

webMethods XI Adapter Installation and User's Guide

Version 4.6

July 2012

This document applies to webMethods XI Adapter 4.6 and to all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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This guide is for users of webMethods XI Adapter. XI Adapter is a package you install on webMethods Integration Server so you can interact with business partners through XI Adapter.

This guide assumes you are familiar with Integration Server, Designer, and SAP PI/PO technology.

Document Conventions

Convention	Description
Bold	Identifies elements on a screen.
Narrowfont	Identifies service names and locations in the format <i>folder.subfolder.service</i> , APIs, Java classes, methods, properties.
<i>Italic</i>	Identifies: Variables for which you must supply values specific to your own situation or environment. New terms the first time they occur in the text. References to other documentation sources.
Monospace font	Identifies: Text you must type in. Messages displayed by the system. Program code.
{ }	Indicates a set of choices from which you must choose one. Type only the information inside the curly braces. Do not type the { } symbols.
	Separates two mutually exclusive choices in a syntax line. Type one of these choices. Do not type the symbol.
[]	Indicates one or more options. Type only the information inside the square brackets. Do not type the [] symbols.
...	Indicates that you can type multiple options of the same type. Type only the information. Do not type the ellipsis (...).

Online Information and Support

Software AG Documentation Website

You can find documentation on the Software AG Documentation website at <http://documentation.softwareag.com>.

Software AG Empower Product Support Website

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Once you have an account, you can open Support Incidents online via the eService section of Empower at <https://empower.softwareag.com/>.

You can find product information on the Software AG Empower Product Support website at <https://empower.softwareag.com>.

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To get information about fixes and to read early warnings, technical papers, and knowledge base articles, go to the [Knowledge Center](#).

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Data Protection

Software AG products provide functionality with respect to processing of personal data according to the EU General Data Protection Regulation (GDPR). Where applicable, appropriate steps are documented in the respective administration documentation.

1 Overview

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About XI Adapter

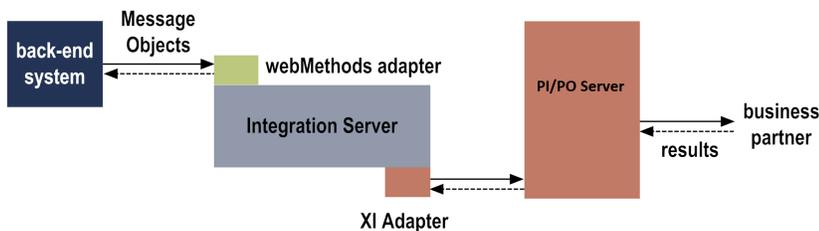
XI Adapter is a package you install on Integration Server so you can interact with business partners using SAP PI/PO Servers.

PI/PO Servers enable business partners to send each other *MessageObjects*. MessageObjects consist of a message header and a payload. The payload contains the task data the business partner is sending such as a purchase order or an invoice. For example, if you were a travel agency, you might use a PI/PO Server to send MessageObjects that request flight bookings to an airline company. If you were an airline company, you might use a PI/PO Server to send MessageObjects that request payment to travel agencies for flights you booked.

Sending MessageObjects

You use XI Adapter to send MessageObjects as follows:

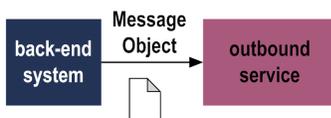
- XI Adapter gets MessageObjects from your backend systems through other webMethods adapters, such as webMethods Oracle Applications Adapter and webMethods Siebel Adapter. XI Adapter sends the MessageObjects to a PI/PO Server, which forwards them to your business partners.
- If there are results, XI Adapter receives them from the business partners through the PI/PO Server. XI Adapter returns the results to your backend systems through the webMethods adapters.



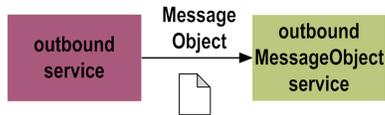
XI Adapter bridges the gap between the webMethods adapters and the PI/PO Servers so you can communicate with your business partners through the PI/PO environment.

This section explains how you send a MessageObject to a business partner.

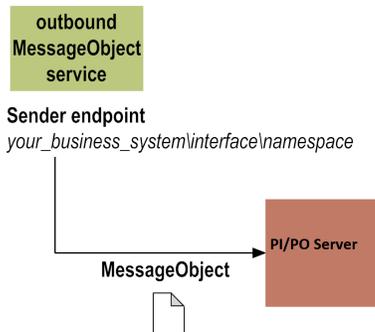
1. An outbound service on XI Adapter gets a MessageObject from your backend system. The backend system might send the data to the adapter or the adapter might request the data from your backend system.



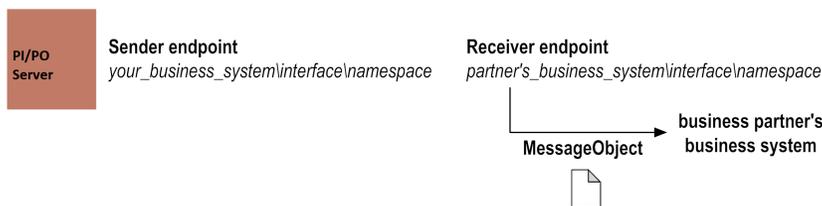
2. The outbound service calls XI Adapter's `outboundMessageObject` service, [pub.xi.Router:outboundMessageObject](#) and passes the MessageObject data as the payload.



- The `outboundMessageObject` service, identifies your business system by looking up the sender endpoint you associated with the outbound service (see [“Associating Sender Endpoint with Outbound Service”](#) on page 46). The `outboundMessageObject` service finds the PI/PO Server you mapped to that business system and sends the `MessageObject` to the PI/PO Server (see [“Assigning Your Business Systems to PI/PO Servers”](#) on page 32).



- The PI/PO Server receives the `MessageObject`, then looks up the sender endpoint in the PI Integration Directory. The PI/PO Server finds the receiver endpoints that are assigned to the sender endpoint. The PI/PO Server then sends the `MessageObject` to the business systems you specified in the receiver endpoints.



If you send the `MessageObject` synchronously, the `outboundMessageObject` service makes only one attempt to send, regardless of technical errors. If you send the `MessageObject` asynchronously and a technical error occurs in the PI/PO environment or on the business partner's system, the service resends as many times and as often as you specify. For more information on the **Settings** page, see [“Settings”](#) on page 65.

- The next step depends on whether you sent the `MessageObject` synchronously or asynchronously, and on whether the task runs successfully.
 - If you sent the `MessageObject` synchronously, the outbound service is blocked until the PI/PO Server returns a reply `MessageObject` to the `outboundMessageObject` service `pub.xi.Router:outboundMessageObject`.
 - If the task runs successfully, the reply `MessageObject` contains a message header and a payload. The `outboundMessageObject` service returns the message header and the payload to the outbound service, which returns them to your backend system. You can use Software AG Designer to modify the service you created to map the message header

information to your pipeline. For more information on modifying the service, see *Software AG Designer Online Help*.

