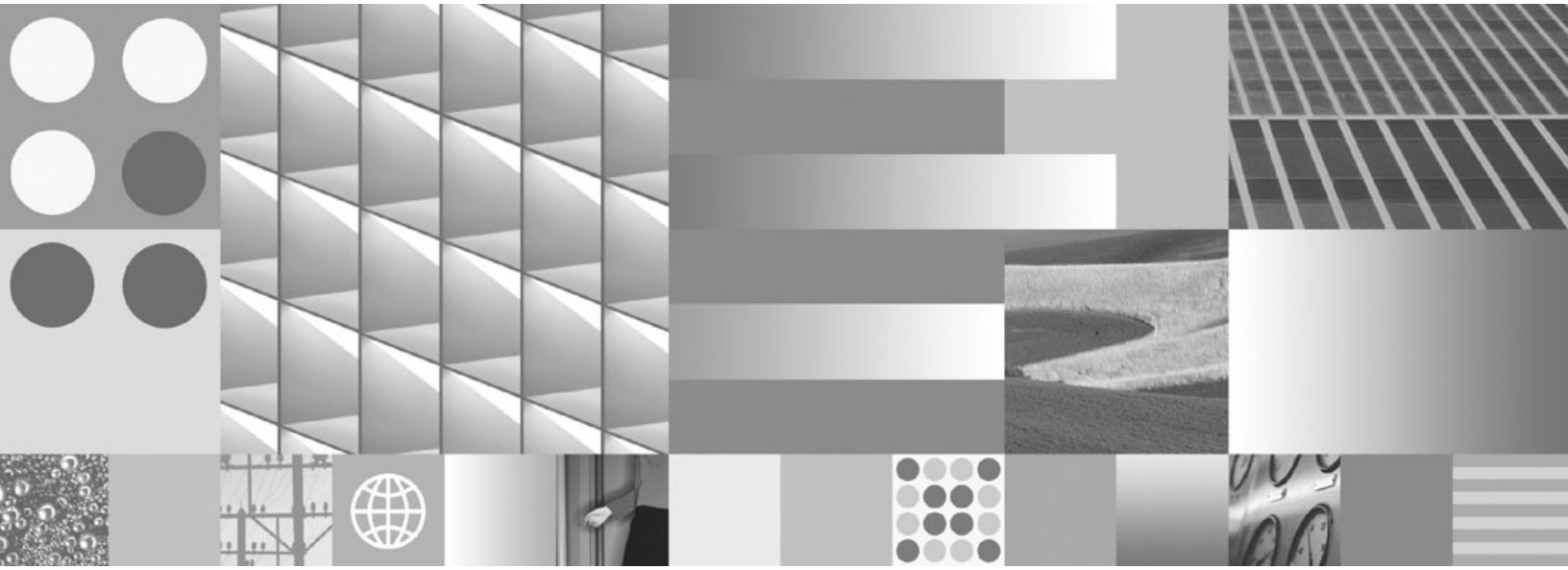
Version 2.0



Email Manager Setup Guide

GC31-5571-03

CONTENTS

EMAIL MANAGER INSTALLATION WORKSHEET

INSTALLATION WORKSHEET

Use the following tables to record installation information that you will require during the installation process.

NOTE Most the settings are static, for which you are recording system information. The settings with an asterisk (*) in the Setting column, however, require you to complete a task in order to record the information. For example, in the *Document Management System* section, you will need to create a user before recording the user name. For all such settings, the Description column summarizes the task to be completed in order to create the value required. Full details are provided in the appropriate section of this guide, where the setting required is highlighted in **bold** text.

DATABASE SERVER

Microsoft SQL Server

Setting	Description	Value
Operating System	Name of the operating system on which the SQL Server resides	
Microsoft® SQL™ Server Version	Version of the operating system on which the SQL Server resides	
SQL Server Name	Name of the SQL Server	
SQL Server IP	IP address of the SQL Server	
*Database	A database for the Email Manager to use to store various configuration settings and data	
*Email Manager SQL User	A user for Email Manager to use to access configuration settings stored in the database created above	

Oracle Server

Setting	Description	Value
Operating System	Name of the operating system on which the Oracle Server resides	
Oracle® Version	Version of the operating system on which the Oracle Server resides	

Host	Name of the Oracle host	
Port	Port used by Oracle	
SID	SID of the Oracle database	
*Host String	The name of the host string that should be used to connect to the Oracle Server	
*Email Manager Oracle User	A user for Email Manager to use to access configuration settings stored in the database created above	

IBM DB2 Server

Setting	Description	Value
Operating System	Name of the operating system on which the IBM DB2® Server resides	
DB2 Database Server Version	Version of the operating system on which the DB2 database resides	
Host	Name of the DB2 host	
*Database	Name of the DB2 database database that will be used by Email Manager to store configuration settings and data	
*Email Manager DB2 User	Name of the user for Email Manager to use to access configuration settings stored in the database created above	
*Email Manager DB2 Password	Password of the user above	

EMAIL SYSTEM

Settings with an asterisk (*) in the Setting column require you to complete a task before recording the information. For all such settings, the Description column summarizes the task to be completed in order to create the value required.

Microsoft Exchange Server

Setting	Description	Value
Exchange Server Version	Version of Exchange Server being used and the service pack level	
Operating System	Name and version of the operating system on which the Exchange Server resides	
Exchange Server	Name of the machine on which the Exchange Server resides	
*Email Manager Exchange User	Name of the mailbox on the Exchange Server created for use by the Windows® Domain User. See also the *Windows Domain* section of this worksheet.	
*Public Folder(s) for Rules-Based Capture	Name of public folders, prefixed by any parent folders, to be monitored by Email Manager. **Note** Required only if using rules-based capture from public folders.	

Lotus Domino Server

Setting	Description	Value
Lotus® Domino® Version	Version of Domino Server being used and the service pack level	
Operating System	Name and version of the operating system on which the Domino Server resides	
Domino Server Name	Name of the Domino Server	
Organization Name	Name of the Organization to	

	which the Domino Server belongs	
Domain Name	Name of the Domain to which the Domino Server belongs	
*Email Manager Domino User	A user on the Domino Server that Email Manager should use to connect to Domino.	
*Database(s) for Rules Based Capture	File name for the database created for use by Email Manager when using rules-based capture.	

Novell GroupWise Mail Server

Setting	Description	Value
Novell® GroupWise® Server Version	Version of GroupWise Server being used and the service pack level	
Novell GroupWise Client™		
Operating System	Name and version of the operating system on which the GroupWise Server resides	
GroupWise Domain	Name of the GroupWise Domain that will be used	Important: You must enter a fully qualified domain name
Domain Directory UNC Path	UNC path that may be used to access the GroupWise Server domain directory	
*Email Manager GroupWise User	Name of the user in eDirectory that the GroupWise connector will use to connect to EDirectory to query for postoffices and accounts.	
*NDS Tree	Novell Directory Services® Tree that the Email Manager	

	GroupWise User belongs to	
*NDS Context	Novell Directory Services Context that the Email Manager GroupWise User belongs to	
*Accounts or Post Offices for Rules	The Accounts on the GroupWise server that Email Manager should monitor for email to apply capture rules against.	

Windows Domain

Setting	Description	Value
*Windows® Domain User	Name of the domain user required by the email connector	
*Microsoft Active Directory®	Enter “Yes” if Active Directory is being used, or “No” if not	

DOCUMENT REPOSITORY

Settings with an asterisk (*) in the Setting column require you to complete a task before recording the information. For all such settings, the Description column summarizes the task to be completed in order to create the value required. Full details are provided in the appropriate section of this guide.

IBM FileNet P8 Content Engine – 3.x

Setting	Description	Value
IBM FileNet® P8 Content Engine Version	Version of Content Engine being used	
Operating System	Name and version of the operating system on which Content Engine resides	
Object Store	Object store name (library name)	
Host Server	Name of the server on which Content Engine resides	
*Email Manager FileNet User	A P8 Content Engine user for Email Manager to use when adding email to Content Engine	

IBM FileNet P8 Content Engine – 4.0

Setting	Description	Value
FileNet P8 Content Engine Version	Version of Content Engine being used	
Operating System	Name and version of the operating system on which Content Engine resides	
Object Store	Object store name (library name).	
Host Server	Name of the server on which Content Engine resides	
*Email Manager FileNet User	A P8 Content Engine user for Email Manager to use when adding email to Content Engine	

EMAIL MANAGER SYSTEM

Settings with an asterisk (*) in the Setting column require you to complete a task before recording the information. For all such settings, the Description column summarizes the task to be completed in order to create the value required. Full details are provided in the appropriate section of this guide.

Setting	Description	Value
Operating System	Name and version of the operating system installed on the Email Manager Server	
Email Manager Server Machine	Name of the machine that will be used to the run the Email Manager Server	

INTRODUCTION

ABOUT THIS GUIDE

This guide explains how to install and configure the various components required to deploy Email Manager. In addition, this manual will guide you through the initial configuration required for communication between the Email Manager server and its components. More detailed configuration is covered in the Online Help for *Email Manager Configuration Manager*.

OTHER RESOURCES

Detailed information about tasks related to installing and using Email Manager are available as below:

If you need to …	Read this …
Use Email Manager Configuration Manager	*Configuration Manager Online Help*, available in EM 4.0+ through the *Help* link inside the Configuration Manager.

AUDIENCE

Once the Email Manager Server is up and running, it needs to store configuration data in a database, to access email found in individual mail boxes and/or public folders, and to add documents to the repository.

Getting Email Manager set up to allow this requires the coordinated effort of several individuals in your organization, including a network administrator, database administrator, FileNet administrator, and email administrator. This guide is intended for each of these users:

Windows server administrators	These individuals are responsible for: • creating network accounts and setting permissions for the Email Manager User • creating a special user that the Email Manager server uses to access local services, and to add documents to P8.
Oracle, Microsoft SQL, and IBM DB2 database administrators	These individuals are responsible for: • creating the Email Manager configuration database • creating a user to access the database
Microsoft® Exchange, Lotus Domino and Novell GroupWise® administrators	These individuals are responsible for: • configuring email servers to support Email Manager • creating an Email Manager user to access individual inboxes and/or public folders

CONVENTIONS

The following conventions are used in this guide:

Convention	Usage
<angle_bracket>	<angle_brackets> indicate a placeholder or variable to be replaced with an actual value as indicated by the text between the brackets.
bold	Elements in **bold** indicate settings referred to in the Installation Worksheet. Use these **bold** elements as a cue to fill out the required value for the setting in the worksheet. Once filled out, you will use these values as you configure and install this application.
`Courier font`	Code within a sentence, email addresses and file names are in `Courier` font.
italic	References to sections within this guide, and to other guides, appear in *italic*.
[square_brackets]	Optional parameters appear between [square _brackets]
UPPERCASE	KEYSTROKES appear in uppercase.

NEW FEATURES

The following are the new features added to the 4.0.2 release of Email Manager.

File System Target Connector

Email Manager 4.0.2 supports the capture of files into a file system. This is valuable for organizations with specific business processes that trigger off content being in a file share.

In addition, using the file system as a repository can be a quick way to test your end to end configuration of Email Manager: You do not need to deal with the set up and security intricacies of most repositories, but can quickly set up the simple properties required to save files to a file system.

Manual Email Capture from Lotus and Outlook (Client Capture)

In addition to supporting a simplified configuration of manual email capture, also known as client capture, Email Manager can now prompt users to enter metadata relating to each email dropped into a capture folder. You can use this metadata to define how to process the email.

For example, if an email is related to contracts, a client may drag it into a Contracts folder. The client can enter the Contract Number as metadata, which can be used to file the email into a folder on the repository named by contract number.

Email Manager makes setting up client capture simple, providing two options:

- You can enable Email Manager to create folders on client systems, in order that clients can drag and drop email into these folders.
- You can enable Email Manager to create folders on client systems, and you can configure Email Manager to prompt a user for custom metadata whenever email is dragged and dropped to folders.

Support for Internet Protocol Version 6

Email Manager 4.0.2 supports a pure IPv6 network, as well as a pure IPv4 network.

Simplified Import/Export between 4.0.2 Servers, and Simplified Upgrade (Migration)

Email Manager 4.0.2 provides a much simplified import/export process, in addition to a simplified upgrade process.

GETTING STARTED

ABOUT THE INSTALLATION WORKSHEET

The first section of this document is an Installation Worksheet on which to record values required during the installation process. As different individuals may be responsible for installing different components required by Email Manager, you may want to give the relevant section of the Installation Worksheet to the person responsible for that component in order for them to complete.

THINGS TO CONSIDER FOR YOUR IMPLEMENTATION OF EMAIL MANAGER

Email Manager must connect to an email server to retrieve email, as well as to a document repository to store email. You need to consider certain details about how you want to use Email Manager before beginning installation, as your use will affect your pre-configuration of these component systems. Specific elements requiring decisions in this document are described below.

For a list of questions to guide you in preparing your implementation, see *Appendix H: Preparing for Implementation*.

Folders and Mailboxes to be Monitored and Permissions for Email Manager Domain User

Since Email Manager runs unattended, you need to create a domain user that can monitor folders in your email server. You'll need to understand your business needs and communicate them to your email administrator in order to have a user set up with the permissions that suit your organization's required use of Email Manager.

For example, to monitor all mailboxes in your system, your email server requires a user with elevated permissions. Lesser permissions allow reduced access to mailboxes.

Note Email server Journaling (Exchange and Lotus only) is one way to monitor all mailboxes with lesser permissions. In this type of implementation, a copy of all mail messages will be saved in an administrator-specified location that can be monitored by Email Manager, with all relevant messages being automatically captured into a document repository. For more information about implementing Message Journaling, see *Appendix C: Enabling Email Server Message Journaling*.

Document Classes and Custom Properties

A document class is a category for documents in an object store or library. Every document in a repository belongs to a document class, such as Email. Document classes contain properties which help identify the document; for example, the Email document class contains a Subject property. You can define your own document classes to contain custom properties you want to use to process email. For example, you could create a Contract document class containing a Contract Number property.

You need to carefully consider the document classes and corresponding custom properties you create for email in FileNet document repositories in order to be sure email is properly classified for easy search and retrieval.

For example, you could have one document class called Email, with only the usual email properties including From Address, Received Date, and Subject. However, if you do this, you run the risk of simply archiving all email and making it useful only perhaps to individuals who received the email (and know what to search for) rather than useful as a shared resource.

As an example of a more thoughtful use of document classes and custom properties, consider an organization like an insurance company that uses contracts. When a contract is created, there is usually a lot of discussion with the other party, often in the form of email. The company could configure Email Manager to capture email based on a contract number, so that it can later be related back to the original contract to help show how the contract evolved.

An important first step in this capture and retrieval process would be to create a P8 document class to handle the contract email. This document class should have all the usual custom properties for handling email with the addition of a property to hold the legal contract number.

For more information, see *Appendix B: Suggested Document Class Configuration*.

Post Processing for Captured Email

If you are using Exchange or Lotus as your email server, consider what you want to happen for the user after a document has been captured, and what you want to do with the original email. Security should also be considered: Who do you want to see the captured email? The following are some of the options you may want to implement:

- set an icon to appear next to an email captured in a FileNet repository as a visual cue to a user that capture has happened. (Note that this would be unnecessary if you are capturing all email as in a Journaling implementation.)
- set shortcuts to the captured version of the email
- set to leave email in captured location, or delete it
- set security/ regarding who should see the captured email

SYSTEM REQUIREMENTS

This section outlines the system requirements for Email Manager and its component systems.

Email Manager System Requirements

The following software is supported by Email Manager, and must be installed on the same server as Email Manager:

Operating System

- Windows 2000 Server, Windows 2003 Server

  Important: Note that Manual Capture and the Shortcut Client both require an operating system on the client of either Windows XP or Windows Vista. See Manual (Client) Capture and the Shortcut Client (Advanced Shortcuts) requirements below.

.Net Framework

- Microsoft® .NET Framework 2.0

Component System Requirements

Email Manager requires a database server (and client if using an Oracle database server or an IBM DB2® database, an email server, an email client, a document repository server and a document repository client. The following systems are supported by Email Manager.

Database Server

- Microsoft SQL Server 2000, 2005
- Oracle 9i™, 10g
- IBM DB2 database version 8.2, 9.1, 9.5

Database Client

- Oracle Client 9i, 10g Client

  Important You must choose the Administrator option during client install

- IBM DB2 Administration Client version 8.2, 9.1, 9.5

Email Server

- Microsoft Exchange Server 2003, 2007
- Microsoft Outlook 2003, 2007
- Lotus Domino 7.0.x, 7.0.1, 7.0.2, 8.0
- Lotus Notes 7.0.x, 7.0.1, 7.0.2, 8.0
- Novell GroupWise 6.5.6+, 7.0.1+
- Novell GroupWise Client™
  - Novell GroupWise Client 6.5.6+ for Windows
  - Novell GroupWise Client 7.0.1+ for Windows

Note The Novell GroupWise Client version should be the same as Server version; for example, use Novell GroupWise 6.5.6 with Novell GroupWise Client 6.5.6

Important In order to install the GroupWise Client, you must first install the following on the same machine (complete instructions are provided in the Configuring Novell GroupWise Mail Server section of this document):

- Java™ Platform 1.42, as GroupWise uses Java installers
- Novell Client version 4.9.1 SP2, as the GroupWise Client authenticates to E-Directory.
- Windows Scripting 5.6 or higher. It can be found at: `http://www.microsoft.com/downloads/details.aspx?FamilyID=c717d943-7e4b-4622-86eb-95a22b832caa&DisplayLang=en`

Manual (Client) Capture and Shortcut Client (Advanced Shortcuts)

- **Outlook 2003 (SP 2), Outlook 2007 running on either Windows XP or Windows Vista**

  Depending on the repository you are using, the EMRC Client and Advanced Shortcut installation also requires that the following are installed on the Outlook 2003/2007 Client:

  P83.x

  - Microsoft .Net Framework 2.0
  - FileNet P8 Client Connectivity - installed and configured

  P84.x

  - Microsoft .Net Framework 2.0

- **Lotus Notes, running on either Windows XP or Windows Vista**

  Depending on the repository you are using, the EMRC Client and Advanced Shortcut installation also requires that the following are installed on the Lotus Notes Client:

  P83.x

  - Microsoft .Net Framework 2.0
  - FileNet P8 Client Connectivity - installed and configured

  P84.x

  - Microsoft .Net Framework 2.0

Repository Server

- FileNet P8 Content Engine 3.5.2, 4.0

  Important If using P8 Content Engine 4.0, you must also install Microsoft Web Services Enhancement (WSE) 3.0

Repository Client

- FileNet P8 Content Engine COM SDK
- FileNet P8 Client Connectivity

Optional Component System Requirements

FileNet Records Manager

- FileNet Records Manager 3.5, 3.5.1, 3.7, 4.0

- Java™ Platform Standard Edition 1.4.2

Other Systems

IBM CommonStore for Exchange Server, V8.4

Chapter 1 CONFIGURING THE DATABASE

! **Caution** Do not install Email Manager components on a machine that is a domain controller. Some Microsoft .Net and Web Services components may not function as expected on a domain controller.

