

IBM Lotus Integration Center (ILIC)  
Dallas Systems Center/ATSS



# Establishing the Exchange Connectors for Coexistence Between Lotus Domino R5 and Microsoft Exchange Server 5.5, Service Pack 3

Abstract

This White Paper provides the steps required for establishing coexistence between Lotus Domino Release 5 and Microsoft Exchange Server 5.5, Service Pack 3.

With the rapid adoption of Lotus Domino Release 5 in production environments, it is key to understand how coexistence can be met with a Microsoft Exchange Server. This White Paper is a follow-on update to the work documented in the IBM Redbook entitled, ***The Three Steps to Super.Human.Software: Compare, Coexist, Migrate From Microsoft Exchange to Lotus Domino; Part Two: Coexistence and Migration (SG24-5615)***, located at [www.redbooks.ibm.com](http://www.redbooks.ibm.com).

We will describe the changes to both the Exchange Connector for Lotus Notes and to the Calendar Connector as a result of the introduction of Service Pack 3 for the Microsoft Exchange Server 5.5. We will discuss the limitations and capabilities introduced with Service Pack 3 as well as show you how to implement the both the Exchange Connector for Lotus Notes and the updated Calendar Connector.

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## What's New in Service Pack 3?

The introduction of Service Pack 3 to the Microsoft Exchange Server 5.5 enhanced both the Exchange Connector for Lotus Notes and the Calendar Connector.

The Connectors gained the following new features:

- P** The Exchange Calendar Connector provides Microsoft Exchange and Notes Domino R5 calendar compatibility.
- P** The Exchange Connector for Lotus Notes provides Notes/Domino R5 servers coexistence with Microsoft Exchange 5.5 servers.
- P** Lotus Notes R5 users can add BCC recipients to meeting requests.
- P** Lotus Notes R5 users can decline meeting requests with an additional option.
- P** Lotus Notes R5 users can request information about meeting requests.
- P** The Exchange Connector for Lotus Notes provides support for multi-lingual context in both the message and in directory synchronization. This function is available under the Options property page for the Connector.
- P** Operational statistics are now logged to the Windows NT Performance Monitor for message traffic monitoring.
- P** Event logging is now fully supported by the Connector. The Diagnostic Logging property page has been updated to control the logging level desired to the Event log.

## Are There Limitations With Service Pack 3 and the Connectors?

While enhancements have been made via Service Pack 3, some limitations or considerations in using both the Exchange Connector for Lotus Notes and the Calendar Connector still exist.

Service Pack 3 has the following known issues:

- P** Comments added by Lotus Notes R5 users in either an accept or decline of a meeting request will not be delivered to Exchange.  
Lotus Notes R5 meeting acceptances, tentative acceptances, and decline responses may be converted to text messages.
- P** The Notes Configuration Utility is not supported on Domino R5.
- P** The Notes R4 client is required to connect Exchange with Domino R5 servers.

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## Installing Service Pack 3

The Exchange Connector for Lotus Notes requires the following software levels:

- P** Microsoft Windows NT 4.0 with Service Pack 3
- P** Microsoft Exchange Server 5.5 Standard or Enterprise Edition, with Service Pack 1
- P** Lotus Notes client Version 4.5.2 or later on the Exchange Server for connectivity.
  - Note** Version 4.6.2 is recommended.
- P** Lotus Notes Domino R5 server

We will consider only the installation options for the Exchange Connector for Lotus Notes and the Calendar Connector. For additional details on installing the remaining Service Pack 3 components, see the Service Pack 3 Readme.txt file.

**Important** We were not able to locate Microsoft documentation stating that the Exchange Calendar Connector directly supports a Lotus Domino R5 server. The document in the following URL — [www.microsoft.com/exchange/55/downloads/CalConnector.asp](http://www.microsoft.com/exchange/55/downloads/CalConnector.asp) — does state that the Calendar Connector supports a Lotus Domino R4.5 or later server.

1. Create an **SP3** directory on the Exchange Server's local drive.
2. Download the Connector Service Packs from the Microsoft FTP Site

—  
**ftp://ftp.microsoft.com/bussys/exchange/exchange-public/fixes/Eng/Exchg 5.5/SP3.**

3. From Windows NT Explorer, select the **SP3** directory and click the name of the compressed file to bring up the Self-Extracting menu. In our case, we have two files we will be extracting:
  - P** **SP3\_55XI.EXE** - Exchange Notes/OVVM/SNADS Connector Installation (Intel)
  - P** **SP3\_55GI.EXE** - Exchange Calendar/Groupwise Connector Installation (Intel)
4. From the Self-Extracting menu, type **SP3** in the *Unzip to Folder* box. To proceed, click the **Unzip** button to begin extracting. When the files are extracted, click **OK** and then **Close**.
  - Note** You will repeat steps 3 and 4 for each of our two files.
5. To install the Exchange Connector for Lotus Notes Service Pack 3, select the **SP3\Eng\Exchconn\Setup\i386\Ntsconn** directory. Click

**NTSCONN.EXE** to install the Service Pack to the Exchange Connector for Lotus Notes.

6. To install the Calendar Connector Service Pack 3, select the **SP3\Eng\Exchconn\Setup\i386\Calcon** directory. Click **CALCONW3.EXE** to install the Service Pack to the Calendar Connector.

## Customizing the Exchange Connector for Lotus Notes

In this section, we will customize the Exchange Connector for Lotus Notes. Our Exchange Server is within the Dallas site, which is part of the IBM Lotus Integration Center (ILIC) organization. We will connect with a Lotus Domino Release 5.01a server named **ilic\_exchsrv1/ILICR5**.

Given that Service Pack 3 does not support the Notes Configuration Utility into an R5 server, we manually perform the following:

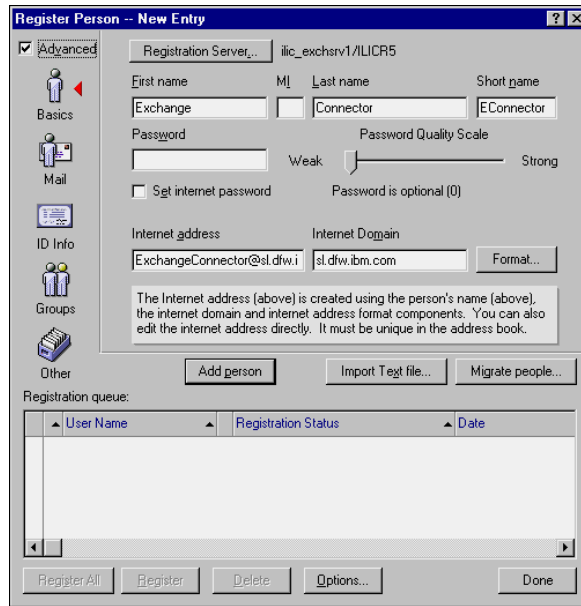
- P** Create a Notes ID/Person Document for the Exchange Connector.
- P** Update the ACL of the Domino Directory.
- P** Update the ACL of the Domino Router's Mail.box.
- P** Create a Foreign Domain Document.
- P** Update the Server Document.
- P** Create a Mailbox for the Exchange Connector.