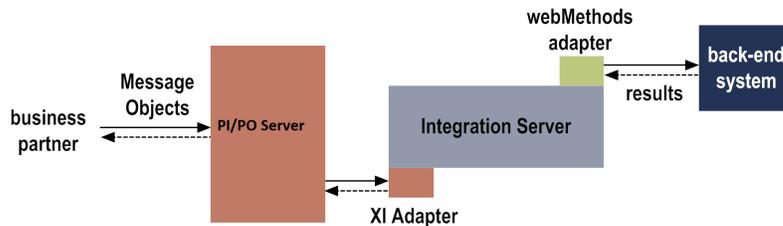
- If the task fails because a technical error occurred in the PI/PO environment or on your business partner's system, the reply MessageObject contains a message header and an error header that contains information about the technical error. The outboundMessageObject service returns both headers to the outbound service, which can return them to your backend system. You can map the message header and error header information to your pipeline.
- If the task fails because an application error occurred on your business partner's system, the reply MessageObject contains a message header, and the message header contains information about the application error. The outboundMessageObject service returns the message header to the outbound service, which returns it to your backend system. You can map the message header information to your pipeline.
- If you sent the MessageObject asynchronously, the PI/PO Server returns a reply MessageObject to the outboundMessageObject service `pub.xi.Router:outboundMessageObject`.
 - If the task runs successfully, the reply MessageObject contains a message header. You can use Software AG Designer to modify the service you created to map the message header information to your pipeline. For more information on modifying the service, see *Software AG Designer Online Help*.
 - If the task fails because a technical error occurred in the PI/PO environment or on your business partner's system, the reply MessageObject contains a message header and an error header that contains information about the technical error. You can use Software AG Designer to modify the service you created to map the message header and error information to your pipeline. For more information on modifying the service, see *Software AG Designer Online Help*.

The business partner might return results later using a separate response service. A separate service you create receives those results.

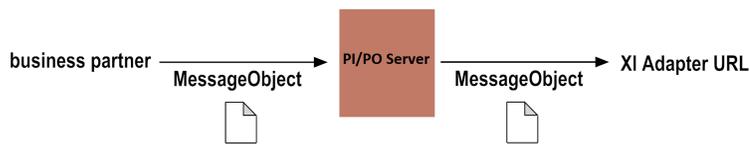
Receiving MessageObjects

You use XI Adapter to receive MessageObjects as follows:

- XI Adapter receives MessageObjects sent to you by your business partners through a PI/PO Server. XI Adapter service that actually receives the requests is protected by a webMethods Access Control List (ACL), so business partners must supply valid login credentials. XI Adapter parses the MessageObjects and passes them to your backend systems through other webMethods adapters.
- If there are results, XI Adapter receives them from your backend systems through the webMethods adapters. XI Adapter returns the results to the PI/PO Server, which forwards them to your business partners.



1. A business partner sends a MessageObject to a PI/PO Server. The MessageObject specifies the login credentials you specified for the receiver endpoint that identifies the task.
2. The PI/PO Server sends the MessageObject to the URL you provided for your XI Adapter.

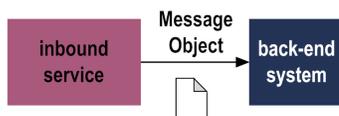


3. The inboundMessageObject service [pub.xi.Router:inboundMessageObject](#) receives the MessageObject. The inboundMessageObject service extracts the following:
 - Receiver endpoint from the MessageObject's message header.
 - Payload from the MessageObject.
 - Delivery mode of the MessageObject.

The inboundMessageObject service then sends the receiver endpoint and payload to the inbound service you associated with the receiver endpoint. For more information, see [“Associating Receiver Endpoint with Inbound Service”](#) on page 50.



4. The inbound service receives payload and receiver endpoint, interacts with your backend system to process the task defined by the interface that is specified by the receiver endpoint.



5. The next step depends on whether the business partner sent the MessageObject synchronously or asynchronously, and on whether the task runs successfully.
 - If the business partner sent the MessageObject synchronously, the inboundMessageObject service [pub.xi.Router:inboundMessageObject](#) returns a reply MessageObject to the PI/PO Server to send to the business partner.

- If the task runs successfully, the reply `MessageObject` contains a message header and a payload. The payload was provided by the inbound service and contains the results of the task from your backend system.
- If the task fails because a technical error occurred in the PI/PO environment or on your business system, the reply `MessageObject` contains a message header and an error header that contains information about the technical error.
- If the task fails because an application error occurred on your business system, the reply `MessageObject` contains a Document Type that contains information about the application error.
- If the business partner sent the `MessageObject` asynchronously, the `inboundMessageObject` service `pub.xi.Router:inboundMessageObject` returns a reply `MessageObject` to the PI/PO Server to send to the business partner.
 - If the task runs successfully, the reply `MessageObject` contains a message header.
 - If the task fails because a technical error occurred in the PI/PO environment or on your business system, the reply `MessageObject` contains a message header and an error header that contains information about the technical error.

You can return results later using a separate response service.

Exchanging MessageObjects Through the PI/PO Environment

PI/PO environments enable the exchange of `MessageObjects` by:

- Maintaining a shared repository that contains task definitions
- Routing `MessageObjects` to specified business partners
- Providing a message format for business partners to send the requests

Interface Repository

In PI/PO environments, tasks are defined by *interfaces*. You define two types of interfaces, *outbound* and *inbound*.

- You define an *outbound* interface for each task you want to ask a business partner to perform. An outbound interface defines how you must structure your task data to match the format used by your business partner.
- You define an *inbound* interface for each task you expect a business partner to ask you to perform. An inbound interface defines how your business partner must structure its task data to match the format used by your backend system.

Each interface supports exactly one delivery mode, synchronous or asynchronous, for `MessageObjects`.

You define your interfaces in a shared area in the PI/PO environment named the PI Integration Repository.

MessageObject Routing

The PI/PO environment maintains routing relationships that PI/PO Servers use to route MessageObjects from one business partner to another. You and your business partners create and maintain the routing relationships in the PI Integration Directory. Each routing relationship identifies a *sender endpoint* and a *receiver endpoint*.

- A *sender endpoint* identifies the business partner that is sending a MessageObject.
- A *receiver endpoint* identifies a task to perform and the business partner that is to perform the task.

Each business partner can have many sender and receiver endpoints.

When you create a routing relationship, you assign one or more receiver endpoints to each of your sender endpoints. When you send a MessageObject to a business partner, you provide a sender endpoint for that MessageObject. The PI/PO Server finds the assigned receiver endpoints and routes the request to the appropriate business partners.

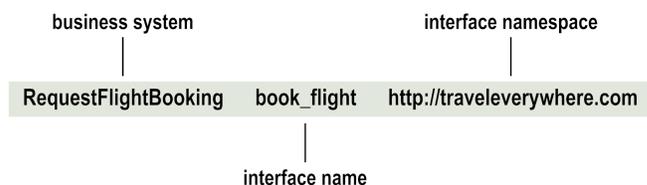
Sender Endpoints

A sender endpoint has three parts, as follows:

- **Business system name.** The first part is the name of the business system that is sending the MessageObject. For example, a travel agency might have a business system named RequestFlightInfo and another named RequestFlightBooking.
- **Interface name.** The second part is the name of an interface that is defined in the PI Integration Repository. The interface describes the data types, direction (inbound or outbound), and delivery mode (synchronous or asynchronous) of the MessageObject.
- **Interface namespace.** The third part is an interface namespace. You can use the namespace to differentiate multiple interfaces that have the same name but different signatures and meanings. Suppose you have several interfaces named RequestsforFlightBookings; you would differentiate the interfaces by using a different namespace for each interface. Typically, the interface namespace is a URI.

Each sender endpoint is globally unique within a PI integration landscape.