Email Manager requires an SQL, Oracle, or DB2 database to store various configuration settings and data. Configuring the database involves the following tasks:

- Creating a database to store configuration data (SQL and DB2 only)
- Creating a user who can access Email Manager configuration data stored in the database
- Running scripts to create required database objects

The setup required in this section assumes the administrator is knowledgeable about Oracle/SQL/DB2 database administration.

SQL 1.1 CONFIGURE SQL

Important SQL Server must be installed in "mixed mode" for use by Email Manager.

Configure SQL Server Database and User

The following SQL Server configuration is required on the SQL Server that will be used by Email Manager:

1. Create a new database for Email Manager to use. Record the name of the database in the Installation Worksheet in the section SQL Server under Database.
2. Create a user for Email Manager to use to connect to the database. Record the user name in the Installation Worksheet in the section SQL Server under Email Manager SQL User.
   a. Set the user's default database to **Database**.
   b. Grant the user read and write privileges (`db_datareader` and `db_datawriter`) in Database.

Create Required Database Objects

After the database has been created, the database objects required by Email Manager must be created as follows:

1. Open SQL Server Query Analyzer and connect to the Database as an administrative user.
2. Run the appropriate SQL script to create the database objects required by Email Manager. Ensure that scripts are run in the Database created specifically for Email Manager. The database scripts required for the email server and repository being used can be found in the `Database Scripts` folder of the esD image or software CD for Email Manager.
3. Since you are using Microsoft SQL as your database, run the script, `db_ufi_400_sql.sql` script.

ORACLE 1.2 CONFIGURE ORACLE

Configure Oracle Database and User

On the Oracle database that will be used by Email Manager:

1. Create a user for Email Manager to use to connect to the database as follows:

a. Create the user

b. Grant the user read, write and table creation privileges in **Database**

c. Create a Tablespace for the user in which Email Manager database objects may be created

2. Record the user name in the Installation Worksheet in the section Oracle Server under Email Manager Oracle User.

Create Required Database Objects

After the Oracle user has been created, the database objects required by Email Manager must be created. For users who desire greater control over the creation of the database objects, see the section *Custom Oracle Scripts* below.

Create required database objects as follows:

1. Open Oracle SQL *Plus and connect to the Database as Email Manager Oracle User.
2. Run the appropriate Oracle script to create the database objects required by Email Manager. The scripts can be found in the `Database Scripts` folder of the esD image or software CD for Email Manager.

   Since you are using Oracle as your data source run the script `db_ufi_400_ora.sql`.

DB2 1.3 CONFIGURE DB2

Important If you are using a DB2 database with Email Manager, we recommend that you turn off autocommit in the database. Details and steps to turn off autocommit are provided in this section under *How to Turn off Autocommit at the Database Level.*

Configure DB2 User and Database

1. Create a database user who is a DB2 administrator. Record the name of the user in the Installation Worksheet in the section **IBM DB2 Server** under **Email Manager DB2 User.**
2. Create a new standard DB2 database for Email Manager to use. When creating the new database, configure specific settings in the *Create Database Wizard* as below:

   a. Under the *Name* tab, in the *Default buffer pool and table space page size* field, select a value of at least 8 K (the default is 4 K).

   b. Under the *Region* tab, select to change the *Code set* value to UTF-8 (the default is IBM-1252)

3. Record the name of the database in the Installation Worksheet in the section **IBM DB2 Server** under **Database**.

Create Required Database Objects

After the DB2 user and database have been created, the database objects required by Email Manager must be created.

Create required database objects as follows:

1. Open the database you created to be used by Email Manager.
2. Run the appropriate DB2 script to create the database objects required by Email Manager. The scripts can be found in the `Database Scripts` folder of the esD image or software CD for Email Manager.

   Since you are using DB2 as your data source, run the script `db_ufi_400_db2.sql`.

How to Turn off Autocommit at the Database Level

Email Manager is an ODBC application, and therefore must use the DB2 ODBC/CLI driver to communicate with your DB2 database. By default the driver automatically enables autocommit; this should be turned off in the DB2 database used by Email Manager.

DB2 disables autocommit by using a keyword in an initialization file called `db2cli.ini`. You can manipulate this file using the DB2 Configuration Assistant, by entering a command at the command line, or by manually setting values in the initialization file. Each of these methods is described below. **Caution:** You should not turn off autocommit at the server level, as this can affect other applications in addition to Email Manager.

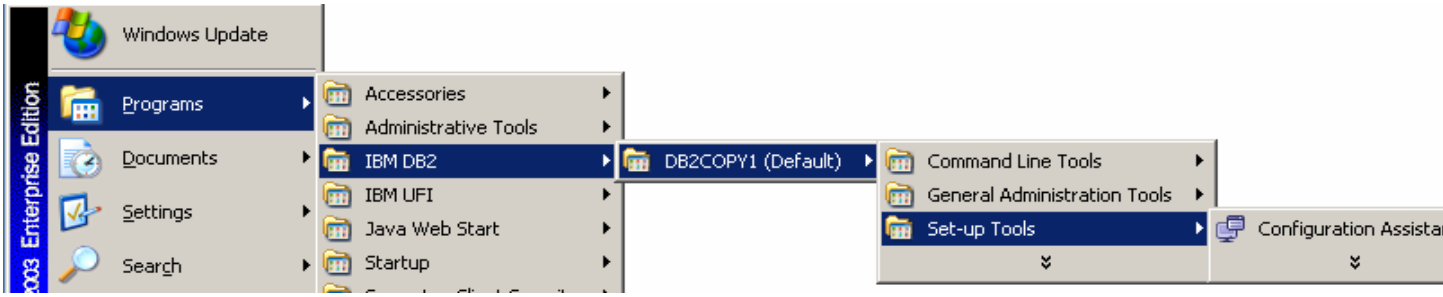
Method 1: Use the update cli Configuration Command (Recommended)

Open a command line window, and type the following, substituting *EMMDB402* with the name of the DB2 database configured for use with Email Manager:

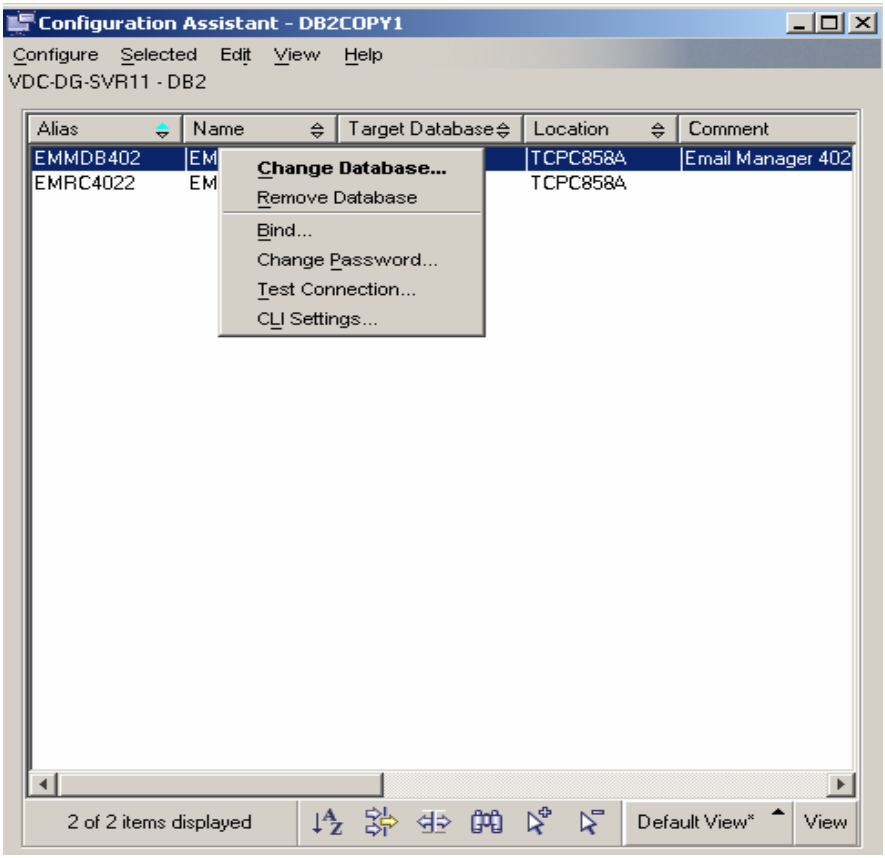
```
> db2 update cli cfg for section EMMDB402 using AutoCommit 0
```

Method 2: Use the DB2 Configuration Assistant

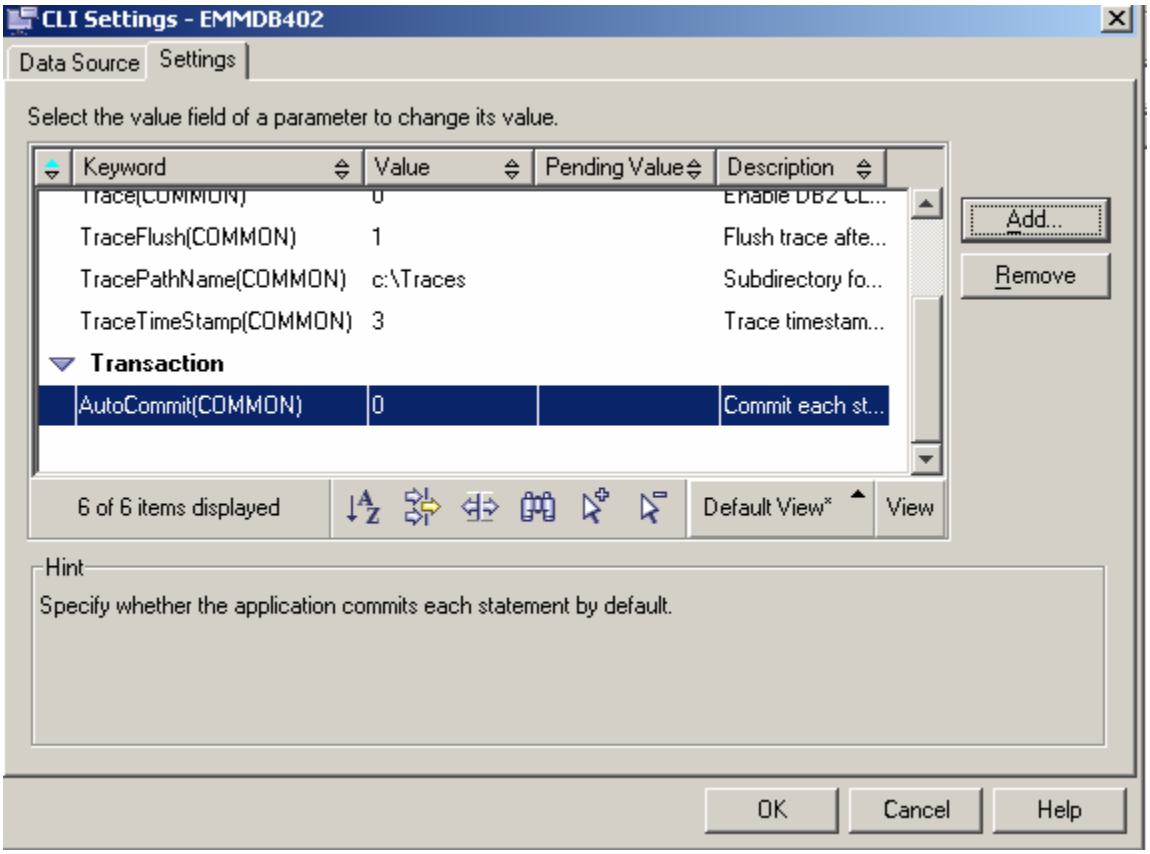
Start the *DB2 Configuration Assistant* as in the screenshot below:



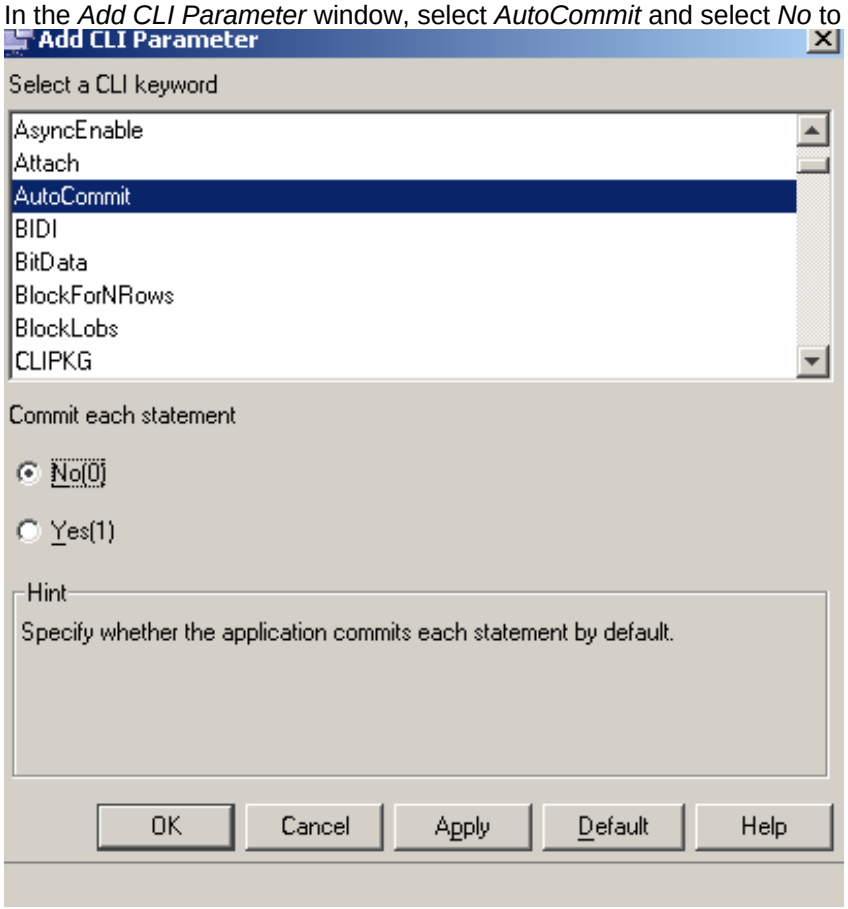
3. In the Configuration Assistant, right-click on the name of the database to be used by Email Manager, *EMMDB402* in this case, and select *CLI Settings.*



4. In the *CLI Settings* window for the selected database, in the *Settings* tab, click the **Add** button,



5. In the *Add CLI Parameter* window, select *AutoCommit* and select *No* to disable.



Method 3: Manually edit the db2cli.ini file

DB2 disables autocommit by using a keyword in an initialization file called `db2cli.ini` (located on Windows in the `SQLLIB` directory on Windows, or on Unix in the `sqllib/cfg` directory). If you are using DB2 v9.5, the `db2cli.ini` file is located in `Documents and Settings\All Users\Application Data\IBM\`.

You can add keywords and values in this file, to help manipulate the behavior of the DB2 ODBC/CLI driver. In the `db2cli.ini` file keywords/values are set for a particular data source name (DSN) by adding the DSN in square brackets, and then placing the keyword/value pair underneath it, as in the example that follows:

Example:

```
[SAMPLE_DBASE_NAME]
AUTOCOMMIT=0
```

This will set the keyword `AUTOCOMMIT` to the value 0 in the data source name called `SAMPLE_DBASE_NAME`.

Chapter 2 CONFIGURING THE DOCUMENT REPOSITORY

Configuring the document repository to store email involves the following tasks:

- Creating document classes and properties
- Creating users and setting permissions to allow access to the repository

Important Worksheet values are referenced in **bold** text in this section.

P8

2.1 CONFIGURE IBM FILENET P8 CONTENT ENGINE

Note If P8 Content Engine 3.x is being used, the server on which Email Manager is installed must be on the same domain as the P8 Content Engine server.

The setup required in this section assumes the administrator is knowledgeable about FileNet P8 Content Engine administration.

2.1.1 IBM FileNet P8 Content Engine Version 3.x

Create document classes and custom properties

Document classes and custom properties required are dependent on the business requirements for email indexing. Any document classes and custom properties required should be created prior to Email Manager setup and configuration. For more information about custom property configuration, see *Appendix B: Suggested Document Class Configuration*.

Note A document class named “Email” is created by default when Content Engine is installed. This document class can be used with Email Manager.

Create users

You must create a P8 Content Engine user that Email Manager can use when adding email to Content Engine. Create a user as follows:

1. Create a P8 Content Engine user.
2. Set permissions as below:

- The user minimally needs to be part of one of the "Initial User Groups" to add a document to an object store and file a document into a folder.
- The group the user is part of must have "use object store" permissions (these are the default permissions the group is granted when the object store is created).
- On the object store, the user must minimally have the following permissions:
  - Use object store
- On each document class that will be used with email manager, the user must minimally have the following permissions:
  - Allow: View all properties
  - Allow: Create instance
  - Allow: Read permissions
- If a file store will be used with the object store, the user must have “Full Control” over the file store share.

3. In the Installation Worksheet, record the user name in the section **FileNet P8 Content Engine** under the setting **Email Manager FileNet User**.

Configure Records Manager

Important If Records Manager will be used, the FileNet P8 Content Engine User must be explicitly granted permissions on any Record Classes that will be used. Regardless of other permissions that the user may be granted in the object store (even P8 administrator privileges), users are not granted required privileges to Records Manager Record Classes by default.

To grant permissions on any Record Classes that will be used:

1. In FileNet Enterprise Manager, select the File Plan Object Store that will be used.
2. Select the Record Class that will be used (eg. Document Class->Record->Electronic Record->Email Record).
3. Right-click, select "Properties".
4. Open the "Default Instance Security" tab.
5. Give the **Email Manager FileNet User** the same privileges as the #CREATOR- OWNER user (usually full control).
6. Repeat for each Record Class that will be used.

If custom properties are being added to a record class, the word “declare” must be added to the property’s Description field. Each item that appears in the Description field should be separated by a comma.

