How to configure Incoming Email Enabled Libraries in MOSS 2007 RTM using Exchange Server in an Active Directory Domain

Note: Applicable for SharePoint 2010 also

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Prior to the release of Exchange Server 2007, Microsoft announced that the future of public folders was in question, and that SharePoint libraries would take their place. Microsoft quickly changed its stance and continues to support Exchange public folders, but there still might be a number of compelling reasons why you would want to consider storing incoming messages in SharePoint document libraries -- instead of public folders.

SharePoint can enable incoming mail on lists and libraries. It also offers several out-of-the-box features like Alerts, Enterprise Search and Information Management policies, all of which provide for a richer collaborative experience.

One instance where these features are valuable actually has to do with technical newsletters. Many SharePoint users subscribe to various email-based technical newsletters and forward those messages to team members. Email-enabled document libraries provide a central location to store these newsletters, removing the administrative burden of manually sharing the information with other team members.

This feature also allows users to subscribe to the document library via SharePoint Alerts. These alerts can be set to *immediate*, *daily* or *weekly* summary notifications.

Newsletter subscriptions that are automatically delivered to an email-enabled document library form part of SharePoint's full-text index. Employees can search this index at a later date using SharePoint's

My server topology for this guide was as follows

Server Name	Role	Products Installed
DC	Domain Controller DNS Server	Windows server 2003 SP1
MAIL	Mail Server	Exchange 2007 Enterprise
SQL	Database server	SQL 2008 Enterprise SP1
MOSS 2007	MOSS 2007 Server	MOSS 2007 Enterprise

My internal domain name configured for the Active Directory is **trainsbydave.com**

You will need to replace **trainsbydave.com** with your own testing domain name

Step 1 – Let's get the Active Directory Ready.

When you E-Mail enable a library in a site it will create a new contact in the OU we specify for the AD. Therefore it makes sense to have an OU dedicated to MOSS 2007 list e-mail addresses.

Note 1 – It is the account configured as the SharePoint Central Administration Application Pool in IIS that created the contact object in Active Directory, make sure this account his write access to the OU.

Note 2 – Even though the objects are going to be created in the active directory they will now be managed in the Exchange management console. This is a significant change from Exchange 2003 where objects were managed in AD only.

On a Domain Controller Open Active Directory Users and Computers in the administration tools and create a new Organizational Unit under your main domain name. In my case I used the OU name **sharepointdl in** the domain trainsbydave.com
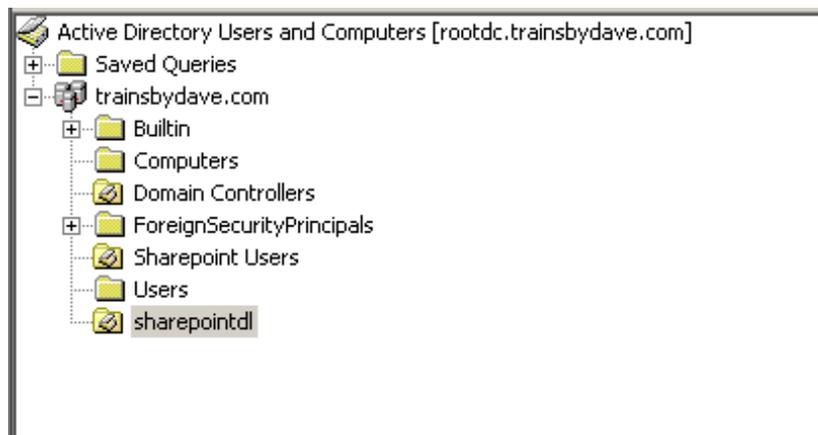
At this point we can new delegate control to the Central Administration Application Pool account to have Write access to the OU.
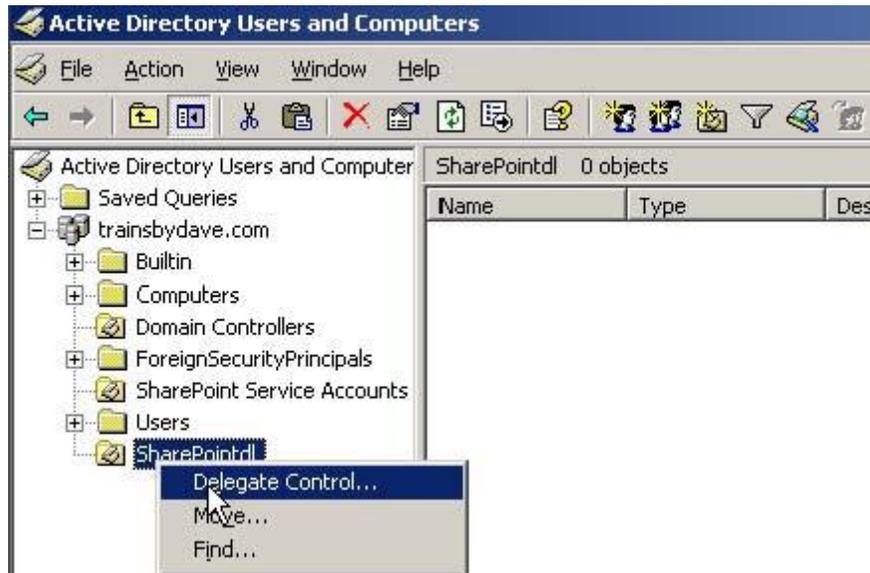
1. Right Click on the OU and click Delegate control
2. Click Next on the Wizard
3. Click Add to select the Central Admin Service Account from AD
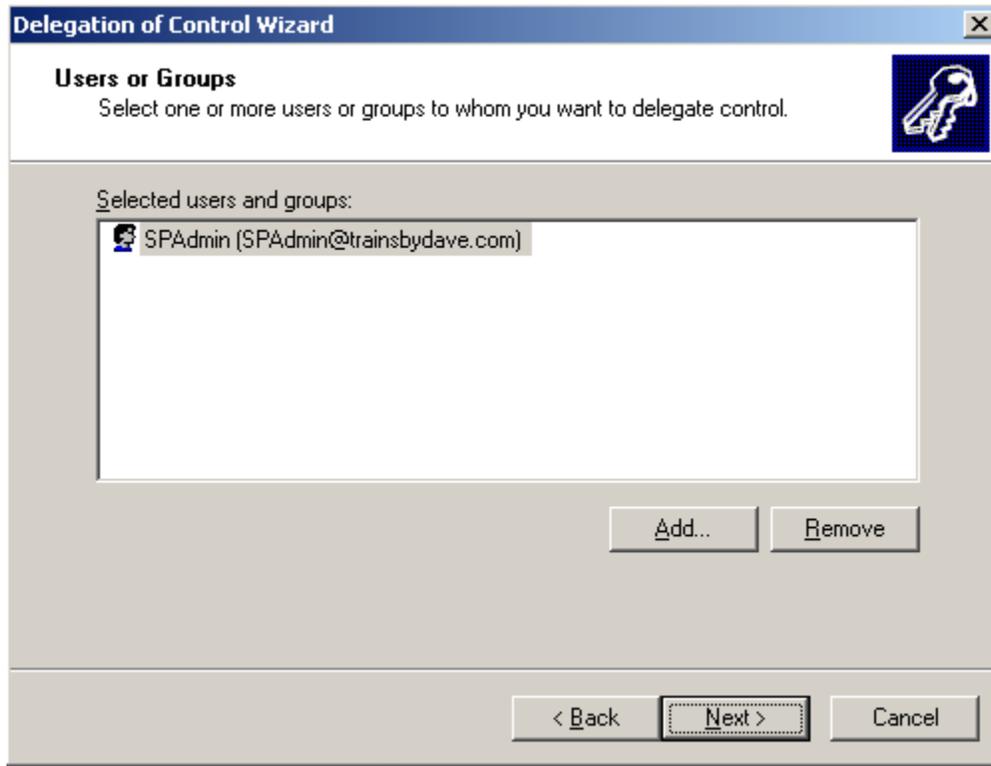
4. Click Next
5. Tick *'Create a Custom Task to Delegate'*
6. Click Next