An example of a sender endpoint is as follows:



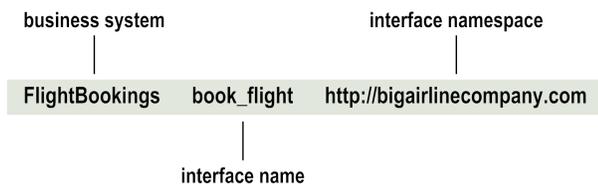
Receiver Endpoints

A receiver endpoint has three parts, as follows:

- **Business system name.** The first part is the name of the business system that is to receive the MessageObject. For example, an airline company might have a business system named FlightBookings.
- **Interface name.** The second part is the name of an interface that is defined in the PI Integration Repository. The interface describes the data types, direction (inbound or outbound), and delivery mode (synchronous or asynchronous) of the MessageObject.
- **Interface namespace.** The third part of the endpoint is an interface namespace. You can use the namespace to differentiate multiple interfaces that have the same name but different signatures and meanings. Suppose you have several interfaces named BookFlights; you would differentiate the interfaces by using a different namespace for each interface. Typically, the interface namespace is a URI.

Each receiver endpoint is globally unique within a PI integration landscape.

An example of a receiver endpoint is as follows:



MessageObject Format

Business partners that are using PI/PO Servers send and receive MessageObjects. Each MessageObject consists of two parts, a message header and a payload.

- The payload contains the data such as a purchase order or an invoice. The structure of the payload is based on the PI/PO interface.
- The message header includes the following:
 1. Sender endpoint.
 2. Unique message ID for the MessageObject.
 3. Receiver endpoint(Optional). Using the sender endpoint, the PI/PO Server can find the receiver endpoint using the routing relationships.
 4. Quality of Service. The *qualityOfService* field value indicates whether the sending business partner is sending the MessageObject synchronously or asynchronously. For more information on the values for this field, see [“Viewing Messages” on page 56](#).

2 Installing and Uninstalling XI Adapter

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Overview

This chapter provides the system requirements for XI Adapter and explains how to install and uninstall the adapter.

System Requirements

This section describes the requirements for installing XI Adapter.

Platform and Operating System Requirements

XI Adapter supports all platforms that are supported by Integration Server. For a list of operating systems, RDBMSs, and webMethods products supported by XI Adapter, see *webMethods Adapters System Requirements*.

XI Adapter has no hardware requirements beyond those of its host Integration Server.

Software Requirements

The following table lists the webMethods components you must install before you install XI Adapter.

Required Components	Version
webMethods Integration Server	9.12 or later
Software AG Designer	9.12 or later

Before you can use XI Adapter you must also install the other webMethods adapters (for example, the Oracle Apps Adapter or the Siebel Adapter) you are going to use to interact with your backend system.

Third-Party Software Requirements

The following table lists the third-party software XI Adapter requires.

Required Components	Version
SAP XI	2.0 (2003)
SAP XI	3.0 (2004)
SAP PI	7.0 (2005)
SAP PI	7.0 EHP
SAP PI	7.1 (2007)

Required Components	Version
SAP PI	7.1 EHP 1 (2009)
SAP PI	7.3 (2010)
SAP PI	7.31 EHP (2012)
SAP PI/PO	7. 4 (2013)
SAP PI/PO	7. 5 (2015)

Installing the adapter

» To install XI Adapter

1. Start Integration Server.
2. Download `WmXI.zip` file.
3. Copy `WmXI.zip` file to `Integration Server_directory \instances\instance_name\replicate\inbound` directory.
4. Open Integration Server Administrator.
5. In the **Packages** menu in Integration Server's navigation area, click **Management**. The system displays the **Management** page.
6. Click **Install Inbound Releases**. The system displays **Install Inbound Releases** page.
7. In the **Release file name** list, select **WmXI.zip**.
8. If you want the package to be available immediately after installation, select **Activate upon installation**.
9. Click **Install Release**.

The system displays a message that says the package has been installed (and activated, if you selected **Activate upon installation**).

10. Locate the following JAR files in your SAP PI/PO Server installation:

- `lcrclient.jar`
- `tc_sec_core.jar`

- a. Copy these JAR files to the *Integration Server_directory* \instances*instance_name*\packages\WmXI\code\jars\static directory.

Note:

- The JAR files are required to register the Integration Server instance in SAP System Landscape Directory(SLD).
- You can use XI Adapter without registering the Integration Server instance in SAP System Landscape Directory(SLD). For more information, see “ [watt.xi.sld.access](#)” on [page 78](#).

Uninstalling the adapter

> To uninstall XI Adapter

1. Start Integration Server, then start Integration Server Administrator.
2. In the **Packages** menu in Integration Server's navigation area, click **Management**. The system displays the **Management** page.
3. Delete XI Adapter using one of these methods:
 - If you want to recover the package later, delete the package from the Integration Server Administrator interface but not from the file system by clicking  in the **Delete** column for the **WmXI** package. The system asks you to confirm that you want to delete the package. Click **OK**. The system displays a message that says the package was copied to the package recovery area-the *Integration Server_directory* \instances*instance_name*\replicate\salvage directory.

For more information about recovering deleted packages, see the *webMethods Integration Server Administrator's Guide* for your release.
 - If you do not want to use the package later, delete the package from both the Integration Server Administrator interface and the file system by clicking  in the **Delete** column for the package. The system asks you to confirm that you want to delete the package. Click **OK**. The system displays a message that says the package was deleted.

3 Post-Installation Configuration and Tasks

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- Configuring XI Adapter 23

This section describes the post-installation tasks you perform to make XI Adapter operational.

Creating webMethods User Accounts

XI Adapter provides a default access control list (ACL):

- Access control list (ACL) name: XIUsers.
- User Group Name: XIUsers.
- User Name: XIUser.
- Default Password: 04122002.

The XIUsers ACL is assigned to the [pub.xi.Router.inboundMessageObject](#) service.

In Integration Server Administrator, set up a webMethods user account for each receiver endpoint specified in the PI Integration directory. The user name and password for each user account must exactly match the login credentials you specified for the corresponding receiver endpoint. Then add all the user accounts to the PIUsers group.

For instructions on setting up user accounts and adding them to a user group, see the *webMethods Integration Server Administrator's Guide* for your release.

Configuring the PI/PO Environment

In the PI/PO environment you use to send MessageObjects, you do the following:

1. In the PI Integration Repository, define an outbound interface for each task you will ask a business partner to perform. The business partner will use the interface to map MessageObjects you send to the format used by the business partner's system. For instructions on working with the Integration Repository, see the SAP PI/PO Server documentation.
2. In the PI Integration Repository, define an inbound interface for each task you expect a business partner to ask you to perform. The business partner will use the interface to structure the MessageObjects to match the format used by your backend system. For instructions on working with the Integration Repository, see the SAP PI/PO Server documentation.
3. Create routing relationships that assign the appropriate receiver endpoints to each of your sender endpoints.
 - a. In the PI Integration Directory, specify all the sender endpoints.
 - b. Assign the appropriate receiver endpoints for each sender endpoint.
 - c. Specify the interface and the interface namespace as strings of US-ASCII characters for each endpoint.
 - d. Specify login credentials for each receiver endpoint.

4. In your webMethods environment, set up a user account for each receiver endpoint. The user name and password in each user account must exactly match the login credentials you specified for the corresponding receiver endpoint. Then add all the user accounts to the user group for XI Adapter.