2.1.2 IBM FileNet P8 Content Engine Version 4.0

Create document classes and custom properties

Document classes and custom properties required are dependent on the business requirements for email indexing. Any document classes and custom properties required should be created prior to Email Manager setup and configuration. For more information about custom property configuration, see *Appendix B: Suggested Document Class Configuration*.

Note A document class named “Email” is created by default when Content Engine is installed. This document class can be used with Email Manager.

Create users

You must create a P8 Content Engine user that Email Manager can use when adding email to Content Engine. Create a user as follows:

1. Create a P8 Content Engine user.
2. Set permissions as below:

- The user minimally needs to be part of one of the "Initial User Groups" to add a document to an object store and file a document into a folder.
- The group the user is part of must have "use object store" permissions (these are the default permissions the group is granted when the object store is created).
- On the object store, the user must minimally have the following permissions:
  - Use object store
- On each document class that will be used with email manager, the user must minimally have the following permissions:
  - Allow: View all properties

  - Allow: Create instance
  - Allow: Read permissions

- If a file store will be used with the object store, the user must have “Full Control” over the file store share.

3. In the Installation Worksheet, record the user name in the section FileNet P8 Content Engine under the setting Email Manager FileNet User.

Chapter 3 CONFIGURING THE EMAIL SERVER

Email Manager requires a Microsoft Exchange, Lotus Domino, or GroupWise email server to monitor mailboxes or public folders.

Configuring the email server involves the following tasks:

- Creating a domain user for Email Manager to access individual inboxes and/or public folders
- Specifying permissions on the mailboxes or public folders to be accessed by this domain user.

For GroupWise email server, other prerequisite tasks must also be completed. For more information, see section *3.3, Configure GroupWise Mail Server*.

The setup required in this section assumes the administrator is knowledgeable about Microsoft Exchange, Lotus Domino, or Novell GroupWise administration.

Important Worksheet values are referenced in **bold** text in this section.

EX

3.1 CONFIGURE MICROSOFT EXCHANGE EMAIL SERVER

Prerequisites

If Email Manager for Exchange is being used, one of the following must be true:

- The server on which Email Manager is installed must be on the same domain as the Exchange server.
- If the servers are on different domains, each domain must be configured to allow an Outlook client on the Email Manager server machine to connect to Exchange using NT authentication only (that is, a login prompt should not be shown when connecting to Exchange).

Create a domain user and set permissions

Create a Windows domain user that will be used by the Exchange Connector as follows:

1. Create a domain user that will be used to run the Exchange Connector (eg. EMservice). Minimally, the user must be assigned the following security privileges:

- On the Mail Store(s) of the folders and mailboxes being monitored, the user must have “Administer Information Store” permissions.
- For any Exchange public folders that Email Manager will monitor, the user must have “Publishing Editor” (monitored folder) and “Contributor” permissions.
- On all folders on the machine the Exchange Connector is installed on, the user must have “Full Control**.”**

If the PST Connector will be used to search for PST Archive Files on network shares

The user will require the following additional permissions:

- The user must be a member of the Domain Users group.
- The user must have “Full Control” on any folders on the network share that will be searched for PST archives. This includes both user shares and default shares (i.e. C$). In addition, to support the option to disable PST file creation on a computer, the user must have “Full Control” on the folder containing the MAPI configuration file (MAPISVC.INF). The file is typically located in “C:\Program Files\Common Files\System\Mapi\1033”.

- If the option to search for PST files using the Outlook Profile is required, the user will require read access to “Software\Microsoft\Windows NT\CurrentVersion\Windows Messaging Subsystem\Profiles” for each “HKEY_CURRENT_USER” registry hive on each computer.

2. Record the domain user id in the Installation Worksheet in the Windows Domain section under the setting **Windows Domain User**. Under Active Directory, enter “Yes” if active directory is being used or “No” if active directory is not being used.
3. Create a mailbox on the Exchange Server for the **Windows Domain User**.
4. Record the name of the mailbox in the Installation Worksheet for the Exchange Server section under the setting **Email Manager Exchange User**.

LD

3.2 CONFIGURE LOTUS DOMINO EMAIL SERVER

Create a domain user and set permissions

The Lotus Connector can be run using the Local System account or a specific user account. We recommend creating a Windows domain user specifically for the Lotus Connector. Create a user as follows:

1. Create a domain user that will be used to run the Lotus Connector (eg. EMservice). Minimally, the user must be assigned the following security privileges:

- “Full Control” on all folders on the machine the Lotus Connector is installed on.
- “Run as a service” privileges.
- The user must be able to access the Lotus Domino server Email Manager will connect to.

2. Record the domain user id in the Installation Worksheet in the Windows Domain section under the setting Windows Domain User. Under Active Directory, enter “Yes” if active directory is being used or “No” if active directory is not being used.

GW

3.3 CONFIGURE NOVELL GROUPWISE MAIL SERVER

Prerequisites

Before configuring Novell GroupWise Mail Server to work with Email Manager, do the following:

1. Validate that you have installed supported versions of the software below (see *System Requirements* for supported versions):
   - Novell GroupWise Server and Client
   - Novell Client
2. Ensure you have installed Java 1.4.2
3. If Email Manager is installed on a different server than the GroupWise mail server, a UNC Path to the post office must be provided rather than a local path to the post office. (A value for the UNC path would have been entered during installation of GroupWise). Note that a UNC Path is will work in any case: when Email Manager is installed on a different server than the GroupWise mail server, or on the same server.

   You can check that the UNC Path has been entered using ConsoleOne, Novell’s Administrative tool for E-Directory as follows:

a. Open ConsoleOne.

b. Select and right-click the post office which you are trying to log in to.

c. Select Properties.

d. Click the GroupWise tab.

e. Click the Identification option in the displayed list.

f. In the UNC Path field, check that the UNC Path is a valid UNC Path (in format \\machinename\...\...), NOT a local path (C:\foldername\foldername).

Create a domain user and set permissions

A Windows domain user that will be used by the GroupWise Connector service needs to be created. Create a user as follows:

1. Create a domain user that will be used to run the GroupWise Connector service (eg. EMservice). Minimally, the user must be assigned the following security privileges:

- "Full Control" on all folders on the machine the GroupWise Connector is installed on.
- Read/Write access to the **Domain Directory UNC Path**.

2. Record the domain user id in the Installation Worksheet in the **Windows Domain** section under the setting **Windows Domain User**.
3. Create a user in eDirectory that the GroupWise connector will use to connect to eDirectory to query for post offices and accounts. The user must minimally have system-level administration rights on the domain database and to the post office directories.
4. Record the name of the user in the Installation Worksheet in the **GroupWise Server** section under **Email Manager GroupWise User**. In addition, record the **NDS Tree** and **NDS Context** that the user belongs in.

Chapter 4 CONFIGURING EMAIL MANAGER

Now that you've configured your document repository and email server to work with Email Manager, you need to set up the required clients to access these systems from Email Manager. You also need to perform some configuration on the server on which the Email Manager will be installed.

Configuring Email Manager involves the following tasks:

- Configuring the repository client
- Configuring the email client
- Installing Microsoft Net
- Configuring the Oracle Client (if you are using an Oracle database for Email Manager)
- Configuring the DB2 Administrative Client (if you are using a DB2 database for Email Manager)

Important Worksheet values are referenced in **bold** text in this guide.

4.1 CONFIGURE THE REPOSITORY CLIENT

To your document repository, Email Manager is a user just like any other: someone or something that wants to store documents in its repository. The only way a human user can access their FileNet repository is through a document repository client. In the same way, the Email Manager user must use a document repository client to get access to a FileNet repository.

Your tasks in this section are to make sure a document repository client is installed, and ensure Email Manager is set up as a user with permissions necessary for access appropriate to your business needs.

P8

4.1.1 FileNet P8 3.x Content Engine

P8 CE Client Tools Installation and Configuration

P8 CE client connectivity tools and the P8 COM SDK are required by Email Manager components to allow for communication with FileNet P8 CE object stores. If the P8 CE components have already been installed and configured on the same machine as Email Manager, this set up is not required.

Important P8 Content Engine 4.x does not require client tools.

Install and configure the P8 CE components as follows:

1. Log into Email Manager Server Machine as a user who has permissions to install software on the machine.
2. Install FileNet P8 Client Connectivity and Content Engine SDK.
3. Configure P8 to connect to the P8 Content Engine server.

4.2 CONFIGURE THE EMAIL CLIENT

As far as your email server is concerned, Email Manager is a user just like any other. Since the only way a human user can access their email is through an email client, the Email Manager user must likewise use API's installed by client tools to get access to email on the email server.

Your tasks in this section are to make sure an email client is installed, and set up users and/or permissions to allow access to appropriate email folders based on your business needs.

EX

4.2.1 Configure Exchange

Configuring Exchange to enable communication with Email Manager involves the following:

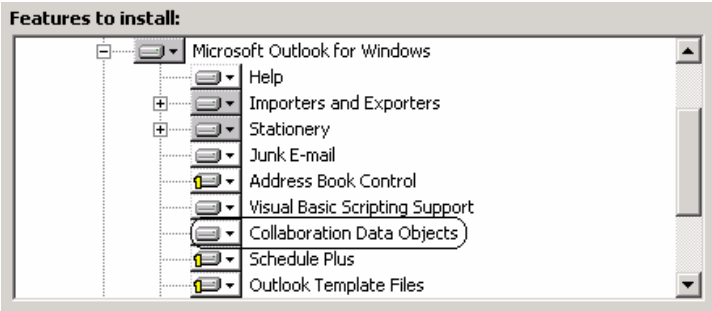
- Installing and configuring Outlook
- Creating public folders (optional, depending upon your business needs)
- Verifying the correct configuration of the public folders

Install and Configure Outlook

The Email Manager Server requires components of Outlook to connect to the Exchange Server. Outlook installs CDO components required by the Exchange Connector. Outlook must be installed on the **Email Manager Server Machine** and configured for the **Email Manager Exchange User**.

Install and configure Outlook on **Email Manager Server Machine** as follows:

1. Log into Email Manager Server Machine as a user who has permissions to install software on the machine.
2. Install Microsoft Outlook. Ensure that the custom installation is used and that *Collaborative Data Objects* is selected in the setup screen.



3. Log into **Email Manager Server Machine** as **Windows Domain User**.
4. Create an Outlook Profile for Email Manager Exchange User and give it a name such as “Email Manager User”.

Create Public Folders

The Email Manager Exchange Connector monitors public folders and mailboxes in Exchange Server for emails. Emails that arrive in a public folder or a mailbox are processed by Email Manager and added to the document library. The public folders that need to be created are dependent upon the requirements for the implementation. For more information about determining how to configure Email Manager for your business needs, see *Appendix H: Preparing for Implementation*.

Public folders that are created must have the following attributes:

- The folder should be created under `Public Folders\All Public Folders.`
- **Email Manager Exchange User** must have “Owner” permissions on the folder.

Important The following instructions are a guideline for creating the folders. The actual folders created will depend upon your organization’s implementation of Email Manager.

To add email to the document library using a rules-based system:

Note

- Email Manager may be configured to monitor all sub-folders of a public folder. All sub-folders should be granted the same permissions as the parent folder.
- You may need to enable Message Journaling on the Exchange Server to take full advantage of a rules-based system. For more information, see *Appendix C: Enabling Email Server Message Journaling*.

Create a public folder that will be used by Email Manager as follows:

1. Log into Email Manager Server Machine as Windows Domain User.
2. Open Outlook using the profile Outlook Profile Name for Email Manager Exchange User.
3. Under `Public Folders\All Public Folders` create a new public folder. The public folder may be created as a subfolder of another folder.
   a. Give the public folder a name such as “Email Manager Rules”.
   b. Record the public folder name (prefixed by the names of any “parent” folders, not including Public Folders\All Public Folders) in the Installation Worksheet in the section **Exchange Server** under **Public Folder(s) for Rules-Based Capture.**
4. Grant the folder the following permissions:
   a. Ensure **Email Manager Exchange User** has been given “Owner” permissions by default.
   b. If this folder is being used as the Message Journaling folder, no other users require access to the folder.
   c. If users will be dragging and dropping email into the folder, “Contributor” access must be granted to required users and groups. Optionally, the “Folder Visible” option may be de-selected to prevent users from seeing the contents of the folder.

Verify that public folders have been configured correctly

Caution The procedures described below are only to be used for verifying whether public folder permissions have been configured correctly. The procedures should not be used when the Email Manager services are running as it may result in system errors.

1. Log into Email Manager Server Machine as **Windows Domain User**.
2. Ensure the Email Manager services are not running.
3. Open Outlook.
4. Drag and drop email messages from the Inbox to the **Public Folder(s) for Rules-Based Capture**. If there are errors, folder permissions may be incorrect.
5. Navigate to Public Folder for Email Manager Rules and view the contents of the folder. The email messages dragged from the Inbox should appear in the folder. If not, the folder permissions may be incorrect.
6. Attempt to delete the email message in the Public Folder for Email Manager Rules. If the email cannot be deleted, the folder permissions may be incorrect.

LD

4.2.2 Configure Lotus Domino

Configuring Lotus Domino to enable email capture by Email Manager involves the following:

- Creating a Lotus Notes user for the Email Manager Lotus Connector and granting access rights and privileges
- Installing and configuring Lotus Notes on the Email Manager server machine

Create a Lotus Notes user for the Email Manager Lotus Connector

We recommend creating a Notes user specifically for use with Email Manager. Administrator access is not required and using an existing administrative account is not recommended. This user should be created as follows:

1. Create an Email Manager user on the Domino Server.
2. The user must minimally have and access level of "Editor" and the "Delete Documents" and "Replicate or Copy Documents" optional privileges on all mailboxes, mail-in databases, journals and other databases that will be monitored by Email Manager.

   Note The following "Editor" access level privileges are **NOT** required:

   - "Create private agents" and "Create LotusScript/Java agents".
3. The user must have read access to corporate address books.
4. Journals should have the 'Encrypt on behalf of' property set as the Email Manager user.
5. Record the name of the user in the Installation Worksheet in the **Lotus Domino Server** section under the setting **Email Manager Domino User**.

Note For information about creating and configuring a mail-in journal for use with Email Manager, see *Appendix C: Enabling Email Server Message Journaling*

Install and Configure Lotus Notes

The Email Manager Server requires components installed by Lotus Notes to connect to the Domino Server. Lotus Notes must be installed on the **Email Manager Server Machine** and configured for the **Email Manager Domino User**.

Install and configure Lotus Notes on Email Manager Server Machine as follows:

1. Log into Email Manager Server Machine as a user who has permissions to install software on the machine.
2. Install the Lotus Notes client (Lotus Designer and Administrator are optional). Lotus Notes can be installed using either the single-user installation or multi-user installation options. Single-user installation is required to run the Lotus Connector service using the Local System account, otherwise multi-user installation is recommended.
3. The Lotus Notes COM API required by Email Manager is not always registered by the client installation. It can be manually registered as follows:

   a. Open a command prompt window.

   b. Change to the folder in which Lotus Notes is installed (by default it will be `<drive>:\Program Files\lotus\notes`)

   c. Register the `DLL nlsxbe.dll`:

   ```
   regsvr32 nlsxbe.dll
   ```
4. Test connectivity:

- Single-user Notes installation:
  - Configure Lotus Notes to connect to the Domino server as **the Email Manager Domino User**.
- Multi-user Notes installation:

a. Log into Email Manager Server Machine as **the Windows Domain User**

b. Configure Lotus Notes to connect to the Domino server as the **Email Manager Domino User**.

Note The Lotus Notes COM API authenticates using the id file specified in the Notes.ini file or the current location document. In a multi-user Notes installation each Windows user has a personal copy of the Notes.ini file and each Windows user can be mapped to a different id file and Notes user, but connectivity has to be configured separately for each Windows user. In a single-user installation, all Windows users share a single Notes.ini file, location document and hence must use the same Notes user id.

GW

4.2.3 Configure Novell GroupWise

Configuring GroupWise to enable communication with Email Manager involves the following:

- Installing Java 1.42 on the same server as you will install the GroupWise Client
- Installing and configuring GroupWise Client
- Windows 2003 Only: Configuring the Data Execution Prevention tab
- Configuring GroupWise Post Office and Accounts

Install Java 1.42

In order to install the GroupWise Client, you must first install Java 1.42 on the same server, as GroupWise uses Java installers.

Install and Configure GroupWise Client

The Email Manager Server requires components installed by the GroupWise Client to connect to the GroupWise Server. GroupWise Client must be installed on the **Email Manager Server Machine** and configured for the **Email Manager GroupWise User**.

Install and configure the GroupWise Client on Email Manager Server Machine as follows:

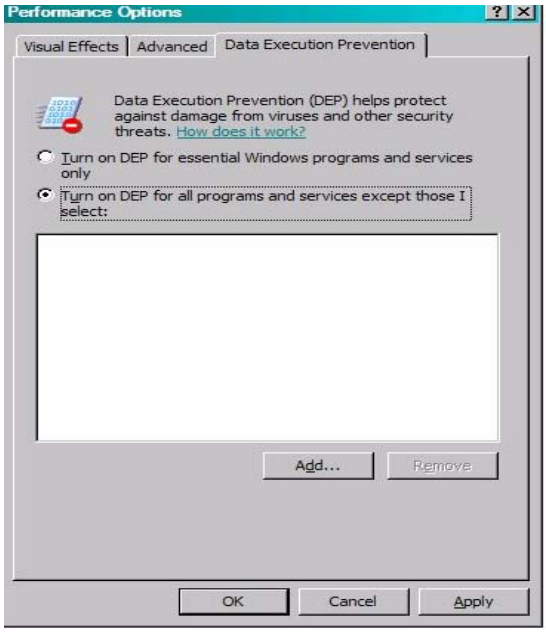
1. Log into Email Manager Server Machine as a user who has permissions to install software on the machine.
2. Install the GroupWise Client.
3. Log into Email Manager Server Machine as Windows Domain User.
4. Configure the GroupWise Client to connect to the GroupWise mail server as Email Manager GroupWise User.

Windows 2003 Only: Configure the Data Execution Prevention tab

In Windows 2003, the GroupWise Client executable requires permissions to enable the GroupWise Client to work with the GroupWise mail server. To enable these permissions:

1. Right click My Computer → Properties → Advanced
2. Under the Advanced tab, in the performance section, click Settings.

3. Select the Data Execution Prevention tab (see screenshot below) and select “Turn on DEP for all



program and services except those I select”.

4. Click Add, and select the GroupWise Client executable. Data Execution Prevention will be turned off for the executable, allowing the GroupWise Client to communicate with the GroupWise mail server.

Configure GroupWise Post Office and Accounts

The Email Manager GroupWise Connector monitors Accounts in GroupWise for emails. Email contained in Accounts are processed by Email Manager and added to the document library. The Accounts that need to be created are dependent upon the requirements for the implementation.