7. Accept the default setting for the next page
8. Click next
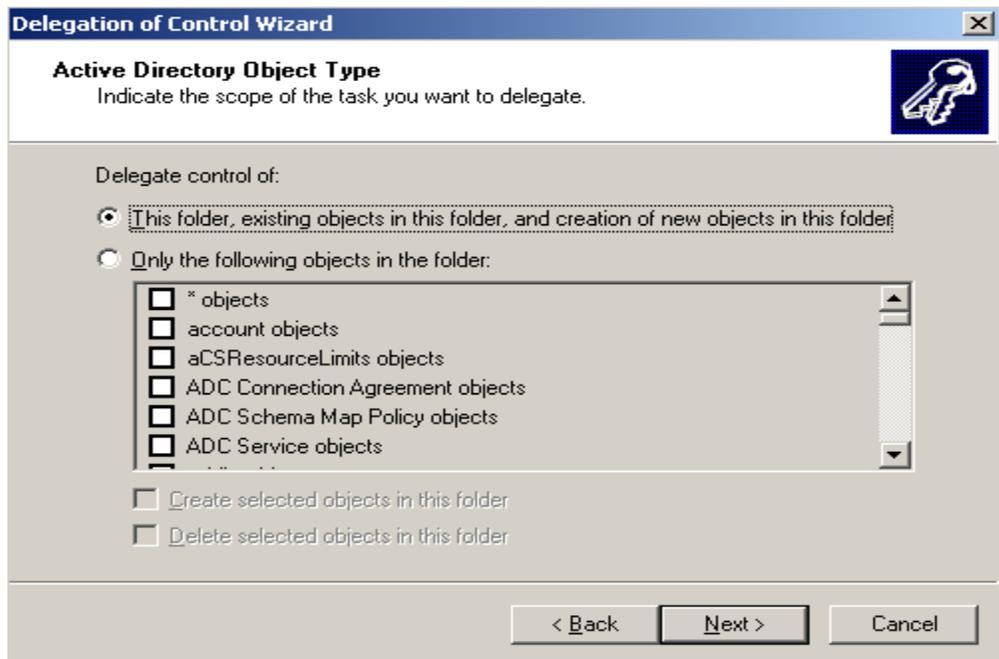
9. In the permissions box select **Read, Write** & **Create All Child Objects**
10. Click Next

11. Click Finish

Add an MX record in DNS for the Moss Server.

On the domain controller open DNS manager in the administrator tools. In DNS manager right click on your domain name and create a new MX record for your Moss server – MOSS 2007, and point it to your moss server.

I.e. **moss2007.trainsbydave.com**

See Picture example on the next page
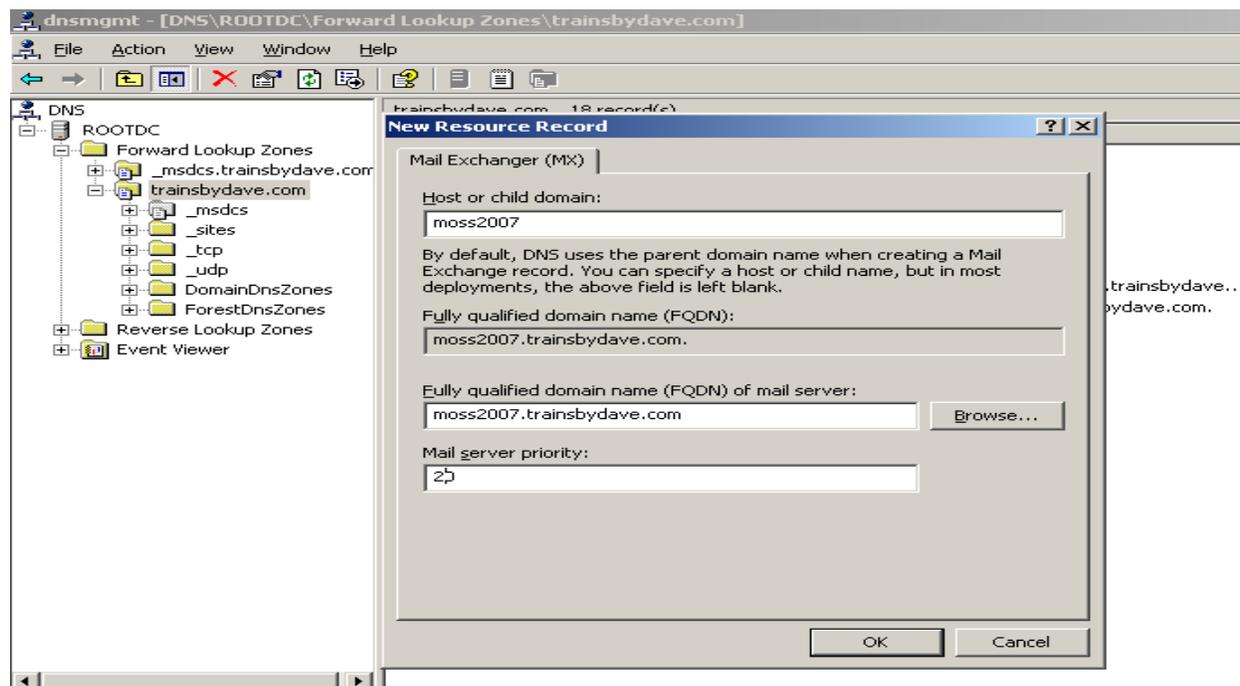
The reason why we must have this DNS entry is to ensure that we can resolve the e-mail domain name to the Moss server once the E-mail is received by your mail server. What happens is that the mail is received by the Exchange 2007 mail system. The mail system now needs to know where to send the mail with an address of xyz@moss.trainsbydave.com. It will do a lookup on the directory of mail addresses used by Exchange 2007 in order to resolve the name. Once it has found the matching e-mail address for the object it will either send the mail to the object held on the Exchange server such as a mailbox or it will forward to another mail server if configured in a SMTP send connector that matches the address space.

In our case we will need to make sure that the incoming mail for Moss lists is forwarded to the Moss server that has the SMTP service installed and for that we will need a DNS entry as well as an SMTP send connector in Exchange. We will cover creating an SMTP send connector later in this whitepaper.