Finally, we need to update or customize the Exchange Server's property pages associated with the Exchange Connector for Lotus Notes.

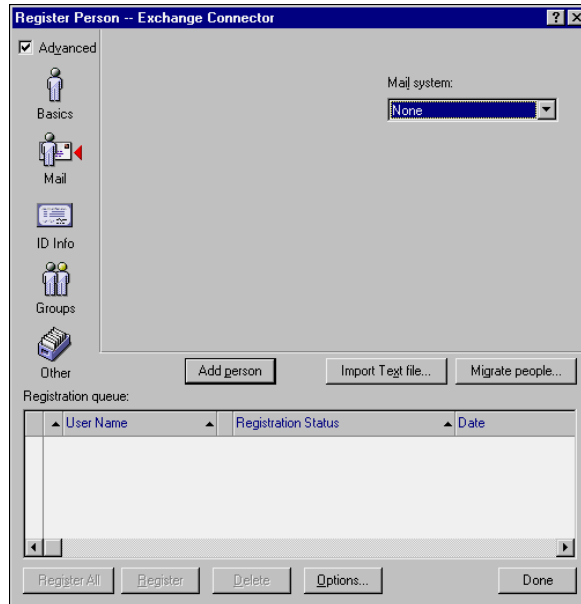
### Creating the Notes ID

To create the Notes ID and Person Document for the Exchange Connector:

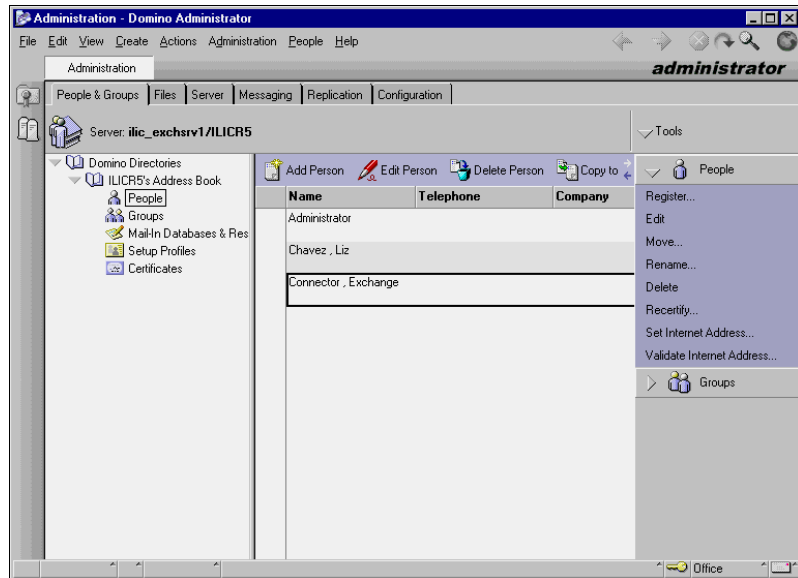
1. Launch the Domino Administrator Client.
2. Enter the Administrator's password when prompted and click **OK**.
3. Choose File - Open Server. Select the name of your Domino server. Ours is called **ilic\_exchsrv1/ILICR5**. Click **OK** to proceed.
4. Click the **People** section on the right side of the Task panel. Click **Register**.
5. At the Enter Password dialog box, type the certifier ID's password.
6. The Register Person panel is displayed. We entered a first name of **Exchange** and a Last Name of **Connector**. Do not provide a password for the Exchange Connector.



7. Click the **Mail** navigator and select Mail system of **None**.



8. There is no need to modify anything further. Click the **Add Person** button.
9. The Exchange Connector is now ready to be registered. Select the Exchange Connector and click the **Register** button.
10. At the Message Box which describes the person was successfully registered, click **OK**.
11. From the **Register Person** panel, click the **Done** button. You can now see the Exchange Connector in the Domino Directory.



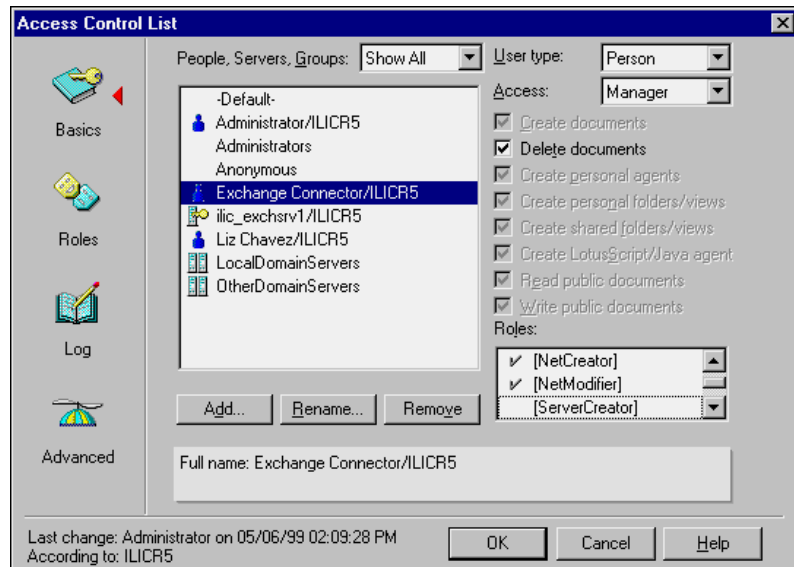
12. Copy the Lotus Notes ID file (**ECONNECTOR.ID**) to the Notes data directory of the Lotus Notes client (R4.6+) running on the Microsoft Exchange Server.

### Update the ACL of the Domino Directory

We need to make sure that the Exchange Connector can update the Domino directory when directory synchronization is performed. Follow these steps to update the ACL:

1. Right click on the Domino Directory icon on the Administrator's desktop.
2. Select Database - Access Control.
3. Click the **Add** button to add the Exchange Connector to the ACL.

4. Make sure that the **User Type** field is **Person**, the **Access** field is **Manager**, and the Roles of **NetModifier** and **NetCreator** are selected. Also, select the **Delete documents** checkbox.