Configuring XI Adapter

In XI Adapter interface, you do the following:

1. Identify and add all the PI/PO Servers you will use to host your business systems, send MessageObjects or receive MessageObjects. For more information, see [“Adding PI/PO Server” on page 28](#).
2. Assign each of your business systems to the PI/PO Server you want to use to send and receive that business system's MessageObjects. For more information, see [“Assigning Your Business Systems to PI/PO Servers” on page 32](#).
3. Create and associate a Document Type for each message type.
 - a. Use Designer to create a Document Type for each message type specified by each interface you defined in the PI Integration Repository. For more information, see *Software AG Designer Online Help*.
 - b. Associate each Integration Server Document Type with the corresponding message type. For more information, see [“Associating a Message Type with a Document Type” on page 36](#).
4. For each type of MessageObject you want to send to a business partner, you do the following:
 - a. Define an outbound interface that defines the task you want performed. You must define the interface exactly as you defined it in the PI/PO environment. XI Adapter generates an Integration Server specification from the interface using the Integration Server Document Type that correspond to the interface's message types. For more information, see [“Viewing Interfaces” on page 42](#) and [“Adding PI/PO Interface” on page 40](#).
 - b. Associate a sender endpoint with an outbound service. Identify a sender endpoint that specifies the outbound interface you just defined and your business system that will send the appropriate MessageObjects. XI Adapter automatically creates an outbound service stub using the Integration Server specification it generated when you defined the interface. For more information, see [“Associating Sender Endpoint with Outbound Service” on page 46](#).
 - c. On the appropriate webMethods adapter, extend the outbound service stub to get MessageObjects from your backend system and pass the MessageObjects to XI Adapter to send to a business partner. If the MessageObject delivery mode is synchronous, you can have the outbound service return results from the business partner to your backend system immediately. If the delivery mode is asynchronous, you can create a separate service to

receive the results later. For more information, see [“Extending the Outbound Service” on page 47](#).

5. For each type of MessageObject you expect to receive from a business partner, do the following:
 - a. Define an inbound interface that defines the task the business partner wants performed. You must define the interface exactly as you defined it in the PI/PO environment. XI Adapter generates an Integration Server specification from the interface using the Integration Server Document Type that correspond to the interface's message types. For more information, see [“Interfaces” on page 39](#).
 - b. Associate a receiver endpoint with an inbound service. Identify a receiver endpoint that specifies the inbound interface you just defined and your business system that will perform the task defined by the interface. XI Adapter automatically creates an inbound service stub using the Integration Server specification it generated when you defined the interface. For more information, see [“Associating Receiver Endpoint with Inbound Service” on page 50](#).
 - c. On the appropriate webMethods adapter, extend the inbound service stub to receive MessageObjects from the Oracle Apps Adapter and to interact with your backend system to process the tasks. If the MessageObject delivery mode is synchronous, you can have the inbound service return results to the business partner immediately. If the delivery mode is asynchronous, you can create a separate response service to return the results later. For more information, see [“Extending the Inbound Service” on page 51](#).
6. XI Adapter maintains a list of all MessageObjects you have sent or received. For more information, see [“Viewing Messages” on page 56](#).
7. Register your Integration Server instance in the SAP System Landscape Directory(SLD) so XI Adapter and the SAP System Landscape Directory(SLD) can share certain type of information. For more information, see [“Environment” on page 59](#).

Note:

- You can use XI Adapter without registering the Integration Server instance in the SAP System Landscape Directory(SLD). For more information, see [“watt.xi.sld.access” on page 78](#).
- You can use XI Adapter to register one Integration Server instance in one SAP System Landscape Directory(SLD) only.

8. Specify the settings. For more information, see [“Settings” on page 65](#).
 - a. You can specify the number of times you want to resend a MessageObject when the first attempt fails because of technical errors in the PI/PO environment or on your business partner's system.
 - b. You can specify whether you want to validate inbound messages. Typically, you would only use validation to test and debug your environment.

- c. You can specify the logging levels and the facilities to log.

4 Servers

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■ Viewing PI/PO Servers	29

Adding PI/PO Server

You must identify all PI/PO Servers you use to send MessageObjects and add them.

➤ To add PI/PO Server

1. Start Integration Server Administrator.
2. In the **Adapters** menu in Integration Server Administrator's navigation area, click **webMethods Adapter for PI/PO**. The system displays the **Servers** page.
3. Click **Add PI/PO Server**. The system displays the **Add PI/PO Server** page.

Field	Description
Server	
Name	<p>Required. Specify the name of the PI/PO Server you use to send MessageObjects.</p> <ul style="list-style-type: none"> ■ If the SLD access is enabled and the Integration Server instance is registered in SAP SLD, the list is populated by the PI/PO servers registered in the SAP SLD. ■ If the SLD access is disabled, you can enter the name of the PI/PO server. <p>Note: You can use XI Adapter without registering the Integration Server instance in the SAP SLD. For more information, see “watt.xi.sld.access” on page 78.</p>
URL	Required. Specify the URL to access PI/PO server name.
Authentication Type	
Type	<p>Required. Specify the authentication type to connect to the PI/PO server. Possible values are:</p> <ul style="list-style-type: none"> ■ Basic. Default. PI/PO Server uses http authentication. ■ None. PI/PO Server uses no authentication.
User name	Required. Specify the name used to log on to the PI/PO server.
Password	Required. Specify the password used to log on to the PI/PO server. If you need to change the password later, you can click Change password and provide the new password.

The screenshot shows the 'webMethods Adapter for PI/PO' configuration page. The breadcrumb trail is 'PI/PO > Servers > Add PI/PO Server'. The form includes the following sections:

- Server**: Fields for 'Name' and 'URL'.
- Authentication Type**: A dropdown menu for 'Type' with 'Basic' selected.
- Login Parameters**: Fields for 'User name' and 'Password'.

At the bottom of the form are 'Add' and 'Cancel' buttons.

4. Click **Add**. The **Servers** page displays the list of PI/PO servers.

Viewing PI/PO Servers

> To view PI/PO Servers

1. Start Integration Server Administrator.
2. In the **Adapters** menu in Integration Server Administrator's navigation area, click **webMethods Adapter for PI/PO**. The system displays the **Servers** page.
 - The **Servers** page lists the **Name**, **URL**, **Auth. Type** for each PI/PO Server. For description of each field, see the table of fields in [“Adding PI/PO Server” on page 28](#).
 - You can sort the table by a particular column by clicking the column's heading.
 - You can sort the column in ascending or descending order.
 - You can remove a PI/PO Server from the list by clicking  icon in the **Delete** column.

Note:

Before you can delete a PI/PO Server, you must do the following:

- Delete all service endpoint associations that identify any business system that is assigned to the PI/PO Server.

- Delete all interfaces that are specified by any of those endpoints.
- Delete all business systems that are assigned to the PI/PO Server.

WEBMETHODS
 Integration Server default : host.docker.internal : Administrator

webMethods Adapter for PI/PO

Servers

[Business Systems](#)
[Message Types](#)
[Interfaces](#)
[Services](#)
[Messages](#)
[Environment](#)
[Settings](#)
[About](#)

PI/PO > Servers

- [Add PI/PO Server](#)

PI/PO Server List			
Name	URL	Auth. Type	Delete
INTEGRATION_ENGINE_JAVA_SPO	http://vmxsappo750.eur.ad.sag.50000/XISOAPAdapter/MessageServlet?ximessage=true	Basic	✗
INTEGRATION_SERVER_W71	http://sapmw71.eur.ad.sag.50000/sap/xi/engine?type=entry	Basic	✗
INTEGRATION_SERVER_W74	http://sapmw74.eur.ad.sag.50000/sap/xi/engine?type=entry	Basic	✗
New_SAPMW71	http://sapmw74.eur.ad.sag.50000/sap/xi/engine?type=entry	Basic	✗
VMXSAPPO750	http://vmxsappo750.50000/XISOAPAdapter/MessageServlet?ximessage=true	Basic	✗

5 Business Systems

- Assigning Your Business Systems to PI/PO Servers 32
- Viewing Business Systems 33

Assigning Your Business Systems to PI/PO Servers

You must assign each of your business systems to a PI/PO Server.

