SeeBeyond ICAN Suite

AS2 Manager Composite Application User's Guide

Release 5.0.6

SEEBEYOND®

Contents

Chapter 3

Installing AS2 Manager   23

Chapter 4

Configuration   32

Chapter 5

Quick Start Guide 56

Chapter 6

Implementation Scenario 63

Glossary of Acronyms 102

Index 105

List of Figures

List of Figures

AS2 Manager Composite Application User's Guide   9   Sun Microsystems, Inc.

List of Tables

Introduction

This guide explains how to install, configure, deploy, and use SeeBeyond® Integrated Composite Application Network Suite™ (ICAN) AS2 Manager Composite Application for eXchange™ Integrator.

This chapter provides a brief introduction to the purpose, scope, and organization of the document plus additional useful information.

What's in This Chapter

1.1 About AS2 Manager

AS2 Manager integrates with SeeBeyond eGate™ Integrator and SeeBeyond eXchange Integrator to enable you to design ICAN Projects that process and validate AS2 messages. eXchange provides an open framework to support standard B2B message enveloping protocols, such as AS2.

AS2 Manager works with the eXchange system and its related Project components. Also, using AS2 Manager, you can expand and customize your AS2-related Projects in eXchange.

AS2 Manager and eXchange provide end-to-end visibility of the business logic implemented by these Projects. For this purpose, AS2 Manager utilizes eXchange Business Processes (BPs).

For more information on the AS2 protocol, see **"About AS2" on page 16**.

1.2 What's New in This Release

BPs for AS2 Manager are now fully integrated with the core eXchange BPs. For more information, see the latest version of the *eXchange Integrator Protocol Designer's Guide.*

1.3 About This Document

This section explains information about this user's guide.

1.3.1 What's in This Document

This document provides information about installing, configuring, and using AS2 Manager and includes the following chapters:

- **Chapter 1 "Introduction"** provides a brief summary of AS2 Manager and its operation, as well as an overview of this user's guide.

- **Chapter 2 "Overview of AS2 Manager"** gives an overview of AS2 Manager, AS2, and eXchange.

- **Chapter 3 "Installing AS2 Manager"** explains installation procedures, before and after installation, as well as system requirements.

- **Chapter 4 "Configuration"** explains the eXchange ePartner Manager (ePM) configuration steps necessary to allow AS2 Manager to operate with the ePM.

- **Chapter 5 "Quick Start Guide"** provides a brief overview of how to create, configure and run an AS2 Manager Project.

- **Chapter 6 "Implementation Scenario"** explains in detail, the sample AS2 Manager Project provided with the installation CD-ROM.

1.3.2 Scope

This guide describes and explains how to install and use AS2 Manager with eGate and eXchange, to function within the ICAN Suite products. Additional information, such as detailed steps required to create sample integration Projects for eGate are not included in this guide.

1.3.3 Intended Audience

This guide is intended for computer users who have the ability and responsibility of setting up and maintaining a fully functioning ICAN Suite system. These persons must also understand any operating systems on which their current ICAN Suite is installed, for example, Windows or Solaris UNIX, and must be thoroughly familiar with Windows-style user interface operations.

1.3.4 Text Conventions

The following conventions are observed throughout this document.

Table 1   Text Conventions

Text Convention	Used For	Examples
Bold	Names of buttons, files, icons, parameters, variables, methods, menus, and objects	▪ Click **OK**. ▪ On the **File** menu, click **Exit**. ▪ Select the **eGate.sar** file.
Monospaced	Command line arguments, code samples; variables are shown in **_bold italic_**	`java -jar` **_filename_**`.jar`
Blue bold	Hypertext links within document	See **Text Conventions** on page 13
Blue underlined	Hypertext links for Web addresses (URLs) or email addresses	http://www.sun.com

1.3.5 Screenshots

Depending on what products you have installed, and how they are configured, the screenshots in this document may differ from what you see on your system.

1.4   Related Documents

Use the following related SeeBeyond guides as a reference for additional information in using AS2 Manager, if needed:

▪ *SeeBeyond ICAN Suite Installation Guide*

▪ *SeeBeyond ICAN Suite Deployment Guide*

▪ *eGate Integrator User's Guide*

▪ *eGate Integrator System Administration Guide*

▪ *eGate Integrator JMS Reference Guide*

▪ *Oracle eWay Intelligent Adapter User's Guide*

▪ *HTTP(S) eWay Intelligent Adapter User's Guide*

▪ *eXchange Integrator User's Guide*

▪ *eXchange Integrator Protocol Designer's Guide* (latest version)

▪ *Secure Messaging Extension User's Guide*

▪ **Readme.txt** file for AS2 Manager

1.5   References

For additional information on the AS2 protocol, see the following Web site:

http://www.ietf.org

After you reach this site, you can use the search feature to find the appropriate documents with information on AS2.

1.6   Sun Microsystems, Inc. Web Site

The Sun Microsystems web site is your best source for up-to-the-minute product news and technical support information. The site's URL is:

http://www.sun.com

1.7   Documentation Feedback

We appreciate your feedback. Please send any comments or suggestions regarding this document to:

CAPS_docsfeedback@sun.com

Overview of AS2 Manager

This chapter provides a general overview of AS2 Manager and its place in the ICAN Suite, including system descriptions, AS2 information, general operation, and basic features.

What's in This Chapter

Note: *For more information about eGate and eXchange, see the appropriate user's guides.*

2.1 AS2 Manager: Introduction

AS2 Manager works primarily with eGate and eXchange. You can use AS2 Manager to design ICAN Projects to process and validate messages using AS2 messaging protocol.

AS2 Manager is designed to work with the eXchange framework to expose all of its Projects' components. This feature allows you to easily expand and customize your Projects.

AS2 Manager performs the following basic operations:

- Uses a Messaging Service (also called a business service), that is, a sequence of events incorporating rules set by the protocol specifications.
- Uses information in the message itself and in the eXchange Trading Partner (TP) to prepare messages according to AS2 standards.

- Works with common eXchange services to prepare and deliver messages, employing the following features:

    ◆ Visibility of the business logic implemented, using eXchange Business Processes (BPs).

    ◆ Error handling

    ◆ Message tracking

    ◆ TP database lookup

    ◆ PKI cryptographic services, such as encryption and signature creation and verification

For complete instructions on how to use AS2 Manager see the following chapters in this guide:

    ◆ Installation, operating system (OS) compatibility, dependencies, and related information, **Chapter 3**.

    ◆ Configuration and an explanation of the configuration parameters in eXchange Partner Manager (ePM), a feature of eXchange, **Chapter 4**.

    ◆ General summary of how to get started and use AS2 Manager, **Chapter 5**.

    ◆ Complete explanation of sample AS2 Manager scenario with operation procedures, **Chapter 6**.

2.2 About AS2

Applicability Statement 2 (AS2) is an Internet Draft security standard defined by the IETF (Internet Engineering Task Force), designed to allow business transactions to move securely over the Internet. The standard defined is referred to as the AS2 protocol, or simply as AS2.

The AS2 specification describes how applications communicate Electronic Data Interchange (EDI) transaction data over the Internet using HTTP, in a secure and interoperable manner. AS2 emphasizes the following key aspects of data security:

- Privacy

- Data integrity

- Authenticity

- Non-repudiation of origin and receipt

AS2 specifies the means to connect and to deliver/validate/reply to data, securely and reliably. The purpose of this guide is to assist you in developing an AS2-compliant eXchange system deployment that is interoperable with other implementations used by your TPs.

2.2.1 General History and Definitions

AS2 is an extension to Applicability Statement 1 (AS1), the standard for secure message transport based on the Simple Mail Transfer Protocol (SMTP). The extension from AS1 to AS2 consists mainly of compatibility with HTTP(S), that is, HTTP with the Secure Sockets Layer (SSL), and S/Multipurpose Internet Mail Extensions (S/MIME).

Definition of EDI-INT

EDI-INT is an Internet Engineering Task Force (IETF) Working Group that exists to document the requirements and best practices for secure, interoperable EDI. The EDI-INT Requirements document contains sufficient background material to give the EDI community an explanation of any Internet-related issues.

The EDI-INT Requirements and Applicability Statements are general in nature, so they can be applied to all types of eBusiness transfers across non-secure networks. The message payload itself does not have to be EDI. The data being transferred can be in the form of Extensible Markup Language (XML) business documents or any other data format.

Definition of AS1

AS1 is an Applicability Statement that described how then-current Internet standards could be leveraged to achieve EDI-INT using SMTP transport technologies. AS1 was published by the IETF EDI-INT Working Group.

Definition of AS2

AS2 is also an IETF EDI-INT Working Group specification. It extends AS1 to include real-time EDI based on S/MIME and HTTP(S). AS2 security constructs are the same as AS1, with the addition of session-based cryptographic features Sand authentication.

2.2.2 AS2 Message Format

An AS2 message conforms using the following structure:

- HTTP header package: RFC2616/RFC2045
- Encryption package: RFC2633 (application/pkcs7-mime)
    - Digitally signed package: RFC1847 (multipart/signed) (encrypted)
        - Message payload: RFC2376 (application/xml) (encrypted)
        - Digital signature: RFC2633 (application/pkcs7-signature) (encrypted)

The HTTP header is the outermost package, which is supplemented by the headers of the encryption package, which envelopes the signed multipart, which in turn binds the payload and signature parts.

Figure 1 shows a diagram of the basic AS2 protocol message format.

Figure 1 AS2 Message Format
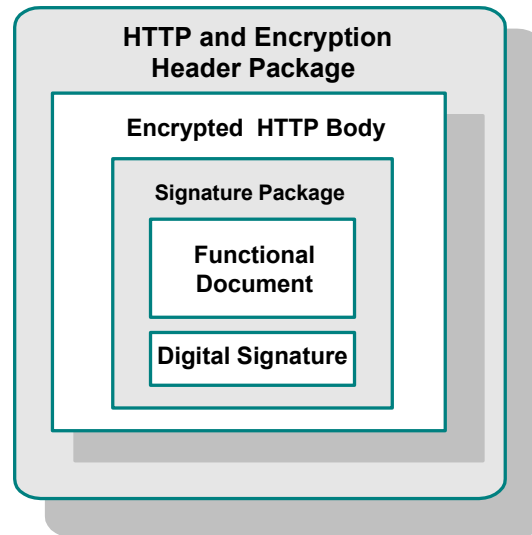
2.2.3 Packaging Layer References

The following list details references for the packaging layers for S/MIME signed, encrypted messages:

- RFC2616
    - Hypertext Transfer Protocol: HTTP/1.1
        - http://www.ietf.org/rfc/rfc2616.txt
- RFC2045
    - MIME Part One: Format of Internet Message Bodies
        - http://www.ietf.org/rfc/rfc2045.txt
- RFC2633
    - S/MIME Version 3 Message Specification
        - http://www.ietf.org/rfc/rfc2633.txt
- RFC1847
    - Security Multiparts for MIME: Multipart/Signed and Multipart/Encrypted
        - http://www.ietf.org/rfc/rfc1847.txt

- RFC2376

    - XML Media Types

        - http://www.ietf.org/rfc/rfc2376.txt

- RFC2298

    - An Extensible Message Format for Message Disposition Notifications

        - http://www.ietf.org/rfc/rfc2298.txt

2.2.4 Additional References

You can find the current standards-track drafts of the EDI-INT Requirements document, as well as AS2 specifications, at the following Web sites:

- For MIME-based Secure Peer-to-peer Business Data Interchange over the Internet:

    - http://www.ietf.org/rfc/rfc3335.txt?number=3335

- For HTTP Transport for Secure Peer-to-peer Business Data Interchange over the Internet:

    - http://www.ietf.org/proceedings/02jul/I-D/draft-ietf-ediint-as2-11.txt
      http://www.ietf.org/proceedings/02mar/I-D/draft-ietf-ediint-as2-10.txt

2.3 About eXchange Integrator

eXchange Integrator provides an open BP framework to support standard EDI and B2B protocols, as well as packaging protocols. Not only does eXchange support existing standard protocols, with an extensive set of prebuilt BPs, it also provides the tools and framework to create and adopt new protocols and to build custom BPs.

B2B modeling semantics are exposed so that business rules can be added and tailored to address the particular needs of each eBusiness challenge. The tight integration with the rest of ICAN Suite provides validation, logging, and reporting capabilities, and because each logical step within any business rule is accessible anywhere along the entire BP, the design tools provide complete end-to-end visibility.

Note: *For a complete explanation of eXchange and its operation, see the **eXchange Integrator User's Guide**.*

2.3.1 Understanding BPs

A BP is a collection of actions or operations that take place in your company, revolving around a specific business practice. These processes can involve a variety of participants and may include internal and external computer systems or employees.

In eXchange, you create a graphical representation of a business process called a BP model. When you are using the sample for a protocol manager's implementation scenario, the system uses the BPs necessary for scenario's operation. The BPs specific to the sample scenario provided with the product have already been created for this scenario.

2.3.2 Trading Partner (TP) Overview

The architecture of eXchange centers around the concept of a profile for each TP relationship. You can configure these profiles within eXchange for use by run-time components.

Note: *These profiles can be referred to either as Trading Partners (TPs) or Trading Partner Profiles (TPPs) in the user interface.*

Each TP/profile specifies which one or more BPs to use, where and how to receive inbound messages, how to configure and secure messages in their channels, and how and where to deliver outbound messages.

2.3.3 Process Overview

Using eXchange to create a business solution consists of the following phases:

- Design phase within Enterprise Designer
- Design phase within ePM
- Run-time phase

These phases are illustrated in Figure 2.

Figure 2 eXchange Architecture
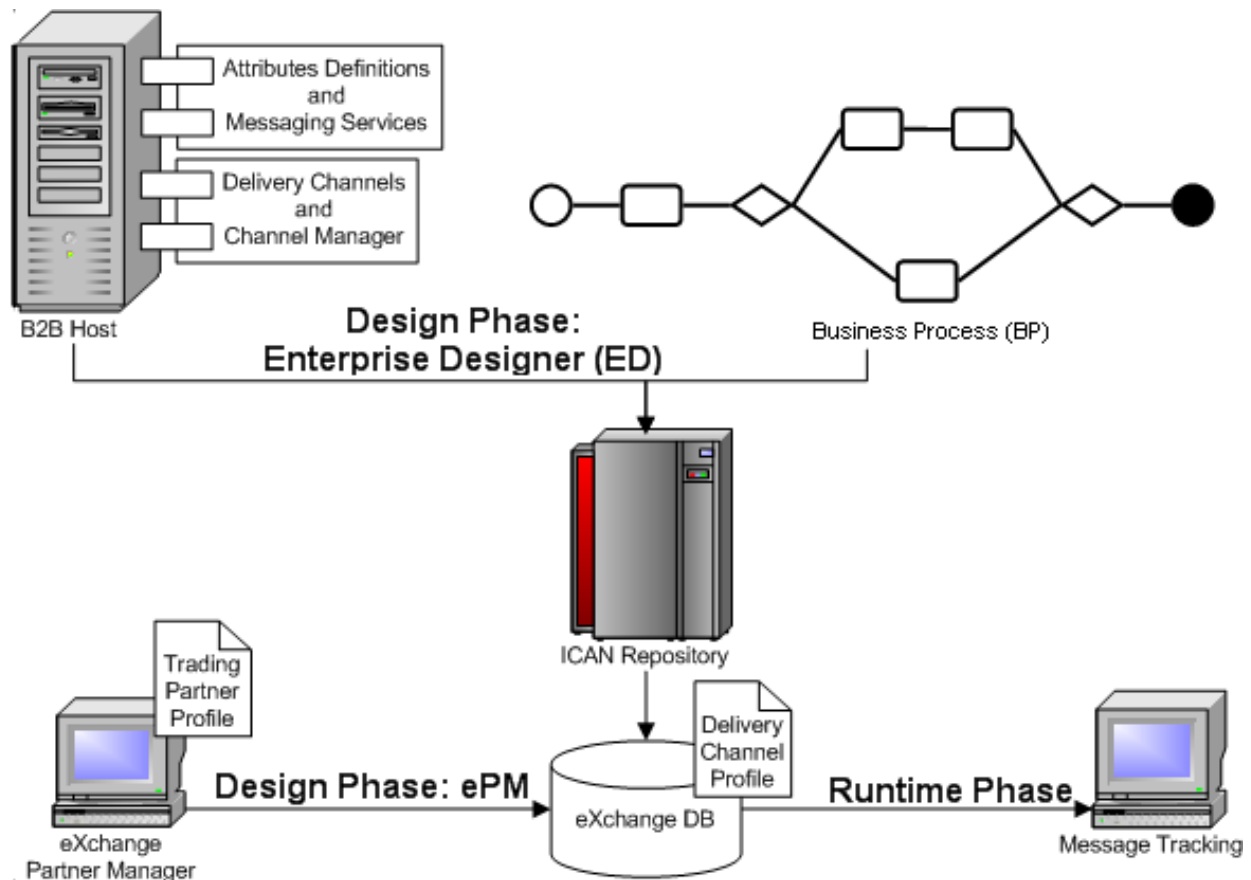
2.3.4 eXchange Partner Manager (ePM)

ePM is a feature of eXchange you can use as a tool that allows you to configure eXchange for use with any of your Protocol Managers. You must set specific parameter values within ePM to ensure the correct operation of your Projects, for each protocol. This guide explains how to use and configure ePM, to set parameters relevant to this guide's protocol manager.

For complete information on how to use ePM, see the *eXchange Integrator User's Guide*.

2.4 eXchange and the ICAN Suite

eXchange is one of the products that make up the ICAN Suite. eXchange provides a Web-based TP configuration and management solution for automating and securely managing business partner relationships, for real-time interaction between the enterprise and its TPs, suppliers, and customers.

eXchange is tightly integrated with the ICAN Suite and runs as a component within the ICAN Suite's environment. Figure 3 illustrates how eXchange and other ICAN Suite components work together.

Figure 3   Relationship of eXchange to the ICAN Suite
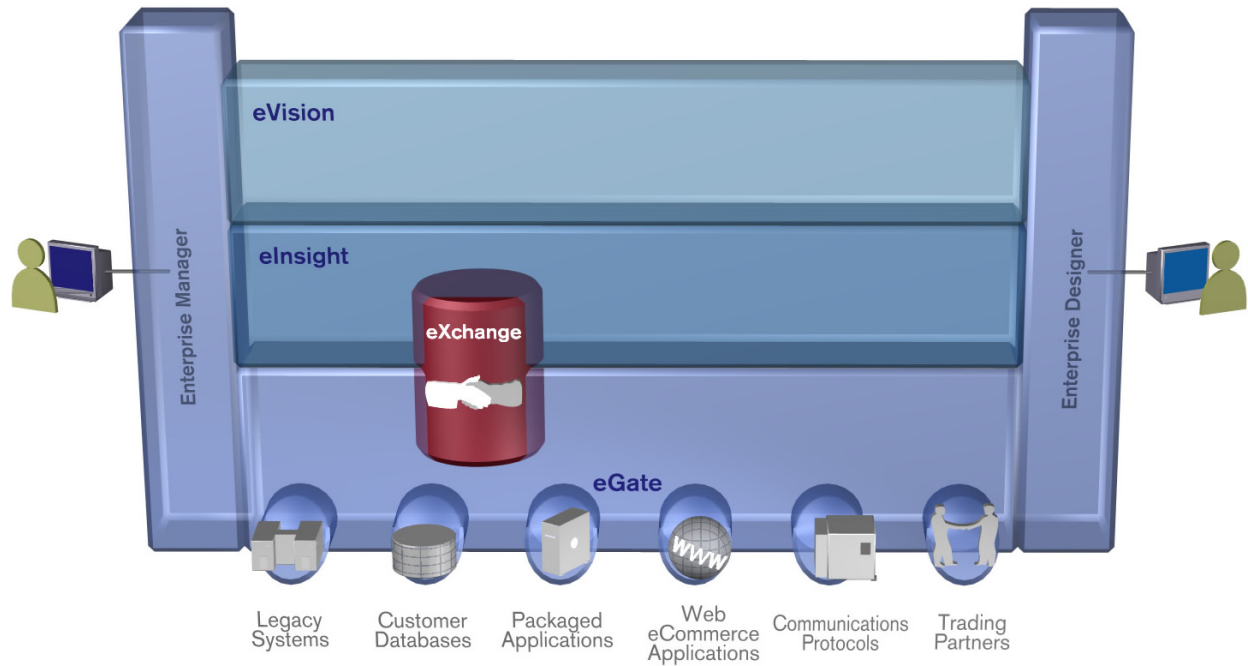
Installing AS2 Manager

This chapter explains how to install AS2 Manager, as well as supported operating systems and system requirements. The chapter also includes necessary post-installation procedures.

What's in This Chapter

3.1 Supported Operating Systems

AS2 Manager for eXchange is available for the following operating systems:

- Microsoft Windows Server 2003, Windows XP, and Windows 2000
- Sun Solaris 8 and 9
- HP Tru64 V5.1A and V5.1B
- HP-UX 11.0 and 11i (PA-RISC)
- IBM AIX 5.1L and 5.2
- Red Hat Linux 8 (Intel x86) and Linux Advanced Server 2.1 (Intel x86)

For more details on exact supported operating systems, see the **Readme.txt** file for eXchange Integrator.

3.2 System Requirements

To use AS2 Manager, you need:

- eGate Logical Host
- TCP/IP network connection
- SeeBeyond applications as listed under **"Before Installing AS2 Manager" on page 26**

Logical Host requirements

AS2 Manager must have its configuration properties set and be administered using Enterprise Designer. For complete information on Enterprise Designer system requirements, see the *SeeBeyond ICAN Suite Installation Guide*.

