e*Xchange Partner Manager Installation Guide

Release 5.0.5 for Schema Run-time Environment (SRE)

SEEBEYOND®

Contents

Appendix E

Upgrading the Database from 4.5.2 to 4.5.3   112

Appendix F

Upgrading the Database Schema from 4.1.0 to 4.1.1   118

Appendix G

Upgrading the Database Schema from 4.1.1 to 4.1.2   121

Introduction

This book provides instructions for installing the e*Xchange Partner Manager components of the SeeBeyond eBusiness Integration Suite.

This Installation Guide covers only the installation of the e*Xchange Partner Manager components. Refer to additional publications for installing additional components.

Note: *For the latest information on any required ESRs and other release information, refer to the **readme.txt** file: **\setup\eXchange\readme.txt** on your installation CD.*

Table 1 Related Publications For Installing Additional Components

For instructions on installing this component…	Refer to this publication…
e*Gate	*e*Gate Integrator Installation Guide*
X12 ETD Library	*X12 ETD Library User's Guide*
RosettaNet ETD Library	*RosettaNet ETD Library User's Guide*
UN/EDIFACT ETD Library	*UN/EDIFACT ETD Library User's Guide*
CIDX ETD Library	*CIDX ETD Library User's Guide*
NCPDP-HIPAA ETD Library	*NCPDP-HIPAA ETD Library User's Guide*
HIPAA ETD Library	*HIPAA ETD Library User's Guide*

1.1 Document Purpose and Scope

This guide explains how to install the SeeBeyond Technology Corporation™ SeeBeyond eBusiness Integration Suite. This user guide includes information on the following topics:

- Installing e*Xchange Partner Manager
- Upgrading e*Xchange Partner Manager to version 4.5.3 (which makes it usable in e*Xchange 5.0.*x* SRE)

1.2 Intended Audience

The reader of this guide is presumed to be a developer or system administrator with responsibility for installing the SeeBeyond eBusiness Integration Suite. He or she should have knowledge of Windows and UNIX operations and administration, and should be thoroughly familiar with Windows-style GUI operations.

To install the e*Xchange e*Gate Schema, the reader should have an understanding of e*Gate Integrator 4.5.1 or later, including the location of the Registry, Participating Host, and e*Gate Schema Designer GUI. To create the database schema, the reader should have knowledge of database administration for Oracle, SQL Server, Sybase, or DB2 UDB.

1.3 Writing Conventions

The writing conventions listed in this section are observed throughout this document.

Hypertext Links

When you are using this guide online, cross-references are also hypertext links and appear in **blue text** as shown below. Click the **blue text** to jump to the section.

For information on these and related topics, see **"Parameter, Function, and Command Names" on page 12**.

Command Line

Text to be typed at the command line is displayed in Courier as shown below.

```
java -jar ValidationBuilder.jar
```

Variables within a command line are set in the same font and bold italic as shown below.

```
stcregutil -rh host-name -rs schema-name -un user-name
-up password -ef output-directory
```

Code and Samples

Computer code and samples (including printouts) on a separate line or lines are set in Courier as shown below.

```
Configuration for BOB_Promotion
```

However, when these elements (or portions of them) or variables representing several possible elements appear within ordinary text, they are set in *italics* as shown below.

path and *file-name* are the path and file name specified as arguments to **-fr** in the **stcregutil** command line.

Notes and Cautions

Points of particular interest or significance to the reader are introduced with *Note*, *Caution*, or *Important*, and the text is displayed in *italics*, for example:

Note: *The Actions menu is only available when a Properties window is displayed.*

User Input

The names of items in the user interface such as icons or buttons that you click or select appear in **bold** as shown below.

Click **Apply** to save, or **OK** to save and close.

File Names and Paths

When names of files are given in the text, they appear in **bold** as shown below.

Use a text editor to open the **ValidationBuilder.properties** file.

When file paths and drive designations are used, with or without the file name, they appear in **bold** as shown below.

In the **Open** field, type **D:\setup\setup.exe** where **D:** is your CD-ROM drive.

Parameter, Function, and Command Names

When names of parameters, functions, and commands are given in the body of the text, they appear in **bold** as follows:

The default parameter **localhost** is normally only used for testing.

The Monk function **iq-put** places an Event into an IQ.

You can use the **stccb** utility to start the Control Broker.

1.4 Supporting Documents

The following SeeBeyond documents provide additional information about the e*Xchange Partner Manager and e*Gate:

- *SeeBeyond eBusiness Integration Suite Deployment Guide*
- *SeeBeyond eBusiness Integration Suite Primer*
- *e*Xchange Partner Manager User's Guide*
- *e*Xchange Partner Manager Implementation Guide*
- *HIPAA Implementation Guide*
- *e*Gate Integrator Alert Agent User's Guide*
- *e*Gate Integrator Alert and Log File Reference Guide*
- *Collaboration Services Reference Guide*
- *System Administration and Operations Guide*
- *e*Gate Integrator User's Guide*
- *Monk Developer's Reference*
- *Java Generic e*Way Extension Kit*
- *e*Way Intelligent Adapter for Oracle User's Guide*
- *e*Way Intelligent Adapter for SQL Server User's Guide*

- *e*Way Intelligent Adapter for Sybase User's Guide*
- *e*Way Intelligent Adapter for DB2 Universal Database User's Guide*

1.5 SeeBeyond Web Site

The SeeBeyond Web site is your best source for up-to-date product news and technical support information. The site's URL is

http://www.SeeBeyond.com

Introduction to the SeeBeyond eBI Suite

This chapter provides an overview of the SeeBeyond eBusiness Integration Suite.

2.1 SeeBeyond eBusiness Integration Suite

Complex and dynamic partner relationships, and the management of various processes present tremendous challenges to eBusiness. Organizations and their trading partners must manage disparate component applications and align proprietary software requirements. Organizations and their trading partners must also agree on data exchange and security standards.

The SeeBeyond eBusiness Integration Suite merges traditional Enterprise Application Integration (EAI) and Business-to-Business (B2B) interactions into a multi-enterprise eBusiness Integration (eBI) product suite.

This suite allows you to:

- Leverage your existing technology and applications.
- Create an eApplication consisting of component applications that are managed by your organization or your trading partners.
- Rapidly execute eBusiness strategies.
- Create and manage virtual organizations across the entire value chain.
- Rapidly implement industry-standard business protocols.
- Quickly and easily establish new business partners, or update existing ones.
- Automatically secure transmissions sent through the public domain.

This suite also provides:

- Extensive back-office connectivity.
- Powerful data transformation and mapping.
- Content-based routing.
- Unparalleled scalability based on a fully distributed architecture.

2.1.1 SeeBeyond eBusiness Integration Suite Components

The SeeBeyond eBusiness Integration Suite includes the following components and sub-components:

- eBusiness integration applications:
    - e*Insight™ Business Process Manager
    - e*Xchange™ Partner Manager
    - e*Xpressway™ Integrator
    - e*Index Global Identifier
- e*Gate™ Integrator components:
    - e*Way™ Intelligent Adapters
    - Intelligent Queues (IQ™)
    - Business Object Brokers (BOBs)

See Figure 1 for a graphical representation of the SeeBeyond eBusiness Integration Suite and its components.

Figure 1   SeeBeyond eBusiness Integration Suite (e*Xpressway not shown)

e*Insight Business Process Manager

The e*Insight Business Process Manager facilitates the automation and administration of business process flow across eBusiness activities. Graphical modeling and monitoring enables users to instantly assess the state of a business process instance and identify any bottlenecks in the process.

e*Xchange Partner Manager

The e*Xchange Partner Manager manages trading partner profiles and supports standard eBusiness message format and enveloping protocols, including RosettaNet, UN/EDIFACT, ASC X12, NCPDP-HIPAA, and CIDX. The e*Xchange Partner Manager includes a Validation Rules Builder to aid in the creation of X12 and UN/EDIFACT message validations based on industry implementation guides.

eSecurity Manager

The optional eSecurity Manager works with e*Xchange to ensure the integrity of message data sent to and from trading partners, which is imperative when conducting eBusiness in the public domain. The eSecurity Manager uses public key infrastructure (PKI) to authenticate the origin of a message sender. Encryption then ensures that business messages remain secure and private.

e*Xpressway Integrator

e*Xpressway Integrator (e*Xpressway) enables rapid trading partner connectivity and integration through a comprehensive B2B implementation methodology, Web-based graphical configuration wizards, and downloadable integration software. Trading partners follow a quick step-by-step process for registering their company profile, installing customized integration software, and configuring connectivity.

e*Index Global Identifier

e*Index Global Identifier (e*Index) is a global cross-indexing application that provides a complete solution for automated person-matching across disparate source systems, simplifying the process of sharing member data between systems.

e*Index centralizes information about the people who participate throughout your business enterprise. The application provides accurate identification and cross-referencing of member information in order to maintain the most current information about each member. e*Index creates a single, consistent view of all member data by providing an automatic, common identification process regardless of the location or system from which the data originates.

e*Gate Integrator Components

e*Gate Integrator enables the flow of information across an enterprise by providing comprehensive connectivity to applications and datastores across a network. e*Gate is based on a distributed architecture with an open design that deploys flexible load balancing options. e*Gate processes Events according to user-defined business logic and integrates business processes between applications, ensuring end-to-end data flow into back-office systems.

e*Way Intelligent Adapters

e*Way Intelligent Adapters provide specialized application connectivity and support for robust data processing such as business Collaborations, transformation logic, and publish/subscribe relationships. e*Way adapters are multi-threaded to enable high-performance distributed processing. This multi-threaded processing allows for exceptional deployment flexibility and load balancing.

Intelligent Queues

Intelligent Queues (IQs) are open-queue services for SeeBeyond or third-party queuing technology that provide robust data transport.

In conjunction with Java-enabled Collaborations, SeeBeyond JMS IQs can provide guaranteed once-only message delivery.

Business Object Brokers

A BOB component is similar to an e*Way in that both establish connectivity and are capable of transforming data. BOBs use Collaborations to route and transform data within the e*Gate system. They have the following properties:

- BOBs only communicate with IQs within e*Gate. They do not communicate with external applications as e*Ways do.

BOBs are optional by design. You can add them to an environment to remove some load from your e*Ways, either to set up easily maintainable data processing or to enable multiple internal processes.

Installation Overview

This chapter provides an overview of the steps necessary for a successful e*Xchange installation.

3.1 e*Xchange Installation Summary

This user guide describes how to install the e*Xchange Partner Manager components. The automated installation process guides you through installing the following components, as shown in Figure 2:

- e*Xchange e*Gate Schema—Includes the e*Gate schema components for e*Xchange and the eSecurity Manager component.

- e*Xchange Repository Manager GUI—the separate user interface provided for archiving, de-archiving, importing, and exporting of data.

- e*Xchange relational database schema—Includes all of the files necessary to create the e*Xchange database schema on the database server.

- e*Xchange Web Interface—The e*Xchange Web-based user interface. This includes automatic installation of Apache/Tomcat.

Figure 2   e*Xchange Installation: Select Components Dialog Box
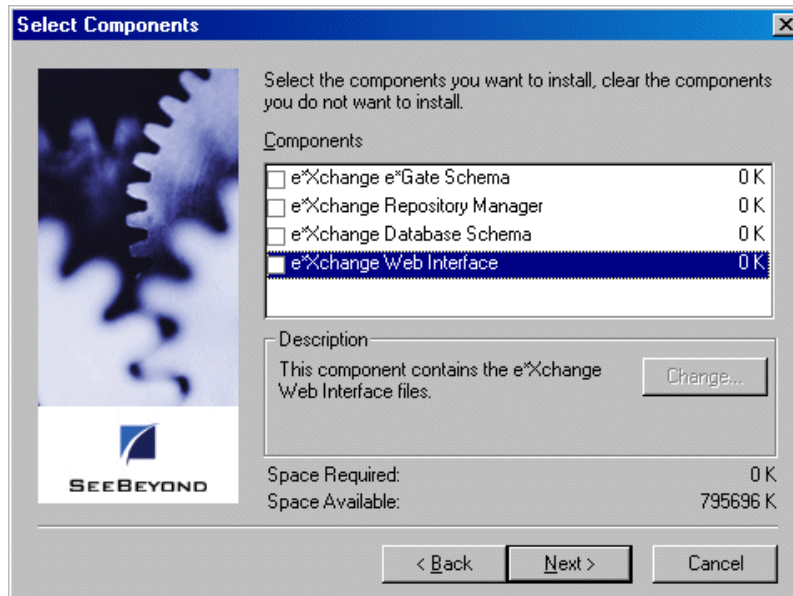
In addition, e*Xchange includes the following, which requires manual installation:

- e*Xchange Validation Rules Builder—Includes all of the files necessary to install the e*Xchange Validation Rules Builder and the Java Runtime Engine version 1.3.

The Web Interface, GUIs, and relational database schema portions are installed using the InstallShield® wizard directly from the CD. The Validation Rules Builder is installed separately.

3.2   Installation Sequence

If you are installing all components of e*Xchange at the same time, the fastest and simplest method of installing is to select all options at the same time. The components are automatically installed in the following sequence:

- e*Xchange Web interface (beginning with automatic installation of the Apache Web server)
- e*Xchange database schema
- e*Xchange Repository Manager
- e*Xchange e*Gate schema

However, you can choose to install each component separately. As long as the prerequisites are in place (for example, you must create a database in Oracle before installing the e*Xchange Oracle database schema), components can be installed in whatever sequence you prefer.

This guide contains separate chapters for installing the GUIs and the e*Gate schema for e*Xchange.

3.3 Overview of e*Xchange Components

There are a number of components required when using e*Xchange Partner Manager. This section describes the purpose of each component and how they connect to the other components. Figure 3 shows the main components.

Figure 3   e*Xchange Components
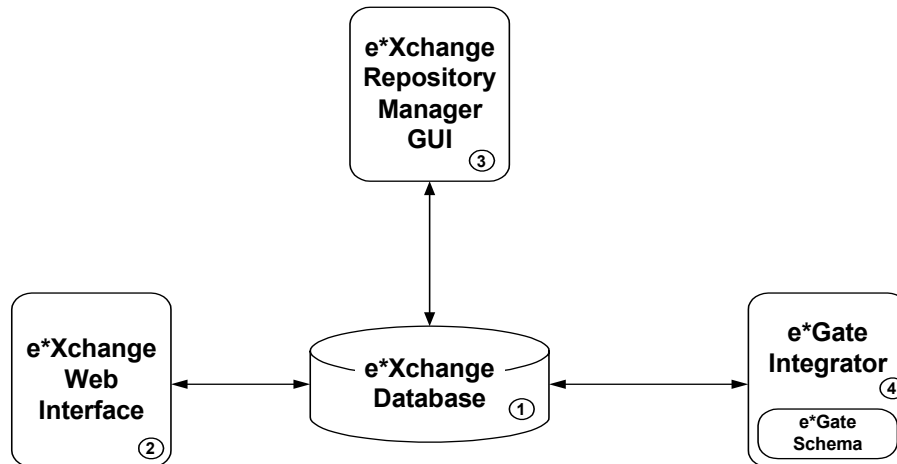
1 **e*Xchange Database**—This is the repository for all information about e*Xchange Partner Manager. This includes trading partner details, in addition to messages that have been sent and received.

2 **e*Xchange Web Interface**—This is the interface that allows the user to access the information held in the database via a browser. It can be used to manage the trading partner details and monitor the messages.

3 **e*Xchange Repository Manager GUI**—This GUI allows the user to import and export trading partner profiles, and to archive/de-archive message data.

4 **e*Gate Integrator/e*Gate Schema**—e*Gate Integrator is required to run the e*Gate schema for e*Xchange. The e*Gate schema provides the connectivity to the trading partners, and other systems and applications.

3.4 System Requirements

The following sections provide details on the hardware, software, and disk space requirements for the e*Xchange installation, as well as a list of supported platforms.

3.4.1. # Hardware Requirements

The e*Xchange GUIs must be installed on a Windows workstation that includes the following minimum requirements:

- Pentium-class CPU, 300 MHz or higher
- Minimum 128 MB RAM
- 70 MB disk space

3.4.2. # Software Requirements

e*Xchange Partner Manager requires that the following applications and components be installed prior to installing the e*Xchange components:

- e*Gate Integrator, at the current 5.0.*x* SRE version
- One of the following:
    - Oracle 8i (Server) (8.1.6 or 8.1.7) or Oracle 9i
    - SQL Server 7.0 (Server) or SQL Server 2000
    - Sybase 11.9 or 12 (Server)
    - DB2 UDB 7.1 or 7.2
- Java Runtime Environment for Java 1.3.x (for the Validation Rules Builder)
- Java SDK version 1.3.x (for the e*Xchange Web interface).
- For running the e*Xchange Web interface, one of the following browser versions:
    - Microsoft Internet Explorer 5.0
    - Microsoft Internet Explorer 5.5

e*Gate Integrator

e*Xchange uses e*Gate as its underlying core technology. In order to run e*Xchange components, the following e*Gate components must be available:

- Registry
- Participating Host
- GUI
- Database-specific e*Ways, as appropriate:
    - Oracle e*Way (for Oracle)
    - Sybase e*Way (for Sybase)
    - ODBC e*Way (for SQL Server, Sybase, or DB2 UDB)
- HTTPS e*Way (Java-enabled)
- Batch e*Way
- e-Mail e*Way
- Java Generic e*Way Extension Kit

- CGI Web Server e*Way (Client and Server)

- e*Gate API Kit

The e*Gate e*Ways are installed as add-ons from the e*Gate Integrator portion of the installation CD. The e*Ways must be installed on an e*Gate Participating Host.

For information on installing e*Gate components, see the *e*Gate Integrator Installation Guide*.

Oracle

- The e*Xchange Oracle database schema must be created in an existing Oracle 8i (8.1.6 or 8.1.7) or 9i instance. This instance can be created using custom settings as required to handle expected throughput and volume of data stored in the e*Xchange schema. For requirements associated with the Oracle instance, see the appropriate Oracle user guide.

- The default disk space for the e*Xchange Oracle schema is 542 MB. You should adjust this as necessary, based on the throughput and storage requirements for your enterprise.

- The hard disk requirement for each Oracle 8i product includes 15 MB which is required to install Java Runtime Environment (JRE) and Oracle Universal Installer on the partition in which the operating system is installed.

SQL Server

- The e*Xchange SQL Server database must be created in an existing SQL Server 7.0 or SQL Server 2000 instance. For requirements associated with the SQL Server instance, see the appropriate SQL Server user guides.

Important: *When creating the SQL Server 2000 database, make sure the data source has been set to verify the authenticity of the login ID using a login ID and password entered by the user.*

*Also, to use SQL Server with e*Xchange, your database must be set to **not** be case-sensitive (this is the default setting).*

Sybase

- For requirements associated with Sybase, see the appropriate Sybase user guides.

Important: *To use Sybase with e*Xchange, your database must be set to **not** be case-sensitive. Since case-sensitive is the default setting, follow the instructions in **"To set a Sybase database to be case-insensitive"** to change the setting.*

To set a Sybase database to be case-insensitive

1 Start Server Config.

2 Click **Configure Adaptive Server**.

3 Select your server and then click **Continue**.

4 Enter the SA login and password and then click **Continue**.

5 Click the **Language** button.

6   Under **Sort Order**, click the **Set Default** button.

7   Select **Dictionary Order, Case Insensitive**.

8   Click the **OK** or **Save** button on each dialog box to save the changes.

DB2 UDB

▪ For requirements associated with DB2 UDB 7.1 or 7.2, see the appropriate DB2 UDB user guides.

3.4.3. Supported Platforms

e*Xchange is available for the following platforms:

▪ Windows 2000 SP2 or SP3, Windows XP SP1a **or SP2**, and Windows Server 2003

▪ HP Tru64 V5.1A

▪ HP-UX 11.0 and HP-UX 11i (PA-RISC)

▪ Sun Solaris 8 and Solaris 9

▪ IBM AIX 5.1L and 5.2

▪ Red Hat Linux Advanced Server 2.1 (Intel x86)

▪ Japanese Windows 2000 SP2 or SP3, Windows XP SP1a **or SP2**, and Windows Server 2003

▪ Japanese HP-UX 11.0 and HP-UX 11i (PA-RISC)

▪ Japanese Solaris 8 and Solaris 9

Important: *The CD is built in a Windows format. To copy a file from the CD to a UNIX machine, first copy the file from the CD to a temporary location on a Windows machine. Then transfer the file via FTP to the applicable UNIX machine. The transfer mode for the FTP operation should be set to "binary".*

3.5   Upgrade Scenario

If you are upgrading from an earlier version of e*Xchange, you must upgrade the database schema in increments. For example, if you are upgrading from version 4.5.1 you must upgrade your database to version 4.5.2 before upgrading to 4.5.3 (which makes it usable in e*Xchange 5.0.*x* SRE). However, you can upgrade the e*Xchange e*Gate schema directly from any version to 4.5.3.

Table 2 summarizes the steps you should take to upgrade from an earlier version of e*Xchange.

There is an additional, conditional step, if you want to use the new HIPAA validation Collaborations. To upgrade your system to use these new Collaborations, you must elect the appropriate Collaboration in each of your Message Profiles, in the Web interface. For more information, refer to **"Installing the e*Xchange HIPAA Solution" on page 25**.

Table 2   Upgrading e*Xchange to 4.5.3 (making it usable at 5.0.x SRE)

If applicable, upgrade your e*Gate version (e*Gate version must be 4.5.1 or later)	See the *e*Gate Integrator Installation Guide*
Upgrade the e*Xchange database schema incrementally from the current version to 4.5.3	In sequence, starting at your current version, refer to the following instructions: ▪ **"Upgrading the Database Schema from 4.1.0 to 4.1.1" on page 118** ▪ **"Upgrading the Database Schema from 4.1.1 to 4.1.2" on page 121** ▪ **"Upgrading the Database Schema from 4.1.2 to 4.5" on page 100**. ▪ **"Upgrading the Database from 4.5 to 4.5.1" on page 104** ▪ **"Upgrading the Database from 4.5.1 to 4.5.2" on page 108** ▪ **"Upgrading the Database from 4.5.2 to 4.5.3" on page 112**.
Update or install the e*Xchange Web Interface.	Installing—see **"Installing the e*Xchange Web Interface" on page 27** Updating—see **"Upgrading the e*Xchange Web Interface on Windows" on page 37**
Install e*Xchange Repository Manager.	See **"Installing the e*Xchange Repository Manager" on page 46**
Update the e*Gate schema version.	See **"Updating the e*Xchange e*Gate Schema" on page 96**
Update the VRB and JRE as necessary.	See **"Additional Installation Requirements" on page 51**
Conditional: if you want to use the new HIPAA validation Collaborations, you must select the appropriate Collaboration in each of your Message Profiles, in the Web interface.	See the *e*Xchange Partner Manager User's Guide*, Chapter 5, Profile Setup for X12.

