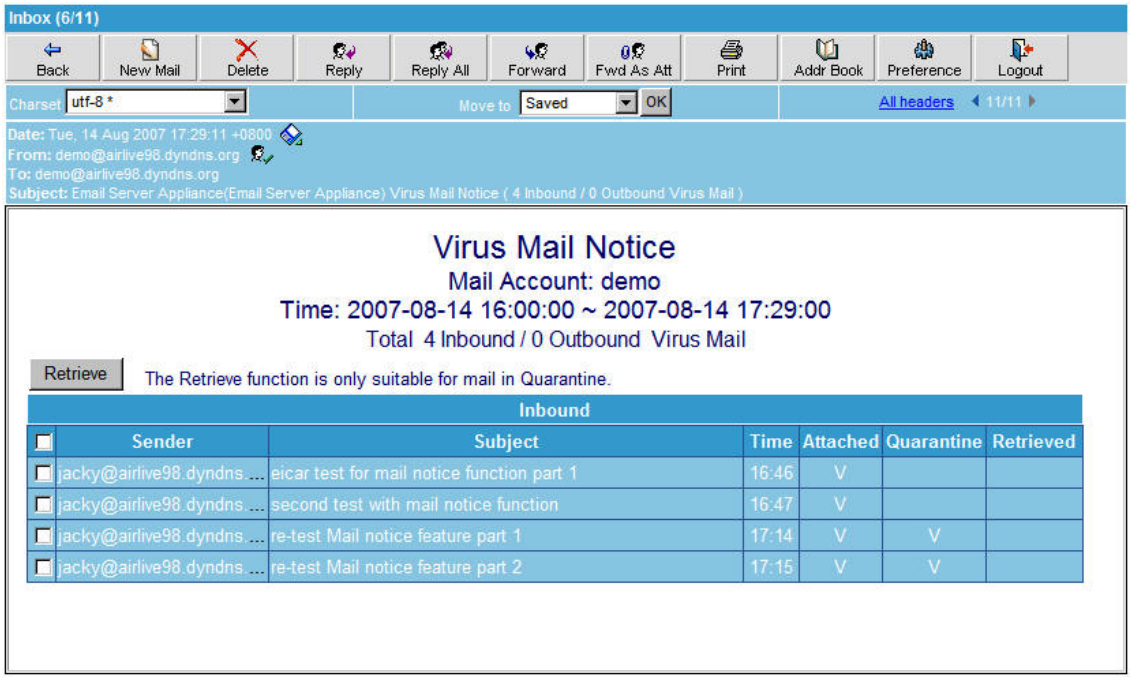



**Figure 8-4 Check mails to retrieve**

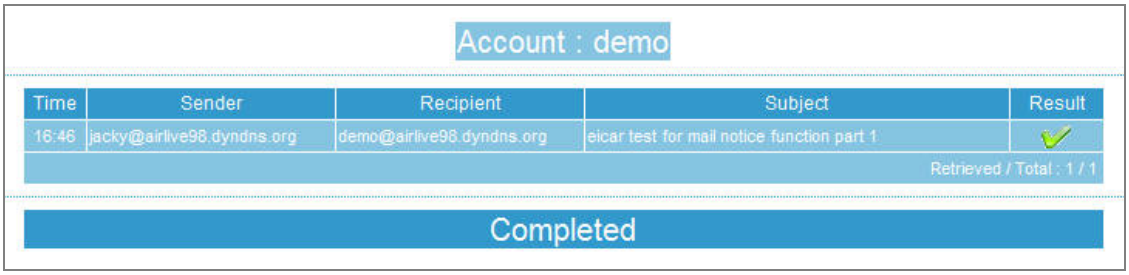



**Figure 8-5 Retrieve completed**

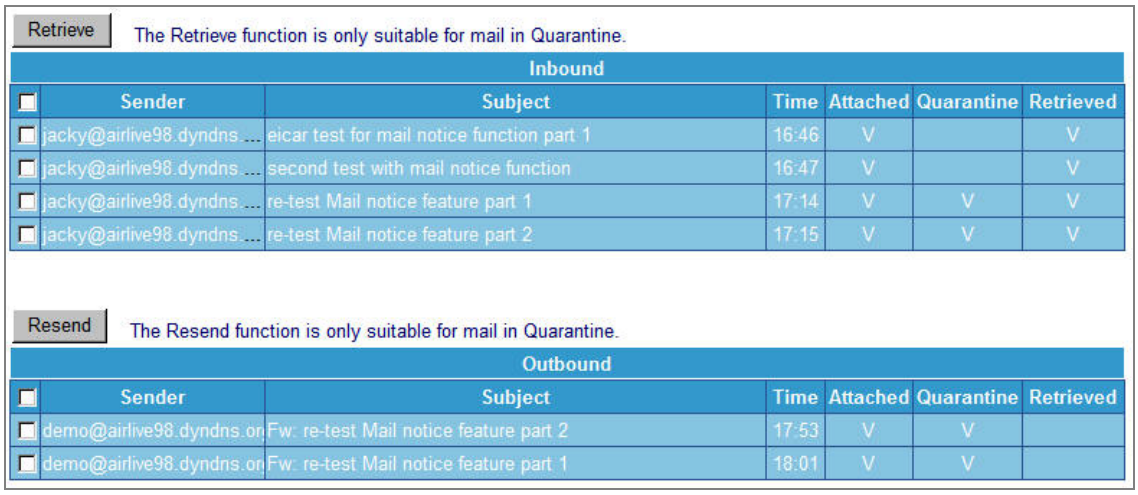



**Figure 8-6 Check mails to resend**

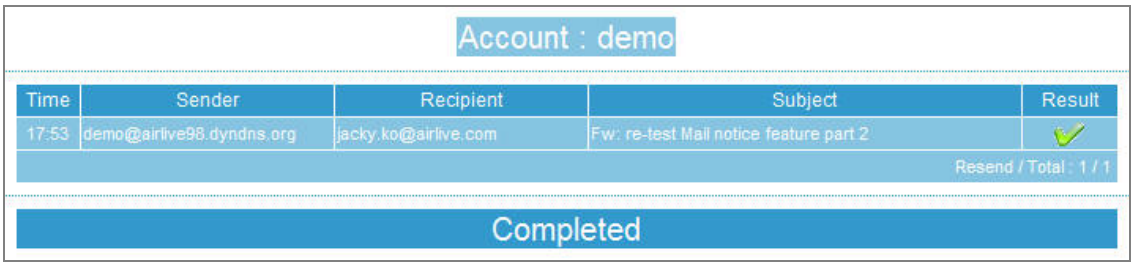



**Figure 8-7 Resend completed**

To retrieve or resend mails that inspected as virus mail:

Method 1:

- Open the Virus_Notice.html which attached to notice mail. (Figure 8-8)
- Check **Open it** and click **OK** in the **Open Attachment Warning** window. (Figure 8-9)
- Check the box next to **Sender** under the **Retrieve** button, and click **Retrieve** to retrieve all mails. (Figure 8-10)
- Check the box next to **Sender** under the **Resend** button, and click **Resend** to resend all mails. (Figure 8-11)

Method 2:

- When receiving a HTML Mail Notice :
  - By reason of the Java Script feature is set as **Restricted Sites Zone** by the default setting in Outlook Express, which limits the function of Java Script, thus, user has to :
    1. Check boxes one at a time and click **Retrieve** in the inbound list to retrieve mails. (Figure 8-12)
    2. Check boxes one at a time and click **Resend** in the outbound list to resend mails. (Figure 8-13)

To modify Java Script feature setting in Outlook Express, please go to **Tools > Options > Security > Virus Protection**, check **Internet Zone**. After doing so, user will be able to check all boxes at once by checking the box next to the **Sender** under the **Retrieve** or **Resend** button.