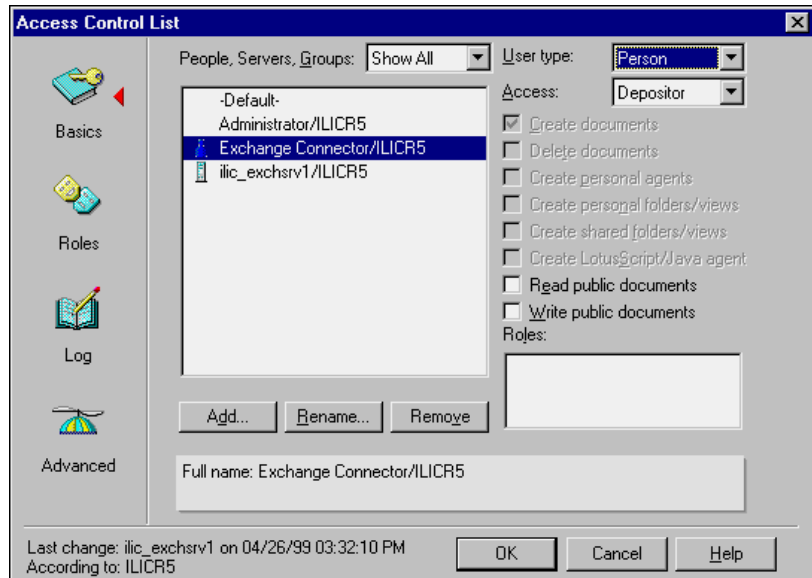
5. Click **OK** to update the ACL.

### Update ACL to Router's Mail.box

The Exchange Connector needs to have depositor access to the router's mailbox.

1. Select the Router's mailbox icon on the Administrator's desktop.
  - Note** Make sure that you place the icon on the desktop if it is not already there.
2. Select File - Database - Access Control.
3. Click the **Add** button to add the **Exchange Connector**.

4. Ensure that the **User Type** field is **Person** and that the **Access** field is **Depositor**.

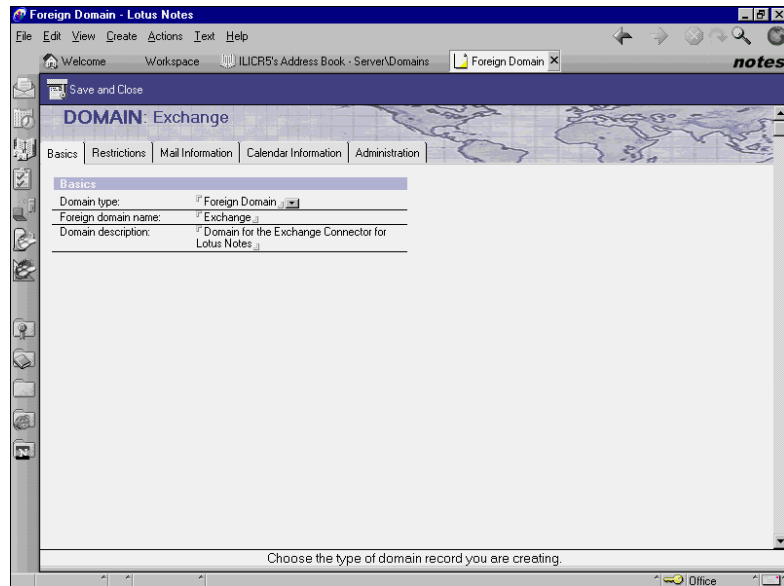


5. Click **OK** to update the ACL.

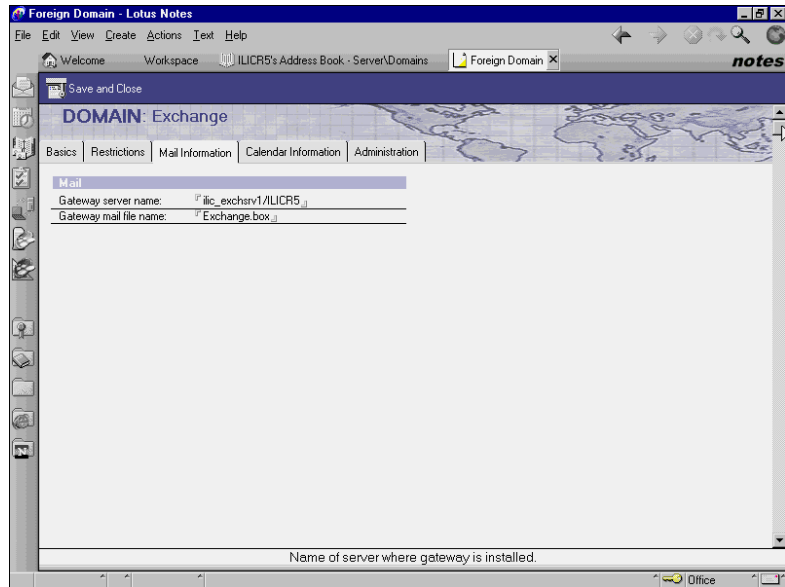
### Create a Foreign Domain Document

1. From the Domino directory on the Administrator's desktop, select Servers - Domains.
2. Click the **Add Domain** button.
3. From the **Basics** tab, select **Foreign Domain** for the Domain type field.
4. Type **Exchange** in the Foreign domain name field.
5. Type a description in the Description field if you would like.

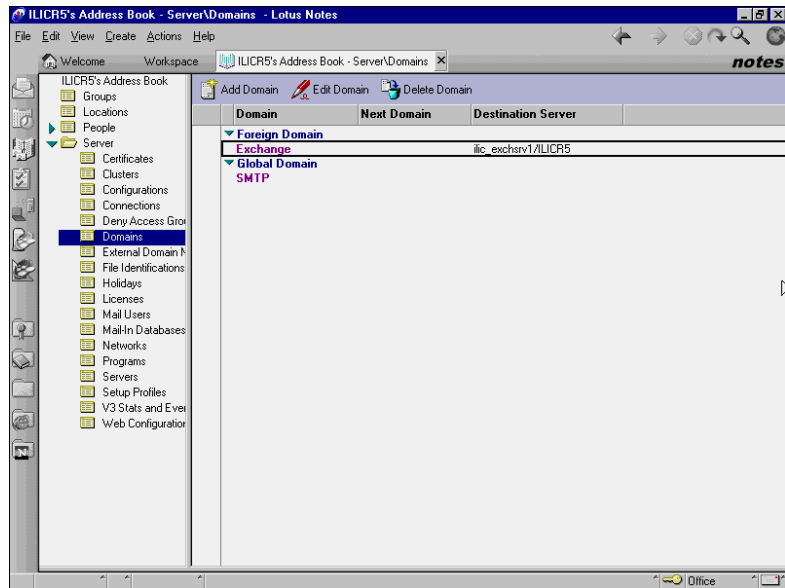




6. Click on the **Mail Information** tab.
7. Type the name of your Domino server in the Gateway server name field. We typed **ilic\_exchsrv1/ILICR5**.
8. In the Gateway mail file name field, we typed **Exchange.box**.