3.6   Installation at a Glance

The following table summarizes the dependencies between the components, and the order in which to install them. Available platforms are in parentheses.

For information on installing e*Gate components, see the *e*Gate Integrator Installation Guide*.

Table 3 Installation at a Glance

Step	Action	Chapter/Section
1	Install the e*Xchange database schema on a machine that contains an existing (Oracle, SQL Server, Sybase, or DB2 UDB) database instance (Windows or UNIX).	See one of the following: ▪ **"Creating the e*Xchange Database Schema—Oracle" on page 55** ▪ **"Creating the e*Xchange Database—SQL Server" on page 65** ▪ **"Creating the e*Xchange Database—Sybase" on page 75** ▪ **"Creating the e*Xchange Database—DB2 UDB" on page 83**.
2	Install the e*Xchange Web Interface on one or more machines that have a connection to the database (Windows).	See **"Installing the e*Xchange Web Interface" on page 28**.
3	Install the e*Xchange e*Gate schema from a Windows 2000 machine that has a network connection to the e*Gate Registry Host.	See **"Installing the e*Xchange e*Gate Schema" on page 41**.
4	Install e*Xchange Repository Manager	**"Installing the e*Xchange Repository Manager" on page 46**
5	Install the e*Xchange Validation Rules Builder on a machine that contains (or on which you will subsequently install) the correct JRE version. (1.3.x)	See **"Installing the Validation Rules Builder" on page 52**

3.7 Installing the e*Xchange HIPAA Solution

To use the e*Xchange HIPAA solution, you must take the following additional steps when you have completed e*Xchange installation:

▪ Install the HIPAA ETD Library

▪ Install the X12 4010 ETD Library

▪ For upgrades only: If you are upgrading from a previous version of e*Xchange and want to use the Java HIPAA validation Collaborations, you must specify the appropriate Collaboration in each of your message profiles.

The validation Collaboration is specified at the Message Profile level, in the **General** section. Set the following values:

  ◆ In the **Validation Collaboration Type** field, choose **HIPAA**.

  ◆ In the **Validation Collaboration** field, type the name. You must use the name of the Collaboration Rule as defined in the **ewHipaaValidation** e*Way in the e*Gate GUI, rather than the actual validation Collaboration file name.

Note: *If you are using large message support for HIPAA 835 outbound, the validation Collaboration must be set to **HIPAA_2K_835_Outb_validation**. If you are using*

large message support for other transactions, select the appropriate validation Collaboration that you have created.

Installing the e*Xchange Web Interface

This chapter describes the process for installing the e*Xchange Web interface. The installation process installs Apache httpd Server 1.3.19 and Tomcat 3.2.1.

The Apache httpd Server wizard is activated during the installation process.

Tomcat files are copied during the installation process. To complete the configuration Tomcat is started and the **epm.std** file is updated. If the automatic configuration is unsuccessful, you must complete it manually. See **"Manually Configuring Tomcat" on page 32**.

Note: *In order to access a database schema from the e*Xchange Web interface, you must have the database schema installed. For more information, refer to one of the following chapters, according to your database type:*
"Creating the e*Xchange Database Schema—Oracle" on page 55
"Creating the e*Xchange Database—SQL Server" on page 65
"Creating the e*Xchange Database—Sybase" on page 75
"Creating the e*Xchange Database—DB2 UDB" on page 83

4.1 Overview

This chapter provides information on the following items:

- System requirements
- Installing the e*Xchange Web interface on Window
- Manually configuring Tomcat
- Upgrading the e*Xchange Web interface to the current version
- Uninstalling Apache http Server and Tomcat

4.2 System Requirements

The e*Xchange Web interface must be installed on a Windows workstation that can access an Oracle, SQL Server, Sybase, or DB2 UDB database. Additional requirements include:

- Pentium-class CPU, 300 MHz or higher
- Minimum 128 MB RAM
- 70 MB disk space

Driver Requirements

The e*Xchange Web interface needs to connect to the e*Xchange database. Table 4 describes the driver requirements for the supported databases.

Table 4   e*Xchange Web Interface Driver Requirements

Database	Driver	Install Procedure
Oracle	JDBC	Copy **classes12.zip** into \<eXchange>\lib (where <eXchange> is the folder to which you installed e*Xchange). This file is installed as part of the Oracle installation. For example, in Oracle 8.1.6 and 8.1.7 it is installed by default in this folder: **\Oracle\Ora81\jdbc\lib**. **Note**: If you are using Oracle 9i on the server and Oracle 8i on the client, you must copy the Oracle 9i version of **classes12.zip** to the client machine.
SQL Server	Merant JDBC	Automatically installed by the e*Xchange Web interface installation.
Sybase	Merant JDBC	Automatically installed by the e*Xchange Web interface installation.
DB2 UDB	JDBC	The **db2java.zip** file should be located in %DB2TEMPDIR%\JAVA. This is installed as part of the DB2 UDB installation (Client or Server).

4.3 Installing the e*Xchange Web Interface

This section provides installation instructions for installing the e*Xchange Web interface with the various supported databases.

Before installing

Before you start the installation procedure, make sure the following conditions are in place:

- You must have Administrator privileges to install the e*Xchange Web interface.
- Exit all Windows programs, including any anti-virus applications.
- Verify your database type and setup.
- You must have Java SDK version 1.3x. This is required for running the Tomcat Web server. If it is not installed on your machine, do the following:
    - Download it from the Java Web site at this address:
      http://java.sun.com/j2se/1.3/download-windows.html
    - Install Java SDK by running the downloaded file

After installing

After you have installed the e*Xchange Web interface, perform the following additional steps before starting Tomcat and running the Web interface:

- Make sure you have copied over the correct driver for the database you are using, as specified in **"e*Xchange Web Interface Driver Requirements" on page 28**.
- Copy **tools.jar** (located in the **lib** directory created by installation of Java SDK) to the **\eXchange\lib** folder.

4.3.1. Installing the e*Xchange Web Interface on Windows

To install the e*Xchange Web interface on Windows

1 Make sure you have completed the steps listed in **"Before installing" on page 29**.

2 Log on to the workstation on which you want to install the Web interface.

3 Insert the installation CD into the CD-ROM drive.

    If Autorun is enabled, the setup program automatically starts. Otherwise:

    - On the task bar, click the **Start** button, and then click **Run**.
    - In the **Open** field, type **D:\setup\setup.exe** where **D:** is your CD-ROM drive.

4 Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

*Note: The **Software License Agreement** appears twice during the installation process, and must be accepted to continue with the installation.*

5 When the **User Information** dialog box appears, enter the user name and company for which this software is installed, and then click **Next**.

6 In the **Please choose the product to install** dialog box, select the **e*Xchange Partner Manager** check box, and then click **Next**.

   The **Check Setup Information** dialog box appears.

Note: *Selecting the e*Gate Integrator check box installs e*Gate components, some of which are required for e*Xchange. This guide does not cover installation of those components. For information on installing e*Gate components, refer to the **e*Gate Integrator Installation Guide**.*

7 In the **Check Setup Information** dialog box, confirm that the **e*Xchange** component has been selected, and then click **Next**.

   This launches the **e*Xchange** portion of the setup wizard.

8 Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

9 In the **User Information** dialog box, enter the user name and company for which this software is installed, and then click **Next**.

10 In the **Choose Destination Location** dialog box, click **Browse** to change the destination folder; otherwise, click **Next** to continue.

11 Select **e*Xchange Web Interface**, and then click **Next**.

   The **Check Setup Information** dialog box appears.

12 Review the installation information, and then click **Next**.

   The **Select e*Xchange Partner Manager Web Interface Install/Upgrade** dialog box appears.

13 Select **Full Install**.

   The **Select Database Server to support e*Xchange Web Interface** dialog box appears.

   In the **Select Database Server to support e*Xchange Web Interface** dialog box, select the database type, and then click **Next**. The following screens depend on the type of database selected. Refer to the following sections:

Database	Section
Oracle	**"To install the e*Xchange Web interface on Oracle" on page 31**
SQL Server	**"To install the e*Xchange Web interface on SQL Server" on page 31**
Sybase	**"To install the e*Xchange Web interface on Sybase" on page 31**
DB2 UDB	**"To install the e*Xchange Web interface on DB2 UDB" on page 31**

14 When done, complete the steps listed in **"After installing" on page 29** before attempting to run the e*Xchange Web interface.

To install the e*Xchange Web interface on Oracle

1   In the **e*Xchange Partner Manager Database Information** dialog box, enter the name and host to identify the database, and then click **Next**.

Note: *The name does not need to match the SID for the database.*

2   In the second **e*Xchange Partner Manager Database Information** dialog box, enter the port number and Oracle SID for the database, and then click **Next**.

Continue with **"To install the Apache httpd Server" on page 31**.

To install the e*Xchange Web interface on SQL Server

1   In the **e*Xchange Partner Manager Database Information** dialog box, enter the name and host to identify the database, and then click **Next**.

Note: *The name does not need to match the database name.*

2   In the second **e*Xchange Partner Manager Database Information** dialog box, enter the port number and database name, and then click **Next**.

Continue with **"To install the Apache httpd Server" on page 31**.

To install the e*Xchange Web interface on Sybase

1   In the **e*Xchange Partner Manager Database Information** dialog box, enter the name and host to identify the database, and then click **Next**.

Note: *The name does not need to match the database name.*

2   In the second **e*Xchange Partner Manager Database Information** dialog box, enter the port number and database name, and then click **Next**.

Continue with **"To install the Apache httpd Server" on page 31**.

To install the e*Xchange Web interface on DB2 UDB

1   In the **e*Xchange Partner Manager Database Information** dialog box, enter the name to identify the database, and then click **Next**.

Note: *The name does not need to match the database name.*

2   In the second **e*Xchange Partner Manager Database Information** dialog box, enter the database name, and then click **Next**.

Continue with **"To install the Apache httpd Server"**.

To install the Apache httpd Server

1   The Apache httpd Server Installation Wizard starts automatically. Follow the installation wizard, taking the default options.

Note: *The default directory for Apache httpd Server is **C:\Program Files\Apache Group**. You can change this location if required.*

Note: *If you cancel the Apache httpd Server Installation Wizard because Apache is already installed, you might see a message warning that the Apache service is not started. You can ignore this message.*

2 Click **Finish** to exit the Apache httpd Server Installation Wizard.

An Information dialog appears to inform you where to direct your browser.

3 In the **Setup Complete** dialog box, click **Finish** to complete the e*Xchange Web Interface installation.

4 In the second **Setup Complete** dialog box, select whether to reboot the computer now or later, and then click **Finish** to complete the installation process.

Note: *If the installation is successful, Tomcat is automatically started. To determine whether Tomcat has been started, check that the file **mod_jk.conf-auto** exists. The default location for this file is **C:\eXchange\tomcat-3.2.1\conf**. The default file location is based on the assumption that e*Xchange has been installed into **C:\eXchange**.*

Important: *If the file does not exist, follow the instructions in* **"Manually Configuring Tomcat" on page 32***.*

4.3.2. Manually Configuring Tomcat

Follow this procedure only if the automatic configuration of Tomcat has not been successful.

To manually configure Tomcat

1 Start Tomcat by running **startup.bat,** either from a command prompt or by double-clicking on the file in Windows Explorer.

The default location for this file is **C:\eXchange\tomcat-3.2.1\bin**.

2 Check that the file **mod_jk.conf-auto** exists to ensure that Tomcat has been started.

The default location for this file is **C:\eXchange\tomcat-3.2.1\conf**.

3 Modify **epm.std** to include information about your database. The default location for this file is **C:\eXchange\tomcat-3.2.1\webapps\stcepmweb\web-inf**. Ensure that the parameters are configured correctly for your database. Example configurations are shown below.

Note: *The status is set to **D** (Disabled) for the examples in this file. Change to **A** (Active) for all database connections that you copy from these examples.*

Oracle

```
<server>
  <name>ORACLE SAMPLE2</name>
  <description>Oracle Server SERVERNAME.DOMAIN.COM Using Web
Login for Database Connection</description>
  <status>D</status>
  <url>jdbc:oracle:thin:@db-host:1521:db-sid</url>
</server>
```

SQL Server

```
<server>
    <name>SQLSERVER SAMPLE1</name>
    <status>D</status>
    <url>jdbc:SeeBeyond:sqlserver://db-host:1433;DatabaseName=db-
name;embedded=true</url>
    <username>******</username>
    <password>******</password>
</server>
```

Sybase

```
<server>
    <name>SYBASE SAMPLE1</name>
    <status>D</status>
    <url>jdbc:SeeBeyond:sybase://db-host:5000;DatabaseName=db-
name;embedded=true</url>
    <username>******</username>
    <password>******</password>
</server>
```

DB2 UDB

```
<server>
    <name>DB2 SAMPLE</name>
    <description>DB2 Database</description>
    <status>D</status>
    <url>jdbc:db2:db-name</url>
    <username>******</username>
    <password>******</password>
</server>
```

4 Start the Apache service. Click the **Start** menu, point to **Programs**, point to **Apache httpd Server**, point to **Control Apache Server**, and then click **Start**.

5 Start your Web browser and enter the URL given on completion of the e*Xchange Partner Manager Web Interface Installation. By default this is:

http://localhost/stcepmweb/login_form.jsp

To shut down the Apache httpd Server

▪ To stop the Apache service, click the **Start** menu, point to **Programs**, point to **Apache httpd Server**, point to **Control Apache Server**, and then click **Stop**.

Shutting down Tomcat

▪ To shut down Tomcat run **shutdown.bat**, either from the command prompt or by double-clicking. The default location for this file is **C:\eXchange\tomcat-3.2.1\bin**.

4.3.3. Installing the e*Xchange Web Interface on UNIX

Use these instructions to install the Web Interface on UNIX with an Apache Tomcat web server. You must have Apache Tomcat installed before you install the web interface.

Install the Web Interface on UNIX

1 Verify that Apache Tomcat is installed on the machine where you are installing the e*Xchange Web Interface.

2 Set these environment variables:

```
setenv JAVA_HOME <Java Installation Directory>
setenv CATALINA_HOME <Tomcat Installation Directory>
setenv EX_HOME <eXchange Installation Directory>
```

3   Copy the appropriate database drivers into "$EX_HOME"/lib:

Table 5   Drivers

Driver Name	Description
classes12.zip	Oracle JDBC driver, not provided
runtime.zip	DB2 JDBC Driver, not provided
db2java.zip	DB2 JDBC Driver, not provided
DGbase.jar	Merant JDBC Driver
DGutil.jar	Merant JDBC Driver
DGsybase.jar	Merant JDBC Driver
DGsqlserver.jar	Merant JDBC Driver

4   Set classpath in "$CATALINA_HOME"/bin/setclasspath.sh and replace.

```
CLASSPATH="$JAVA_HOME"/lib/tools.jar
```

with:

```
CLASSPATH="$JAVA_HOME"/lib/tools.jar:"$EX_HOME"/lib/
classes12.zip:"$EX_HOME"/lib/db2java.zip:"$EX_HOME"/lib/
runtime.zip:"$EX_HOME"/lib/DGbase.jar:"$EX_HOME"/lib/
DGutil.jar:"$EX_HOME"/lib/DGsqlserver.jar:"$EX_HOME"/lib/
DGsybase.jar
```

5   Start Tomcat with the following commands:

```
cd $CATALINA_HOME/bin
startup.sh
```

6   Test the Tomcat installation from a web browser:

```
http://www.my-server.com:port-number
```

Tomcat's welcome page displays.

Note: *The default port number is 8080. See* **"Troubleshooting the Web Interface install on UNIX" on page 35** *if this step is unsuccessful.*

7   Copy stcepmweb.war to

```
<tomcat_install_directory>/webapps
```

8   Restart Tomcat with the following commands:

```
cd $CATALINA_HOME/bin
shutdown.sh
startup.sh
```

This step will produce a new directory:

```
<tomcat_install_directory>/webapps/stcepmweb
```

9   Modify database connections in file:

```
<tomcat_install_directory>/webapps/stcepmweb/WEB-INF/epm.std
```

10 Test the e*Xchange Web Interface from a web browser:

```
http://www.my-server.com:port-number/stcepmweb/login_form.jsp
```

The login page for the e*Xchange web interface displays.

11 Login and run the e*Xchange Web Interface application.

12 Stop Tomcat with the following commands:

```
cd $CATALINA_HOME/bin
shutdown.sh
```

Troubleshooting the Web Interface install on UNIX

Case One: Tomcat fails to start

▪ Check the log file:

```
$CATALINA_HOME/logs/catalina.out.
```

▪ If there is a port binding error, please change the port number in:

```
$CATLINA_HOME/conf/server.xml
```

Sample error message in catalina.out

```
Catalina.start: LifecycleException:  null.open:
java.net.BindException: Address already in use:8080
LifecycleException:  null.open:  java.net.BindException: Address
already in use:8080
    at
    rg.apache.catalina.connector.http.HttpConnector.initialize(HttpCon
    nector.java:1130)
    at
    org.apache.catalina.core.StandardService.initialize(StandardServic
    e.java:454)
    at
    org.apache.catalina.core.StandardServer.initialize(StandardServer.
    java:553)
    at org.apache.catalina.startup.Catalina.start(Catalina.java:780)
----- Root Cause -----
java.net.BindException: Address already in use:8080
    at
    org.apache.catalina.connector.http.HttpConnector.open(HttpConnecto
    r.java:950)
    at
    org.apache.catalina.connector.http.HttpConnector.initialize(HttpCo
    nnector.java:1128)
    at
    org.apache.catalina.core.StandardService.initialize(StandardServic
    e.java:454)
    at
    org.apache.catalina.core.StandardServer.initialize(StandardServer.
    java:553)
```

Solution

Change the code section in $CATALINA_HOME/config/server.xml: change 8080 to another port.

```
<!-- Define a non-SSL HTTP/1.1 Connector on port 8080 -->
```

```
<Connector
className="org.apache.catalina.connector.http.HttpConnector"
   port="8080" minProcessors="5" maxProcessors="75"
   enableLookups="true" redirectPort="8443"
   acceptCount="10" debug="0" connectionTimeout="60000"/>
```

Note: *To disable connection time-outs, set connectionTimeout value to -1.*

Case Two: The Web Interface fails

If the Web Interface fails, check the log file for details:

```
$CATALINA_HOME/logs/ localhost_access_log.yyyy-mm-dd
```

4.4   Upgrading the e*Xchange Web Interface

Before you begin:

- You must have Administrator privileges to upgrade the e*Xchange Web interface.

- Exit all Windows programs, including any anti-virus applications.

- Verify your database type and setup.

- You must have Java SDK version 1.3x. This is required for running the Tomcat Web server. If it is not installed on your machine, do the following:

  - Download it from the Java Web site at this address:
    http://java.sun.com/j2se/1.3/download-windows.html

  - Install Java SDK by running the downloaded file

  - Make sure that your JAVA_HOME environment variable is pointing to the location of the **tools.jar** file. Copy **tools.jar** (located in the **lib** directory created by installation of Java SDK) to your e*Xchange folder: for example, **C:\eXchange\jre\1.3\lib**.

- If Tomcat is running, shut it down.

- If the Apache service is running, shut it down.

- In Control Panel, Add/Remove programs, remove the Apache program.

- Rename the \<eXchange>\tomcat-3.2.1\webapps\stcepmweb folder (you can delete it later).

- In \Program Files\Apache Group, delete the Apache subfolder. This will ensure you have a clean installation of Apache.

- Now follow the installation instructions, selecting **Full Install**.

- When installation is done, perform the following two steps, in sequence:

  - Run <eXchange>\tomcat-3.2.1\bin\startup.bat to run Tomcat. The stcepmweb folder is automatically created.

  - Copy **epm.std** from the backed up \tomcat-3.2.1\webapps\stcepmweb\WEB-INF to the new one.

4.4.1. Upgrading the e*Xchange Web Interface on Windows

To upgrade the e*Xchange Web interface on Windows

1 Log on to the workstation on which you want to upgrade the schema.

2 Insert the installation CD into the CD-ROM drive.

   If Autorun is enabled, the setup program automatically starts. Otherwise:

   ◆ On the task bar, click the **Start** button, and then click **Run**.

   ◆ In the **Open** field, type **D:\setup\setup.exe** where **D:** is your CD-ROM drive.

3 Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

Note: *The **Software License Agreement** appears twice during the installation process, and must be accepted to continue with the installation.*

4 When the **User Information** dialog box appears, enter the user name and company for which this software is installed, and then click **Next**.

5 In the **Please choose the product to install** dialog box, select the **e*Xchange Partner Manager** check box, and then click **Next**.

   The **Check Setup Information** dialog box appears.

Note: *Selecting the e*Gate Integrator check box installs e*Gate components, some of which are required for e*Xchange. This guide does not cover installation of those components. For information on installing e*Gate components, refer to the **e*Gate Integrator Installation Guide**.*

6 In the **Check Setup Information** dialog box, confirm that the **e*Xchange** component has been selected, and then click **Next**.

   This launches the **e*Xchange** portion of the setup wizard.

7 Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

8 In the **User Information** dialog box, enter the user name and company for which this software is installed, and then click **Next**.

9 In the **Choose Destination Location** dialog box, click **Browse** to change the destination folder; otherwise, click **Next** to continue.

10 In the **Select Components** dialog box, select the **e*Xchange Web Interface**, and then click **Next**.

   The **Check Setup Information** dialog box appears.

11 Review the installation information, and then click **Next**.

   The **Select e*Xchange Partner Manager Web Interface Install/Upgrade** dialog box appears.

12 Select **Upgrade From a Previous Version**.

The **Select Database Server to support e*Xchange Web Interface** dialog box appears.

13 Select the database type, and then click **Next**.

The **e*Xchange Partner Manager Database Information** dialog box appears.

14 Set values for the database, as shown below, and then click **Next**.

   ◆ Oracle, SQL Server, or Sybase—The name and host to identify the database. The name you enter does not need to match the actual database name or SID.

   ◆ DB2 UDB—The name to identify the database.

The second **e*Xchange Partner Manager Database Information** dialog box appears.