Step 2 – Install the SMTP service on the MOSS 2007 Server

A) Add/Remove Programs, Windows Components, Application Server, IIS, SMTP Service
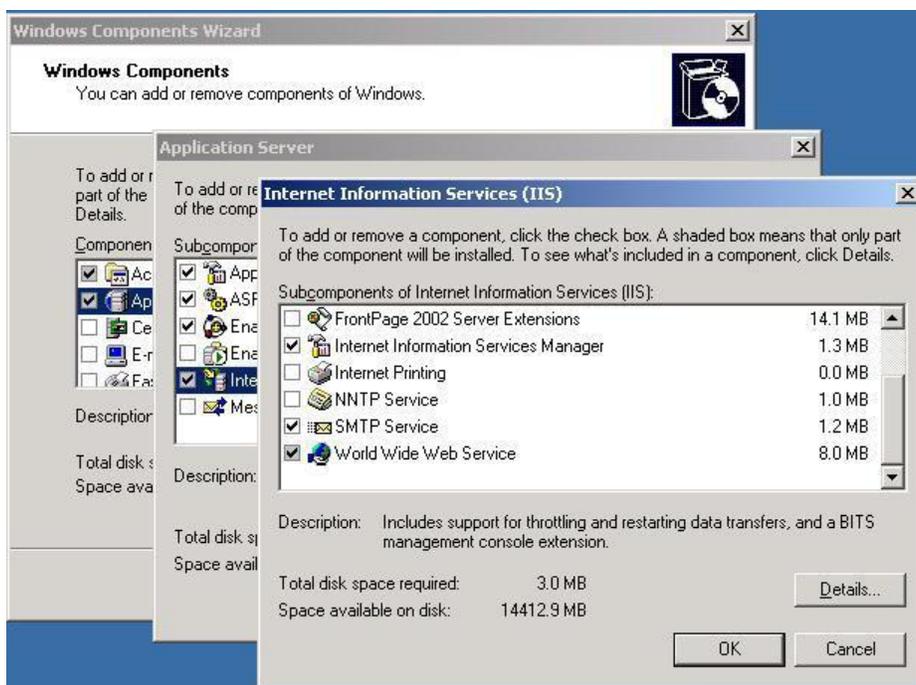
B) Configure SMTP Server to except relaying from the domain exchange server

- Start, Administrative Tools, Internet Information Services
- Right click on Properties of Default SMTP Virtual Server
- Click the Access Tab, Relay. Add the IP address of the servers that can relay through this server. In my case this was the IP address of the Exchange server in my domain
- Click Ok, Ok, and Apply
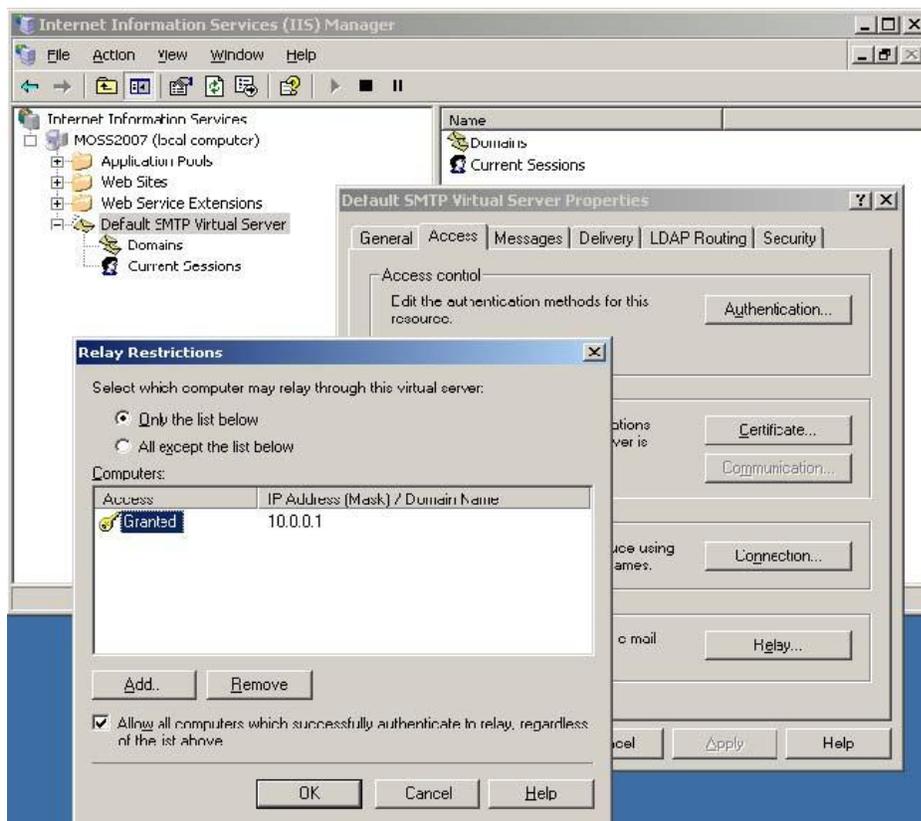
OK so we now have an SMTP service running on the MOSS 2007 server. We now need to configure the incoming e-mail settings on the MOSS 2007 server.

Step 2 – Configuring incoming e-mail settings in central administration

Open MOSS 2007 Central Administration and click on the Operations Tab
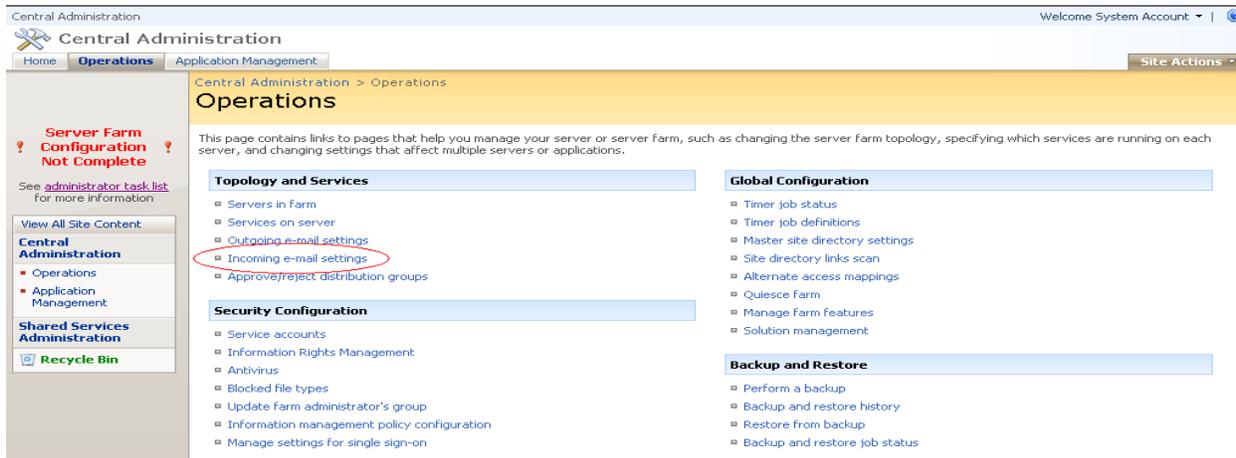
Click Incoming E-Mail

On the incoming mail page we are now going to configure the page to use the Directory Management Service and configure this service to use the Organizational unit that we created earlier in order to create the new contact objects.

- Click Yes to enable incoming mail and the settings mode on Automatic

If you select Advanced you are given the opportunity at the bottom of this page to specify which folder location will be used for the incoming mail drop folder. By default the drop folder will be the one used by the SMTP service which is located at C:\InetPub\Mailroot\Drop
Once mail is sent to this drop folder by the SMTP mail flow process then it is the responsibility of the SharePoint Timer Service to pick the mail up and distribute it to the correct List or Library.