3.3 Supported External Applications

AS2 Manager, in conjunction with eXchange, requires external database support, as described in this section.

Database for eXchange Partner Management and Message Tracking

The eXchange database is required by AS2 Manager. This database provides a run-time persistent store for Trading Partner (TP) management and message tracking. For eXchange, the following databases are supported:

- Oracle version 8.1.7
- Oracle version 9.01
- Oracle version 9.2
- Oracle version 10.1g

Database for Persistence and Monitoring via eInsight Engine

In addition, eXchange can optionally use the eInsight engine (supplied with eXchange) to collect and persist data from your B2B protocol processes. This feature provides for recovery and also enables some monitoring and reporting capabilities in Enterprise Manager. The eInsight engine supports the following databases:

- Oracle version 8.1.7, 9.0.1, 9.2, and 10.1g
- Sybase 12.5
- Microsoft SQL Server 2000
- IBM DB2 Universal Database version 8.1

3.4 Before You Install

Open and review the **Readme.txt** file for the ICAN Suite to gain current information you may need, for example for eGate or eInsight, before installing AS2 Manager. You can find this file in the root directory of the ICAN Suite installation's Repository CD-ROM.

Also, AS2 Manager has its own **Readme.txt** file that contains additional information specific to this application, including required ESRs.

Note: *See the **SeeBeyond ICAN Suite Installation Guide** for details on how to obtain the **Readme.txt**, AS2 Manager sample scenario, and documentation files.*

Configuring eGate Projects for Large Messages

If an eGate Project uses SeeBeyond JMS IQ Manager and is estimated to process messages or transactions over 8 MB for Windows, or 16 MB for UNIX, you must increase the **Segment Size** property of JMS IQ Manager as explained in the *eGate Integrator JMS Reference Guide*.

3.5 Installing AS2 Manager Product Files

During the ICAN Suite installation operation, use Enterprise Manager, a Web-based application, to select and upload AS2 Manager and add-on application **.sar** files from the ICAN Suite installation CD-ROM to the Repository.

When the Repository is running on a UNIX operating system, you must still install AS2 Manager using Enterprise Manager and Microsoft Internet Explorer on a Windows computer connected to the Repository server.

Follow the general instructions for installing the ICAN Suite, which you can find in the *SeeBeyond ICAN Suite Installation Guide*. You must begin by installing eGate.

3.5.1 eGate Installation

The eGate (**eGate.sar**) installation process includes the following operations:

- Installing the eGate Repository
- Uploading products to the Repository
- Downloading the necessary components (including the eGate Enterprise Designer and the Logical Host)
- Viewing the product information home pages

3.5.2 Before Installing AS2 Manager

Before you install AS2 Manager ensure that:

- An eGate Repository server must be running on the machine where you are uploading the product files.

Note: *For the exact versions of SeeBeyond eWays and other products you need to use, see the **Readme.txt** file (and/or references within that file) provided on the installation CD-ROM that accompanies AS2 Manager.*

- In addition to **eGate.sar**, you upload the ICAN Suite **.sar** files listed in the **Readme.txt** file.

3.5.3 Installing AS2 Manager

This section explains how to install AS2 Manager, that is, how to upload the **AS2_Manager.sar** file to the Repository.

To install AS2 Manager

1 Make sure the **eGate.sar** file has been uploaded to the Repository using Enterprise Manager.

2 Make sure you have selected and uploaded, to the Repository, the **.sar** files listed under **"eGate Installation" on page 25** and **"Before Installing AS2 Manager" on page 26**.

3 Upload the **AS2_Manager.sar** file. This operation installs AS2 Manager.

4 Upload **AS2_ManagerDocs.sar** (if you have not done so already). This file contains:

- **AS2_Manager_Guide.pdf** file with the product's documentation

- **AS2_Manager_Sample.zip** file containing the sample scenario Projects and related files (see **Chapter 6** for details on this file)

- **Readme.txt** file

To obtain these files, follow the instructions provided by the *SeeBeyond ICAN Suite Installation Guide* and Enterprise Manager.

3.6 After You Install

Once AS2 Manager is installed and configured, it must then operate in conjunction with an eGate Project before it can perform its intended functions. You must create these Projects specifically for AS2 Manager.

See the *eXchange Integrator User's Guide* and *eGate Integrator User's Guide* for detailed information on incorporating these types of Projects into eGate. See **Chapter 6** for a sample business scenario with Projects already created, using eXchange and AS2 Manager.

The rest of this section provides important information on steps you must take to ensure that AS2 Manager operates correctly with eGate and eXchange.

3.6.1 Database Scripts

eXchange allows you to collect database information and persist data about your TP profiles. eXchange provides database scripts to create and upgrade this database feature for eXchange. For more information, see the *eXchange Integrator User's Guide*.

You can also track message delivery histories, using the eXchange Message Tracking feature. See **"Using Message Tracking" on page 96** for more information.

3.6.2 Additional Policy .jar Files Required To Run SME

To use cryptographic features with AS2 Manager, you must download and apply additional policy **.jar** files. This operation provides reliable security that uses libraries supplied with SeeBeyond Secure Messaging Extension (SME), contained in the **SMEWebServices.sar** installation file.

The type of **.jar** files required depends on the version of Java Virtual Machine (JVM) you are using. Refer to your JVM vendor for exact details on the specific policy **.jar** file requirements.

Use Table 2 to determine which JRE is included in your eGate Logical Host.

Table 2   JRE Versions Listed by Operating System

Operating System	JRE	URL
Windows, Solaris, HP-UX, Linux, Tru64	1.4.2	http://java.sun.com/j2se/1.4.2/download.html
AIX	1.4.1	http://java.sun.com/products/archive/j2se/1.4.1_07/index.html

To download the required policy.jar files

1 Scroll to the bottom of the appropriate Web page listed in **Table 2 on page 27** for your Logical Host's JRE.

2 Click the **DOWNLOAD** link for **Unlimited Strength Jurisdiction Policy Files 1.4.2**. (or, for AIX, **Unlimited Strength Jurisdiction Policy Files 1.4.1**).

3 Click the link to download the **.zip** file containing the required policy **.jar** files as follows:

  ◆ For JRE 1.4.2, follow the link **Download jce_policy-1_4_2.zip**.

  ◆ For JRE 1.4.1, follow the link **Download jce_policy-1_4_1.zip**.

4 Extract the following required policy **.jar** files:

  ◆ **local_policy.jar**

  ◆ **US_export_policy.jar**

5   For each of your Logical Hosts, using the extracted .**jar** files, replace the existing versions of these files in the following location:

    `<Logical Host>\jre\lib\security\`

6   If you are running a repository on AIX, also replace, using the extracted .**jar** files, the existing versions of these files in the following location:

    `<AIX Repository>/jre/1.4.x/lib/security/`

For complete information on SME, see the *Secure Messaging Extension User's Guide*.

3.7   Configuring eGate Projects for Large Messages

For eGate Projects that are expected to process large messages and transactions, or large numbers of transactions, you can configure the Project in the following ways to increase throughput and improve performance:

- Increasing the heap size for the Logical Host
- Increasing the maximum concurrent instances, threads, and receive timeout properties for the eInsight engine
- Increasing the segment size for SeeBeyond JMS IQ Manager
- Increasing the number of concurrent processes to be handled by the Oracle database

3.7.1   Increasing Logical Host Heap Size

To avoid memory errors on the Logical Host, increase the heap size for the Logical Host to at least 1024 MB as explained in this section.

To increase the Logical Host heap size

1   In Enterprise Designer, click **Tools** on the Menu bar.

2   Choose **Options**.

The **Options Setup** dialog box appears. See Figure 4.

Figure 4   Increasing Logical Host Heap Size
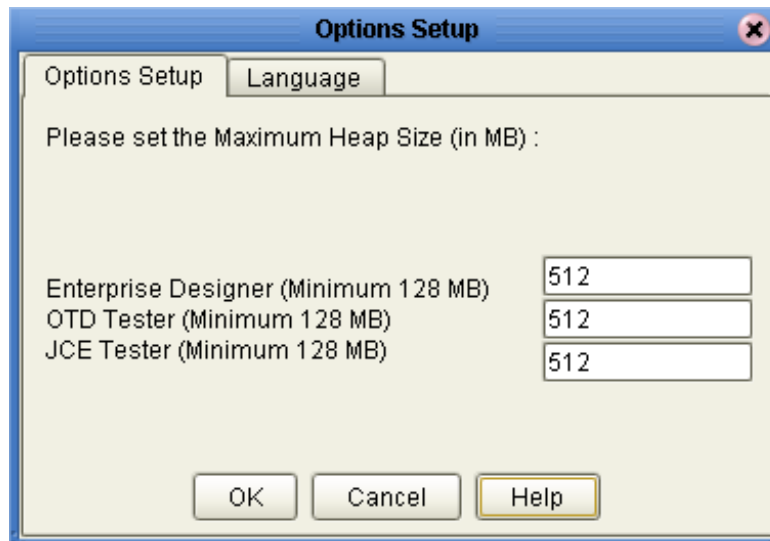
3   In each of the **Heap Size** text boxes, enter the heap size **1024**.

4   When you are finished, click **OK**.

3.7.2 Improving Performance

The eInsight Engine has configurable properties that affect performance (for more information on the eInsight Engine, see the *eXchange Integrator User's Guide*). These properties are:

- **Max Concurrent Instances**
- **Max Runtime Thread Pool Size**

The **Max Concurrent Instances** property indicates the amount of inbound messages that each B2B Protocol processes simultaneously. For example, if you set this property to 10, the B2B Protocol processes up to ten inbound messages at the same time. When the 11th message is received, the B2B Protocol does not process the message until the processing of one of the ten messages has been completed.

The **Max Runtime Thread Pool Size** property defines how many threads B2B Protocols can invoke simultaneously.

These settings create a trade-off between performance and memory. Depending on how much memory your system has, you can specify these settings accordingly. Unfortunately it is impossible to recommend actual settings because the memory capacities of systems varies greatly.

If you find your Project processes too slowly, or messages are lost, increase these settings as your system allows.

To Improve Performance

1 On the **Environment Explorer** tab of the Enterprise Designer, expand the **Logical Host** folder.

2 Right-click the Integration Server, and click **Properties**.

The **Properties** dialog box appears (see Figure 5).

Figure 5 Improving Performance
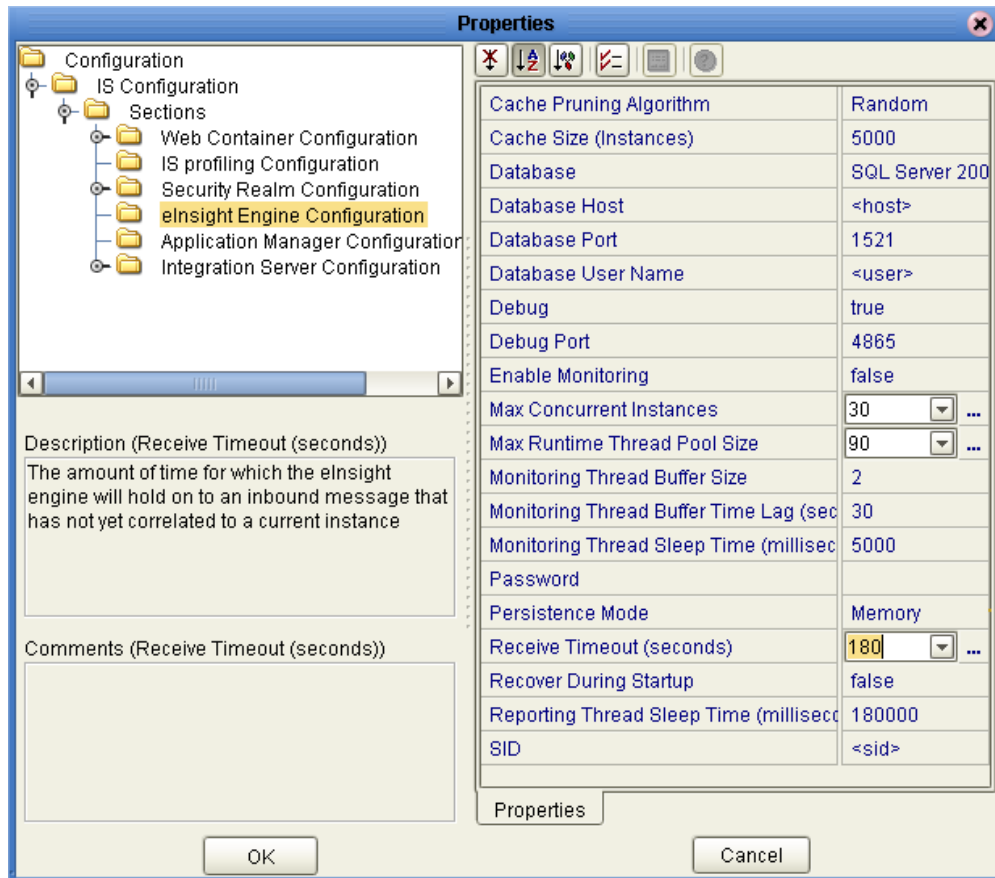
3 Expand the **IS Configuration**, **Sections**, and **eInsight Engine Configuration** folders.

4 Increase the value of the setting for the **Max Concurrent Instances** property, as necessary. See Figure 5.

5 Increase the value of the setting for the **Max Runtime Thread Pool Size** property, as necessary. See Figure 5.

6 When you are finished, click **OK**.

3.7.3 Increasing JMS IQ Manager Segment Size Property

If an eGate Project uses JMS IQ Manager and is estimated to process messages or transactions over 8 MB (Windows) or 16 MB (UNIX), increase the **Segment size** property of JMS IQ Manager as described in the *eGate Integrator JMS Reference Guide*.

3.7.4 Increasing Oracle Number of Processes

To increase throughput performance, increase the Oracle number of processes to handle simultaneous database process requests, such as 500. For more information, see your Oracle documentation.

Configuration

This chapter explains how to use eXchange's ePM tool to configure eXchange Projects for AS2 Manager and AS2.

What's in This Chapter

4.1 Configuration for AS2 Manager: Overview

This chapter explains the configuration parameters required in ePM for AS2 Manager Projects and their operation with AS2. You can configure these parameter values for AS2 Manager using the eXchange ePM interface.

Chapter 6 explains a sample business scenario with Projects containing specific parameters already set and values already configured correctly in ePM. The AS2 Manager CD-ROM contains the files that make up this sample scenario.

You must use ePM to set configuration parameters for your AS2 Manager Projects' Trading Partners (TPs). Entering the correct values in ePM allows these TPs to operate correctly with eXchange, AS2 Manager, and AS2.

4.2 Accessing and Using ePM

The eXchange ePM tool allows you to create and enable TPs for your AS2 Manager eXchange Projects.

4.2.1 Using ePM: Overview

In eXchange, each TP contains information identifying the values for the messaging, enveloping, and/or transport parameters to be used for sending and receiving B2B information.

Parameter Types

ePM contains the following types of parameters:

- General eXchange parameters common to all protocol managers
- AS2 Manager-specific parameters present only for this particular application

See **"Configuring TPs" on page 36** for a complete explanation of parameter types.

Creating and Enabling TPs

To create and enable TPs you can do the following operations using ePM:

- Create bindings:
  - ◆ For external delivery channels (XDCs); required.
  - ◆ For internal delivery channels (IDCs); optional.
- Create one or more TPs.
- Configure your TPs.
- Activate your TPs.

For complete information on how to do these operations in ePM, see the *eXchange Integrator User's Guide*. Also, **Chapter 6** contains a sample scenario with specific examples of TPs set up in ePM.

The following sections provide basic instructions on how to use ePM:

- **"Importing and Configuring TPs in ePM" on page 82**
- **"TP Activation" on page 93**

The rest of this section provides a general summary of how to access ePM, as well as use it with TPs for AS2 Manager Projects.

4.2.2 Before Starting

Before you can access ePM for a Project, make sure that, using Enterprise Designer, you have created and activated the eXchange Project Deployment Profiles, including any for the necessary B2B hosts.

4.2.3 Accessing ePM

After you have ensured these conditions have been met, you can use your Web browser to access ePM. By default, you can access ePM using a predefined URL, for example:

```
http://localhost:12000/epm
```

If access to ePM has been set up using a different URL, consult your system administrator for this URL.

4.2.4 Using Bindings

A binding is an association of metadata parameters with a particular set of values you define, using ePM. This metadata can be for either XDCs or IDCs.

Creating Bindings for XDCs

The top of the **Delivery Channels** (XDCs) subtab in ePM lists all bindings currently defined for the current TP's XDCs.

In the case of XDCs, the transport parameters are those specified in a transport attribute definition (TAD). The packaging (messaging) parameters are those specified in a message attribute definition (MAD).

To create bindings for XDCs

- Access an XDC and create a binding to it.

- Import a signature certificate and encryption key, if necessary.

*Note: Using certificates and encryption keys in AS2 Manager is done in the same way for all eXchange protocol managers. For complete information, see the **eXchange Integrator User's Guide**.*

Creating Bindings for IDCs

The top of the **Internal Delivery Channels** subtab in ePM lists all bindings currently defined for the TP's IDCs.

In the case of IDCs, the transport parameters are those specified in a TAD. The use of IDCs is optional.

To create the bindings for IDCs you must:

- Access an IDC and create a binding to it.

Optionally, you can also:

- Add a new binding for your IDC.

*Important: To correctly use AS2 Manager and eXchange, you must understand the concepts and features explained in this section. For a quick reference that provides definitions of features, such as TADs, MADs, IDCs, and XDCs, see the **Glossary of Acronyms** on page 102.*

4.2.5 Creating TPs and Messaging Services

To use AS2 Manager, you must create and activate one or more TPs. You must also create a new Messaging Service binding based on one of the Messaging Services shown on the ePM window. See Figure 6.

Figure 6   Messaging Services Under Enveloping Attributes Definitions

New Messaging Service
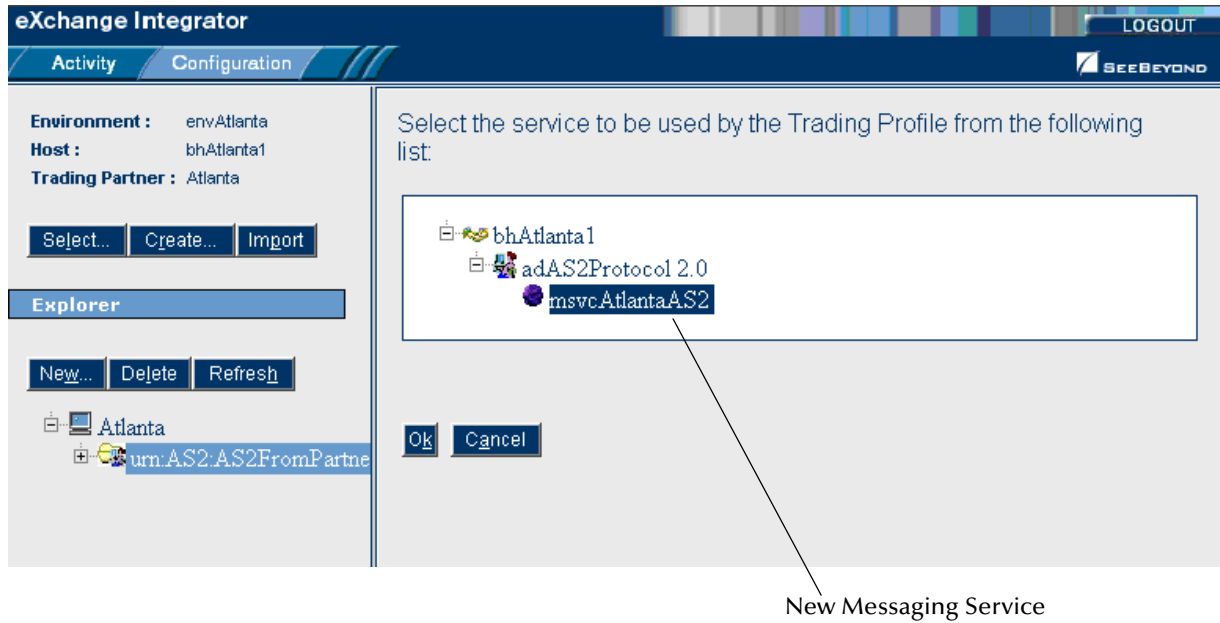
You can also find the Messaging Service as the bottom leaf of the **ePM Explorer** pane's tree (on the left), under the messaging attributes definition, standard or custom, with which it is associated.

When you are finished, all the new elements you have created appear in this tree, on the **ePM Explorer** pane. See **Figure 7 on page 36**.