15 Set additional values for the database, as shown below, and then click **Next**.

   ◆ Oracle—the port number and OracleSID for the database

   ◆ SQL Server—the port number and database name

   ◆ Sybase—the port number and database name

   ◆ DB2 UDB—The database name

16 In the **Setup Complete** dialog box, click **Finish** to complete the e*Xchange Web interface installation.

17 In the second **Setup Complete** dialog box, select whether to reboot the computer now or later, and then click **Finish** to complete the installation process.

To upgrade the e*Xchange Web interface on DB2 UDB

18 In the second **e*Xchange Partner Manager Database Information** dialog box, enter the database name, and then click **Next**.

19 In the **Setup Complete** dialog box, click **Finish** to complete the e*Xchange Web interface installation.

20 In the second **Setup Complete** dialog box, select whether to reboot the computer now or later, and then click **Finish** to complete the installation process.

4.4.2. Updating the CLASSPATH Environment Variable

If you are upgrading from version 4.5.1 to the current version, you might find that there are entries in your CLASSPATH that are no longer required. You can remove the following **CLASSPATH** environment variable references that might be left over from running the 4.5.1 version of the e*Xchange Web interface:

▪ %TOMCAT_HOME%

▪ stcepmapi.jar

▪ stcepmbean.jar

4.4.3. Backing Up Information

The upgrade process creates the directory \<eXchange>\Backup (where <eXchange> is the folder to which you installed e*Xchange) and copies the following files from the previous version to this location:

- epm.std

- jar files

- war files

If you are manually configuring Tomcat, you can copy the information about your database from the backed up version of **epm.std**. For more information on the location of this file and the information that is required, refer to Step 3 of **"To manually configure Tomcat" on page 32**. Copy the appropriate entries from the backed up epm.std file to the new one created by the upgrade.

4.5 Uninstalling Apache httpd Server

To remove Apache httpd Server, use Add/Remove Programs from the Control Panel.

Note: *Before reinstalling Apache httpd Server ensure that all Apache files have been deleted. By default they are in* **C:\Program Files\Apache Group**.

Note: *Since Apache and Tomcat files are used together, it is recommended that if you delete Apache files, you also remove Tomcat files, as explained in* **"Uninstalling Tomcat" on page 39**.

4.6 Uninstalling Tomcat

To uninstall Tomcat, you must first uninstall the Apache httpd Server. For more information, see **"Uninstalling Apache httpd Server" on page 39**. Once Apache has been uninstalled, simply delete the Tomcat files. The default location for these is **C:\eXchange\tomcat-3.2.1**.

Installing the e*Xchange e*Gate Schema

This chapter describes the process for installing the e*Xchange e*Gate schema, which consists of the eXSchema. In e*Gate, A schema is a configuration scheme that contains all of the modules and configuration parameters that control, route, and transform data as it travels through the e*Gate system. Schemas also maintain the relationships between the components, including the publish/subscribe information that is the heart of the data transportation process.

*Note: For information on e*Gate installation procedures, refer to the **e*Gate Integrator Installation Guide**.*

5.1 Overview

This chapter provides information on the following items:

- System Requirements
- Installing the e*Gate e*Xchange schema on Windows
- Installing the e*Gate e*Xchange schema on UNIX

5.2 System Requirements

The e*Xchange e*Gate schema must be installed on a Windows workstation. Additional requirements include:

- Pentium-class CPU, 300 MHz or higher
- Minimum 128 MB RAM
- 70 MB disk space

Driver Requirements

The e*Gate schema for e*Xchange needs to connect to the e*Xchange database. The table below describes the driver requirements for the supported databases.

Table 6   e*Gate Schema for e*Xchange Driver Requirements

Database	Driver	Install Procedure
Oracle	Oracle	Installed as part of the Oracle installation (Client or Server).
SQL Server	ODBC	Installed as part of the SQL Server installation (Client or Server). For information on configuring the ODBC connection see **"Creating the SQL Server ODBC Connection" on page 72**.
Sybase	Sybase or ODBC	Install Sybase client software. For information on configuring the ODBC connection see **"Creating the Sybase ODBC Connection" on page 82**.
UDB	ODBC	Installed as part of the UDB installation (Client or Server). For information on configuring the ODBC connection see **"Creating the DB2 UDB ODBC Connection" on page 94**.

5.3   Installing the e*Xchange e*Gate Schema

Before you begin:

- You must have Administrator privileges to install the e*Xchange e*Gate schema.

- Exit all Windows programs, including any anti-virus applications.

- Verify your e*Gate Registry host name, schema name, Control Broker logical name, administrator user name, and administrator password.

- Add the following to the PATH statement on the machine on which the e*Gate Participating Host is installed:

```
<location of egate>\client\JRE\1.3\bin\hotspot
```

*Note: If you think your path might already include a pointer to a prior version of the **jvm.dll** file, add the above information at the beginning of your path to be sure it takes precedence.*

5.3.1. Installing the e*Xchange e*Gate Schema on Windows

To install the e*Gate e*Xchange schema on Windows

1 Log on to the workstation on which you want to install the schema.

2 Insert the installation CD into the CD-ROM drive.

   If Autorun is enabled, the setup program automatically starts. Otherwise:

   ◆ On the task bar, click the **Start** button, and then click **Run**.

    ◆ In the **Open** field, type **D:\setup\setup.exe** where **D:** is your CD-ROM drive.

3 Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

Note: *The **Software License Agreement** appears twice during the installation process, and must be accepted to continue with the installation.*

4 When the **User Information** dialog box appears, enter the user name and company for which this software is installed, and then click **Next**.

5 In the **Please choose the product to install** dialog box, select the **e*Xchange Partner Manager** check box, and then click **Next**.

    The **Check Setup Information** dialog box appears.

Note: *Selecting the e*Gate Integrator check box installs e*Gate components, some of which are required for e*Xchange. This guide does not cover installation of those components. For information on installing e*Gate components, refer to the **e*Gate Integrator Installation Guide**.*

6 In the **Check Setup Information** dialog box, confirm that the **e*Xchange** component has been selected, and then click **Next**.

    This launches the **e*Xchange** portion of the setup wizard.

7 Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

8 In the **User Information** dialog box, enter the user name and company for which this software is installed, and then click **Next**.

9 In the **Choose Destination Location** dialog box, click **Browse** to change the destination folder; otherwise, click **Next** to continue.

10 In the **Select Components** dialog box, select the **e*Xchange eGate schema** check box.

11 Highlight **e*Xchange eGate Schema**.

12 Conditional step: If you do *not* want to install the eSecurity Manager, click **Change** to access the **Select Sub-components** dialog box, clear the **eSecurity Manager** check box, and then click **Continue**.

13 Click **Next**.

    The **Check Setup Information** dialog box appears.

14 Click **Next**.

    The **Registry Host and Schema** dialog box appears.

15 In the **Registry Host and Schema** dialog box, enter the name of the e*Gate Registry host and schema to which you want to add the e*Xchange back-end components.

    If you are using a port other than the default (23001), you must specify the port as part of the Registry Host name. For example, if the Registry Host name is **mymachine** and you are using port **15277**, type **mymachine:15277** in the **Host** field.

16   Click **Next**.

17   In the **Administrator Account Information** dialog box, enter the administrator **Username** and **Password**, and password confirmation, and then click **Next**.

18   In the **Control Broker Logical Name** dialog box, keep the default (*machine name_cb*) or type a new logical name for the Control Broker for which you want to add the e*Xchange eGate schema components, and then click **Next**.

19   In the **Select e*Gate platforms to support e*Xchange** dialog box, select the client platform that the e*Gate Registry will support, and then click **Next**.

        The setup program begins installing the files on your machine.

Important: *In order for the e*Gate Registry to support the operating system of a Participating Host running one or more of the e*Xchange back-end components, you must select the operating system of that host. At this point you can install more than one platform, if necessary. However, the more you install, the greater the system resources that are used.*

20   In the **Setup Complete** dialog box, click **Finish** to complete the e*Xchange e*Gate schema installation.

21   In the second **Setup Complete** dialog box, select whether to reboot the computer now or later, and then click **Finish** to complete the installation process.

5.3.2. Installing the e*Xchange e*Gate Schema on UNIX

This section explains how to install the schema on UNIX. You can install the e*Xchange e*Gate schema on UNIX from a Windows machine.

Note: *If you are installing the e*Xchange eGate schema on a UNIX platform, you must set up the environment first, including setting the TEMP environment. For example, if the temporary working directory is SMIME_TEMP, make a directory "SMIME_TEMP" and then use one of the following commands.*

      export TEMP=~/SMIME_TEMP (korn shell)

      setenv TEMP ~/SMIME_TEMP (c-shell)

Note: *AIX has a single segment memory allocation limit of 256 MB per process by default. This can cause problems when processing large messages. You can increase the memory allocation limit to 2 GB by setting the following environment variable.*

      LDR_CNTRL=MAXDATA=0x20000000

Note: *Compaq TRU64 has a memory allocation limit at the user level that can cause problems when processing large messages. If necessary, use the following commands to increase the maximum data area.*

          ◆ *ulimit -a — indicates the current user settings*

          ◆ *ulimit -H — indicates the maximum allowed hard limits for the specified values*

◆ *ulimit -d NNNNN — sets the data area to the specified value, which must be under the value specified in ulimit -H*

Contact your system administrator to determine what these values should be for your system.

To install the schema on UNIX

1 Log on to the Windowsworkstation which you want to use to install the UNIX schema.

2 Insert the installation CD into the CD-ROM drive.

   If Autorun is enabled, the setup program automatically starts. Otherwise:

   ◆ On the task bar, click the **Start** button, and then click **Run**.

   ◆ In the **Open** field, type **D:\setup\setup.exe** where **D:** is your CD-ROM drive.

3 Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

*Note: The **Software License Agreement** appears twice during the installation process, and must be accepted to continue with the installation.*

4 When the **User Information** dialog box appears, enter the user name and company for which this software is installed, and then click **Next**.

5 In the **Please choose the product to install** dialog box, select the **e*Xchange Partner Manager** check box, and then click **Next**.

*Note: Selecting the e*Gate Integrator check box installs e*Gate components, some of which are required for e*Xchange. This guide does not cover installation of those components. For information on installing e*Gate components, refer to the **e*Gate Integrator Installation Guide**.*

   The **Check Setup Information** dialog box appears.

6 Confirm that the **e*Xchange** component has been selected, and then click **Next**.

   This launches the **e*Xchange** portion of the setup wizard.

7 Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

8 In the **User Information** dialog box, enter the user name and company for which this software is installed, and then click **Next**.

9 In the **Choose Destination Location** dialog box, click **Browse** to change the destination folder; otherwise, click **Next** to continue.

10 In the **Select Components** dialog box, select the **e*Xchange eGate Schema** check box.

11 Highlight **e*Xchange eGate Schema**, and then click **Change**.

   The **Select Sub-components** dialog box appears, listing the subcomponents of the e*Xchange e*Gate schema.

12 In the **Select Sub-components** dialog box, select the **eSecurity Manager** check box
    to install this component.

13 Click **Continue** to return to the **Select Components** dialog box, and then click **Next**.

    The **Check Setup Information** dialog box appears.

14 Review the installation information for the e*Xchange e*Gate schema components,
    and then click **Next**.

    The **Registry Host and Schema** dialog box appears.

15 In the **Registry Host and Schema** dialog box, enter the **UNIX Hostname** and
    Schema to which you want to add the e*Xchange back-end components, and then
    click **Next**.

16 In the **Administrator Account Information** dialog box, enter the administrator
    Username and **Password**, and **password confirmation**, and then click **Next**.

17 In the **Control Broker Logical Name** dialog box, type the **UNIX** host name as the
    CB Logical Name, and then click **Next**.

18 In the **Select e*Gate platforms to support e*Xchange** dialog box, select the client
    platform that the e*Gate Registry will support, and then click **Next**.

    The setup program begins installing the files on your machine.

Note: *In order for the e*Gate Registry to support the operating system of a Participating
          Host running one or more of the e*Xchange e*Gate schema components, you must
          select the operating system of that host. At this point you can install more than one
          UNIX platform, if necessary. However, the more you install, the greater the system
          resources that are used.*

19 In the **Setup Complete** dialog box, click **Finish** to complete the e*Xchange e*Gate
    schema installation.

20 In the second **Setup Complete** dialog box, select whether you want to reboot the
    computer now or later, and then click **Finish** to complete the installation process.

Installing the e*Xchange Repository Manager

This chapter describes the process for installing the e*Xchange Repository Manager. The Repository Manager GUI allows the user to import and export trading partner profiles and to archive and de-archive messages stored in the message tracking facility.

You can install the e*Gate and e*Xchange GUIs in any order and at any point in the installation process, since they are not dependent on any other e*Gate or e*Xchange component. Each GUI can be installed on any Windows machine that contains the appropriate necessary software. However, the installation of the e*Xchange Repository Manager requires information about the database to which you are connecting.

6.1 Overview

This chapter provides information on the following items:

- System Requirements
- Installing the e*Xchange Repository Manager GUI

6.2 Driver Requirements

The e*Xchange Repository Manager needs to connect to the e*Xchange database. Table 7 describes the driver requirements for the supported databases.

Table 7   e*Xchange Repository Manager Driver Requirements

Database	Driver	Install Procedure
Oracle	JDBC	Copy **classes12.zip** into \<eXchange>\lib (where <eXchange> is the folder to which you installed e*Xchange). This file is installed as part of the Oracle installation. For example, in Oracle 8.1.6 and 8.1.7 it is installed by default in this folder: **\Oracle\Ora81\jdbc\lib**. **Note**: If you are using Oracle 9i on the server and Oracle 8i on the client, you must copy the Oracle 9i version of **classes12.zip** to the client machine.
SQL Server	Merant JDBC	Installed as part of the e*Xchange Repository Manager installation.
Sybase	Merant JDBC	Installed as part of the e*Xchange Repository Manager installation.
DB2 UDB	JDBC	The **db2java.zip** file should be located in %DB2TEMPDIR%\JAVA. This is installed as part of the DB2 UDB installation (Client or Server).

6.3   Using the Installation Wizard

You can install the entire SeeBeyond eBusiness Integration Suite, or selected components, using an installation wizard. The setup applications are based upon InstallShield wizards.

Note: *The instructions presume that the reader is familiar with InstallShield's* **Back**, **Next**, **Cancel**, **Yes**, **No**, *and* **Finish** *buttons. Select the appropriate control as you finish entering any required information as each dialog box appears.*

6.4   Installing the e*Xchange Repository Manager GUI

Before you begin:

- You must have Administrator privileges to install the e*Xchange GUIs.
- Exit all Windows programs, including any anti-virus applications.

To install the Repository Manager

1   Log on to the workstation on which you want to install the GUIs.

2   Insert the installation CD into the CD-ROM drive.

If Autorun is enabled, the setup program automatically starts. Otherwise:

- On the task bar, click the **Start** button, and then click **Run**.

- In the **Open** field, type **D:\setup\setup.exe** where **D:** is your CD-ROM drive.

3   Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

4   When the **User Information** dialog box appears, enter the user name and company for which this software is installed, and then click **Next**.

5   In the **Please choose the product to install** dialog box, select the **e*Xchange Partner Manager** check box, and then click **Next**.

The **Check Setup Information** dialog box appears.

Note: *Selecting the e*Gate Integrator check box installs e*Gate components, some of which are required for e*Xchange. This guide does not cover installation of those components. For information on installing e*Gate components, refer to the **e*Gate Integrator Installation Guide**.*

6   Confirm that the **e*Xchange** component has been selected, and then click **Next**.

This launches the **e*Xchange** portion of the setup wizard.

7   Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

8   In the **User Information** dialog box, enter the user name and company for which this software is installed, and then click **Next**.

9   In the **Choose Destination Location** dialog box, click **Browse** to change the destination folder; otherwise, click **Next** to continue.

10 In the **Select Components** dialog box, select *only* **e*Xchange Repository Manager**, and then click **Next**.

The **Check Setup Information** dialog box appears.

11 Confirm that the **e*Xchange Repository Manager** component has been selected, and then click **Next**.

This launches the **e*Xchange** portion of the setup wizard.

12 In the **Select Program Folder** dialog box, review the name of the default program folder for the e*Xchange Partner Manager; keep or change as needed, and then click **Next**.

The **Select Database Server to support e*Xchange Repository Manager** dialog box appears.

13 Select the database type, and then click **Next**.

The **e*Xchange Partner Manager Database Information** dialog box appears.

14 Set values for the database, as shown below, and then click **Next**.

- Oracle, SQL Server, or Sybase—The name and host to identify the database. The name you enter does not need to match the actual database name or SID.

- DB2 UDB—The name to identify the database.

The second **e*Xchange Partner Manager Database Information** dialog box appears.

15 Set additional values for the database, as shown below, and then click **Next**.

- ◆ Oracle—the port number and OracleSID for the database

- ◆ SQL Server—the port number and database name

- ◆ Sybase—the port number and database name

- ◆ DB2 UDB—The database name

16 In the **Setup Complete** dialog box, click **Finish** to complete the e*Xchange Repository Manager installation.

17 In the second **Setup Complete** dialog box, select whether to reboot the computer now or later, and then click **Finish** to complete the installation process.

Note: *You must reboot your computer for the changes to take effect.*

6.5 Configuring More Than One Database

During installation, the e*Xchange Repository Manager is configured for one database. However, you can set it up to access multiple databases. To do this, you must add entries to the **epm.ini** file.

To set up the Repository Manager to access an additional database

1 Open up the following file in a text editor such as Notepad:

\<eXchange>\eRM\epm.ini

The file includes four sample entries, plus the one valid database entry that was set up during installation. A sample entry is shown in Figure 4. Note that this entry is commented out with the # signs at the beginning of each line. If you use an existing entry as the basis for a new one, remember to take out the # signs or your entry will not work.

Figure 4 epm.ini File


```
#[Database1]
#DBMS=Oracle
#ServerName=<Your server name here>
#DisplayName=<Your display name here>
#DatabaseName=<Your database name here>
#Port=<Port number>
```
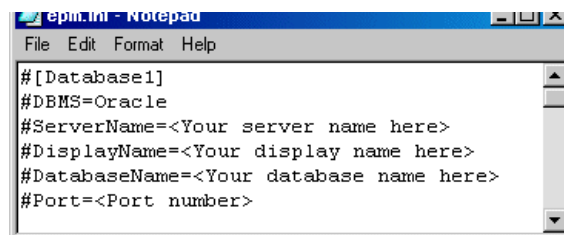
2 At the bottom of the file, add an entry. Your database should be tagged as [Database1], so make the new entry [Database2]. Replace the default values with the actual values for your database, as shown in Table 8.

Table 8 Setting Values for an Additional Database in Repository Manager

Set this value…	to this…
DBMS=	The DBMS name. For example: DBMS=eX453
ServerName=	The server name. For example: ServerName=MainServer
DisplayName=	The display name for the database. For example: DisplayName=eX453
DatabaseName=	The name of the database. For example: DatabaseName=eX453
Port=	The port number for the database. For example: Port=1234 **Note**: Port number is required for all database types except DB2 UDB.

3 Save and close the **epm.ini** file.

4 Restart the e*Xchange Repository Manager.

The new database is now available for selection in the **Server** drop-down list.

Additional Installation Requirements

This chapter describes the process for installing the Validation Rules Builder tool, which is used to create custom validation Collaborations from user-supplied Standard Exchange Format (SEF) files, as well as the installation of the JRE version 1.3.x. The chapter also describes where Java 1.3 is installed automatically.

7.1 Overview

This chapter provides information on the following items:

- System Requirements
- Installing the Validation Rules Builder
- Installing the Java Runtime Environment (version 1.3.x)

7.2 System Requirements

- The Validation Rules Builder in e*Xchange requires the Java Runtime Environment (JRE) for Java 1.3.x.

7.3   Installing the Validation Rules Builder

The Validation Rules Builder is a tool for converting X12 and UN/EDIFACT EDI implementation guide files into a format compatible for use with e*Xchange. This conversion tool accepts Standard Exchange Format (SEF) version 1.4 or 1.5 files and converts them into Monk e*Gate Event Type Definition (ETD) files (**.ssc** files) and Monk Collaboration Rules files (**.tsc** files).

See the *e*Xchange Partner Manager User's Guide* for more information on the Validation Rules Builder and the files associated with it.

7.3.1. Validation Rules Builder File List

The e*Xchange installation CD contains all files necessary to install the Validation Rules Builder. All files are located in the **\setup\eXchange\ValidationRulesBuilder** directory. The Validation Rules Builder in e*Xchange requires the Java Runtime Environment (JRE) for Java 1.3.x in order to run. For information on where to obtain the 1.3.x version JRE, see **"Installing the Java Runtime Environment" on page 53**.

Table 9   Validation Rules Builder Files

ValidationBuilder.ctl

ValidationBuilder.jar

ValidationBuilder.properties

PathtoVB.properties

sec and set desc files for UN/EDIFACT

sec and set desc files for X12

Note: *There are additional files located in the CD directory that are no longer used. You only need to copy the files listed in Table 9.*

To copy the installation files

Note: *The following instructions are for Windows. If you are installing on a UNIX machine make the appropriate substitution of "/" for "\" in path names.*

1   On a Windows machine, insert the e*Xchange installation CD into the CD-ROM drive.

2   Create a new directory called **Vrb** on the machine on which you want to install the Validation Rules Builder, in the **eXchange** root directory.

3   Copy only the files specified in Table 9, except **PathtoVB.properties**, from the following folder on the CD into the **Vrb** folder created in step 2:

```
setup\applications\eXchange\ValidationRulesBuilder
```

Note: *Do not copy the folder "jre." Only copy the specified files within the Validation Rules Builder folder on the CD.*

To copy and edit the PathtoVB.properties file

Before you can use the Validation Rules Builder you must copy the **PathtoVB.properties** file to your profiles directory and edit it to match the properties for your site.

1 Copy the file named **PathtoVB.properties** from the **\eXchange\VRB** directory to either of the following as necessary:

- For Windows, copy the file to your profiles directory. For example: **C:\Documents and Settings***username*

- For UNIX, copy the file to your home directory.

Important: *You must use forward slashes "/" for path names in the properties file regardless of whether you are running the Validation Rules Builder on Windows or UNIX.*

2 Open the file named **PathtoVB.properties** in any text editor.

3 Confirm the path to the location of the **ValidationBuilder.properties** file you copied from the CD.

For example:

```
VB_PROPS=C:/exchange/vrb
```

4 Save the file.

7.3.2. Configuring the VRB

The **ValidationBuilder.properties** file contains a number of parameters that you will need to customize before using the Validation Rules Builder. The file is delivered with example parameters, which you will need to review and change if necessary.

See the *e*Xchange Partner Manager User's Guide* for information on configuring the **ValidationBuilder.properties** file and using the VRB.