- In the Directory Management Service (DirMan) section select **Yes** to use the DirMan service.

  1. In the Active Directory Field type the name of your Organizational unit that we created earlier. In my case this would be OU=Sharepointdl ,DC=trainsbydave,DC=com.
  2. In the SMTP mail server field type the name of your moss server tat has the SMTP server installed. In my case this was the MOSS 2007 server so the mail server address is MOSS 2007.trainsbydave.com
  3. Leave the default to **Yes** for Accepting messages from authenticated users only if you wish to use incoming mail for trusted senders only.

Note - *If you are sending mail to the Moss Server from multiple locations and various account types then you may be need to enable **No** for incoming mail to work.*

Allow Creation of distribution groups. If you want to allow Site Administrators to create E-Mail enabled distribution groups in Active Directory for their Site Groups then leave the default to yes and then select the approval setting for the DirMan service. By using approval the Site Administrator may be able to create a mail address for the Site Group but until a farm Administrator approves the new group it will not be created in AD.

To Approve the Site Groups mail enabled distribution group go the SharePoint Central Administration – Operations – Topology and Services – Approve/ Reject Distribution Groups.

Type the name of the mail domain that you wish to use with all new List or Libraries that are mail enabled in SharePoint sites associated with this SharePoint Farm. IE @MOSS 2007.trainsbydave.com or @trainsbydave.com.

In my case I have used MOSS 2007.trainsbydave.com which means when the contact object is created in Active Directory it will have a default SMTP alias of contact@MOSS 2007.trainsbydave.com. However depending on how your mail routing is configured you may need to add the local SMTP address for the domain to the contact after the object is created is created in active Directory.
See later in this White Paper to see how to do this.

Finally choose which mail servers are allowed to route mail through this server. If you have a dedicated SMTP routing server in your organization then you could secure the mail traffic by specifying only the IP address here of your internal server. If you are not sure then the default to accept from all mail servers or speak with your mail server Admin.

Then Click OK

Incoming E-Mail Server Display Address

Specify the e-mail server address that will be displayed in Web pages when users create an incoming e-mail address for a site, list, or group.

This setting is often used in conjunction with the Microsoft SharePoint Directory Management Web Service to provide a more friendly e-mail server address for users to type.

E-mail server display address:

mylist @ | moss2007.trainsbydave.com |

For example, mylist@example.com

Safe E-Mail Servers

Specify whether to restrict the set of e-mail servers that can route mail directly to this server farm. This setting can help ensure the authenticity of e-mail stored in SharePoint sites.

○ Accept mail from all e-mail servers
● Accept mail from these safe e-mail servers:

| 10.0.0.2 |

[OK]   [Cancel]

You must use an IP address if using safe e-mail servers. FQDN names will give you the following error.

Go back to site

Error

The IP address list is in an invalid format. Please enter one IP address per line, in the format "11.22.33.44" or "11.22.33.44, 255.255.0.0".

Troubleshoot issues with Windows SharePoint Services.

If after dicking OK you receive 'ERROR IN APPLICATION'

This is usually caused by a permissions error. Check the troubleshooting section at the end of the white paper for some suggested things to check. You may also need to check the logs of your moss servers, active directory and exchange though to try and track down the exact cause of the permissions error.
You may also get an error due to an incorrect location or typed mistake for the Organizational Unit

Step 3 – Creating a mail enabled document library in a team site

Now we have configured the Central administration side in MOSS 2007 we can create a new list and configure it to accept incoming e-mail. In my example I am going to create a document library and mail enables it to receive incoming mail.

I am going to call this document library fanmail as it will receive incoming mail messages sent to fanmail@MOSS 2007.trainsbydave.com.

- Browse to your team site and create a new library. – New document library
- When creating the document library select 'Yes' for enable this document library to

receive email
- Add the e-mail address we are going to use in this case fanmail
- Click Create

Name and Description

Type a new name as you want it to appear in headings and links throughout the site. Type descriptive text that will help site visitors use this document library.

Name:

fanmail

Description:

Navigation

Specify whether a link to this document library appears in the Quick Launch.

Display this document library on the Quick Launch?

⦿ Yes   ◯ No

Incoming E-Mail

Specify whether to allow items to be added to this document library through e-mail. Users can send e-mail messages directly to the document library by using the e-mail address you specify.

Allow this document library to receive e-mail?

⦿ Yes   ◯ No

E-mail address:

fanmail   @moss2007.trainsbydave.com

Set the email settings for the document library in the team site

Although we have mail enabled the library there are still a few settings that we need to decide on for the mail sent to this library.

1. Open the document library we have just created
2. Click Settings – document library settings
3. Under Communication Settings click E-Mail Settings

The settings in the library are all optional but for my test I am going to save all the attachments in the library plus I am going to keep a copy of the mail message in the library as well.

4. In the E-Mail Message Section Select **Yes** for save original e-mail
5. In the E-Mail Security section Select **Yes** to Accept e-mail messages from any sender
6. Click OK

If you choose to use the document library permissions for e-mail then only senders with add rights to the library can send mail to the library.

Step 4 – Managing the contacts created in Active Directory

Shortly after the document library has been created and mail enabled a new contact should appear automatically in the OU in Active Directory. This was the job of the directory management service to do this. (DIRMAN)
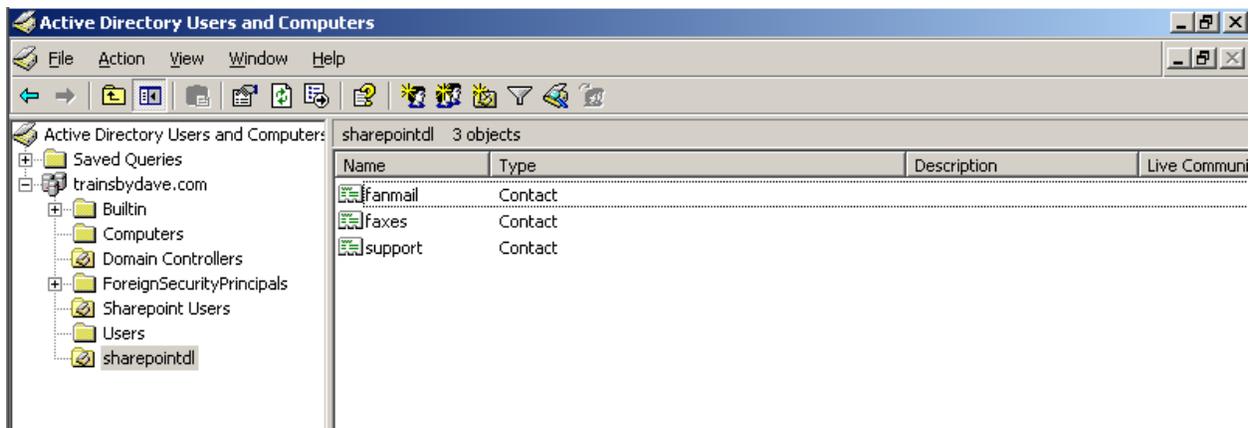
Although the contact is in Active Directory we now need to go and manage the contact in

Exchange 2007 and we also need to create the SMTP send routing connector in Exchange as well.