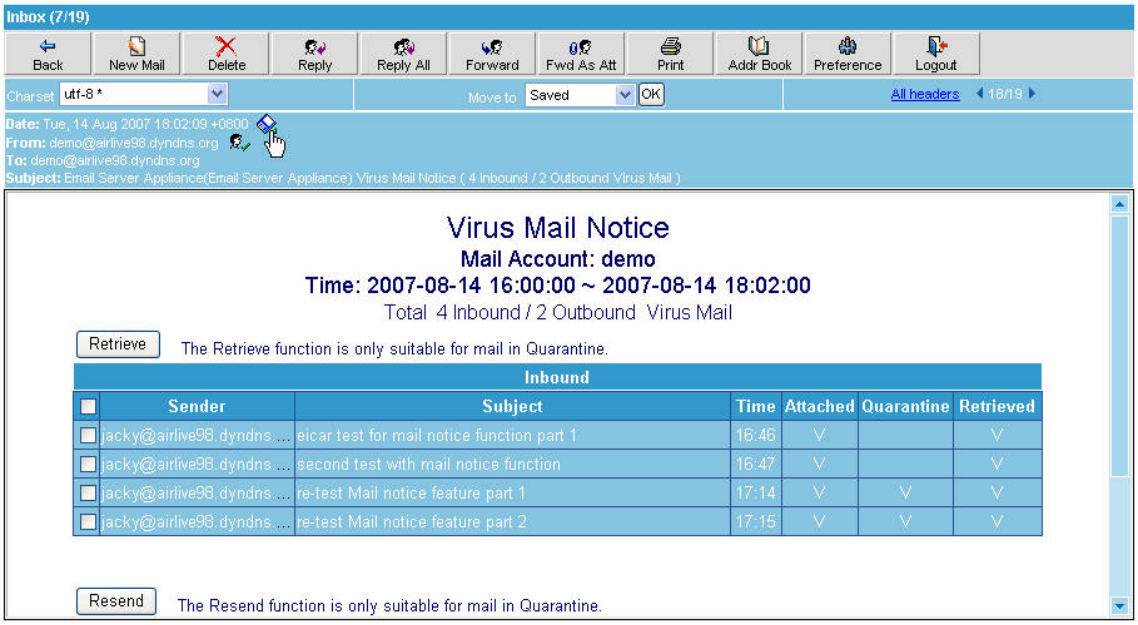



**Figure 8-8 Open the attachment of notice mail**

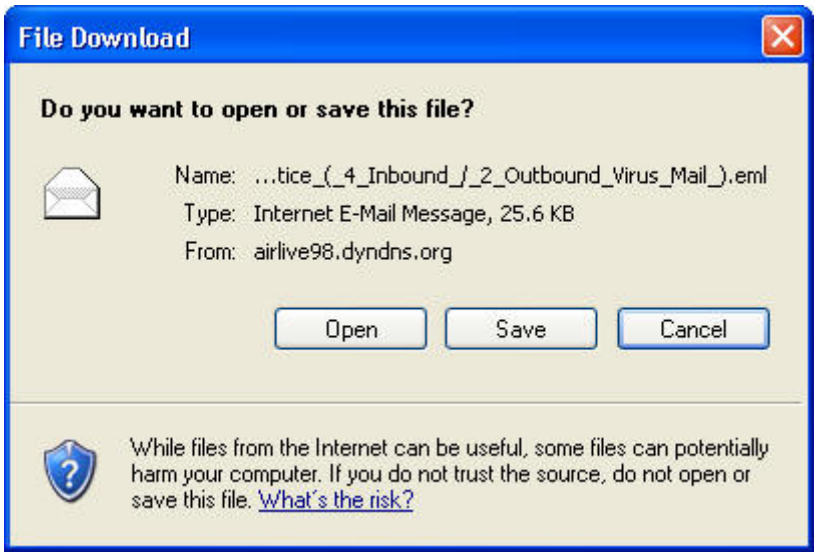



**Figure 8-9 Confirm to open attachment**

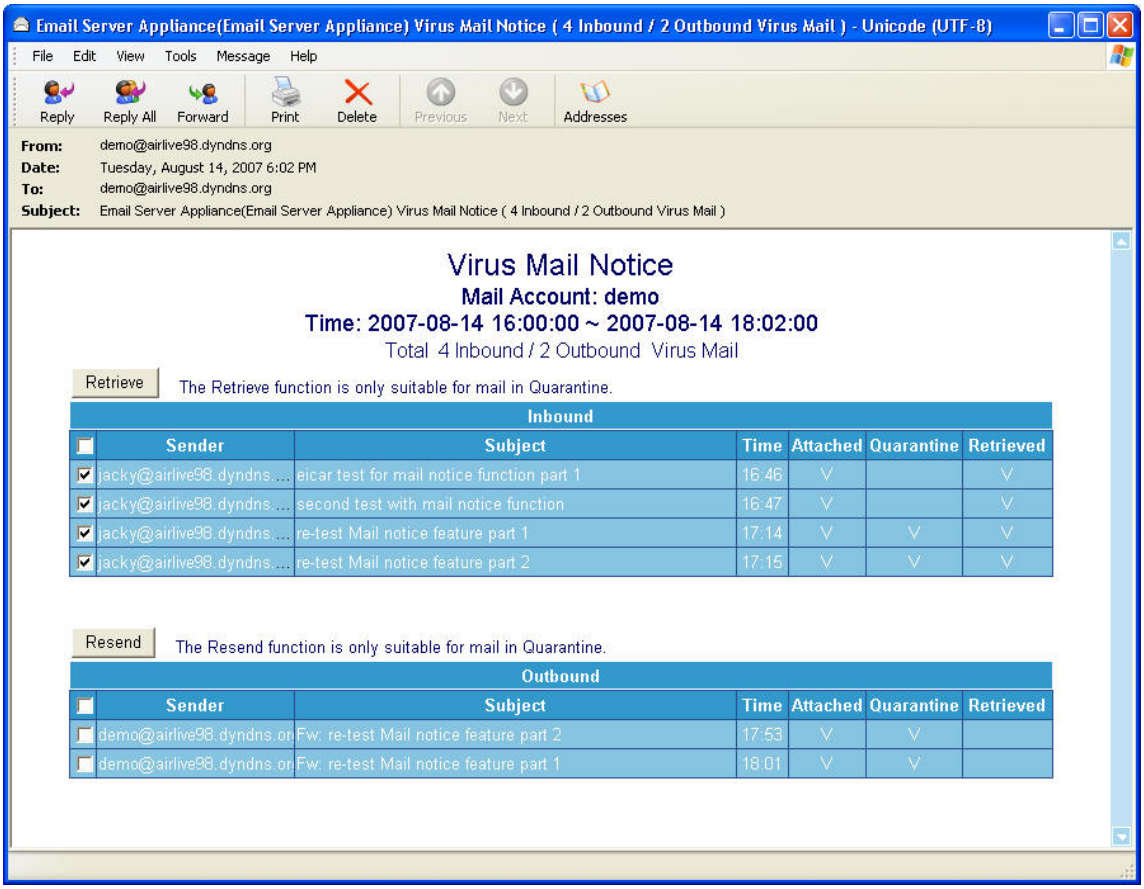



Figure 8-10 Check all mails to retrieve

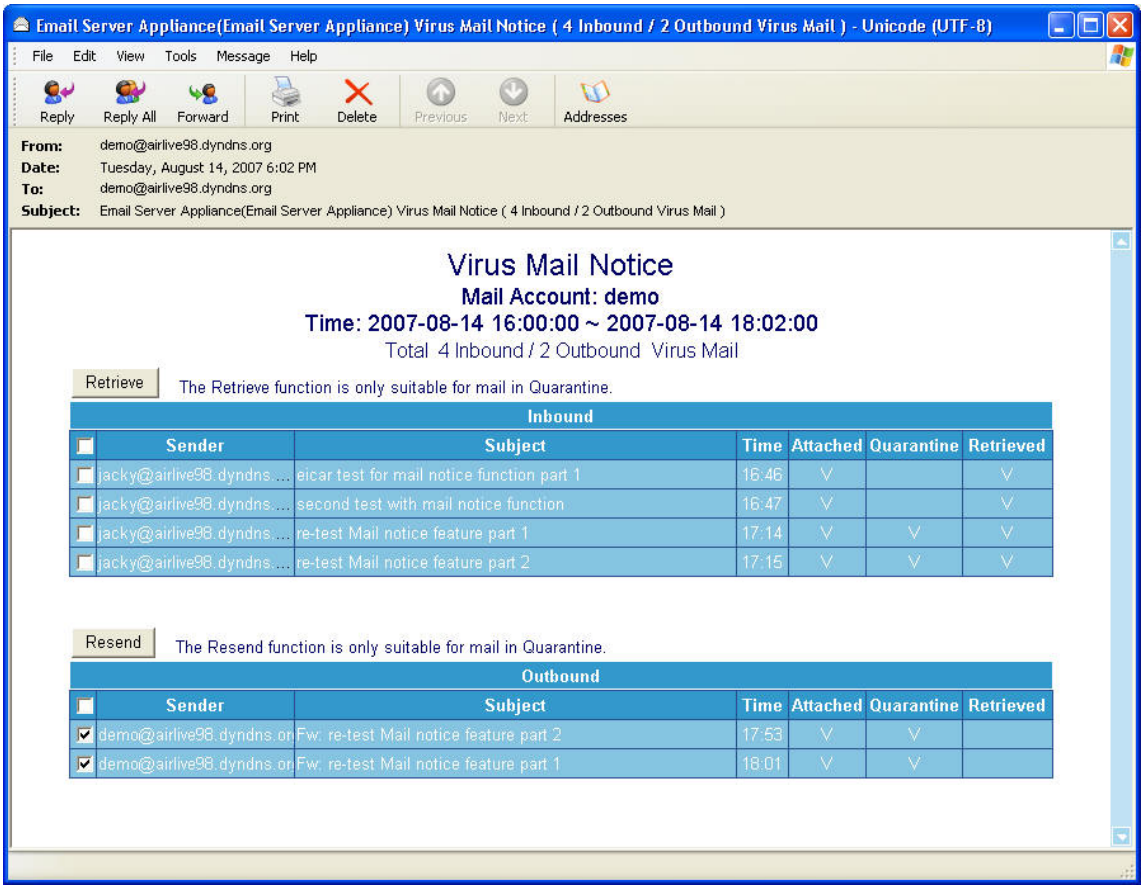



Figure 8-11 Check all mails to resend

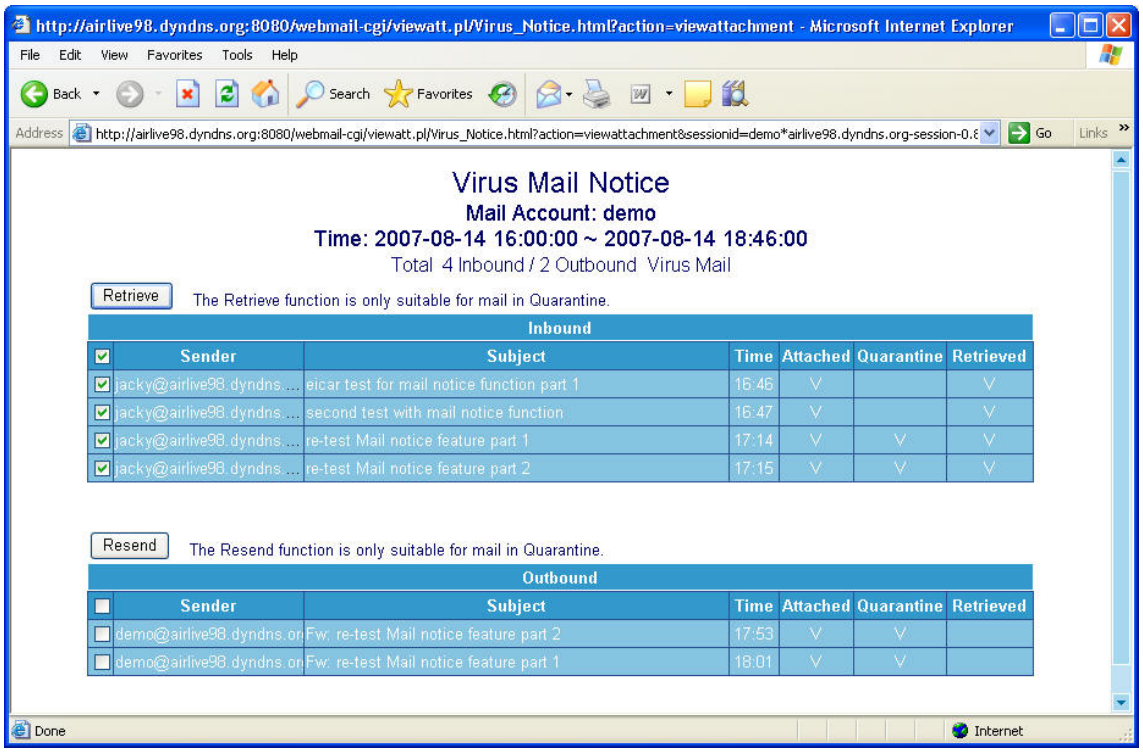



**Figure 8-12 Check all mails to retrieve in a HTML Mail Notice**

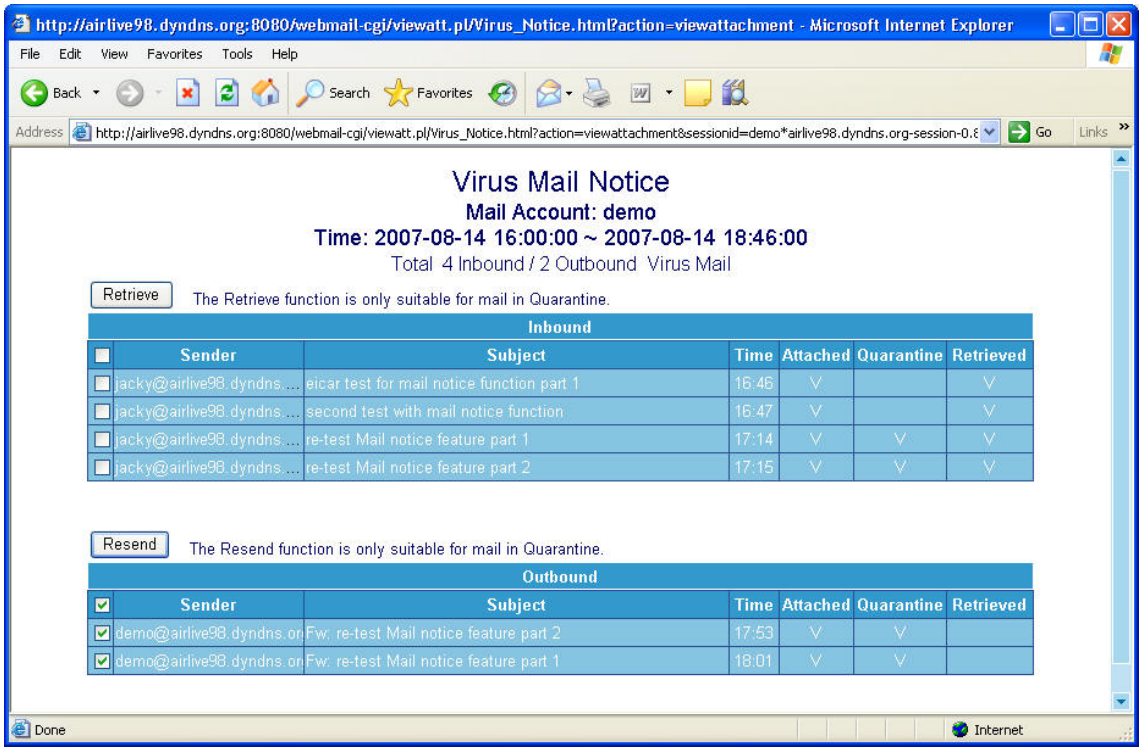



**Figure 8-13 Check all mails to resend in a HTML Mail Notice**

## 8.2 Anti-Virus

**Anti-Virus Setting**:

- Scans Inbound and Outbound mails for virus.
- If a virus infected mail is detected, that mail will be marked as **---virus---** in the subject line. On the contrary, if a mail is clean, there will not be any mark in the subject line.
- Virus pattern updates automatically every ten minutes or can be updated manually at once. After each update, it will show its virus pattern version and update time.
- Available virus engine is:
  - Clam ─ a default and free for charge virus scan engine.

To assure ES-4000V2 a successful update, use **Test** to check if the connection to the virus pattern server works or not before running update.

**Inspection Direction:**

- If an Inbound mail is detected as virus-infected, it can be deleted, deliver to the recipient (deliver the virus mail or a notification mail instead), or stored in the quarantine.

- If an Outbound mail is detected as virus-infected, it can be deleted, deliver to the recipient (deliver the virus mail or a notification mail instead), or stored in the quarantine.

  - Set as followed :

    1. Select **Clam** for **Virus Scan Engine**.
    2. In **Inspection Direction**, enable both Inbound and Outbound **Action of Infected Mail** and check **Deliver to the recipient**, and then check **Deliver a notification mail instead of the original virus mail**.
    3. Add a virus string **---virus---** to the subject line of a virus infected mail.
    4. Click **OK**. (Figure 8-14)

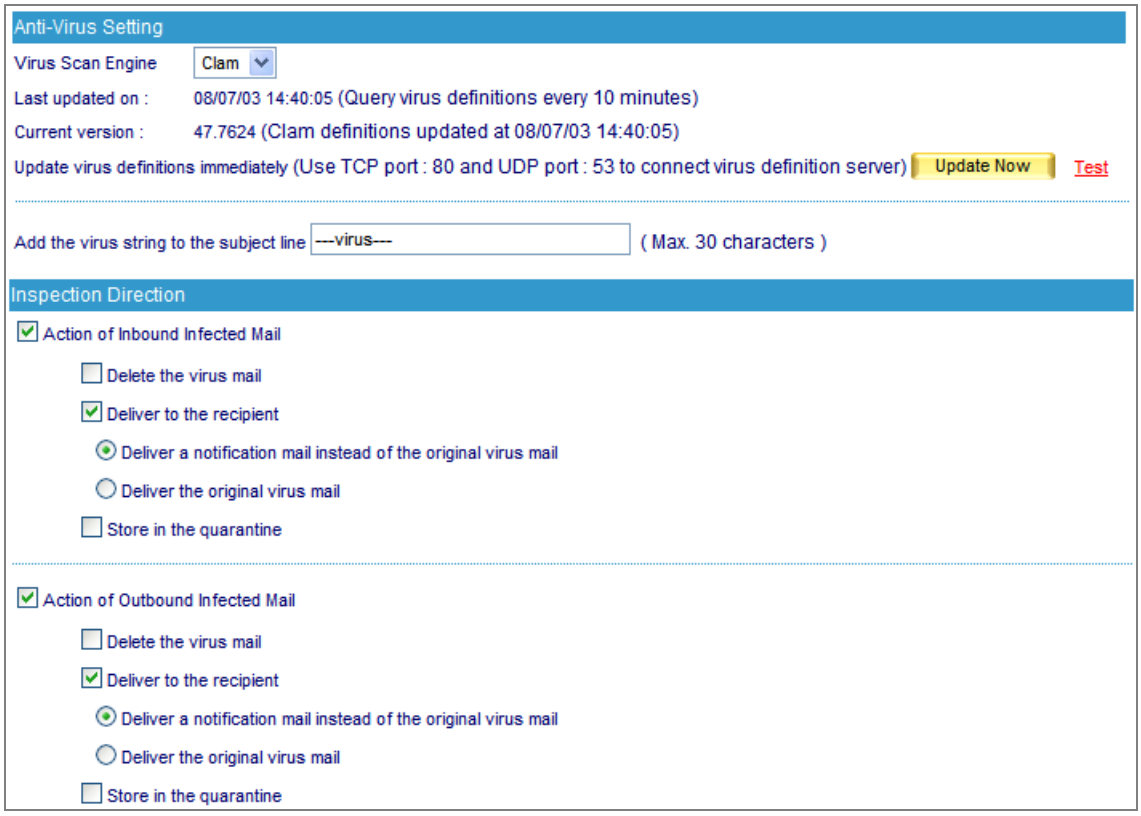



**Figure 8-14 Anti-Virus settings**

◆ Whoever receives a virus mail detected by ES-4000V2 will see a warning tag, such as **---virus---**, in the subject line. (Figure 8-15)

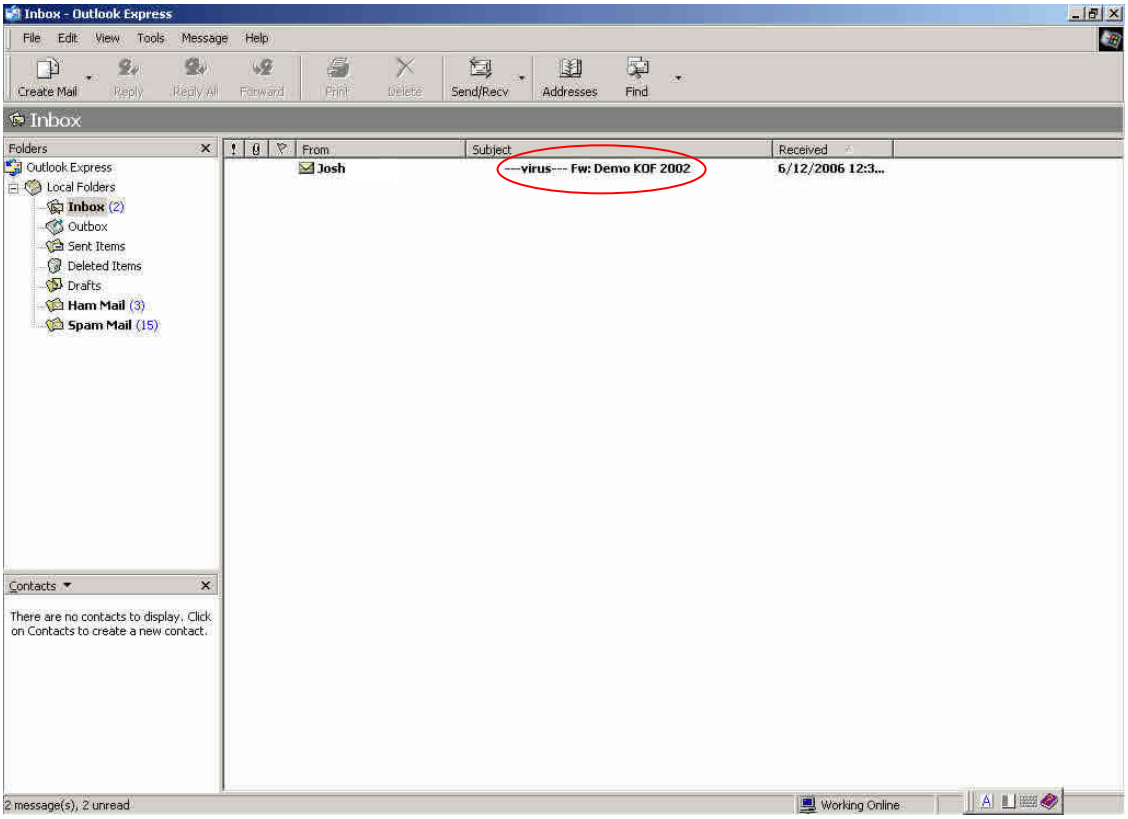



**Figure 8-15 A mail scanned as virus mail**

## Scanning Inbound or Outbound Mails for Virus

***Step1.*** In the path of **Mail Security → Anti-Virus →Setting**, set as followed: (Figure 8-16)

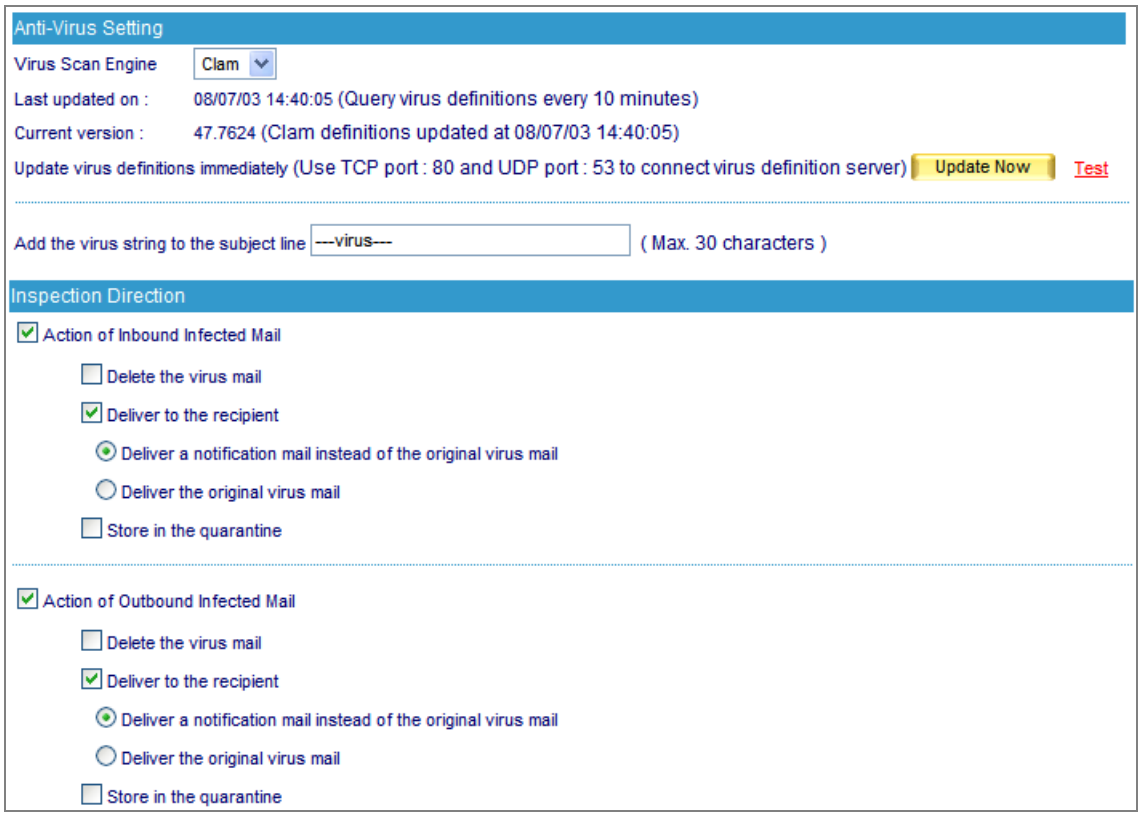



**Figure 8-16 The scan and action of infected mail**

Action of infected mail only allowed one option at a time. If action sets as delete the virus mail, virus mail will be deleted at once when it is detected. Yet, user can still see the correlative details of the virus mail in mail report.

***Step2.*** When an external mail account, for instance yahoo, sends a mail to internal mail account, such as josh@airlive.com:

- A yahoo mail account, share2k01@yahoo.com.tw, sends a virus mail, and then it would be stored in the quarantine.
- A yahoo mail account, share2k003@yahoo.com.tw, sends a clean mail, and then josh@airlive.com would receive it.

***Step3.*** If an internal mail account, for example josh@airlive.com, sends a mail to external accounts, such as yahoo:

- The mail sent to share2k01@yahoo.com.tw is infected, and then it would be stored in the quarantine.
- The mail sent to share2k003@yahoo.com.tw is clean, and then it would be sent to the account.

## 8.3 Mail Report

ES-4000V2 provides enterprise mail report in statistics and log. With the help of them, enterprise could have a clear view of mail activities.

### 8.3.1 Setting

**Periodic Report**

■ It can generate and send the periodical report to recipient according to the time setting.

**History Report**

■ It can generate and send the history report to recipient according to the time setting.

◆ In **System → Setting**, enable **E-mail Alert Notification / Report**. Then go to **Mail Security → Mail Report → Setting**, set as below.

1. **Enable E-mail periodic report**, and check **Yearly report**, **Monthly report**, **Weekly report**, and **Daily report**.
2. Click **OK.** (Figure 8-17)
3. When the time comes, the ES-4000V2 will send the report to recipient. (Figure 8-18, 8-19, 8-20)
4. In **History Report**, select an issue date from the calendar icon.
5. Click **Mail Report**. (Figure 8-21)
6. Reports will be delivered to the recipient on the time setting. (Figure 8-22, 8-23, 8-24)

Scheduling for periodic report:

1. **Yearly report** produces at 24 o'clock on January 1st every year.
2. **Monthly report** produces at 24 o'clock on the first day of every month.
3. **Weekly report** produces at 24 o'clock on the first day of every week.
4. **Daily report** produces at 24 o'clock everyday.