7.4 Installing the Java Runtime Environment

For Windows, and Solaris you can run the appropriate executable file for your platform from the e*Xchange installation CD.

If you are using a platform other than Windows or Solaris, you can download the JRE for your platform directly from the Java Web site at this address:

http://java.sun.com/j2se/1.3/

To install the Java Runtime Environment version 1.3.x

1 From the command line, navigate to the CD directory, using the commands shown below:

- For Windows:

```
\setup\eXchange\ValidationRulesBuilder\jre\
    jre1_2_2-001-win.exe
```

   ◆ For Solaris:

```
\setup\eXchange\ValidationRulesBuilder\jre\
    Solaris_JRE_1.3.2_05_sparc.bin
```

The Java™ Runtime Environment install is initialized, and the **Software License Agreement** dialog appears.

Note: *You can also double-click on the executable file to start the install.*

   2   Accept the license agreement by clicking **Yes**.

   3   Choose the destination location for the files via the **Browse** button, and then click **Next**.

   The files are installed.

   When the installation is complete, a message appears and the install program closes.

   4   Once you have installed JRE version 1.3.x, navigate to **\<eGate>\Client\Classes**, and copy the following files to the location for your Java Runtime Environment installation (for example, **C:\jdk1.3.1\jre\lib\ext**):

```
egate.jar
stcjcs.jar
swingall.jar
```

Note: *The path \jre\1.3\lib\ext is created when you install JRE version 1.3.x. Although the directory structure might appear in multiple locations, you must copy the above files to the directory where the Java Runtime Environment runs. The e*Gate installation places **egate.jar**, **stcjs.jar**, and **swingall.jar** in **<eGate>\client\classes**.*

Creating the e*Xchange Database Schema—Oracle

This chapter explains how to create the e*Xchange database schema with Oracle.

8.1 Overview

This chapter provides information on the following items:

- System Requirements
- Creating an Oracle schema via the InstallShield wizard: see **"Creating an Oracle Schema via InstallShield Wizard" on page 57**

Note: *The InstallShield uses the default date format used by e*Xchange: MM/DD/YYYY HH24:MI:SS. If you want to use a different date format, you must perform a manual installation.*

- Creating an Oracle schema manually: see **"Creating an Oracle Schema Manually" on page 60**

8.2 System Requirements

- The e*Xchange Oracle database schema must be created in an existing Oracle 8i (8.1.6, 8.1.7) or 9i instance. The instance can be created using custom settings as required to handle expected throughput and volume of data stored in the e*Xchange schema. For requirements associated with the Oracle instance, see the appropriate Oracle user guides.
- The default disk space for the e*Xchange Oracle schema is 542 MB. You should adjust this as necessary, based on the throughput and storage requirements for your enterprise.
- The hard disk requirement for each Oracle 8i product includes 15 MB which is required to install Java Runtime Environment (JRE) and Oracle Universal Installer on the partition in which the operating system is installed.

8.3 Overview of the Oracle e*Xchange Database

The e*Xchange database is the repository for all information about e*Xchange Partner Manager. All other e*Xchange Partner Manager components need to connect to the database to send and/or receive information. The following diagram shows how the various components connect to the Oracle e*Xchange database.

Figure 5 Oracle e*Xchange Database Overview
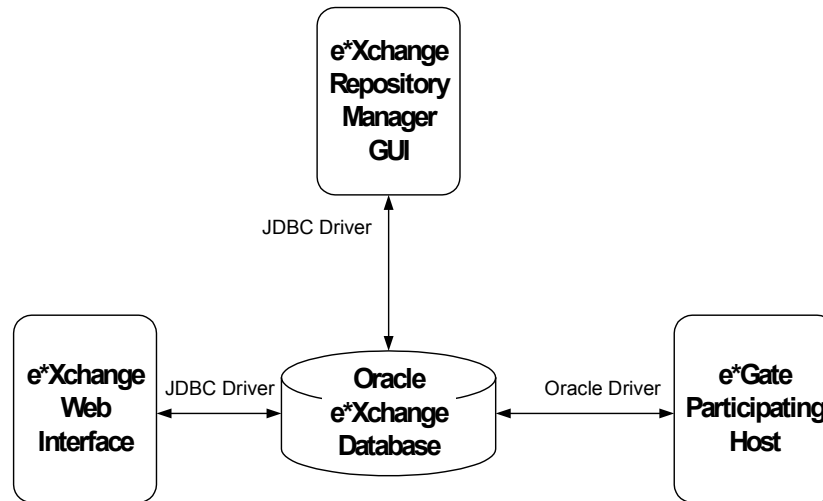
The drivers need to reside on the machine with the component connecting to the Oracle e*Xchange database.

Table 10 Driver Requirements

Driver	Install Procedure
JDBC	Copy **classes12.zip** into \<eXchange>\lib (where <eXchange> is the folder to which you installed e*Xchange). This file is installed as part of the Oracle installation. For example, in Oracle 8.1.6 and 8.1.7 it is installed by default in this folder: **\Oracle\Ora81\jdbc\lib**. **Note**: If you are using Oracle 9i on the server and Oracle 8i on the client, you must copy the Oracle 9i version of **classes12.zip** to the client machine
Oracle	Installed as part of the Oracle installation (Client or Server) 8.1.6, 8.1.7, or 9i.

8.4 Creating an Oracle Schema via InstallShield Wizard

This section describes how to create an Oracle database schema for e*Xchange using the InstallShield wizard.

Note: *The InstallShield uses the default date format used by e*Xchange, which is MM/DD/YYYY HH24:MI:SS. If you want to use a different date format, you must do a manual installation.*

To create an Oracle schema

1 Run the InstallShield wizard from the setup program.

2 Modify the **init.ora** file.

Important: *Installation of the e*Xchange database schema deletes any previous versions of the e*Xchange database schema created within the same Database Service. If you are upgrading, refer to* **"Upgrading the Database Schema from 4.1.2 to 4.5" on page 100***.*

8.5 Installing the Schema

Before you begin:

- Make sure you have Oracle installed. For information specific to the Oracle installation, refer to the Oracle documentation.

- Make sure you have Administrator privileges to install the e*Xchange schema.

- Exit all Windows programs, including any anti-virus applications.

- Verify the administrator user name and password.

8.5.1. Installing the Database Schema from Windows

To install the database schema on Windows

1 Log on to the machine running the DBMS.

2 Insert the installation CD into the CD-ROM drive.

   If Autorun is enabled, the setup program automatically starts. Otherwise:

   ◆ On the task bar, click the **Start** button, and then click **Run**.

   ◆ In the **Open** field, type **D:\setup\setup.exe** where **D:** is your CD-ROM drive.

3 Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

4 When the **User Information** dialog box appears, enter the user name and company for which this software is installed, and then click **Next**.

5   In the **Please choose the product to install** dialog box, select the **e*Xchange Partner Manager** check box, and then click **Next**.

The **Check Setup Information** dialog box appears.

Note: *Selecting the e*Gate Integrator check box installs e*Gate components, some of which are required for e*Xchange. This guide does not cover installation of those components. For information on installing e*Gate components, refer to the **e*Gate Integrator Installation Guide**.*

6   Confirm that **e*Xchange** has been selected, and then click **Next**.

This launches the **e*Xchange** portion of the setup wizard.

7   Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

8   In the **User Information** dialog box, enter the user name and company for which this software is installed, and then click **Next**.

9   In the **Choose Destination Location** dialog box, click **Browse** to change the destination folder; otherwise, click **Next** to continue.

10   In the **Select Components** dialog box, select the **e*Xchange Database Schema** check box.

11   Click **Next**.

Important: *Installation of the e*Xchange database schema deletes any previously installed e*Xchange database schema, if the same schema username is specified. If you are upgrading, refer to **"Upgrading the Database Schema from 4.1.2 to 4.5" on page 100**.*

The **Check Setup Information** dialog box appears.

12   Review the installation information for the e*Xchange back-end components, and then click **Next**.

13   In the **Select Database Server to support e*Xchange** dialog box, select **Oracle**, and then click **Next**.

14   In the **Database Administrator Information** dialog box, enter the Oracle administrator **Username** and **Password**, and then click **Next**.

Note: *By default the Oracle Administrator username is **system** and the password is **manager**.*

15   In the **Database Schema Owner Information** dialog box, enter an Owner and Password for the database schema, and then click **Next**.

Note: *This username must be unique in the Oracle instance. If it is not unique, then the user is dropped and everything it owns is deleted before the user is recreated.*

16 In the **Select Database Server Location** dialog box, select **Local** or **Remote**.

17 In the **Oracle Specific Info** dialog box, enter an Oracle Service/SID name if the server location is Local, or a TNS name if the server is remote, and then click **Next**.

Note: *If an Oracle Service is detected on your machine, then the name is automatically inserted. This can be over-typed if it is not the correct service name.*

18 The first **Table Space Information** dialog contains the directory names where the first and second tablespaces will be created. The tablespaces are defined as followed:

- TSP1 contains the ex_epm_stat_data (company and trading partner profiles and user data) and ex_epm_mtrk_data. Can grow large as number of messages increases.

- TSP2 contains the ex_epm_msg_data (message data can grow large as number of messages increases).

Change the default entries if required, and then click **Next**.

Important: *The directories are created only if the Database Server Location is local. If the location is remote, you must ensure that the directories already exist.*

Note: *The lowest level folder in the path should match the name of the Oracle Service/SID.*

19 The second **Table Space Information** dialog appears. This contains the directory names for the third and fourth tablespaces.

- TSP3 contains all indexes.

- TSP4 contains all message security data.

Change the default entries if required, and then click **Next**.

20 The third **Table Space Information** dialog appears. This contains the directory names for the fifth tablespace.

- TSP5 contains all HIPAA code sets.

Change the default entry if required, and then click **Next**. The database schema is installed.

21 In the **Remote Server Directories Confirmation** dialog, check the information, and then click **Next**.

22 In the **Setup Complete** dialog box, click **Finish** to complete the e*Xchange Database schema installation.

23 In the second **Setup Complete** dialog box, select whether to reboot the computer now or later, and then click **Finish** to complete the installation process.

Note: *Remember to modify the **init.ora** file before running the database.*

8.5.2. **Modifying the init.ora File for the e*Xchange Database**

If you create a new database, you must increase the open_cursors parameter for the e*Xchange database to 500. When you open this file, verify that it contains the line specified in step 3, and add it if it is not in the file.

To modify the init.ora file

1 Navigate to **Oracle home>\admin\<eX database name>\pfile**.

2 Open **init.ora** file for the e*Xchange database in any text editor.

3 Search for:

```
open_cursors
```

4 Set the value to 500, as follows:

```
open_cursors = 500
```

5 Save the file.

6 Restart the database.

8.6 **Creating an Oracle Schema Manually**

This section describes how to manually create an Oracle database schema for e*Xchange.

Note: Before you begin, you must have Oracle installed. Read the Oracle documentation for information specific to the Oracle installation.

To create an Oracle schema

1 Copy the installation files from the e*Xchange Installation CD to the e*Xchange root directory.

2 Modify the SQL statements with the specific information for your system.

3 Run the **ex_install.sql** script to create the schema.

4 Modify the **init.ora** file.

*Important: Installation of the e*Xchange database schema deletes any previously installed e*Xchange database schema, if the same schema username is specified. If you are upgrading, refer to* **"Upgrading the Database Schema from 4.1.2 to 4.5" on page 100**.

8.6.1. **Copying the Installation Files to the e*Xchange Root Directory**

To copy the necessary files

1 On a Windows machine, insert the e*Xchange installation CD into the CD-ROM drive.

2 Copy the following folder to the e*Xchange root directory on the machine running the DBMS:

```
CD:\setup\eXchange\database\Oracle
```

The result is:

```
\eXchange\Oracle
```

Note: *All further instructions for creating the Oracle database schema pertain to the files in the directory \eXchange\Oracle.*

8.6.2. Modifying SQL Statements

For the Oracle database, you must modify two SQL scripts with information specific to your site. Additionally, there are two other files you can update if you need to increase storage parameters.

Important: *If you run the automatic install before the manual install, the **ex_defs.sql** and **ex_install.sql** files are merged. Make all the changes described in **"To modify ex_defs.sql" on page 61** to the **ex_install.sql** file.*

The files that must be modified are:

A **\eXchange\Oracle\ex_defs.sql**

B **\eXchange\Oracle\ex_install.sql**

C **\eXchange\Oracle\tsp_defs.sql** (optional)

D **\eXchange\Oracle\epm\epm_defs.sql** (optional)

To modify ex_defs.sql

1 Open **\eXchange\Oracle\ex_defs.sql** in any text editor.

2 Under **define DATE_FORMAT**, enter the date format that will be used in e*Xchange.

For example:

```
define DATE_FORMAT = "MM/DD/YYYY HH24:MI:SS"
```

Note: *This date format must be recognizable by Oracle. Refer to Oracle documentation for possible formats.*

3 Under **STC eXchange ePM User Info**, replace the default password to use a different password for the schema owner.

For example:

```
-- STC eXchange ePM User Info

define ADMIN_NAME = "ex_admin"
define ADMIN_PW = "ex_admin"
```

4 Replace TNS_NAME with the database tns name found in the **tnsnames.ora** file.

5 Under **Oracle tablespace info**, replace the default information with the location of the tablespaces for your site. This is listed under your Oracle install.

For example:

```
-- Oracle tablespace info:

define TSP_dname1  = "ex_epm_stat_data"
define TSPex_data1 = "&TSP1/ex_epm_stat_data.dbf"
define TSSex_data1 = "30M"
define TSIex_data1 = "20K"
define TSNex_data1 = "20K"
```

Where **d:\Oracle\exchange** is the path to where you want the tablespaces created, and **<dbs>** is your TNS_NAME. The tablespaces contain the following data:

- TSP1 contains the ex_epm_stat_data (company and trading partner profiles and user data) and ex_epm_mtrk_data. Can grow large as number of messages increases.
- TSP2 contains the ex_epm_msg_data (message data can grow large as number of messages increases).
- TSP3 contains all indexes.
- TSP4 contains all message security data.
- TSP5 contains all HIPAA code sets.

Important: *If you use the default tablespace information you must create a directory on the server machine that corresponds to the default location for the tablespace files: **\Oracle\exchange\dbs**. This folder must be created **before** you run the install script.*

6 Save and close the file.

To modify ex_install.sql

1 Open **\eXchange\Oracle\ex_install.sql** in any text editor.

2 Under **Install scripts home dir**, double-check that the path specified for SCRIPT_HOME is where you have copied the files from the CD, and edit the path as necessary.

For example:

```
-- Install scripts home dir
-- Use the following line for release
define SCRIPT_HOME = "/ex/database/Oracle"
```

If you installed e*Xchange on your d: drive, change the path to read:

```
define SCRIPT_HOME = "d:\eXchange\Oracle"
```

Where d: is the drive where you installed e*Xchange.

Note: *In UNIX you can omit the drive designation.*

3 Save and close the file.

To modify tsp_defs.sql (optional)

This file contains the tablespace information used to create the database schema used by e*Xchange. You can choose to use the default information in this file or make changes to reflect the requirements of your site.

Important: *If you use the default tablespace information you must create a directory on the local machine that corresponds to the default location for the tablespace files: \Oracle\exchange\dbs. Create this folder before you run the install script.*

1 Open **\Oracle\tsp_defs.sql** in any text editor.

2 Under **ePM eXchange tablespace info**, replace the default information with the tablespace size information appropriate for your site.

An example of the default information is shown below:

```
-- STC ePM eXchange tablespace info

define TSP_dname1  = "ex_epm_stat_data"
define TSPex_data1 = "&TSP1/ex_epm_stat_data.dbf"
define TSSex_data1 = "30M"
define TSIex_data1 = "20K"
define TSNex_data1 = "20K"
```

3 Save and close the file.

To modify epm_defs.sql (optional)

This file contains the table sizing information used to create the e*Xchange tables. You can choose to use the default information in this file or make changes to reflect the requirements of your site.

1 Navigate to **eXchange\Oracle\epm**.

2 Open **epm_defs.sql** in any text editor.

3 Edit the extent sizes as necessary.

4 Save and close the file.

8.6.3. Running the ex_install.sql Script

Once you have edited the relevant files, run **ex_install.sql**.

Important: *You must be logged in as the database administrator to run the install script.*

To run the ex_install.sql script

1 Open SQL Plus, and log on as the database administrator, using the TNS_NAME (database name) as the Host String.

2 At the SQL> prompt type the command:

```
@<ex_install.sql including path>
```

where

ex_install.sql including path is the name and location of the **ex_install.sql** file that was copied from the e*Xchange installation CD-ROM.

For example:

```
@c:\exchange\Oracle\ex_install.sql
```

3   Press **Enter**.

The schema is created, and is owned by the specified user.

8.6.4. Modifying the init.ora File for the e*Xchange Database

If you create a new database, you must increase the open_cursors parameter for the e*Xchange database to 500 in the **init.ora** file. When you open this file, verify that it contains the line specified in step 2, and add it if it is not in the file.

To modify the init.ora file

1   Navigate to **Oracle home>/admin/<eX database name>/pfile**

2   Open the **init.ora** file for the e*Xchange database in any text editor.

3   Add the line:

```
open_cursors = 500
```

4   Save the file.

5   Restart the database.

Creating the e*Xchange Database—SQL Server

This chapter explains how to create the e*Xchange database with SQL Server.

9.1 Overview

This chapter provides information on the following items:

- System requirements
- Creating a SQL Server database via the InstallShield wizard
- Creating a SQL Server database manually
- Creating the SQL Server ODBC connection
- Uninstalling the SQL Server database

9.2 System Requirements

The e*Xchange SQL Server database must be created in an existing SQL Server 7.0 or SQL Server 2000 database. For requirements associated with the SQL Server instance, see the appropriate SQL Server user guides.

Important: *When creating the SQL Server 2000 database, make sure the data source has been set to verify the authenticity of the login ID using a login ID and password entered by the user.*

Note: *SQL Server support is available for all operating systems other than Compaq Tru64.*

9.3 Overview of the SQL Server e*Xchange Database

The e*Xchange database is the repository for all information about e*Xchange Partner Manager. All other e*Xchange Partner Manager components need to connect to the database to send and/or receive information. The following diagram shows how the various components connect to the SQL Server e*Xchange database.

Figure 6 SQL Server e*Xchange Database Overview
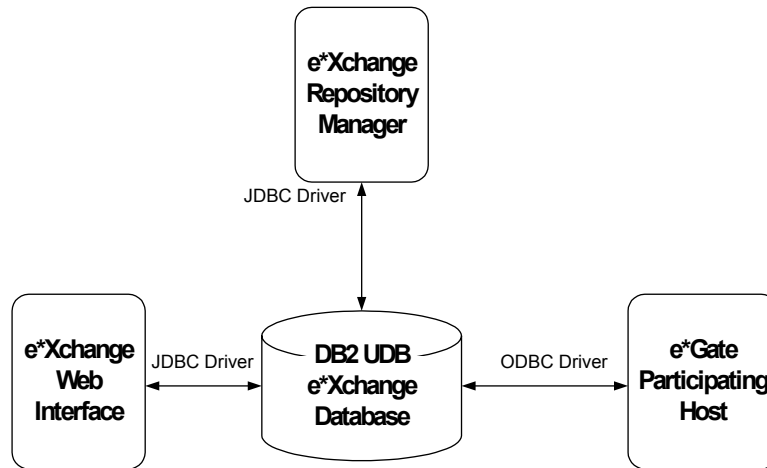
The drivers must reside on the machine with the component connecting to the SQL Server e*Xchange database.

Table 11 Driver Requirements

Driver	Install Procedure
Merant JDBC	Automatically installed by the e*Xchange component.
ODBC	Installed as part of the SQL Server installation (Client or Server) 7 or 2000. For information on configuring the ODBC connection see **"Creating the SQL Server ODBC Connection" on page 72**.

9.4 Creating a SQL Server Database Via InstallShield Wizard

This section describes how to create a SQL Server database for e*Xchange using the InstallShield wizard.

Note: Before you begin, you must have SQL Server installed. Read the SQL Server documentation for information specific to the SQL Server installation.

To create a SQL Server database

- Run the InstallShield wizard from the setup program.

Important: *After you have created the SQL Server database, you must create an ODBC connection for the database to be able to log on to it from the e*Xchange GUIs. See* **"Creating the SQL Server ODBC Connection" on page 72***.*

Important: *The installation of the e*Xchange database will not complete successfully if you use a username and/or database name that already exists on the server. If you are upgrading, refer to* **"Upgrading the Database Schema from 4.1.2 to 4.5" on page 100***.*

9.5   Installing the Database Schema

Before you begin:

- You must have Administrator privileges to install the e*Xchange database.

- Exit all Windows programs, including any anti-virus applications.

- Verify your e*Gate Registry host name, schema name, Control Broker logical name, administrator user name, and administrator password.

9.5.1.   Installing the Database on Windows

To install the database on Windows

1   Log on to the machine running the DBMS or client.

2   Insert the installation CD into the CD-ROM drive.

   If Autorun is enabled, the setup program automatically starts. Otherwise:

   ◆ On the task bar, click the **Start** button, and then click **Run**.

   ◆ In the **Open** field, type **D:\setup\setup.exe** where **D:** is your CD-ROM drive.

3   Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

4   When the **User Information** dialog box appears, enter the user name and company for which this software is installed, and then click **Next**.

5   In the **Please choose the product to install** dialog box, select the **e*Xchange Partner Manager** check box, and then click **Next**.

Note: *Selecting the e*Gate Integrator check box installs e*Gate components, some of which are required for e*Xchange. This guide does not cover installation of those components. For information on installing e*Gate components, refer to the* **e*Gate Integrator Installation Guide***.*

The **Check Setup Information** dialog box appears.

6   Confirm that the **e*Xchange** component has been selected, and then click **Next**.

This launches the **e*Xchange** portion of the setup wizard.

7   Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

8   In the **User Information** dialog box, enter the user name and company for which this software is installed, and then click **Next**.

9   In the **Choose Destination Location** dialog box, click **Browse** to change the destination folder; otherwise, click **Next** to continue.

10   In the **Select Components** dialog box, select the **e*Xchange Database Schema** check box.

11   Click **Next**.

The **Check Setup Information** dialog box appears.

12   Review the installation information for the e*Xchange back-end components, and then click **Next**.

The **About the Database Schema** dialog box appears.

13   Click **Next**.

14   In the **Select Database Server to support e*Xchange** dialog box, select **SQL Server** and then click **Next**.

15   In the **Database Administrator Information** dialog box, enter the SQL Server administrator **Username** and **Password**, and then click **Next**.