In my testing environments you must always create a Send connector to the Moss server SMTP address space in order for mail routing to work correctly from Exchange 2007 ***

- Go to your Exchange 2007 Server and open the Exchange Management Console.
- Click on Hub Management Transport
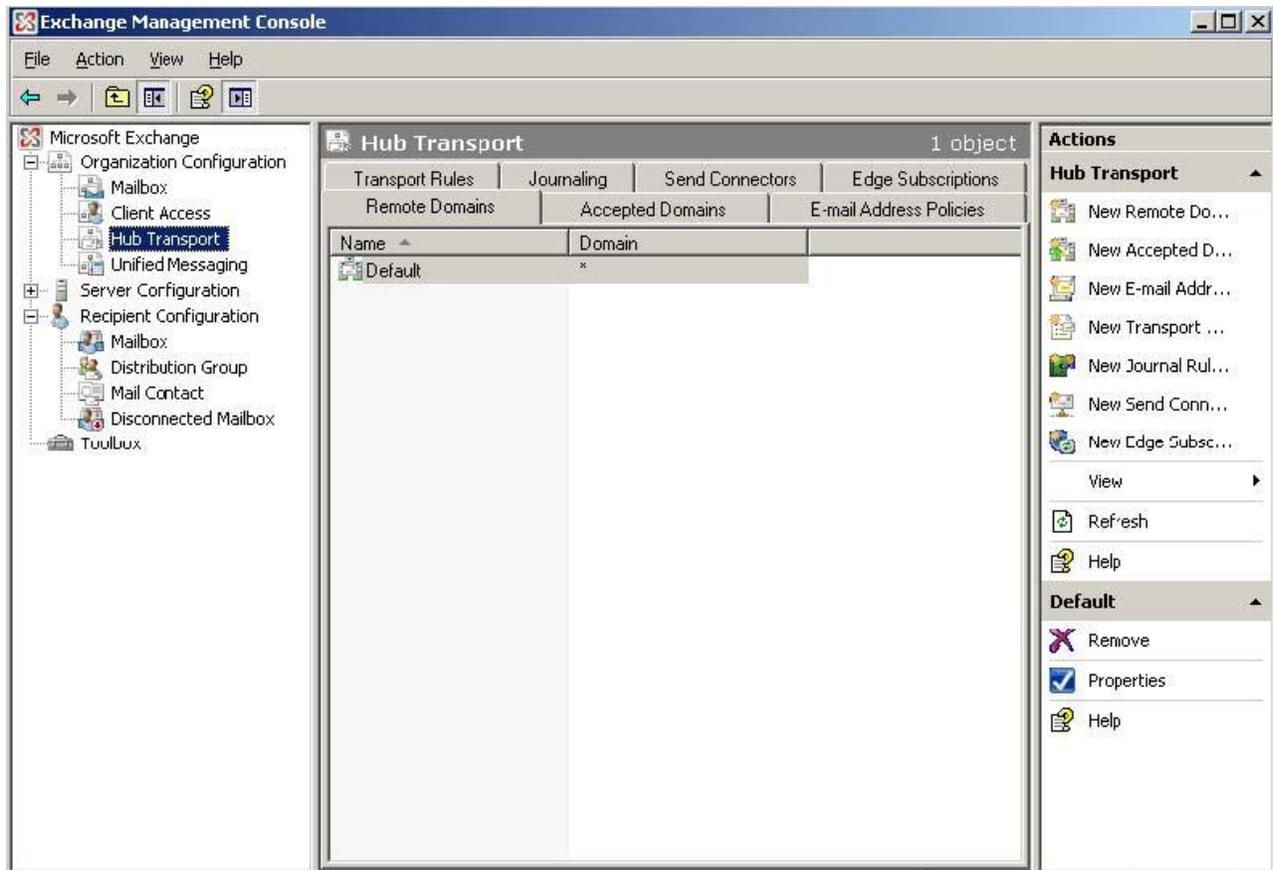
- Click on the Send Connectors Tab
- In the right hand Actions column click 'New send Connector'
- Give your new connector and name and select the appropriate untended use. In my case this was for internal connection use.
- Click Next
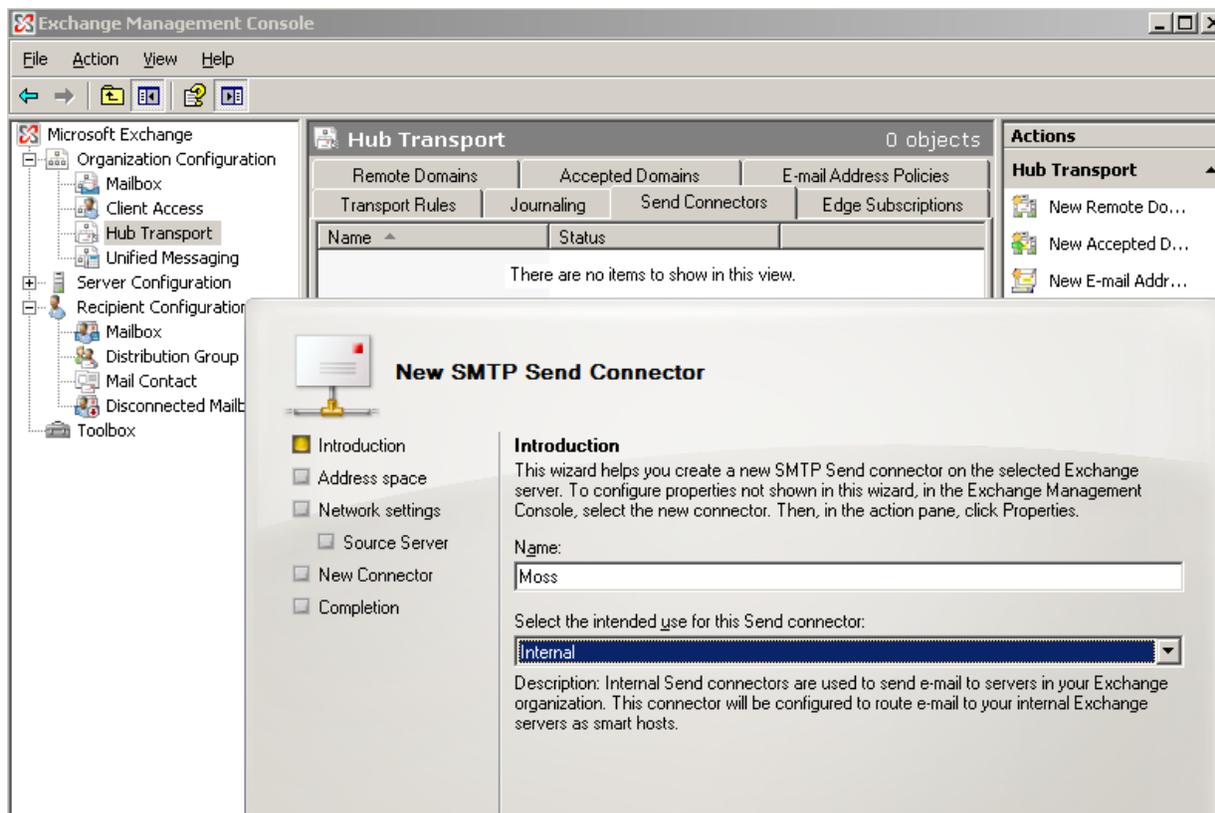
We now need to add an Address space to tell the Exchange server about the Moss server. This address space will be used by Exchange to route any mail received for the moss server addresses directly to the SMTP service running on the Moss server configured for incoming mail.