Accounts that are created must have the following attributes:

- **Email Manager Groupwise User** must have access to the account.
- If the Account is being created for use by the Email Manager Client, both users and the Email Manager GroupWise User must be able to send email to the account.
- If the Account is being created for use in a rules-based system, only Email Manager GroupWise User requires access to the account.

Important The following instructions are a guideline for creating the Accounts. The actual Accounts created will depend upon your implementation.

- If email will be added to the document library based on rules, determine what Accounts or Post Offices that Email Manager should process email in. For each Account of Post Office, ensure **Email Manager GroupWise User** has been given permissions to access the accounts.

4.3 INSTALL MICROSOFT .NET

Install Microsoft .Net Framework as follows:

1. Log into Email Manager Server Machine as a user who has permissions to install software on the machine.
2. Install Microsoft .Net Framework 2.0.
3. If using P8 Content Engine, you must update the .Net user to be the Windows Domain User to allow the Email Manager Web Services to connect to P8 Content Engine Object Stores.

4.4 CONFIGURE THE ORACLE CLIENT

Important

- If Oracle is being used as the database for Email Manager, you must install the full Oracle client administration package, either 9i or 10g, on the **Email Manager Server Machine**. (Select the *Administrator* options during installation). If any other options are selected, Email Manager will not be able to save to the data store.
- In addition, the Oracle Client must be configured to allow the Oracle Client to connect to the Oracle database.

In the Installation Worksheet, in the section **Oracle Server**, in the field **Host String**, record the name of the host string that should be used to connect to the Oracle Server.

4.5 CONFIGURE THE DB2 CLIENT

If DB2 is being used as the database for Email Manager, the DB2 Administration Client must be installed on the **Email Manager Server Machine**. In addition, the DB2 Client must be configured to allow it to connect to the DB2 database you created in *Chapter 1: Configuring the Database.*

In the Installation Worksheet, in the section **IBM DB2 Server**, in the field **DB2 Server Name**, record the database server name that should be used (in conjunction with the username and password) to connect to the DB2 Server.

Chapter 5 INSTALLING EMAIL MANAGER

This chapter covers:

- The order in which to install and uninstall Email Manager
- Installing the Email Manager server
- Silently installing Email Manager
- Configuring a connection to FileNet Records Manager, if required

5.1 ORDER FOR INSTALL AND UNINSTALL

Install and uninstall Email Manager as follows.

Caution Failure to install and uninstall in this order may result in errors.

- Order for install: UFI component, then Email Manager component, as described below.

  If you do not follow this order, the installer will block the installation. You can begin again in the correct order.

- Order for uninstall: Email Manager component, then UFI component.

  If you do not follow this order, you will need to re-run the UFI installer. You will then be able to uninstall Email Manager, and then uninstall UFI.

5.2 INSTALL THE UFI CORE

Install the required UFI core components as follows:

1. Log into Email Manager Server Machine as a user who has permissions to install software on the machine.
2. On the Email Manager eSD image or software CD, in the folder `UFI Server,` run the file `setup.exe.`
3. In the Welcome screen click `Next`.
4. In the License Agreement screen, if you agree with terms in the license, select the “I accept the terms in the license agreement” radio button and click `Next`.
5. In the Customer Information screen, update customer information as required. Click `Next`.
6. In the Custom Setup screen, the following features are selected by default:

- Core Components
- Configuration Manager

In addition to the default features, you must select a Repository Connector and a Database Connector. Do so as follows:

   a. Select the “X” next to the feature you want to install.

   b. From the list, select an option, or select the “X” option to back out without adding anything.

   Selecting such a feature for install changes the “X” to a computer icon, indicating it will be installed.

7. Under the title “Install to”, the location to which the components will be installed is displayed. If you want to change this location, select the Change button and choose a different destination.

8. Click Next.
9. Click `Install`.
10. Click `Finish` to exit.

5.3 INSTALL EMAIL MANAGER

Install the required Email Manager components as follows:

1. Log into Email Manager Server Machine as a user who has permissions to install software on the machine.
2. On the Email Manager eSD image or software CD, in the folder `EM Server,` run the file `setup.exe.`
3. In the Welcome screen click `Next`.
4. In the License Agreement screen, if you agree with terms in the license, select the "I accept the terms in the license agreement" radio button and click `Next`.
5. In the Customer Information screen, update customer information as required. Click `Next`.

In the Custom Setup screen, select an Email Connector as follows:

a. Select the "X" next to the connector you want to install.

b. From the list, select an option, or select the "X" option to back out without adding anything. You can select more than one connector.

Selecting such a feature for install changes the "X" to a computer icon, indicating it will be installed.

6. Click Next.
7. Click `Install`.
8. Click `Finish` to exit.

Note Email Manager will be installed to the same location as the UFI components.

5.4 SILENT INSTALL OF EMAIL MANAGER

The Email Manager server may be "silently" installed by msiexec.exe (Microsoft Installer) with specific command line parameters. As with the regular installation, you must install the UFI components, then the Email Manager.

UFI Server Installer

Parameter	Description
/i	This parameter is used to indicate that the product should be installed.
ADDLOCAL	May be used to specify a comma-separated list of components that should be included in the installation. The following is a list of component names. Note that the names are case sensitive. **MSSQL** : MS SQL Server support **Oracle** : Oracle support **DB2:** DB2 support **FNP8CE3X** : FileNet P8 3.x Connector **FNP8CE4X** : FileNet P84.0 Connector

	ConfigurationManager : Configuration Manager **CoreComponents** : Core Components **SymbolFiles** : Debug symbol files for all items **Example:** `msiexec /i "IBM UFI.msi" ADDLOCAL=MSSQL,Oracle,FNP8CE3X,FNP8CE4X,ConfigurationManager, CoreComponents /q`
/q	This parameter may be specified for msiexec (the Windows Installer application) if an install without user intervention is required. If this mode is being used, if values other than the defaults are required for the parameters, those values must be specified. **Example:** `msiexec /i "IBM UFI.msi" ADDLOCAL=MSSQL,Oracle,FNP8CE3X,FNP8CE4X,ConfigurationManager, CoreComponents /q`

Email Manager Server Installer

Parameter	Description
/i	This parameter is used to indicate that the product should be installed.
ADDLOCAL	May be used to specify a comma-separated list of components that should be included in the installation. The following is a list of component names. Note that the names are case sensitive. **GWEntityViewer** : GroupWise Email Entity Vewer **LNDXLViewer** : Lotus Notes DXL Email Viewer **LotusNotesDomino** : Lotus Notes Connector **MicrosoftExchange** : Exchange Connector **MicrosoftPST** : PST Connector **NovellGroupWise** : GroupWise Connector **SymbolFiles** : Debug symbol files for all items **Example:** `msiexec /i "FileNet Email Manager.msi" ADDLOCAL=GWEntityViewer,LNDXLViewer,LotusNotesDomino, MicrosoftExchange,MicrosoftPST,NovellGroupWise /q`
/q	This parameter may be specified for msiexec (the Windows Installer application) if an install without user intervention is required. If this mode is being used, if values other than the defaults are required for the parameters, those values must be specified. **Example:** `msiexec /i "FileNet Email Manager.msi" ADDLOCAL=GWEntityViewer,LNDXLViewer,LotusNotesDomino, MicrosoftExchange,MicrosoftPST,NovellGroupWise /q`

5.5 CONFIGURE FILENET RECORDS MANAGER

If FileNet Records Manager will be used with Email Manager, the additional configuration described in this section is required.

Important You must install Java Platform Standard Edition 1.4.2 to use Records Manager with Email Manager.

1. From the application server Records Manager is installed on, copy the folder `WEB-INF` to a location on the Email Manager Server Machine. This folder contains the RM Java API and configuration settings for the RM installation. Ensure you copy the folder from the installation directory for Email Manager and not the deployed directory.
2. If Records Manager is installed on a UNIX machine, ensure the files are copied as binary, and edit any text files (i.e WcmApiConfig.properties) by replacing special UNIX characters with their corresponding Windows characters (i.e carriage returns).
3. If Symmetric Encryption has been enabled between Records Manager and the CE, an additional 2 files must be copied from the Records Manager machine:
   a. Locate CryptoKeyFile.properties and UTCryptoKeyFile.properties on the Records Manager machine (usually found at <EM install location>\IBM\Authentication) and copy both files to the WEB-INF folder on the Email Manager machine.
   b. In the WEB-INF folder on the Email Manager machine, modify the WcmApiConfig.properties file to point to the new location of these files, which should be as follows, assuming you copied the WEB-INF folder to the Email Manager install directory:

      CryptoKeyFile =C:\\Program Files\\IBM\\UFI_4.x\\WEB-INF\\CryptoKeyFile.properties

      CryptoKeyFile/UserToken =C:\\Program Files\\IBM\\UFI_4.x\\WEB-INF\\UTCryptoKeyFile.properties
4. On the Email Manager Server Machine, install Java Platform Standard Edition 1.4.2 (available from java.sun.com).
5. On the Email Manager Server Machine, open regedit and set the following registry key to the location of the RM Java API on the local machine, as follows:
   a. Browse to the registry key:

      HKEY_LOCAL_MACHINE\SOFTWARE\IBM\EMRC\4.x\RMWrapper

   b. Set the value RMPATH to the full path of the RM Java API. The RM Java API is located in a sub folder of WEB-INF called lib. If the WEB-INF folder was copied to C:\Program Files\IBM\UFI_4.x\WEB-INF, set the registry key to: C:\Program Files\\IBM\UFI_4.x\WEB-INF \lib.
6. **Important** The FileNet P8 Content Engine User must be explicitly granted rights to any record classes that will be used. Regardless of other permissions that the user may be granted in the object store (even P8 administrator privileges), the following instructions must be followed as users are not granted required privileges to RM records classes by default:
   a. In FileNet Enterprise Manager, select the File Plan Object Store that will be used.
   b. Select the Record Class that will be used (i.e. Document Class->Record->Electronic Record->Email Record).
   c. Right-click, select "Properties".
   d. Open the "Default Instance Security" tab.

e. Give the **FileNet P8 Content Engine User** the same privileges as the #CREATOR- OWNER user (usually full control).

f. Repeat for each Record Class that will be used.

Chapter 6 PREPARING EMAIL MANAGER FOR USE: CONFIGURING SETTINGS AND STARTING SERVICES

Before you use the Email Manager Server to process email you must complete the following tasks (note some tasks are new to 4.0.2, and the order of tasks from previous versions has changed).

Important If you want to configure client (manual) capture for Outlook and Lotus Notes, further configuration than that described below is required. For more information, see *Chapter 7: Setting up Client Capture and Client Capture with Metadata Prompt*.

1. **New Requirement in 4.0.2** A port is required for communication between services and Configuration Manager (and client, if installed). If you need to change the default port of 8001, change the port number in two configuration files:
   - `Catalog.xml`
   - `ConfigMgrCatalog.xml`
2. **New Order of Tasks in 4.0.2** Use the Configuration Manager to perform initial configuration:
   - configure a connection to a data store.
   - configure connectors.
3. **New Requirement in 4.0.2** Configure and start a service that is used by a newly simplified import/export process between 4.0.2 servers. If you're setting up client (manual) capture, this service also enables automatic validation of usernames, email addresses, etc. on Exchange and Domino services.
4. Configure the Email Manager application using the Email Manager Configuration Manager.
5. Configure and start Email Manager services, required to run the Email Manager application.
6. Verify Email Manager services.

6.1 SET A PORT FOR CONFIGURATION MANAGER-SERVICES COMMUNICATIONS

A default port, 8001, has been configured to enable communication between the Configuration Manager and services (as well as a client for client capture and advanced shortcuts, if installed). If you require communication over a different port, you need to change the default in two separate configuration files as follows. Note that the port numbers between these files must be the same, for example, both should be set to 8001.

- Inside the Email Manager application root install directory, for example inside `C:\Program Files\IBM\UFI_4.0.2`, open:
  - `Catalog.xml`, and change the port as required.
  - `ConfigMgrCatalog.xml`, and change the port as required.

Note To troubleshoot services, you can set log file and log to console values in these files as below:

`<setup>`
`  <log logLevel="TRACE"`
`  logToConsole="1"`
`  logToFile="1"/>`
`  <threadpool minThreads="5"/>`
`</setup>`
	Log Levels: When configuring the various services log, you can set the type of data that should be written to the log file. Entry options are listed below, from least to most verbose. Note that log entries are cumulative as they become more verbose: A log level of type Info, for example, will include Info and Error.

	ERROR: An event is written to the log whenever an error condition occurs, such as when a connection attempt to a server fails. INFO: An event is written to the log with every significant action that takes place, such as when the services are started. TRACE: Verbose logging. Useful only for debugging purposes. Events are written to the log at individual steps For deployment testing, we recommend you set the following values: Set `logLevel`="TRACE" Set `logToConsole` =1 to allow logging to the console. In a production environment, you can also set to allow logging to the console (on server-side). Set `logToFile`=1 to allow file logging. In a production environment, you can also set to allow logging to files (on server-side).

6.2 USE THE CONFIGURATION MANAGER TO PERFORM INITIAL CONFIGURATION

6.2.1 Configure a Connection to a Data Store

Configuration Manager services will be connecting to the default data store on startup. This requires a configured data store; if a data store has not been configured, the services initialization phase will not work.

1. Login to Email Manager Server Machine as **Windows Domain User.**
2. Open the Email Manager Configuration Manager (select EM Configuration Manager in the menu Start -> Programs -> IBM UFI → Configuration Manager). The Email Manager Configuration Manager application will open.
3. For steps to configure a data store, see the *Email Manager Configuration Manager Online Help*, available through the *Help* link inside the running application.

6.2.2 Configure Connectors

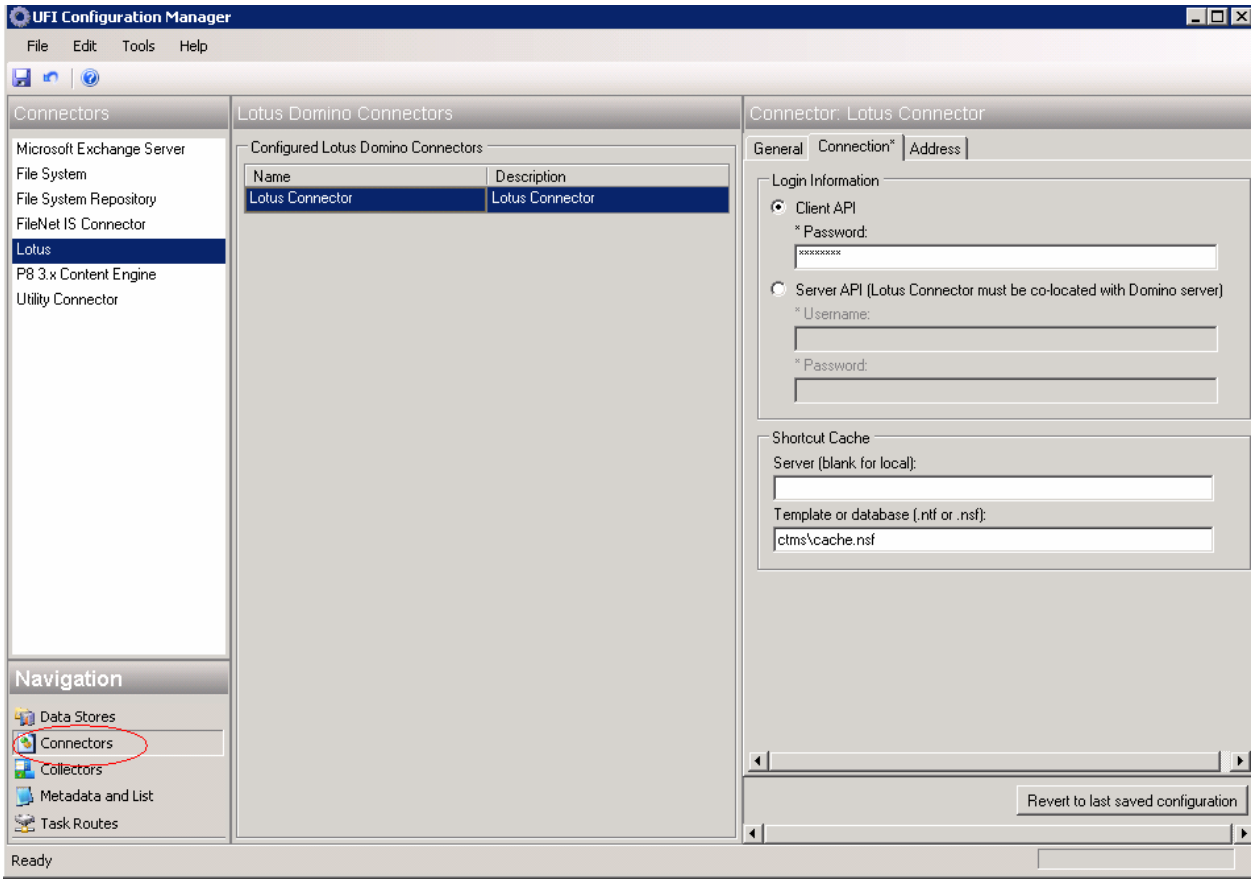
To enable the validation required to run Email Manager services, you need to configure all connectors using the Configuration Manager. The following is a brief overview of how to do so.

For detailed step-by-step configuration and conceptual explanations, see the *Email Manager Configuration Manager Online Help*, available through the *Help* link inside the running application.

1. Login to Email Manager Server Machine as **Windows Domain User.**
2. If installing Email Manager for GroupWise, login into Novell as Email Manager GroupWise User.

3. Open the Email Manager Configuration Manager (select EM Configuration Manager in the menu Start -> Programs -> IBM UFI → Configuration Manager). The Email Manager Configuration Manager application will open.

4. From the Navigation section of the application, as shown in the screenshot below, select Connectors.



5. From the list of connectors, select the connector you want to configure, and enter configuration values as required. You may need to refer to your Installation Worksheet for values required in configuration. Values may not map exactly, but it will be simple to translate the worksheet values to the onscreen values required.

6.3 CONFIGURE AND START THE UFI SERVICES COMPONENTS SERVICE

In Email Manager 4.0.2, the `UFI Services Components` service is used by a newly simplified import/export process between 4.0.2 servers. In addition, if client (manual) capture is required, this services enables automatic validation of usernames, email addresses, etc. on Exchange and Domino servers.

As with some other services, as outlined in the sections that follow, you need to:

- set the `UFI Services Components` service to run as Windows Domain user.
- start the service. **Important** Once started, this service should remain running. You do **NOT** need to restart this service to enable changes made in the Configuration Manager to take effect.