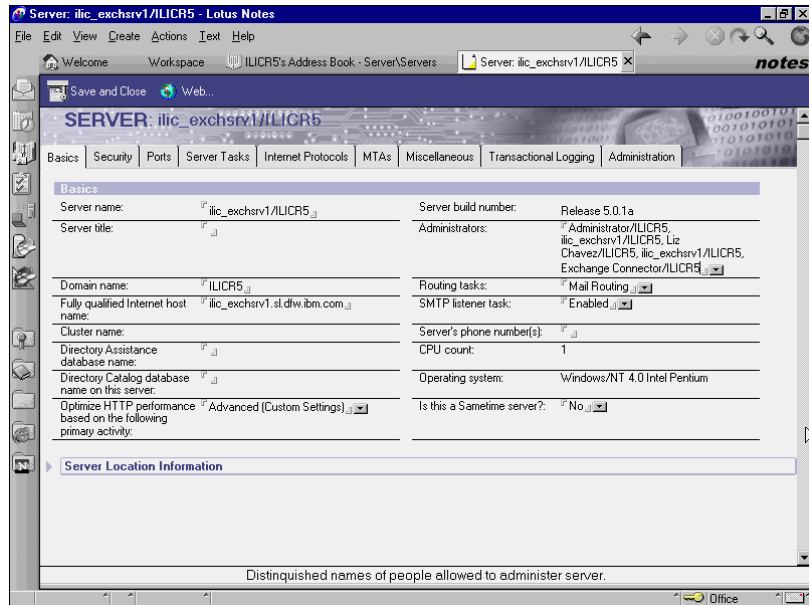
9. Click **Save and Close**.
10. The Foreign Domain document for the Exchange Connector has been created.



## Update the Server Document

We need to allow the Exchange Connector to create databases on the Domino server.

1. From the Administrator's desktop, double click the Domino directory icon.
2. From the Server navigator on the left, select **Servers**.
3. Click on your server name. Ours was **ilic\_exchsrv1/ILICR5**.
4. Click the **Edit Server** button.
5. Add the **Exchange Connector** to the Administrator's field.



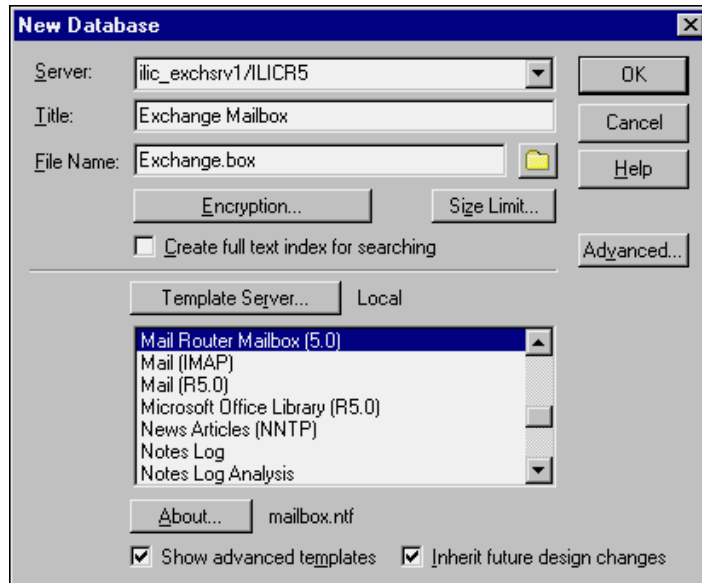
6. Click **Save and Close**.

## Create a Mailbox for the Exchange Connector

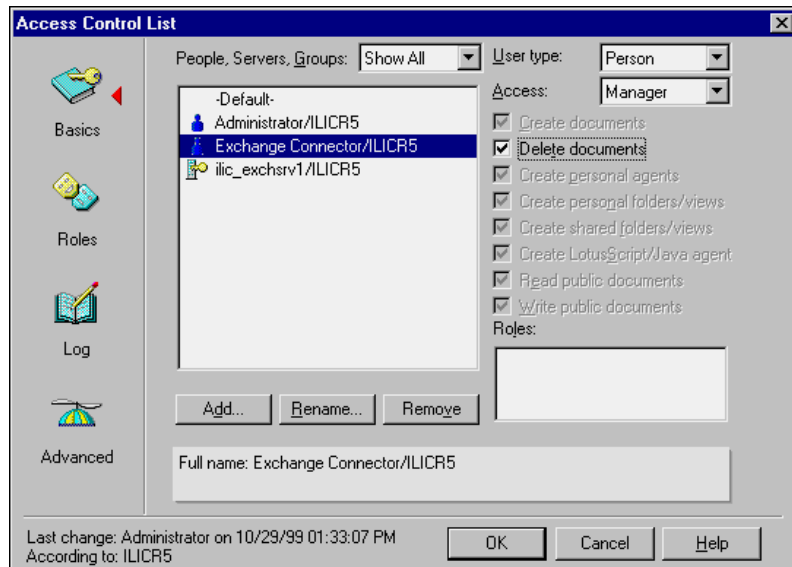
We now create a mailbox, called Exchange.box, for use by the Exchange Connector for Lotus Notes.

1. From the Domino Administrator's desktop, click File - Database - New.
2. Select the **ilic\_exchsrv1/ILICR5**, the name of the Domino server, in the Server field.
3. In the Title field, type the name of the database. We named ours **Exchange Mailbox**.

4. In the File Name field, type **Exchange.box**.
5. Select the **Advanced Templates** checkbox.
6. Locate and select the **Mail Router Mailbox** template. Our completed information looked like this:



7. Click **OK** to create the database.
8. From the Administrator's desktop, click the database icon for Exchange.box.
9. Select File - Database - Access Control.
10. Make sure that the **User Type** field is **Person**, the **Access** field is **Manager**. Select the **Delete documents** checkbox.