➤ To assign your business systems to your PI/PO Servers

1. Start Integration Server Administrator.
2. In the **Adapters** menu in Integration Server Administrator's navigation area, click **webMethods Adapter for PI/PO**. The system displays the **Servers** page.
3. In the **webMethods Adapter for PI/PO** navigation area, click **Business Systems**. The system displays the **Business Systems** page.
4. Click **Assign Business Systems to PI/PO Server**. The system displays the **Add Assignment** page.

Field	Description
Business System	Specify the name of the business system you want to use to send and receive the MessageObjects.
PI/PO Servers	Select the name of the PI/PO server name you want to use to send and receive the business system's MessageObjects. If no PI/PO servers are listed, add the PI/PO server. For more information, see “Adding PI/PO Server” on page 28.

5. Click **Add**. The system returns to the **Business Systems** page and adds the assignment you just created to the list.

Note:

If the SLD access is enabled and the Integration Server instance is registered in SAP SLD, the system adds an SAP_BusinessSystem object that represents the business system in the SAP SLD.

Viewing Business Systems

➤ To view the Business Systems

1. Start Integration Server Administrator.
2. In the **Adapters** menu in Integration Server Administrator's navigation area, click **webMethods Adapter for PI/PO**. The system displays the **Servers** page.
3. In the **webMethods Adapter for PI/PO** navigation area, click **Business Systems**. The system displays the **Business Systems** page.
 - The **Business Systems** page lists the **Business System**'s name, **PI/PO Server** and options to **Edit** and **Delete** for each business system. For description of each field, see the table of fields in [“Assigning Your Business Systems to PI/PO Servers”](#) on page 32.
 - You can sort the table by a particular column by clicking the column's heading.
 - You can sort the column in ascending or descending order.
 - You can edit a business system from the list by clicking  icon in the **Edit** column.
 - You can remove a business system from the list by clicking  icon in the **Delete** column.

Note:

Before you can delete a business system - PI/PO Server assignment, you must delete all service endpoint associations that identify that business system.

WEBMETHODS
 Integration Server default :: host.docker.internal :: Administrator

▼ webMethods Adapter for PI/PO

- Servers
- Business Systems
- Message Types
- Interfaces
- Services
- Messages
- Environment
- Settings
- About

PI/PO > Business Systems

- [Assign Business System to PI/PO Server](#)

Business System Assignments			
Business System	PI/PO Server	Edit	Delete
TestAddIntsSender	INTEGRATION_SERVER_W74		
TestAddIntsReceiver	INTEGRATION_SERVER_W74		
BS_New_SAPMW71_Sender_SLD	INTEGRATION_ENGINE_JAVA_SPO		
BS_New_SAPMW71_Sender	New_SAPMW71		
BS_New_SAPMW71_Receiver_SLD	INTEGRATION_ENGINE_JAVA_SPO		
BS_New_SAPMW71_Receiver	New_SAPMW71		

6 Message Types

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■	Viewing Message Types	37

Defining Document Type

You must define an Integration Server Document Type for each message type specified by each interface you defined in the PI Integration Repository. You must then associate each Integration Server Document Type with the corresponding message type.

In Designer, define a Document Type for each message type specified by each interface you defined in the PI Integration Repository. You can define each Document Type manually or you can import an XML schema definition (XSD) into Designer and generate the Document Type from that XSD.

Associating a Message Type with a Document Type

➤ To Associate a Message Type with a Document Type

1. Start Integration Server Administrator.
2. In the **Adapters** menu in Integration Server Administrator's navigation area, click **webMethods Adapter for PI/PO**. The system displays the **Servers** page.
3. In the **webMethods Adapter for PI/PO** navigation area, click **Message Types**. The system displays the **Message Types** page.
4. Click **Associate with Document Type**. The system displays the **Add Document Type Association** page.

Field	Description
Message Type	
Name	Specify the name of one of the message types specified by an interface you defined in the PI Integration Repository.
Namespace	Specify the namespace of the message type.
Document Type	
Name	Specify the name of the Integration Server Document Type to associate with the message type.
Note: You can edit the Document Type Name by clicking on Edit in the Message Types page.	

WEBMETHODS
Integration Server default : host.docker.internal : Administrator Try the New Administrator

webMethods Adapter for PI/PO

- Servers
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- Message Types**
- Interfaces
- Services
- Messages
- Environment
- Settings
- About

PI/PO > Message Types > Add Document Type Association

Return to Message Types

Message Type

Name

Namespace

Document Type

Name

Add Cancel

5. Click **Add**. The system returns to the **Message Types** page and adds the association you just created to the list.
6. Repeat the steps to associate each message type specified by each interface you defined in the PI Integration Repository with the corresponding Document Type.

Viewing Message Types

> To view the Message Types

1. Start Integration Server Administrator.
2. In the **Adapters** menu in Integration Server Administrator's navigation area, click **webMethods Adapter for PI/PO**. The system displays the **Servers** page.
3. In the **webMethods Adapter for PI/PO** navigation area, click **Message Types**. The system displays the **Message Types** page.

The **Message Types** page lists all the message types you have associated with Integration Server Document Types.

- The **Message Types** page lists the **Message Type's Name** and **Namespace**, **Document Type's Name** and options to **Edit** and **Delete** for each message type. For description of each field, see the table of fields in [“Associating a Message Type with a Document Type” on page 36](#).
- You can sort the table by a particular column by clicking the column's heading.

- You can sort the column in ascending or descending order.
- You can edit a message type from the list by clicking  icon in the **Edit** column.
- You can remove a message type from the list by clicking  icon in the **Delete** column.

Note:

Before you can delete a message type - Document Type association, you must delete all interfaces that specify the message type.

WEBMETHODS Integration Server default :: host.docker.internal :: Administrator

▼ webMethods Adapter for PI/PO

- Servers
- Business Systems
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- Services
- Messages
- Environment
- Settings
- About

PI/PO > Message Types

- [Associate with Document Type](#)

Message Type Associations				
Message Type		Document Type	Edit	Delete
Name	Namespace			
IntegerFault	http://test.webMethods.com/AddInts	sample.xi.addInts.rec.IntegerFault		
IntegerPair	http://test.webMethods.com/AddInts	sample.xi.addInts.rec.IntegerPair		
IntegerSum	http://test.webMethods.com/AddInts	sample.xi.addInts.rec.IntegerSum		
MT_IntegerFault	http://test.webMethods.com/AddInts	Test_XI.addInts.IntegerFault		
MT_IntegerPair	http://test.webMethods.com/AddInts	Test_XI.addInts.IntegerPair		
MT_IntegerSum	http://test.webMethods.com/AddInts	Test_XI.addInts.IntegerSum		

7 Interfaces

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■ Generating an XML Schema Definition for a Message Type	43

Adding PI/PO Interface

You must define an outbound interface for each type of MessageObject you want to send to a business partner and an inbound interface for each type of MessageObject you expect to receive from a business partner.