To set the UFI Services Components Service to run as a Windows Domain user:

The `UFI Services Components` service must be updated to run as a domain user who is on the same domain as the Email Manager 4.0.2 server. To change the service user, do the following:

1. Open the properties for the Service `UFI Services Components.`
2. Go to the “Log On” tab.
3. Click on the “This account:” radio button, and enter Windows Domain User as the Logon User. Also fill in the password for this account.
4. Click OK.

To start the UFI Services Components Service:

1. Go to Start -> Settings -> Control Panel -> Administrative Tool -> Services.
2. Select the `UFI Services Components` service from the list of services displayed.
3. Right click the service, and select Start from the menu displayed. You can now configure settings in the Configuration Manager.

6.4 CONFIGURE EMAIL MANAGER SETTINGS

Before using the Email Manager Server to monitor and process email, the application must be fully configured using the Email Manager Configuration Manager. The following is a brief overview of the settings that need to be configured in the Email Manager Configuration Manager.

For detailed step-by-step configuration and conceptual explanations, see the *Email Manager Configuration Manager Online Help*, available through the *Help* link inside the running application.

Note Steps 1 and 2 should have been done in order to configure connectors as required in a previous configuration step.

1. Login to Email Manager Server Machine as **Windows Domain User.**
2. If installing Email Manager for GroupWise, login into Novell as Email Manager GroupWise User.
3. Open the Email Manager Configuration Manager (select EM Configuration Manager in the menu Start -> Programs -> IBM UFI → Configuration Manager). The Email Manager Configuration Manager application will open.
4. Begin configuration of the application as indicated by the *Online Help.* You will need to refer to your Installation Worksheet for values required in configuration. Values may not map exactly, but it will be simple to translate the worksheet values to the onscreen values required.

   You will need to configure the following (you should already have configured a connection to a data store and all connectors):

   - Configure a collector for the email server to specify what locations on the email server should be monitored for email.

   You will then be able to create and save task routes to specify how you want email processed.

6.5 CONFIGURE EMAIL MANAGER SERVICES

You need to configure some services to run as Windows Domain user. Note that the services available depend upon your installation.

To configure the email service to monitor incoming email:

1. Go to Start -> Settings -> Control Panel -> Administrative Tools -> Services.
2. Depending on your email system, do one of the following:

- **If Email Manager for Exchange has been installed:**

a. Open the properties screen for the Service “UFI Microsoft Exchange Connector”.

b. Go to the “Log On” tab.

c. Click on the “This account:” radio button, and enter **Windows Domain User** as the Logon User. Also fill in the password for this account.

d. Click OK.

Note If the capture indicator is required in Exchange (if an email is added to FileNet P8, the normal envelope icon will be changed to a FileNet icon), full set up information is provided in an appendix.

- **If Email Manager for Lotus Domino has been installed:**

a. Open the properties screen for the Service “UFI Lotus Notes Domino Connector”.

b. Go to the “Log On” tab.

c. Click on the “This account:” radio button, and enter **Windows Domain User** as the Logon User. Also fill in the password for this account.

d. If the service is to be started automatically when the machine is restarted, select “Automatic” in the “Startup Type” drop down box. **Note** If the services need to be enabled only at specific times, the Windows “net start” command can be used along with Windows Scheduler to schedule start times for the services.

e. Click OK.

- **If Email Manager for PST capture has been installed:**

a. Open the properties screen for the Service “UFI Microsoft PST Connector”.

c. Go to the “Log On” tab.

d. Click on the “This account:” radio button, and enter **Windows Domain User** as the Logon User. Also fill in the password for this account.

e. Click OK.

To configure the P8 3.x service to store email:

For a P8 CE 3.x installation, the service must be updated to run as a domain user who is on the same domain as the P8 CE 3.x server. To change the service user, do the following:

1. Open the properties for the Service “UFI FileNet P8 Content Engine 3.x Connector”.
2. Go to the “Log On” tab.
3. Click on the “This account:” radio button, and enter Windows Domain User as the Logon User. Also fill in the password for this account.
4. Click OK.

6.6 START AND VERIFY REQUIRED SERVICES

You need to start the UFI Task Routing service, which will start all required services.

Important After initially configuring the Configuration Manager, when you make any configuration changes, you must restart the UFI Task Routing service to enable changes to take effect.

To start the UFI Task Routing Engine Service:

1. Go to Start -> Settings -> Control Panel -> Administrative Tool -> Services.
2. Select the UFI Task Routing Engine service from the list of services displayed.

3. Right click the service, and select Start from the menu displayed. All services required by Email Manager will be started.

To verify that the services started properly:

1. Go to Start -> Settings -> Control Panel -> Administrative Tool -> Services.
2. In the Services window, check the Status of each relevant service has been set to “Started”.

Chapter 7 SETTING UP CLIENT CAPTURE AND CLIENT CAPTURE WITH METADATA PROMPT

Important

- This functionality is available only for Outlook and Lotus Notes
- Installation and configuration instructions in this chapter apply to both Outlook and Lotus Notes, except as indicated.
- Troubleshooting tips are provided in *Appendix I: Troubleshooting add-ins, Import and Export*

Client capture, or manual capture, are terms used to describe users dragging and dropping email into folders on their system so that it will be processed by Email Manager on the server. It can be useful for clients to be prompted to enter metadata relating to each email dropped into a capture folder. The metadata can be used in processing the email.

For example, if an email is related to contracts, a client may drag it into a Contracts folder. The client can enter the Contract Number as metadata, which can be used to file the email into a folder on the repository named by contract number.

Email Manager makes setting up client capture simple, providing two options:

- You can enable Email Manager to create folders on client systems, in order that clients can drag and drop email into these folders.
- You can enable Email Manager to create folders on client systems, and you can configure Email Manager to prompt a user for custom metadata whenever email is dragged and dropped to folders.

7.1 ENABLING EMAIL MANAGER TO CREATE FOLDERS ON CLIENT SYSTEMS

Enabling Email Manager to create folders on client systems requires one-time-only server-side installation, in addition to configuration using the Configuration Manager. The server-side installation is required to enable LDAP or Lotus Domino validation of users or groups for whom folders are specified to be created.

Further configuration is required using the Configuration Manager: simply add an *Outlook Capture* or *Lotus Notes Capture* task to a task route, and set the individuals or groups for whom you want folders created. The individuals you've specified can then drag and drop email into the folder for capture and processing by the task route. When the task runs for the first time, the folder is created in the user's mailbox. If the user deletes the folder from their mailbox, it will be recreated each time the task is run.

Steps to install the server add-in are below, in *Installing and Configuring the Server Add-in,* along with steps to modify configuration files created during installation to enable LDAP or Lotus Domino validation on the server.

For help configuring a task route to create folders and to prompt for metadata during email capture, see *the Configuration Manager online help: Creating a Task Route, Managing Email Server Tasks, Configuring Client Capture*.

7.2 ENABLING EMAIL MANAGER TO CREATE FOLDERS ON CLIENT SYSTEMS WITH PROMPT FOR METADATA

Configuring Email Manager to prompt for metadata during email capture requires one-time-only server and client installation and configuration, to enable communication between server and client.

Further configuration is required using the Configuration Manager to create folders on specified client systems into which to drop email, to prompt for input during capture, and to make metadata saved during drag and drop available to the rest of the task route.

Steps to install the server and client add-in are below, followed by steps to modify configuration files created during installation.

For help configuring a task route to create folders and to prompt for metadata during email capture, see *the Configuration Manager online help.*

7.2.1 Installing and Configuring the Server Add-In

The server installation software for client capture is found in the esD image or software CD for Email Manager, in the `EM Shortcut Client` folder.

To install the server-side client capture add-in:

1. On the Email Manager server, go to the esD image or software CD for Email Manager, and open the `EM Shortcut Client` folder.
2. Inside the `EM Shortcut Client` folder, run `setup.exe`.

- In the Custom Setup window, from the Server Components section, select either Lotus Notes Client Capture Server Components or Outlook Client Capture Server Components for install.

  Inside the Email Manager application root install directory, for example inside `C:\Program Files\IBM\UFI_4.0.2,` the following `.xml` files will be created:

  - `LDAPConnector.xml –` Outlook only
  - `UFIConfig.xml`

To configure server-side files required for client capture:

Configure the `.xml` files as follows. Note that only elements within each file that you must edit are described. Values for other elements should not be edited.

Important Configure the following file for Outlook only

`LDAPConnector.xml`

Section	Description

`<config>`
`  <ldapQuery></ldapQuery>`
`</config>`
	Enter a value for the LDAP query in the format indicated in the comments contained in the file. For example:
	`<config>`
	`  <ldapQuery>LDAP://DC=VDCQA3,DC=com`
	`  </ldapQuery>`
	`</config>`

`UFIConfig.xml`

Section	Description

`<config>`
`  <directoryType>`
`  </directoryType>`
`</config>`
	Enter the directory type, `ldap` or `domino`, as indicated in the comments contained in the file. For example:
	`<config>`
	`  <directoryType>ldap</directoryType>`
	`</config>`

7.2.2 Installing and Configuring the Client Add-In

Important

- Ensure you have completed the server-side Client Capture Add-in installation and configuration.
- The steps below are written from the perspective of installing Client Capture/Exchange Shortcut Client on one client machine. In reality, you may need to deploy to multiple client machines. If so, you can edit the relevant `.xml` files prior to running the client-side installation. These `.xml` files are located on the esD image or software CD for Email Manager, inside the `EM Shortcut Client` folder. When you run setup.exe on the client machine afterwards, the updated `.xml` files will be copied to the installed folder, so you won't need to configure multiple client machines.
- The Client Capture add-in needs to connect to the server machine to retrieve the configuration you will specify below. You need to enable that port/IP address on your firewall configuration for all desktops on which the add-in is installed.

Installing the Outlook client and installing the Lotus Notes client are covered in two separate sections below.

Outlook Client Add-In

For the Outlook Client add-in, you need to:

- install an add-in
- configure files

To install the client-side add-in for Outlook Client Capture:

1. On the Email Manager client, go to the esD image or software CD for Email Manager, and open the `EM Shortcut Client` folder.
2. Inside the `EM Shortcut Client` folder, run `setup.exe`.
3. In the Custom Setup window, from the Client Components section, select the client-side components for install, either Lotus Notes Client or Outlook Client.
4. Inside the Email Manager application root install directory, for example inside `C:\Program Files\IBM\UFI_4.0.2`, the `IBM EM Client` folder will be created, containing three .`xml` files:
   - `Catalog.xml`
   - `ClientGUI.xml`
   - `P8WSConnector.xml`

To configure the client-side files for Outlook Client Capture:

Configure the `.xml` files as below. Note that only elements within each file that you must edit are described. Values for other elements should not be edited.

`(Client-side) Catalog.xml`

Section	Description

`<serverList`
`  <server protocol="tcp"`
`  machine="127.0.0.1"`
`  port="8001"`
`  catalogTimeout="5"`
	The server protocol should be left as is, "tcp".
	
	Enter the machine IP address of the server on which server-side client capture components are installed.

`serviceCallTimeout="15"/>` `</serverList>`	This will allow the client to communicate with the server to enable client capture. By default, the port number is set to 8001. Change the port number only if required; the port number entered here must be the same as the port specified in the `Catalog.xml` and the `ConfigMgrCatalog.xml` files, in `C:\Program Files\IBM\UFI_4.0.2` (see *Set a Port for Configuration Manager-Services Communication* in Chapter 6 of this guide.)

(Client-side) ClientGUI.xml

Element	Description
File Comments: <!-- advancedShortcut: '0' or '1'. If set to 0, advanced shortcut feature is disabled repositoryType: 'P83X' or 'P8WS' manualCapture: '0' or '1'. If set to 0, manual capture feature is disabled. emailClientType: 'notes' or 'outlook' -->	
`<advancedShortcut>1</advancedShortcut>`	Not relevant to client capture configuration.
`<repositoryType>p83x</repositoryType>`	**Important** If you are using a FileNet P84.x repository, which uses Web Services, you must also configure the client to allow access to the P84.x server. Edit the `P8WSConnector.xml` file as in the table that follows. Enter a value for the repository type in the format indicated in the file comments `'P83X' or 'P8WS'`. For example: `repositoryType>p83x</repositoryType>`
`<manualCapture>1</manualCapture>`	Enter 0 to enable manual (client) capture, or 1 to disable. For example `manualCapture>1</manualCapture>`
`<emailClientType>outlook` `</emailClientType>`	Enter the type of the email client, notes or outlook. For example, `<emailClientType>outlook</emailClientType>`

Important If you are using a FileNet P84.x repository, which uses Web Services, you must also configure the client to allow access to the P84.x server. Edit the `P8WSConnector.xml` file as below.

`(Client-side) P8WSConnector.xml` – edit only if using a FileNet P8.4x repository

Section	Description

`<config>`
`<CEServerURL>`
`http://serverName:7001/wsi/`
`FNCEWS35DIME/</CEServerURL>`
`</config>`
	Enter the server name and port of the P84.x server that the Email Manager server machine must access.

Lotus Notes Client Add-In

For the Lotus Notes Client add-in, you need to:

- install an add-in
- configure files
- modify a Lotus Notes database template to display a form on client sites prompting for input during client capture

To install the client-side Client Capture add-in for Lotus Notes:

1. On the Email Manager client, go to the esD image or software CD for Email Manager, and open the `EM Shortcut Client` folder.
2. Inside the `EM Shortcut Client` folder, run `setup.exe`.
3. In the Custom Setup window, from the Client Components section, select the client-side components for install, either Lotus Notes Client or Outlook Client.
4. Inside the Email Manager application root install directory, for example inside `C:\Program Files\IBM\UFI_4.0.2`, the `IBM EM Client` folder will be created, containing three `.xml` files:
   - `Catalog.xml`
   - `ClientGUI.xml`
   - `P8WSConnector.xml`

To configure client-side files for Lotus Notes:

Configure the `.xml` files as below. Note that only elements within each file that you must edit are described. Values for other elements should not be edited.

`(Client-side) Catalog.xml`

Section	Description

`<serverList`
`<server protocol="tcp"`
`machine="127.0.0.1"`
`port="8001"`
`catalogTimeout="5"`
`serviceCallTimeout="15"/>`
`</serverList>`
	The server protocol should be left as is, “tcp”.
	
	Enter the machine IP address of the server on which server-side client capture components are installed. This will allow the client to communicate with the server to enable client capture.

	By default, the port number is set to 8001. Change the port number only if required; the port number entered here must be the same as the port specified in the `Catalog.xml` and the `ConfigMgrCatalog.xml` files, in `C:\Program Files\IBM\UFI_4.0.2` (see *Set a Port for Configuration Manager-Services Communication* in Chapter 6 of this guide.)

(Client-side) ClientGUI.xml

Element	Description

`File Comments:`
`<!--`
`advancedShortcut: '0' or '1'. If set to 0, advanced shortcut feature is disabled`
`repositoryType: 'P83X' or 'P8WS'`
`manualCapture: '0' or '1'. If set to 0, manual capture feature is disabled.`
`emailClientType: 'notes' or 'outlook'`
`-->`	

`<advancedShortcut>0</advancedShortcut>`	Not relevant to client capture configuration.
`<repositoryType>p83x</repositoryType>`	Not relevant to client capture configuration.
`<manualCapture>1</manualCapture>`	Enter 0 to enable manual (client) capture, or 1 to disable. For example `manualCapture>1</manualCapture>`
`<emailClientType>notes</emailClientType>`	Enter the type of the email client, notes or outlook. For example, `<emailClientType>notes</emailClientType>`

To Configure a Template in Lotus Notes

You must modify a Lotus Notes database template in order to allow for the display of a form on client sites prompting for input during client capture.

Guidelines for modifying the template are provided in a file inside the Email Manager application root install directory as follows:

```
C:\Program Files\IBM\UFI_4.0.2\Lotus Notes
Templates\LotusClientMailTemplateChanges.txt
```

Chapter 8 EMAIL MANAGER SHORTCUT CLIENT

The Email Manager Shortcut Client, also known as Advanced Shortcuts, can be used with Exchange and Lotus. Each is described in its own section below.

8.1 EMAIL MANAGER SHORTCUT CLIENT: EXCHANGE

Important

- The Email Manager Shortcut Client works with Microsoft Exchange/Outlook 2003 and Outlook 2007 only. Review the *System Requirements* section of this guide for other programs required to install and use this application.
- If you want users to retrieve documents from P8 using integrated logon, ensure you have set up and connected to P8 using integrated login.

You probably already know that you can configure Email Manager to add shortcuts to email captured in P8 (see *Post Processing* configuration in the Email Manager Configuration Manager). When a user opens their email and clicks the shortcut, the location of the document in P8 is displayed.

The Email Manager Shortcut Client Add-in extends this functionality: When a user double-clicks the email, the captured email is automatically downloaded from P8 and displayed.

As of Email Manager 4.0.2, the Shortcut Client Add-in automatically detects if integrated logon with P8 has been enabled. If so, when a user accesses a shortcut with the plug-in installed and enabled, user credentials are validated without a prompt to enter credentials.

If integrated logon with P8 has not been enabled, when a user accesses a shortcut with the plug-in installed and enabled, they are prompted to enter a username and password. Their credentials are automatically saved for their Outlook session: Thereafter, documents will automatically be downloaded from P8 without user authentication whenever they double-click a captured email.

8.1.1 How the Shortcut Client Works

Once the Email Manager Shortcut Client has been configured and installed, if integrated logon has been enabled, when a user double-clicks a captured email, their Windows credentials, as set in Active Directory, are used to authenticate against P8.

Important For the integrated logon option to work, be sure the P8 administrator is using Active Directory security.

8.1.2 Required Setup

Note When you configure the Outlook Shortcut Client, you install and configure the same files as when configuring the Outlook client-side components for Client Capture, as described in Chapter 6. If you have already configured these files for Outlook Client Capture, validate your configuration, and ensure you also enable the `<advancedShortcut>` element in the `ClientGUI.xml` file.

The steps below are written from the perspective of installing Client Capture/Exchange Shortcut Client on one client machine. In reality, you may need to deploy to multiple client machines. If so, you can edit the relevant `.xml` files prior to running the client-side installation. These `.xml` files are located on the esD image or software CD for Email Manager, inside the `EM Shortcut Client` folder. When you run setup.exe on the client machine afterwards, the updated `.xml` files will be copied to the installed folder, so you won't need to configure multiple client machines.

The Outlook Shortcut Client add-in needs to connect to the server machine to retrieve the configuration you will specify below. You need to enable that port/IP address on your firewall configuration for all desktops on which the add-in is installed.