16   In the **Database Owner Information** dialog box, enter the Database Owner **Username** and **Password**, and then click **Next**.

Important: *The owner for the database and the database name cannot already exist in the server. They are created as part of the installation process.*

17   In the **Select Database Server Location** dialog, select either **Local** or **Remote** for the database location.

18   In the **SQL Server Specific Info** dialog box, enter a **Host** name and **Database** name, and then click **Next**.

19   The first **File Group/Datafile Information** dialog appears. Enter a location for the following file groups/datafiles and then click **Next**.

  ◆ Prim—the primary filegroup.

  ◆ Stat_data—contains the company and trading partner profile as well as the user data. Grows as the company, trading partners, and user data increases.

20   The second **File Group/Datafile Information** dialog appears. Enter a location for the following file groups/datafiles and then click **Next**.

  ◆ Mtrk_data—contains the message tracking data. Increases as the number of messages increases.

◆ Msg_data—contains the actual message data. Can increase quite significantly depending on the size and volume of the messages.

21 The third **File Group/Datafile Information** dialog appears. Enter a location for the following file groups/datafiles and then click **Next**.

◆ Sec_data—contains the security message data used primarily in RosettaNet.

◆ Val_data—the HIPAA codesets.

22 The fourth **File Group/Datafile Information** dialog appears. Enter a location for the following file groups/datafiles and then click **Next**.

◆ Stat_indx—contains the Stat_data indexes.

◆ Mtrk_indx—contains the Mtrk_data indexes.

23 The fifth **File Group/Datafile Information** dialog appears. Enter a location for the following file groups/datafiles and then click **Next**.

◆ Msg_indx—contains the Msg_data indexes.

◆ Log—for logging.

An information message appears to show that **ss_ex_install.bat** has been launched successfully.

24 Click **OK**.

25 In the **Setup Complete** dialog box, click **Finish** to complete the e*Xchange database installation.

26 In the second **Setup Complete** dialog box, select whether to reboot the computer now or later, and then click **Finish** to complete the installation process.

9.6 Creating a SQL Server Database Manually

This section describes how to manually create a SQL Server database for e*Xchange on a Windows machine. You can create the database either before or after installing the GUIs. However, if you install the database first, you must copy the SQL Server folder as described in **"Copying the Installation Files to the e*Xchange Root Directory" on page 70**, to a location other than the e*Xchange root directory, since it will not yet be installed.

Important: *Before you begin, you must have SQL Server installed. Read the SQL Server documentation for information specific to the SQL Server installation.*

Important: *The installation of the e*Xchange database will not complete successfully if you use a username and/or database name that already exists on the server. If you are upgrading, refer to **"Upgrading the Database Schema from 4.1.2 to 4.5" on page 100**.*

To create a SQL Server database

1   Copy the installation files from the e*Xchange Installation CD to the e*Xchange root directory.

2   Create and configure the database.

Important: *After you have created the SQL Server database, you must create an ODBC connection for the database to be able to log on to it from the e*Xchange GUIs. See* **"Creating the SQL Server ODBC Connection" on page 72**.

9.6.1. Copying the Installation Files to the e*Xchange Root Directory

The e*Xchange SQL Server database can be installed from either the client or the server.

To copy the necessary files

▪ On the machine from which you want to install the e*Xchange SQL Server database, copy the following folder on the CD to the e*Xchange root directory:

```
CD:\setup\eXchange\database\sqlserver
```

The result will be:

```
\eXchange\sqlserver
```

9.6.2. Modifying SQL Statements

For the SQL Server database, you must modify two SQL scripts with information specific to your site.

Important: *If you run the automatic install before the manual install, the default* **ss_ex_install.sql** *is replaced by one with values inserted via the install wizard.*

A   **\eXchange\SQLServer\ss_ex_install.sql**

B   **\eXchange\SQLServer\ss_ex_install.bat**

To modify ss_ex_install.sql

1   Open **\eXchange\SQLServer\ss_ex_install.sql** in any text editor.

2   Update all references to "exchange" to the new database name.

3   Change the "FILENAME=" portion for each filegroup to reflect where the data files need to be stored.

For example, the EX_PRIM entry in the file might read:

```
(NAME = EX_PRIM,
FILENAME = 'C:\sql server\data\eXchange\EX_PRIM.mdf',
SIZE = 50MB,
MAXSIZE = 100MB,
FILEGROWTH = 10%),
```

The tablespaces required are shown in Table 12.

Table 12   SQL Server Tablespaces

Tablespace Name	Function
EX_PRIM	The primary filegroup.
EX_EPM_STAT_DATA	Contains the company and trading partner profile as well as the user data. Grows as the company, trading partners, and user data increases.
EX_EPM_MTRK_DATA	Contains the message tracking data. Increases as the number of messages increases.
EX_EPM_MSG_DATA	Contains the actual message data. Can increase quite significantly depending on the size of the messages.
EX_EPM_SEC_MSG_DAT	Contains the security message data used primarily in RosettaNet.
EX_EPM_SEC_MSG_DAT	Contains the security message data used primarily in RosettaNet.
EX_EPM_VAL_DATA	Contains the validation information; for example, HIPAA.
EX_EPM_MTRK_INDX	Contains the EX_EPM_MSG_DATA indexes.
EX_EPM_MSG_INDX	Contains the EX_EPM_MSG_DATA and EX_EPM_SEC_MSG_DATA indexes.
EX_LOG	Used for logging.

4   Modify all occurrences of 'ex_admin', 'ex_admin' to reflect the database owner user name and password.

5   Save and close the file.

To modify ss_ex_install.bat

1   In the e*Xchange SQL Server directory on your local drive:

```
\exchange\sqlserver
```

locate the file **ss_ex_install.bat**.

2   Open the file in any text editor and check that the names you specified for the database and the server are referenced in the file. Make changes as required (see Table 13).

For example, the SetPassword entry in the file might read:

```
:SetPassword
@set __PASSWORD=ex_admin
```

Table 13   Setting ss_ex_install.bat Values

Search for this…	and set this value…
__HOST=	The host name.
__USER=	The e*Xchange owner name.

Table 13 Setting ss_ex_install.bat Values

Search for this…	and set this value…
__PASSWORD=	The e*Xchange owner password.
__DATABASE=	The name of the database.
__DBADMINUSER=	The database administrator.
__DBADMINPASSWORD=	The database administrator password.

3 Save any changes, and close the text file.

9.6.3. Running ss_ex_install.bat

Once the relevant files have been updated you can run the install script.

To run ss_ex_install.bat

- Double-click the file **ss_ex_install.bat** that you just modified.

  Running this file sets up the tables and procedures in the database.

9.7 Creating the SQL Server ODBC Connection

There are two e*Ways that you can use to connect to the SQL Server database:

- ODBC e*Way
- SQL Server e*Way

If you are using the ODBC e*Way to connect to the database, you must install an ODBC driver on the machine on which the e*Gate back end is running.

Important: *If you are using a SQL Server database on Solaris, you must use either a pure JDBC driver or the JDBC-ODBC Bridge. If you are using the Bridge, the ODBC driver managers might name their libs* libodbcinst.so *and* libodbc.so. *The JDBC-ODBC Bridge expects these libraries to be named* libodbcinst.so.1 *and* libodbc.so.1, *so you must create symbolic links for these names. Refer to the Java Web page for more information.*

To create the ODBC connection

The database to which you are connecting must be running before you can create an ODBC connection to it.

1 Start the SQL Server database for which you are creating the ODBC connection.

2 Open the **ODBC Data Source Administrator** dialog box. For example, in Windows 2000:

- Click **Start**, point at **Settings**, **Control Panel**, **Administrative Tools**, and then click **Data Sources (ODBC)**.

3   In the **ODBC Data Source Administrator** dialog box, select the **System DSN** tab.

4   Click **Add**.

The **Create New Data Source** dialog box appears.

5   Select **SQL Server**, and then click **Finish**.

The **Create a New Data Source to SQL Server** dialog box appears.

6   In the **Name** box, type the name of the data source. This can be any name.

7   (Optional) In the **Description** box, type the description of the data source.

8   From the **Server** list, select the server to which you want to connect, and then click **Next**.

The **Microsoft SQL Server DSN Configuration** dialog box appears.

9   Select the **"With SQL Server authentication..."** radio button.

10 In the **Login ID** and **Password** boxes, type **ex_admin** or the name specified in the installation scripts.

This is the login ID and password you will use when logging into this database in the e*Xchange GUIs.

11 Click **Client Configuration**.

The **Add Network Library Configuration** dialog box appears.

12 In the **Network libraries** section, verify that **TCP/IP** is selected, and then click **OK** to return to the previous dialog box.

13 Click **Next**.

The **Microsoft SQL Server DSN Configuration (change default database)** dialog box appears.

14 Select **Change the default database to**, and then type the name of the database you created (for example, **exchange**).

15 Clear **Use ANSI quoted identifiers** and **Use ANSI nulls, paddings and warnings**, and then click **Next**.

The **Create a New Data Source to SQL Server** dialog box appears.

16 Accept the defaults.

*Note: Make sure that **Use regional settings when outputting currency, numbers, dates and times** is cleared.*

17 Click **Finish**.

The **ODBC Microsoft SQL Server Setup** dialog box appears.

18 Click **Test Data Source**.

The **SQL Server ODBC Data Source Test** dialog box appears.

19 Click **OK** on both of the testing dialog boxes to return to the **ODBC Data Source Administrator** dialog box.

20 Double-check that the database connection you just set up is listed, and then click **OK** to close the **ODBC Data Source Administrator**.

9.8   Uninstalling the SQL Server Database

If at any point you want to uninstall the SQL Server database that you created for e*Xchange, you must do it via SQL Server itself. Uninstalling e*Xchange does not remove the SQL Server database.

Creating the e*Xchange Database—Sybase

This chapter explains how to create the e*Xchange database with Sybase.

10.1 Overview

This chapter provides information on the following items:

- Creating a Sybase database via the InstallShield wizard
- Creating a Sybase database manually
- Creating the Sybase ODBC connection
- Uninstalling the Sybase database

10.2 Overview of the Sybase e*Xchange Database

The e*Xchange database is the repository for all information about e*Xchange Partner Manager. All other e*Xchange Partner Manager components need to connect to the database to send and/or receive information. The following diagram shows how the various components connect to the Sybase e*Xchange database.

Figure 7   Sybase e*Xchange Database Overview
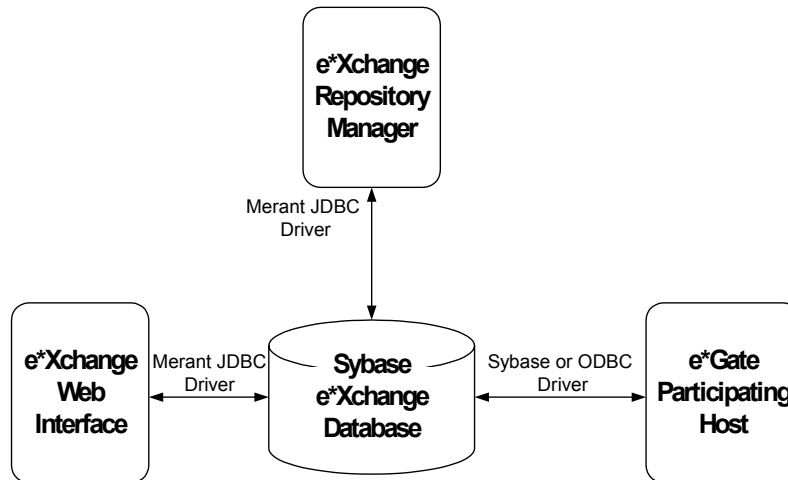
The drivers must reside on the machine with the component connecting to the Sybase e*Xchange database.

Table 14   Driver Requirements

Driver	Install Procedure
JDBC	Installed automatically by the e*Xchange Web interface or e*Xchange Repository Manager installation.
Sybase	Install Sybase client software.
ODBC	Install Sybase client software. For information on configuring the ODBC connection, see **"Creating the Sybase ODBC Connection" on page 82**.

10.3 Creating a Sybase Database via the InstallShield Wizard

This section describes how to create a Sybase database for e*Xchange using the InstallShield wizard.

Note: Before you begin, you must have Sybase installed. Read the Sybase documentation for information specific to the Sybase installation.

Important: *A second e*Xchange database cannot be created within the same server due to a*
conflict with device file names.

Follow this step to create a Sybase database

▪ Run the InstallShield wizard from the setup program.

10.4   Installing the Database

Before you begin:

▪ You must have Administrator privileges to install the e*Xchange database.

▪ Exit all Windows programs, including any anti-virus applications.

10.4.1. Installing the Database from Windows

To install the database from Windows

1   Log on to the machine running the DBMS, or you can install remotely if the remote
machine has the Sybase client installed.

2   Insert the installation CD into the CD-ROM drive.

If Autorun is enabled, the setup program automatically starts. Otherwise:

◆ On the task bar, click the **Start** button, and then click **Run**.

◆ In the **Open** field, type **D:\setup\setup.exe** where **D:** is your CD-ROM drive.

3   Follow the online prompts through the **Welcome**, **Software License Agreement**,
and **Information** dialog boxes.

4   When the **User Information** dialog box appears, enter the user name and company
for which this software is installed, and then click **Next**.

5   In the **Please choose the product to install** dialog box, select the **e*Xchange Partner
Manager** check box, and then click **Next**.

The **Check Setup Information** dialog box appears.

Note: *Selecting the e*Gate Integrator check box installs e*Gate components, some of which*
*are required for e*Xchange. This guide does not cover installation of those*
*components. For information on installing e*Gate components, refer to the **e*Gate***
***Integrator Installation Guide**.*

6   Confirm that the **e*Xchange** component has been selected, and then click **Next**.

This launches the **e*Xchange** portion of the setup wizard.

7   Follow the online prompts through the **Welcome**, **Software License Agreement**,
and **Information** dialog boxes.

8   In the **User Information** dialog box, enter the user name and company for which
this software is installed, and then click **Next**.

9   In the **Choose Destination Location** dialog box, click **Browse** to change the destination folder; otherwise, click **Next** to continue.

10   In the **Select Components** dialog box, select the **e*Xchange Database Schema** check box.

11   Click **Next**.

     The **Check Setup Information** dialog box appears.

12   Review the installation information for the e*Xchange back-end components, and then click **Next**.

13   In the **Select Database Server to support e*Xchange** dialog box, select Sybase and then click **Next**.

14   In the **Database Administrator Information** dialog box, enter the Sybase administrator **Username** and **Password**, and then click **Next**.

15   In the **Database Owner Information** dialog box, enter the **Username** and **Password** for the database owner, and then click **Next**.

Important: *The password must be at least six characters.*

   Note: *The owner for the database is created as part of the installation process.*

16   In the **Select Database Server Location** dialog, select either **Local** or **Remote** for the database location.

17   In the **Sybase Specific Info** dialog box, enter the **Host** name and **Database** name, and then click **Next**.

   Note: *The installation creates a database with this name.*

18   The first **File Group/Datafile Information** dialog appears. Enter a location for the following file groups/datafiles, and then click **Next**.

     ◆ Prim—the primary filegroup.

     ◆ Stat_data—contains the company and trading partner profile as well as the user data. Grows as the company, trading partners, and user data increases.

19   The second **File Group/Datafile Information** dialog appears. Enter a location for the following file groups/datafiles and then click **Next**.

     ◆ Mtrk_data—contains the message tracking data. Increases as the number of messages increases.

     ◆ Msg_data—contains the actual message data. Can increase quite significantly depending on the size of the messages.

20   The third **File Group/Datafile Information** dialog appears. Enter a location for the following file groups/datafiles and then click **Next**.

     ◆ Sec_data—contains the security message data used primarily in RosettaNet.

     ◆ Val_data—the HIPAA codesets.

21 The fourth **File Group/Datafile Information** dialog appears. Enter a location for the following file groups/datafiles and then click **Next**.

  ◆ Stat_indx—contains the Stat_data indexes.

  ◆ Mtrk_indx—contains the Mtrk_data indexes.

22 The fifth **File Group/Datafile Information** dialog appears. Enter a location for the following file groups/datafiles and then click **Next**.

  ◆ Msg_indx—contains the Msg_data indexes.

  ◆ Log—for logging.

An information message appears to show that **sy_ex_install.bat** has been launched successfully.

23 Click **OK**.

24 In the **Setup Complete** dialog box, click **Finish** to complete the installation process.

25 In the second **Setup Complete** dialog box, select whether to reboot the computer now or later, and then click **Finish** to complete the installation process.

10.5 Creating a Sybase Database Manually

The following section provides instructions for manually creating a Sybase database for e*Xchange. You can create the database either before or after installing the e*Xchange GUIs.

Important: *Before you begin, you must have Sybase installed. Read the Sybase documentation for information specific to the Sybase installation.*

Important: *A second e*Xchange database cannot be created within the same server due to a conflict with device file names.*

To create a Sybase database manually

1 Copy the installation files from the e*Xchange Installation CD to the e*Xchange root directory.

2 Modify files containing the database name.

3 Modify files containing the user name and password.

4 Modify file containing reference to the server.

5 Modify and run the installation file.

Important: *After you have created the Sybase database, you must create an ODBC connection for the database to be able to log on to it from the e*Xchange GUIs. See* **"Creating the Sybase ODBC Connection" on page 82***.*

10.5.1. Copying the Installation Files to the e*Xchange Root Directory

Before you run the installation, you must copy the files to your own directory so that you can modify them.

To copy the necessary files

- On the machine from which you want to install the e*Xchange Sybase database, copy the following folder on the CD to the e*Xchange root directory:

      CD:\setup\eXchange\database**sybase**

  The result will be:

      \eXchange**sybase**

10.5.2. Modifying SQL Statements

For the Sybase database, you must modify two SQL scripts with information specific to your site.

Important: *If you run the automatic install before the manual install, the default **ss_ex_install.sql** is replaced by one with values inserted via the install wizard.*

A   **\eXchange\sybase\sy_ex_install.sql**

B   **\eXchange\sybase\sy_ex_install.bat**

To modify ss_ex_install.sql

1   Open **\eXchange\Sybase\sy_ex_install.sql** in any text editor.

2   Update all references to "exchange" to the new database name.

3   Change the "FILENAME=" portion for each filegroup to reflect where the data files need to be stored.

The tablespaces required are shown in Table 15.

Table 15   SQL Server Tablespaces

Tablespace Name	Function
EX_PRIM	The primary filegroup.
EX_EPM_STAT_DATA	Contains the company and trading partner profile as well as the user data. Grows as the company, trading partners, and user data increases.
EX_EPM_MTRK_DATA	Contains the message tracking data. Increases as the number of messages increases.
EX_EPM_MSG_DATA	Contains the actual message data. Can increase quite significantly depending on the size of the messages.
EX_EPM_SEC_MSG_DAT	Contains the security message data used primarily in RosettaNet.

Table 15 SQL Server Tablespaces

Tablespace Name	Function
EX_EPM_VAL_DATA	Contains the validation information; for example, HIPAA.
EX_EPM_STAT_INDX	Contains the EX_EPM_STAT_DATA indexes.
EX_EPM_MTRK_INDX	Contains the EX_EPM_MSG_DATA indexes.
EX_EPM_MSG_INDX	Contains the EX_EPM_MSG_DATA and EX_EPM_SEC_MSG_DATA indexes.
EX_LOG	Used for logging.

4 Modify all occurrences of "ex_admin", "ex_admin" to reflect the database owner user name and password.

5 Save and close the file.

10.5.3. Configuring the Database

Follow the steps below to create and configure the Sybase database.

To modify sy_ex_install.bat

1 In the e*Xchange Sybase directory on your local drive:

\exchange\sybase

locate the file **sy_ex_install.bat**.

2 Open the file in any text editor and check that the names you specified for the database and the server are referenced in the file. Make changes as required.

A Set "__HOST=" to the host name

B Set "__USER=" to the eXchange owner

C Set "__PASSWORD=" to the eXchange owner password

Note: The password must be at least six characters.

D Set "__DATABASE=" to the name of the database

E Set "__DBADMINUSER=" to the database administrator

F Set "__DBADMINPASSWORD=" to the database administrator password

3 Save any changes, and close the text file.

10.5.4. Configuration Changes to the Sybase Server

Configuration changes to the Sybase server include:

- Updating **cis cursor rows** from the default value of 50 to 500

- Updating **number of devices** from the default value of 10 to 100

10.6 Creating the Sybase ODBC Connection

You can connect to the Sybase database using either of two types of drivers:

- Native Sybase
- ODBC

You specify your choice of driver when configuring the eX_ePM e*Way.

If you are using an ODBC driver, you must install it on the machine on which the e*Gate back end is running.

To create the ODBC connection

The database must be running before you can create an ODBC connection to it.

1 Start the Sybase database for which you are creating the ODBC connection.

2 Open the **ODBC Data Source Administrator** dialog box. For example, in Windows 2000:

- From **Start**, go to **Settings**, **Control Panel**, **Administrative Tools**, **Data Sources (ODBC)**.

3 In the **ODBC Data Source Administrator** dialog box, select the **System DSN** tab.

4 Click **Add**.

The **Create New Data Source** dialog box appears.

5 Select **Sybase System 11** and then click **Finish**.

The **ODBC Sybase Driver Setup** dialog box appears.

6 In the **Data Source Name** box, type the name of the data source you created.

7 (Optional) In the **Description** box, type the description of the data source.

8 In the **Server Name** box, type the name of the server where you installed the database.

9 In the **Database Name** box, type the name of the database for which you are creating the connection.

10 Click **OK**.

11 Double-check that the database connection you just set up is listed, and then click **OK** to close the **ODBC Data Source Administrator**.

10.7 Uninstalling the Sybase Database

If at any point you want to uninstall the Sybase database that you created for e*Xchange, you must do it via Sybase itself. Uninstalling e*Xchange does not remove the Sybase database.

Creating the e*Xchange Database—DB2 UDB

This chapter explains how to create the e*Xchange database with DB2 UDB.

11.1 Overview

This chapter provides information on the following items:

- Full install via the InstallShield wizard
- Partial install via the InstallShield wizard
- Minimal install via the InstallShield wizard
- Manual install
- Creating the DB2 UDB ODBC connection
- Uninstalling the DB2 UDB database

11.2   Overview of the DB2 UDB e*Xchange Database

The e*Xchange database is the repository for all information about e*Xchange Partner Manager. All other e*Xchange Partner Manager components need to connect to the database to send and/or receive information. The following diagram shows how the various components connect to the DB2 UDB e*Xchange database.