Click add and complete the name to the Moss server configured to receive incoming mail.
Click OK to add the address Space entry
Then Click Next

If you want to support multiple mail addresses on your Moss server then you can add multiple address spaces here.
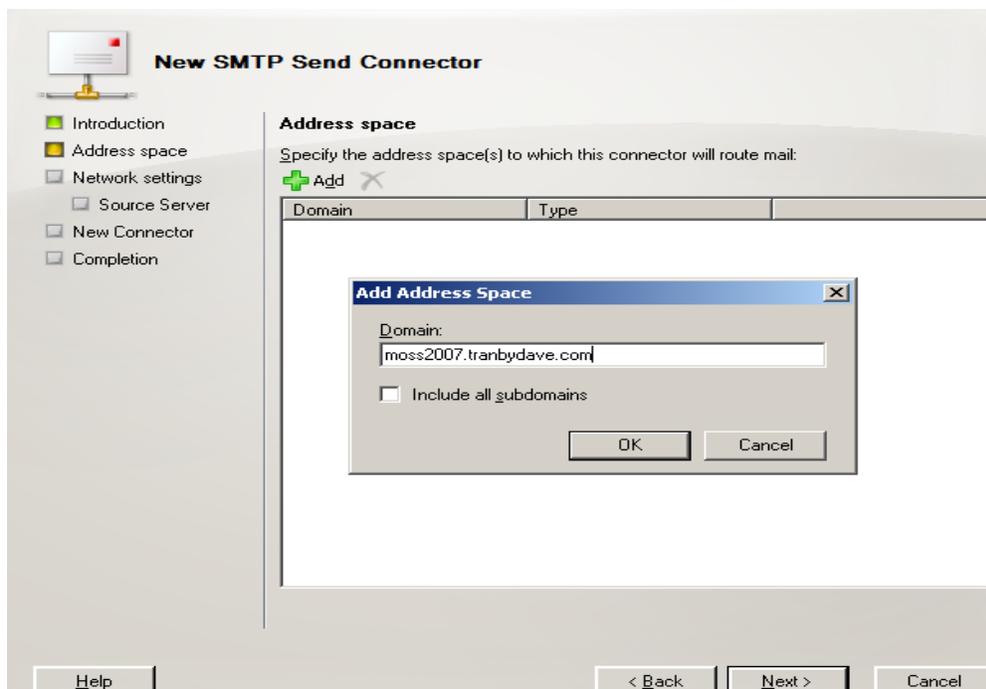
Now we need to add the IP address or Fully Qualified domain name of the smart host to receive this address space. This will be the IP address of the Moss server.

- Add the address and Click OK
- Then click Next
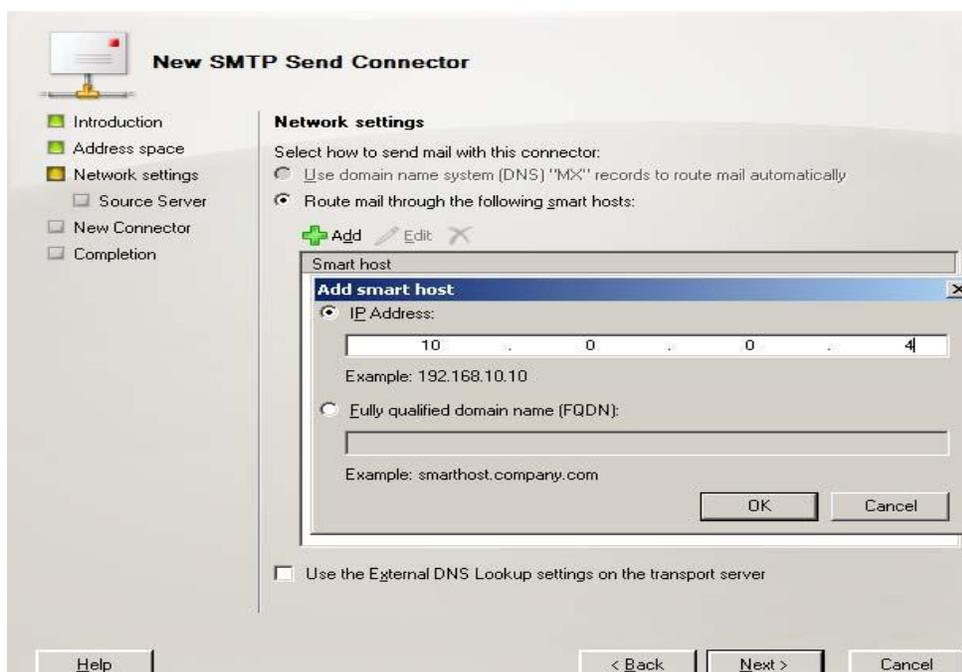
- If you wish to further secure communication between Exchange and the Moss SMTP server then you can configure additional security. By default you should select '*None*'
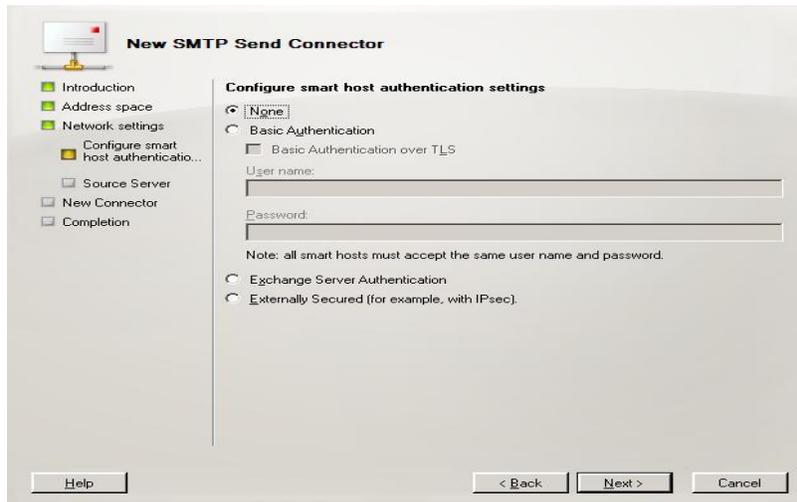
- On the next screen you can choose an additional Hub transport server if you have more than one Exchange server handling mail routing. In our case it is the default Exchange server.
- Click Next
- Check the Summary page and then click 'New' to continue.
- Click Finish
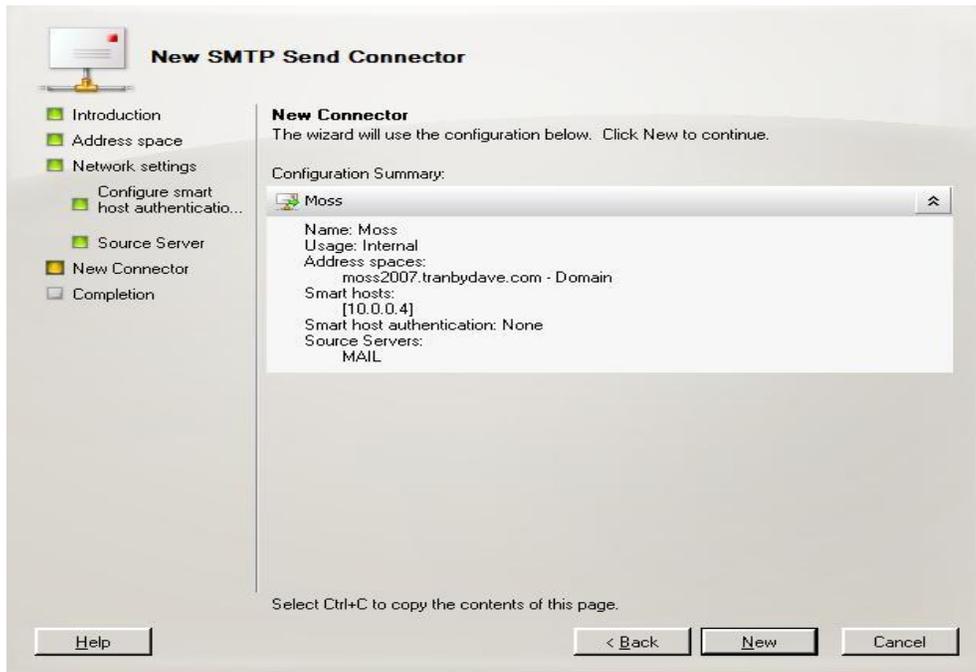
- Let's now look at the contact created in the Exchange management console
- Go to Recipient Configuration
- Click mail Contact Find the SharePoint library contact object select it and click properties
- Then click E-mail addresses
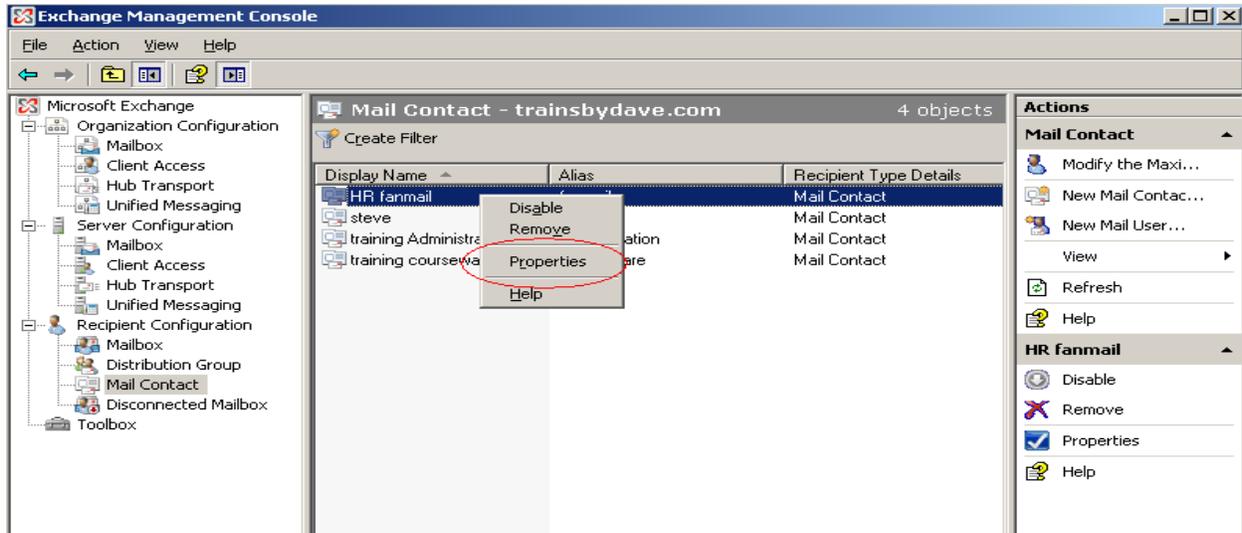
Make sure that the SMTP E-Mail address for the contact is present. If not or you get an error when clicking properties make sure that the recipient policy has been applied. You can force