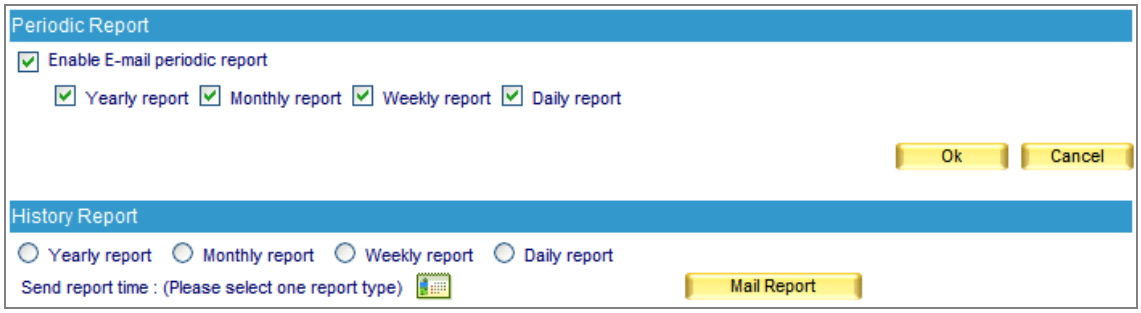



**Figure 8-17 The periodic report setting**

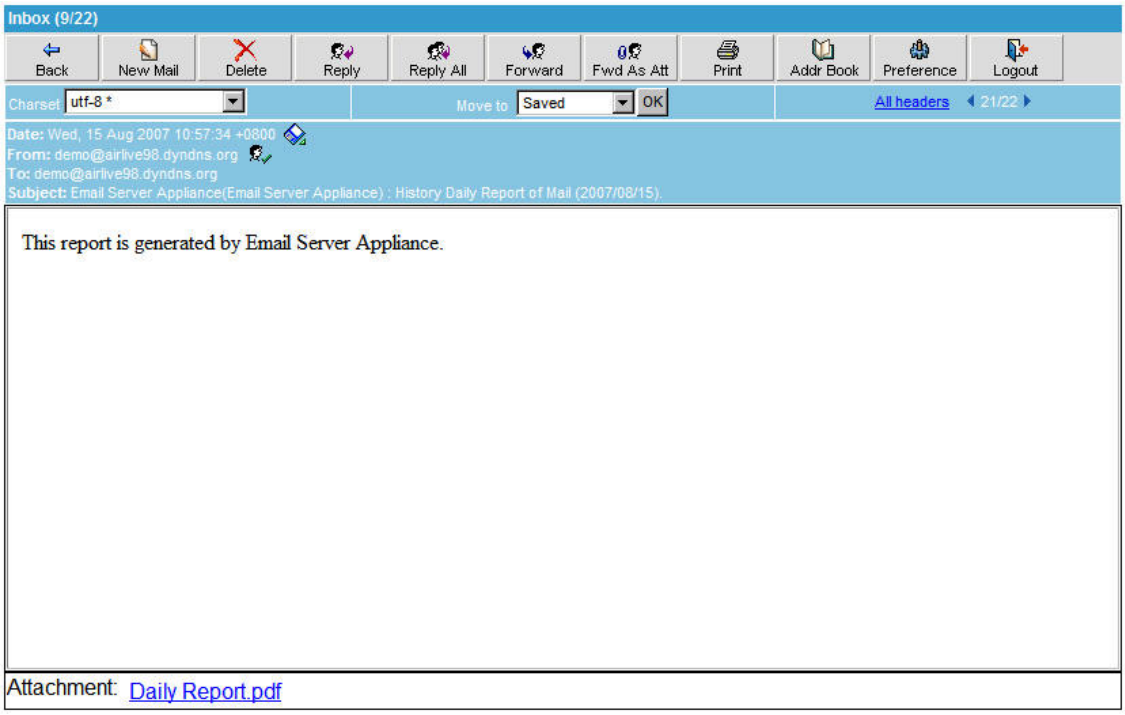



**Figure 8-18 Receive the periodic report**

Email Server Appliance

Daily Report of Inbound Mails

Time : (2007/08/15)

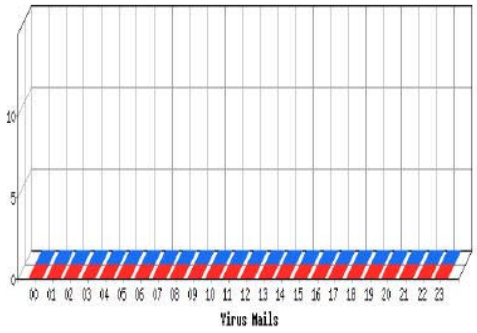
**Types of Statistics**

| Virus Mails | Normal Mails | Total Mails |
|---|---|---|
| 0 [100.0%] | 0 [100.0%] | 0 [100%] |

**TOP-10 Accounts (Sorted by Total Mail Amount)** virus mails normal mails

| No. | Account | Virus | Normal | Total | Inbound Mails |
|---|---|---|---|---|---|
| | | | | | Average: 0.00 Mail/Hour |

**Statistics Graph**




1

**Figure 8-19 The first page in periodic report**

Email Server Appliance

Daily Report of Outbound Mails

Time : (2007/08/15)

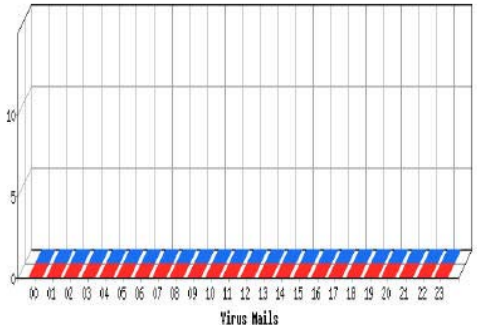
**Types of Statistics**

| Virus Mails | Normal Mails | Total Mails |
|---|---|---|
| 0 [100.0%] | 0 [100.0%] | 0 [100%] |

**TOP-10 Accounts (Sorted by Total Mail Amount)** virus mails normal mails

| No. | Account | Virus | Normal | Total | Outbound Mails |
|---|---|---|---|---|---|
| | | | | | Average: 0.00 Mail/Hour |

**Statistics Graph**




2

**Figure 8-20 The second page in periodic report**

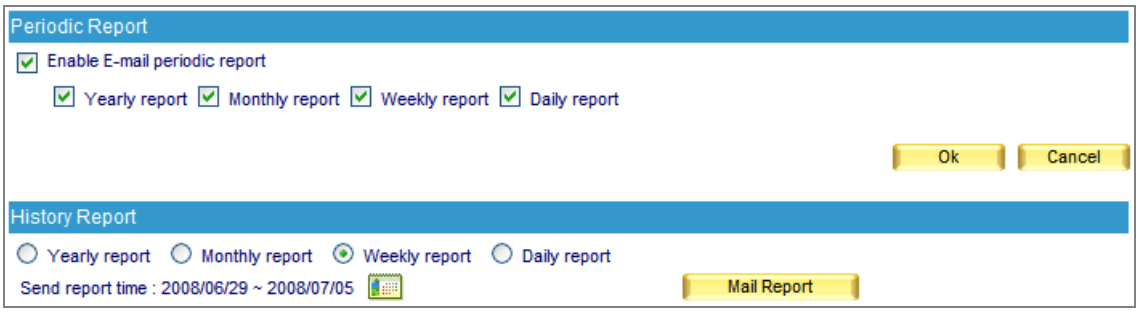



**Figure 8-21 The history report setting**

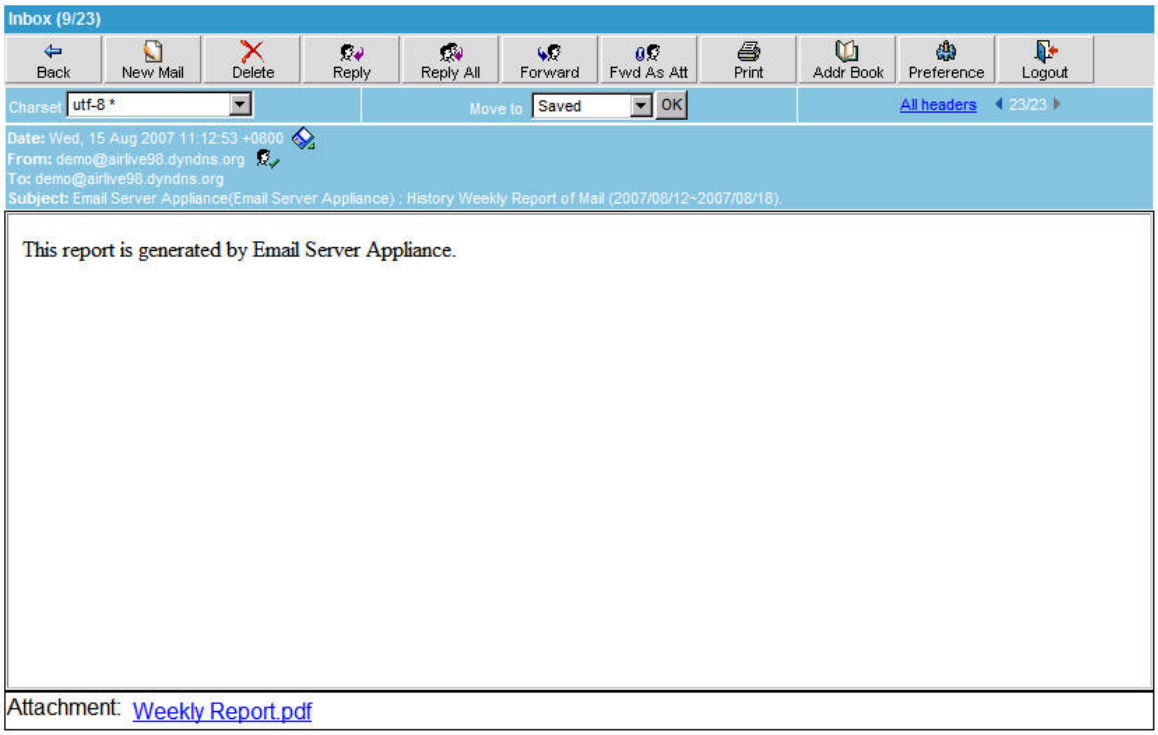



**Figure 8-22 Receive the history report**

Email Server Appliance

Weekly Report of Inbound Mails

Time : (2007/08/12~2007/08/18)

**Types of Statistics**

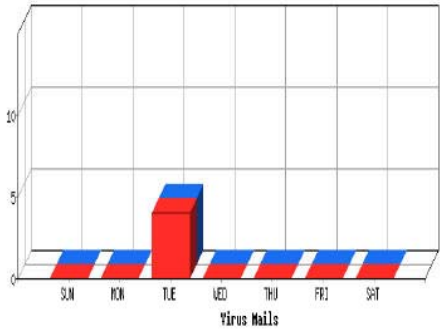
| Virus Mails | Normal Mails | Total Mails |
|---|---|---|
| 4 [100.0%] | 0 [0.0%] | 4 [100%] |

**TOP-10 Accounts (Sorted by Total Mail Amount)** virus mails normal mails

| No. | Account | Virus | Normal | Total | Inbound Mails |
|---|---|---|---|---|---|
| 1 | demo | 4 | 0 | 4 | 4 |

Average: 0.57 Mail/Day

**Statistics Graph**




1

**Figure 8-23 The first page in history report**

Email Server Appliance

Weekly Report of Outbound Mails

Time : (2007/08/12~2007/08/18)

**Types of Statistics**

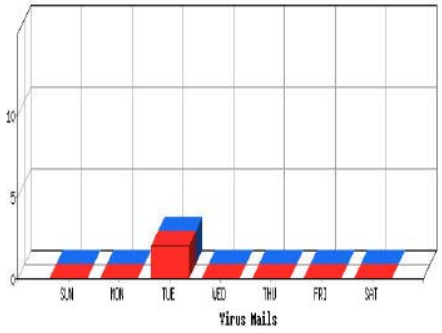
| Virus Mails | Normal Mails | Total Mails |
|---|---|---|
| 2 [100.0%] | 0 [0.0%] | 2 [100%] |

**TOP-10 Accounts (Sorted by Total Mail Amount)** virus mails normal mails

| No. | Account | Virus | Normal | Total | Outbound Mails |
|---|---|---|---|---|---|
| 1 | demo | 2 | 0 | 2 | 2 |

Average: 0.29 Mail/Day

**Statistics Graph**




2

**Figure 8-24 The second page in history report**

The recipient will be receiving the mail report with an attachment in PDF format.

### 8.3.2 Statistic

***Step1.*** In the path of **Mail Security → Mail Report → Statistics**, there it shows a full-scale statistics report of scanned result.

***Step2.*** In **Statistics**, on the upper left corner, click **Day** for daily statistics report; click **Week** for weekly statistics report; click **Month** for monthly statistics report; click **Year** for annual statistics report.

***Step3.*** Below it shows scanned mail statistics report. (Figure 8-25)

- Vertical axis indicates the amount of scanned mail.
- Horizontal axis indicates time.

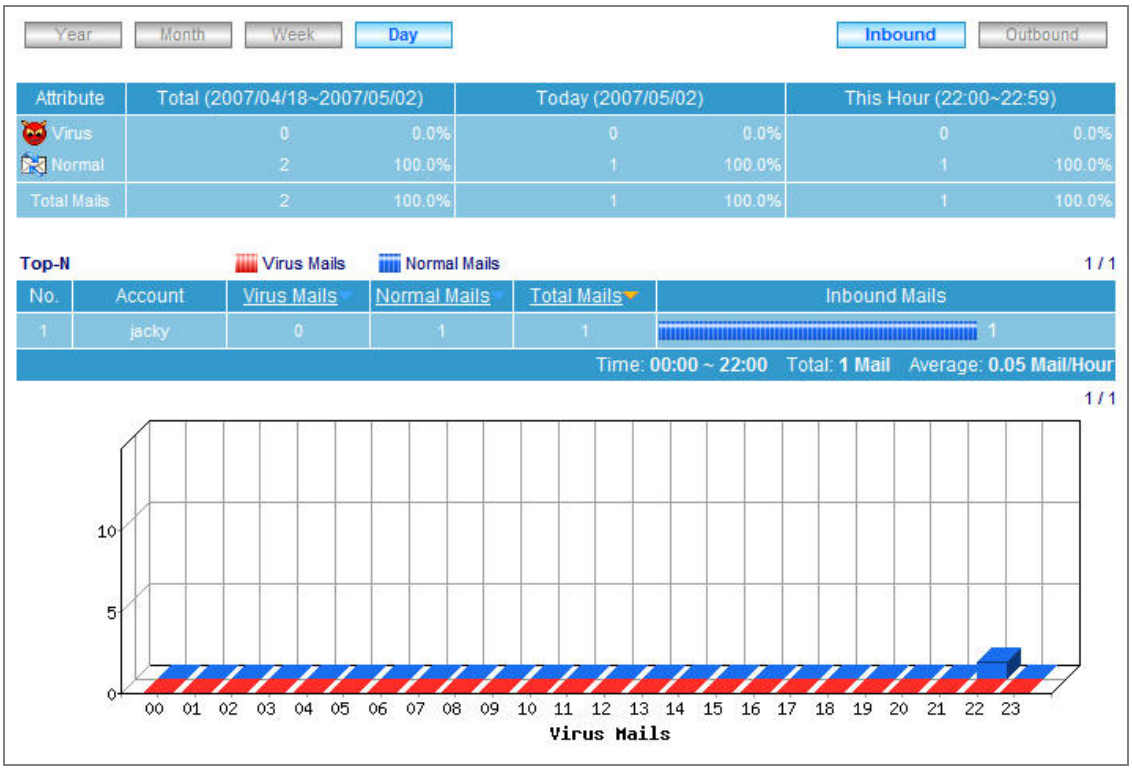



**Figure 8-25 Scanned mail statistics report**

### 8.3.3 Log

- User can use date, sender, sender IP address, recipient, subject, attribute, action, and attachment as keyword to search matched records stored in ES-4000V2.
  - To use this feature, please follow the steps below :
    1. Enable searching duration and assign a period of time.
    2. Input a sender as keyword.
    3. Select **All** for **Attached File**.
    4. Select **All** for **Attribute**.
    5. Select **All** for **Action**.
    6. Click **Search**. (Figure 8-26)
    7. Click **Download Report** to download the search results as a ".txt" file onto local computer. (Figure 8-27)
    8. Click **Export Mail** to download the search results as a ".mbx" file onto local computer. (Figure 8-28)

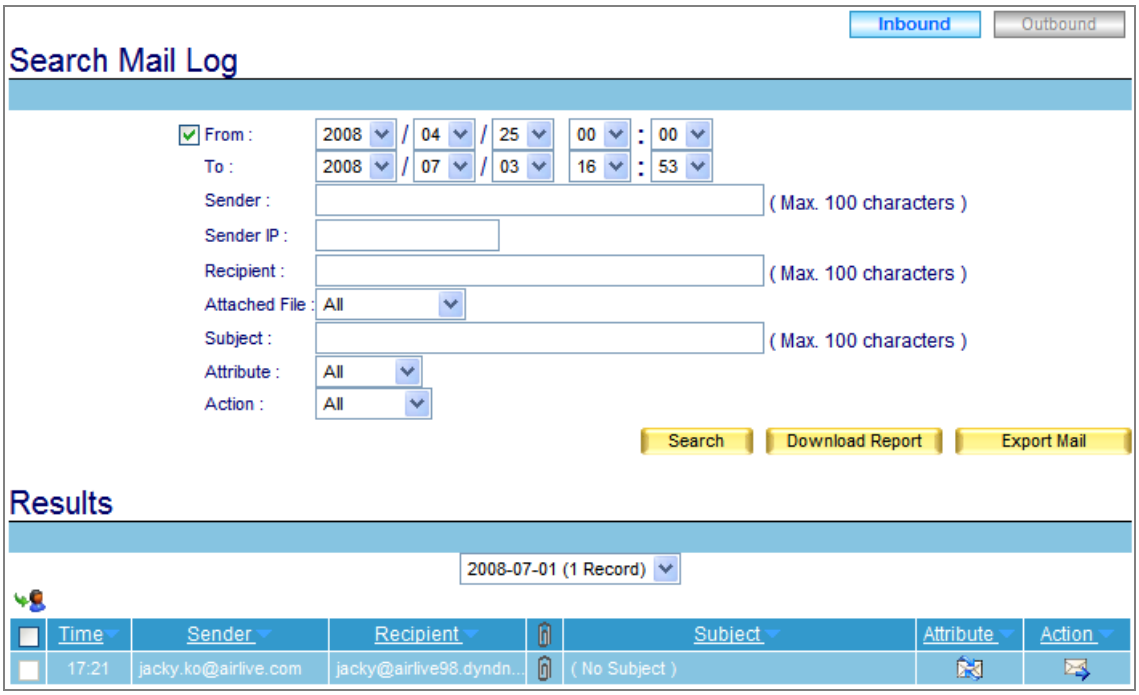



**Figure 8-26 Search for specific record**

1. Both **Statistics** and **Log** have Inbound and Outbound scanned mail report.
2. In **Log**, click any sender email address link to show its recipient list (a recipient list is a list of all recipients receiving mails from the email address that you click on); click any recipient email address link to show its sender list (a sender list is a list of all senders sending mails to the email address that you click on).
3. **Log** can be sorted by time, sender, recipient, subject, attribute and action. So do sender list and recipient list.