Figure 8   DB2 UDB e*Xchange Database Overview
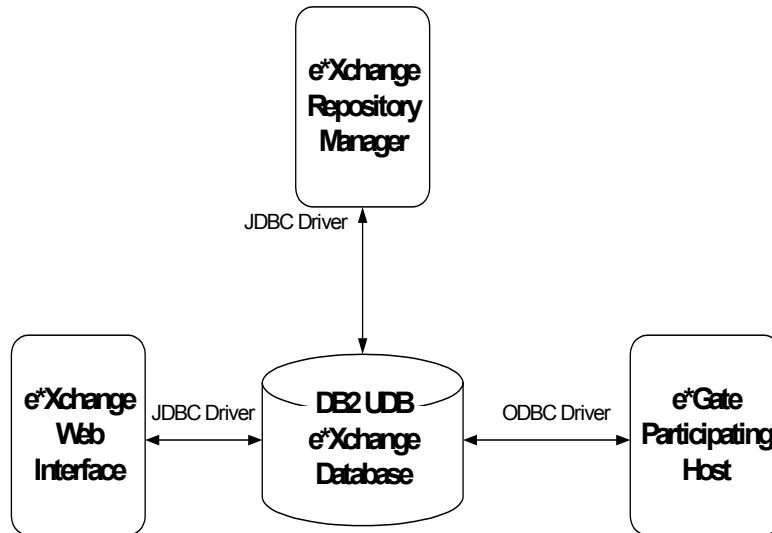
The drivers must reside on the machine with the component connecting to the DB2 UDB e*Xchange database.

Table 16   Driver Requirements

Driver	Install Procedure
JDBC	The **db2java.zip** file should be located in %DB2TEMPDIR%\JAVA. This is installed as part of the DB2 UDB installation (Client or Server).
ODBC	Installed as part of the DB2 UDB installation (Client or Server). For information on configuring the ODBC connection see **"Creating the DB2 UDB ODBC Connection" on page 94**.

Important: *The e*Xchange Web interface and the e*Xchange e*Gate schema cannot run on the same machine. For more information see* **"Installing the Web Interface and e*Gate Schema for e*Xchange" on page 85***.*

Installing the Web Interface and e*Gate Schema for e*Xchange

The Participating Host running the e*Gate schema for e*Xchange and the Web interface cannot run on the same machine. If both components have been installed you can run the e*Gate schema for e*Xchange without making any configuration changes. However, to run the Web interface, you must do the following:

1 Open **%DB2TEMPDIR%/db2cli.ini** in any text editor.

2 Add a semicolon in front of **LONGDATACOMPAT=1**.

3 Save the file.

Installing the e*Xchange Repository Manager

The **udbtools.class** file is installed in the **%DB2TEMPDIR%\function** directory when installing the e*Xchange database schema on a local machine. If you use one of the remote install options, you must copy the file to the correct location on the DB2 UDB server.

If this file is not copied to the correct location, then the import/export and archive/dearchive operations will not function correctly.

11.3 Creating a DB2 UDB Database via the InstallShield Wizard

The following section provides instructions for creating a DB2 UDB database schema for e*Xchange. The following install procedures are available:

- Full install—Can only be performed locally on the server. Installs the tablespaces, the database, and the e*Xchange database objects (tables and indexes). For more information, see **"Creating the DB2 UDB Database (Full Install) Via the InstallShield Wizard" on page 86**.

- Partial Install—Can be performed locally or remotely. Requires that the database is created before the e*Xchange installation. Installs the tablespaces and the e*Xchange database objects (tables and indexes). For more information, see **"Creating e*Xchange DB2 UDB Tablespaces and Database Objects (Partial Install) Via InstallShield Wizard" on page 88**

- Minimal install—Can be performed locally or remotely. Requires the database and tablespaces are created before the e*Xchange installation. Installs only the e*Xchange database objects (tables and indexes). For more information, see **"Creating the DB2 UDB Database Objects (Minimal Install) Via the InstallShield Wizard" on page 90**

Important: *Before you begin, you must have DB2 UDB installed. Read the DB2 UDB documentation for information specific to the DB2 UDB installation.*

11.3.1. Creating the DB2 UDB Database (Full Install) Via the InstallShield Wizard

This section describes how to create an DB2 UDB database, tablespaces, and e*Xchange database objects (tables and indexes) for e*Xchange using the InstallShield wizard.

Note: This installation must be run locally.

Installing the Database

Before you begin:

- You must manually create the eXchange database owner on the operating system level. Refer to the operating system user guide for more information.
- Exit all windows programs, including any anti-virus applications.

To install the database from Windows

1 Log on to the machine.

2 Insert the installation CD into the CD-ROM drive.

   If Autorun is enabled, the setup program automatically starts. Otherwise:

   - On the task bar, click the **Start** button, and then click **Run**.
   - In the **Open** field, type **D:\setup\setup.exe** where **D:** is your CD-ROM drive.

3 Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

4 When the **User Information** dialog box appears, enter the user name and company for which this software is installed, and then click **Next**.

5 In the **Please choose the product to install** dialog box, select the **e*Xchange Partner Manager** check box, and then click **Next**.

   The **Check Setup Information** dialog box appears.

6 Confirm that the **e*Xchange** component has been selected, and then click **Next**.

   This launches the **e*Xchange** portion of the setup wizard.

7 Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

8 In the **User Information** dialog box, enter the user name and company for which this software is installed, and then click **Next**.

9 In the **Choose Destination Location** dialog box, click **Browse** to change the destination folder; otherwise, click **Next** to continue.

10 In the **Select Components** dialog box, select the **e*Xchange Database Schema** check box.

11 Click **Next**.

The **Check Setup Information** dialog box appears.

12 Review the installation information for the **e*Xchange Database Schema** components, and then click **Next**.

13 In the **About the Database Schema** dialog box, review the installation information, and then click **Next**.

14 In the **Select Database Server to support e*Xchange** dialog box, select **UDB** and then click **Next**.

15 In the **Database Administrator Information** dialog box, enter the DB2 UDB administrator **Username** and **Password**, and then click **Next**.

16 In the **Database Owner Information** dialog box, enter a **Username** and **Password**, and then click **Next**.

Note: The username and password must be previously defined.

17 In the **UDB Database Setup Options** dialog box, select **Full Install of schema (local install only)**, and then click **Next**.

18 In the **UDB Specific Info** dialog box, enter a host name and database name, and then click **Next**.

The tablespaces and tables are created.

An information message appears to show that **udb_ex_install.bat** has been launched successfully.

19 Click **OK**.

20 In the **Setup Complete** dialog box, click **Finish** to complete the installation process.

21 In the second **Setup Complete** dialog box, select whether to reboot the computer now or later, and then click **Finish** to complete the installation process.

Post-Installation Notes

You must perform the following two steps after the installation has been completed:

A Update the application heap size of the database on the DB2 UDB server to 1000.

B Run **usejdbc2.bat**. This is located in %DB2TEMPDIR%\SQLLIB\java12.

11.3.2. Creating e*Xchange DB2 UDB Tablespaces and Database Objects (Partial Install) Via InstallShield Wizard

This section describes how to create tablespaces and e*Xchange database objects (tables and indexes) for e*Xchange using the InstallShield wizard.

Note: This installation requires that the database is created manually on the DB2 UDB system.

The installation of the DB2 UDB database objects and tablespaces can be run locally or remotely. If installing remotely, the DB2 UDB client needs to be installed and configured for the database on the remote server.

Installing the Database

Before you begin:

- You must manually create the eXchange database owner on the operating system level. Refer to the DB2 UDB user guide for more information.
- You must manually create the DB2 UDB database.
- Exit all Windows programs, including any anti-virus applications.

To install the database from Windows

1 Log on to the machine.

2 Insert the installation CD into the CD-ROM drive.

   If Autorun is enabled, the setup program automatically starts. Otherwise:

   ◆ On the task bar, click the **Start** button, and then click **Run**.

   ◆ In the **Open** field, type **D:\setup\setup.exe** where **D:** is your CD-ROM drive.

3 Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

4 When the **User Information** dialog box appears, enter the user name and company for which this software is installed, and then click **Next**.

5 In the **Please choose the product to install** dialog box, select the **e*Xchange Partner Manager** check box, and then click **Next**.

   The **Check Setup Information** dialog box appears.

6 Confirm that the **e*Xchange** component has been selected, and then click **Next**.

   This launches the **e*Xchange** portion of the setup wizard.

7 Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

8 In the **User Information** dialog box, enter the user name and company for which this software is installed, and then click **Next**.

9   In the **Choose Destination Location** dialog box, click **Browse** to change the destination folder; otherwise, click **Next** to continue.

10   In the **Select Components** dialog box, select the **e*Xchange Database Schema** check box.

11   Click **Next**.

The **Check Setup Information** dialog box appears.

12   Review the installation information for the e*Xchange back-end components, and then click **Next**.

13   In the **About the Database Schema** dialog box, review the installation information, and then click **Next**.

14   In the **Select Database Server to support e*Xchange** dialog box, select **UDB** and then click **Next**.

15   In the **Database Administrator Information** dialog box, enter the DB2 UDB administrator **Username** and **Password**, and then click **Next**.

16   In the **Database Owner Information** dialog box, enter a **Username** and **Password**, and then click **Next**.

Note: *The username and password must be previously defined.*

17   In the **UDB Database Setup Options** dialog box, select **Schema requiring manual creation of Database**, and then click **Next**.

18   In the **UDB Specific Info** dialog box, enter a host name and database name, and then click **Next**.

Note: *The tables are created.*

An information message appears to show that **udb_ex_install.bat** has been launched successfully.

19   Click **OK**.

20   In the **Setup Complete** dialog box, click **Finish** to complete the installation process.

21   In the second **Setup Complete** dialog box, select whether to reboot the computer now or later, and then click **Finish** to complete the installation process.

Post-Installation Notes

You must perform the following two steps after the installation has been completed:

A   Update the application heap size of the database on the DB2 UDB server to 1000.

B   Run **usejdbc2.bat**. This is located in %DB2TEMPDIR%\SQLLIB\java12.

11.3.3. Creating the DB2 UDB Database Objects (Minimal Install) Via the InstallShield Wizard

This section describes how to create a DB2 UDB database for e*Xchange using the InstallShield wizard. You are required to manually create the database and tablespaces. Refer to **cr_udb_epm_tablespaces.sql** for the tablespace names.

The tablespaces required are shown in Table 17.

Table 17 DB2 UDB Tablespaces

Tablespace Name	Function
EX_PRIM	The primary filegroup.
EX_EPM_STAT_DATA	Contains the company and trading partner profile as well as the user data. Grows as the company, trading partners, and user data increases.
EX_EPM_MTRK_DATA	Contains the message tracking data. Increases as the number of messages increases.
EX_EPM_MSG_DATA	Contains the actual message data. Can increase quite significantly depending on the size of the messages.
EX_EPM_SEC_MSG_DAT	Contains the security message data used primarily in RosettaNet.
EX_EPM_VAL_DATA	Contains the validation information; for example, HIPAA.

The installation of the DB2 UDB database objects and tablespaces can be run locally or remotely. If installing remotely, the DB2 UDB client needs to be installed and configured for the database on the remote server.

Installing the Database Objects

Before you begin:

- You must manually create the eXchange database owner on the operating system level. Refer to the DB2 UDB user guide for more information.

- Exit all Windows programs, including any anti-virus applications.

To install the database from Windows

1 Log on to the machine.

2 Insert the installation CD into the CD-ROM drive.

   If Autorun is enabled, the setup program automatically starts. Otherwise:

   ◆ On the task bar, click the **Start** button, and then click **Run**.

   ◆ In the **Open** field, type **D:\setup\setup.exe** where **D:** is your CD-ROM drive.

3 Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

4 When the **User Information** dialog box appears, enter the user name and company for which this software is installed, and then click **Next**.

5 In the **Please choose the product to install** dialog box, select the **e*Xchange Partner Manager** check box, and then click **Next**.

The **Check Setup Information** dialog box appears.

6 Confirm that the **e*Xchange** component has been selected, and then click **Next**.

This launches the **e*Xchange** portion of the setup wizard.

7 Follow the online prompts through the **Welcome**, **Software License Agreement**, and **Information** dialog boxes.

8 In the **User Information** dialog box, enter the user name and company for which this software is installed, and then click **Next**.

9 In the **Choose Destination Location** dialog box, click **Browse** to change the destination folder; otherwise, click **Next** to continue.

10 In the **Select Components** dialog box, select the **e*Xchange Database Schema** check box. Make sure that the **e*Xchange GUI** and **e*Xchange eGate Schema** check boxes are *not* selected, and then click **Next**.

The **Check Setup Information** dialog box appears.

11 Review the installation information for the e*Xchange back-end components, and then click **Next**.

12 In the **About the Database Schema** dialog box, review the installation information, and then click **Next**.

13 In the **Select Database Server to support e*Xchange** dialog box, select **UDB** and then click **Next**.

14 In the **Database Administrator Information** dialog box, enter the DB2 UDB administrator **Username** and **Password**, and then click **Next**.

15 In the **Database Owner Information** dialog box, enter a **Username** and **Password**, and then click **Next**.

Note: The username and password must be previously defined.

16 In the **UDB Database Setup Options** dialog box, select **Schema requiring existing Database, Tablespaces**, and then click **Next**.

17 In the **UDB Specific Info** dialog box, enter a host name and database name, and then click **Next**.

Note: The database, tablespaces, and tables are created.

18 An information message appears to show that **udb_ex_install.bat** has been launched successfully. Click **OK**.

19 In the **Setup Complete** dialog box, click **Finish** to complete the installation process.

20 In the second **Setup Complete** dialog box, select whether to reboot the computer now or later, and then click **Finish** to complete the installation process.

Post-Installation Notes

You must perform the following two steps after the installation has been completed:

A Update the application heap size of the database on the DB2 UDB server to 1000.

B Run **usejdbc2.bat**. This is located in %DB2TEMPDIR%\SQLLIB\java12.

11.4 Creating a DB2 UDB Database Manually

The following section provides instructions for creating a DB2 UDB database schema for e*Xchange. You can create the database schema either before or after installing the e*Xchange GUIs. There are three options for the installation.

- Creating a DB2 UDB database, tablespaces, database objects (tables and indexes) (local only)

- Creating the tablespaces and database objects via the scripts. This requires that the database is already created (local or remote)

- Creating the database objects via the scripts. This requires the database and the tablespaces are already created (local or remote)

Important: *Before you begin, you must have DB2 UDB installed. Read the DB2 UDB documentation for information specific to the DB2 UDB installation.*

To create a DB2 UDB database

1 Copy the installation files from the e*Xchange Installation CD to the e*Xchange root directory.

2 Modify the files containing the database name.

3 Modify the files containing the user name and password.

4 Modify the file containing reference to the server.

5 Modify and run the installation file.

11.4.1. Copying the Installation Files to the e*Xchange Root Directory

Before you run the installation, you must copy the files to your own directory so that you can modify them.

To copy the necessary files

- On the machine from which you want to install the e*Xchange DB2 UDB database, copy the following folder on the CD to the e*Xchange root directory:

```
CD:\setup\eXchange\database\UDB
```

The result will be:

\eXchange**UDB**

11.4.2. Modifying SQL Statements

For the DB2 UDB database, you must modify the following two SQL scripts with information specific to your site.

A   \eXchange\UDB\cr_udb_user.sql

Important: *If you run the automatic install before the manual install, the default* ***cr_udb_user.sql*** *is replaced by one with values inserted via the install wizard.*

B   One of the following:

Table 18   Batch Files for DB2 UDB Manual Install

Batch file	Purpose
\eXchange\UDB\udb_ex_install.bat	Creates database, tablespaces, and database objects
\eXchange\UDB\udb_ex_install2.bat	Creates the tablespaces and database objects (database pre-created)
\eXchange\UDB\udb_ex_install3.bat	Only creates the database objects (database and tablespaces pre-created)

To modify cr_udb_usr.sql

1   Open **\eXchange\UDB\cr_udb_user.sql** in any text editor.

2   Update all references to "ex_admin" to the new user name.

3   Save and close the file.

To modify udb_ex_install.bat, udb_ex_install2.bat, or udb_ex_install3.bat

1   In the e*Xchange DB2 UDB directory on your local drive:

\exchange\UDB

locate the file **udb_ex_install.bat**, **udb_ex_install2.bat**, or **udb_ex_install3.bat**.

2   Open the file in any text editor and check that the names you specified for the database and the server are referenced in the file. Make changes as required.

   A   Set "__HOST=" to the host name

   B   Set "__USER=" to the eXchange schema owner

   C   Set "__PASSWORD=" to the eXchange schema owner password

   D   Set "__DATABASE=" to the name of the database

   E   Set "__DBADMINUSER=" to the database administrator

   F   Set "__DBADMINPASSWORD=" to the database administrator password

3   Save any changes, and close the text file.

To run the install batch script

- ▪ Double-click the install script modified in **"To modify udb_ex_install.bat, udb_ex_install2.bat, or udb_ex_install3.bat" on page 93**. The schema is created, and is owned by the specified user.

11.4.3.Post-Installation Notes

You must perform the following two steps after the installation has been completed:

A Update the application heap size of the database on the DB2 UDB server to 1000.

B Run **usejdbc2.bat**. This is located in %DB2TEMPDIR%\SQLLIB\java12.

11.5 Creating the DB2 UDB ODBC Connection

The e*Xchange back end requires the installation of the DB2 UDB ODBC driver in order to connect to the DB2 UDB database. The ODBC driver must be installed on the same machine as the e*Xchange back end. You can install the driver when you install the DB2 UDB Client software.

The ODBC connection should be configured for your database instance with the default settings. However, one change must be made to the default settings in order for the ODBC driver to properly handle BLOBS/CLOBS. This is described below.

The database must be running before you can create an ODBC connection to it.

To configure the ODBC connection

1 Start the DB2 UDB database for which you are creating the ODBC connection.

2 Open the **ODBC Data Source Administrator** dialog box. For example, on Windows 2000:

- ◆ From **Start**, go to **Settings**, **Control Panel**, **Administrative Tools**, **Data Sources (ODBC)**.

3 In the **ODBC Data Source Administrator** dialog box, select the **System DSN** tab.

4 Select your ODBC driver and then click **Configure**.

The **Create New Data Source** dialog box appears.

5 Once you log on to the database, select **Advanced**.

6 Select the **Data Type** tab.

7 Set **Long object binary treatment** to **As LONGVAR data**.

8 Click **OK**.

9 Click **OK** to close the **ODBC Data Source Administrator**.

11.6 Uninstalling the DB2 UDB Database

If at any point you want to uninstall the DB2 UDB database that you created for e*Xchange, you must do it via DB2 UDB itself. Uninstalling e*Xchange does not remove the DB2 UDB database.

Updating the e*Xchange e*Gate Schema

e*Xchange 5.0.*x* SRE requires e*Gate 4.5.1 or later to run the e*Xchange e*Gate schema. This chapter describes how to prepare the e*Xchange e*Gate schema before you upgrade to the current version of e*Xchange.

If you have any questions or problems, please contact our technical support group at (800) 798-0447. For online support, contact us at **http://www.SeeBeyond.com**; from the **SERVICES** menu bar, select **Support Services**.

A.1 Updating the Schema

To upgrade your schema to the current version, follow the steps below. It is important to do these steps in the sequence given.

1 Export the old schema from the production environment.

2 Install e*Gate in a test environment.

3 Import the old e*Gate schema into the test environment.

4 Run stcschemutil with the repository file in the test environment. For more information on stcschemutil, refer to **"Using the stcschemutil.exe Utility" on page 96**.

5 Install the current schema on top of the imported old schema in the test environment.

6 Do a full backup of the old production environment.

7 Run stcschemutil with the repository file in the production environment.

8 Install the current schema on top of the existing old schema.

A.1.1. Using the stcschemutil.exe Utility

Before you upgrade to the current version of e*Xchange, you must run the **stcschemutil.exe** utility. This utility goes through the e*Gate directory structure and deletes or renames only those files with a checksum matching that of files that were previously installed on an initial install, an upgrade, or an ESR installation. The stcschemutil.exe utility uses the repository file to evaluate which files to change. If you have created files for your specific installation, or modified files after installation,

stcschemutil will not touch those files, since they have a different checksum. You must manually transfer the new or customized files to the new schema yourself.

In older versions of e*Xchange, numerous files from the default schema were copied into user-defined schemas, creating unnecessary duplication. In version 4.5.2 and later, when you create a new schema, the basic underlying files necessary to every schema physically remain inside the directory of the default schema. Only altered files and newly created files are stored inside the new schema directory structure on the hard drive.

The function of this utility is to prevent e*Gate from being able to use old files in place of the updated e*Xchange files.

Important: ***Back up your files before running this utility****. This procedure deletes files and is irreversible. Be sure you provide the correct path so that it deletes the right files; and, if you want to preserve files, be sure you provide the correct relative path for the files you are keeping.*

To update your e*Gate schema, you must run the command-line utility, **stcschemutil.exe**, provided with your installation. This utility requires certain files in certain locations, as shown in Table 19.

When running the current version of e*Xchange on e*Gate 4.5.2 or 4.5.1, rename the file **stcschemutil_prior.txt** to **stcschemutil.txt** and copy it to the machine on which the e*Gate server is installed.

When running the current version of e*Xchange on e*Gate 4.5.3 or later, copy the file **stcschemutil.txt** to the machine on which the e*Gate server is installed.

To set up your machine to run the utility, copy the files as shown in Table 19.

Table 19   stcschemutil Files

Copy this file…	To this location…
One of the following, as applicable: ▪ **\\setup\eXchange\utils\stcschemutil_prior.txt** (if using e*Gate 4.5.1 or 4.5.2) ▪ **\\setup\eXchange\utils\stcschemutil.txt** (if using e*Gate 4.5.3 or later)	A temporary folder on your hard drive: for example, **\\<egate>\stcschemutil**. If you are using **stcschemulti_prior.txt**, rename it to **stcschemutil.txt**.
\\setup\eXchange\utils\bin\<platform-specific directory>\stcschemutil.exe	The same location in which you put **stcschemutil.txt**.

Stcschemutil offers the parameters shown in Table 20.

Table 20   Stcschemutil Parameters

Parameter	Meaning
-ver	Shows the version number
-sd <param>	<e*Gate server directory path name> <[rename] [remove]>
-rename	Renames files
-remove	Deletes files

Table 20   Stcschemutil Parameters

Parameter	Meaning
-keep <param>	Keeps directories. If you want to keep more than one directory, list each one, separated by a comma with no spaces. **Note**: List the path relative to \<eGate>\Server\Registry\Repository.
-dbf	Path to the text file (only needed if the text file is not in the same folder as the executable file).