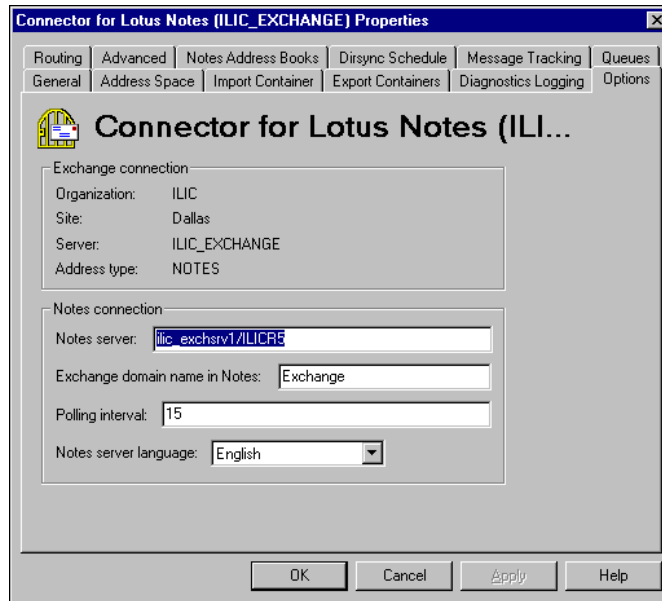


11. Click **OK** to update the ACL.

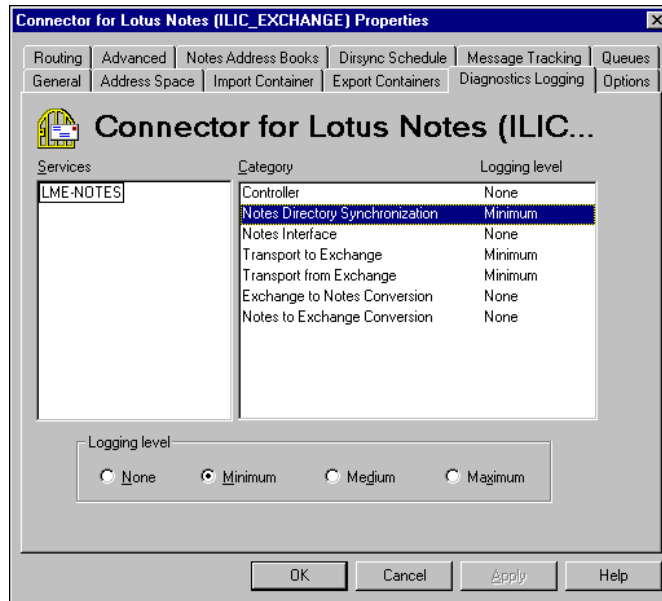
### Customizing the Exchange Connector for Lotus Notes Property Pages

You will need to make some changes to the Property Pages for the Exchange Connector. Further, you have new property pages available.

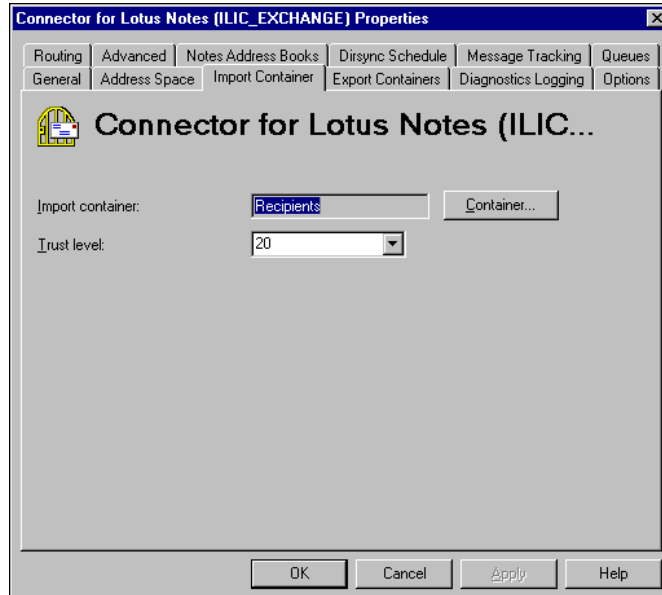
1. In the Options property page, make sure you specify your Domino R5 server. For our environment, we typed **ilic\_exchsrv1/ILICR5** in the Notes server field.



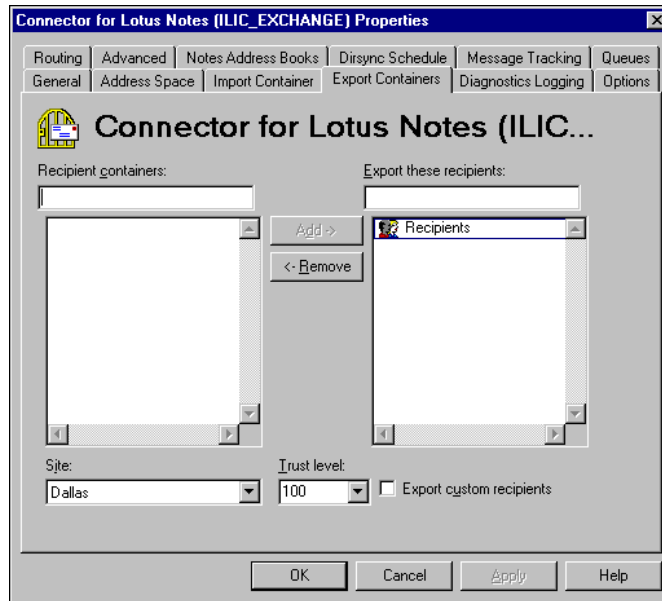
2. On the Diagnostics Logging property page, you can change the event logging levels. We have updated a few to **minimum** logging; the default is none. Our settings are shown below:



3. We updated the Import Containers tab as follows:

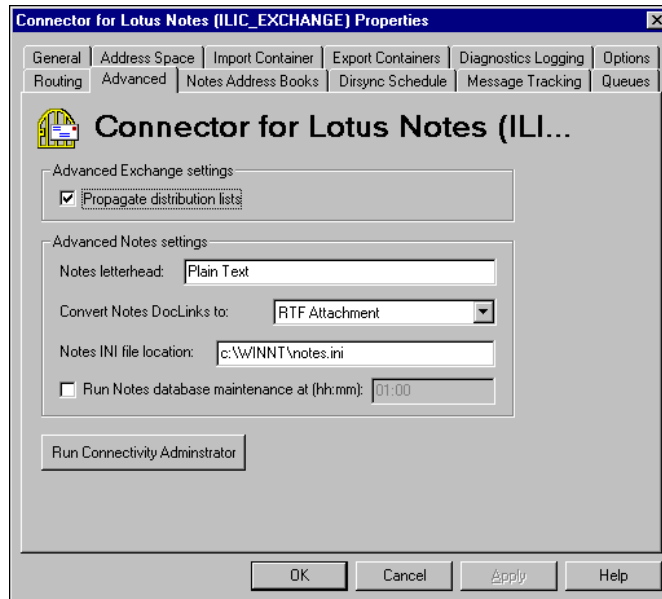


4. We updated the Export Containers tab as follows:



5. At the Advanced tab, we supplied the path and file name to locate the Notes.INI file. In the field called Notes INI file location, we typed **c:\WINNT\notes.ini**:





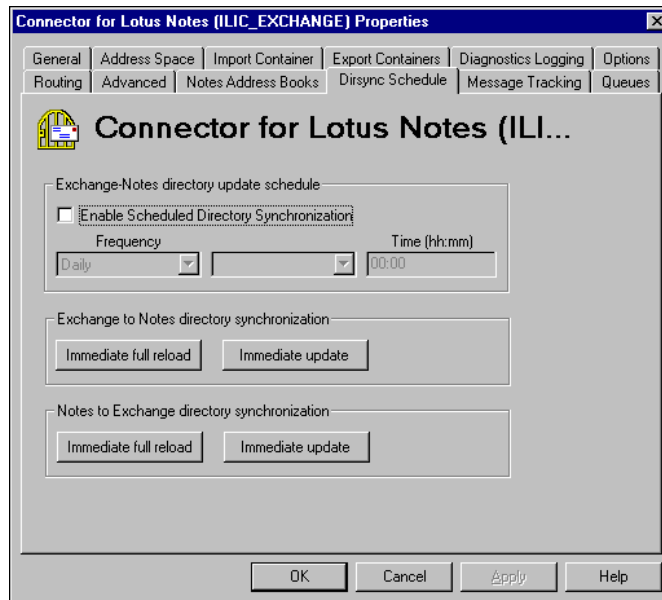
6. We did not modify any of the other property page tabs.
7. Click **OK** to accept the changes.