Prerequisites

In the Configuration Manager, ensure an Exchange *Post Processing* task has been configured to enable shortcuts to be placed in email that has been captured in P8.

To install the client-side add-in for Outlook Shortcut Client (Advanced Shortcuts):

1. On the Email Manager client, go to the esD image or software CD for Email Manager, and open the `EM Shortcut Client` folder.
2. Inside the `EM Shortcut Client` folder, run `setup.exe`.
3. In the Custom Setup window, from the Client Components section, select the client-side components for install, either Lotus Notes Client or Outlook Client.
4. Inside the Email Manager application root install directory, for example inside `C:\Program Files\IBM\UFI_4.0.2`, the `IBM EM Client` folder will be created, containing three `.xml` files:
   - `Catalog.xml`
   - `ClientGUI.xml`
   - `P8WSConnector.xml`

To configure the client-side files for Outlook Shortcut Client (Advanced Shortcuts):

Configure the `.xml` files as below. Note that only elements within each file that you must edit are described. Values for other elements should not be edited.

`(Client-side) Catalog.xml`

Section	Description

`<serverList`
`  <server protocol="tcp"`
`  machine="127.0.0.1"`
`  port="8001"`
`  catalogTimeout="5"`
`  serviceCallTimeout="15"/>`
`</serverList>`
	The server protocol should be left as is, “tcp”.
	
	Enter the machine IP address of the server on which server-side client capture components are installed. This will allow the client to communicate with the server to enable client capture.
	
	By default, the port number is set to 8001. Change the port number only if required; the port number entered here must be the same as the port specified in the `Catalog.xml` and the `ConfigMgrCatalog.xml` files, in `C:\Program Files\IBM\UFI_4.0.2` (see *Set a Port for Configuration Manager-Services Communication* in Chapter 6 of this guide.)

(Client-side) ClientGUI.xml

Element	Description
File Comments: <!-- advancedShortcut: '0' or '1'. If set to 0, advanced shortcut feature is disabled repositoryType: 'P83X' or 'P8WS' manualCapture: '0' or '1'. If set to 0, manual capture feature is disabled. emailClientType: 'notes' or 'outlook' -->	
<advancedShortcut>1</advancedShortcut>	Set to '0' or '1'. If set to 0, the advanced shortcut feature is disabled.
<repositoryType>p83x</repositoryType>	**Important** If you are using a FileNet P84.x repository, which uses Web Services, you must also configure the client to allow access to the P84.x server. Edit the P8WSConnector.xml file as in the table that follows. Enter a value for the repository type in the format indicated in the file comments 'P83X' or 'P8WS'. For example: repositoryType>p83x</repositoryType>
<manualCapture>1</manualCapture>	Enter 0 to enable manual (client) capture, or 1 to disable. For example manualCapture>1</manualCapture>
<emailClientType>outlook</emailClientType>	Enter the type of the email client, notes or outlook. For example, <emailClientType>outlook</emailClientType>

Important If you are using a FileNet P84.x repository, which uses Web Services, you must also configure the client to allow access to the P84.x server. Edit the P8WSConnector.xml file as below.

(Client-side) P8WSConnector.xml – edit only if using a FileNet P8.4x repository

Section	Description
<config> <CEServerURL> http://serverName:7001/wsi/FNCEWS35DIME/</CEServerURL> </config>	Enter the server name and port of the P84.x server that the Email Manager server machine must access.

8.2 EMAIL MANAGER SHORTCUT CLIENT: LOTUS

Important The Email Manager Shortcut Client works with Lotus Domino/Notes 6.5.5 and above; the most common versions being 6.5.5 and 7.0.x. Review the *System Requirements* section of this guide for other programs required to install and use this application.

You probably already know that you can configure Email Manager to add shortcuts to email captured in P8 (see *Post Processing* configuration in the Email Manager Configuration Manager). When a user opens their email and clicks the shortcut, the location of the document in P8 is displayed.

The Email Manager Shortcut Client add-in extends this functionality: When a user double-clicks the email, the captured email is automatically downloaded from P8 and displayed.

The first time a user accesses a shortcut with the add-in installed and enabled, they are prompted to choose to use integrated logon, or not. If they select integrated logon to authenticate against the P8 repository, from that point forward documents will automatically be downloaded from P8 without user authentication whenever they double-click a captured email.

If a user does not choose integrated logon, they need to enter their P8 username and password in order for their document to download from P8. However, the user can select to remember their credentials for their Lotus Notes session, so they will not be prompted for credentials again during the session.

A username and password prompt will appear under the following conditions:

- If the user does not choose integrated logon
- If authentication fails

8.2.1 How the Shortcut Client Works

Once the Email Manager Shortcut Client has been configured and installed, if a user selects integrated logon, their Windows credentials, as set in Active Directory, are used to authenticate against P8. The P8 administrator needs to set up P8 security to allow users to log in using Active Directory credentials.

8.2.2 Required Setup

1. In the Configuration Manager, ensure a Lotus Notes *Post Processing* task has been configured to enable shortcuts to be placed in email that has been captured in P8.
2. For the integrated logon option to work, be sure the P8 administrator is using Active Directory security.
3. Modify the `config.xml` file as in the table below.
4. Modify the `ObjectStoreMapping.xml` file as in the table below (required only for P8CE 4.0.x systems).
5. Install the `Email Manager Shortcut Client` executable, found in the `Email Shortcut Client` folder of the eSD image or software CD for Email Manager.

- Depending on your P8CE version, you will need to install either the “P83x Client Component” (for P8CE 3.5.x) or the “P83x Client Component” (for P8CE 4.0.x).

Result: The `config.xml` file, as below, will be created in the lotus notes root folder, for example, `C:\notes`, or `C:\lotus\notes`.

Table: Contents of the `config.xml` file

Section	Description
`<defaultResourceFile>`	The name of the default resource file.

`<checkCurrentCulture>`	Indicates whether the application should look for regional culture settings (en-US, en-CA, fr-CA, etc.) to obtain the relevant resource file, for example `resource.en-CA.xml`.
	Valid values are:
	`0`
	`or`
	`1`

Table: Contents of the `ObjectStoreMapping.xml` file

Section	Description
`<Map>`	Modify the ObjectStore attribute so that it is the name of the P8CE 4.0.x ObjectStore you are capturing to. Modify the CEServerURL attribute so that it points to the P8CE 4.0.x web services you are using for your ObjectStore. For example, http://p8ce40server:7001/wsi/FNCEWS40MTOM If you have multiple ObjectStores to add, you will need to add a separate <Map … /> element entry between the <ObjectStoreMapping> root elements for each different ObjectStore.

There are additional configuration settings stored in the mailbox of a profile document. To complete the configuration, the user must have administrator access to Lotus Notes Designer so that a manual install of the form script library can be performed.

The steps to do this are:

1. Open the current mail template (StdR7mail.ntf) and the provided Email Manager AdvancedShortcuts.ntf template in Lotus Notes Designer.
2. Sign the AdvancedShortcuts.ntf script library to prevent security warnings when recompiling.
3. Copy the AdvancedShortcuts.ntf script library into the mail template. The script library source code is available for inspection.
4. Copy the (CE Logon) into the mail template.
5. Modify the ($Inbox) and ($Inbox-Categorized1) folders, and ($All) and ($Sent) views as follows:
    a. Add the statement ‘Use “Advanced Shortcuts”’ to the Global Options to enable access to the script library.
    b. Copy the QueryOpenDocument event from the Sample view in the AdvancedShortcuts.ntf script library. Note: This will not overwrite the events in the mail template as the mail template does not use it.
    c. Optionally, add the “Clear CE Logon Profile” action from the Sample view.

6. Modify the Database script as follows:
   a. Add the statement ‘Use “Advanced Shortcuts”’ to the Global Options to enable access to the script library.
   b. Copy the QueryClose event from the Database script in the AdvancedShortcuts.ntf template. Note: This will not overwrite the events in the mail template as the mail template does not use it.
7. Select Tools -> Recompile All LotusScript to ensure code references are resolved correctly.
8. The modified template will be deployed to all users automatically.
9. Note: If the users do not have the client plug-in installed, the template code will automatically revert to using WorkPlace thick client.

Chapter 9 EXCHANGE ENVELOPE JOURNALING

Envelope journaling records data about all recipients to whom a message is delivered, including, for example, Bcc ("blind carbon copy") recipients and recipients from distribution group expansions. Message-only journaling, by comparison, does not record data about Bcc recipients, or recipients from distribution group expansions, but only the recipients as declared by the sender in a particular piece of received mail.

Envelope journaling is often implemented by organizations to address compliance, litigation, monitoring, business continuity and disaster recovery issues.

9.1 HOW ENVELOPE JOURNALING WORKS

Exchange provides the P1 headers for a particular message in the body of the envelope message. This data includes the actual recipient list that Exchange used to deliver a message, including BCC recipients. Unlike the P2 headers (the recipients as declared by the sender in a particular piece of received mail), the P1 headers are modified as the message is delivered to the many destinations; these changes occur because of distribution list expansion and hidden distribution list behavior.

Refer to Microsoft Exchange documentation for instructions to enable Envelope journaling in Exchange.

9.2 ENVELOPE JOURNALING AND EMAIL MANAGER

If you have enabled Envelope journaling with Exchange, and configure Email Manager to monitor the envelope mailbox, the Email Manager Exchange Connector triggers envelope processing automatically for all journaled messages it locates in the monitored location.

> Email Manager does not process the envelope message itself; it captures the attached message and looks at the envelope body for the data it contains, including recipients, Bcc recipients, etc. These values are added to the regular email metadata under the appropriate fields (eg. BCC). The message attached to the envelope message is captured, not the envelope message. However, post processing is performed on the envelope message itself. This allows for automatic cleanup of the envelope journal folder once the messages are captured.

Chapter 10 IMPORTING AND EXPORTING CONFIGURATION DATA BETWEEN 4.0.2 SERVERS

You can use the Configuration Manager to import and export Email Manager 4.0.2 configuration details between 4.0.2 servers. You may want to do this, for example, when you configure a staging server and want to move this configuration to a production server.

You may also want to import and export prior to a major configuration change, in order to keep a backup of the initial configuration in case you decide to revert to it after making changes.

You can import and export between different database types, for example from an Oracle database to an SQL database, or from DB2 to SQL.

All data is exported in XML format.

Important When you do an export, any custom metadata that has been created is not exported, because this configuration is not stored in the database, but stored as registry keys. You can export registry keys separately from the database export. Steps to do so are provided below.

10.1 EXPORTING CUSTOM METADATA IN REGISTRY KEYS AND IMPORTING INTO TARGET SYSTEM

When you use the Configuration Manager to run an export, custom metadata that has been created is not exported. This is because custom metadata is not stored in a database, but stored as registry keys. You can export registry keys separately from the database export.

To export custom metadata registry keys:

5. Open the Registry Editor.
6. Navigate to IBM/EMRC/4.0/Factories. Custom metadata is not placed in its own identifiable folder within the Factories folder, so to determine what registry keys represent custom metadata, you can:

- View the values of each key. Only custom metadata has a Display Name value.
- Look for key names with a GUID name, such as 01bc4377-…-…-…-…
- Export all keys, then edit the resulting file to remove non-custom metadata keys.

7. Select and export each relevant key into a file.
8. If you exported all keys in the Factories folder, edit the exported files to remove unwanted keys.
9. Import the keys into the target system.

10.2 EXPORTING CONFIGURATION DATA

Important EM configuration data is exported into a .xml file that contains binary data. We recommend you do not edit this .xml file.

Prerequisites:

- Ensure the `UFI Services Components` are running. For more information, see *Start the UFI Services Components service*, in Chapter 6.
- At least one data store needs to be configured.

To export configuration data:

1. Start Configuration Manager.
2. On the Data Stores screen, in the explore pane, select the database type of from those available, which may be SQL, Oracle, and DB2.
3. From the design pane, in the list of configured data stores, select the data store you want to export.
   Note Active and non-active data stores can be exported.
4. In the configuration pane, click the Export button.
5. Select the location in which to save the exported file.
6. Enter a file name.
7. Click Export.

10.3 IMPORTING CONFIGURATION DATA

You can import into a new database, or into an existing database.

Caution When you import configuration data into a 4.0.2 server, any content in an existing data base will be overwritten.

Prerequisites:

- The user account running the service `UFI Services Components` requires the following permissions on all tables in the data store into which the configuration data will be imported:
  - select
  - update
  - delete
- Ensure the `UFI Services Components` are running. For more information, see *Start the UFI Services Components service*, in Chapter 6.
- If you are importing into a new data store, create the data store, run the required Email Manager database script in the data store, and create an instance of the data store using the Configuration Manager.

To Import Configuration Data

1. Start Configuration Manager.
2. On the Data Stores screen, in the explore pane, select the database type of from those available, which may be SQL, Oracle, and DB2.
3. From the design pane, in the list of configured data stores, select the data store instance into which you want to import.
4. Select the previously exported .xml file for import.
5. Click OK.

10.4 TROUBLESHOOTING IMPORT AND EXPORT

If you are having trouble with importing and exporting

- Ensure the `UFI Services Components` are running. This service is used for import and export. For more information, see *Start the UFI Services Components service*, in Chapter 6.

- Inside the Email Manager application root install directory, for example inside `C:\Program Files\IBM\UFI_4.0.2`, open `ConfigMgrCatalog.xml`, and set log file and log to console values to troubleshoot as described in the table below.

`ConfigMgrCatalog.xml`

`<setup>`
`  <log logLevel="TRACE"`
`  logToConsole="1"`
`  logToFile="1"/>`
`  <threadpool minThreads="5"/>`
`</setup>`
	Log Levels: When configuring the various services log, you can set the type of data that should be written to the log file. Entry options are listed below, from least to most verbose. Note that log entries are cumulative as they become more verbose: A log level of type Info, for example, will include Info and Error.
	ERROR: An event is written to the log whenever an error condition occurs, such as when a connection attempt to a server fails.
	INFO: An event is written to the log with every significant action that takes place, such as when the services are started.
	TRACE: Verbose logging. Useful only for debugging purposes. Events are written to the log at individual steps.
	
	For deployment testing, we recommend you set the following values:
	
	Set `logLevel`=”TRACE”
	
	Set `logToConsole` =1 to allow logging to the console. In a production environment, you can also set to allow logging to the console.
	
	Set `logToFile`=1 to allow file logging. In a production environment, you can also set to allow logging to files.

Chapter 11 MIGRATING FROM PREVIOUS VERSIONS OF EMAIL MANAGER TO EMAIL MANAGER 4.0.2

To migrate from previous versions of Email Manager, please contact IBM Support for assistance.

Chapter 12 FILTERING PROPERTIES FROM DISPLAY IN THE CONFIGURATION MANAGER

By default, Email Manager filters out properties that are defined as system owned or read only. In addition, properties with data types of object or binary are not currently supported, and so are automatically filtered out of the Configuration Manager interface.

You may, for certain business reasons, want to prevent properties that are normally configurable from being displayed in the user interface. This could include properties that are automatically set with default values or have values set by other system processes such as P8 Content Engine events. In order to manually override what configurable properties are displayed in the user interface you must modify the `P8Config.xml` configuration file. The file is found in the root install product directory. Instructions to edit this file are provided in the table below.

Table: `P8Config.xml`

XML Node	Description
`P8Config`	Root element of the configuration document. Do not modify this node.
`filteredProperties`	Contains zero or more *objectClass* XML nodes that are used for configuring zero or more object classes (document, link or record) that you wish to have properties filtered on.

`objectClass`	Each *objectClass* node represents a single P8 object class that you wish to filter properties on. To filter properties to additional object classes simply add in additional *objectClass* XML nodes. An *objectClass* XML node is a sibling to other *objectClass* XML nodes and is a child of the *filteredProperties* XML node.
	
	Attributes:
	symbolicName – Enter in exactly (case sensitive) the P8 symbolic name of the object class
	
	extendFilterToChildClasses – Enter in a value of “true” or “false”. If the value is “true” then the property filter will apply to all child object classes of the object classes specified in the *symbolicName* attribute. If the value is “false” then the property filter will only apply to the specified object class
	
	objectStores – Comma delimited list of the object stores where the object class exists. For example, the “Document” document class exists in all object stores by default. You may wish to filter out the DocumentTitle property of the “Document” document class only in object store “A” and “C” but not object store “B”. Therefore, the *objectStores* attribute value should be:
	`objectStore=”A,B”`
	If you wish to have the property filtered from the object class from all object stores then you can alternatively use the wildcard character “*” instead of a comma separated list. For example:
	`objectStore=”*”`

`property`	Each *property* XML node represents a single P8 property that you wish to have filtered out of the user interface. A *property* XML node is a sibling to other *property* XML nodes and is a child of the *objectClass* XML node. **Attributes:** *symbolicName* – Enter in exactly (case sensitive) the P8 symbolic name of the property being filtered

Below is a sample configuration, filtering out properties from some record classes:

```
<p8Config>
  <filteredProperties>
    <objectClass symbolicName="RecordInfo" extendFilterToChildClasses="true"
objectStores="*">
      <property symbolicName="DocURI"/>
      <property symbolicName="VitalRecordDeclareDate"/>
      <property symbolicName="VitalWorkflowStatus"/>
      <property symbolicName="IsDeleted"/>
      <property symbolicName="ReasonForDelete"/>
    </objectClass>
    <objectClass symbolicName="Markers" extendFilterToChildClasses="true"
objectStores="*">
      <property symbolicName="MethodofDestruction"/>
    </objectClass>
  </filteredProperties>
</p8Config>
```

Note: *Markers* is a child class of *RecordInfo*. Since the *extendFilterToChildClasses* attribute is set to "true" this configuration will filter out all properties specified (*DocURI, VitalRecordDeclareDate, VitalWorkflowStatus, IsDeleted, ReasonForDelete* and *MethodofDestruction*) when displaying *Markers* in the user interface.

APPENDIX A: ERROR HANDLING OVERVIEW

This section contains an overview of how the system handles various error conditions.

MICROSOFT EXCHANGE CONNECTOR

The Exchange Connector can encounter errors either when attempting to process an item on the Exchange Server or when attempting to add files to the document repository.

Exchange Server Related Errors

If an error occurs while processing an item on the Exchange Server that the Exchange Connector cannot correct without intervention, the Exchange Connector may be configured to do the following:

- Move the email message to a sub-folder of the monitored location, by default called “EM Capture Failed”. The item in the location may be examined to determine why an error occurred while processing the message. The Exchange “Move Message” task must be placed in an Error Task Route to enable this functionality.
- Log an error to the Exchange Connector log file. The log file will contain a reference to the email that caused the error, the error number and a description of the error.
- Log an error to the Application Event Log. The entry in the event log will contain details related to the error.