Example:

stcschemutil -sd c:\egate\server -remove -keep default\monk_scripts\templates\ROS,default\monk_scripts\templates\EX

The above example runs stcschemutil to clean up old files, but preserves the \ROS and \EX directories and their contents.

To run stcschemutil.exe

Important: *Be very sure you know exactly what you want to delete and what you want to keep before proceeding. It is also a good idea to back up your files prior to running this utility. This utility deletes and renames files and there is no "undo" procedure.*

Important: *Ensure that no files or directories are write protected.*

1 Copy files from the CD to your hard drive, as shown in Table 19.

2 Navigate to the directory from which you will run stcschemutil.

The files you copied in Step 1 must be in this directory.

3 Run either of the following commands, substituting the values **egate** and **directory to keep** as shown:

stcschemutil.exe -sd <**egate**>/server -rename -keep <**directory to keep**>

stcschemutil.exe -sd <**egate**>/server -remove -keep <**directory to keep**>

For more information, refer to Table 20.

Important: *If you have a custom implementation using the e*Xchange ETD library structures, you must run **stcschemutil** with the **-keep** command to preserve your customized ETD structures. If you do not, the update utility will clear all ETD structures from the **default\monk_scripts\templates\eX** directory.*

A.1.2. Reviewing the Log File

After **stcschmutil.exe** has been run, you must review the log file to review any messages that were displayed and define what items require follow-up action.

The log file, **stcschemutil.log**, is in the **<eGate>\server\registry\repository** directory.

A.1.3. **stcschemutil.exe Related Messages**

The following table outlines the messages that might display when you run the **stcschemutil.exe** command, with a brief explanation of each.

Table 21   stcschemutil.exe Related Messages

Error Message	Explanation	Suggested Action
Filename Found. Renamed or Removed	The file was found, matched the one in the new file, and was either renamed or removed.	Message is informational only.
ERROR Please remove	The file name was found but the contents are not the same as in the new file. It is recommend that the old file be removed.	Check the old file, and remove if it is not needed.
Not a valid egate path	The pathname entered does not seem to have the default schema in the repository.	Check for the validity of the default schema and the e*Gate path referenced.
Error in renaming the file	Tried to rename but could not; possibly because there is already a file with the new name or the user does not have permission.	Check for duplicate names, and change as necessary.
Error in deleting the File	Tried to delete but could not. Could be that the user does not have write permission.	Check permissions on the person running the executable.
Error in opening file	The file could not be opened; possibly because the file could not be found.	Check for file in directory.
Error in allocating memory	There was an error in allocating the necessary memory for the files.	Check the memory allocation.

Upgrading the Database Schema from 4.1.2 to 4.5

This appendix describes how to upgrade an existing 4.1.2 e*Xchange database schema to work with e*Xchange version 4.5.

Important: *If you are upgrading from 4.1.0 to 4.5, you must first run the install script to update the schema from 4.1.0 to 4.1.1. See **"Upgrading the Database Schema from 4.1.0 to 4.1.1" on page 118**. Then follow the upgrade procedure to update the schema from 4.1.1 to 4.1.2. See **"Upgrading the Database Schema from 4.1.1 to 4.1.2" on page 121**.*

B.1 Upgrading an Oracle Database Schema from 4.1.2 to 4.5

To upgrade a 4.1.2 e*Xchange database schema to 4.5, execute the following steps:

1 Extract the upgrade files

2 Update the files

3 Assign roles to users

B.1.1. Extracting the Upgrade Files

To extract the upgrade files

1 Create a folder on a machine that has a connection to the e*Xchange database.

2 On the e*Xchange installation CD, navigate to this location:

   \setup\applications\eXchange\database\Oracle\upgrade_scripts

3 Using a utility such as WinZip, decompress the file **upd_ePM_ora_412_45.taz**, placing the files in the folder that you created in Step 1.

B.1.2. Updating the Files

To update the sql files

1 Make the following change in the file **update_ePM_412_45.sql**:

- Set the SCRIPT_HOME variable to the location of the update scripts. For Windows, include the drive letter.

2 Make the following changes in the file **epm_defs.sql**:

- Set DATE_FORMAT to the format used in your previous schema (if the date format you use is not the default).

- Set EPM_ROLE_412 to the role name used in 4.1.2

- If desired, change the names of the two roles that are new in version 4.5. It is recommended to use the defaults.

- The tablespace names are listed. These were the defaults for 4.1.2. If the tablespace names were changed for the 4.1.2 installation, change the var names in this file to match.

Updating the Schema and Assigning Roles to Users

To update the schema and assign a role to each e*Xchange user

1 Log on to SQLPLUS as the schema owner.

By default, the schema owner is **ex_admin**.

2 Execute script **update_ePM_412_45.sql**.

This updates the schema to the 4.5 configuration.

3 Set DB roles as needed.

There are two possible DB roles to choose from in e*Xchange. Do the following:

- Log on to the version 4.5 e*Xchange Administrator GUI as a user that has User Administrator privileges.

- Manually assign one or both of the roles to each of the users created for e*Xchange.

The database schema is now updated to 4.5. You must now follow the steps in **"Upgrading an Oracle Database Schema from 4.5 to 4.5.1" on page 104** to complete the upgrade to 4.5.1.

B.2 Upgrading a SQL Server Database from 4.1.2 to 4.5

To upgrade a 4.1.2 e*Xchange database schema to 4.5, execute the following steps:

1 Extract the upgrade files

2 Edit the upgrade files/script

B.2.1. Extracting the Upgrade Files

To extract the upgrade files

1   Create a folder on a machine that has a connection to the e*Xchange database.

2   On the e*Xchange installation CD, navigate to this location:

   setup\eXchange\database\sqlserver\upgrade_scripts

3   Using a utility such as WinZip, decompress the file **upd_ePM_sql_412_45.taz**, placing the files in the folder that you created in Step 1.

B.2.2. Editing the Upgrade Files/Script

To edit the update script

1   Change the following settings in the file **update_ePM_412_45.bat**:

   ◆ Modify the __USER=sa to __USER=<username>, admin username.

   ◆ Modify the __PASSWORD=sa to __PASSWORD=<password>, admin password.

   ◆ Modify the __HOST=%COMPUTERNAME% to __HOST=<server>, hostname where SQL Server is installed and e*Xchange database will be located.

   ◆ Modify the __DATABASE=exchange to __DATABASE=<database name>, the name of the database. The name *must* be unique within the server.

Upgrading the Schema and Assigning Roles to Users

To update the schema and assign a role to each e*Xchange user

*Note: The default user is **ex_admin**. If the existing database has been changed to a different user name, you must modify **create_new_role.sql** to replace all instances of **ex_admin** with the new default user name.*

1   To begin installation, double-click **update_ePM_412_45.bat**.

   This installs the e*Xchange upgrade from 4.1.2 to 4.5.

2   Set DB roles as needed.

   There are two possible DB roles to choose from in e*Xchange. Do the following:

   ◆ Log on to the version 4.5 e*Xchange Administrator GUI as a user that has User Administrator privileges.

   ◆ Manually assign one or both of the roles to each of the users created for e*Xchange.

3   Conditional: edit **create_new_role.sql** file if needed.

4   The default user is **ex_admin**. If the existing database has been changed to a different username, you must modify the file to replace all instances of **ex_admin** with the new default user name.

The database is now updated to 4.5. Follow the steps in **"Upgrading a SQL Server Database from 4.5 to 4.5.1" on page 105** to complete the upgrade to 4.5.1.

Upgrading the Database from 4.5 to 4.5.1

This appendix describes how to upgrade an existing 4.5 e*Xchange database to work with e*Xchange version 4.5.1.

Important: *If you are upgrading from 4.1.2 or earlier to 4.5.1, you must first run the install script to update the database from 4.1.2 to 4.5. See* **"Upgrading the Database Schema from 4.1.2 to 4.5" on page 100***.*

C.1 Upgrading an Oracle Database Schema from 4.5 to 4.5.1

To upgrade a 4.5 e*Xchange database schema to 4.5.1, execute the following steps:

1 Extract the upgrade files

2 Edit the upgrade file/script as necessary

3 Execute the scripts

4 (Optional) Drop the e*Xchange users

C.1.1. Extracting the Upgrade Files

To extract the upgrade files

1 Create a folder on a machine that has a connection to the e*Xchange database.

2 On the e*Xchange installation CD, navigate to this location:

   \setup\eXchange\database\oracle\upgrade_scripts

3 Using a utility such as WinZip, decompress the file **upd_eX_ora_450_451.taz**, placing the files in the folder that you created in Step 1.

C.1.2. Updating the File

To update the sql files

1 Make the following change in the file **update_eX_450_451.sql**:

   ⬥ Set the SCRIPT_HOME variable to the location of the update scripts. For Windows, include the drive letter.

 ◆ Set DATE_FORMAT to the format used in your previous schema (if the date format you use is not the default).

 ◆ Set EPM_DEF_ROLE to the role name used in 4.5. This is currently set to the default value.

 ◆ Set EPM_RT_ROLE to the role name used in 4.5. This is currently set to the default value.

Important: *This update script drops the public synonyms. If this schema originated from 4.1.2 or earlier and e*Insight is sharing this schema, comment out the following line so that the public synonyms are not dropped.*

```
@&SCRIPT_HOME/drop45_syns
```

C.1.3. Updating the Schema

To update the schema

1 Log on to SQLPLUS as the schema owner.

 By default, the schema owner is **ex_admin**.

2 Execute the update scripts by entering the following command:

 @update_eX_450_451.sql

 This updates the schema to the 4.5.1 configuration.

C.1.4. Dropping e*Xchange Users (Optional)

As of e*Xchange 4.5.1, the users created within the application are no longer created or needed at the database level. The users, other than the schema owner, can be removed from the database level. The command for this is:

```
drop user <username> cascade
```

This must be performed by the DBA user from SQL Plus.

Important: *This will drop the user and all of the database objects that the user owns. Before doing this, ensure that the user is only used within the e*Xchange application.*

The database schema is now updated to 4.5.1. To complete the upgrade to 4.5.2, follow the steps in .

C.2 Upgrading a SQL Server Database from 4.5 to 4.5.1

To upgrade a 4.5 e*Xchange database to 4.5.1, execute the following steps:

1 Extract the upgrade files

2 Edit the upgrade file/script as necessary

3   Execute the upgrade script

C.2.1. Extracting the Upgrade Files

To extract the upgrade files

1   Create a folder on a machine that has a connection to the e*Xchange database.

2   On the e*Xchange installation CD, navigate to this location:

   setup\eXchange\database\sqlserver\upgrade_scripts

3   Using a utility such as WinZip, decompress the file **upd_eX_ss_450_451.taz**, placing the files in the folder that you created in Step 1.

C.2.2. Editing the Upgrade File/Script

To edit the update script

1   Change the following settings in the file **update_eX_450_451.sql**:

   ◆ Set EPM_DEF_ROLE and EPM_RT_ROLE variable to the role names used in 4.5, if these have been changed from the default values.

C.2.3. Updating the Database

To update the database

1   In a command window, navigate to the directory where the update scripts are located.

2   Execute the following command:

```
isql -U<username> -P<password> -S<host> -d<eXchangeDB>
-iupdate_eX_450_451.sql > eX_450_451.log
```

Use the database administrator user name and password for this command.

3   Optional. The 4.5.1 e*Xchange application no longer creates or uses database level users other than the database owner. Therefore, all users created from the application can now be deleted at the database level. These "additional users" still maintain their user names and passwords within the application.

The database is now updated to 4.5.1. Follow the steps in **"Upgrading a SQL Server Database from 4.5.1 to 4.5.2" on page 109** to complete the upgrade to 4.5.2.

C.3   Upgrading a Sybase Database from 4.5 to 4.5.1

To upgrade a 4.5 e*Xchange database to 4.5.1, execute the following steps:

1   Extract the upgrade files

2   Edit the upgrade file/script as necessary

3 Execute the upgrade script

C.3.1. Extracting the Upgrade Files

To extract the upgrade files

1 Create a folder on a machine that has a connection to the e*Xchange database.

2 On the e*Xchange installation CD, navigate to this location:

setup\eXchange\database\sybase\upgrade_scripts

3 Using a utility such as WinZip, decompress the file **upd_eX_sy_450_451.taz**, placing the files in the folder that you created in Step 1.

C.3.2. Editing the Upgrade File/Script

To edit the update script

1 Change the following settings in the file **update_eX_450_451.sql** if required:

 ◆ The last three lines of the upgrade script list the default roles to be removed. Change these role names if they were modified from the default value during the initial installation.

Upgrading the Database

To update the database

1 In a command window, navigate to the directory where the update scripts are located.

2 Execute the following command:

```
isql –U<username> -P<password> -S<host> -D<eXchangeDB>
-iupdate_eX_450_451.sql > eX_450_451.log
```

Use the database administrator user name and password for this command.

3 Optional. The 4.5.1 e*Xchange application no longer creates or uses database level users other than the database owner. Therefore, all users created from the application can now be deleted at the database level. These "additional users" still maintain their user names and passwords within the application.

The database is now updated to 4.5.1. Follow the steps in **"Upgrading a Sybase Database from 4.5.1 to 4.5.2" on page 110** to complete the upgrade to 4.5.2.

Upgrading the Database from 4.5.1 to 4.5.2

This appendix describes how to upgrade an existing 4.5.1 e*Xchange database to work with e*Xchange version 4.5.2.

Important: *If you are upgrading from 4.1.2, you must first run the install script to update the database from 4.1.2 to 4.5.1. See **"Upgrading the Database Schema from 4.1.2 to 4.5" on page 100**. Also, refer to this chapter if you are upgrading from an earlier version.*

D.1 Upgrading an Oracle Database Schema from 4.5.1 to 4.5.2

To upgrade a 4.5.1 e*Xchange database schema to 4.5.2, execute the following steps:

1 Extract the upgrade files

2 Edit the upgrade file/script as necessary

3 Execute the scripts

D.1.1. Extracting the Upgrade Files

To extract the upgrade files

1 Create a folder on a machine that has a connection to the e*Xchange database.

2 On the e*Xchange installation CD, navigate to this location:

setup\eXchange\database\oracle\upgrade_scripts

3 Using a utility such as WinZip, decompress the file **upd_eX_ora_451_452.taz**, placing the files in the folder that you created in Step 1.

D.1.2. Updating the File

To update the sql file

1 Make the following change in the file **update_eX_451_452.sql**:

  ◆ Set the SCRIPT_HOME variable to the location of the update scripts. For Windows, include the drive letter.

◆ Set DATE_FORMAT to the format used in your previous schema (if the date format you use is not the default).

D.1.3. Updating the Schema

To update the schema

1 Log on to SQLPLUS as the schema owner.

   By default, the schema owner is **ex_admin**.

2 Execute the update scripts by entering the following command:

   ```
   @update_eX_451_452.sql
   ```

   This updates the schema to the 4.5.2 configuration.

The database schema is now updated to 4.5.2.

D.2 Upgrading a SQL Server Database from 4.5.1 to 4.5.2

To upgrade a 4.5.1 e*Xchange database to 4.5.2, execute the following steps:

1 Extract the upgrade files

2 Edit the upgrade file/script as necessary

3 Execute the upgrade script

D.2.1. Extracting the Upgrade Files

To extract the upgrade files

1 Create a folder on a machine that has a connection to the e*Xchange database.

2 On the e*Xchange installation CD, navigate to this location:

   setup\eXchange\database\sqlserver\upgrade_scripts

3 Using a utility such as WinZip, decompress the file **upd_eX_ss_451_452.taz**, placing the files in the folder that you created in Step 1.

D.2.2. Updating the Database

To update the database

1 In a command window, navigate to the directory where the update scripts are located.

2 Execute the following command:

   ```
   ss_ex_upgrade.bat <username> <password> <host> <eXchangeDB>
   ```

   Use the schema owner user name and password for this command.

   The database is now updated to 4.5.2.

D.3   Upgrading a Sybase Database from 4.5.1 to 4.5.2

To upgrade a 4.5.1 e*Xchange database to 4.5.2, execute the following steps:

1   Extract the upgrade files

2   Edit the upgrade file/script as necessary

3   Execute the upgrade script

D.3.1. Extracting the Upgrade Files

To extract the upgrade files

1   Create a folder on a machine that has a connection to the e*Xchange database.

2   On the e*Xchange installation CD, navigate to this location:

setup\eXchange\database\sybase\upgrade_scripts

3   Using a utility such as WinZip, decompress the file **upd_eX_sy_451_452.taz**, placing the files in the folder that you created in Step 1.

D.3.2. Upgrading the Database

To update the database

1   In a command window, navigate to the directory where the update scripts are located.

2   Execute the following command:

```
sy_ex_upgrade.bat <username> <password> <host> <eXchangeDB>
```

Use the schema owner user name and password for this command.

The database is now updated to 4.5.2.

D.4   Upgrading a DB2 UDB Database from 4.5.1 to 4.5.2

To upgrade a 4.5.1 e*Xchange database to 4.5.2, execute the following steps:

1   Extract the upgrade files

2   Edit the upgrade file/script as necessary

3   Execute the upgrade script

Note: *JRE 1.3.1 must be installed and defined in the classpath. Also, the environment variable DB2TEMPDIR must exist (this is usually created when DB2 UDB is installed).*

D.4.1. Extracting the Upgrade Files

To extract the upgrade files

1 Create a folder on a machine that has a connection to the e*Xchange database.

2 On the e*Xchange installation CD, navigate to this location:

   setup\eXchange\database\udb\upgrade_scripts

3 Using a utility such as WinZip, decompress the file **upd_eX_udb_451_452.taz**, placing the files in the folder that you created in Step 1.

D.4.2. Upgrading the Database

To update the database

1 In a command window, navigate to the directory where the update scripts are located.

2 Execute the following command:

```
udb_ex_upgrade.bat <username> <password> <host> <eXchangeDB>
```

Use the schema owner user name and password for this command.

The database is now updated to 4.5.2.

Upgrading the Database from 4.5.2 to 4.5.3

This appendix describes how to upgrade an existing 4.5.2 e*Xchange database to work with e*Xchange version 4.5.3, after which time it can be used in e*Xchange5.0.*x* SRE.

If you are upgrading from a version prior to 4.5.2, you must first perform the appropriate incremental upgrades, from one version to another, until you are ready to upgrade from 4.5.2 to 4.5.3. For instructions, refer to the following chapters:

- Upgrading from 4.1.2 to 4.5—**"Upgrading the Database Schema from 4.1.2 to 4.5" on page 100**.
- Upgrading from 4.5 to 4.5.1—**"Upgrading the Database from 4.5 to 4.5.1" on page 104**
- Upgrading from 4.5.1 to 4.5.2—**"Upgrading the Database from 4.5.1 to 4.5.2" on page 108**

E.1 Upgrading an Oracle Database Schema from 4.5.2 to 4.5.3

To upgrade a 4.5.2 e*Xchange Oracle database schema to 4.5.3 (which makes it usable in e*Xchange 5.0.*x* SRE), execute the following steps:

1 Extract the upgrade files

2 Edit the upgrade file/script as necessary

3 Execute the scripts

E.1.1. Extracting the Upgrade Files

To extract the upgrade files

1 Create a folder on a machine that has a connection to the e*Xchange database.

2 On the e*Xchange installation CD, navigate to this location:

setup\eXchange\database\oracle\upgrade_scripts

3 Using a utility such as WinZip, decompress the file **upd_eX_ora_452_453.taz**, placing the files in the folder that you created in Step 1.

E.1.2. Updating the File

To update the sql file

1   In the file **update_eX_452_453.sql** (the upgrade script), make the following changes:

    ◆ Set the SCRIPT_HOME variable to the location of the update scripts. For Windows, include the drive letter.

    ◆ Set the DATE_FORMAT variable to the format used in your previous schema (if the date format you use is not the default).

    ◆ Edit the TNS_NAME variable to specify the TNS name for the Oracle instance that contains the e*Xchange database schema.

    ◆ Edit the EX_USER and EX_USER_PASSWD variables to specify the location of the tablespace that is new to e*Xchange 4.5.3 or later.

2   In the file **update_eX_452_453.sql**, make one of the following changes, depending on the version of e*Xchange from which you are upgrading:

    ◆ If you have upgraded from e*Xchange 4.1.2, and ESR 44218 was previously applied to your system, search for the following string in the file, and uncomment it:
    @&SCRIPT_HOME/ESR44218/ex_upd_452_ESR44218B.sql

    ◆ If you have upgraded from any version of e*Xchange other than 4.1.2, search for the following string in the file, and uncomment it:
    @&SCRIPT_HOME/ESR44218/ex_upd_452_ESR44218A.sql

3   Search for TSP5, which is the name of a new tablespace used for the HIPAA codesets. The standard installation allows 50 MB for these codesets. Edit the path/folder name for TSP5 as needed to ensure the location is appropriate for your installation; either an existing folder, or a new folder. If you choose to store this tablespace in a new folder, make sure you create the actual folder as well as specifying it in the upgrade script.

4   Save the changes and close the file.

E.1.3. Updating the Schema

To update the schema

1   Navigate to the location of the **update_eX_452_453.sql** file.

2   Log on to SQLPLUS as the schema owner.

    By default, the schema owner is **ex_admin**.

3   Execute the update scripts by entering the following command:

    ```
    @update_eX_452_453.sql
    ```

    This updates the schema to the 4.5.3 configuration, making it usable on e*Xchange 5.0.x SRE.

Note: *Rather than navigating to the location, you can include the path in the SQL command. For example:*
@D:\eGate\setup\eXchange\dbupgrade\update_eX_452_453.sql

The database schema is now updated to 4.5.3, which makes it usable in e*Xchange 5.0.*x* SRE.

E.2   Upgrading a SQL Server Database from 4.5.2 to 4.5.3

To upgrade a 4.5.2 SQL Server e*Xchange database to 4.5.3 (which makes it usable in e*Xchange 5.0.*x* SRE), execute the following steps:

1 Extract the upgrade files

2 Edit the upgrade file/script as necessary

3 Execute the upgrade script

E.2.1. Extracting the Upgrade Files

To extract the upgrade files

1 Create a folder on a machine that has a connection to the e*Xchange database.

2 On the e*Xchange installation CD, navigate to this location:

setup\eXchange\database\sqlserver\upgrade_scripts

3 Using a utility such as WinZip, decompress the file **upd_eX_ss_452_453.taz**, placing the files in the folder that you created in Step 1.