### Directory Synchronization

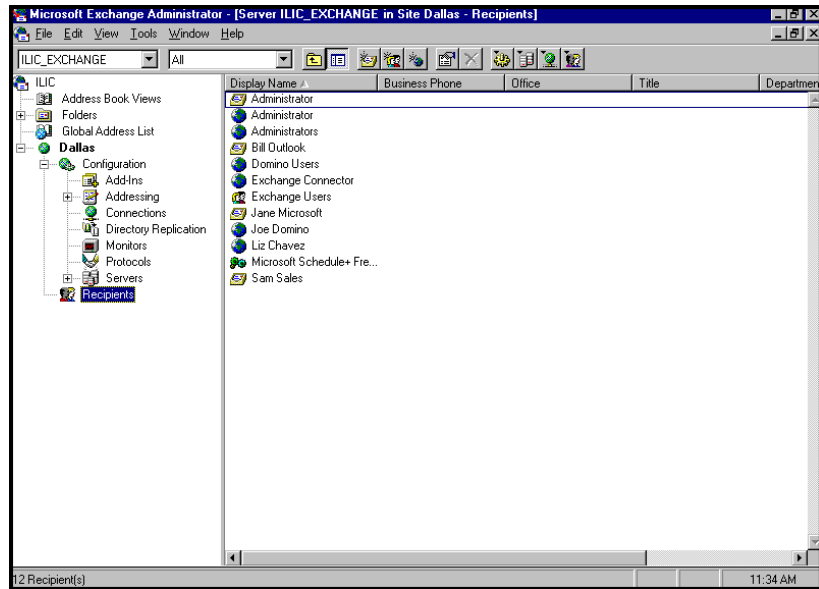
We are now ready to synchronize the directories.

**Important** Before attempting the directory synchronization, make sure that the NT services for the Exchange Connector Controller and the Exchange Connector for Lotus Notes are started.

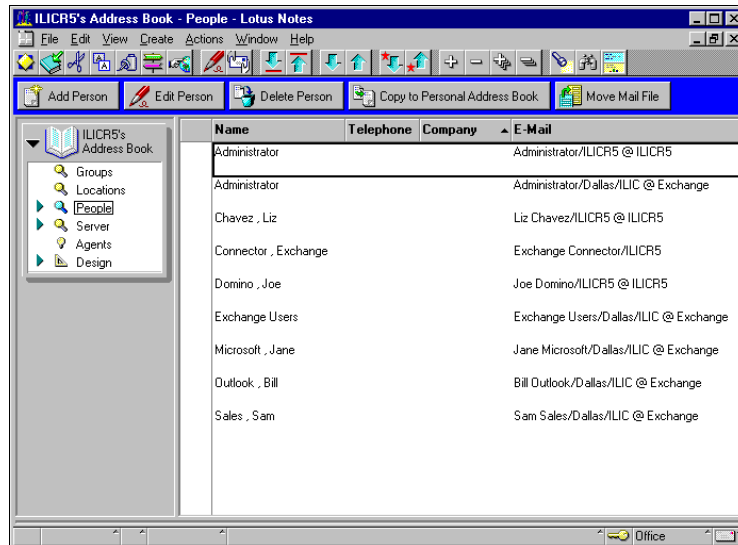
1. Select the Exchange Connector Dirsync Schedule property tab.



2. Click the **Immediate Full Reload** button for the Exchange to Notes directory synchronization.
3. Click the **Immediate Full Reload** button for the Notes to Exchange directory synchronization.
4. Our updated Exchange Global Address List (directory) looks like this:



- Our updated Domino directory, as seen from a 4.62 Notes client, looks like this:

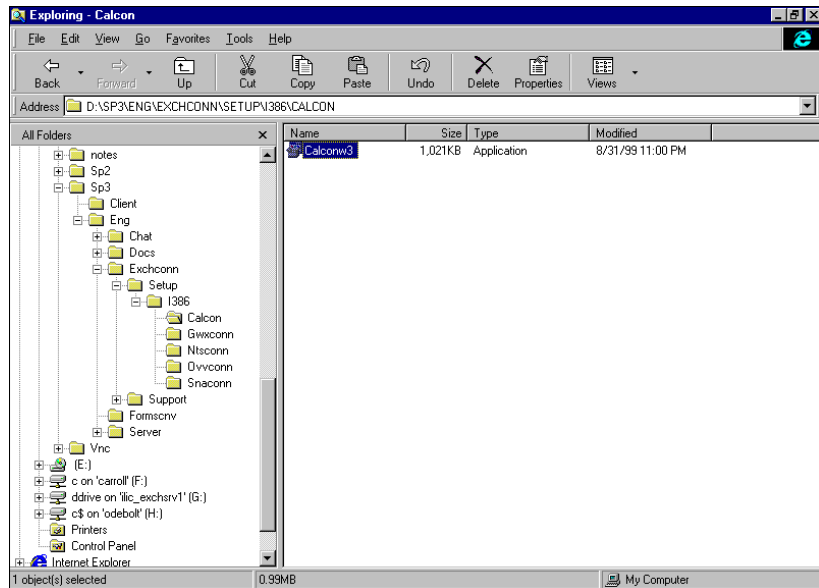


Users can now address e-mail messages to either Exchange users or Notes/Domino users from whichever mail system they reside on.

## Customizing the Calendar Connector

As mentioned at the beginning of this White Paper, we were unable to find Microsoft documentation stating support for the Calendar Connector and Lotus Domino R5.

1. You will be working on the Exchange Server. From Windows NT Explorer, locate the directory where Service Pack 3 is loaded. Double-click the program, **calconw3**.



**Note** If you have installed the Calendar Connector previously, you will be prompted to uninstall it. Once it is removed, you must then re-invoke the calconw3 program to install the Calendar Connector at the Service Pack 3 level.