Figure 7   Messaging Service on ePM Explorer Pane's Tree
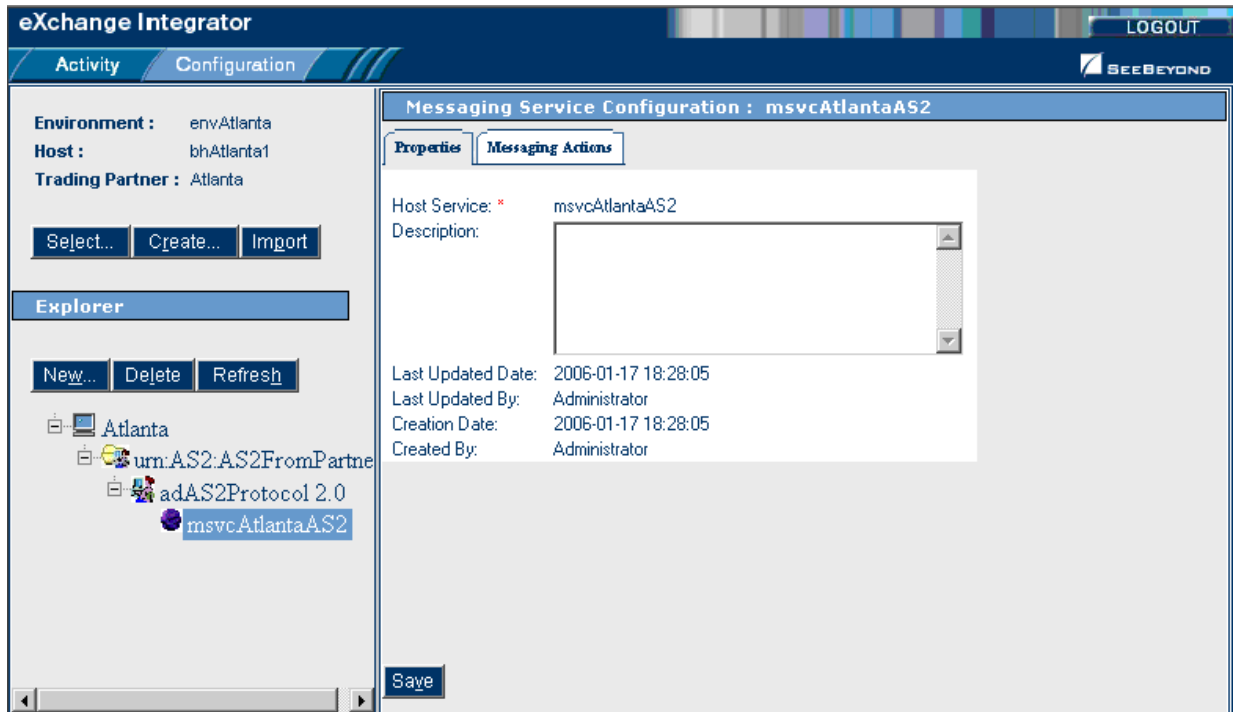
For details on these components and operations, see the *eXchange Integrator User's Guide*. Also, see the sample scenario in **Chapter 6**.

4.2.6 Configuring TPs

After you have set up and activated your TPs, you must configure them for AS2 and your current system. Each set of specific configurations you assign to a TP make up its profile. TP configuration parameters include the following settings:

- **Properties**: Under this tab (see **Figure 8 on page 38**) you supply values for the necessary eXchange parameters not AS2-specific, but needed by eXchange. These parameters are basic eXchange properties and enable the essential eXchange operation of its Projects.

▪ Under other tabs, you find parameters that allow you to supply values for the following types of eXchange and AS2 Manager-specific configuration settings that define:

  ♦ **Delivery Channels**: Under this subtab (see **Figure 9 on page 39**), you supply XDC values for the **ToPartner** transport attributes, the **FromPartner** transport attributes, and the **To/FromPartner** packaging attributes.

  ♦ **Internal Delivery Channels**: Under this subtab (see **Figure 13 on page 51**), you supply values for the **ToPartner** and **FromPartner** transport attributes for each IDC used by the B2B host.

  ♦ **Messaging Actions**: Under this tab (see **Figure 15 on page 53**), you supply values for each of the messaging actions (inbound and outbound) used by the B2B host.

Note: *The ePM user interface refers to XDCs under tabs and headings named **Delivery Channels**.*

Chapter 6 explains a sample scenario with specific examples of how to configure parameters for an individual TP using ePM.

Note: *After you have configured each TP, you must activate it then check for its successful activation. See **"TP Activation" on page 93** for details.*

The rest of this chapter explains in detail how to configure each ePM parameter setting for AS2 Manager's TPs summarized under the types shown in the previous list. For more information, including information on the various tabs, what they contain, and how to navigate through them, see the *eXchange Integrator User's Guide*.

4.3 Configuring Basic eXchange Properties

This section describes AS2 Manager's properties configuration used to set basic eXchange parameters. For an example of how these settings appear in the ePM user interface, see Figure 8. The example shown is under the **Properties** tab.

Figure 8   Properties Configuration
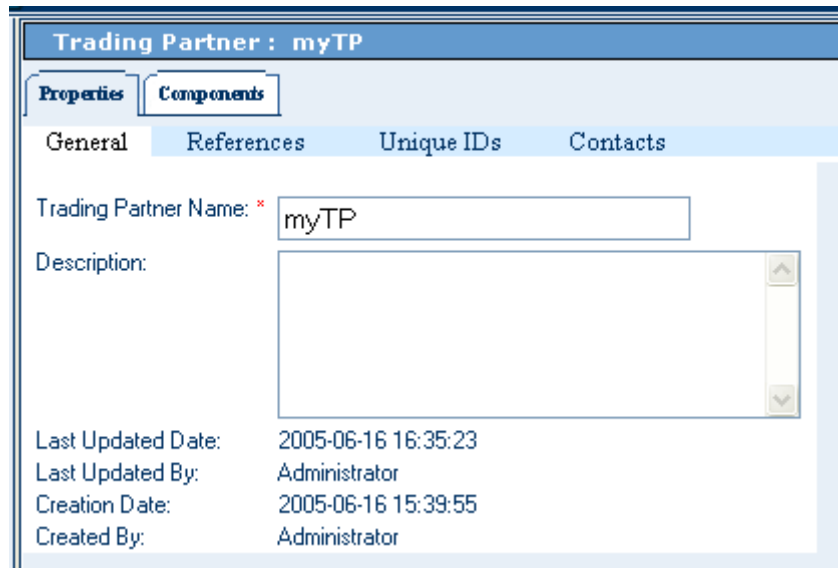
These configuration parameters define basic eXchange settings. See the *eXchange Integrator User's Guide* for information on these parameters.

4.4 Configuring Bindings for External Delivery Channels

This section describes how to configure AS2 Manager's bindings for XDCs. You set up and define these bindings by supplying values for the **ToPartner** transport attributes, the **FromPartner** transport attributes, and the combined **To/FromPartner** packaging attributes.

For an example of how these parameters appear in the ePM user interface, see Figure 9. You can find the **Delivery Channels** (XDCs) subtab example shown, under the **Components** tab.

Note: *The ePM user interface refers to XDCs under tabs named* **Delivery Channels***.*

Figure 9   XDC Binding Configuration: General Subtab

These configuration parameters define settings that allow AS2 Manager to deliver messages to TPs. The categories of these parameters are:

- **"General" on page 39**
- **"ToPartner Transport" on page 40**
- **"FromPartner Transport" on page 42**
- **"ToPartner Packaging" on page 43**
- **"FromPartner Packaging" on page 48**

4.4.1 General

These parameters allow you to define general eXchange settings. See the *eXchange Integrator User's Guide* for information on these parameters.

4.4.2 **ToPartner Transport**

These parameters allow you to supply information needed to transport data to the TP. Find these parameters under the **ToPartner Transport** subtab. See Figure 10.

Figure 10   ToPartner Transport Parameters

All Purpose End Point

Description

An endpoint specifies the logical address of where messages can be sent. The all-purpose endpoint is used to designate the receipt address of all AS2 messages.

You must provide a value for both the **All Purpose End Point** and **End URL** parameters, and both values must be the same.

Values

A valid URL, according to the syntax given under **"XDC Parameters" on page 86**; required.

Default

None

Use Synchronous Channel

Description

Specifies whether the communication between the message service handler (MSH) servers is synchronous or asynchronous. When set to **true**, the MSH response message is returned on the same HTTP connection as the inbound request, with an appropriate HTTP response code.

This parameter is not required and is not used in the current release of AS2 Manager. However, it is provided for compatibility with previous releases.

SyncReplyModes replaces this parameter in the current release.

Values

Select **true, false,** or **None**; not required.

Default

false

Track for Auditing

Description

Specifies whether the message is tracked using Enterprise Manager's Message Tracking feature. Choosing **true** enables Message Tracking.

Values

Select **true, false,** or **None**; not required.

Default

false

End URL

Description

Allows you to enter the destination URL for the current TP.

You must provide a value for both the **End URL** and **All Purpose End Point** parameters, and both values must be the same.

Values

A valid URL, according to the syntax given under **"XDC Parameters" on page 86**; required.

Default

None

HTTPHeader Value

Description

Allows you to specify the **HTTPHeader** value (number of characters) before the message is posted to the required URL. The host request header field *must* be included in the POST request made when sending business data. This field allows one server IP address to service multiple host names and potentially conserve IP addresses.

Values

Valid string describing the **HTTPHeader** value; not required.

Default

None

HTTPHeader Name

Description

Allows you to specify the **HTTPHeader** name before the message is posted to the required URL. This parameter is used to send additional information over HTTP.

Values

Valid string describing the **HTTPHeader** name; not required.

Default

None

4.4.3 FromPartner Transport

These parameters allow you to supply information needed to transport data from the TP. See **"ToPartner Transport" on page 40** for an explanation of these parameters. Find these parameters under the **FromPartner Transport** tab (see **Figure 9 on page 39**).

4.4.4 **ToPartner Packaging**

These parameters allow you to define the packaging for data being transported to the TP. Find these parameters under the **ToPartner Packaging** tab. See Figure 11.

Figure 11   ToParner Packaging Parameters

The initial set of parameters before **AS2_FROM** are eXchange parameters common to all protocol managers. See the *eXchange Integrator User's Guide* for information on these parameters.

AS2_FROM

Description

Allows you to specify the name associated with **FromPartner**.

Transferring data using AS2 involves two organizations that are identified using **AS2-To** and **AS2-From** header values. The **AS2-To** header value identifies the receiver and the **AS2-From** header value identifies the sender of the AS2 message.

Values

A valid string (no spaces or backslashes are accepted, except within double quotes); required.

Default

None

AS2_HTTP_FROM

Description

Allows you to specify the name of the **AS2 HTTP FromPartner** ID being used to identify the transport TP where the message is being sent from.

Values

A valid string provided by the user; not required.

AS2_HOST

Description

Allows you to specify the host you use for AS2 Manager. This parameter is also used to identify the host name of the sender's TP.

Values

Valid string describing the host name; required.

Default

Specified Localhost

AS2_SUBJECT

Description

Allows you to specify the subject of the message send by the TP, for example, "EDI message from Atlanta."

Values

A valid string describing the subject; required.

Default

None

AS2_TO

Description

Allows you to specify the name associated with **ToPartner**.

Transferring data using AS2 involves two organizations that are identified using **AS2-To** and **AS2-From** header values. The **AS2-To** header value identifies the receiver and the **AS2-From** header value identifies the sender of the AS2 message.

Values

A valid string (no spaces or backslashes are accepted, except within double quotes); required.

Default

None

AS2_VERSION

Description

Allows you to specify the current AS2 version number.

Values

A valid AS2 version number or **As applicable**; required.

Default

As applicable

AS2_COMPRESSED_BEFORE_SIGNED

Allows you to specify whether the TP needs to be compressed before being signed. If the value is set to **true,** compression is done before signing.

Values

Select **true** or **false**; required.

Default

false

AS2_MAX_RETRY_COUNT

Description

If **AS2_RESEND_REQ** is set to **true**, allows you to specify the maximum number of times the system is to retry sending a message before timing out. You can choose to use this parameter or **AS2_MAX_RETRY_TIMEOUT** (which sets the time-out in terms of time). If you set **AS2_MAX_RETRY_COUNT**, do *not* set **AS2_MAX_RETRY_TIMEOUT**.

Values

Enter the number of times; required only if **AS2_RESEND_REQ** is set to **true**.

Default

None

AS2_MDN_SIGNATURE_REQ

Description

Allows you to specify whether a signed message disposition notification (MDN) is required; **true** enables this parameter.

An MDN is an Internet messaging format used to convey a receipt or acknowledgement. This specification allows for EDI/EC message exchange with or without a digital signature for the original EDI transmission.

Values

Select **true**, **false** or **None**; required only if you set **AS2_MDN_REQ** to **true**.

Default

false

AS2_MDN_RESPONSE_TYPE

Description

Allows you to specify whether the sender TP requires a synchronous or asynchronous MDN.

Values

Select **SYNC** or **ASYNC**; required only if you set **AS2_MDN_REQ** to **true**.

Default

SYNC

AS2_MDN_DELIVERY_URL

Description

Allows you to specify the URL where you want the MDN delivered.

Values

A valid string; required only if you set **AS2_MDN_REQ** to **true**.

Default

None

AS2_POSITIVE_MDN_DISPOSITION

Description

Allows you to specify whether the MDN disposition of a message is successful. This is the message that the TP sends with the MDN, for example, "Positive Disposition of Message."

Values

A valid string describing the result of the message disposition; required only if you set **AS2_MDN_REQ** to **true**.

Default

None

AS2_MIC_ALGORITHM

Description

Allows you to select the desired algorithm value from the pull-down menu. This message integrity check (MIC) algorithm is used to calculate the MIC value in the payload, outbound and inbound, to enable correlation between the two.

Values

Select **Sha1**; required.

Default

> **Sha1**

AS2_MIC_DIGEST_ALGORITHM

Description

> Allows you to select the desired algorithm value from the pull-down menu. This algorithm is used to calculate the digest value during signing. The default value **(Sha1)** is a secure, one-way hash algorithm used in conjunction with digital signatures. **Sha1** is the recommended algorithm for AS2.

Values

> Select **Sha1** or **MD5;** required.

Default

> **Sha1**

AS2_PAYLOAD_TYPE

Description

> Allows you to specify the type of payload. This parameter is used to identify the payload type, that is, the type of message sent by the TP.

Values

> Select **X12, EDIFACT**, **XML**, or **Others**; required.

Default

> **X12**

AS2_REPORTING_UA

Description

> Allows you to identify the reporting user for the MDN.

Values

> A valid string provided by the user; required

Default

> None

AS2_MDN_REQ

Description

> Allows you to specify whether an MDN is required. This parameter is used to identify whether the sender TP requires an MDN; **true** enables this parameter.

Values

Select **true**, **false** or **None**; required.

Default

true

AS2_RESEND_REQ

Description

Allows you to specify whether you want to require the system to resend messages; **true** enables this parameter.

Values

Select **true**, **false** or **None**; required.

Default

false

AS2_RETRY_TIMEOUT

Description

If **AS2_RESEND_REQ** is set to **true**, allows you to specify the maximum amount of time the system is to wait while retrying to send a message, before timing out, in milliseconds. You can choose to use this parameter or **AS2_MAX_RETRY_COUNT** (which sets the time-out in terms of the number of retries). If you set **AS2_MAX_RETRY_TIMEOUT**, do *not* set **AS2_MAX_RETRY_COUNT**.

Values

Select **true** or **false**; required only if **AS2_RESEND_REQ** is set to **true**.

Default

false

4.4.5 FromPartner Packaging

These parameters allow you to define the packaging for data being transported from the TP. Find these parameters under the **FromPartner Packaging** tab See **Figure 12 on page 49**.

Figure 12 FromPartner Packaging Parameters

The initial set of parameters before **AS2_FROM** are eXchange parameters common to all protocol managers. See the *eXchange Integrator User's Guide* for information on these parameters.

AS2_FROM

Description

Allows you to specify the name associated with **FromPartner**.

Transferring data using AS2 involves two organizations that are identified using **AS2-To** and **AS2-From** header values. The **AS2-To** header value identifies the receiver and the **AS2-From** header value identifies the sender of the AS2 message.

Values

A valid string (no spaces or backslashes are accepted, except within double quotes); required.

Default

None

AS2_TO

Description

Allows you to specify the name associated with **ToPartner**.

Values

A valid string (no spaces or backslashes are accepted, except within double quotes); required.

Default

None

4.5 Configuring Certificates

No AS2-specific ePM configuration parameters for certificates are required. No certificate configuration ePM parameters are used by AS2 Manager.

Note: *See* **"Configuring Companies' Cryptographic Features" on page 80**.

4.6 Configuring Bindings for IDCs

This section describes how to configure AS2 Manager's bindings for IDCs. You set up and define these bindings by suppling values for the **ToPartner** and **FromPartner** transport attributes for each IDC used by the B2B host.

These configuration parameters are used by the B2B host, and their categories are:

- **"Sender Transport" on page 50**
- **"Receiver Transport" on page 51**

Note: *See the **eXchange Integrator User's Guide** for an explanation of IDC configuration properties for sender and receiver transport. Under **Internal Delivery Channels**, (see **Figure 13 on page 51** and **Figure 14 on page 52**), select the **Transport Name**, as appropriate, for example **JMS**.*

4.6.1 Sender Transport

The parameters under this tab allow you to define the sender transport attributes for individual IDC bindings used by the B2B host. For details on how to set these parameters, see the *eXchange Integrator User's Guide*.

For an example of how the parameters appear in the ePM user interface, see **Figure 13 on page 51**. The example shown is under the **Internal Delivery Channel: IDC_Out_Binding > Sender Transport** subtab.

Figure 13 Bindings for IDCs Configuration (Sender Transport)
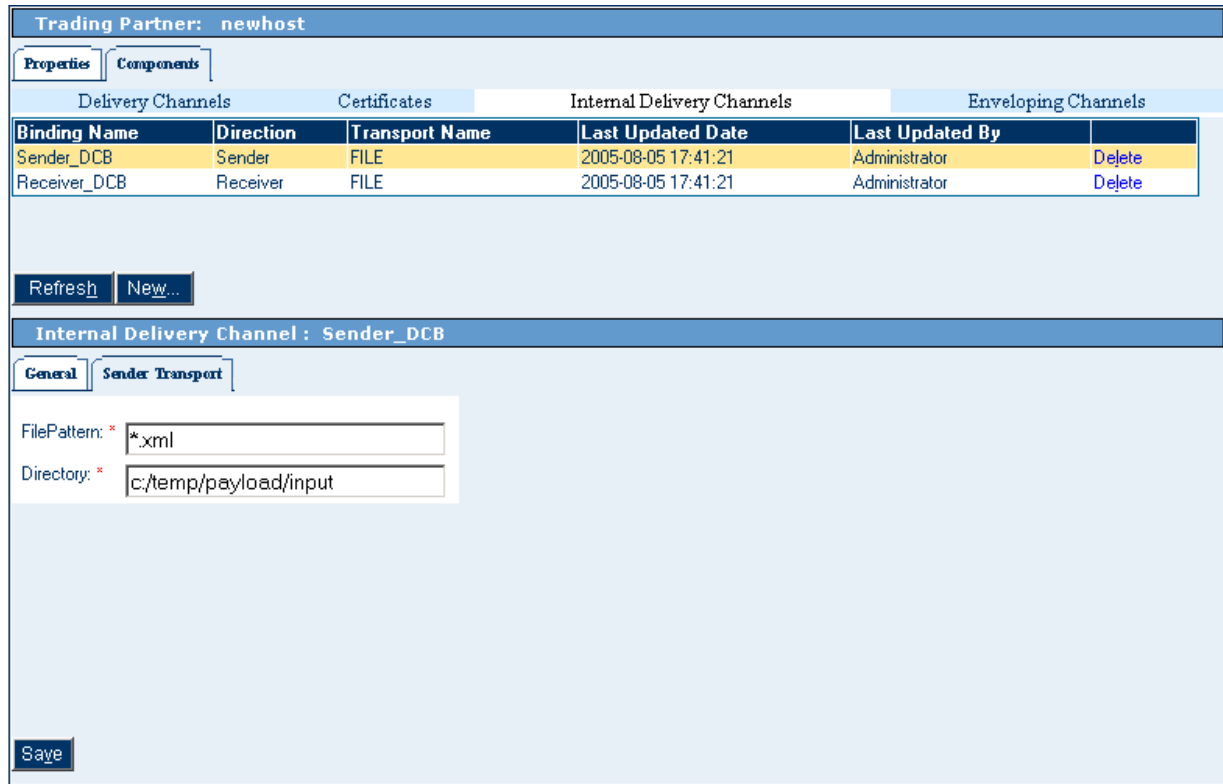
4.6.2 Receiver Transport

The parameters under this tab allow you to define the receiver transport attributes for individual IDC bindings used by the B2B host. Set these parameters in the same way as you do those for the sender transport channels. For details on how to set these parameters, see the *eXchange Integrator User's Guide*.

For an example of how the parameters appear in the ePM user interface, see **Figure 14 on page 52**. The example shown is under the **Internal Delivery Channel: IDC_In_Binding > Receiver Transport** subtab.