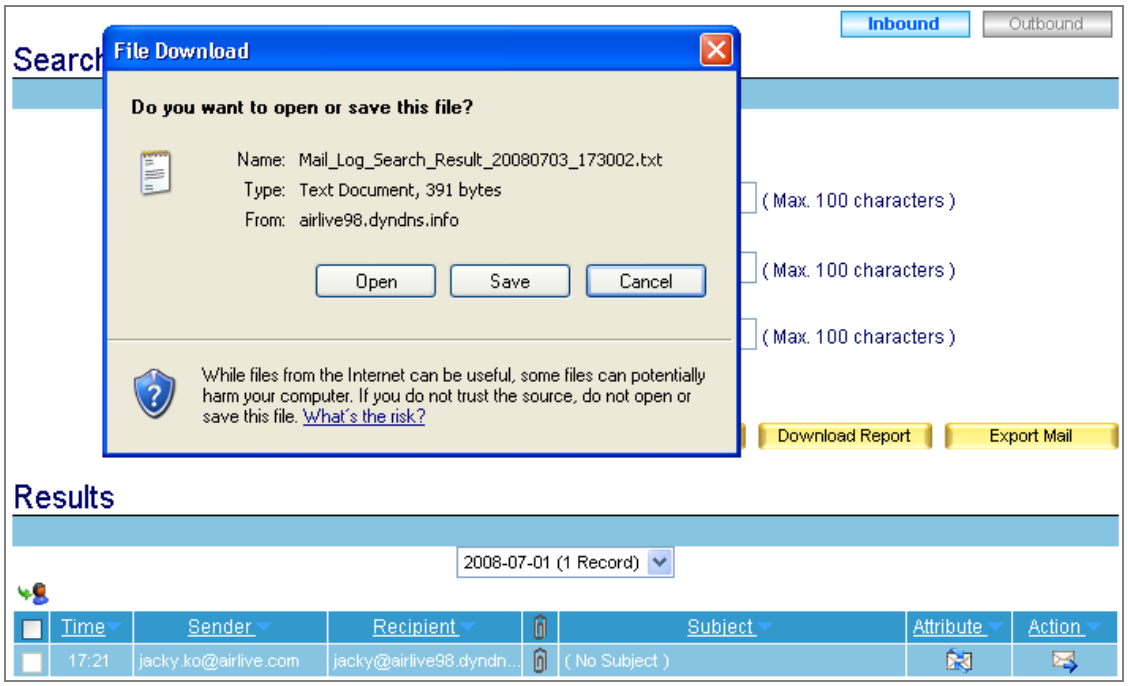



Figure 8-27 Downloading the Search Results as a ".txt" File

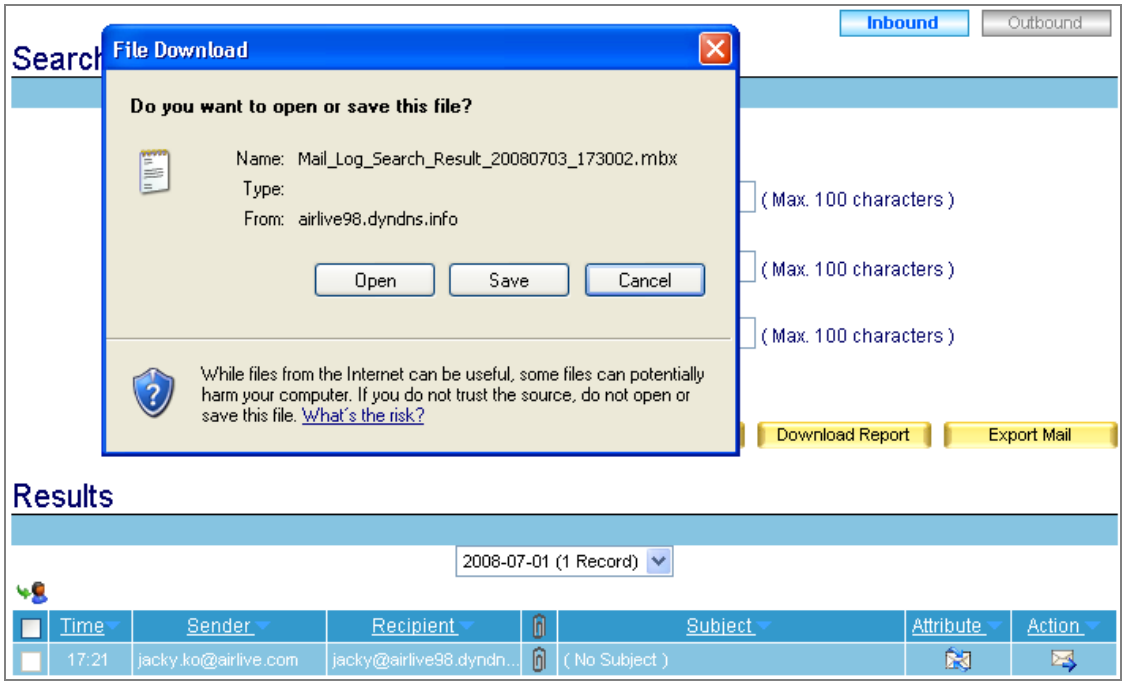



Figure 8-27 Exporting the Search Results as a ".mbx" File

How to open a “.mbx” file on your local computer:

1. Convert the “.mbx” file into a “.eml” file with a mbx2eml application (e.g., IMAPSize) and then run Outlook Express to open the “.eml” file.

   - Run IMAPSize, navigate to **Tools > mbox2eml** on the menu bar, and then click it. (Figure 8-28)

   - In the mbox2eml window, click “**Select mbox files to convert**” button, locate the “.mbx” file, click **Open**, and then click **Convert** to start converting the file into “.eml” file.
     (Figure 8-29, Figure 8-30, Figure 8-31)

   - Run Outlook Express to open the “.eml” file. (Figure 8-32)

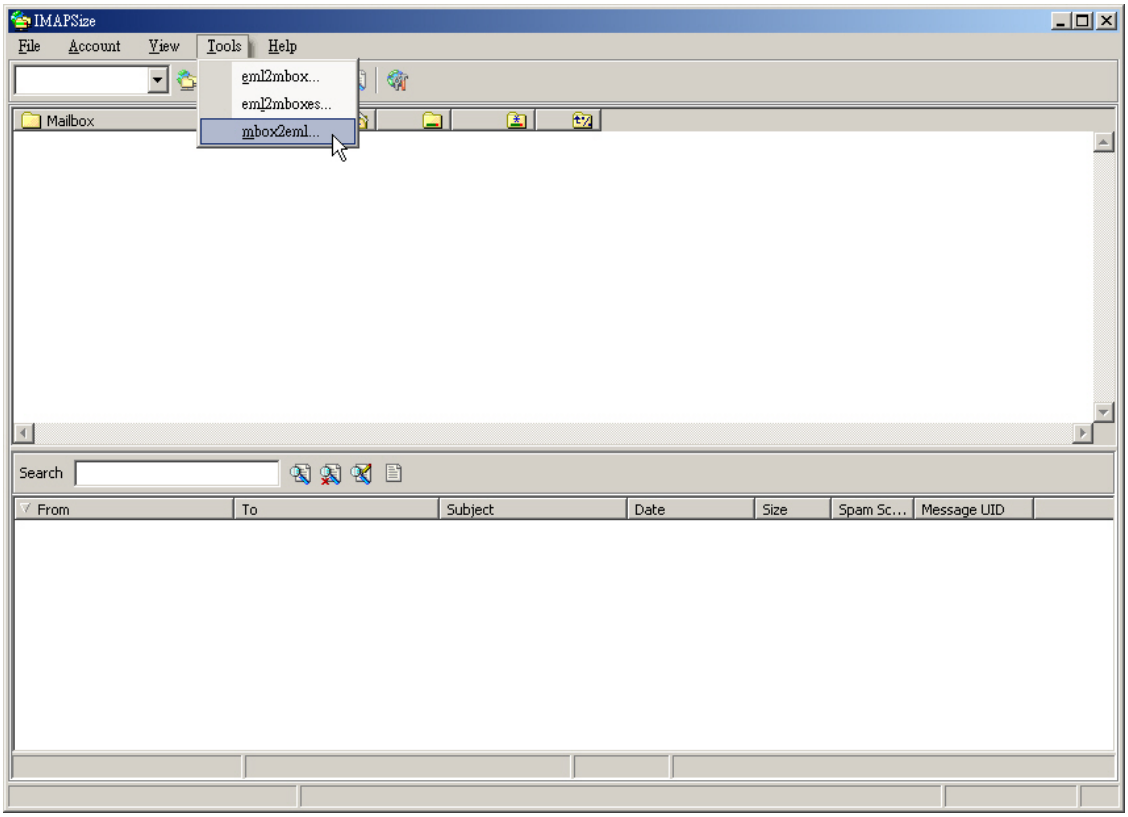



**Figure 8-28 Navigating to Tools > Mbox2eml on the Menu Bar**

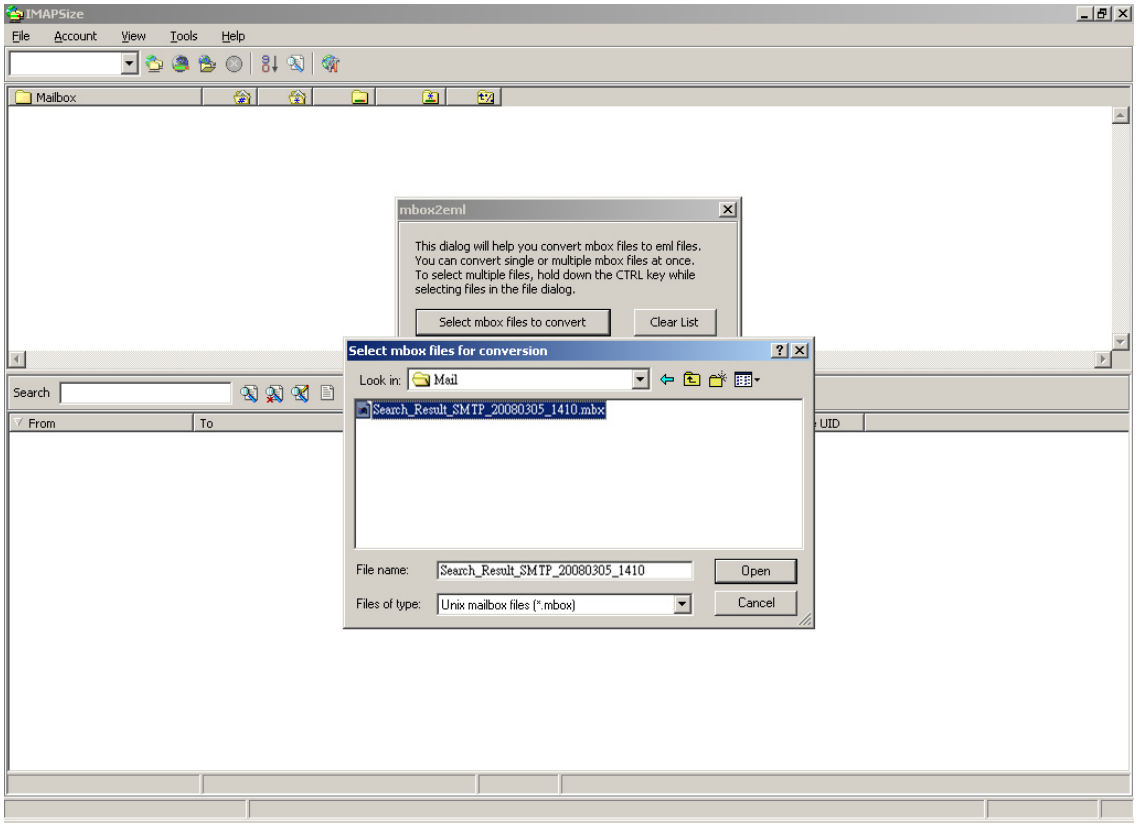



Figure 8-29 Specifying the ".mbx" File to be Converted

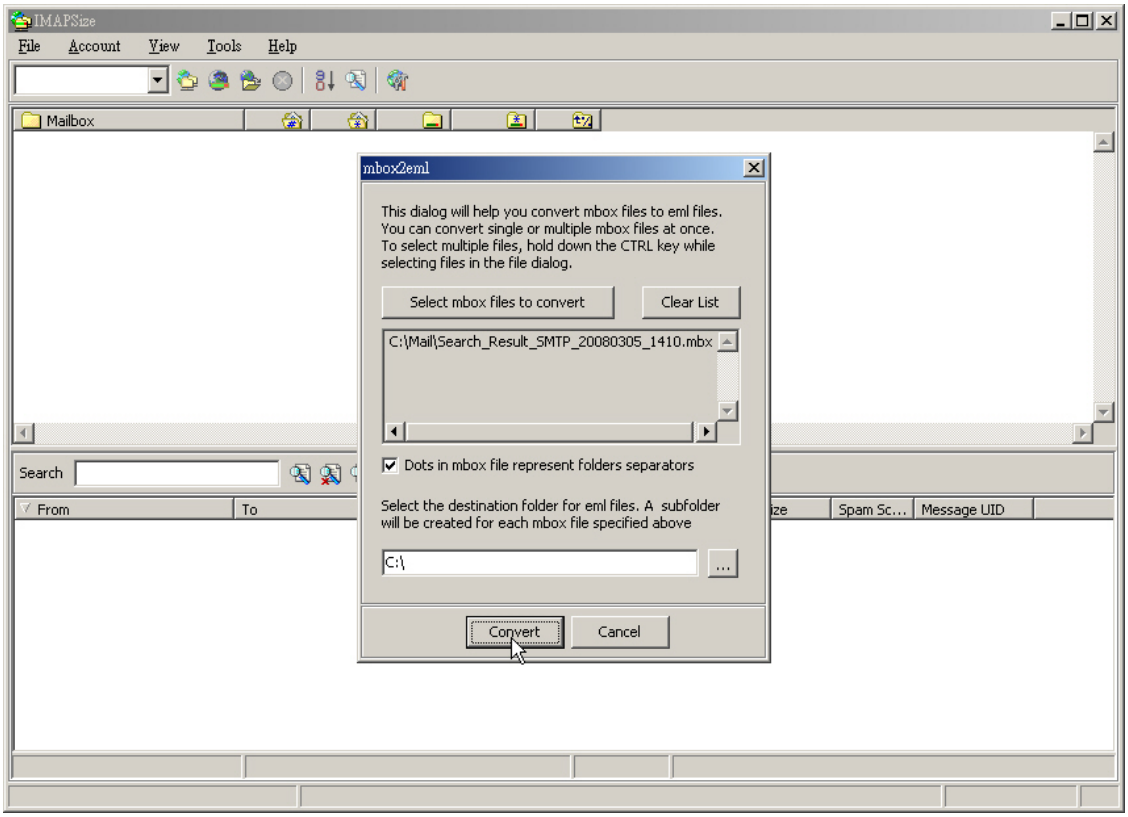



Figure 8-30 Converting the ".mbx" File into a ".eml" File

2.