2. At the Welcome panel, click **Next**.
3. From the License Agreement panel, read the agreement. If you agree, click **Yes**.
4. At the dialog box that asks if you want to install the Microsoft Exchange Calendar Connector, click **Yes** to proceed.

5. At the Exchange Services Account Name and Password panel, type the password to your Exchange Services account.

**Note** This Windows NT account should be the same one that was used to install the Exchange Server, generally the Administrator account.

Click **Next** to proceed.

6. At this point, the files for the Calendar Connector will be loaded. You will receive a dialog box informing you of the successful installation of the Microsoft Exchange Calendar Connector.

Click **OK**.

7. Close all windows. The Calendar Connector has now been installed at the Service Pack 3 level.

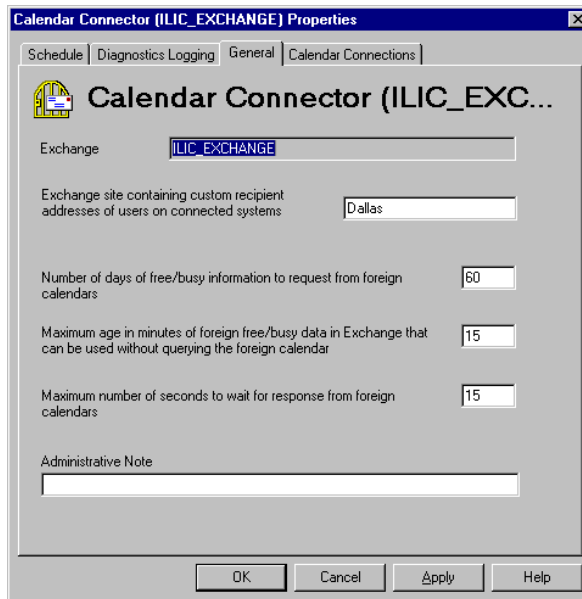
### **Customizing the Calendar Connector**

Now that the Calendar Connector code has been installed, you are ready to customize it for use. Perform these tasks from the Exchange Server.

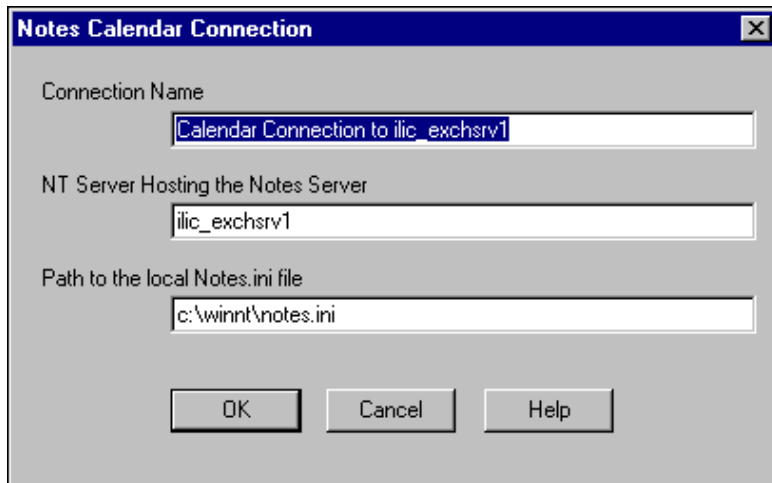
1. From the Microsoft Exchange Administrator's view, expand Configuration and Connections.
2. You will see the Calendar Connector for your organization. Double-click the **Calendar Connector**.

The property pages for the Calendar Connector is displayed. We will only describe those tabs relevant to the Connector's operation.

3. The General tab is displayed. You can select to change the free/busy time defaults for information maintained. We elected to use the defaults.



4. From the Calendar Connections tab, we need to create a new connection to our Domino R5 server. Click the **New** button.
5. The Notes Calendar Connection panel is displayed.

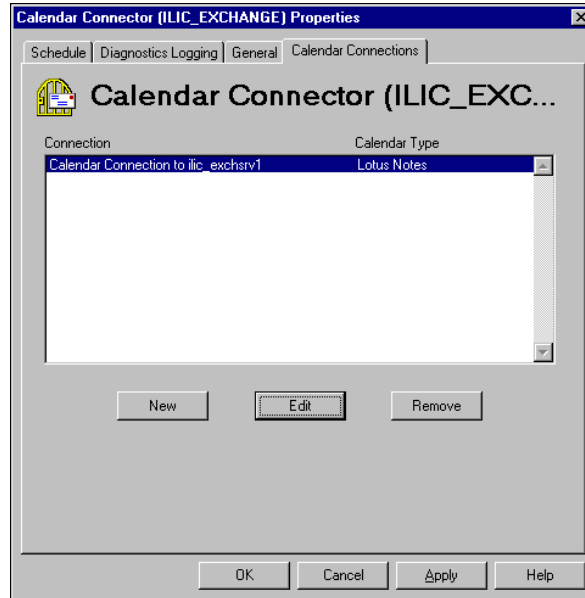


In the Connection Name field, we entered descriptive text of **Calendar Connection to ilic\_exchsrv1**.

In the NT Server Hosting the Notes Server field, we entered the NT server name of **ilic\_exchsrv1**.

In the Path to the local Notes.ini file, we entered the fully qualified file name of **c:\winnt\notes.ini**.

6. Click **OK** to proceed.
7. The Calendar Connection property page is now updated with our customizations.



8. Click **OK** to save our changes.

### Copy the EXCALCON Add-in Task to the Domino Server

So that Exchange users can do free/busy time search on the Domino server, you must copy the EXCALCON add-in task from the Exchange Server to the Domino server.

Perform these steps from the Exchange Server:

1. Locate the **EXCALCON.EXE** program. Our file was located in the **c:\exchsrvr\connect\calcon\excalcon\i386** directory.
2. Copy **EXCALCON.EXE** to the Domino server.

**Tip** Depending on your environment, you could either map a drive from the Domino server to the Exchange Server and copy the file, or you could copy the file onto diskette and move it between servers.

Perform these steps from the Domino server:

3. Now we copy the **EXCALCON.EXE** program onto our Domino server. In our case, we copied the file to the **d:\lotus\domino** directory.

**Tip** If you copy the file to the \lotus\notes directory, you will receive the following message at the Domino server console: "File does not exist: decsxt." Make sure you copy the file to the \lotus\domino directory instead.

#### **Update AMAP.TBL for the Calendar Connector**

To run the Calendar Connector, you must update the AMAP.TBL file associated with the Calendar Connector located on the Exchange Server.

**Important** Several AMAP.TBL files exist on the Exchange Server. We updated the AMAP.TBL file associated with the Calendar Connector, which we found in the path of **c:\exchsrvr\connect\exchconn\dxanotes**.