Figure 14 Bindings for IDCs Configuration (Receiver Transport)
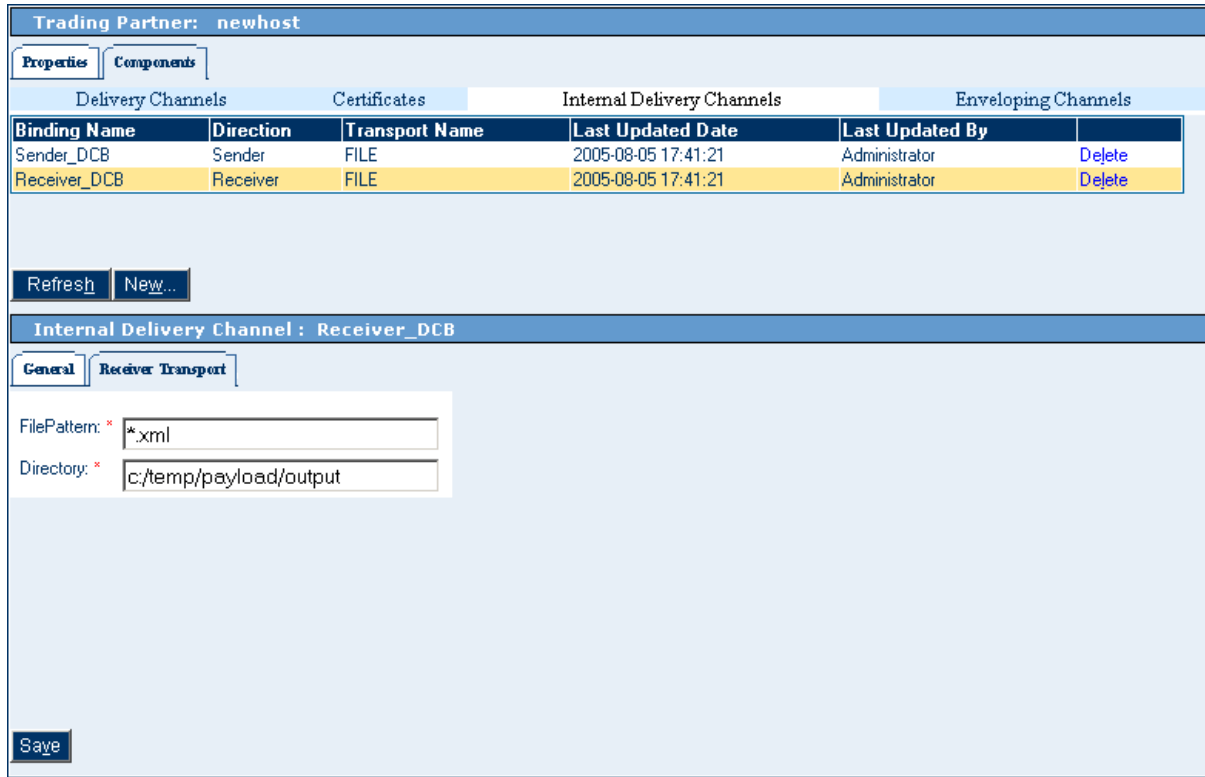
4.7 Configuring Enveloping Channels

No AS2-specific ePM configuration parameters for enveloping channels are required. For information on configuring enveloping channels, see the appropriate user's guide for the enveloping protocol you are using, in this case, AS2.

4.8 Configuring Messaging Services

This section describes how to configure AS2 Manager's Messaging Services under the **ePM Messaging Service Configuration**. Messaging Services and their configurations control the messaging operations (inbound and outbound) for AS2 Manager's MADs.

Messaging Services' configurations define settings that allow AS2 Manager to set up, control, and order the sending and receiving of messages. The Messaging Service parameter categories are:

- **"Inbound" on page 54**
- **"Outbound" on page 55**

You can configure a Messaging Service under the **Messaging Actions** tab in ePM. When you first click the **Messaging Actions** tab, the current Messaging Service appears on the window as two separate text lines within a bar.

Note: *See the **eXchange Integrator User's Guide** for an explanation of the parameters under the **Properties** tab.*

The individual configuration parameters (inbound or outbound) appear when you click a bar's plus sign (+), on the left, and expand the bar. See the example in Figure 15.

Figure 15   Inbound and Outbound Messaging Operations Example
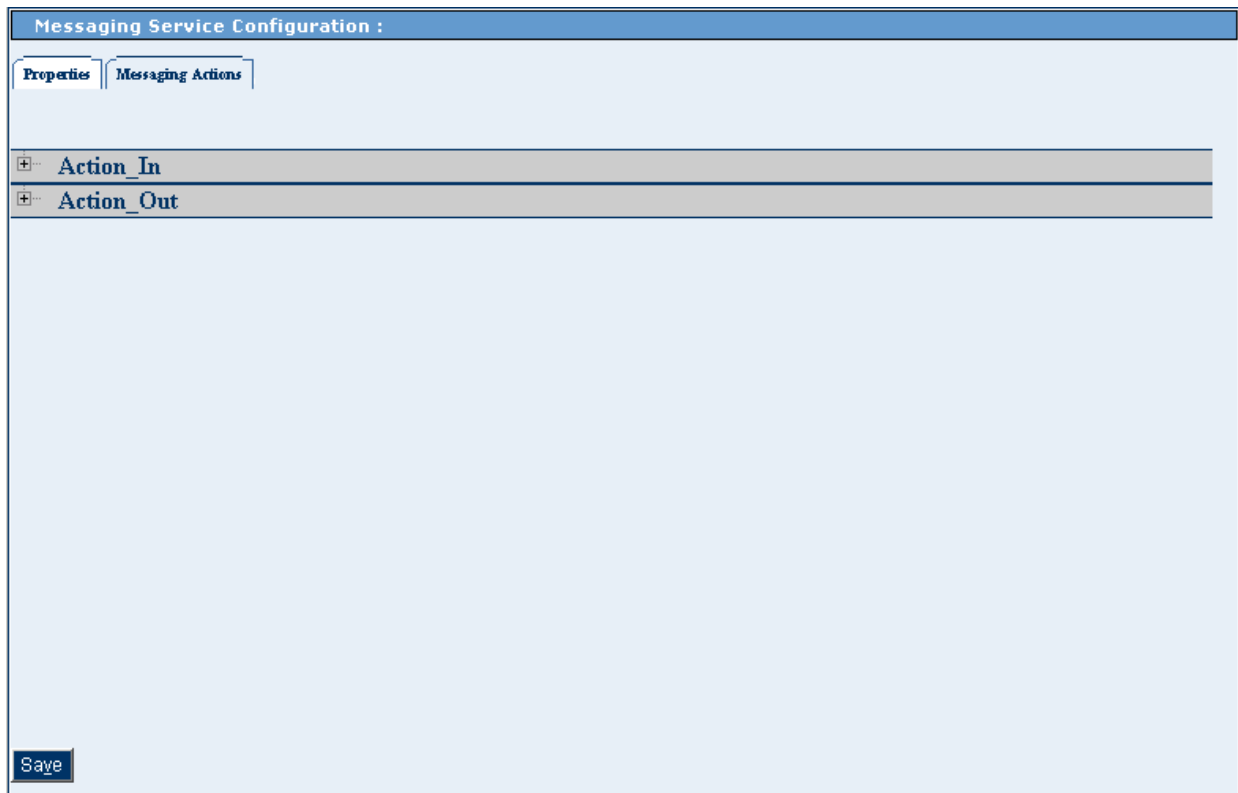
Note: *The text names you see on the ePM window, within the bars, reflect the names entered in Enterprise Designer, for the current B2B host's Messaging Service operations (inbound and outbound).*

4.8.1 Inbound

These Messaging Service parameters for the current MAD allow you to define inbound messaging operations. For an example of how the parameters appear in the ePM user interface, see Figure 16.

Figure 16   Messaging Service Configuration (Inbound)
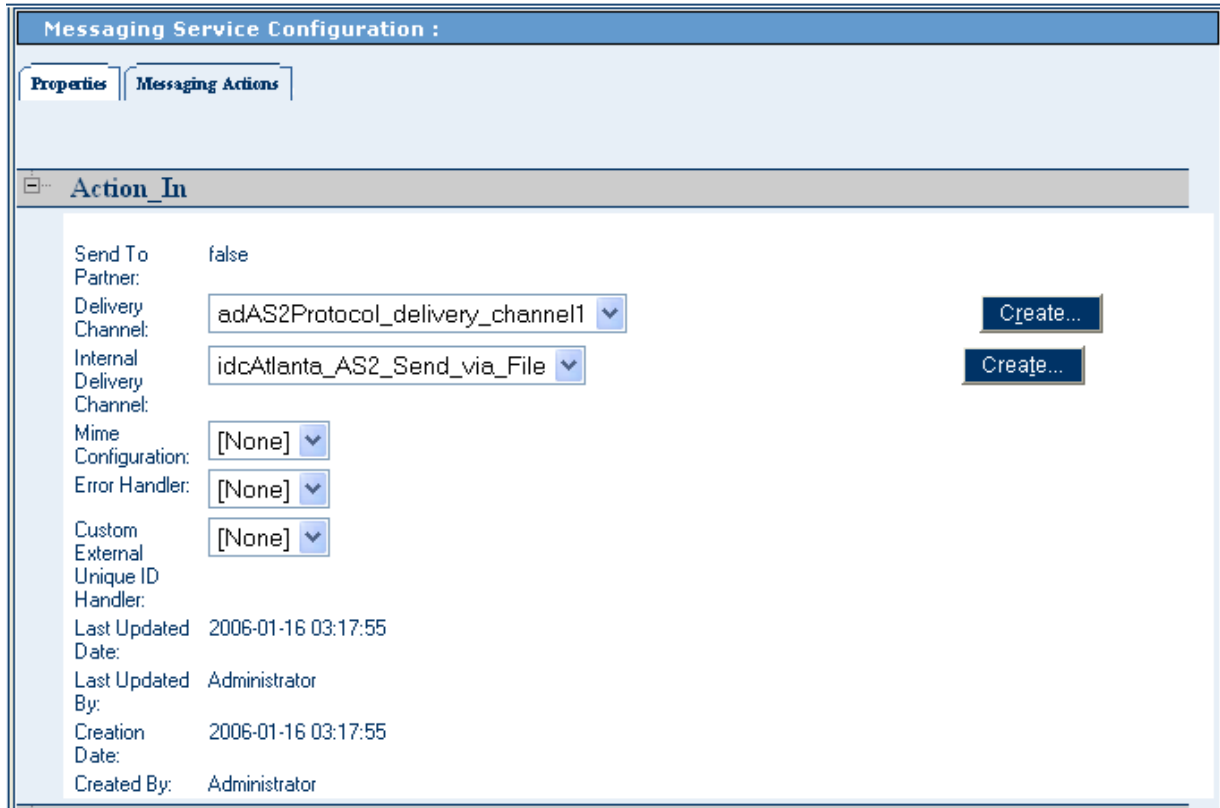
Figure 16 shows the first few parameters contained in the example's **Action_In** (inbound) bar under the **Messaging Actions** tab.

These parameters are eXchange settings common to all protocol managers. See the *eXchange Integrator User's Guide* for detailed information on how to set them.

4.8.2 **Outbound**

These Messaging Service parameters for the current MAD allow you to define outbound messaging operations. For an example of how the parameters appear in the ePM user interface, see Figure 17.

Figure 17   Messaging Service Configuration (Outbound)

Figure 17 shows the first few parameters contained in the example's **Action_Out** (outbound) bar under the **Messaging Actions** tab. All of these parameters operate in the same way as those for the inbound parameters.

These parameters are eXchange settings common to all protocol managers. See the *eXchange Integrator User's Guide* for detailed information on how to set them.

Quick Start Guide

This chapter provides a basic, general description of how to successfully operate AS2 Manager in eXchange. Its purpose is to provide a summary of how to get started using AS2 Manager.

What's in This Chapter

- **"Overview: Basic Operations and Concepts" on page 56**
- **"Design Steps in Enterprise Designer" on page 57**
- **"Creating and Configuring TPs in ePM" on page 61**
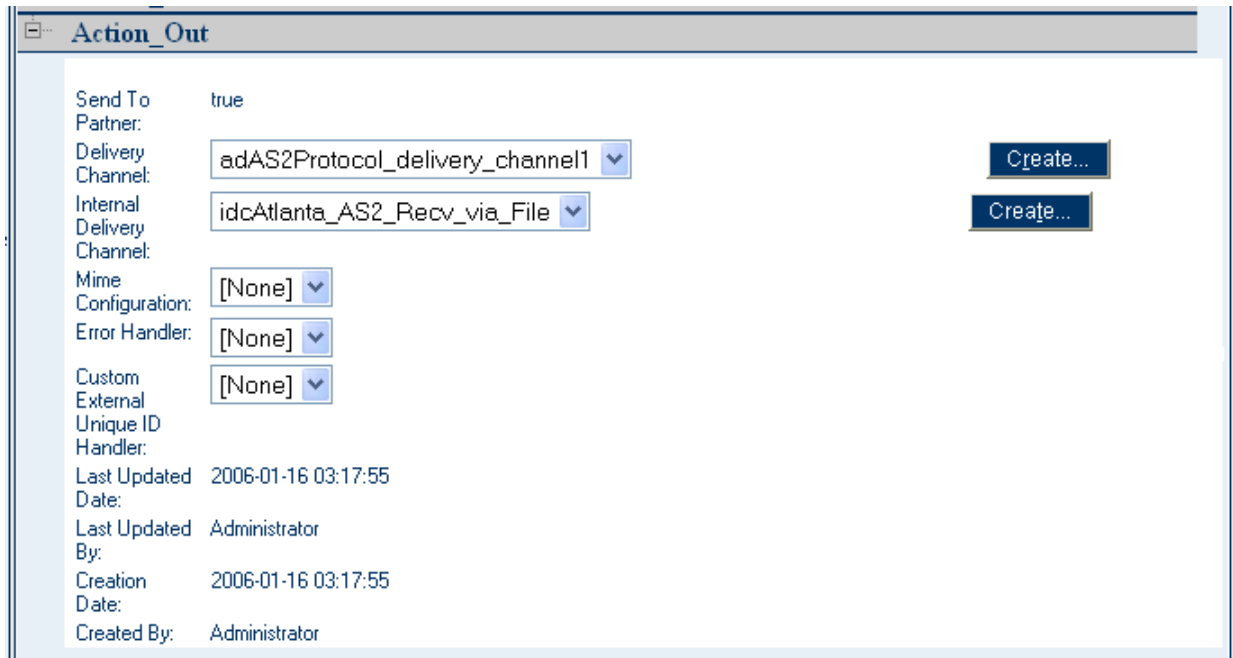- **"Run-time Steps" on page 61**

For more information on any of the topics discussed in this chapter, see the *eXchange Integrator User's Guide*. You can also refer to the steps, as provided in **Chapter 6**, for setting up the sample Projects that come with the AS2 Manager installation CD-ROM.

5.1 Overview: Basic Operations and Concepts

The following list describes the basic operations necessary to use AS2 Manager successfully:

- Create, design, deploy, and activate the appropriate Projects and their Deployment Profiles (DPs), using Enterprise Designer.

- As part of the previous operations, create and set up an Oracle external system instance on a B2B host's Environment using Enterprise Designer. For more information on Oracle database requirements for eXchange and AS2 Manager, see **"System Requirements" on page 24**.

- Also using Enterprise Designer, set up the appropriate features on the current Project's Environment. This operation includes some configuration steps.

- Configure and activate eXchange external and internal delivery channels (XDCs and IDCs) in ePM for the Trading Partners (TPs). This operation includes setting general eXchange configuration parameters and configuration steps specific to AS2.

*Note: See **Chapter 4** for information on how to configure AS2 Manager in ePM.*

- Perform the required initial run-time steps and run the Project.

This chapter briefly and generally describes the installation, setup, design, and run-time steps required to get an AS2 Manager Project and its ePM configuration set up and running. The chapter's purpose is to provide a quick, easy set of procedures for reaching these goals, for the user who does not necessarily want or need all of the details.

For a complete, more detailed explanation of how to perform these steps, using the sample scenario provided with the CD-ROM with AS2 Manager, see **Chapter 6**. The rest of this chapter describes, in general and without detail, how you can quickly perform the steps shown in the previous list.

5.2 Design Steps in Enterprise Designer

For AS2 Manager sample Project implementation, design-time procedures in Enterprise Designer consist of the following basic operations:

- **"Setting Up B2B Host Projects" on page 57**
- **"Creating and Activating Project DPs" on page 60**

The rest of this section describes these operations.

5.2.1 Setting Up B2B Host Projects

You must create a B2B host Project for each AS2 Manager installation. This section provides a summary of this operation.

For complete information on how to perform these operations, see the *eGate Integrator User's Guide* and the *eXchange Integrator User's Guide*, as well as the sample scenario provided in **Chapter 6**.

Using Projects

Before you can use the AS2 Manager with eXchange, perform the following actions:

- Create and set up at least one AS2 B2B host Project
- Create and set up other Projects, as needed
- Deploy and activate the Project Profiles

The sample scenario provided in **Chapter 6** assumes you use the sample Projects provided and the default configurations where possible.

Using Environments

Each AS2 Manager installation requires at least one Environment. The sample scenario provided in **Chapter 6** assumes you use the sample Environments provided and the default configurations for all servers where possible.

You must also make any changes where needed, for example:

- **Ports:** Run the SeeBeyond Integration Server on ports 18000 through 18009; to use a different application server, you must use different port numbers.

- **HTTP(S):** To configure your HTTP server or client to use SSL, see the *HTTP(S) eWay Intelligent Adapter User's Guide* for eWay settings and Integration Server configuration.

- **Oracle:** You must create a new outbound Oracle external system instance and configure it. The eXchange database instance runs on Oracle.

Each of the companies in the sample scenario has an eXchange installation with one Environment.

Creating B2B Host Projects' Environments

Your first step is to create the Project's Environment and its basic setup as follows:

- Using Enterprise Designer, create a new Environment.

- Create at least one new Logical Host, as follows:

  - ◆ Create the Integration Server for the Logical Host.

  - ◆ Create the SeeBeyond JMS IQ Manager for that Logical Host.

- Create a keystore then import at least one key file and certificate file to activate the protocol's cryptographic features.

Create the following external system instances:

- Batch eWay in local file mode

- Inbound and outbound File eWays

- HTTP(S) Server

- HTTP(S) (client)

- Oracle (must also be configured; see **"Setting Up Oracle External System" on page 59**)

Creating and Activating B2B Host Project Deployment Profiles

Activating a Project DP creates an eXchange service that provides a connection to Enterprise Manager's Message Tracking feature and the eXchange database.

The B2B host Project contains the following components:

- At least one message service used by the B2B host. It contains messaging actions, alternating inbound and outbound.

- The B2B host component, which performs the following functions:

  ◆ Has business protocols that reference the Project's services.

  ◆ Defines XDCs for the Project's messaging attribute definitions (MADs). For transport to and from TPs, these channels reference the standard SeeBeyond-supplied HTTP transport attribute definitions (TADs).

  ◆ Defines IDCs (optional). These channels use the Java Messaging Service (JMS) to communicate in the Sender direction.

- A Connectivity Map with the following components:

  ◆ Input, an instance of the B2B host, with two outbound connections

  ◆ Output, an instance of the eXchange database (Oracle), with two inbound connections

  ◆ Instance of Message Tracking, connecting to the other two components

Note: *For more information on the Message Tracking feature, see the **eXchange Integrator User's Guide.***

- You must activate the B2B host's DP. This action creates an eXchange service for the B2B host. The creation and activation of this service is necessary for data communication between TPs.

Note: *Before you activate a B2B host Project DP, this DP must be pointed to the appropriate Environment, and this Environment must contain a correctly configured Oracle external system instance.*

Setting Up Oracle External System

You must set up an Oracle external system instance in a B2B host's Environment in Enterprise Designer. Perform this operation using the following general steps:

- Create an Oracle external system instance for the current Project on the Environment.

- Set the instance up, that is, customize it, for your intended uses.

For complete information on how to create a new external system and its instance in Enterprise Designer's Environment, see the *eGate Integrator User's Guide*. Also, see the *Oracle eWay Intelligent Adapter User's Guide*.

The procedure in the rest of this section explains how to set up an Oracle external system instance for AS2 Manager.

To set up an Oracle external system instance

1 In the Environment Explorer tree, navigate to the appropriate Project.

2   Correctly configure the following properties in the eWay's **Properties** dialog box:

   ◆ **DatabaseName**

   ◆ **Delimiter**

   ◆ **Description**

   ◆ **Password**

   ◆ **PortNumber**

   ◆ **ServerName**

   ◆ **User**

Note: *Other properties are optional.*

3   When all properties have been configured correctly for your site, click **OK**.

The Project's Environment now has its Oracle external system instance configured correctly for activation of the B2B host. For details, see the sample scenario explained in **Chapter 6**.

5.2.2 Creating and Activating Project DPs

To run all AS2 Manager Projects, you must create, set up, and activate DPs for the following types of Projects:

   ▪ B2B host

   ▪ Inbound and outbound

   ▪ Error-handler

   ▪ Additional Projects, as required by your data communication setup (see the sample scenario explained in **Chapter 6** for examples of additional types of supporting Projects that may be required)

Note: *There are also DPs named **dpMain<Project name>** that reside inside the Project folder named **eXchange**, under the sub-Project **Deployment**.*

Create, set up, and configure additional **dpMain** Projects in the same way as you do the Project for the B2B host. Keep in mind that details of these steps may vary, depending on the reason for and functioning of any additional Project.

Note: *Only the B2B host Project's Environment requires an Oracle external system instance.*

Use Enterprise Designer to activate each DP. See **Chapter 6** and the *eXchange Integrator User's Guide* for details.

5.3 Creating and Configuring TPs in ePM

This section describes the steps for creating and configuring TPs using ePM.

5.3.1 Basic ePM Steps

Before you begin this operation, your Repository and your eXchange Oracle database must be running and accessible to eXchange.

Note: Enterprise Designer does not need to be running, and you do not need to have any Logical Hosts running.

Using ePM to create TPs includes the following basic operations:

- Starting eXchange ePM

- Creating (or importing) the necessary TPs in ePM

- Configuring the TPs in ePM, including XDCs, named **Delivery Channels** in ePM, and IDCs; IDCs are optional

- Activating the TPs

For ePM configuration information, see **Chapter 4**. For an implementation example, including importing and activating TPs, see the sample scenario in **Chapter 6**.

5.3.2 Configuring eXchange Service With Cryptographic Features

Your use of the AS2 protocol assumes you are also using its cryptographic features (encryption, decryption, signatures, and verifications). Additional steps are required in setting up the eXchange service to use these features.

You must associate encryption information with each XDC eXchange service. For complete information on setting up an eXchange service with cryptographic features for protocol managers, see the *eXchange Integrator User's Guide*. For specific examples, see the encryption setup used in the sample Project explained in **Chapter 6**.