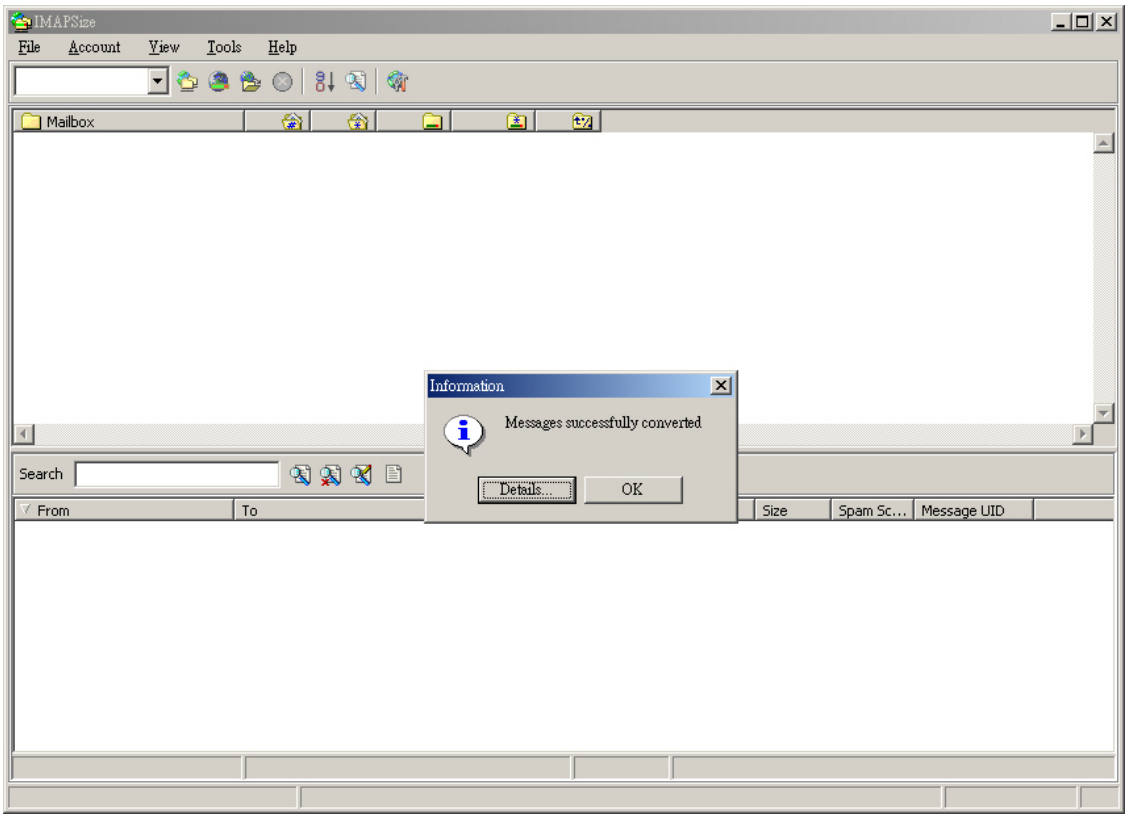



Figure 8-31 File Conversion Completed

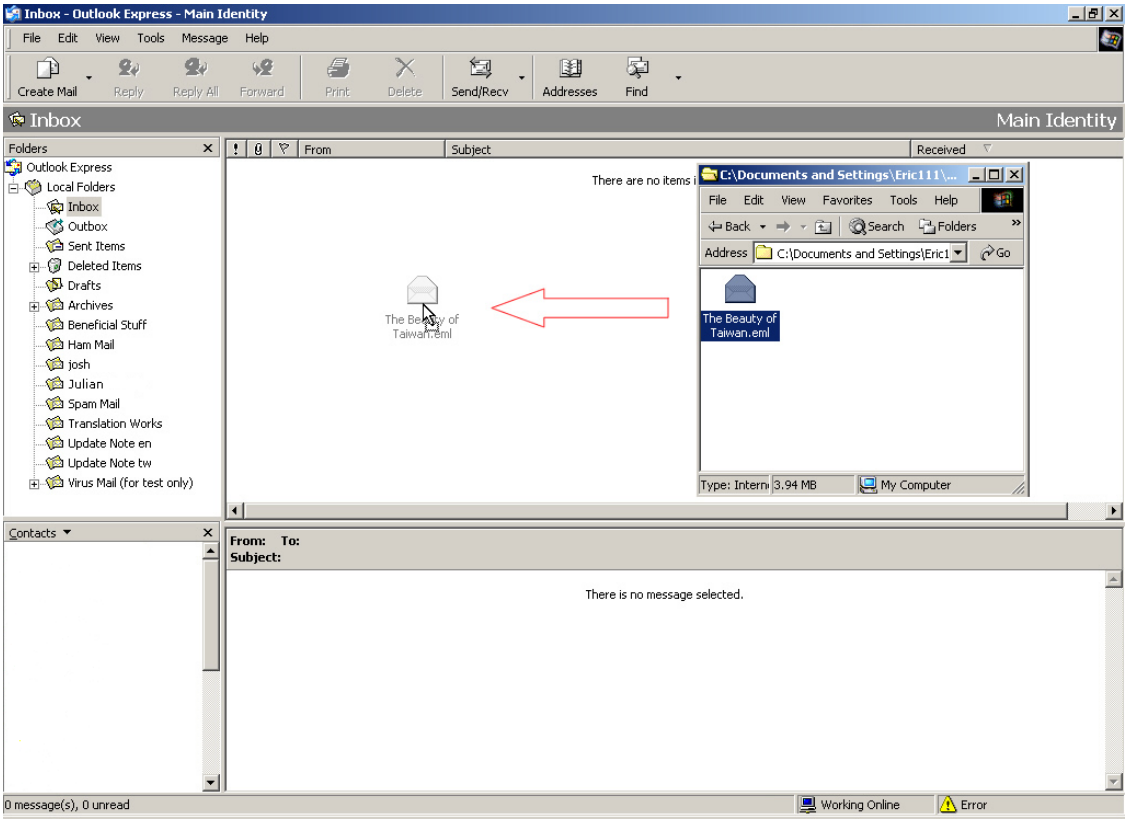



Figure 8-32 Clicking and Dragging the ".eml" File into Outlook Express to Open It

***Step1.*** In the path of **Mail Security → Mail Report → Log**, there it shows actions of mails. (Figure 8-33)

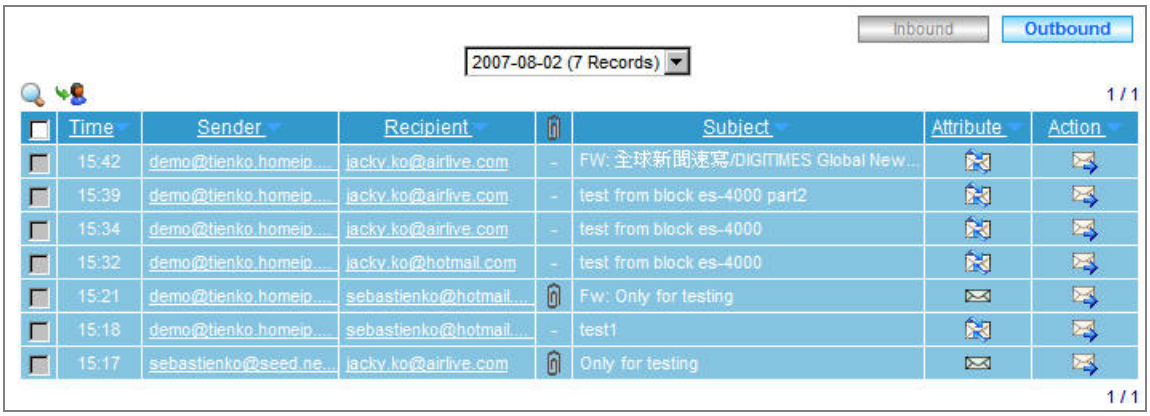



**Figure 8-33 Scanned mail log**

In **Log**, quarantined spam and virus mails can be retrieved by assigned recipient or viewed its content simply by clicking its subject. (Figure 8-34, 8-35)

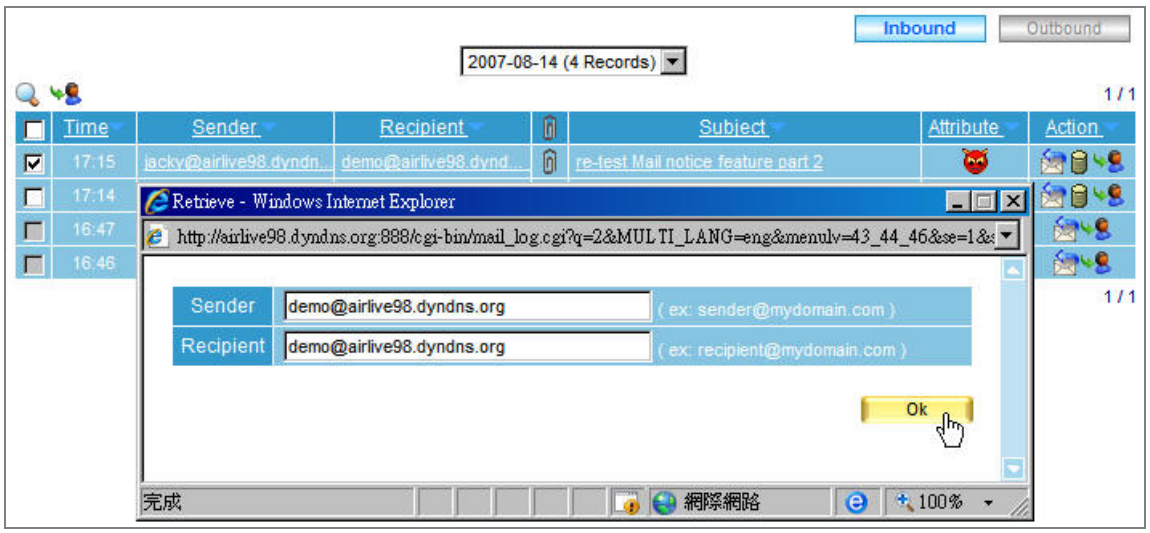



**Figure 8-34 Retrieve quarantined virus mail**

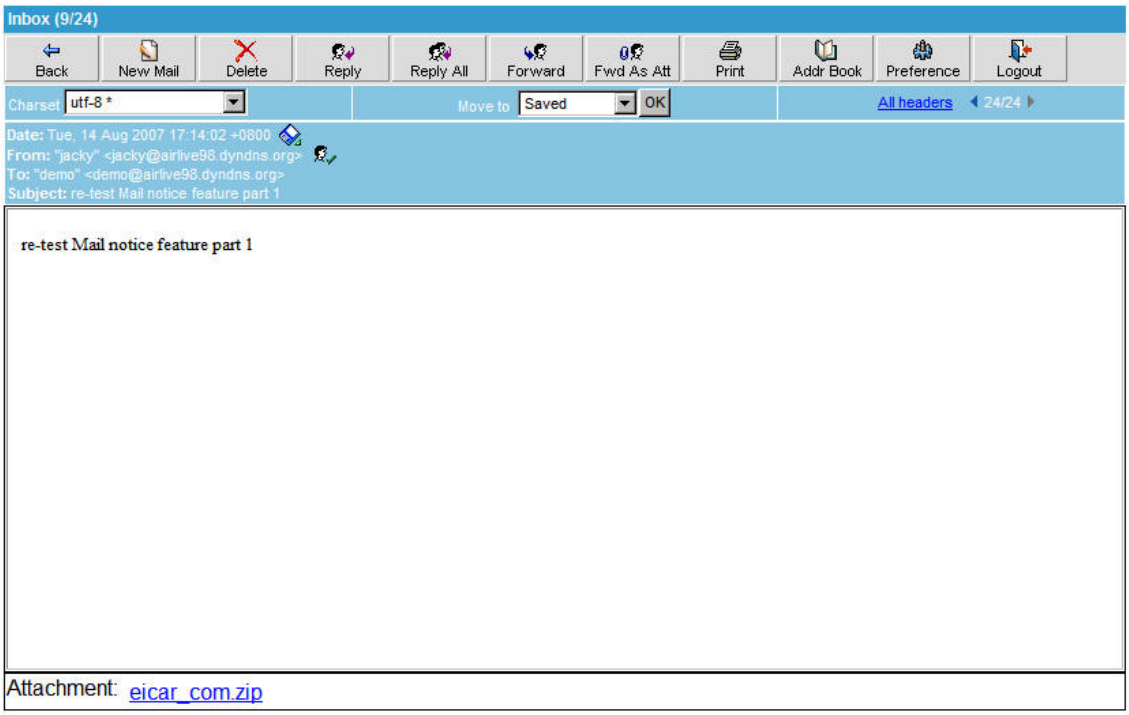



**Figure 8-35 View a quarantined virus mail**

**Log** icon descriptions:

1. Attribute:

| Icon | | | | | |
|---|---|---|---|---|---|
| Definition | Allowed | Spam | Virus | Unscan | Invalid Recipient |

2. Action:

| Icon | | | | |
|---|---|---|---|---|
| Definition | Delete | Deliver | Store | Retrieve |

3. Attached File:

# Chapter 9 Remote Backup

The archived E-mails can be periodically (according to the time setting) transferred to the assigned location to solve the storage space limit and audit time limitation.

## 9.1 Backup Setting

### Connection Status of Remote Hard Disk

- The remote hard disk status has the information of connection status, disk space for backup, and hard disk utilization.

### E-mail Setting

- Sending E-mail to inform the recipient of backup completion.

### Backup Setting

- The setting for assigning the backup location and the executing time.

### Backup Immediately

- This can calculate how much disk space the data in a specific duration will take up and provide a real-time backup.

## 9.2 Browse Setting

### Connection Status of Remote Hard Disk

- The remote hard disk has the information of connection status. (e.g. read / write access)

### Browse Setting

- The setting for assigning the backup location.

The **Browse Mail** function will not be available unless the **Browse Setting** has been configured at first.

## 9.3 Browse Mail

- Available search criteria are date, sender, recipient, subject, content, action, attached, and non-attached.
  - Set as below :
    1. **Recipient**, enter the keywords or phrases. ( For example, Jacky, jacky@airlive.com)
    2. Enable to select the date setting.
    3. **Action**, select All.
    4. **Attached File**, select all.
    5. Click **Search**. (Figure 9-1)

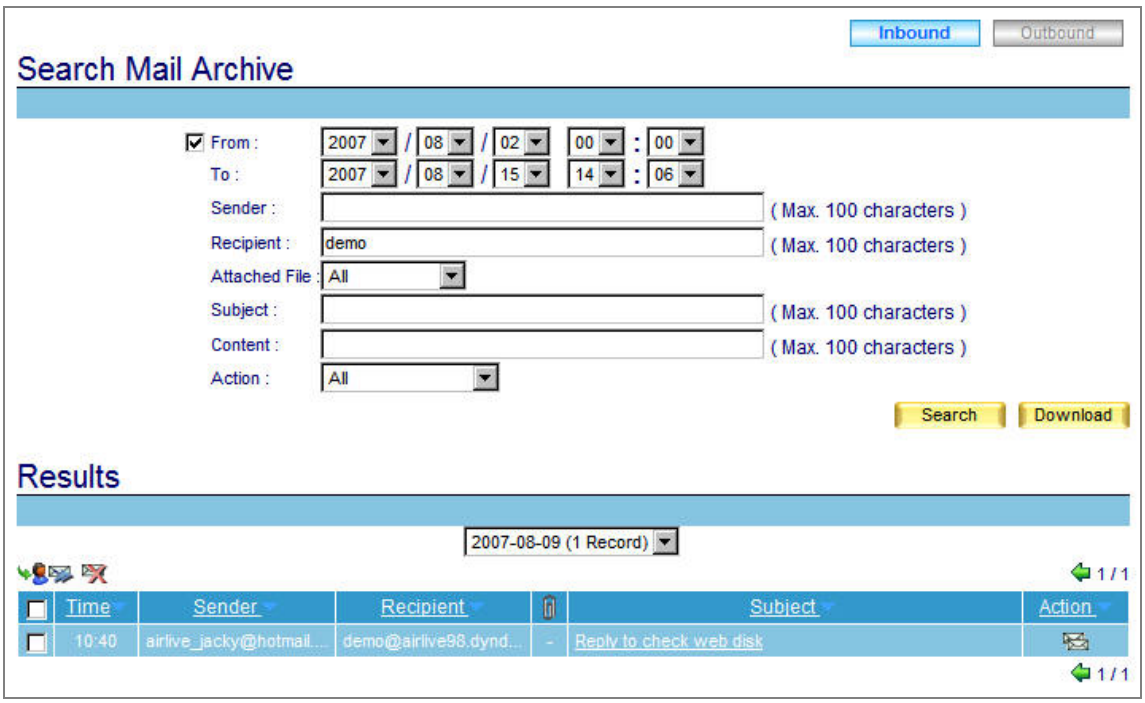



**Figure 9-1 Search for the specific mail**

**Example: Transfer Archived E-mails to the Assigned Backup Location and Provide Mail Browsing Service**

***Step1.*** In **Remote Backup → Backup Setting**, please refer to the figure below to set up. (Figure 9-2)

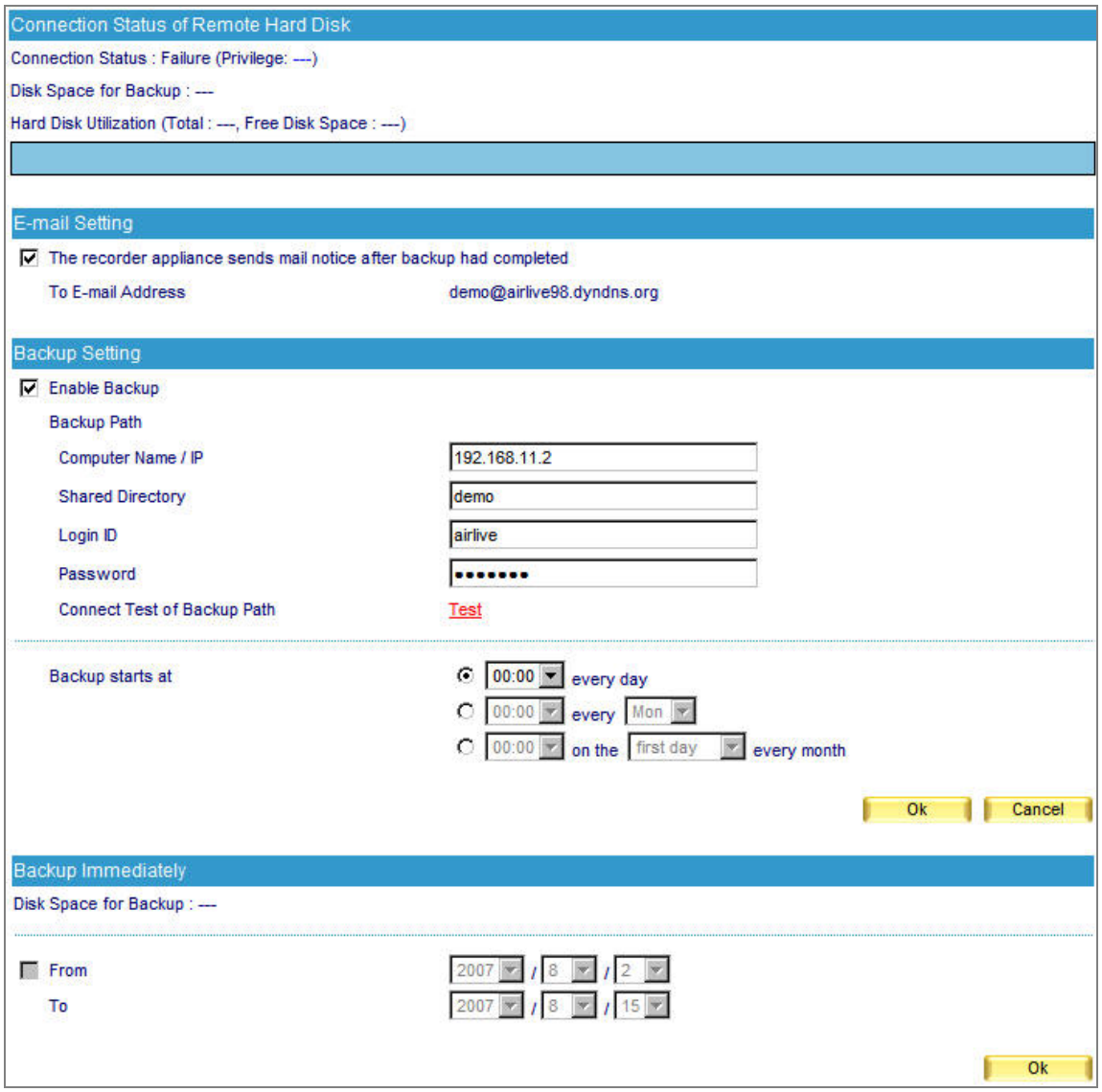



**Figure 9-2 The remote backup setting**

It is easy to create remote backup server. Just to share a folder of internal PC with read/write access right, and define a specific user name and password for the access right. If the folder can be found in My Network Places, it can also be the remote backup server to store ES-4000V2 mails record.