Document Repository Related Errors

If an error occurs while attempting to add a file to the document repository due to the document repository not being available (eg. the document repository server may be turned off or the network may not be available), the Exchange Connector will effectively “pause” until the document repository becomes available.

If an error related to a document repository exception (i.e. a mandatory property in a document repository has not been assigned a value), error handling as described above in the Exchange Server Related Errors section will be applied.

LOTUS DOMINO CONNECTOR

The Lotus Connector may encounter errors either when attempting to process an item on the Lotus Domino Server or when attempting to add files to the document repository.

Lotus Domino Server Related Errors

If an error occurs while processing an item on the Domino Server that the Lotus Connector cannot correct without intervention, the Lotus Connector will do the following:

Chapter 2 Log an error to the Lotus Connector log file. The log file will contain a reference to the document that caused the error, the error number, and a description of the error.

Chapter 3 Log an error to the Application Event Log. The entry in the event log will contain details related to the error.

Chapter 4 Copy any temporary files to an error location on the file system (if this option has been enabled in the Error Task Route).

Document Repository Related Errors

If an error occurs while attempting to add a file to the document repository due to the document repository not being available (i.e. the document repository server may be turned off or the network may not be available), the Lotus Connector will effectively “pause” until the document repository becomes available.

If an error related to a document repository exception (i.e. a mandatory property in a document repository has not been assigned a value), error handling described in the Lotus Server Related Errors section will be applied.

NOVELL GROUPWISE CONNECTOR

The first step in troubleshooting the GroupWise Connector is to ensure the prerequisites outlined in section *3.3 Configure Novell GroupWise Mail Server* have been met.

Detailed error messages, possible problems, and solutions are provided below.

Error	Problem	Solution
Log files display a message indicating failure to log in to the post office.	Email Manager could not find the post office. A local path instead of a UNC Path may have been be given when installing GroupWise.	Validate that a UNC Path has been provided. For more information, see section *3.3, Configure Novell GroupWise Mail Server, Prerequisites*, point #3.
Log files display message "Netware login failed".	Novell Client can't determine what server the NDS Tree is on.	The solution to this problem is specific to your installation of GroupWise mail server. For information to resolve, refer to Novell GroupWise Client documentation at www.novell.com/documentation.
	E-Directory username may be incorrect, or may not be entered in the required `username.context.tree` format.	In the Email Manager Configuration Manager, validate the E-Directory username and password as follows: 1. From the explore pane of the Email Manager Configuration Manager, click Connectors. The connector types available for configuration appear in the explore pane. 2. In the list of connectors in the explore pane, select GroupWise. 3. In the display pane, click the GroupWise connector whose E-Directory credentials you want to validate. 4. In the configuration pane, click the Server tab. 5. Select and double-click the GroupWise server you want to edit. 6. In the pop-up window, in the E-Directory Username field, enter the fully qualified username to be used to connect to the E-Directory used by the GroupWise server. The

		username must be in the format: `username.context.tree`
Log files display a message indicating email account login failed.	The trusted application name in this installation of Email Manager must be unique to that provided in any previous installation. If the name is not unique, the login will fail.	Check that the trusted application name specified in the Email Manager Configuration Manager appears as a unique name in the ConsoleOne list of Trusted Applications. **First, check the trusted application name set in the Configuration Manager:** 1. From the explore pane of the Email Manager Configuration Manager, click Connectors. The connector types available for configuration appear in the explore pane. 2. In the list of connectors in the explore pane, select GroupWise. 3. In the display pane, click the GroupWise connector whose trusted application name you want to validate. 4. In the configuration pane, click the Server tab. 5. Select and double-click the server you want to edit. 6. In the Trusted application name field, view the name assigned to Email Manager. 7. In the steps below, you will check that this is the same name as listed in ConsoleOne, and if not, click the Generate Key button. 8. Verify that the same name exists in Novell ConsoleOne: 9. In ConsoleOne, click GroupWise Systems. 10. In the Tools menu, select GroupWise System Operations, and from the drop-down list displayed, select Trusted Applications. 11. In the list of Trusted Applications, ensure the Trusted Application name you

		noted in step 6 above appears. If the name you noted does not appear in the list of names, regenerate the key in Email Manager Configuration Manager as described in step 6 above.
Email messages are not being captured in the repository.	In the Email Manager Configuration Manager, the subfolder depth specified for collection may be incorrect. This is a common problem, because you may not realize that the root folder is level 1, Mailbox is level 2, etc.	1. Check that the subfolder depth specified for collection in Email Manager Configuration Manager is correct as follows: 2. From the explore pane of the Email Manager Configuration Manager, click Collectors. 3. In the display pane, select the configured collector you want to edit, and click Edit. 4. In the configuration pane, click the Account Locations tab. 5. Select the account location you want to edit. 6. Ensure you have specified a valid subfolder depth from which to collect.
	You have improperly identified items to be captured using the Include and Exclude conditions in the GroupWise Collector.	Note that the Exclude conditions are evaluated first, then Include conditions. To illustrate how this works: You have the following mail folder setup: Inbox sub1 sub2 sub3 In your configuration, you set to exclude sub1, and to include the Inbox. Email in the sub1 folder will not be captured, due to the order of evaluation of exclude first, include second. In the Configuration Manager, review your GroupWise collector configuration to ensure that you have properly configured items to be included and excluded for capture.

	GroupWise mail server can contain documents as well as email messages. However, Email Manager can capture messages only. You may have identified a GroupWise Documents folder or Cabinet folder from which to collect. Is so, no collection would occur.	To check that you have configured Email Manager to collect only email messages: 1. From the explore pane of the Email Manager Configuration Manager, click Collector Configuration. 2. In the display pane, select the collector you want to edit. 3. In the configuration pane, click the Account Locations tab. 4. Ensure you have not identified a Documents or Cabinet folder from which to collect.

PST CONNECTOR

The PST Connector may either encounter errors when attempting to process an item on the file system, attempting to process an item in a PST Archive file, or when attempting to add files to the document repository.

File System Related Errors

If an error occurs while attempting to access a PST Archive on the file system that PST Connector cannot correct without intervention, the PST Connector will do the following:

- Log an error to the PST Connector log file. The log file will contain a reference to the file that caused the error, the error number and a description of the error.
- Log an error to the Application Event Log. The entry in the event log will contain details related to the error.
- Copy the file to a location on the file system (if this option has been enabled in the PST Archive Processing Options for Error Items).

PST Archive Related Errors

If an error occurs while processing an item in a PST Archive that the PST Connector cannot correct without intervention, the PST Connector will do the following:

- Move the email message to a sub-folder of the current location, by default called “EM Capture Failed”. The item in the location may be examined to determine why an error occurred while processing the message. The “Move Message” task must be placed in an Error Task Route to enable this functionality.
- Log an error to the PST Connector log file. The log file will contain a reference to the email that caused the error, the error number and a description of the error.
- Log an error to the Application Event Log. The entry in the event log will contain details related to the error.

Note If a one or more items in a PST Archive cannot be processed, processing of the PST Archive will not fail. The PST Connector will continue to process all other items in the PST Archive. After a PST Archive is processed, the error log should be examined to ensure all items within a PST Archive were successfully captured.

Document Repository Related Errors

If an error occurs while attempting to add a file to the document repository due to the document repository not being available (i.e. the document repository server may be turned off or the network may not be available), the PST Connector will effectively “pause” until the document repository becomes available.

If an error related to a document repository exception (i.e. a mandatory property in a document repository has not been assigned a value), error handling described in the PST Archive Server Related Errors section will be applied.

APPENDIX B: SUGGESTED DOCUMENT CLASS CONFIGURATION

This section describes suggested configurations for document classes in document repositories supported by Email Manager.

Document classes define documents. Properties of a document class help identify the object defined by the class. For example, most classes have a property indicating the creation date. When an object defined by a class is created, the Creation Date property is populated with the current date. You can assign custom properties that reflect the content organization needs for your business. For example, a document class named Contracts could have custom properties for all parties involved in the contract.

Important The document classes described here are suggested as a starting point. You should analyze your business needs carefully and augment the properties contained in these sample document classes to capture metadata from email that is central to your business, allowing users to retrieve and use email after they are stored. Not paying close attention to creating document classes can result in merely archiving email, with no relevant index information available on which to search.

Example Some common fields Email Manager users add to this base class are department, project, and contract number.

CONFIGURING DOCUMENT CLASSES IN FILENET P8 CONTENT ENGINE

To use P8 Content Engine with Email Manager, the following are required:

- At least one Document Class must be set up. The default Email class that is created as part of Content Engine installation may be used.
- If metadata of the email message needs to be stored in the Object Store, either existing document class properties may be used to store the metadata or custom properties may be created. Depending on the metadata being stored, is it suggested the custom properties have the following attributes:

Email Metadata	CE Property Type
Attachment Flag	String (1)
CC Address	String (254) (multi-value)
CC Address/Display	String (254) (multi-value)
CC Display	String (254) (multi-value)
Conversation Topic	String (254)
Email Id	String (254)
From Address	String (254)
From Address/Display	String (254)
From Display	String (254)
Received Date	DateTime
Sent Date	DateTime
Subject	String (254)
To Address	String (254) (multi-value)

To Address/Display	String (254) (multi-value)
To Display	String (254) (multi-value)

APPENDIX C: ENABLING EMAIL SERVER MESSAGE JOURNALING

This section describes how to enable message journaling in Microsoft Exchange 2000/2003/2007, and Lotus Notes 6.x/7.0.

EXCHANGE 2000/2003/2007

Follow these steps to enable Message Journaling in Exchange 2000/2003/2007[1].

1. In Exchange System Manager, click `Servers`.
2. Click `Storage Group`, right-click on the mailbox store that Journaling should be enabled for, and then click `Properties`.
3. On the `General` tab, click to select the `Archive all messages sent or received by mailboxes on this store` check box, and then click `Browse` to choose an account for the archived messages.

LOTUS DOMINO 6.X/7.0

Email Manager is compatible with Mail-in journaling and server journaling. Follow the steps below to enable Journaling in Lotus Domino 6.x/7.0.

Minimal knowledge of Lotus Domino Administration is assumed.

Create a new mail-in database for use with Email Manager (Mail-in Journaling only)

Create a new database as follows:

1. Log into Email Manager Server Machine as the Email Manager Windows Domain User.
2. Open Lotus Notes and login as Email Manager Domino User.
3. From the Lotus Notes menu choose "File-Database-New..." The New Database dialog will appear.
4. In the “Specify New Database Name and Location” section, enter the following information:
    a. In the Server combo-box, choose the Domino server.
    b. In the Title textbox, enter a name for the database (eg. “Email Manager Capture Database”).
    c. In the File name textbox, enter a filename for the database (eg. EM\EMcap.nsf). Record the filename in the Installation Worksheet in the section **Lotus Domino Server** under **Database for Rules-Based Capture**.
    d. In the “Specify Template for New Database” section, enter the following information:
        i. In the Server combo-box, choose the Domino Server.
        ii. In the Template list, select a Mail or Mail Journaling template (you may need to select ‘Show Advanced Templates’ to see the Mail Journaling template).
    e. Click "OK".
    f. Grant the following permissions for the database:

[1] From Microsoft Knowledge Base Article 261173(http://support.microsoft.com/default.aspx?scid=kb;en-us;261173)

- Ensure **Email Manager Domino User** has been given a minimum of "Editor" access and "Delete Documents" and "Replicate or Copy Documents" privileges.

5. Make the database a "mail-in" database as follows:
   a. Switch to the Lotus Administrator. In the Start Menu, select Programs -> Lotus Applications -> Lotus Domino Administrator.
   a. Select the Domain tab.
   b. Select the People and Groups Tab.
   c. Navigate the tree "Domino Directories, <Domain> Address Book, Mail-in Databases_Resources".
   d. Click on the "Add Mail-In Database" button.
   e. In the Mail-In Database screen Basics tab, enter the following information:
      - Mail-in name: <enter a name>
      - Description <enter a description>
      - Internet Address: <enter an internet address for the location>
      - Domain: <enter the domain the database resides in>
      - Server: <enter the name of the server the database resides on>
      - Filename: <enter the database path>
   f. Click on the Save and Close button.
   g. Keep a note of the mail-in name (e.g. "EM Journal") and the database path (e.g. "EM/EMJournal.nsf").

Create a Journaling Rule

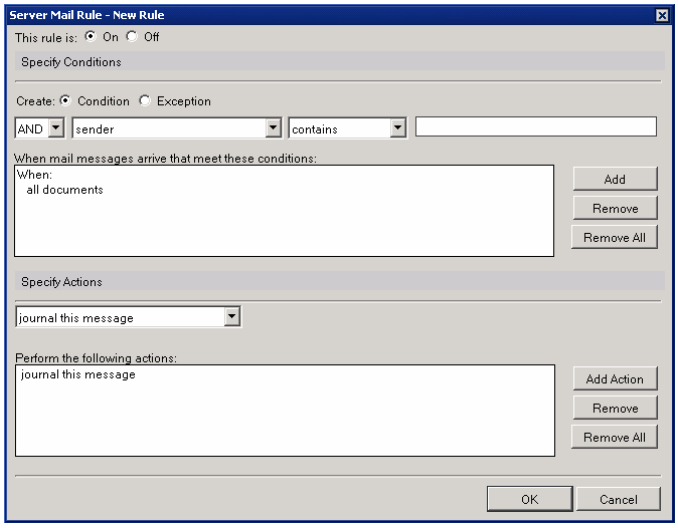
6. **Create a Domino Server Rule to journal messages. This step is performed using the Domino Administrator.**
   a. To open the Server configuration document:
      i. Open the Domino Administrator.
      ii. Select the server to administer (File, Open Server…).
      iii. Select the Configuration tab, click on the **Messaging** node in the tree-view to expand it, and then select **Configurations** to show the server configuration documents.
      iv. Select the Domino Server where journaling will be enabled, then click the **Edit Configurations** button (above the server list) to open the Configuration Settings document for the server.
   b. To open the server mail rule dialog:
      i. In the Configuration Settings dialog, select the **Router/SMTP** tab. A second row of tabs will appear.
      ii. On the second row of tabs, select the **Restrictions and Controls** tab (the 2nd tab). A third row of tabs will appear.
      iii. On the third row of tabs, select the **Rules** tab (the last tab). The list of current rules (if any) will be displayed.
      iv. Click the New Rule button to open the Server Mail Rule dialog.

c. Journaling can be applied selectively or to all documents. The following instructions will define a simple rule that will cause all messages to be journaled. However you can define more sophisticated rules if required. To create a journaling rule:

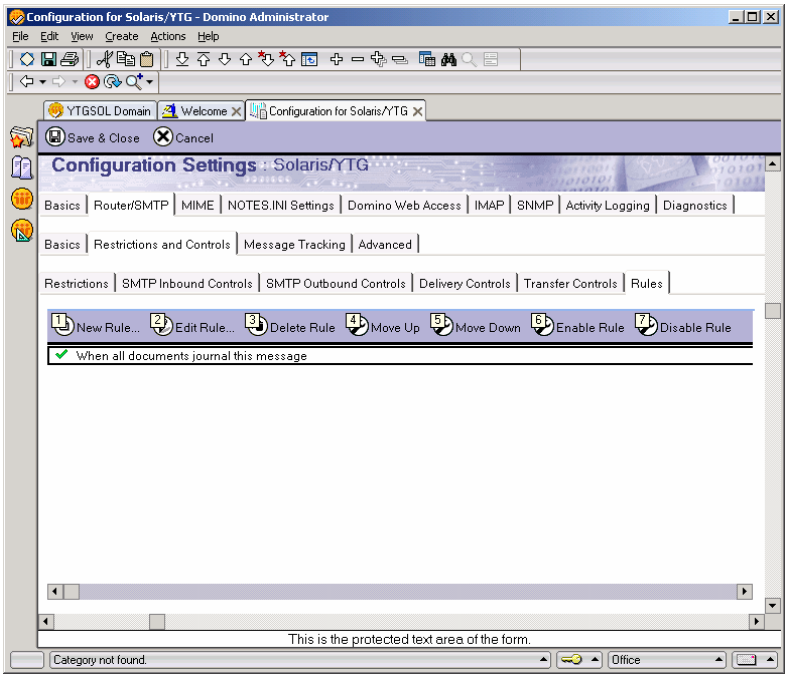
i. Open the Server Mail Rule dialog.

ii. In the **Specify Conditions** section, select "all documents" and click **Add** to define the condition.

iii. In the **Specify Actions** section, select "journal this message" and click **Add Action**.



iv. Click **OK** to save the rule. The rule will now appear in the rules list.



Enable Journaling

7. Enable Domino Mail-in journaling

a. To open the journaling tab:

i. If you have just created a rule, the Configuration Settings dialog will be open. Otherwise, Open the Domino Administrator, open the Server Configuration document (see above) and select the **Router/SMTP** tab (the second tab).

ii. On the second row of tabs, select the **Advanced** tab (the fourth tab). A third row of tabs will appear.

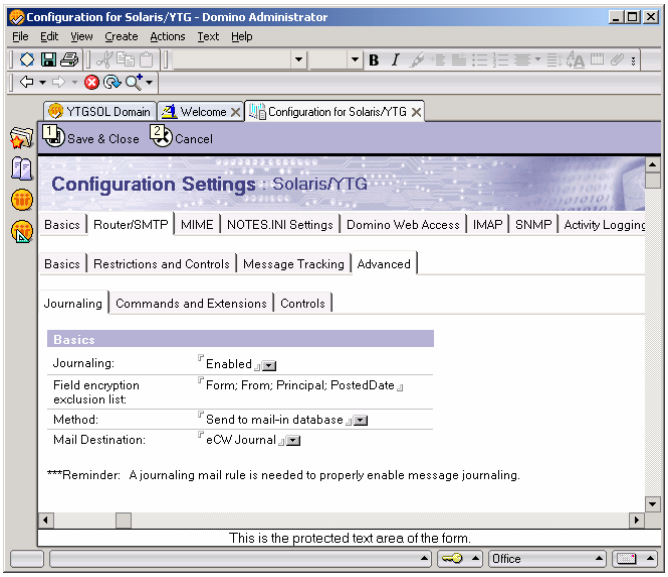
iii. If the Journaling tab (the first tab on the third row) is not pre-selected then click to select it.

b. To enable mail-in journaling:

i. At the **Journaling:** prompt, select “Enabled”.

ii. At the **Method:** prompt, change the journaling method to “Send to mail-in database”. The prompts in the Journaling page will change to show the Mail Destination: prompt.

iii. Click on the arrow button to the right of the **Mail Destination:** prompt and select your journaling mail-in database from the directory.



c. To enable server journaling:

i. At the **Journaling:** prompt, select “Enabled”.

ii. At the **Method:** prompt, change the journaling method to “Copy to local database”. The prompts in the Journaling page will change to show the ‘Database Name:’, ‘Encrypt on behalf of user:’ prompts and the Database Management prompts.

iii. At the **Database Name:** prompt, specify the name of the Journal database (e.g. EMJournal.nsf). The journal database will be created automatically.

iv. At the **Encrypt on behalf of user:** prompt, select the Email Manager Domino user. The journal will be encrypted to prevent access by any other user.

v. At the **Method:** prompt, select ‘None’.