5.4 Run-time Steps

You run an AS2 Manager Project using the Logical Host. Running a Project requires the following basic steps:

- Starting and running the Logical Hosts

- Making sure your TPs have been activated

- Supplying input data

- Checking output data

- Making sure all client Projects and eXchange deployments deployed successfully

You can check the output data either by checking the configured output file directory or using the eXchange Message Tracking feature, whichever is appropriate. For more information on Message Tracking, see **"Using Message Tracking" on page 96**.

Note: *You can use Enterprise Designer to make changes to a Project while it is running. See* **"Applying Changes Without Shutting Down Logical Host" on page 95** *for details.*

Once you do these steps, your Project is active, and you are ready to send and receive data. For detailed information on these steps, see the sample scenario provided with AS2 Manager and supplied with the installation CD-ROM, as explained in **Chapter 6**.

Implementation Scenario

This chapter provides a description of the sample Projects provided with AS2 Manager, explaining how you can use eXchange to achieve B2B solutions using the AS2 protocol.

What's in This Chapter

6.1 Overview of Sample Implementation

The sample AS2 Manager Projects' implementation scenario demonstrates inbound and outbound message processing between the following parties:

- Atlanta Company
- Berlin Company

For the sample's scenario, each company has an eXchange installation and trades data. The scenario also demonstrates AS2 in conjunction with SME to illustrate cryptographic features.

6.1.1 Overview of Basic Sample Setup

For a general overview of the basic setup steps needed to create and run an eXchange Project and Environment, see **Chapter 5**. For complete information, see the *eXchange Integrator User's Guide*.

6.1.2 Sample Scenario

The sample Projects, Environments, and related files illustrate the following scenario:

- The Atlanta Company's Trading Partner (TP) is **BerlinTP,** that is, the Berlin Company.

- The Berlin Company's TP is **AtlantaTP**, that is, the Atlanta Company.

- In the sample scenario, the Atlanta Company sends data to the Berlin Company, which processes it, then sends an acknowledgement back to the Atlanta Company.

For more information on the file transactions between the companies, see the following sections:

- **"Configuring eWays on Connectivity Maps" on page 75**

- **"Supplying Input Data" on page 96**

Figure 18 shows a diagram of the AS2 Manager sample's basic operational scenario.

Figure 18   Sample Scenario Diagram
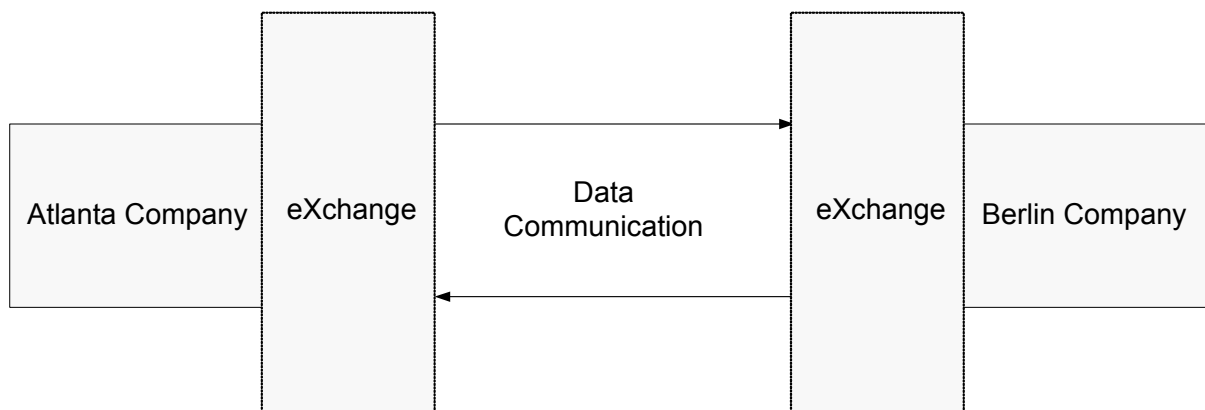
6.1.3 Sample Data

The sample data contains the following files:

- Sent from the Atlanta Company:
  - ◆ **Payload.txt**
  - ◆ **Outbound.~in**

For a complete list of files contained in the sample, see **"Extracted Files and Directories" on page 65**.

6.2 Importing Sample Projects and Environments

This section explains how to import the AS2 Manager sample Project, Environment, and related files. It also lists these files.

Importing the sample's files requires the following steps:

-
-

6.2.1 Extracting Sample Files

This section explains how to extract the AS2 Manager sample files from the file **AS2_Manager_Sample.zip** that contains them. You must perform this operation before you can import an AS2 Manager sample Project or Environment.

AS2_Manager_Sample.zip is provided on the CD-ROM with AS2 Manager. See **Chapter 3** for instructions on how to obtain (download) this file.

To extract the sample files

- Extract the contents of the **AS2_Manager_Sample.zip** file to a temporary directory, for example, `C:\temp\eXchange`. Make sure you preserve the extracted file paths.

Note: *It is recommended that you first create a temporary eXchange directory for the sample files and extract these files to this directory for your convenience. This action allows you to easily access the files while performing procedures provided later in this chapter.*

Extracted Files and Directories

If you use the `C:\temp\eXchange` top-level directories, the following list shows the directories and files created:

```
C:\temp\eXchange\Sample\Certificates\STC_Test_Certificate_3.der
C:\temp\eXchange\Sample\Data\OutboundAS2\Outbound.~in
C:\temp\eXchange\Sample\Data\OutboundAS2\Payload.txt
C:\temp\eXchange\Sample\Keys\STC_Test_Certificate_3.p12
C:\temp\eXchange\Sample\ProjectsAndEnvironments\SampleProjects.zip
C:\temp\eXchange\Sample\TradingPartners\tp_for_envAtlanta.xml
C:\temp\eXchange\Sample\TradingPartners\tp_for_envBerlin.xml
```

Caution: *If you use the **\temp** directory to extract the files in the previous list, and your system does an auto-delete operation on any directory with this name, you must disable this operation.*

As shown in the list in this section, in addition to files for the Projects, **AS2_Manager_Sample.zip** also contains key, certificate, key store, TP, and data files.

Note: *The **SampleProjects.zip** file in the `\ProjectsAndEnvironments\` directory contains the sample's Environments, as well as Projects.*

If You Use Different Path Locations

If you extract the data files to different locations, modifications are necessary in the appropriate Enterprise Designer configurations. You must also modify the appropriate eXchange ePM fields under the **ToPartner** and **FromPartner** tabs.

6.2.2 Importing Sample Projects

Before you import the sample Projects, your Repository must be running, and you must be logged on to Enterprise Designer. If your Repository already has a Project at the root level whose name is identical to any of the Projects you are importing, you must delete or rename such Projects before you start.

To import sample Projects

1 In **Project Explorer**, right-click the Repository and, on the context menu, click **Import**.

2 In the **Import Manager** dialog box, browse to the directories where you extracted the sample files, for example:

```
C:\temp\eXchange\Sample\ProjectsAndEnvironments\
```

The name of the Project file you must import is **AS2SampleProject.zip**.

3 Select this file and click **Import**.

A message appears saying the import operation was successful.

4 Click **OK**.

5 Close the **Import Manager** dialog box.

The **Project Explorer** tree now displays the following Projects under **AS2_Sample**:

- **ClientInAS2**
- **ClientOutAS2**
- **HostAtlanta**
- **HostBerlin**
- **JmsToFile**

The **Environment Explorer** tree also displays the following Environments:

- **envAtlanta**
- **envBerlin**

Using Deployment Profiles

To run an AS2 Manager Project, you must create and activate at least one Deployment Profile for each Project. The next section explains how to do this operation for the sample scenario Projects. For more information, see the *eXchange Integrator User's Guide*.

6.3 Enterprise Designer Setup Steps

For the AS2 Manager sample Project implementation, design-time procedures in Enterprise Designer for setting up and activating the sample's scenario consist of the following operations:

- **"Setting Up Companies' Environments" on page 67**
- **"Updating Files for Java Collaboration Definitions" on page 71**
- **"Setting Up Companies' B2B Host Projects" on page 72**
- **"Configuring Companies' Cryptographic Features" on page 80**
- **"Creating Additional Deployment Profiles" on page 82**

The rest of this section explains these operations.

6.3.1 Setting Up Companies' Environments

This section explains how to set up the Atlanta and Berlin Companies' sample Environments, **envAtlanta** and **envBerlin**.

The sample assumes you use default configurations for all servers, where possible, and that you make any changes in Enterprise Designer, where needed, for example:

- **Oracle:** You must create a new outbound Oracle external system instance for each Environment and configure it, even if you imported the sample Environments. Sample parameters are for reference only. Any Oracle database used by eXchange must be accessible to eGate, and you must know its Oracle SID, user name, and password.

- **Ports:** To run anything other than Integration Server on ports 18000 through 18009, you must make adjustments to configuration values for port numbers, depending on the type of application server you are using.

- **HTTPS:** For information on how to configure your HTTP server or client to use SSL, see the *HTTP(S) eWay Intelligent Adapter User's Guide,* for eWay settings and Integration Server configuration.

Note: *After you have created all of the external system instances you need for the current B2B host Project, another external system instance, an eXchange service, is created in this Project automatically when you activate the Project. See* **"Setting Up Companies' B2B Host Projects" on page 72** *for details.*

Creating Atlanta Company's Environment

This section explains how to create the sample's Environment for the Atlanta Company.

To create the basic components

1   In Enterprise Designer, near the lower left of the window, click the **Environment Explorer** tab.

2   On the **Environment Explorer** tree, right-click the Repository and, on the context menu, click **New Environment**.

3   Name the newly created Environment **envAtlanta**.

4   Right-click **envAtlanta** and, on the menu, click **New Logical Host** and name the Logical Host **lhAtlanta**.

Note: *If you want to create any additional Logical Host, right-click it and open its* ***Properties*** *dialog box. Click* ***Logical Host Configuration*** *and change the value* ***Logical Host Base Port*** *to a larger multiple of 1000 (28000 if ports 28000-28009 are unused; otherwise 28100 or 29000). When you are finished, close the* ***Properties*** *dialog box.*

5   Create an Integration Sever under **lhAtlanta** and name it **IntegrationSvr1**.

6   Create a Seebeyond JMS IQ Manager under **IntegrationSvr1** and name it **SBJmsIQMgr1**.

To create and configure the nondatabase external system instances

1   In Enterprise Designer, on the **Environment Explorer** tree, right-click **envAtlanta** and, on the context menu, click **New BatchFTP External System**.

2   Name the new external system instance **extBatchFTP**, and click **OK**.

These operations create, for the Environment, an external system instance for the Batch eWay in FTP mode.

3   On the new external system's **Properties** dialog box, allow the default ports for SOCKS, FTP, and SSH Tunneling.

4   Create a Batch eWay (local file mode) external system under **envAtlanta** and name it **extBatchLocalFile**.

5   Create a File eWay (inbound mode) external system under **envAtlanta** and name it **extFileIn**.

6   Create a File eWay (outbound mode) external system under **envAtlanta** and name it **extFileOut**.

7   Create an HTTP eWay (client mode) external system under **envAtlanta** and name it **extHttp**.

8   On the new HTTP eWay's **Properties** dialog box, enter the in the following values:

  ⬩ **URL Syntax**: `http://www.seebeyond.com`
  ⬩ **Content Type**: **text/***.

9   Create an HTTP Server eWay external system under **envAtlanta** and name it **extHttpServer**.

10   Create a new key store under **envAtlanta** and name it **envatlanta_ks_store**. See **"Configuring Companies' Cryptographic Features" on page 80** for details on how to add keys and certificates to the key store.

To create and configure the Oracle external system instance

1 In Enterprise Designer, on the **Environment Explorer** tree, right-click **envAtlanta** and, on the context menu, click **New Oracle External System**.

Note: *The eXchange database instance runs on Oracle. For more information on Oracle requirements for eXchange and AS2 Manager, see* **"System Requirements" on page 24***.*

2 Name the new component **extOracle**, designate it **Outbound Oracle eWay**, click **OK**.

These operations create, for the Environment, an external system instance for the Oracle eWay in outbound mode.

3 Right-click **extOracle** and configure properties appropriately, as follows:

- **DatabaseName**: SID for your current Oracle system.
- **DataSourceName**: **local**.
- **Delimiter**: **#**.
- **Description**: Oracle thin driver Connection Pool Datasource.
- **Driver Properties**: Blank, for this sample.
- **Password**: Valid password for the current Oracle system.
- **PortNumber**: **1521** (change this value only if your Oracle system administrator changed the default).
- **ServerName**: Host name of the Oracle server machine.
- **TNS Entry**: Blank, for this sample.
- **User**: Valid user ID for the current Oracle system.

4 When all properties have been configured correctly for your site, click **OK**.

When You Are Finished

- Your result appears as shown in Figure 19.

Figure 19 Sample Scenario's Atlanta Environment
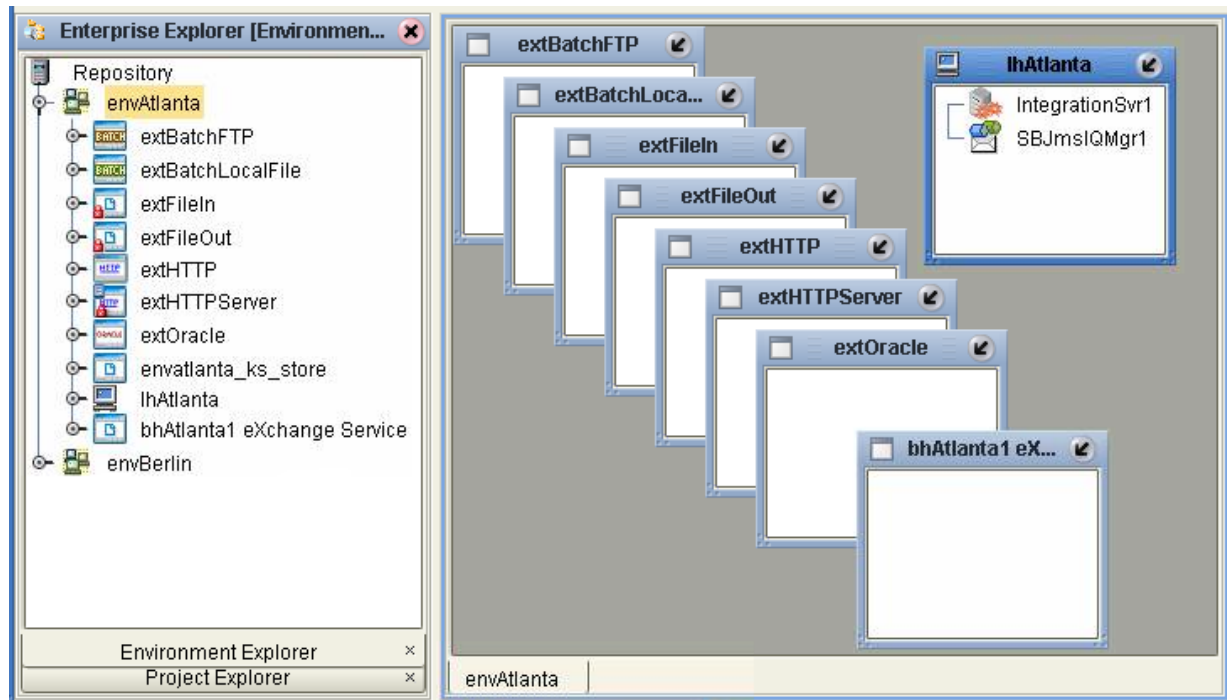
- Collapse the **envAtlanta Environment Explorer** tree, click **Save All**, and close all canvases.

Creating Berlin Company's Environment

This section explains how to create the sample's Environment for the Berlin Company.

To create the basic components

- Follow the steps provided under the **procedure on page 67**.

- Name the appropriate components as follows:

  - **envBerlin**

  - **lhBerlin**

To create and configure the nondatabase external system instances

- Follow the steps provided under the **procedure on page 68**, under **envBerlin**.

To create and configure the Oracle external system instance

- Follow the steps provided under the **procedure on page 69**, using **envBerlin**.

- Name the new component **extOracle**, and designate it **Outbound Oracle eWay**.

- Configure **extOracle** as shown in the list provided in step 3 under the **procedure on page 69**.

When You Are Finished

- Your result appears as shown in Figure 20.

Figure 20 Sample Scenario's Berlin Environment
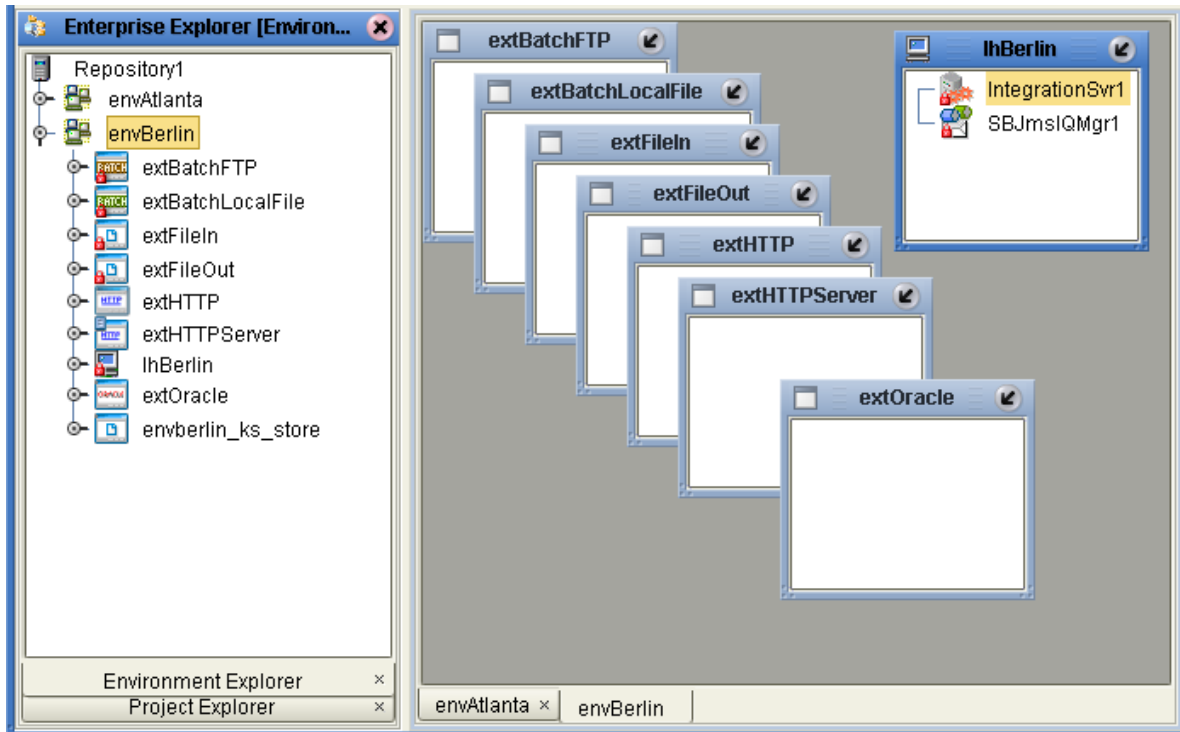
- Collapse the **envBerlin Environment Explorer** tree, click **Save All**, and close all canvases.

6.3.2 Updating Files for Java Collaboration Definitions

Special steps are required to update the AS2 Manager's sample Java Collaboration Definitions (JCDs) to take advantage of the cryptographic **.jar** files used in SME and the sample.

To update the JCDs used for signing and verifying

1 In Enterprise Designer's **Project Explorer** tree open this Project folder:
SeeBeyond > eXchange > User Components > Crypto > Sign > JCDs.

2 For each of the four elements under the **JCDs** folder, perform the following steps:

A Right-click the JCD and check it out.

B Double-click the JCD to edit it in the Collaboration Editor (Java).

C On the Tool Palette, click **Import JAR file**.

D In the **Add/Remove Jar Files** dialog box, click **Add**.

E Navigate up four levels, then down to **SeeBeyond > SME > External JARs**.

F Select the file **com.stc.smeapi.jar**.

> G Click **Import**, then click **Close**.
>
> H Click **Save**.

For more information, see the *eGate Integrator User's Guide*.

6.3.3 Setting Up Companies' B2B Host Projects

On the **Project Explorer** tree, you can open a B2B host Project (**HostBerlin** or **HostAtlanta**) to display its components. This section provides a summary of a B2B host's contents. Activating this Project creates an eXchange service that acts as a channel manager and provides a connection to Message Tracking and the eXchange database instance.

See **"Using Message Tracking" on page 96** and the *eXchange Integrator User's Guide* for more information on Message Tracking.

Components of Companies' B2B Host Projects

This section describes the B2B host Projects general characteristics. **bhAtlanta** and **bhBerlin** are the B2B hosts and have the following components and functions:

- **adAS2Protocol**, under **Business Protocols**, the only messaging attribute definition (MAD) contained in the Project, for each B2B host.

- Business Processes (BPs) that reference the hosts' message services, under **adAS2Protocol**. See **Figure 23 on page 75**.

- **msvcAtlantaAS2** (**bhAtlanta**) and **msvcBerlinAS2** (**bhBerlin**), message services containing their respective Projects' messaging actions, inbound and outbound.

- There is an external delivery channel (XDC) for the single **adAS2Protocol** MAD in each B2B host. These XDCs are both named **adAS2Protocol_delivery_channel1**.

- For transport to and from TPs, these XDCs reference the standard SeeBeyond-supplied HTTP transport attribute definitions (TADs).