Important:

You must define each interface exactly as it is defined in the PI Integration Repository.

➤ To define inbound and outbound interfaces

1. Start Integration Server Administrator.
2. In the **Adapters** menu in Integration Server Administrator's navigation area, click **webMethods Adapter for PI/PO**. The system displays the **Servers** page.
3. In the **webMethods Adapter for PI/PO** navigation area, click **Interfaces**. The system displays the **Interfaces** page.
4. Click **Add PI/PO Interfaces**. The system displays the **Add Interfaces** page.

Field	Description
Interface	
Name	Required. Specify the name of the interface that is defined in the PI Integration Repository.
Namespace	Required. Specify the namespace of the interface that is defined in the PI Integration Repository. You can use the namespace to differentiate multiple interfaces that have the same name but different signatures and meanings. Typically, the interface namespace is a URI.
Mode and Direction	
Mode	Required. Specify the delivery mode to connect to the PI/PO server. Possible values are: <ul style="list-style-type: none"> ■ Synchronous. ■ Asynchronous. Default.
Direction	Required. Specify whether the interface defines an inbound or outbound task. Possible values are: <ul style="list-style-type: none"> ■ Inbound. Interface for an inbound task. ■ Outbound. Interface for an outbound task.

Field	Description	
Message Types		
Input	Name	Required. <ul style="list-style-type: none"> ■ In synchronous and asynchronous inbound messages, specify the message type of the request message the interface will take as input from your business partner. ■ In synchronous outbound messages, specify the message type of the response message the interface will receive from your business system if no application error occurs during processing.
	Namespace	Required. Specify the namespace for the message type.
	Output	Name
	Namespace	Required. Specify the namespace for the message type.
Fault	Name	Required. <ul style="list-style-type: none"> ■ In synchronous inbound messages, specify the message type of the reply message the interface will return to your business partner if an application error occurs on your backend system during processing. ■ In synchronous outbound messages, specify the message type of the reply message the interface will receive from your business system if an application error occurs during processing.
	Namespace	Required. Specifies the namespace for the message type.
	Specification	
Name	Name of the specification that XI Adapter uses to generate an Integration Server specification from the interface using the Integration Server Document Type that correspond to the interface's message types. For more information, see <i>Software AG Designer Online Help</i> .	

The screenshot shows the 'Add Interface' form in the WEBMETHODS Integration Server Administration Console. The form is organized into several sections:

- Interface:** Contains two text input fields for 'Name' and 'Namespace'.
- Mode and Direction:** Contains two groups of radio buttons. The first group is for 'Delivery mode' with options 'Synchronous' and 'Asynchronous' (selected). The second group is for 'Direction' with options 'Inbound' (selected) and 'Outbound'.
- Message Types:** A table with three rows and two columns. The columns are 'Name' and 'Namespace'. The rows are 'Input', 'Output', and 'Fault', each with corresponding text input fields.
- Specification:** Contains one text input field for 'Name'.

At the bottom of the form, there are two buttons: 'Add' and 'Cancel'.

- Repeat the steps to define all interfaces you want to use to send or receive MessageObjects.

Viewing Interfaces

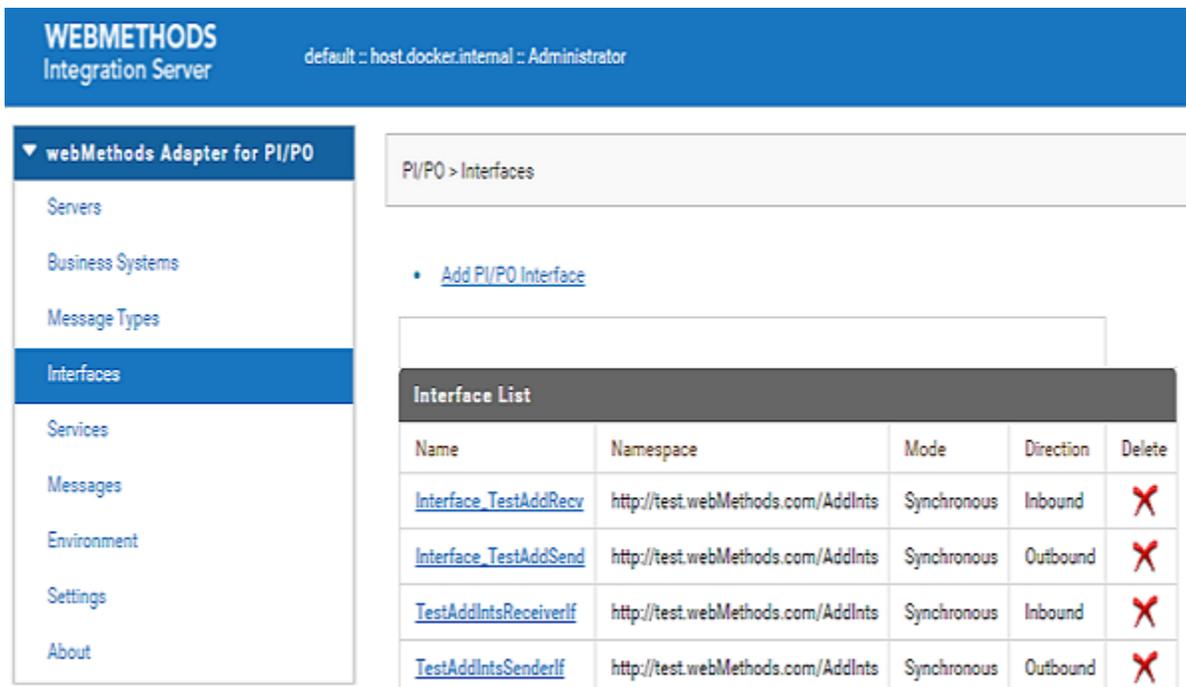
> To view Interfaces

- Start Integration Server Administrator.
- In the **Adapters** menu in Integration Server Administrator's navigation area, click **webMethods Adapter for PI/PO**. The system displays the **Servers** page.
- In the **webMethods Adapter for PI/PO** navigation area, click **Interfaces**. The system displays the **Interfaces** page.
 - The **Interfaces** page lists the **Name, Namespace, Mode, Direction** for each Interface. For description of each field, see the table of fields in [“Adding PI/PO Interface” on page 40](#).
 - You can sort the table by a particular column by clicking the column's heading.
 - You can sort the column in ascending or descending order.

- You remove an Interface from the list by clicking  icon in the **Delete** column.

Note:

Before you can delete an interface, you must delete all service endpoint associations that specify the interface.



The screenshot shows the webMethods Integration Server administrator interface. The left navigation pane is expanded to 'webMethods Adapter for PI/PO' and 'Interfaces' is selected. The main content area shows 'PI/PO > Interfaces' with a link to 'Add PI/PO Interface'. Below this is an 'Interface List' table with the following data:

Name	Namespace	Mode	Direction	Delete
Interface_TestAddRecv	http://test.webMethods.com/AddInts	Synchronous	Inbound	
Interface_TestAddSend	http://test.webMethods.com/AddInts	Synchronous	Outbound	
TestAddIntsReceiverIf	http://test.webMethods.com/AddInts	Synchronous	Inbound	
TestAddIntsSenderIf	http://test.webMethods.com/AddInts	Synchronous	Outbound	

Generating an XML Schema Definition for a Message Type

You can generate an XML schema definition (XSD) for any of the message types you specify for an interface.