Notes

- Do not select ‘Periodic Rollover’ or ‘Size Rollover’, as these options will cause periodic creation of a new journal and renaming of the old. This rollover process may cause messages to be missed.
- The journaling profile should delete messages after capture to keep prevent the journal from growing uncontrollably.

d. To apply the settings, click on the Save & Close button to save the configuration settings document.

Important The changes to the journaling configuration and the rules will not take effect immediately. The changes will take place after the next router configuration update. This takes place at intervals of approximately 5 minutes.

To force the rules and journaling to take effect immediately:

If the server is running locally, enter the following command at the server console:

```
Tell router update config
```

APPENDIX D: CHANGING THE DEFAULT .NET USER

In some cases, it may be necessary to change the default user that .Net uses when running .Net components (such as the Email Manager Web Services). Procedures for changing the .Net user differ for Internet Information Service (IIS) 5.0 and 6.0.

An existing user account may be used for the .Net user, or a new account may be created for the .Net user. Note that the user must be a domain user.

The following is a summary of known folders that the .Net user requires permissions to access. Security should be configured such that all subfolders of these folders have the same permissions. The list of folders may differ depending on the machine configuration. In addition to the folders below, the user will also require full access to the Temporary and Log folders created by Email Manager.

Folder: `%windir%\temp`
Access Type: `Read/Write`

Folder: `%windir%\system32`
Access Type: `Read`

Folder: `%windir%\Microsoft.NET\Framework\v1.1.XXXX`
Access Type: `Read`

Folder: `%windir%\Microsoft.NET\Framework\v1.1.XXXX\Temporary ASP.NET Files`
Access Type: `Read/Write on the folder and List Folder Contents on the drive's root folder`

Folder: `%systemdrive%\Program Files\FileNet`
Access Type: `Read`

Folder: `%windir%\Inetpub\wwwroot`
Access Type: `Read`

Folder: `%windir%\WINNT\assembly`
Access Type: `Read`

Folder: `%systemdrive%\Program Files\Common Files\MSSoap\Binaries`
Access Type: `Read`

APPENDIX E: SETTING UP EXCHANGE NOTIFICATION

Note This is relevant to Exchange users only.

An organizational form needs to be created in the Exchange Server that will be used by Email Manager to display the capture icon on messages in a user's Outlook Inbox. After the organizational form is created, depending on the replication settings of the Exchange Server, the capture icon form may take up to 24 hours to propagate to users.

EXCHANGE SERVER 2000

Setting up notification in Exchange 2000 requires the following steps:

- Create an Organization Forms Library (if one does not exist)
- Create an Organization Form for Exchange 2000
- Create the Organization Form required by Email Manager

Create an Organizational Forms Library:

Important If an Organization Forms Library (called an Organizational Forms folder in Microsoft Exchange 2007) does not already exist it must be created.

1. Open the Exchange Administrative Utility.
2. Select the menu item Tools -> Forms Administrator to open the Organizational Forms Library Administrator dialog.
3. Click the New button to open the Create New Forms Library dialog.
4. Click OK.

Create an Organizational Form[2] for Exchange 2000

1. Open Exchange System Manager.
2. Click to expand Administrative Groups.
3. Click to expand `Folders`.
4. Click Public Folders.
5. On the `System Manager` toolbar, click `Action`.
6. Click to select `View System Folders`.
7. In the console tree, right-click `EForms Registry`.
8. Click `New`, and then click `organization form`.
9. In the `Name` box, type the name of the folder.
10. Under Eforms language, click to select the appropriate language.

[2] From Microsoft Knowledge Base Article 271816 (http://support.microsoft.com/default.aspx?scid=kb;en-us;271816)

Create the Organizational Form that is required by Email Manager

1. Open Outlook.
2. Make sure the default Outlook mail format is “HTML” mode. If it is not, change it to HTML in the screen Tools -> Options in the Mail Format tab.
3. Create a new form by choosing the menu item Tools -> Form -> Design a Form.
4. In the Design a Form dialog, choose the “Message” form and click the `Open` button to open the Form Design window (See Figure B-1).
5. In the Form Design window, click on the Properties tab. Click the `Change Large Icon…` button and browse to the folder that was installed in. Open the subfolder “Icons”, select the icon “FnIDMDS.ico” (select “ObjectStore32.ico” for P8) and click `Open`.
6. Click the `Change Small Icon…` button, choose the icon “FnIDMDSs.ico” (select ObjectStore32s.ico” for P8), and click `Open`.
7. Ensure the option “Send form definition with item” is not selected.
8. Choose the menu item Tools -> Forms -> Publish Form As… In the Publish Form As dialog, in the “Look In” combo box, select “Organizational Forms Library”. In the “Display Name” field, type: “Archived”. In the “Form Name” field, type “Archived”. Click the `Publish` button to publish the form. If a prompt appears asking whether the option “Send form definition with item” should be selected, answer No to the question.
9. Close the Form Design window. When prompted to save the form, select No.

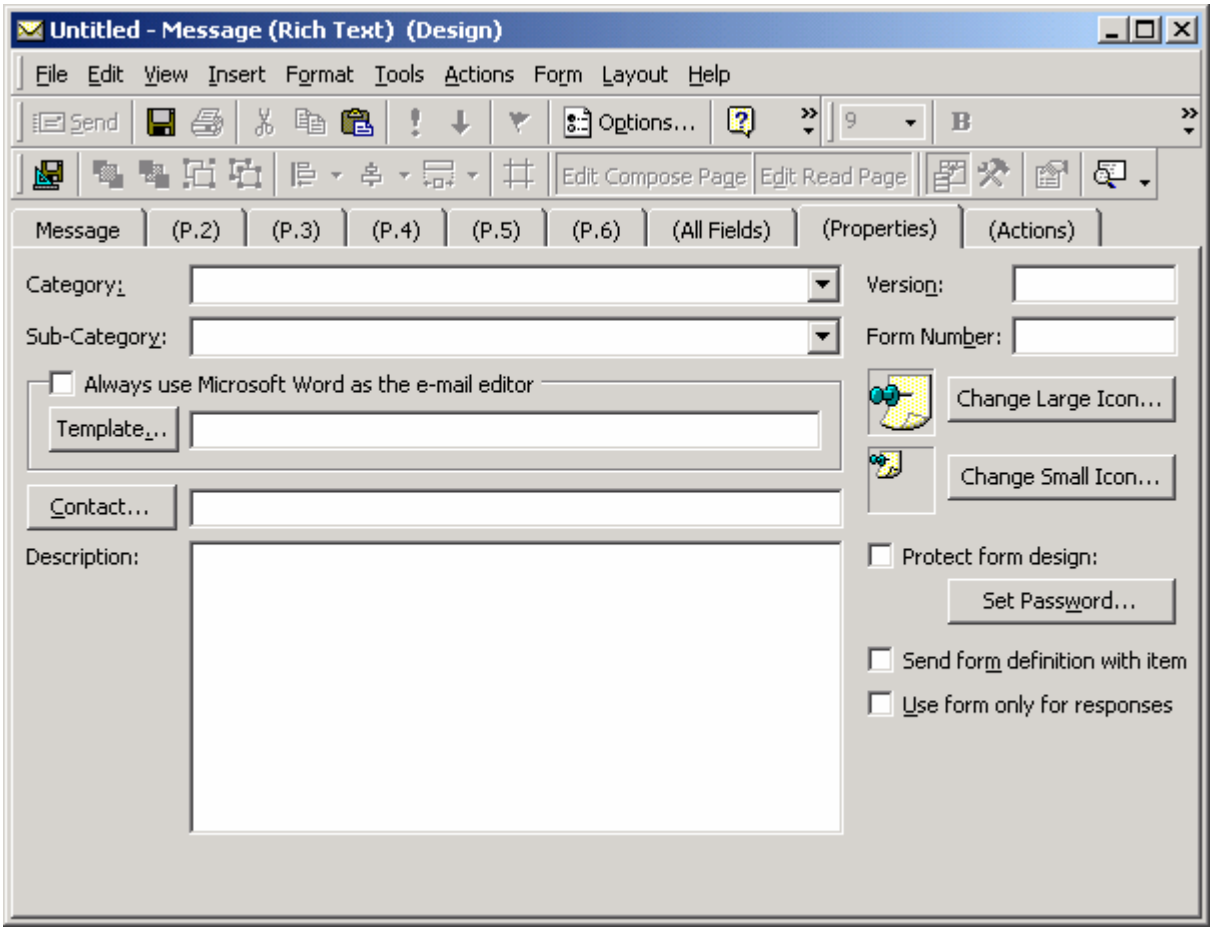


Figure B-1 Properties tab in Form Design window

EXCHANGE SERVER 2007

1. Create a new Organizational forms folder, as follows:

- Click Start, point to All Programs, click Microsoft Exchange Server 2007, and then click Exchange Management Shell.

  Run the following command at the Exchange Management Shell prompt (note that the name given here is just an example):

  New-PublicFolder –Path "\NON_IPM_SUBTREE\EFORMS REGISTERY"

  -Name UFI FORMS

  o Repeat this command to create a folder for each language that you want to publish.

2. Check that the public folders are displayed in Outlook:

- Use an account that belongs to the Exchange Administrators Group to log on to an Enterprise Vault server that has Outlook 2003 installed.
- Configure a new email profile and start Outlook.

If the public folder store does not appear within a few seconds, you may need to wait for Exchange Server to update. Alternatively, restart the Exchange Server information store to force an update.

Add the PR_EFORMS_LOCALE_ID property to set the language of the forms folder, as follows:

- Start the Microsoft Exchange Server MAPI Editor MfcMapi.exe) from the MFCMAPI folder.
- Select or create a MAPI profile as necessary.
- On the Session menu, click Logon and Display Store Table.
- On the MDB menu, click Open Public Folder Store, and then click OK.
- Expand Public Root, expand NON_IPM_SUBTREE, and then expand EFORMS REGISTRY.
- Click the public folder that you created in step 1. For example, click “Enterprise Vault Forms (English)”.
- On the Property pane menu, click Modify Extra Properties.
- Click Add, and then click Select Property Tag.
- Click PR_EFORMS_LOCALE_ID in the list, and then click OK.
- Click OK twice. A red mark is displayed next to the new PR_EFORMS_LOCALE_ID property.
- Double-click PR_EFORMS_LOCALE_ID.
- In the Unsigned Decimal box, type the locale ID you require, and then click OK.

  For example, type 1033 for English, or 1040 for Italian.

  To determine the local ID for other locales, visit the following Microsoft Web site:

  http://msdn2.microsoft.com/en-us/library/aa579489.aspz
- Select PR_PUBLISH_IN_ADDRESS_BOOK, right click and select Edit Property, clear Boolean and then click OK.
- Exit MAPI Editor.

APPENDIX F: USING THE PST CONNECTOR UNTAG UTILITY FUNCTION

Note This is relevant to PST Connector users only.

In a PST Connector Profile, if the Processing Option “Mark File as Processed” is selected, a tag will be added to PST files processed by the PST Connector. The tag may be used to prevent the PST Connector from re-processing the PST file at a later date. If a file that has been tagged by the PST Connector needs to be reprocessed at a later, a utility included with Email Manager may be used to remove tags from files.

The un-tagging utility can be found in the Email Manager installation folder and is called `Untag.exe`. The utility is a command line application that accepts as input filenames and folder paths.

Syntax:

```
Untag.exe [\s] filenames
```

Description:

`filenames`: a list of one or more files that should be “un-tagged”. The file names may include wild card characters.

`\s`: (Optional) if the parameter \s is included, all subfolders will be search for the `filenames` specified as well. Only subfolders of paths specified as a part of the `filenames` will be searched.

Examples:

Process files with a specific name:

```
Untag.exe c:\docs\file.pst
```

Process files with a specific file extension:

```
Untag.exe c:\*.pst
```

Search all sub-locations for files with a specific name:

```
Untag.exe \s c:\docs\file1.pst c:\docs\file2.pst
```

Process all files in a folder:

```
Untag.exe c:\files\*.*
```

Process all files in a folder and all its subfolders:

```
Untag.exe \s c:\files\*.*
```

Because the tags added to files by Email Manager are not visible as a part of the file properties, the tags cannot be viewed through the file properties screen in Windows Explorer. Notepad may be run from the command line to display the file tags. Use the following command to determine whether a file has been tagged as “captured” by Email Manager:

```
notepad "<filename>:UFI_CAPTURED"
```

where <filename> is the name of the file.

Use the following command to determine whether a file has been tagged as “processed” by Email Manager:

```
notepad "<filename>:UFI_PROCESSED"
```

If the file has been tagged, Notepad will open and the value of the tag will show in Notepad (the value will be either “Y” or “N”). If the file has not been tagged, the following message will show: Cannot find the <filename>:UFI_CAPTURED.txt file.

APPENDIX G: ENABLING GROUPWISE TRUSTED APPLICATION AND RETENTION

Note This is relevant to GroupWise users only.

Email Manager must be registered as a Trusted Application on the GroupWise mail server. As well, Retention must be enabled in the GroupWise Post Offices and Account that Email Manager will be processing email in. The following is a summary of how to enable the Trusted Application and Retention in the GroupWise mail server:

1. Use the Email Manager Configuration Manager to create a GroupWise Source Server instance. As a part of the configuration, create a Trusted Application Key by clicking the Generate Key button. This will create a Trusted Application reference in GroupWise.
2. On the GroupWise Server, open Console One.
3. Select the GroupWise Domain that Email Manager will connect to.
4. In the menu select Tools -> GroupWise System Operations -> Trusted Applications…
5. In the Configure Trusted Applications screen, select the Trusted Application (the name should match the name entered as Trusted Application Name in the Configuration Manager).
6. Click the Edit button.
7. In the Edit Trusted Application screen, the description should read: FileNet Email Manager.
8. Select the checkbox Provided Message Retention Service. This will enable Retention.
9. Click Ok.
10. Right click on the GroupWise Domain and select GroupWise Utilities -> Client Options...
11. In the GroupWise Client Options screen, click the Environment button.
12. In the Environment Options screen, select the Retention tab.
13. Select the checkbox Enable Message Retention Service.
14. Click Ok.

Note: when using GroupWise 6.5, if Email Manager is being re-installed and a trusted application key for Email Manager was previously created, the following error may show when attempting to create a new key in the Configuration Manager:

Error: Failed to login into account Admin : Login unsuccessful and Error: HRESULT=0x80004005, Source=Account.Object, Description="Login unsuccessful", Message="filenet::emrc::com::COMErrorHandler".

To work around this issue, change the Trusted Application Name in the Configuration Manager to a name that has not been used yet on the GroupWise server.

APPENDIX H: PREPARING FOR IMPLEMENTATION

There are many decisions to be made when implementing Email Manager. The questions below may be useful to consider when deciding how to install and configure Email Manager.

Business Requirements	Comments
Name up to three primary purposes for emails to be captured (e.g. customer service, contract negotiation, policy distribution).	
Do corporate policies exist regarding email ownership, usage, capture, and privacy?	
Are there any compelling regulatory reasons for capturing emails? Which regulatory bodies or acts?	
Are there any compelling legislated reasons for capturing emails? Which legislation?	
Are there company retention policies for email?	
Which do you require: a solution that captures everything, or capture based on rules?	
Are there certain users or groups who will have their email monitored?	
Does outgoing email need to be monitored?	
Do you need to archive for litigation?	
Email retrieval options (litigation only, direct access, integration with CRM / ERP, etc.)	

APPENDIX I: TROUBLESHOOTING ADD-INS, IMPORT AND EXPORT

GENERAL ADD-IN TROUBLESHOOTING

In Email Manager 4.0.2, the `UFI Services Components` service is used by the import/export process between 4.0.2 servers. This service enables automatic validation of usernames, email addresses, etc. on Exchange and Domino servers when client (manual) capture has been installed and configured.

To troubleshoot this service, you can set log file and log to console values as in the table below on the `ConfigMgrCatalog.xml` file, inside the Email Manager application root install directory, for example inside `C:\Program Files\IBM\UFI_4.0.2,\ConfigMgrCatalog.xml` file as below:

- Inside the Email Manager application root install directory, for example inside `C:\Program Files\IBM\UFI_4.0.2`, open `ConfigMgrCatalog.xml`, and set log file and log to console values to troubleshoot as described in the table below.

`ConfigMgrCatalog.xml`

`<setup>`
`  <log logLevel="TRACE"`
`  logToConsole="1"`
`  logToFile="1"/>`
`  <threadpool minThreads="5"/>`
`</setup>`
	Log Levels: When configuring the various services log, you can set the type of data that should be written to the log file. Entry options are listed below, from least to most verbose. Note that log entries are cumulative as they become more verbose: A log level of type Info, for example, will include Info and Error.
	ERROR: An event is written to the log whenever an error condition occurs, such as when a connection attempt to a server fails.
	INFO: An event is written to the log with every significant action that takes place, such as when the services are started.
	TRACE: Verbose logging. Useful only for debugging purposes. Events are written to the log at individual steps
	
	For deployment testing, we recommend you set the following values:
	
	Set `logLevel`=”TRACE”
	
	Set `logToConsole` =1 to allow logging to the console. In a production environment, you can also set to allow logging to the console (on server-side).
	
	Set `logToFile`=1 to allow file logging. In a production environment, you can also set to allow logging to files (on server-side).

OUTLOOK ADD-INS TROUBLESHOOTING

When an Outlook add-in starts, outlook automatically tries to check whether the add-in has been revoked or not, by making a call tn an external 'certificate revocation list' server. If the user does not have access to the Internet, the call will time out after 15seconds.

To avoid that delay on machines without i\Internet access, you can :

- Go to Tools->Internet Options->Advanced and uncheck the following options:
  - Check for server certificate revocation
  - Check for publisher's certificate revocation
- Alternatively, you could setup a rule on your internal proxy to timeout that call immediately.

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