the recipient policy to run by running the recipient policy wizard in the Exchange management console as part of the organizational configuration - hub transport settings. Alternatively waiting for a short time will usually update automatically.

Testing the solution

Let's open Outlook now as a client and send a mail to fanmail address and follow its progress to appearing the document library
In my testing I am using Outlook web access rather than Outlook but the result is the same.
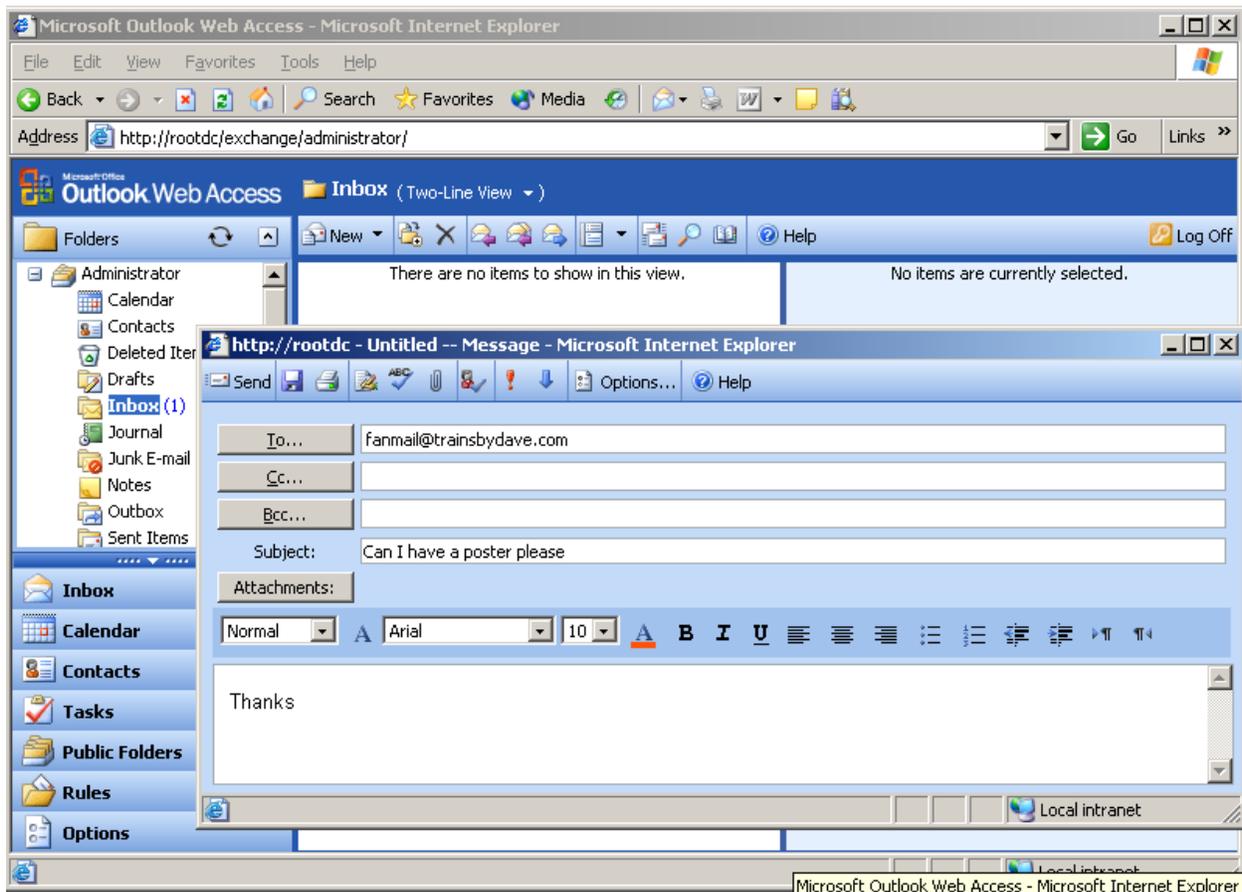
After sending the mail you can monitor the C:\Inetpub\mailroot\drop folder to see when WSS picks up the message.