1. From Command Prompt, switch to the directory that houses the **AMAP.TBL** file used by the Calendar Connector. We switched to **c:\exchsrvr\connect\exchconn\dxanotes**.
2. Launch **NOTEPAD AMAP.TBL**.
3. According to the **CALCON.RTF** documentation (for us located in **c:\exchsrvr\connect\calcon\doc**), we need to modify the AMAP.TBL file.
  - P** Add a line for the mail server
  - P** Change the line for the calendar domain.
4. Our modified **AMAP.TBL** file looked like this after modification:



```

amap - Notepad
File Edit Search Help
FULLNAME 220 FullName 1
MAILDOMAIN 31 MailDomain 2
COMPANY 64 CompanyName NULL
DEPARTMENT 64 Department NULL
FIRSTNAME 64 FirstName NULL
LASTNAME 64 LastName NULL
LOCATION 128 Location NULL
SHORTNAME 64 ShortName NULL
UNID 64 $$UNID NULL
DN 256 $$DN NULL
USNCreated 16 $$USN
Initials 6 MiddleInitial NULL
Title 32 JobTitle NULL
Phone 20 OfficePhoneNumber
MobilePhn 20 CellPhoneNumber
Fax 20 OfficeFAXPhoneNumber
Resource 20 ResourceFlag
CALDOM 32 CalendarDomain
MAILSRV 32 MailServer
;
; additional 'People' attributes
;

```

5. Save and close **AMAP.TBL**.

**Update the Foreign Domain Document in the Domino Directory**

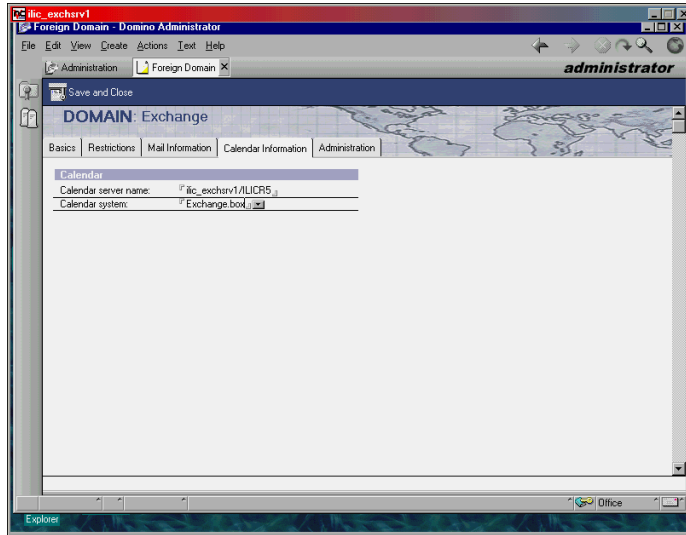
You must update the Foreign Domain document associated with the Exchange Server to allow free/busy time calendar lookups via the Calendar Connector and EXCALCON.

1. From the Domino Administrator, click the **Configuration** tab. Select **Servers** and locate the Foreign Domain document associated with the Exchange Server.
2. Click the **Edit Domain** button.
3. From the Foreign Domain document, click the Calendar Information tab.
4. We updated the following fields:

**P** In the Calendar Server field, we typed **ilic\_exchsrv1/ILICR5**.

**P** In the Calendar System field drop-down box, we typed **Exchange.box**. This is the name of the mailbox used by the Exchange Connector for Lotus Notes.

Our updated Foreign Domain document looked like this:

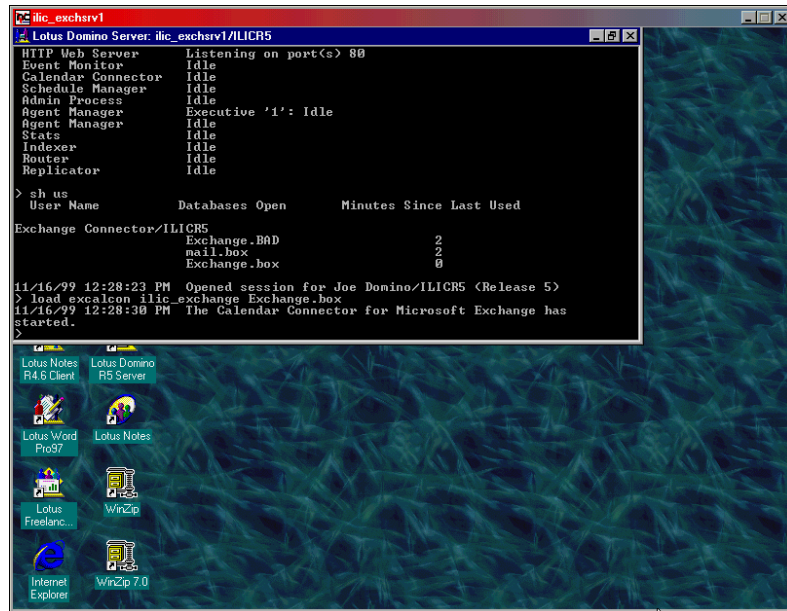


5. Click the **Save and Close** button.

### Starting the EXCALCON Add-in Task

To start the EXCALCON Add-in task, perform these tasks from the Domino server.

1. From the Domino console, issue the command **load excalcon <server name> <system name>** where:
  - P <server name>** is the name of the Exchange Server. In our case, we typed **ilic\_exchange**
  - P <system name>** is the mailbox database created for use by the Exchange Connector for Lotus Notes. In our case, we typed **Exchange.box**
2. We typed the following command: **load excalcon ilic\_exchange Exchange.box**. Our console was as follows:



3. From the Exchange Server, make sure that the Calendar Connector service is started.
4. You are now ready to check free/busy times between the Exchange Server and a Lotus Domino R5 server.

### Free/Busy Search Test Results

In our testing environment, we used an Outlook98 client and a Notes R5.01a client for free/busy lookups.

Our findings were as follows:

- w We were able to perform a free/busy lookup of a Notes user's calendar information from the Outlook98 client.
- w We were **not** able to perform a free/busy lookup of an Outlook98 user's calendar information from the Notes client.

### Summary

We found that the Exchange Connector for Lotus Notes at the Service Pack 3 level did support connection to a Lotus Domino R5 server, with the limitations noted at the beginning of this document. However, we found that the Calendar Connector displayed one-way free/busy search capability only from an Outlook user to a Notes user .

## References - Additional Reading

*Microsoft Exchange Server 5.5 Service Pack 3 Release Notes*

IBM Redbook: *The Three Steps to Super.Human.Software: Compare, Coexist, Migrate From Microsoft Exchange to Lotus Domino Part Two: Coexistence and Migration* (SG24-5615-00):

**<http://www.redbooks.ibm.com>**

Microsoft FTP Site for Service Pack 3:

**<ftp://ftp.microsoft.com/bussys/exchange/exchange-public/fixes/Eng/Exchg5.5/SP3/>**