- Both B2B hosts have internal delivery channels (IDCs). These channels use JMS to communicate in the sender (**ToInternal**) direction. These IDCs are:

  - **idcAtlanta_AS2_Send_via_File**
  - **idcAtlanta_AS2_Recv_via_File**
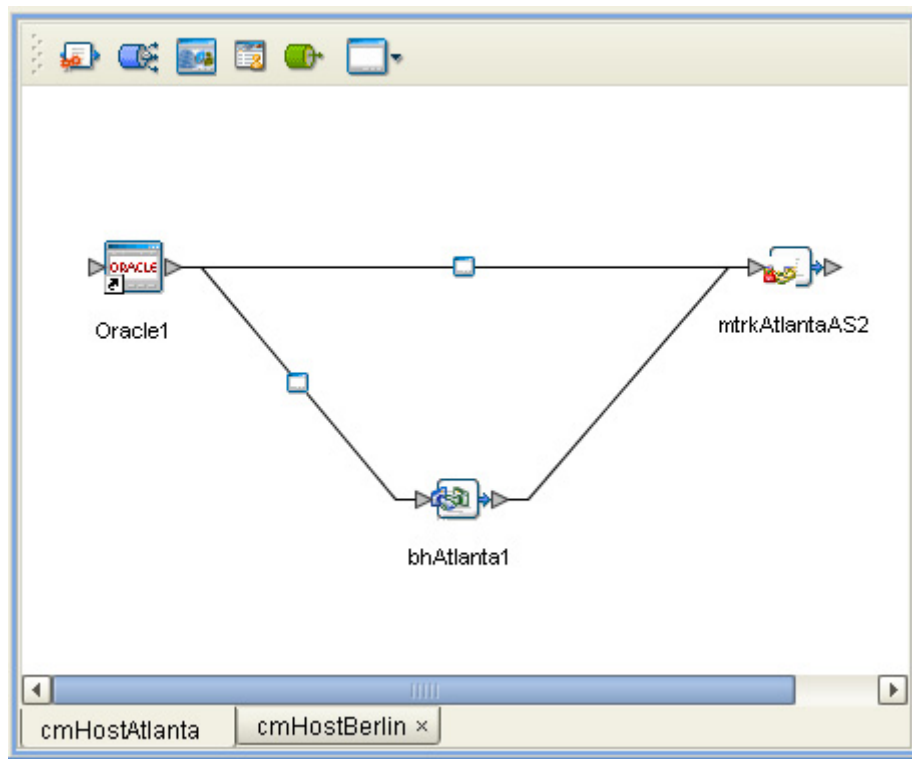
Figure 21 shows a graphical view of **bhAtlanta** in Enterprise Designer, for an example.

Figure 21   Example: Enterprise Designer With bhAtlanta
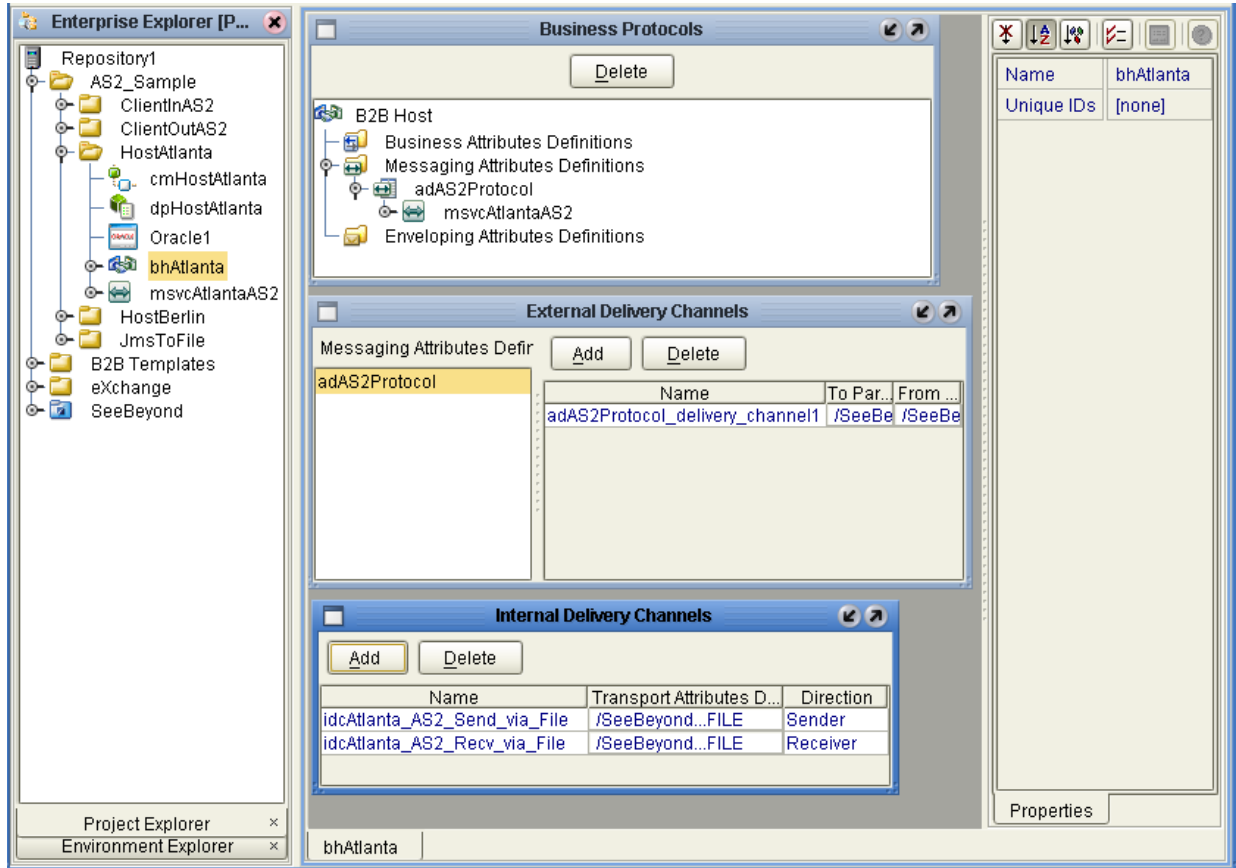
The Enterprise Designer canvas **cmHostAtlanta** is a Connectivity Map. It shows a graphical view of the **cmHostAtlanta** components. See **Figure 22 on page 74**.

Figure 22 Example: Enterprise Designer With cmHostAtlanta

This Connectivity Map has the following components:

- ◆ **Oracle1:** Only output, an instance of **extOracle**, with two inbound connections.

- ◆ **bhAtlanta1**: Only input, an instance of **bhAtlanta**, with two outbound connections.

- ◆ **mtrkAtlantaAS2**: Instance of Message Tracking, connecting to the other two components.

Note: *For more information on eXchange's Message Tracking operation, see the **eXchange Integrator User's Guide.***

The Enterprise Designer canvas **cmHostBerlin** is also a Connectivity Map (similar to Figure 22) and has the following components:

- ◆ **Oracle1:** Only output, an instance of **extOracle**, with two inbound connections.

- ◆ **bhBerlin1**: Only input, an instance of **bhBerlin**, with two outbound connections.

- ◆ **mtrkBerlinAS2**: Instance of Message Tracking, connecting to the other two components.

Figure 23 shows a list of the B2B hosts' BPs. The names given to the BPs describes their functions.

Figure 23   Sample Scenario's BPs
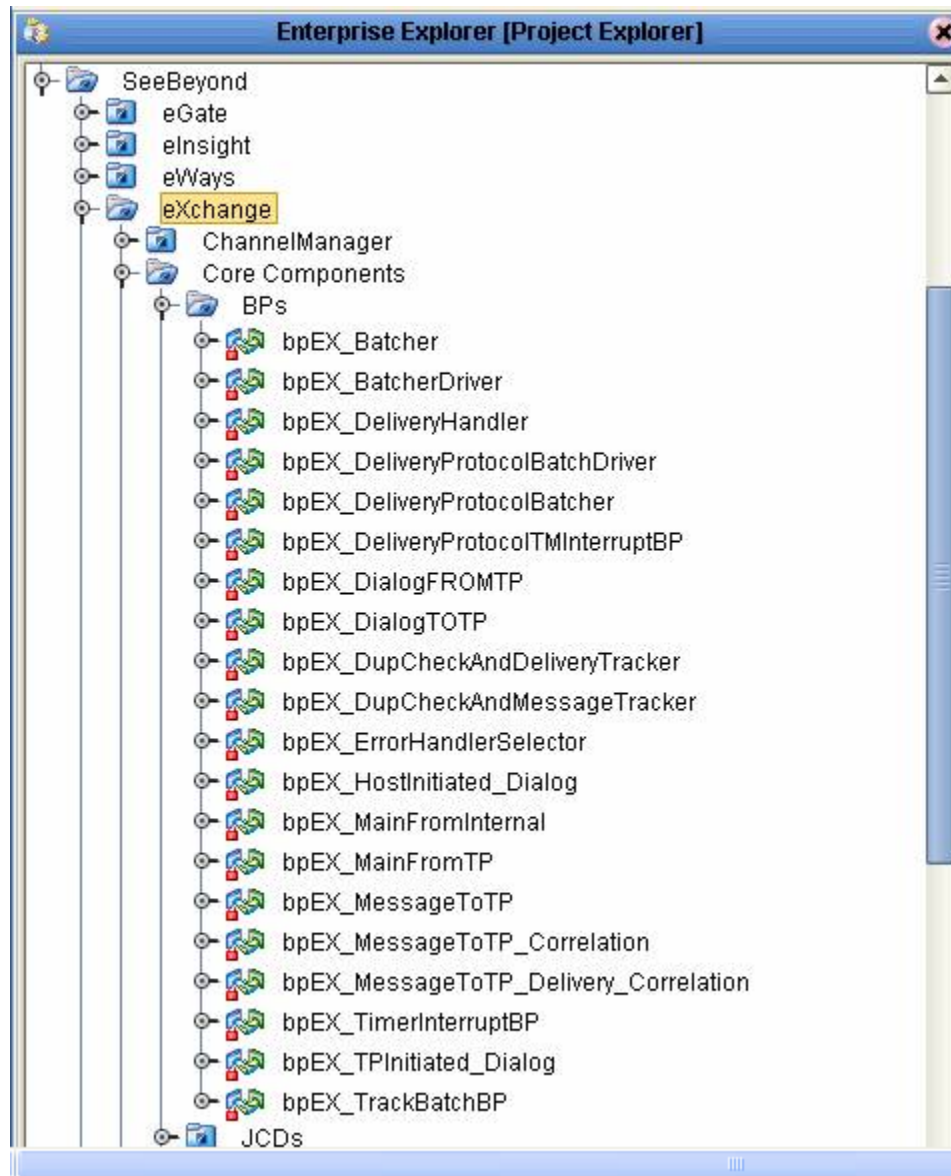
Configuring eWays on Connectivity Maps

This section explains how to configure the properties of eWay external system instances on the sample Projects' Connectivity Maps.

Note: *If directories listed in this section are not already present as subdirectories of*
C:\temp\eXchange\Sample\, *you must create them, according to the path locations shown.*

Use the default properties, except in the following cases:

File eWay: From Atlanta

The Atlanta Company sends the initial data out. This company's **ClientOutAS2** Project Connectivity Map **cmClientOutAS2** has an eWay external system instance named **extFileIn**. Modify the default properties of this eWay as follows:

- **Directory**: **C:\temp\eXchange\Sample\Data\OutboundAS2**

- **Input file name**: **Outbound.xml**

File eWay: From Berlin

The Berlin Company receives data from Atlanta and returns an acknowledgement file. This company's **ClientInAS2** Project Connectivity Map **cmClientInAS2** has an eWay external system instance named **extBatchLocalFile**. Modify the default properties of this eWay as follows:

- **Directory**: **C:\temp\eXchange\Sample\Data\JmsToFile**

See **"Importing and Configuring TPs in ePM" on page 82** for details.

Activating Companies' B2B Host Deployment Profiles

Before performing this operation, make sure you are using the current Project's Environment (**envAtlanta** or **envBerlin**) and that it contains a correctly installed and configured Oracle external system instance (see the **procedure on page 69**). Your Oracle system must be running, because the eXchange database instance runs on Oracle.

Note: *When you activate a B2B host, eXchange automatically creates another external system instance, an eXchange service. For more information on this service, see the* **eXchange Integrator User's Guide**.

**To activate the B2B host's Deployment Profile for the Atlanta Company**

1 On Enterprise Designer's **Project Explorer** tree, right-click **HostAtlanta** and, on the context menu, point at **New** and click **Deployment Profile**.

2 Name the new Deployment Profile **dpHostAtanta,** point it at **envAtlanta**, and click **OK**.

The Deployment Editor opens. Its left pane shows two services and two Oracle external system instances (representing Oracle eWays).

Its right pane contains windows representing the basic components and external system instances in **envAtlanta**. See Figure 24.

**Figure 24**   Example: Atlanta B2B Host Deployment Profile, Before Mapping

Automap Button
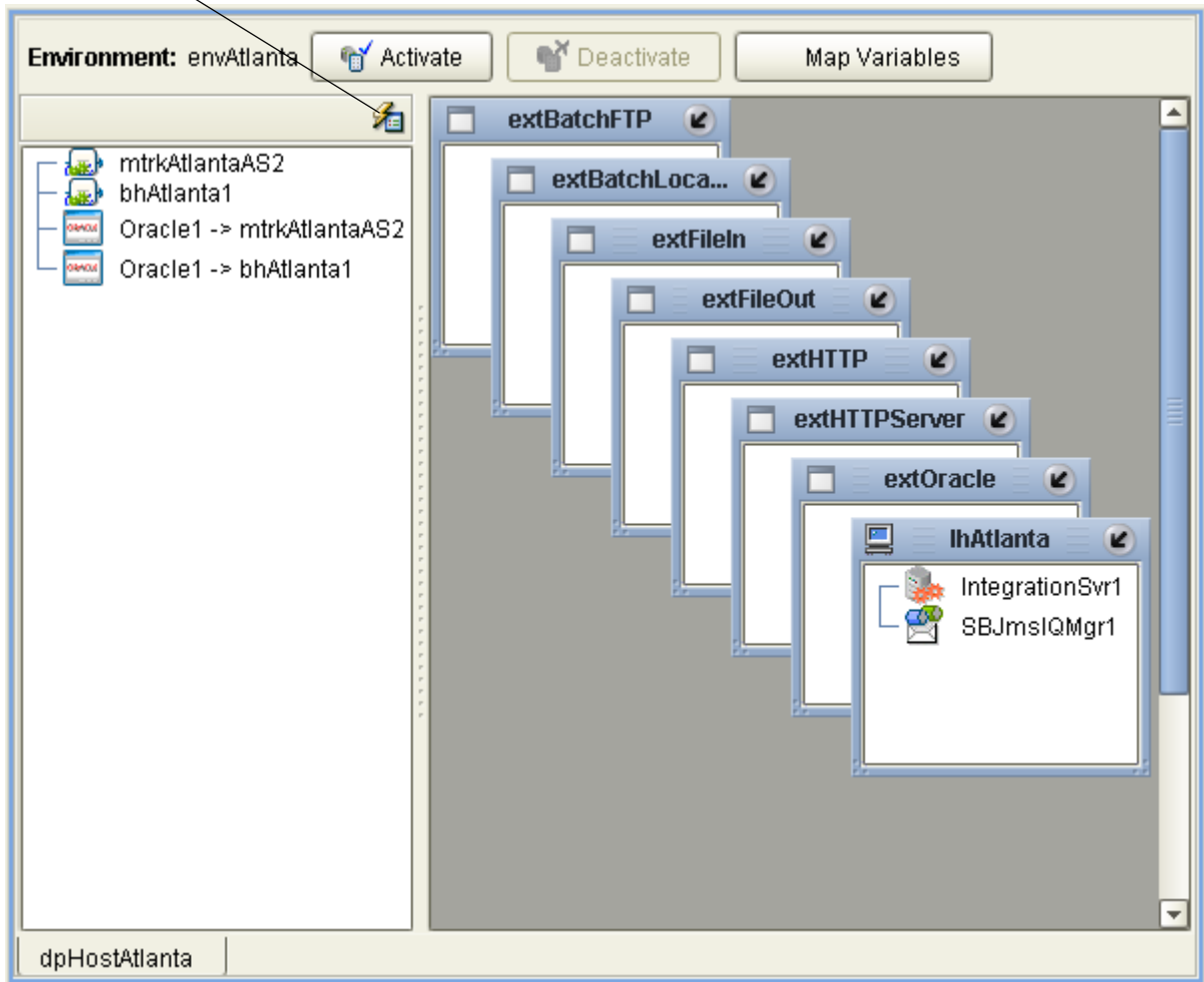
3   On the right pane, minimize all windows except **lhAtlanta** and **extOracle**.

4   Click the **Automap** button. See Figure 24.

The services and eWays automatically map to the appropriate windows on the right pane. The result looks like **Figure 25 on page 78**, except *without* the eXchange service.

5   Click **Save All**.

6   Click **Activate** to activate the Deployment Profile.

A dialog box appears, indicating the activation is successful. A new external system instance is created, named **bhAtlanta1 eXchange Service** (see Figure 25). You can view this service on **envAtlanta**, on the **Environment Explorer** tree, as well as on the right pane of **Deployment Editor**.

Figure 25 Example: Atlanta B2B Host Deployment Profile, After Mapping and Activation
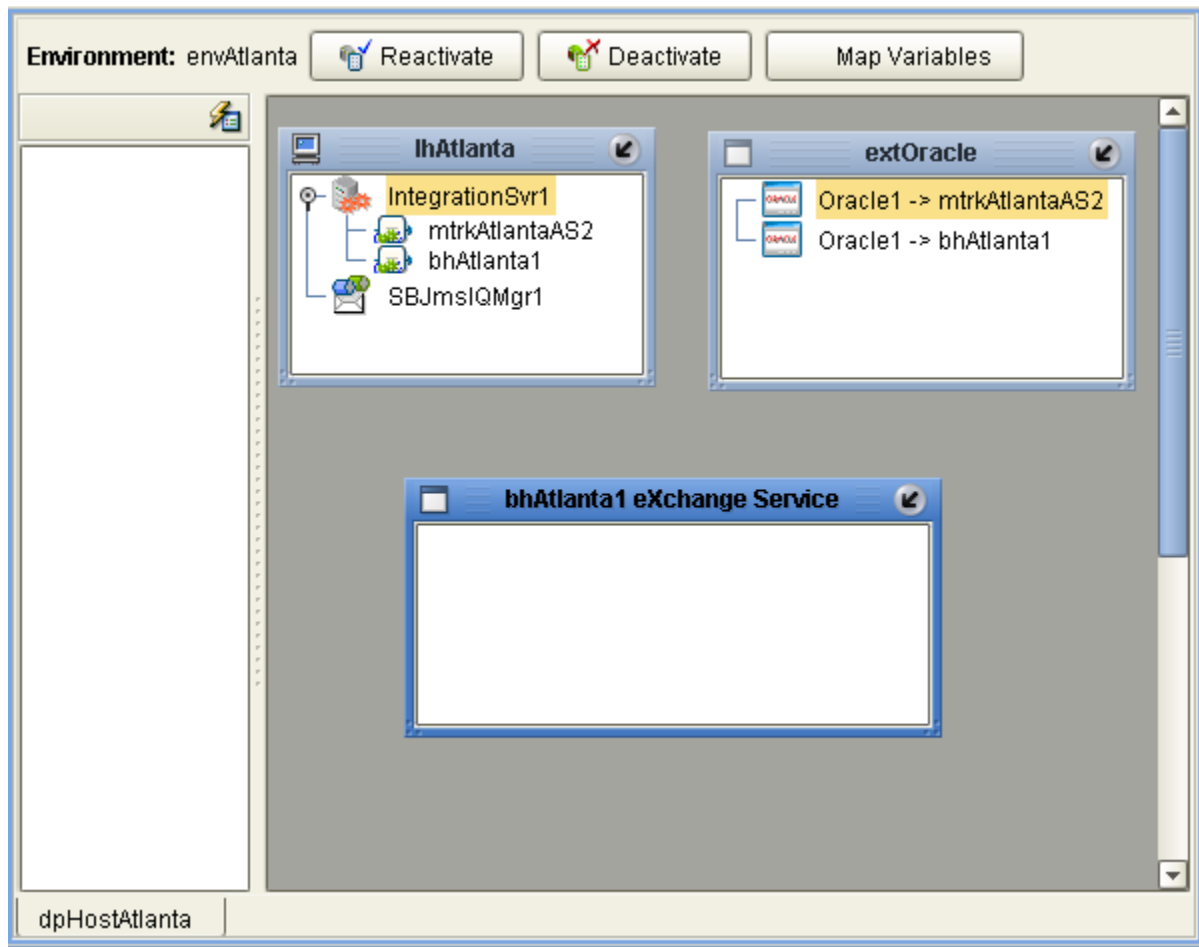
A dialog box appears with a message communicating the status of the activation. If the activation is not successful, repeat the steps in this procedure, carefully rechecking every action. If the activation is successful, go on to the next step.

7 After the Deployment Profile is activated successfully, a dialog box with the message **Apply Environment updates as well. [LogicalHost may be restarted]** appears, prompting you to apply the changes to all running Logical Hosts. You can take one of the following actions:

- ◆ If no Logical host is running, click **No**.

- ◆ If one or more Logical Hosts are running, click **Yes**, then decide whether there are Environment changes to be applied and:

  - ◆ If yes, check the check box and press **Enter**.

  - ◆ If no, clear the check box and press **Enter**.

Note: *For the purpose of this sample Project, at this point in the procedure, leave the dialog box's check box checked and press **Esc**.*

8 When you are finished, click **Save All**, close all canvases, and click **Refresh All from Repository**.

To activate the B2B host's Deployment Profile for the Berlin Company

1 On Enterprise Designer's **Project Explorer** tree, right-click **HostBerlin** and, on the context menu, point at **New** and click **Deployment Profile**.