***Step2.*** Check up the backup path and available disk capacity. (Figure 9-3)

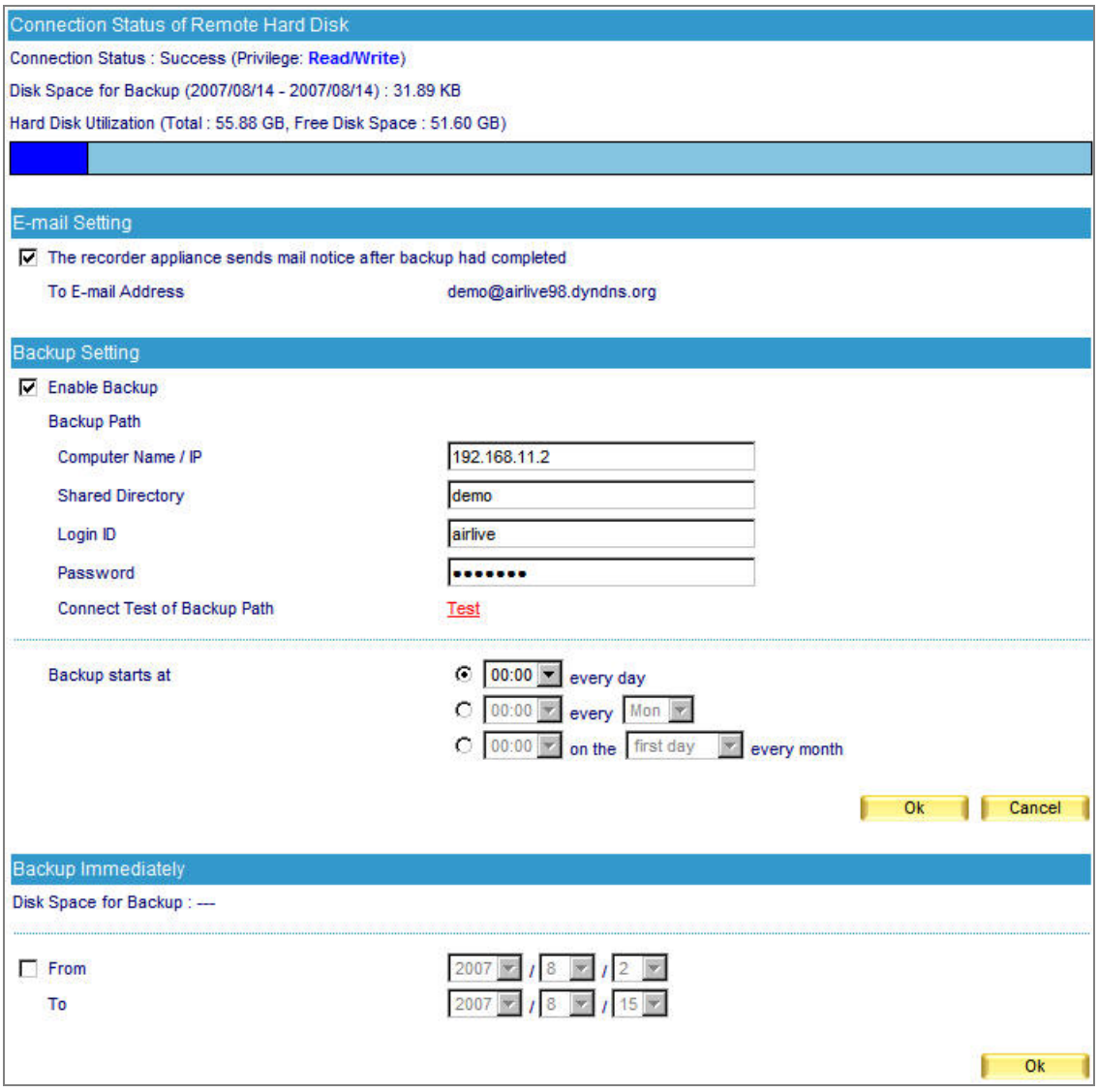



**Figure 9-3 Check up the available disk capacity for backup**

The archived E-mails of a specific duration can be exported. (Figure 9-4)

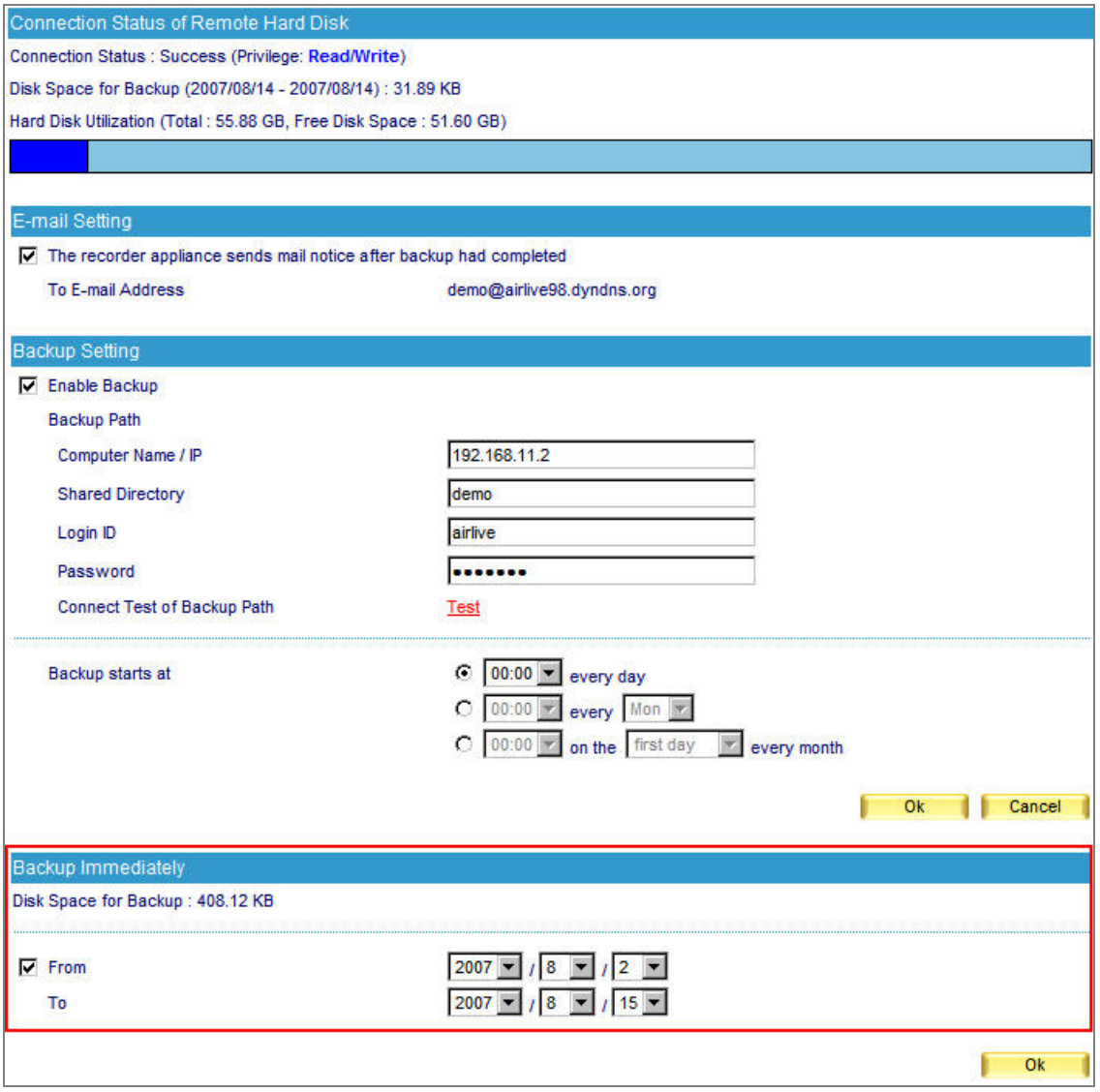



**Figure 9-4 The setting of backup immediately**

***Step3.*** In **Remote Backup → Browse Setting**, set as below. (Figure 9-5)

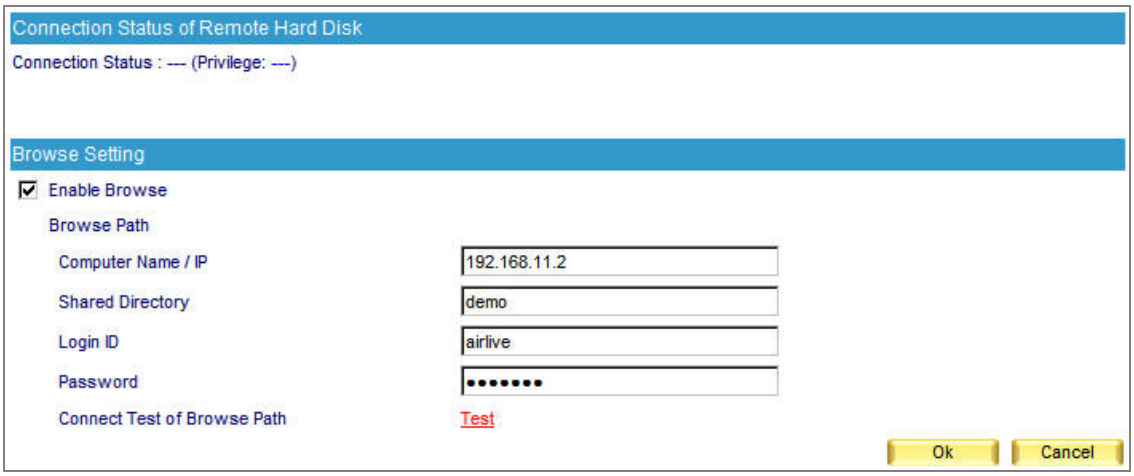



**Figure 9-5 The browse setting**

***Step4.*** Check up the connection status. (Figure 9-6)

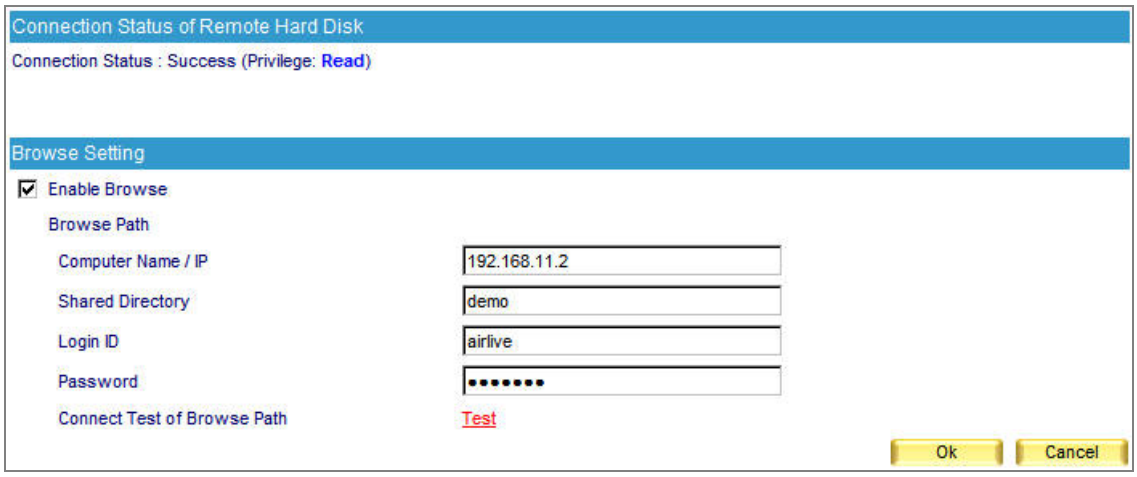



**Figure 9-6 Check up the connection status**

***Step5.*** When the mails are archived, they will be transferred to a NAS or file server according the remote backup setting.

- A mail report shown in **Remote Backup → Browse Mail**. (Figure 9-7)
- To retrieve, check the box corresponding to the E-mails to be retrieved and click the retrieve icon on the upper left.
- Then a **Retrieve** window appears. Next, apply both the sender and recipient E-mail address and click **OK**. (Figure 9-8)
- To remove, check the box corresponding to the E-mails to be deleted and click the remove icon on the upper left.
- Click **OK** in the confirmation window to confirm the deletion of selected E-mails. (Figure 9-9)

Figure 9-7 Browsing the remote backup e-mails

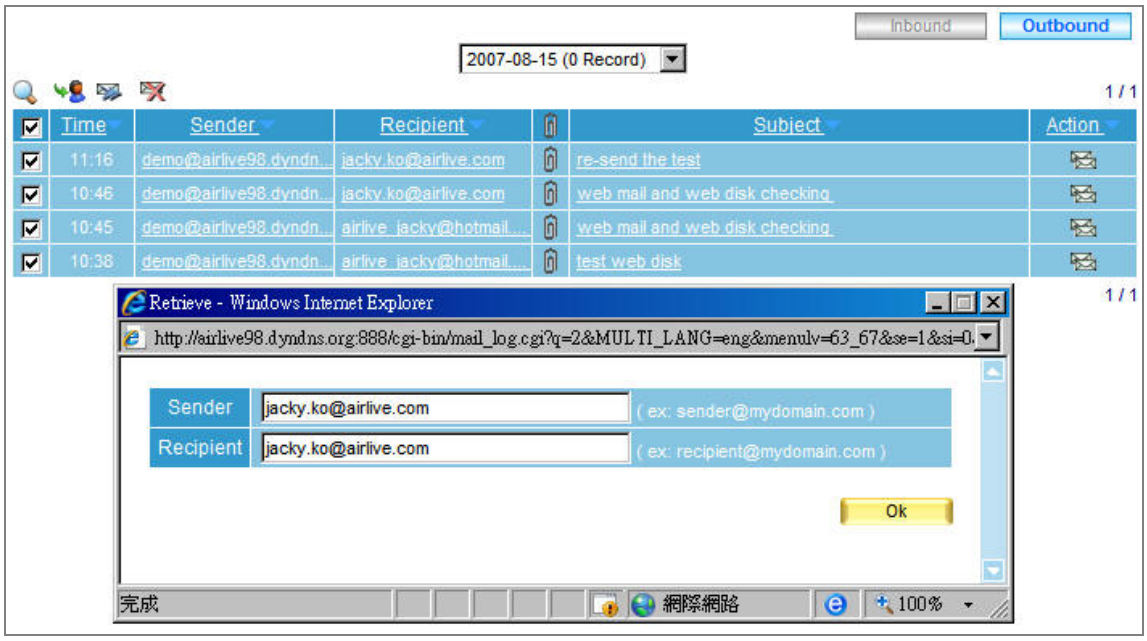



Figure 9-8 The retrieve window

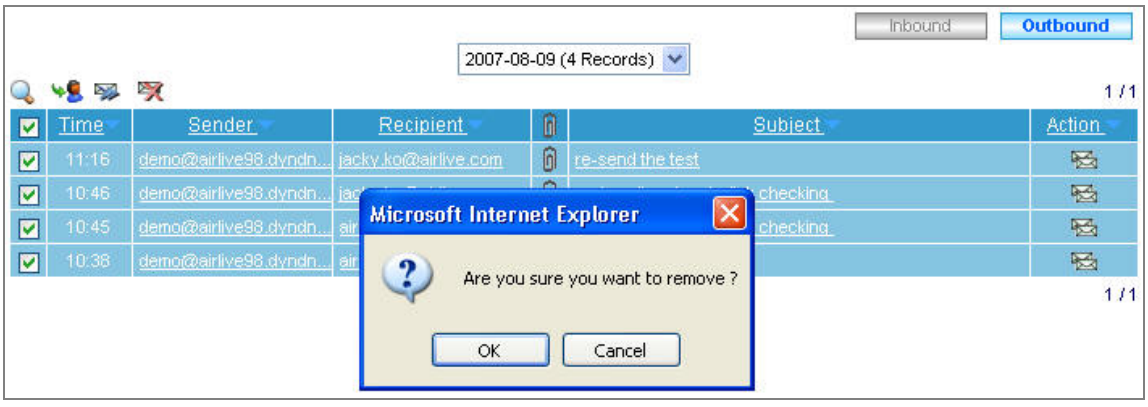



Figure 9-9 Confirm to delete backup E-mails

# Chapter 10 HA

ES-4000V2 features **High Availability** function. While there are two ES-4000V2 devices available onsite, **High Availability** enables them not only to synchronize to each other but also to substitute for the malfunction one in just no time. It ensures the enterprise an always connecting Internet access.

**Definition**

**High Availability Setting**：

- This can synchronize the system configuration and firmware version between Master and Backup devices.

**Master / Backup Status**：

- It shows the connection and synchronizing status of Master and Backup devices.