Make sure that the SP Timer service is running on the MOSS 2007 server as this server will be responsible for taking the mail from the Drop folder and putting it in the Document library.

After a short time the mail will appear in the drop folder configured earlier in Central administration – operations – incoming e-mail settings
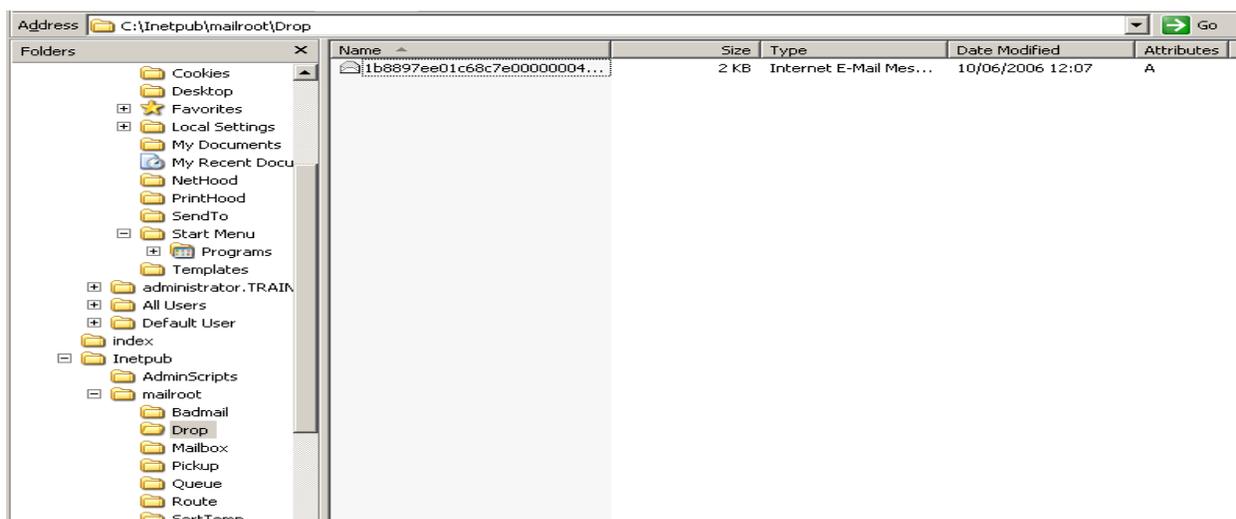
Finally once the SPTimer service picks up the message it will disappear from the drop folder and the item will be created in the list.
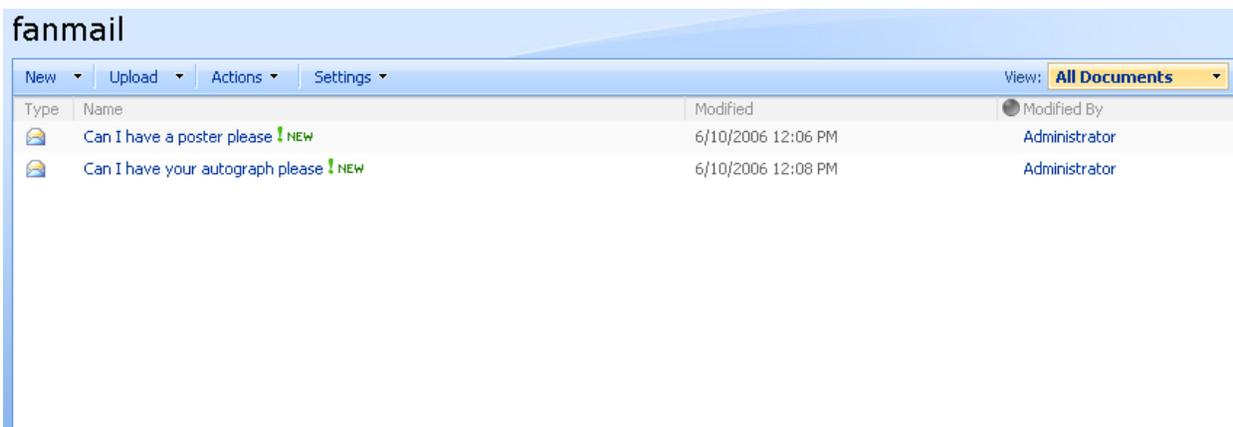
Ensure that the SPTimer Service account can also delete objects from the chosen drop folder location. If it cannot then you may find that you get duplicate E-Mails.

Troubleshooting

This list does not mean you need to do all of them; they are suggestions to try in case you run into problems. All configurations are different and it is impossible for me to know how you have built your SharePoint up.

- Ensure that the Central Administration Application pool account and the SharePoint Timer Service account are using the same service account. THIS ONE IS IMPORTANT. A lot of errors stem from these accounts not being the same DOMAIN service account.

- Make sure the above account has access rights to all files on the server used by incoming mail such as the sharepointemailws.asmx file on the Moss server that is receiving the incoming mails. Alternatively make these accounts local administrators on the web servers receiving the incoming mail

- Make sure the app pool account for the web application you are trying to mail enable is running as the MOSS Administrator account you are running Central Administration under.

- Grant rights to the OU you have created in AD to the app pool account you setup.

- Create a SMTP send connector in Exchange to deliver mail to machine.domain.name where your MOSS SMTP service is running.

- Make sure the account that is running the SharePoint Timer Service has delete rights to the drop folder or you will receive duplicate E-Mails

- When using Outlook 2003 may need to send the attachment as a Uuencode or Binhex format in order to get the attachment listed separately in the List or Library. Also see this MS article for another workaround for adding two attributes to the contact in http://support.microsoft.com/default.aspx?scid=kb;en-us;926891

- If you have installed Forefront security for SharePoint then you may encounter a problem where the E-Mail will arrive in the drop folder and then disappear without reaching the document library. This MS article explains the way to fix this. http://support.microsoft.com/kb/934285

- If you have used permissions on the document library to control who can send the process is based on the header of the E-Mail , it is then checked against the users who have rights to the list or library.
- If you see content in the document library that is assigned to the system account it means that the document library has treated the incoming mail as an anonymous users

due to not be able to resolve the name in the list of users with rights to submit mail. You will have to allow the library to accept mail from all senders to see this.

- When sending to a calendar list to be sent correctly send as a .vcf file from a new appointment or meeting request in Outlook
- If you try and setup a workflow on the mail as it arrives in the library and it fails make sure that the Timer Service and the Central Admin Application pool account are using the same Domain service account.
- When supporting multiple SMTP domains make sure that you add these domains to the SMTP domains in the SMTP settings on the Moss Server hosting the SMTP service. SharePoint can support external domain names as long as the domains are supported by the mail routing topology and also the Moss servers SMTP domain name listing.

I hope you found this article useful, please do feel free to send me queries ☺