2 Name the new Deployment Profile **dpHostBerlin**, point it at **envBerlin**, and click **OK**.

The Deployment Editor opens. Its right pane shows two services and two Oracle external system instances (representing Oracle eWays).

Its left pane contains windows representing the basic components and external system instances in **envBerlin**. The result is similar to that shown in **Figure 24 on page 77**.

3 On the right pane, minimize all windows except **lhBerlin** and **extOracle**.

4 Click the **Automap** button (see **Figure 24 on page 77**).

The result is similar to that shown in **Figure 25 on page 78**.

5 Click **Save All**.

6 Click **Activate** to activate the Deployment Profile.

A dialog box appears, indicating the activation is successful. A new external system instance is created, named **bhBerlin eXchange Service**. You can view this service on **envBerlin**, under **extOracle** on the **Environment Explorer** tree, and on the right pane of **Deployment Editor**.

7 Click or press the appropriate button or key to close the dialog box.

Note: *For the purpose of this sample Project, at this point in the procedure, leave the dialog box's check box checked and press **Esc**.*

8 When you are finished, click **Save All**, close all canvases, and click **Refresh All from Repository**.

Troubleshooting Tips

If **extOracle** refuses to accept eWays, this issue may be an indication that the referenced eXchange database instance is:

- Inaccessible, in which case ensure that Oracle is running and that the **extOracle** properties match the instance's host name, SID, user name, and password. If necessary, see the **procedure on page 69** or the *eXchange Integrator User's Guide* for more information.

- Misdefined as inbound, in which case delete **extOracle** and re-create the instance as outbound. Then, click **Save All**, followed by **Refresh All from Repository**.

6.3.4 **Configuring Companies' Cryptographic Features**

This section explains how to configure the eXchange Service's cryptographic features.

Note: *To use AS2 Manager's cryptographic features, make sure you have installed the appropriate .**jar** files, as explained under* **"After You Install" on page 26***.*

Since the sample assumes you are using cryptographic features (encryption, decryption, signatures and verifications), additional steps are required for configuring these features for **bhAtlanta eXchange Service** and **bhBerlin eXchange Service**.

Note: *If the Logical Host is running while you are configuring private keys, you must apply any changes you make by selecting the **Environment Explorer** tree, then right-clicking **lhAtlanta** or **lhBerlin** (whichever is current) and, on the context menu, click **Apply***.

To import and configure the private key for the Atlanta Company

1 On the **envAtlanta Environment Explorer** tree, right-click **envAtlanta_ks_store**.

2 On the context menu, click **Manage Private Keys**.

A **Private Keys** dialog box appears.

3 Click **Import**.

An **Import Private Keys** dialog box appears.

4 Enter the following information, all lower-case:

- **Alias: stc_private_key**
- **Password: passwd**

5 Browse to and select the **STC_Test_Certificate_3.p12** file (see **"Extracted Files and Directories" on page 65**).

6 Click **OK**, then click **Close**.

7 Right-click **bhAtlanta eXchange Service** and, on the context menu, click **Properties**.

A **Properties** dialog box appears. This dialog box allows you to configure the public and private keys for the current B2B host's XDC named **adAS2Protocol_delivery_channel1**.

8 Using the drop-down menus, select **stc_private_key** under the **Signature Key** and **Decryption Key** columns, and **TrustStore** under **Signature Trust Store** and **Encryption Trust Store**. See Figure 26.

Figure 26 Example: Properties for Atlanta Key, under bhAtlanta eXchange Service
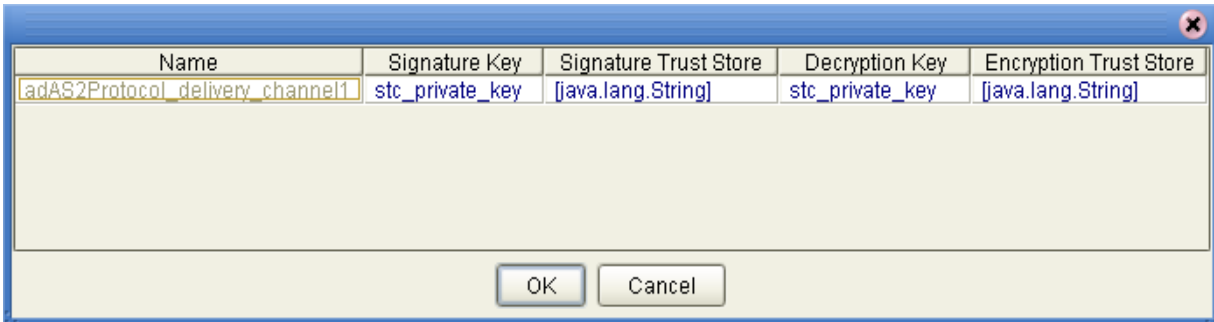
9 Click **OK**.

Note: *If* ***stc_private_key*** *does not appear in the drop-down list, click the ellipsis [...] and click* ***Import****. Using the alias* ***stc_private_key****, import the* ***STC_Test_Certificate_3.p12*** *file with the previously given password.*

10 When you are finished, click **Save All**.

To import and configure the public certificate for the Atlanta Company

1 On the context menu, click **Manage Public Certificates**.

A **Public Certificates** dialog box appears.

2 Click **Import**.

An **Import Public Certificates** dialog box appears.

3 Enter the following information, all lower-case:

⬧ **Alias: stc_public_cert**

⬧ **Password: passwd**

4 Browse to and select the **STC_Test_Certificate_3.der** file (see **"Extracted Files and Directories" on page 65**).

5 Click **OK**, then click **Close**.

6 When you are finished, click **Save All**, then close all canvases.

To configure the private key and public certificate for the Berlin Company

▪ Follow the steps provided under the **procedure on page 80** with **envBerlin**.

▪ When you are finished, click **Save All**, then close all canvases.

The appropriate cryptographic information is now configured and associated with the following named XDCs for the B2B hosts:

▪ **adAS2Protocol_delivery_channel1**

> *Note:* *Keep in mind that, even though they both have the same name, these are two separate XDCs, one for each B2B host.*

- When you are finished, click **Save All**, then close all canvases.

> *Note:* *Additionally, if the Logical Host is running, you must, on the **Environment Explorer** tree, right-click **lhAtlanta** or **lhBerlin** and, on the context menu, click **Apply**.*

6.3.5 Creating Additional Deployment Profiles

On **Project Explorer**, you must create, automap, and activate additional Atlanta and Berlin Company Deployment Profiles for the rest of the Projects in the sample scenario, in the same way as described previously.

Create additional Deployment Profiles for the appropriate environments and with the names, as shown in Table 3.

Table 3 Additional Deployment Profiles

Projects	Deployment Profiles and Names	Environments
ClientOutAS2	dpClientOutAS2Atlanta	envAtlanta
	dpClientOutAS2Berlin	envBerlin
ClientInAS2	dpClientInAS2Atlanta	envAtlanta
	dpClientInAS2Berlin	envBerlin
JmsToFile	dpFileAtlanta	envAtlanta
	dpFileBerlin	envBerlin
Main (created by eXchange)	dpMainAtlanta	envAtlanta
	dpMainBerlin	envBerlin

6.4 Importing and Configuring TPs in ePM

This section explains how import TPs, as well as how to use ePM and use the configuration parameters to set values for the TPs in the sample scenario.

> *Note:* *For procedures on how to create TPs, see the **eXchange Integrator User's Guide**.*

6.4.1 Getting Started

Before you begin, your Repository and your eXchange database (Oracle) must be running and accessible. Enterprise Designer does not need to be running, and you do not need to have any Logical Hosts running.

In addition, you must perform the following operations:

- **"Starting ePM" on page 83**
- **"Importing TPs" on page 84**

The rest of this section explains these operations. In addition, it explains the relationship between TPs and their respective Environments under the following section:

- **"Environments and Their TPs" on page 85**

For detailed information on configuring ePM, see **Chapter 4**.

Important: *Many of the directories given as ePM values in this section assume you have entered* `C:\temp\eXchange\Sample\Data\` *for the upper-level inbound and outbound data destination directories. If you have given different names to the* `\temp\eXchange\` *directories for your sample scenario, substitute those names for the first two directories in this path.*

See **"Sample Data" on page 64** for a list of the sample scenario's data files and the directory locations created when the sample scenario's files are first extracted.

Starting ePM

This section explains how to start running ePM.

To start eXchange ePM

1 Start a *new* browser session (that is, do *not* clone a new window of an existing session)

2 Enter a Repository URL, with `epm` appended, for example:

- ◆ If your Repository were running local on port 12000, the URL is:

    `http://localhost:12000/epm`

- ◆ For a Repository running on machine **herMachine** on port 33000, the URL is:

    `http://herMachine:33000/epm`

- ◆ IP addresses are also permissible, for example:

    `http://10.18.75.85:36271/epm`

The string **epm** is case sensitive. In other words, **ePM**, **Epm**, and **EPM** are all errors.

3 When the sign-in window appears, enter your Enterprise Manager user name and password and click **Sign In**.

The initial ePM window appears. See Figure 27.

Figure 27   Initial ePM Window

ePM Explorer pane   ePM Canvas pane
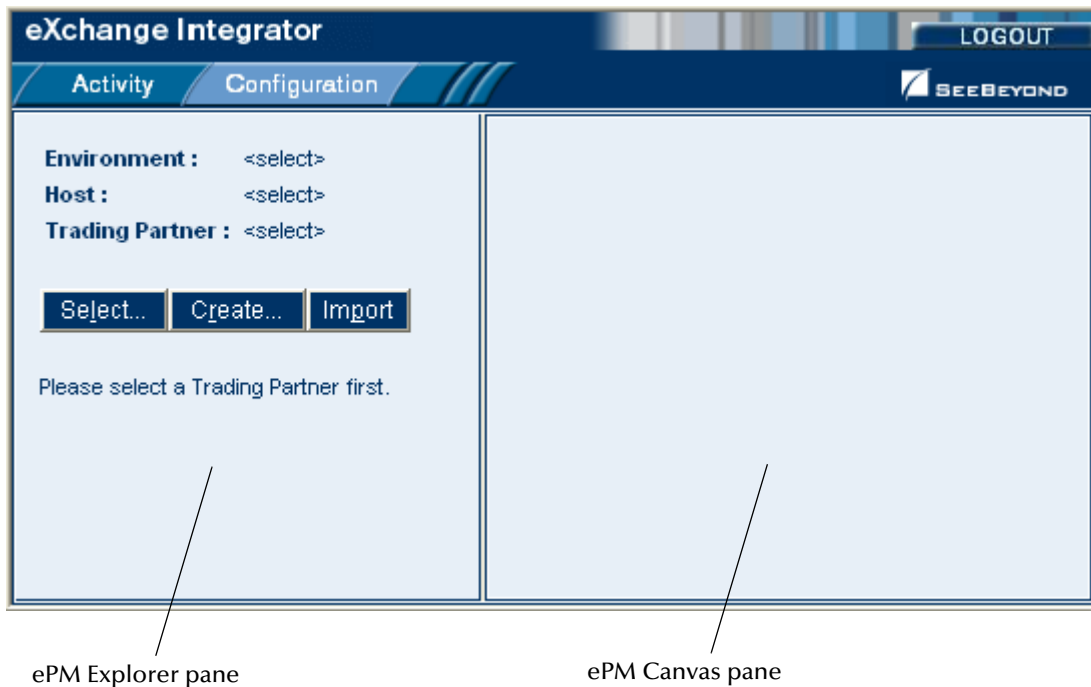
The ePM window has the following panes:

- **ePM Explorer**
- **ePM Canvas**

*Note: For complete instructions on how to use ePM, see the eXchange Integrator User's
Guide.*

Importing TPs

Your next step is importing the Atlanta and Berlin Company TPs (TP files), as explained
under this section. Keeping track of the TPs, where they are sent from, and where they
are received depends on which company you consider to be your current company. See
"Environments and Their TPs" on page 85.

This sample scenario has the following TPs:

- **BerlinTP**: For the Atlanta Company.
- **AtlantaTP**: For the Berlin Company.

To import the BerlinTP to envAtlanta

1   From the initial ePM window, on the upper left side, click **Import**.

    The **Import New Trading Partner** window appears.

2   Open **B2B Repository** then **envAtlanta**.

3   Under **envAtlanta**, select **bhAtlanta**.

4   Enter **BerlinTP** as the name for the new TP.

5   Browse to `C:\temp\eXchange\Sample\TradingPartners` and select the **tp_for_envAtlanta.xml** file, then click **Import**.

On the Explorer tree, **BerlinTP** appears under **envAtlanta**.

To locate BerlinTP in the ePM window

1   In the upper left side of the ePM window, click **Select**.

A new window opens, prompting you to select a B2B host and TP.

2   Open **B2B Repository** then **envAtlanta**.

3   Under **envAtlanta**, select **bhAtlanta**.

4   Click **Search**, then click **OK**.

On the Explorer tree, **BerlinTP** reappears under **envAtlanta**.

To import AtlantaTP to envBerlin

▪ Follow the same steps as those in the previous procedure, with the following exceptions:

   ◆ Under **B2B Repository** open **envBerlin**.

   ◆ Select **bhBerlin** and enter **AtlantaTP** as the TP name.

   ◆ Import the file **tp_for_envBerlin.xml**.

To locate AtlantaTP in the ePM window

▪ Search for **AtlantaTP** under **envBerlin > bhBerlin** in the same way as explained previously.

Environments and Their TPs

When you are configuring a TP and pointing it to **envAtlanta**, you must take the viewpoint of that Environment's company. So, the Atlanta Company's TP is **BerlinTP**.

Therefore, in terms of the companies, **ToPartner** means from the Atlanta Company and **FromPartner** to the Atlanta Company.

Conversely, When you are configuring a TP and pointing it to **envBerlin**, you must take the viewpoint of that Environment's company. So, the Berlin Company's TP is **AtlantaTP**.

Therefore, in terms of the companies, **ToPartner** means from the Berlin Company and **FromPartner** to the Berlin Company.

6.4.2 Configuring TP Parameters

When you import a TP, its related configuration parameter values are set in part based on parameters stored in the export file and in part based on the name of the TP. This section explains how to update these parameters under the following sections:

- **"XDC Parameters" on page 86**
- **"IDC Parameters" on page 91**

XDC Parameters

You must set the configuration properties governing the Atlanta or Berlin Company's message exchange with the desired TP using the companies' XDCs, both named **adAS2Protocol_delivery_channel1**. These configuration properties are the XDC parameters.

Before you begin to configure these parameters, be sure to display the desired TP's name in the ePM **Explorer** (lower left side of the window).

Note: *The channels named **External Delivery Channels** (XDCs) in Enterprise Designer are named **Delivery Channels** in ePM. When referring to this component in ePM, the text still uses the term XDC, except when referring to specific text in the user interface.*

This section explains how to set the **Delivery Channel** (external) parameters governing message exchange for **AtlantaTP** and **BerlinTP**.

To configure the XDC parameters for the current TP

1 In the **ePM Explorer** (at the lower left) pane of ePM, click **AtlantaTP** or **BerlinTP**.

   The **ePM Canvas** displays the TP's general properties.

2 Click the **Components** tab.

   The selected TP's XDC parameters for that tab appear (see Table 4).

Table 4 XDC Components Tab Parameters for TPs

Binding Name	adAS2Protocol_delivery_channel1
To Transport Name	adHTTP
From Transport Name	adHTTP
Packager Name	adAS2Protocol

3 Click the appropriate binding name. You are now viewing parameters for this current binding

Note: *The **General** parameters allow you to define general eXchange settings. See the eXchange Integrator User's Guide for information on these parameters.*

4 Click the **ToPartnerTransport** tab.

The tab's parameters appear. See Figure 28.

Figure 28   Example: ToPartner Transport Parameters for BerlinTP

5   For **All Purpose End Point**, enter:

```
http://<machine_ID><port_no>
```

Where:

- *machine_ID*: The name or IP address of the TP's destination machine.

- *port_no:* The name of the TP's destination port number.

6   For **Use Synchronous Channel** and **Track for Auditing**, enter **false** for both TPs.

7   Enter the value for **End URL**. The URL syntax used for this parameter is:

```
http://<machine_ID><port_no>/<dep_profile>_servlet_<MSH_type>/
        <MSH_type>
```

Where:

- *machine_ID*: The name or IP address of the TP's destination machine.

- *port_no:* The TP's destination machine port number.

- *dep_profile*: The current deployment profile name.

- *MSH_type*: The message service handler type, in this case, `AS2HttpServlet`.

Here is an example:

```
http://10.20.21.50:18004/dpClientInAS2Atlanta_servlet_AS2HttpServlet/
    AS2HttpServlet
```

Important: *The values you enter for the **All Purpose End Point** and **End URL** parameters must be the same.*

8   When you are finished, click **Save**.

Note: *Be sure to click **Save** after you are finished configuring the parameters on each tab.*

9   Click the **FromPartner Transport** tab and edit the parameters in the same way as you did in step 4 through 8.

10   Click the **ToPartner Packaging** tab, and enter values for **BerlinTP** as shown in Figure 29 through .

Figure 29   BerlinTP ToPartner Packaging Tab: Parameters, Set 1 of 4

Figure 30   BerlinTP ToPartner Packaging Tab: Parameters, Set 2 of 4

Figure 31   BerlinTP ToPartner Packaging Tab: Parameters, Set 3 of 4

Figure 32   BerlinTP ToPartner Packaging Tab: Parameters, Set 4 of 4

11 For the values for **AtlantaTP**, enter them in the same way, except substitute Berlin for Atlanta in the parameter values, for example, instead of **Atlanta_Subject**, enter **Berlin_Subject**.

For the **AS2_FROM** parameter (see **Figure 31 on page 89**), enter **Berlin**, and for **AS2_TO**, enter **Atlanta**, the opposite of the values shown in Figure 31.

12 Click the **FromPartner Packaging** tab, and enter values for **BerlinTP** as shown in Figure 33 and Figure 34.

Figure 33 BerlinTP FromPartner Packaging Tab: Parameters, Set 1 of 2

Figure 34 BerlinTP FromPartner Packaging Tab: Parameters, Set 2 of 2

13 For the values for **AtlantaTP**, enter them in the same way, except, for the **AS2_FROM** parameter enter **Atlanta**, and for **AS2_TO** enter **Berlin**.

14 With the **ToPartnerPackaging** tab open, click **Import** (to the right of the **Encryption Key** text box) to import the current company's public certificate.

The **Import a Certificate** dialog box appears. Import the certificate as follows:

- For **Certificate Name**, enter the appropriate certificate alias.

- Click **Import from file** and navigate to the current company's certificate file. See **"Extracted Files and Directories" on page 65** for file names.

15 Repeat step 14 for the **FromPartnerPackaging** tab.

16 When you are completely finished, click **Save**.

IDC Parameters

You must set the parameters governing the current company's internal message processing when the system is handling messages received and preparing messages to be sent. These properties are the IDC parameters.

Before you begin to configure these parameters, be sure to display the desired TP's name in the **ePM Explorer** pane.

Note: *IDC bindings are required for an AS2 project to run. Although it is possible to activate a trading partner whose messaging actions lack IDCs, the Channel Manager would have no instructions to read any input.*

This section explains how to set the **Internal Delivery Channel** parameters used for the current company's internal message processing.

To configure the IDC parameters for the current TP

1 In the **ePM Explorer** pane, click **BerlinTP** or **AtlantaTP**.

The **ePM Canvas** displays the TP's general properties.

2 Click the **Components** tab for the current TP.

The current TP's delivery channel parameters are displayed.

3 Click the **Internal Delivery Channels** subtab.

The IDC parameters appear. See Table 5 and Table 6.

Table 5   BerlinTP, Internal Delivery Channel

Binding Name	Direction Name	Transport Name
idcAtlanta_AS2_Send_via_File	Sender	FILE
idcAtlanta_AS2_Rcv_via_File	Receiver	FILE

Table 6   AtlantaTP, Internal Delivery Channel

Binding Name	Direction Name	Transport Name
idcBerlin_AS2_Send_via_File	Sender	FILE
idcBerlin_AS2_Rcv_via_File	Receiver	FILE

Note: *The **General** tab allows you to enter notes on the current IDC. See the **eXchange Integrator User's Guide** for details.*

4 To continue IDC configuration for **BerlinTP**, click the binding name for the first IDC (**idcAtlanta_AS2_Send_via_File**), click the **Sender Transport** subtab, and make changes shown in Table 7.

Table 7   Sender Transport Parameters for BerlinTP (Outbound)

FilePattern: *	Outbound.xml
Directory: *	C:\temp\eXchange\Sample\Data\OutboundAS2

5 To finish IDC configuration for **BerlinTP,** click the binding name for the second IDC (**idcAtlanta_AS2_Rcv_via_File**), click the **Receiver Transport** subtab, and make changes shown in Table 8.

Table 8   Receiver Transport Parameters for BerlinTP (Inbound)

FilePattern: *	Outbound.xml
Directory: *	C:\temp\eXchange\Sample\Data\OutboundAS2

6 Repeat steps 4 and 5 for **AtlantaTP** to configure that TP's IDCs.

Note: *The **General** tab allows you to enter notes on the current IDC. See the **eXchange Integrator User's Guide** for details.*

7 When you are finished, click **Save**.

Note: *See **Chapter 4** and the **eXchange Integrator User's Guide** for more information.*

6.4.3   Properties and Messaging Actions Parameters

You must also configure the **Properties** and **Messaging Actions** for the TPs, using the parameters under these tabs.