**Example: To Deploy a High Availability Environment**

***Step1*** Power off and deploy Master and Backup ES-4000V2, connect both port1 to switch. (Figure 10-1)

***Step2*** Connect Master ES-4000V2 port 2 (HA port) to Backup ES-4000V2 port 2.

***Step3*** Don't power on Backup ES-4000V2 before you finish the configuration of Master ES-4000V2.

***Step4*** Change interface IP address of Master ES-4000V2 to differ with default IP 192.168.1.1, ex. 192.168.1.2 (Figure 10-2)

***Step5*** Change Management IP of Master ES-4000V2 to differ with default IP 192.168.2.1, ex. 192.168.2.2. (Figure 10-3)

***Step6*** Make sure the Master ES-4000V2 and Backup ES-4000V2 port 1 and port 2 are connected properly.

***Step7*** Power on the Backup ES-4000V2, then both ES-4000V2 will synchronize data and setting. (Figure 10-4, 10-5)

***Step8*** It needs to take 10 hours to synchronize the data and setting. (Figure 10-6)

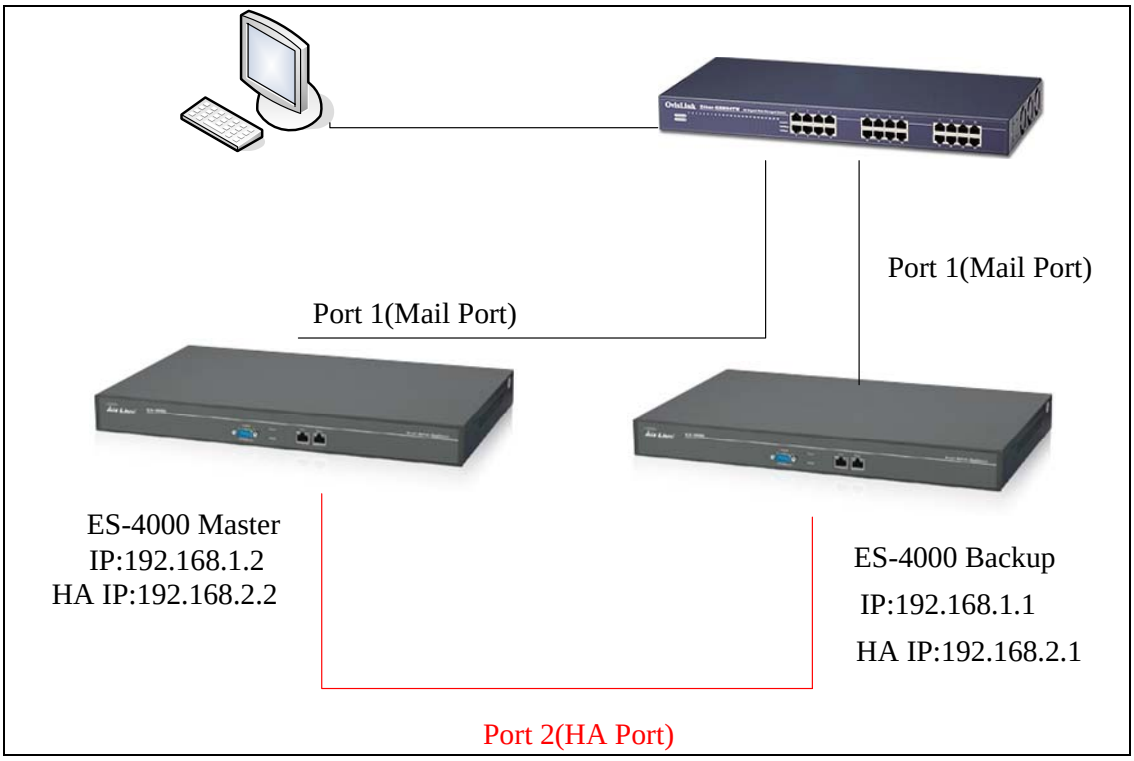



**Figure 10-1 The Master device deployment under High Availability mode**

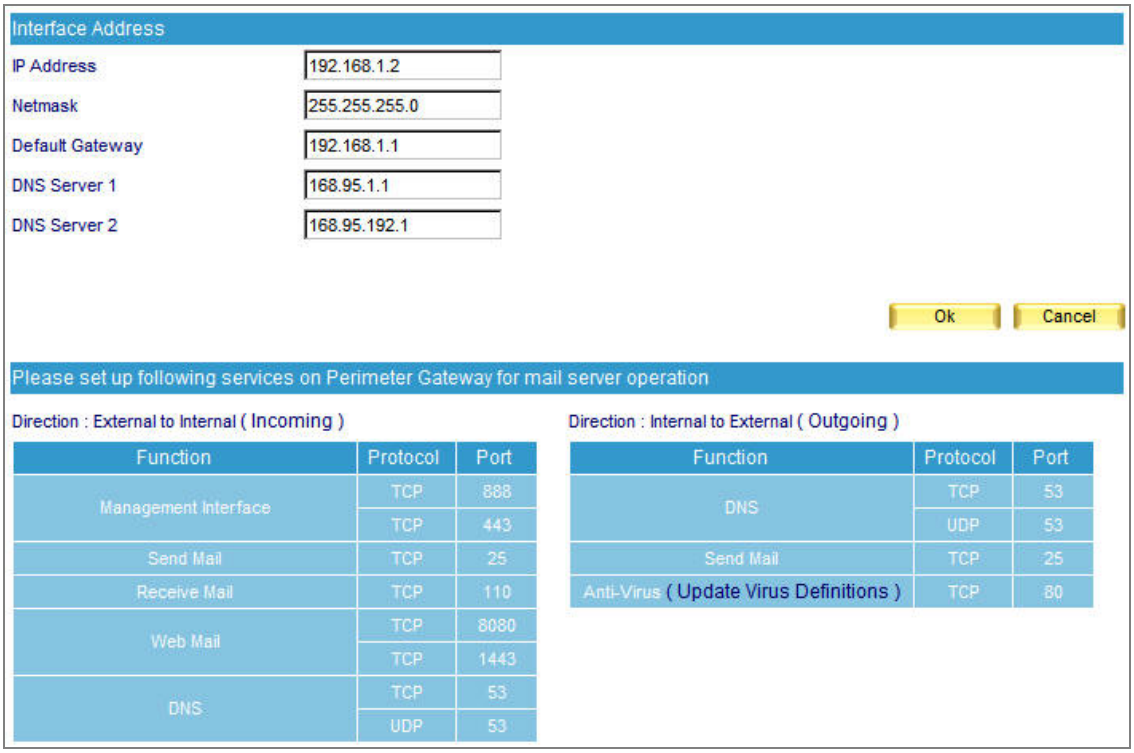



**Figure 10-2 Change interface IP of Master ES-4000V2**

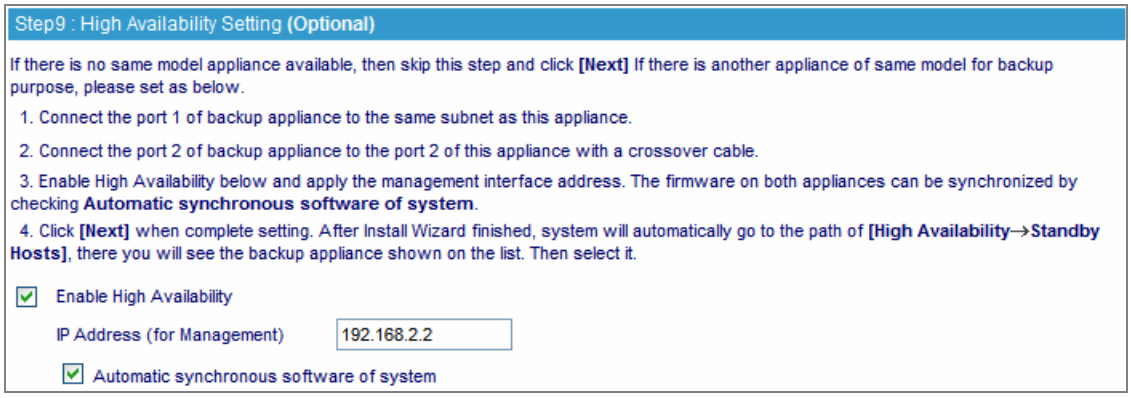



**Figure 10-3 Change Management IP of Master ES-4000V2**

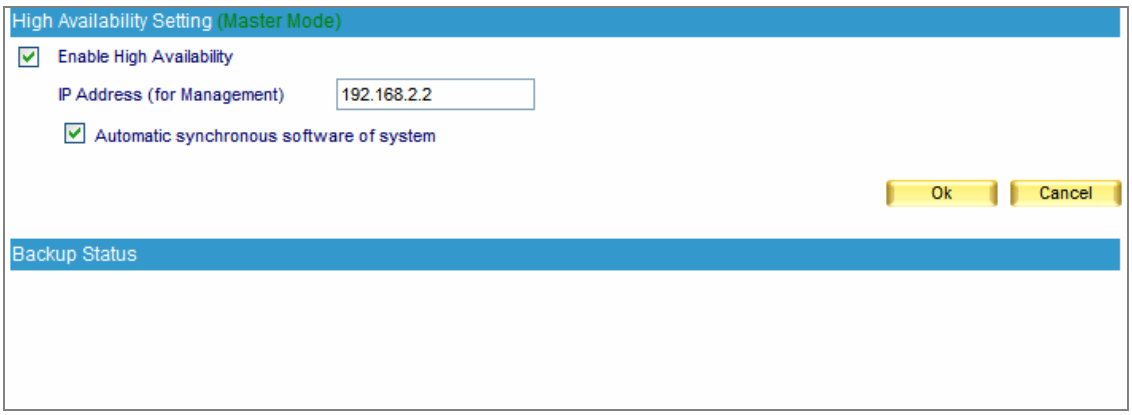



**Figure 10-4 Change Management IP of Master ES-4000V2**

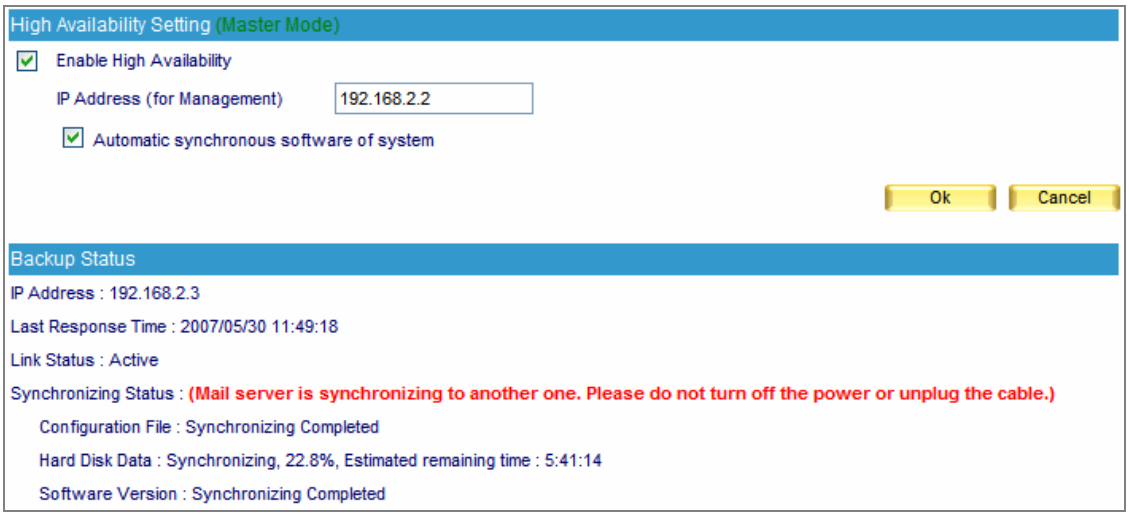



**Figure 10-5 Under the process to synchronize both ES-4000V2's data**

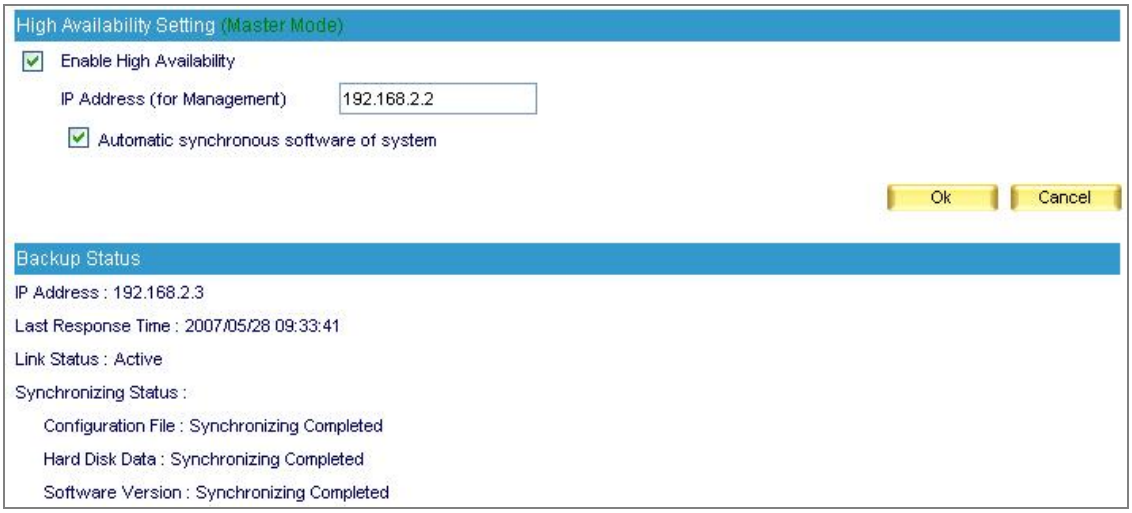



**Figure 10-6 Complete High Availability function**

To avoid synchronizing error, please make sure the Master device functions properly, which means the machine is functioning and the management interface is accessible, before turning on the Backup device.

The device build-in hard disk is replaceable. However the replacement must be equal to or larger than 160GB or else anomalous data losing may occur as a result.

## Notes:

1. After the deployment finished, the Backup device will substitute for Master device once it breaks down. (The two devices detect each other for status through Port1 and Port 2 connection.)
2. When there is any data or firmware version variation between the two devices, the synchronization will immediately function through the Port 2. (Figure 10-7)

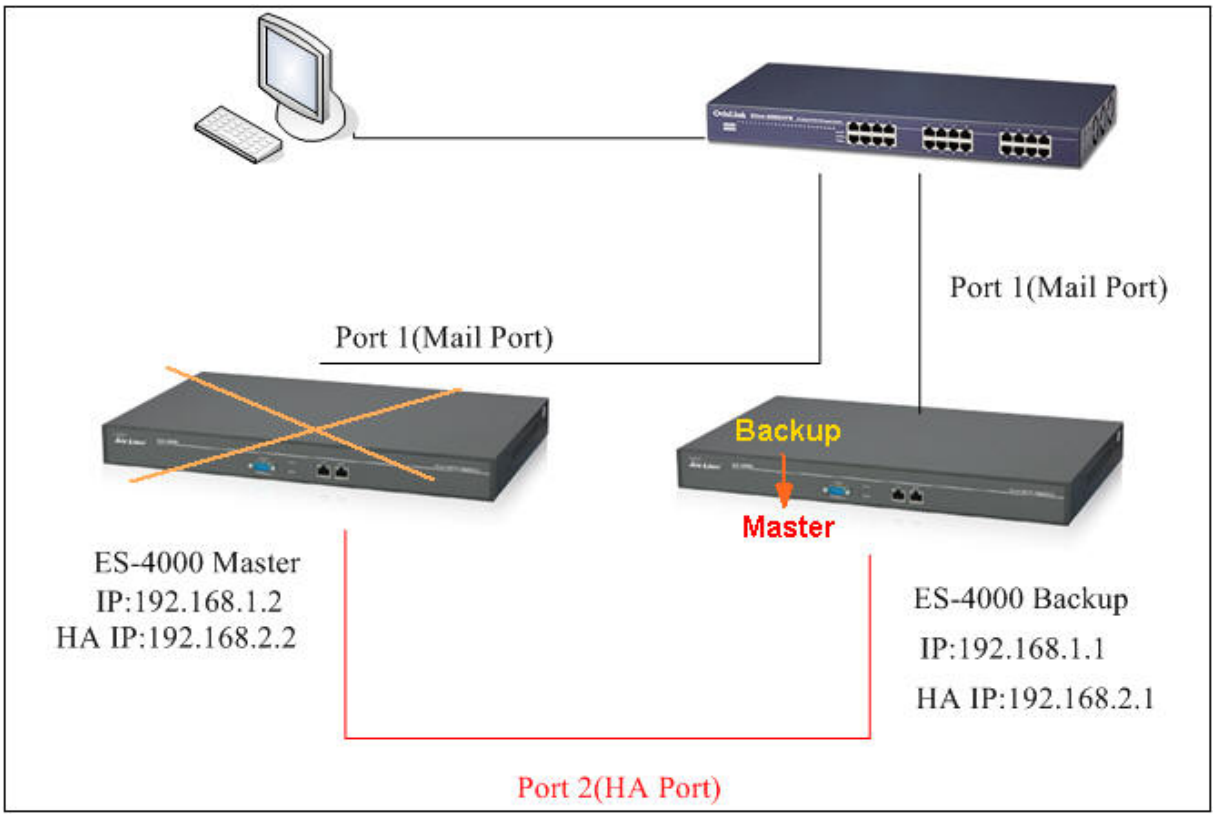



**Fig. 10-7 An illustration of how High Availability works**

When the Port 2 is broken or the connector is loosened, it only ceases the function of synchronization instead of triggering it off.

# Chapter 11 Monitor

MIS engineer could view the system information and every event log in **Monitor**.

1. System Info indicates the utilization of CPU, Hard Disk, Memory, and Ram Disk.
2. Event Log records every activity in ES-4000V2, such as modify and remove setting.