➤ To generate an XSD

1. Start Integration Server Administrator.
2. In the **Adapters** menu in Integration Server Administrator's navigation area, click **webMethods Adapter for PI/PO**. The system displays the **Servers** page.
3. In the **webMethods Adapter for PI/PO** navigation area, click **Interfaces**. The system displays the **Interfaces** page.
4. Click the interface that specifies message types for which you want to generate XSDs. Depending on whether the interface is inbound or outbound, the system displays the **Show Inbound Interface** or **Show Outbound Interface** page respectively.

WEBMETHODS
Integration Server default - host.docker.internal - Administrator [Try the New Administration Console](#)

webMethods Adapter for PI/PO

- Servers
- Business Systems
- Message Types
- Interfaces**
- Services
- Messages
- Environment
- Settings
- About

PI/PO > Interface > Show Inbound Interface

[Return to Interfaces](#)

Inbound Interface

Name	Interface_TestAddrRecv
Namespace	http://test.webMethods.com/AddrInts

Mode and Direction

Delivery mode	Synchronous
Direction	Inbound

Message Types

	Name	Namespace	Generate XSD
Input	MT_IntegerPair	http://test.webMethods.com/AddrInts	
Output	MT_IntegerSum	http://test.webMethods.com/AddrInts	
Fault	MT_IntegerFault	http://test.webMethods.com/AddrInts	

Specification

Name	Interface_TestAddrRecv
------	------------------------

- Locate the message type for which you want to generate an XSD and click  for that message type. The system generates the XSD file from the Integration Server Document Type you associated with the message type and stores the file in the *Integration Server_directory* \instances\instance_name\packages\WmXI\xdocs directory.

8 Services

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Associating Sender Endpoint with Outbound Service

1. Start Integration Server Administrator.
2. In the **Adapters** menu in Integration Server Administrator's navigation area, click **webMethods Adapter for PI/PO**. The system displays the **Servers** page.
3. In the **webMethods Adapter for PI/PO** navigation area, click **Services**. The system displays the **Services** page.
4. Click **Associate Sender Endpoint with Outbound Service (Generate Stub)**. The system displays the **Add Sender Endpoint Association (Generate Stub)** page with the following fields in **Outbound Service Associations**.

Field	Description
Sender Endpoint	
Business System	Select the name of the business system to associate the outbound service with the sender endpoint.
Interface	Select the name and namespace of the interface to associate the outbound service with the sender endpoint.
Outbound Service	
Service	Specify the name of the service to execute at the sender endpoint. Create the outbound service by typing a name that is not in use or use an existing outbound service by typing the name of the existing service.
Package	Select the package in which to store the new service or select the package that contains the existing service to execute at the sender endpoint.

WEBMETHODS Integration Server default : host.docker.internal : Administrator Try the New

PI/PO > Services > Add Sender Endpoint Association (Generate Stub)

Return to Services

Sender Endpoint

Business System ES_New_SAPMWT1_Receiver

Interface Interface_TestAddSend | http://test.webMethods.com/AddInts

Outbound Service

Service

Package Default

Add Cancel

5. Click **Add**.

- If the **Service** is not in use, the system generates an outbound service stub using the specification it generated from the interface identified in the sender endpoint, then stores the service in the package you selected.
- If the SLD access is enabled and the Integration Server instance is registered in SAP SLD, the system adds SAP_XIAdapterService object that represents the outbound service to the SAP SLD.

Note:

You can use XI Adapter without registering the Integration Server instance in the SAP SLD. For more information, see “[watt.xi.sld.access](#)” on page 78.

- The system displays the **Services** page and adds the **Outbound Service Associations** you just created to the list.

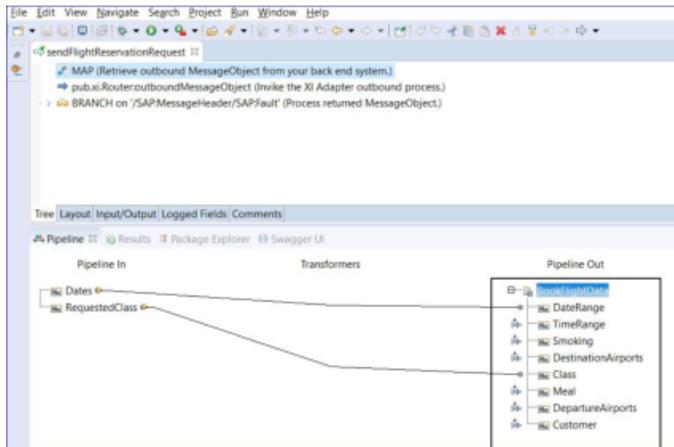
Extending the Outbound Service

If you generated an outbound service stub, you must extend the stub to make the service interact with your systems.

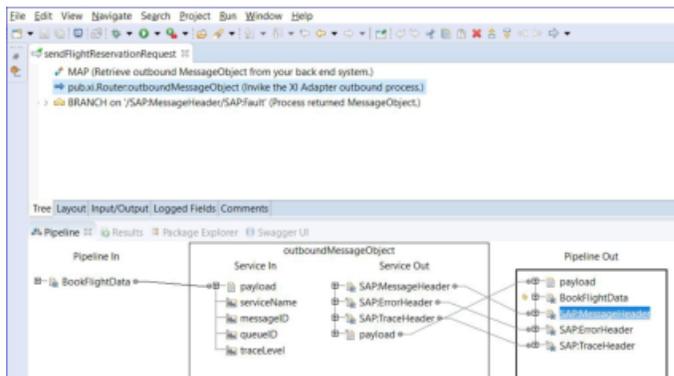
To extend the outbound service stub

1. Start Designer and navigate to the outbound service stub.

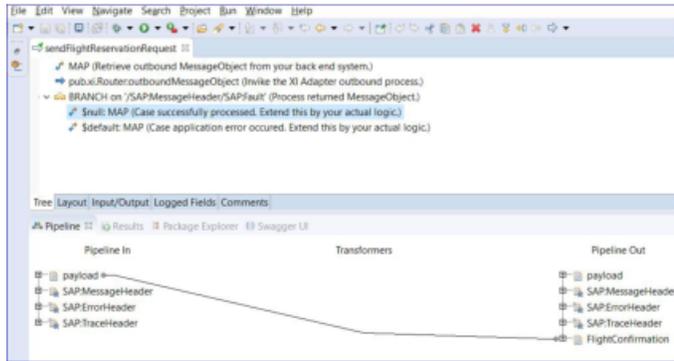
- Modify the flow logic of the outbound service stub to interact with your backend system as appropriate (for example, to ask your backend system for the MessageObject). For example:



- Map the MessageObject to the outbound Document Type that is defined in the input section of the outbound service stub. For example:



- You can map the *serviceName*, *messageID*, *queueID*, and *traceLevel* input fields of the *outboundMessageObject* service.
- The delivery mode of the interface from which the outbound service stub was generated decides the next action:
 - If delivery mode is synchronous, the outbound service stub already maps the returned reply MessageObject to the appropriate inbound or fault Document Type.