To display the Properties and Messaging Actions tabs

▪ Click the name of the Messaging Service shown at the bottom of the **ePM Explorer** pane's tree. In the sample, the Messaging Services are named:

    ◆ **msvcAtlantaAS2**: For **BerlinTP**

    ◆ **msvcBerlinAS2**: For **AtlantaTP**

Properties

This tab allows you to enter notes on the current Messaging Service. See the *eXchange Integrator User's Guide* for details.

Messaging Actions

This tab allows you to configure messaging actions (inbound and outbound) for the current AS2 MAD.

The sample contains two sets of messaging actions:

- **Inbound**: **Action_In**
- **Outbound**: **Action_Out**

These configuration parameters define settings that allow AS2 Manager to set up, control, and order the sending and receiving of messages. For information on how to configure these parameters, see **"Configuring Messaging Services" on page 52**.

6.5 # TP Activation

This section explains how to activate a TP. You must save all the configuration information to the eXchange database instance to make it available at run time. Before you begin to activate a TP, the eXchange database instance for the corresponding B2B host must be running.

To activate a TP

1 In the **ePM Explorer** (at the lower left) pane of the ePM window, click **BerlinTP** or **AtlantaTP**.

2 In the bottom lower left of the **ePM Canvas**, click **Activate**.

3 In response to the confirmation prompt, click **Activate**.

The **ePM Canvas** displays the following confirmation message:

Trading Partner is successfully activated

The current TP is now complete and ready to be run. If you receive a success message, it also confirms that the TP's default configuration information, which you have entered, has been added to the eXchange database instance. This information is now accessible to Channel Manager and other TP lookup features.

6.6   Initial Run-time Steps

For AS2 Manager sample Project implementation, initial run-time steps consist of:

- **"Starting Logical Hosts" on page 94**
- **"Supplying Input Data" on page 96**

6.6.1 Starting Logical Hosts

The procedures in this section assume you have installed two or more Logical Hosts, and that you have replaced the additional files as listed under the following sections:

- **"Additional Policy .jar Files Required To Run SME" on page 27**
- **"Updating Files for Java Collaboration Definitions" on page 71**

Applying Deployment Profiles to Logical Host

At this point, apply all Deployment Profiles to the appropriate Environment's Logical Host. If necessary, return to previous procedures in this chapter to troubleshoot any possible problems appropriately until all Deployment Profiles apply with no errors.

Running Logical Host

The directory for the Logical Host that runs the Atlanta Company is called **lhAtlanta** (associated with **envAtlanta**), and the directory for the Logical Host that runs the Berlin Company is called **lhBerlin** (associated with **envBerlin**).

To run the current Logical Host for the first time

1 Access a command prompt and change directories to the run executable file's location (for example, beginning with **lhAtlanta**) of the Logical Host:

```
cd lhAtlanta\bootstrap\bin
```

2 Start the run script using the appropriate parameters, for example:

```
bootstrap -r http://<myMachine:12345>/<myRepository> -i <myID>
    -p <myPassword> -e envAtlanta -l lhAtlanta -f
```

Where:

- For the **-r** (Repository) parameter), supply the correct URL with the Repository name.

- For the **-i** and **-p** (user ID and password) parameters, supply the appropriate values.

- For **-e** (Environment name) parameter, use **envAtlanta**

- For **-l** (Logical Host name) parameters, use **lhAtlanta**

- You need not supply the **-f** (force) flag if all configuration changes have already been applied, or if this is the first time that the run script has been executed.

After a brief time, the Logical Host starts running, and all activated Projects that reference **envAtlanta** are automatically applied to it.

3 Repeat steps 1 and 2 on the **envBerlin** Logical Host, referencing the same Repository but pointing it at **lhBerlin**, for example:

```
cd lhBerlin\bootstrap\bin

bootstrap -r http://<myMachine:12345>/<myRepository> -i <myID>
    -p <myPassword> -e envBerlin -l lhBerlin -f
```

To run the Logical Host at later times

- Enter the command **bootstrap**.

Applying Changes Without Shutting Down Logical Host

This procedure is optional. You only need to use it if changes are made to parameters in an Environment while a Logical Host is running, for example, adding or modifying key stores for an eXchange service.

Use these steps to apply the changes without having to shut down and rerun the Logical Host. This procedure is the equivalent of shutting down the Logical Host and running it again using the **-f** flag.

To apply Environment changes when a Logical Host is running

1 In Enterprise Designer's **Environment Explorer**, open the Environment where the changes have occurred.

2 Right-click the Logical Host that is running and, on the context menu, click **Apply**.

3 Repeat the previous step, as needed, for other Logical Hosts in the same Environment.

In the Logical Host, a brief shutdown and restart occur, and the changes are applied to the running Logical Host.

6.6.2 **Supplying Input Data**

Before you begin, your Logical Hosts must both be running and the Oracle system used by the eXchange database instance must be accessible to eXchange.

See **"Sample Data" on page 64** for a list of the sample scenario's data files and the directory locations created when the sample scenario's files are first extracted.

Important: *You may have given different names to the* \temp\eXchange\ *directories shown in the path locations listed under* **"Sample Data" on page 64**. *If so, substitute those names for the* \temp\eXchange\ *directories given in this procedure.*

To send input data to the HostBerlin Project

1 Copy the files **Outbound.~in** and **Payload.txt** to the following directory:

```
C:\temp\eXchange\Sample\Data\OutboundAS2\
```

2 Change the name of the **Outbond.~in file** to **Outbound.xml**.

The file extension changes back to **.~in** when the file is picked up by eXchange.

This operation also copies the information in **Payload.txt** and sends it along with the **Outbound.xml** file, so you see no change to the file name **Payload.txt**.

3 The Berlin company returns an acknowledgement message using the URL entered in the **AS2_MDN_DELIVERY_URL** parameter under **ToPartner Packaging** in the ePM configuration.

You can use the Message Tracking tool in eXchange to view the acknowledgement message. See the next section for information on how to use Message Tracking.

6.7 **Using Message Tracking**

eXchange provides a special feature, Message Tracking, allowing you to monitor the status of messages as they are received and processed through eXchange and AS2 Manager.

Before You Begin

- You must already have activated a Project whose Connectivity Map contains one or more instances of Message Tracking. In the sample scenario, use **mtrkAtlantaAS2** for the Atlanta B2B host and **mtrkBerlinAS2** for the Berlin B2B host.

- Your Oracle system for eXchange must already be running, and you must already have begun running a Logical Host before you can run this project.

- For Message Tracking to be useful, there must be one or more messages that have already been picked up by the current Logical Host's Integration Server.

6.7.1 Accessing Message Tracking

This section explains how to access an instance of Message Tracking.

To access Message Tracking

1 Start a *new* browser session (that is, do *not* clone a window of an existing session).

2 Point your browser at the following URL:

    http://<loghostname>:<port>/<appname>

Where:

- ◆ *loghostname:* The host name or IP address of a Logical Host running your Project, that is, the current Logical Host.

- ◆ *port:* is The Web server connector port configured in your Integration Server. To discover this information, use **Environment Explorer** to open the current Logical Host. Right-click the Integration Server and select **Properties**. Open **IS Configuration > Sections > Web Container > Web Server > Default Web Server**; *port* is the value set for **Connector Port**. If you have several Web server configurations, check them also.

  The default port-number value is **18004** for the first Integration Server in the first-created Logical Host (or **19004** for the first Integration Server in the second-created Logical Host, and so on). For the sample scenario, use the default.

- ◆ *appname:* The name of the Message Tracking instance as it appears on the current Connectivity Map.

Example: To access Message Tracking for the AS2 Manager sample scenario, use the following URLs:

- ▪ For the Atlanta Company: `http://localhost:18004/mtrkAtlantaAS2`

- ▪ For the Berlin Company: `http://localhost:18004/mtrkBerlinAS2`

Note: *You can only use the same port number for different Message Tracking instances if they reside on different machines.*

As stated previously, the sample must be running before you access Message Tracking, and messages must have been passed before any become accessible. When you first run Message Tracking, the initial **Message Tracking** window appears. See Figure 35.

Figure 35   Atlanta Host, Initial Message Tracking Window on Startup
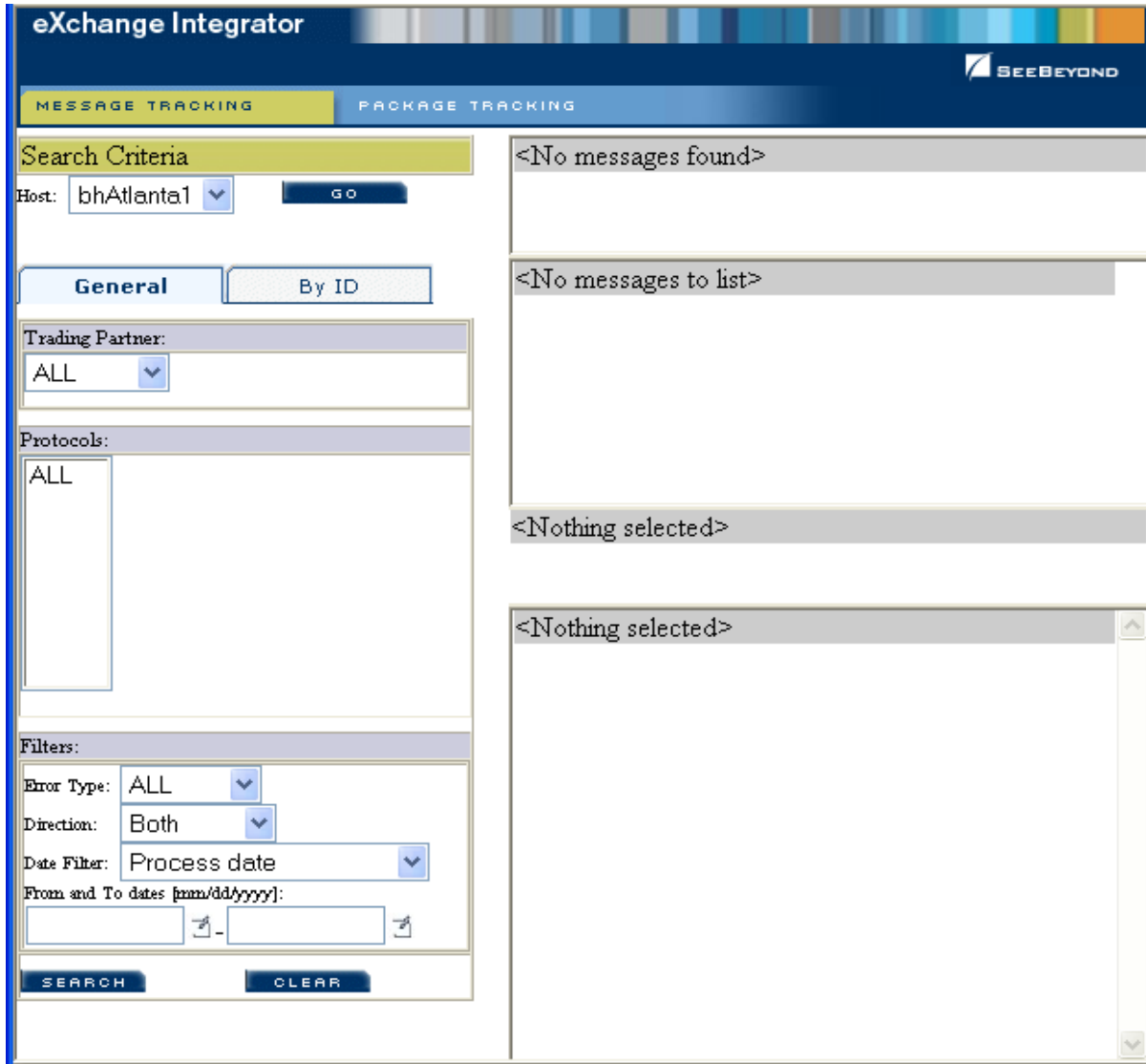
Figure 36 on page 100 shows a Message Tracking window with search results.

6.7.2 **Message Tracking Operation**

This section explains how to use the Message Tracking feature.

To search by B2B host, TP, and protocol

1   Under **Search Criteria**, use the current B2B host's drop-down list to choose the B2B host whose messages you want to examine, then click **GO**.

2   Under **Trading Partner**, either use **ALL** or choose a TP from the drop-down list.

3   Under **Protocols**, either use **ALL** or choose a protocol from the drop-down list.

4   At the lower left of the window, click **SEARCH**.

The right side of the **Message Tracking** window displays a page containing the Package IDs of the previous ten tracked messages fitting the criteria you specified. Navigation links (**Previous**, **Next**, and **Go to Page**) allow you to view other pages of ten results each.

To search by B2B host, protocol, and Package ID

1   Under **Search Criteria**, use the current B2B host's drop-down menu to choose the B2B host whose messages you want to examine, and click **GO**.

2   Under **Protocols**, either click **ALL** or choose a particular protocol from the list.

3   Under **Package Type** (to search by Package ID) either click **ALL** or choose a particular packaging protocol from the drop-down list. Perform the next steps:

A   Under **ID**, enter a string for matching the message ID.

B   At the lower left of the window, click **SEARCH**.

The window's right side displays a page containing the Package IDs of the previous ten tracked messages fitting the criteria you specified. See Figure 36.

Figure 36   Message Tracking, Showing Initial Search Results
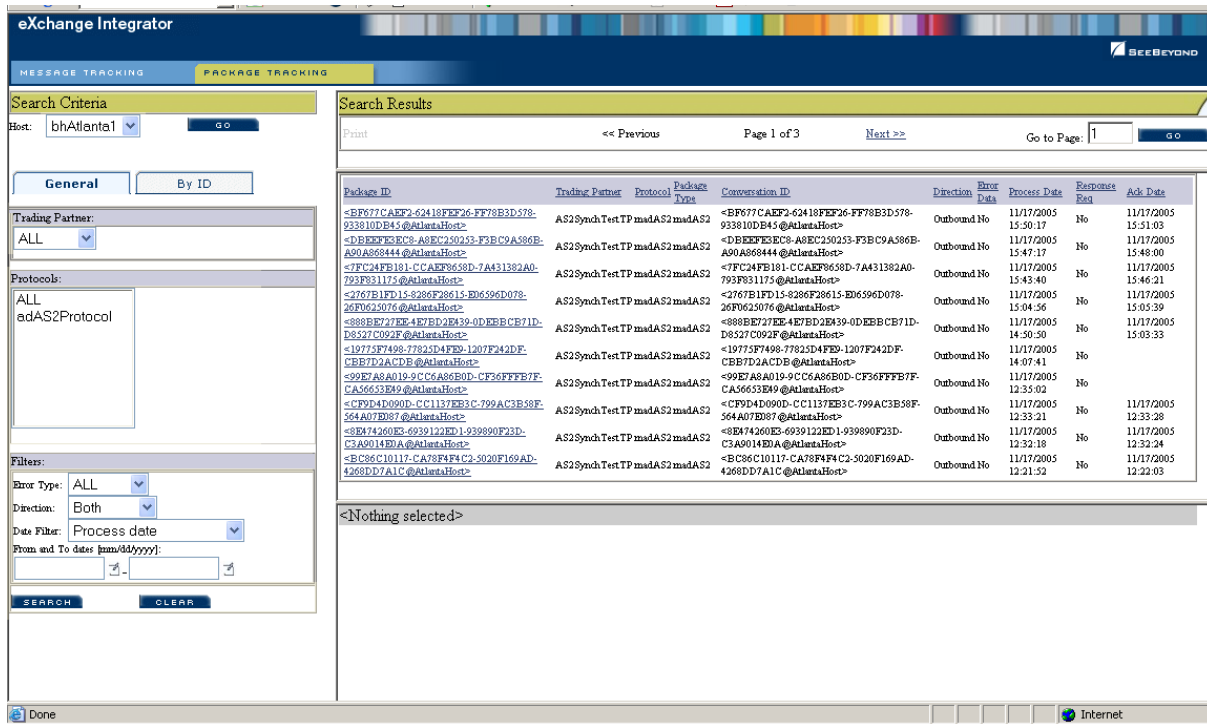
To filter results by error type, direction, and/or date

- After performing a search or after setting up a search using either of the two previous procedures, you can specify one or more of the following search criteria:

To Specify Additional Search Criteria

1   Near the bottom of the left pane, under **Filters**, specify one or more of the following characteristics:

- **Error Type**: If you do not choose **ALL**, you can restrict your search either to display error messages only, or to display non-error messages only.

- **Direction**: If you do not choose **ALL**, you can restrict your search either to display inbound messages only, or to display outbound messages only.

- **Date**: You can choose to include only those messages whose processing date exists within a range you specify, or only those messages whose acknowledgment date exists within the range.

2   At the lower left of the window, click **SEARCH**.

The window's right side displays a page containing the Package IDs of the previous ten tracked messages fitting the criteria you specified.

On a package-by-package basis, you can also view the message text. After you view the text in a new window, you can preform cut, copy, and paste operations on any text in the window.

To obtain details of a specified package

1 After obtaining results from a search, using any of the procedures provided earlier, click the Package ID name for any of the returned results.

2 In the **Details for package *<package-ID>*** pane, click **Open** to view the contents of the current message in a new window.

Note: *Keep in mind that the current message could be encrypted.*

Glossary of Acronyms

AS2

Applicability Statement 2 (AS2) is an Internet Draft security standard defined by the IETF (Internet Engineering Task Force), designed to allow business transactions to move securely over the Internet.

BAD

In eXchange, *Business Attribute Definitions* (BADs) define the metadata attributes of parameters used in business protocols such as X12, HIPAA, EDIFACT, or CIDX.

B2B

Business-to-business (B2B) interactions are those that occur between business partners in the context of e-commerce.

CIDX

The *Chemical Industry Data Exchange* (CIDX) is a non-profit organization dedicated to improving the ease, speed and cost of securely conducting business electronically in the chemical industry. CIDX focuses on the development of eBusiness standards, called Chem eStandards.

DCP

In eXchange, a *Delivery Channel Profile* (DCP) is an association between a particular messaging service and a particular transport attributes definition (TAD). Also see "IDC" and "XDC".

EAD

In eXchange, *Enveloping Attribute Definitions* (EADs) define the metadata attributes of parameters used in enveloping protocols such as X12, HIPAA, or EDIFACT.

ebXML

A well-recognized e-business XML (extensible markup language; see "XML") whose implementation includes specifications for messaging, collaboration profiles, business processes, and metadata registry.

ePM

eXchange Partner Manager (ePM) is a Web-based GUI for defining and managing Trading Partner (TP) information.

FTP

File Transport Protocol (FTP) is a transport protocol for sending and receiving files. Specifications for FTP include RFCs 959, 1635, 2228, and 2577.

HTTP

Hypertext Transport Protocol (HTTP) is a transport protocol for transmitting information referenced in a URL of the form **http:**//*<hostname>*:*<port>*/.../.... Specifications for HTTP include RFCs 2068, 2616, 2617, 2660, and 3310.

ICAN

SeeBeyond's *Integrated Composite Application Network* (ICAN) Suite includes eGate Integrator, eXchange Integrator, various eWay Intelligent Adapters, OTD Libraries, and Protocol Manager Composite Applications, as well as many other products.

IDC

In eXchange, an *Internal Delivery Channel* (IDC) is an association between a particular transport attributes definition (TAD) and a direction (either Sender or Receiver). Compare with "XDC".

MAD

In eXchange, *Messaging Attribute Definitions* (MADs) define the metadata attributes of parameters used in messaging protocols such as AS2, ebXML, or RNIF.

MIME

Multipurpose Internet Mail Extensions (MIME) extends the format of basic Internet mail to allow non-textual messages, multipart message bodies, and so forth. Specifications for MIME include RFCs 2045–2049.

OTD

In ICAN, an *Object Type Definition* (OTD) contains the data structure and rules that define an object. OTDs are used in Java collaborations to transform data interface with external systems.

RNIF

The purpose of the *RosettaNet Implementation Framework* (RNIF) is to allow trading partners to configure their business processes in such a way as to operate with other trading partners adhering to the same framework, allowing electronic business transactions to be conducted securely over the Internet.

SME

In ICAN, *Secure Messaging Exchange* (SME) uses advanced cryptographic techniques to ensure security, verifiability, and nonrepudiation of messages exchanged electronically.

S/MIME

Secure/Multipurpose Internet Mail Extensions (S/MIME) provides a consistent way to send and receive secure MIME data, using digital signatures for authentication, message integrity and non-repudiation and encryption for privacy and data security. Specifications for S/MIME version 2 include RFCs 2311–2315.

SMTP

Simple Mail Transfer Protocol (SMTP) is a transport protocol for transmitting e-mail messages between servers or from client to server. Specifications for SMTP include RFCs 1651, 2821, and 3461.

TAD

In eXchange, *Transport Attribute Definitions* (TADs) define the metadata attributes of parameters used in transport protocols such as FTP or HTTP.

TP, TPP

In eXchange, a *Trading Partner* (TP) has one or more *Trading Partner Profiles* (TPPs) that contain information identifying the values of messaging, enveloping, and/or transport parameters to be used for sending and receiving B2B information.

URL

A *Uniform Resource Locator* (URL) is a string that identifies information, such as a particular piece of information shared by a particular host.

XDC

In eXchange, an *External Delivery Channel* (XDC) is an association between three items:
(1) either a messaging service (passthrough) or a business service (dialog);
(2) a transport attributes definition (TAD) for the ToPartner (Sender) direction; and
(3) a TAD for the FromPartner (Receiver) direction.

XML

An *Extensible Markup Language* (XML) is a language whose syntax obeys an official schema, called "the XML schema", but whose semantics ("vocabulary") are open.

Index