## 11.1 System Info

***Step1.*** In the path of **Monitor → System Info,** it shows system utilization information: (Figure 11-1)

- **CPU Utilization** indicates the CPU usage percentage.
- **Hard Disk Utilization** indicates the hard disk usage percentage.
- **Memory Utilization** indicates the memory usage percentage.
- **Ram Disk Utilization** indicates the ram disk usage percentage

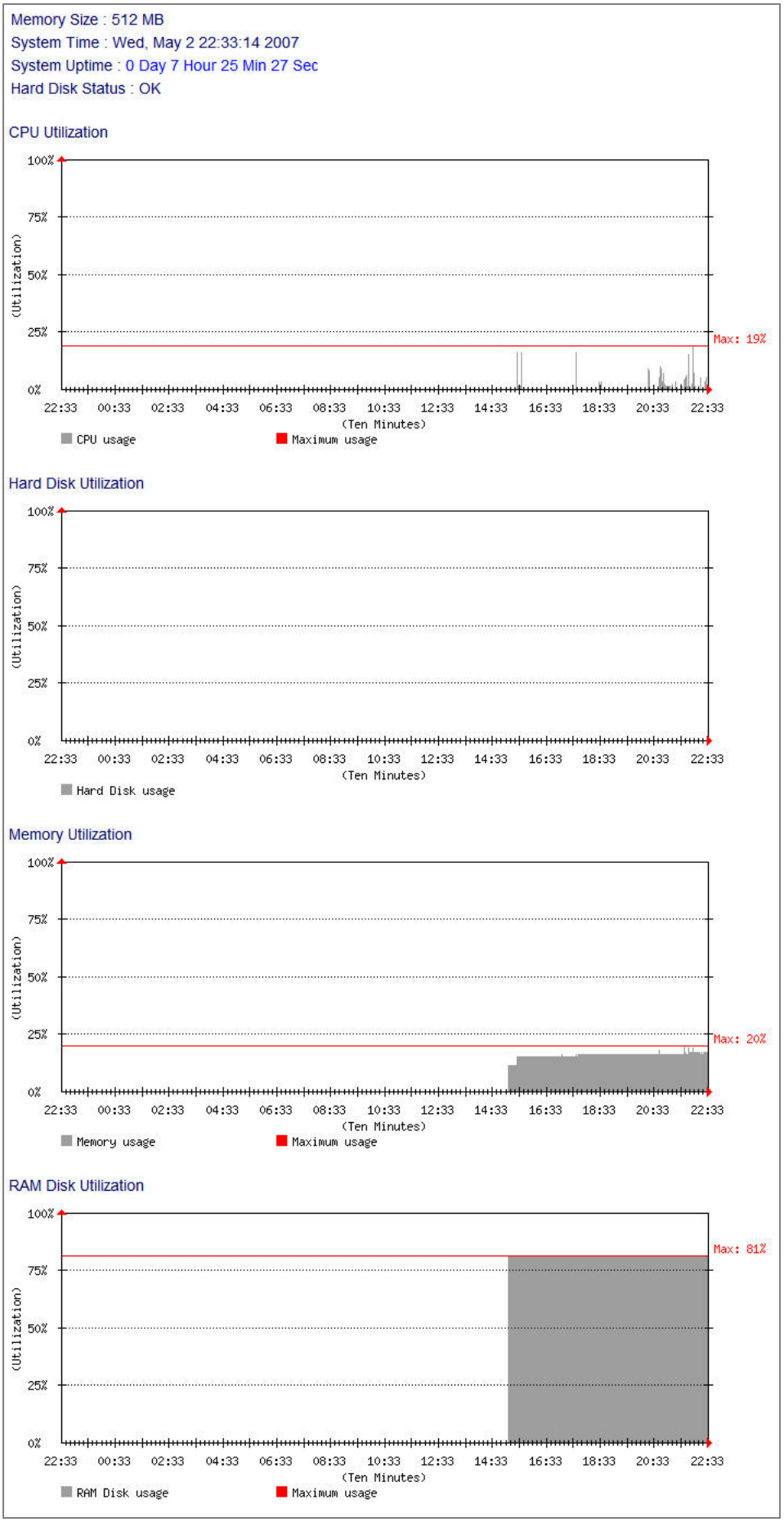



**Figure 11-1 Display system info**

## 11.2 Event Log

***Step1.*** In the path of **Monitor → Event Log,** it shows records of every activity in ES-4000V2, such as modify and remove setting. (Figure 11-2)

- Click to search event log. (Figure 11-3)
- Click to view log detail. (Figure 11-4)

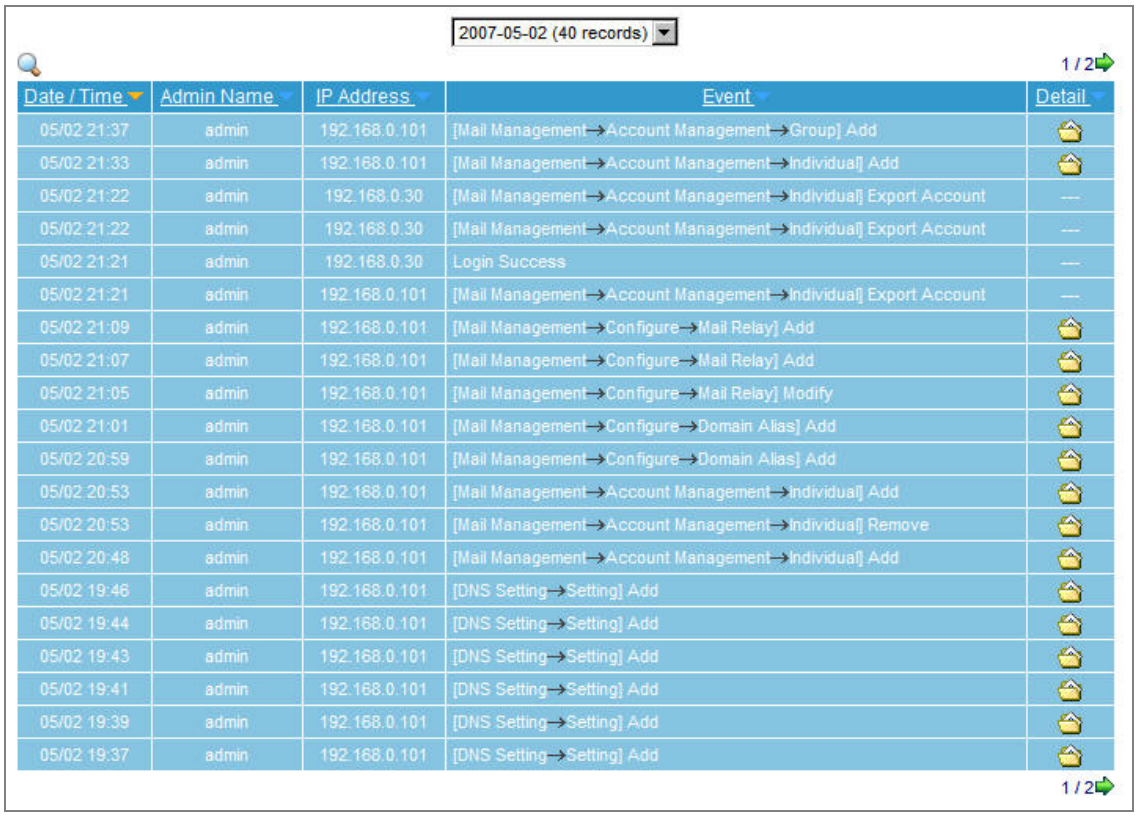



**Figure 11-2 Event log**

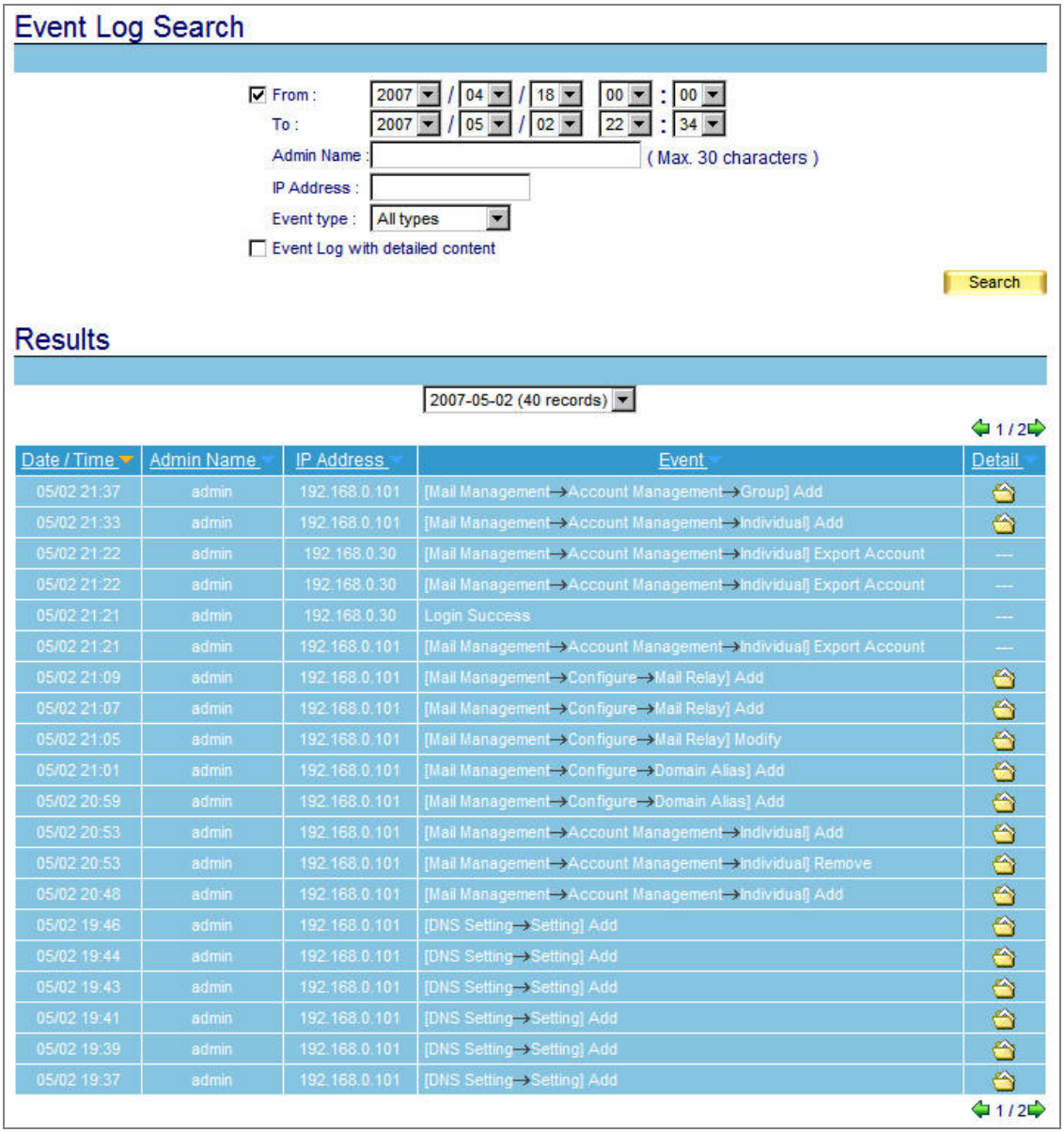



**Figure 11-3 Search results**

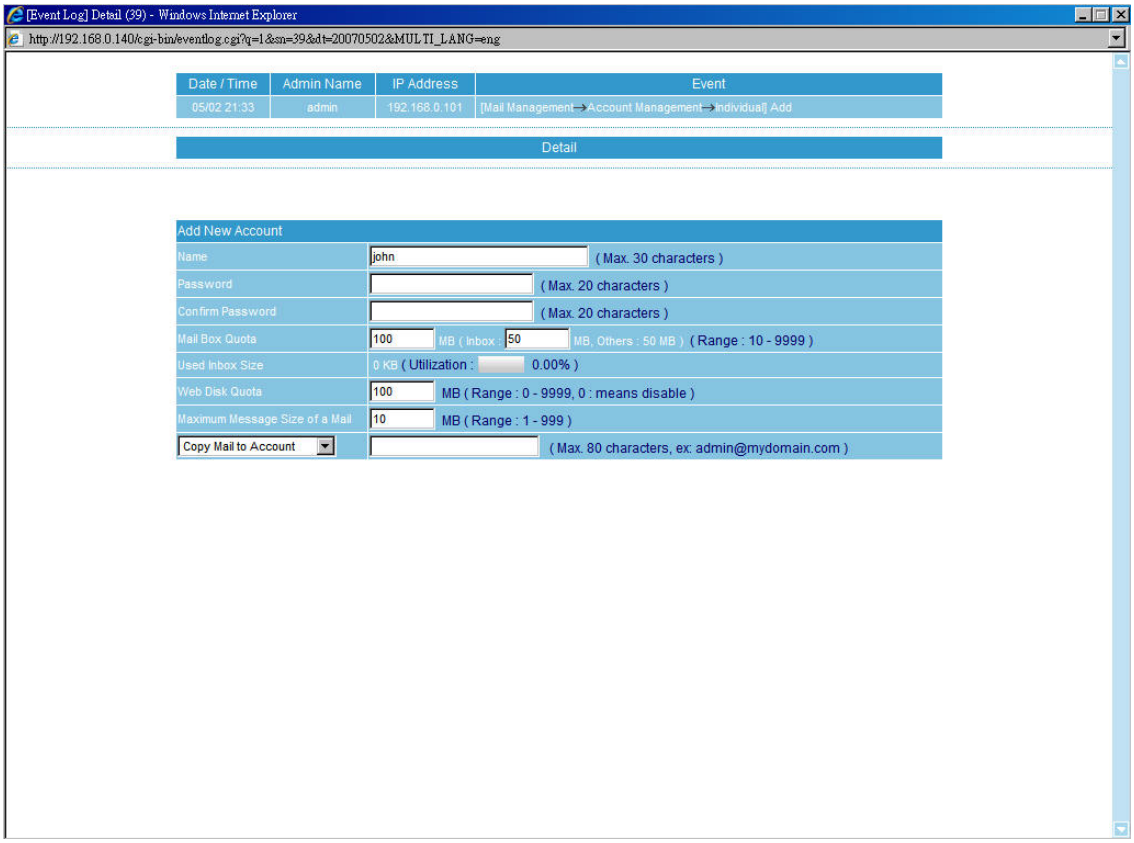



**Figure 11-4 Event log details**

# Appendix Introduction of Mail System

A mail server acts as an intermediate between the Internet and users when sending or receiving mails. The format of email address looks like account@server.name. Info on the left side of at sign (@) indicates an account name, the other side stands for the host name.

For instance, you are sending a mail to josh@yahoo.com.tw, your email software will go to your DNS server for the IP address and mail exchanger record that corresponding to mail server. Mails will go to mail exchanger before sending to the host server, in this case, it is yahoo.com.tw. If the DNS server has more than one MX, then mails will be sent to the MX with the highest priority. Provided that there is no MX, mails will not be delivered until the corresponding IP has found. When mails have been delivered to yahoo.com.tw, mails will be distributed to the user according to its account name which shows on the left side of at sign (@).

**Process of an email transmission:**
The transmissions are divided into three parts, namely MUA, MTA and MDA.

- **MUA (Mail User Agent):** Whether sending or receiving mail, the end-user client must account on the MUA which provided by the OS, for end-user client can not send mail directly. Outlook Express is a kind of the MUA. It serves as a mail deliver and recipient, and enables user to view and edit mails.
- **MTA (Mail Transfer Agent):** Outgoing and incoming mails are all done by MTA. It allows user to:
  1. Receive mails from other host. As long as user has a account under MTA, then the user will be able to receive mail.
  2. Sent out mails. On condition that the user has the authority, he will be able to send out mails.
  3. Receive personal mails. User can retrieve and view mails that saved on the mail server.

Usually, MTA refers to a mail server.

- **MDA (Mail Delivery Agent):** distributes incoming mails of MTA to local mail accounts according to their account names or sends them to the next MTA.

**Take sending and receiving mail for example to illustrate the process of mail transmission.**

When user wants to send a mail:

- Send mails to MTA via MUA. While composing email with MUA, make sure to follow steps below :

  1. Enter the sender email address and outgoing mail server (namely the sender MTA )
  2. Enter the recipient email address and incoming mail server (namely the recipient MTA for receiving mails from external host server)

After user finished composing a mail with MUA, such as Outlook Express, mail can deliver to the appointed MTA by clicking on **Send**.

- When MTA receives mails from itself, MDA will distribute received mails to each mailbox according to account names.
- When receiving mails of recipients from other MTA, it will automatically forward these mails to that MTA. This function is called Relay.
- A distant MTA is able to receive mails from local MTA. The distant MDA will take over the received mails and store them waiting for user to log in to download them.

The process of receiving mails:

A remote user inquires his MTA for checking new incoming mails, if MDA detects new mails, mails will be sent to user's MUA. Meanwhile, MTA will clear up the mailbox or keep those mails according to the MUA settings.

Email Protocols: SMTP & POP3

1. Sending Mails: signifies mails transferred from MUA to MTA and from MTA to MTA. Nowadays most mail servers use SMTP (Simple Mail Transfer Protocol) for outgoing mails. And the port 25 is assigned to SMTP protocol.
2. Receiving Mails: signifies MUA using POP (Post Office Protocol) to communicate with MTA so as to read or download mails in user's mailbox. Currently, POP3 (Post Office Protocol version 3) is the most popular protocol for incoming mails. And the port 110 is assigned to POP3 protocol.

Usually MTA needs at least two protocols, namely SMTP and POP3, to receive and send mails. As long as both MUA and MTA support SMTP and POP3 protocols, mail servers will be able to interact with each other.

Relay, a function that MTA transfers mails to another MTA, functions when MTA has learned that mail recipient does not exist on itself will transfer mails to another MTA.

A mail server which could be used to transfer mails by anyone is called Open Relay. To avoid this, presently most of mail servers set Relay as disabled. Only local host can utilize relay to receive mails that specified for this MTA accounts form Internet. Basically, there is no doubt that relay enables MTA to receive mails, yet there is a drawback in it. Since MTA normally allows certain trusted mail servers with specified IPs and segments to relay, so that client user could use mail services without limitation while other unspecified users been blocked. Thus, SMTP Authentication is invented to solve this problem.

SMTP Authentication, a mechanism that MTA inspects sender account and password from MUA, happens when mails transfer from MUA to MTA. It has a benefit of enabling relay function to authentic MTA accounts rather than certain trusted domain name or IP. Because of SMTP Authentication, MTA will neither accept incoming mails nor provide mail delivery service unless the sender is authentic.