E.2.2. Updating the SQL Server Database

To update the database

1 In a command window, navigate to the directory where the update scripts are located.

2 In the file **ss_ex_upgrade.bat**, make the changes shown in Table 22.

Table 22   Updating the ss_ex_upgrade.bat File

Search for this…	And change it to this…
__USER=ex_admin	__USER=<username>, eXchange username
__PASSWORD=ex_admin	__PASSWORD=<password> (e*Xchange user password)
__HOST=%COMPUTERNAME%	__HOST=<server> (name of the host where SQL Server is installed and e*Xchange database is located)

Table 22 Updating the ss_ex_upgrade.bat File (Continued)

Search for this…	And change it to this…
__DATABASE=exchange	__DATABASE=<database name> (name of the e*Xchange database)
__DBADMINUSER=sa	__DBADMINUSER=<db admin user> (database administrator username)
__DBADMINPASSWORD=sa	__PASSWORD=<db admin password> (database administrator password)

3 In the file **ss_ex_upgrade.bat**, make one of the following changes, depending on the version of e*Xchange from which you are upgrading:

- If you have upgraded from e*Xchange 4.1.2, and ESR 44218 was previously applied to your system, search for the following string in the file, and uncomment it:
  osql -U%__USER% -P%__PASSWORD% -S%__HOST% -d%__DATABASE% -iESR44218/ex_ss_452_ESR44218B.sql > ex_ss_452_ESR44218B.sql

- If you have upgraded from any version of e*Xchange other than 4.1.2, search for the following string in the file, and uncomment it:
  osql -U%__USER% -P%__PASSWORD% -S%__HOST% -d%__DATABASE% -iESR44218/ex_ss_452_ESR44218A.sql > ex_ss_452_ESR44218A.sql

4 In the file **upd_ex_install.sql**, search for all instances of the database name "eXchange" and replace with the name of your e*Xchange database.

5 In the file **upd_ex_install.sql**, change the data file location correspondingly on the following line:

FILENAME = 'c:\sql server\data\exchange\EX_EPM_VAL_DATA.ndf'

6 In the file **upd_es_ext_det_data.sql**, search for all instances of the username "ex_admin" and replace with the administrator username for your e*Xchange database.

7 In the file **upd_es_mtrk_hdr_det.sql**, search for all instances of the username "ex_admin" and replace with the administrator username for your e*Xchange database.

8 Execute the following command:

```
ss_ex_upgrade.bat <username> <password> <host> <eXchangeDB>
```

Use the schema owner user name and password for this command.

The database is now updated to 4.5.3, which means it can now be used in e*Xchange 5.0.*x* SRE.

E.3 Upgrading a Sybase Database from 4.5.2 to 4.5.3

To upgrade a 4.5.2 e*Xchange database to 4.5.3 (which makes it usable in e*Xchange 5.0.*x* SRE), execute the following steps:

1 Extract the upgrade files

2 Edit the upgrade file/script as necessary

3 Execute the upgrade script

E.3.1. Extracting the Upgrade Files

To extract the upgrade files

1 Create a folder on a machine that has a connection to the e*Xchange database.

2 On the e*Xchange installation CD, navigate to this location:

setup\eXchange\database\sybase\upgrade_scripts

3 Using a utility such as WinZip, decompress the file **upd_eX_sy_452_453.taz**, placing the files in the folder that you created in Step 1.

E.3.2. Upgrading the Database

To update the database

1 In a command window, navigate to the directory where the update scripts are located.

2 Execute the following command:

```
sy_ex_upgrade.bat <username> <password> <host> <eXchangeDB>
```

Use the schema owner user name and password for this command.

The database is now updated to 4.5.3, and can be used in e*Xchange 5.0.*x* SRE.

E.4 Upgrading a DB2 UDB Database from 4.5.2 to 4.5.3

To upgrade a 4.5.2 e*Xchange database to 4.5.3 (which makes it usable in e*Xchange 5.0.*x* SRE), execute the following steps:

1 Extract the upgrade files

2 Edit the upgrade file/script as necessary

3 Execute the upgrade script

Note: *JRE 1.3.1 must be installed and defined in the classpath. Also, the environment variable DB2TEMPDIR must exist (this is usually created when DB2 UDB is installed).*

E.4.1. Extracting the Upgrade Files

To extract the upgrade files

1 Create a folder on a machine that has a connection to the e*Xchange database.

2 On the e*Xchange installation CD, navigate to this location:

setup\eXchange\database\udb\upgrade_scripts

3 Using a utility such as WinZip, decompress the file **upd_eX_udb_452_453.taz**, placing the files in the folder that you created in Step 1.

E.4.2. Upgrading the Database

To update the database

1 In a command window, navigate to the directory where the update scripts are located.

2 Execute the following command:

```
udb_ex_upgrade.bat <username> <password> <host> <eXchangeDB>
```

Use the schema owner user name and password for this command.

The database is now updated to 4.5.3, and can be used in e*Xchange 5.0.x SRE.

Upgrading the Database Schema from 4.1.0 to 4.1.1

This appendix describes how to upgrade an existing 4.1.0 Oracle e*Xchange Database schema to work with e*Xchange version 4.1.1.

Important: *If you are upgrading from 4.1.0 to 4.1.2, you must first run the install script from 4.1.0 to 4.1.1. Once you have completed this upgrade, see* **"Upgrading the Database Schema from 4.1.1 to 4.1.2" on page 121***.*

F.1 Installing the Upgrade

To upgrade a 4.1.0 e*Xchange database schema to 4.1.1, execute the following steps:

1 Extract the upgrade files

2 Edit the upgrade files/script

3 Run the upgrade script from a command line

F.1.1. Extracting the Upgrade Files

To extract the upgrade files

1 Create a folder on a machine that has a connection to the e*Xchange database.

2 On the e*Xchange installation CD, navigate to this location:

   \setup\eXchange\database\Oracle\upgrade_scripts

3 Using a utility such as WinZip, decompress the file **upd_eX_ora_410_411.taz**, placing the files in the folder that you created in Step 1.

F.1.2. Editing the Upgrade Files/Script

You must change several files used in the database upgrade process, using a text editor such as Notepad, to match the site-specific implementation information.

To edit the update script

The file you edit depends on your operating system.

- For Windows, edit **ex_update.bat**
- For UNIX, edit **ex_update.sh**

For either script do the following:

Open the update script appropriate to your operating system in a text editor. Change the environment variables in the upgrade script to match your implementation. Use Table 23 below for more information on changing these variables.

Example: change the line

```
SET TNS_NAME=eXchange
```

to

```
SET TNS_NAME=yourdatabase
```

where "yourdatabase" is the name you use to connect to the e*Xchange database on the machine from which you will be running the upgrade script.

Table 23 Upgrade Script Environment Variables

Environment Variable	Description
Oracle_HOME	The Oracle Home location on the machine from which you will run the upgrade script.
TNS_NAME	The name used to connect to the e*Xchange database on the machine from which you will run the upgrade script.
SYSTEMPW	The password to the system account on the e*Xchange database. (The default is **manager**)
ADMIN_NAME	The name of the e*Xchange administrator account. This account owns the e*Xchange database schema. (The default is **ex_admin**)
ADMIN_PW	The password for the e*Xchange administrator account. (The default is **ex_admin**)
SCRIPTDRIVE	The drive letter on the machine where the upgrade scripts reside. This variable is not used in the UNIX version of the upgrade script.
SCRIPTHOMEDIR	The path on the local machine to the directory where the upgrade scripts are located.

To edit alter_database.sql and update_exchange.sql

Using a text editor, change the files **alter_database.sql** and **update_exchange.sql** to specify your script home path.

Change the line:

```
define SCRIPT_HOME = "c:\update_script"
```

to

```
define SCRIPT_HOME = "c:\yourscripthome"
```

where c:\ is the drive where you created the folder in which to extract the files from the e*Xchange installation CD and "yourscripthome" is the location of the database upgrade scripts that you extracted from the e*Xchange install CD.

To edit tsp_defs.sql

Using a text editor, change the file **tsp_defs.sql** to specify the location of the existing e*Xchange database tablespace files on the machine running the database. These files were created when the 4.1.0 version of the e*Xchange database schema was created. You must use the same location.

Change the lines

```
define TSP1 ="c:\Oracle\oradata\exchange"
define TSP2 ="c:\Oracle\oradata\exchange"
define TSP3 ="c:\Oracle\oradata\exchange"
```

to

```
define TSP1 =<Tablespace path>
define TSP2 =<Tablespace path>
define TSP3 =<Tablespace path>
```

where <Tablespace path> is the location of the existing e*Xchange table spaces on the machine running the e*Xchange database. This is not necessarily the machine being used to run the upgrade script.

F.1.3. Running the Update Script

You can run the update script from either a command prompt or Windows Explorer.

To run the update script

1 Run **ex_update.bat** (or **ex_update.sh** for UNIX) from a command prompt, or double-click it from Windows Explorer.

2 The script displays "Update complete." when finished.

Upgrading the Database Schema from 4.1.1 to 4.1.2

This appendix describes how to upgrade an existing 4.1.1 Oracle e*Xchange database schema to work with e*Xchange version 4.1.2.

Important: *If you are upgrading from 4.1.0 to 4.1.2, you must first run the install script to update the schema from 4.1.0 to 4.1.1. See* **"Upgrading the Database Schema from 4.1.0 to 4.1.1" on page 118***.*

G.1 Installing the Upgrade

To upgrade a 4.1.1 e*Xchange database schema to 4.1.2, execute the following steps:

1 Extract the upgrade files

2 Edit the upgrade files/script

3 Edit the tablespace names

4 Run the upgrade script from a command line

Important: *If you are upgrading from 4.1.0 to 4.1.2, you must first run the install script from 4.1.0 to 4.1.1. See* **"Upgrading the Database Schema from 4.1.0 to 4.1.1" on page 118***.*

G.1.1. Extracting the Upgrade Files

To extract the upgrade files

1 Create a temp folder on a machine that has a connection to the e*Xchange database.

2 On the e*Xchange installation CD, navigate to this location:

   \setup\eXchange\database\Oracle\upgrade_scripts

3 Using a utility such as WinZip, decompress the file **upd_eX_ora_411_412.taz**, placing the files in the folder that you created in Step 1.

G.1.2. Editing the Upgrade Files/Script

Several files used in the database upgrade process must be changed using a text editor to match the site-specific implementation information.

To edit the upgrade files

The file you edit depends on your operating system.

- For Windows, edit **ex_update.bat**

- For UNIX, edit **ex_update.sh**

For either script, do the following:

Open the update script appropriate to your operating system in a text editor. Change the environment variables in the upgrade script to match your implementation. Use Table 24 below for more information on changing these variables.

Example: change the line

```
SET TNS_NAME=eXchange
```

to

```
SET TNS_NAME=yourdatabase
```

where "yourdatabase" is the name you use to connect to the e*Xchange database on the machine from which you will be running the upgrade script.

Table 24   Upgrade Script Environment Variables

Environment Variable	Description
Oracle_HOME	The Oracle Home location on the machine from which you will run the upgrade script.
TNS_NAME	The name used to connect to the e*Xchange database on the machine from which you will run the upgrade script.
SYSTEMPW	The password to the system account on the e*Xchange database. (The default is **manager**.)
ADMIN_NAME	The name of the e*Xchange administrator account. This account owns the e*Xchange database schema. (The default is **ex_admin**.)
ADMIN_PW	The password for the e*Xchange administrator account. (The default is **ex_admin**.)
SCRIPTDRIVE	The drive letter on the machine where the upgrade scripts reside. This variable is not used in the UNIX version of the upgrade script.
SCRIPTHOMEDIR	The path on the local machine to the directory where the upgrade scripts are located.

To edit alter_database.sql

1 Open **<temp>\alter_database.sql** in any text editor.

   Where **temp** is the directory you created in **"Extracting the Upgrade Files" on page 121**.

2 Change the line:

   ```
   define SCRIPT_HOME = \update_script"
   ```

   to

   ```
   define SCRIPT_HOME = \yourscripthome"
   ```

   Where "**yourscripthome**" is the location of the database upgrade scripts that you extracted from the e*Xchange installation CD in the step **"Extracting the Upgrade Files" on page 121**.

To edit update_exchange.sql

1 Open **<temp>\update_exchange.sql** in any text editor.

   Where **temp** is the directory you created in **"Extracting the Upgrade Files" on page 121**.

2 Change the line:

   ```
   define SCRIPT_HOME = \update_script"
   ```

   to

   ```
   define SCRIPT_HOME = \yourscripthome"
   ```

Where "**yourscripthome**" is the location of the database upgrade scripts that you extracted from the e*Xchange installation CD in the step **"Extracting the Upgrade Files" on page 121**.

To edit tsp_defs.sql

1 Open **\<temp>\Oracle\tsp_defs.sql** in any text editor.

Where **temp** is the directory you created in **"Extracting the Upgrade Files" on page 121**.

2 Change the lines:

   ```
   define TSP1 ="c:\Oracle\oradata\exchange"
   define TSP2 ="c:\Oracle\oradata\exchange"
   define TSP3 ="c:\Oracle\oradata\exchange"
   ```

   to

   ```
   define TSP1 =<Tablespace path>
   define TSP2 =<Tablespace path>
   define TSP3 =<Tablespace path>
   ```

   where "**Tablespace path**" is the location of the e*Xchange Oracle database tablespace files.

   Example:

   ```
   Oracle\oradata\<database name>\app_tsp
   ```

Note: *These files were created when the 4.1.0 version of the e*Xchange database schema was created. You must use the same location.*

G.1.3. Updating the Tablespace Names

In version 4.1.1, the tablespace names were modified to be more descriptive, and more closely associated with the e*Xchange components. Due to this change, if you are upgrading to 4.1.2 and the original eXchange installation was version 4.1.0, you must make some modifications to the file **tsp_defs.sql** to use the old (original) tablespace names. In this file, comment out the define statements for the new tablespace names, and uncomment the old tablespace names.

Important: *If you are upgrading from 4.1.1 to 4.1.2, you do* ***not*** *need to make these modifications, as the tablespace names are the same in 4.1.1 and 4.1.2. These steps are only applicable if you are upgrading from 4.1.0 to 4.1.2, and the 4.1.0 to 4.1.1 upgrade has been completed. See* **"Upgrading the Database Schema from 4.1.0 to 4.1.1" on page 118** *for more information.*

To update to 4.1.2 when using the 4.1.0 tablespace names

1 Navigate to **\eXchange\Oracle.**

2 Open **tsp_defs.sql** in any text editor.

The new tablespace names are listed above the dashed line, and the old tablespace names are listed below it. Additionally, each set of old and new tablespace names are broken out by e*Insight and e*Xchange.

Example:

```
-- STC ePM eXchange tablespace info

define TSP_dname1 = "ex_epm_stat_data"
define TSPex_data2 = "&TSP1/ex_epm_stat_data.dbf"

-- STC eBPM eXchange tablespace info

define TSP_dname4 = "ex_ebpm_stat_data"
define TSPex_data4 = "&TSP2/ex_epm_stat_data.dbf"

-------------------------------------------------------

-- STC ePM eXchange tablespace info

--define TSP_dname1 = "ex_data1"
--define TSPex_data1 = "&TSP1/ex_data_1.dbf"

-- STC eBPM tablespace info

--define TSP_dname4 = "static data"
--define TSPex_data4 = "&TSP3/static_data.dbf"
```

3 Comment out the new tablespace names, and uncomment the old tablespace names.

The following example illustrates these changes:

```
-- STC ePM eXchange tablespace info

--define TSP_dname1 = "ex_epm_stat_data"
--define TSPex_data2 = "&TSP1/ex_epm_stat_data.dbf"

-- STC eBPM eXchange tablespace info
```

```
--define TSP_dname4 = "ex_ebpm_stat_data"
--define TSPex_data4 = "&TSP2/ex_epm_stat_data.dbf"

----------------------------------------------------

-- STC ePM eXchange tablespace info

define TSP_dname1 = "ex_data1"
define TSPex_data1 = "&TSP1/ex_data_1.dbf"

-- STC eBPM tablespace info

define TSP_dname4 = "static data"
define TSPex_data4 = "&TSP3/static_data.dbf"
```

4 Save and close the file.

G.1.4. Running the Update Script

You can run the update script from either a command prompt or Windows Explorer.

To run the update script

1 Run **ex_update.bat** (or **ex_update.sh** for UNIX) from a command prompt, or double-click it from Windows Explorer.

   The script displays "Update complete." when finished.

G.1.5. Updating Configuration Files

After upgrading the schema, you must update the paths in your configuration files to include the new folders.

You must make configuration changes in the following e*Ways:

- eX_ePM e*Way
- eX_ePM_Ack_Monitor e*Way
- HTTP e*Way

To update the configuration files

1 In the Schema Designer, double-click the **eX_ePM** e*Way to open up the **Properties** dialog box.

2 In the **Configuration File** section, click the **Edit** button to edit the configuration file.

   The **Edit Settings** dialog box is displayed.

3 From the **Goto Section** list, select **Monk Configuration**.

4 From the **Goto Parameter** list, select **Auxiliary Library Directories**, and then add the setting given in Table 25 to any existing path that might be there.

Note: *Add the new information to the end of the existing parameter. Do not replace the existing information.*

5 From the **Goto Parameter** list, select **Additional Path**, and then add the setting given in Table 25 to any existing path that might be there.

6 From the **Goto Section** list, select **General Settings**.

7 From the **Goto Parameter** list, select **Journal File Name**, and then enter the file name, including path if desired, that you want to use for the journal file.

Note: *If you do not specify a path, or if you specify a relative path, e*Xchange bases the path on the location at which the Participating Host is installed; for example,* ***c:/<eGate>/Client****.*

8 Save the changes.

9 Repeat steps 1 through 7 for the **eX_ePM_Ack_Monitor** e*Way.

10 Repeat steps 1 through 4 for the **HTTP** e*Way.

11 Save the changes.

Table 25 Additional Configuration Settings

Section	Parameter	Addition to Setting
Monk Configuration	Auxiliary Library Directories	;monk_library/eXchange
Monk Configuration	Additional Path	;monk_scripts/templates/ROS;monk_scripts/ templates/ROS/ROS_10;monk_scripts/templates/ ROS/ROS_11;monk_scripts/common/BIZ

G.2 Uninstalling the Existing e*Xchange Oracle Database

You can use this Oracle script to delete your existing Oracle schema if you want to install a clean database schema instead of upgrading your current one.

Important: *Running this script will cause irrevocable harm to your existing database. It should only be run if your intent is to completely uninstall the existing database with the intent of creating a new one. Two warning messages are displayed before the uninstall takes place.*

To uninstall the current e*Xchange database schema execute the following steps

1 Copy the uninstall files from the e*Xchange Installation CD to the e*Xchange root directory.

2 Modify the SQL statements with the specific information for your system.

3 Run the **ex_uninstall.sql** script in SQL*Plus to uninstall the schema.

G.2.1. Copying the Uninstall Files to the e*Xchange Root Directory

To copy the necessary files

1 On a Windows machine, insert the e*Xchange installation CD into the CD-ROM drive.

2 Copy the following folder to the e*Xchange root directory of the machine running the DBMS:

```
CD:\setup\eXchange\database\Oracle
```

The result will be:

```
\eXchange\Oracle
```

G.2.2. Modifying SQL Statements

For the Oracle database, you must modify the following scripts with information specific to the schema you are uninstalling.

- ◆ **\eXchange\Oracle\ex_uninstall.sql**

- ◆ **\eXchange\Oracle\user_defs.sql**

To modify ex_uninstall.sql

1 Open **\eXchange\Oracle\ex_uninstall.sql** in any text editor.

2 Under **Install scripts home dir**, double-check that the path specified for SCRIPT_HOME is where you have copied the files from the CD, and edit the path as necessary.

For example:

```
-- Install scripts home dir
-- Use the following line for release
define SCRIPT_HOME = "/ex/database/Oracle"
```

If you installed e*Xchange on your d: drive, change the path to read:

```
define SCRIPT_HOME = "d:\eXchange\Oracle"
```

Where d: is the drive where you installed e*Xchange.

Note: In UNIX you can omit the drive designation.

3 Save and close the file.

To modify user_defs.sql

1 Open **\eXchange\Oracle\user_defs.sql** in any text editor.

2 Under **TNS NAME**, replace the default information with the TNS (database) name for the Oracle instance which you will be deleting.

For example:

```
REM specify the TNS name of the Oracle instance to connect with
REM Use the following line for release

define TNS_NAME=exchange
```

If you have created a database called **Oracle1**, the information should be changed to:

```
define TNS_NAME=Oracle1
```

3 Under **STC eXchange ePM User Info**, replace the default password to use a different password for the schema owner.

For example:

```
-- STC eXchange ePM User Info

define ADMIN_NAME = "ex_admin"
define ADMIN_PW = "ex_admin"
```

To change the password for logging into the database specified under TNS_NAME to "Oracle_password" change the file to read:

```
define ADMIN_NAME = "ex_admin"
define ADMIN_PW = "Oracle_password"
```

Important: *The ADMIN_NAME, **ex_admin**, is part of the default scripts and cannot be changed.*

4 Save and close the file.

G.2.3. **Running the ex_uninstall.sql Script**

Important: *You must be logged in to the system account for the Oracle database before running the uninstall script.*

To run the ex_uninstall.sql script

1 Open SQL Plus, and log on using the system user name and password, using the TNS_NAME (database name) as the Host String.

2 At the SQL> prompt type the command:

```
@<path to ex_uninstall.sql>
```

where

path to ex_uninstall.sql is the name and location of the **ex_uninstall.sql** file that was copied from the e*Xchange installation CD-ROM.

For example:

```
@c:\exchange\Oracle\ex_uninstall.sql
```

3 Press **Enter**.

A warning message is displayed, as shown below:

```
WARNING: This will COMPLETELY DESTROY your e*Xchange installation
and you'll lose ALL your enterprise's Business Process data!
Are you sure you want to proceed? If not, abort by pressing Ctrl-C
now!

Press Enter to continue with the UnInstall;otherwise press Ctrl-C.
```

4   Press **Enter** to continue, or Ctrl+C to cancel.

The second warning message is displayed as shown below:

```
ARE YOU SURE??? Press Ctrl-C if you're NOT!!!

Press Enter to continue with the UnInstall;otherwise press Ctrl-C.
```

5   Press Enter to continue, or Ctrl+C to cancel.

The process of deleting the schema begins.

Note: Once the schema has been deleted, see **"Creating the e*Xchange Database Schema—Oracle" on page 55** *for information on installing a new Oracle schema.*