- If delivery mode is asynchronous, you can create a separate inbound service that receives any results from the business partner if the task runs successfully.
6. Map the other output fields of the “[pub.xi.Router:outboundMessageObject](#)” on page 72 service as follows:
 - a. If you want to extract other information from the message header of the reply MessageObject, such as TimeSent or the message ID, map the appropriate fields of the outboundMessageObject service to pipeline variables.
 - b. If you want to extract trace information, if there is any, from the message header of the reply MessageObject, modify the outbound service to check whether the `SAP:TraceHeader` field of the outboundMessageObject service exists. The `SAP:TraceHeader` field exists only if the SAP PI/PO Server has added trace information to the MessageObject.
 - c. If you want to extract technical error information, if there is any, from the error header of the reply MessageObject, modify the outbound service to check whether the `SAP:ErrorHeader` field of the outboundMessageObject service exists. The `SAP:ErrorHeader` field exists only if a technical error has occurred. You can map the following fields to pipeline variables:

Field	Contents
<code>SAP:Code</code>	Error code that consists of a category and an ID, separated by a period (for example, <code>ROUTING.NO_RECEIVER_CASE_BE</code>). See the SAP PI/PO Server documentation for a complete list of error codes.
<code>SAP:Text</code>	Message text for the error code. See the SAP PI/PO Server documentation for a complete list of messages.

- On the **Permissions** tab for the service, make sure **Enforce Execute ACL** area is set to the **For top-level service only (Recommended)** option.

Associating Receiver Endpoint with Inbound Service

- Start Integration Server Administrator.
- In the **Adapters** menu in Integration Server Administrator's navigation area, click **webMethods Adapter for PI/PO**. The system displays the **Servers** page.
- In the **webMethods Adapter for PI/PO** navigation area, click **Services**. The system displays the **Services** page.
- Click **Associate Receiver Endpoint with Inbound Service (Generate Stub)**. The system displays the **Add Receiver Endpoint Association (Generate Stub)** page.

Field	Description
Receiver Endpoint	
Business System	Select the name of the business system to associate the inbound service with the receiver endpoint.
Interface	Select the name and namespace of the interface to associate the inbound service with the receiver endpoint.
Inbound Service	
Service	Specify the name of the service to execute at the receiver endpoint. Create the inbound service by typing a name that is not in use by any existing service or use an existing inbound service by typing the name of the existing service.
Package	Select the package in which to store the new service or select the package that contains the existing service to execute at the receiver endpoint.

WEBMETHODS Integration Server default: host.docker.internal - Administrator [Try the New Administration Console](#)

webMethods Adapter for PI/PO

PI/PO > Services > Add Receiver Endpoint Association (Generate Stub)

[Return to Services](#)

Receiver Endpoint

Business System: ES_New_SAPMWTI_Receiver_SLD

Interface: Interface_TestAddRecv|http://test.webMethods.com/AddInfo

Inbound Service

Service: Test_XI.services.new_recvAddInfoCreateDes

Package: Default

5. Click **Add**.

- If the **Service** is not in use, the system generates an inbound service stub using the specification it generated from the interface identified in the receiver endpoint, then stores the service in the package you selected.
- If the SLD access is enabled and the Integration Server instance is registered in SAP SLD, the system adds the following objects to the SAP SLD:

- A SAP_XIAdapterService object that represents the inbound service.

Note:

You can use XI Adapter without registering the Integration Server instance in the SAP SLD. For more information, see “[watt.xi.sld.access](#)” on page 78.

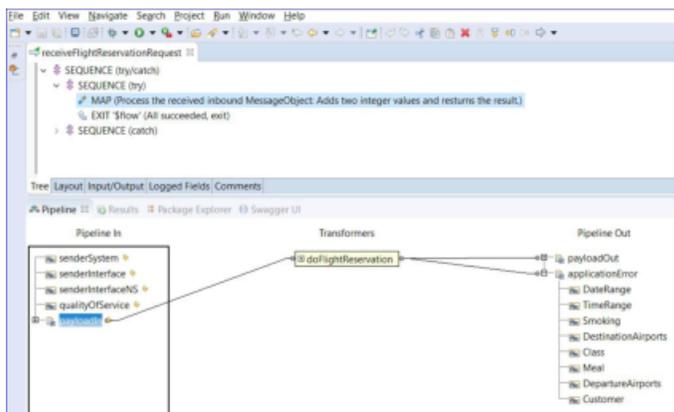
- A SAP_HTTPServicePort object that specifies the URL for XI Adapter's `pub.xi.Router:inboundMessageObject` service. The URL is : `http://Integration_Server_host:Integration_Server_port/invoke/pub.xi.Router/inboundMessageObject`.
- The system displays the **Services** page and adds the **Inbound Service Associations** you just created to the list.

Extending the Inbound Service

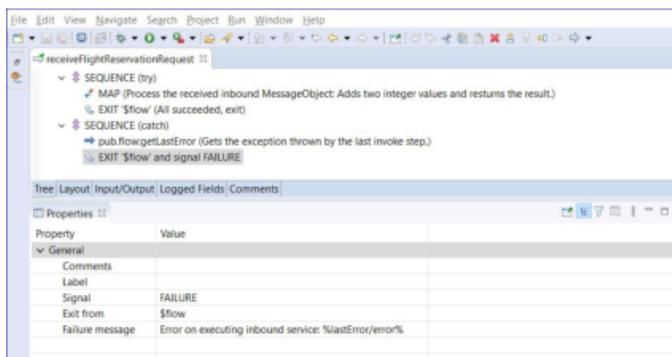
If you generated an inbound service stub, you must extend the stub to make the service interact with your systems.

➤ **To extend the inbound service stub**

1. Open Designer and navigate to the inbound service stub.
2. Modify the flow logic of the inbound service stub to interact with your backend system as appropriate. The inbound service and your backend system must process the task that is defined by the interface that is specified in the receiver endpoint.
3. The next step depends on whether the inbound service you are creating is synchronous or asynchronous.
 - If you are creating a synchronous inbound service, modify the service to add the results data in its *payloadOut* field if the task runs successfully. Modify the service to add application error data in its *applicationError* field if any application errors occur. For example:



- If you are creating an asynchronous inbound service, you can create a separate outbound service that returns any results data to the business partner if the task runs successfully.
4. Modify the inbound service to exit on failure if there is a technical error. For example:



Important:

If you do not modify the service to exit on failure, the message will be lost. The sending business partner will not receive an error message and will erroneously assume that the message was delivered successfully.

5. On the **Permissions** tab for the service, make sure **Enforce Execute ACL** area is set to the **For top-level service only (Recommended)** option.

Viewing Services

> To view Services

1. Start Integration Server Administrator.
2. In the **Adapters** menu in Integration Server Administrator's navigation area, click **webMethods Adapter for PI/PO**. The system displays the **Servers** page.
3. In the **webMethods Adapter for PI/PO** navigation area, click **Services**. The system displays the **Services** page.

The **Services** page lists outbound services you associate with sender endpoints and inbound services you associate with receiver endpoints.

- The **Services** page lists the **Business System, Name** and **Namespace** of the Interface, and depending on whether the service is inbound or outbound displays the fully qualified name of the **Inbound Service** or **Outbound Service** respectively.
- You can sort the table by a particular column by clicking the column's heading.
- You can sort the column in ascending or descending order.
- You can edit a service from the list by clicking  icon in the **Edit** column.
- You remove a service from the list by clicking  icon in the **Delete** column.

Note:

Before you can delete an interface, you must delete all service endpoint associations that specify the interface.

- The page also lists the link to **Associate Receiver Endpoint with Inbound Service (Generate Stub)** and **Associate Sender Endpoint with Outbound Service (Generate Stub)**.

WEBMETHODS
 Integration Server default : host.docker.internal : Administrator

▼ webMethods Adapter for PI/PO

- Servers
- Business Systems
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- Services**
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PI/PO > Services

- [Associate Receiver Endpoint with Inbound Service \(Generate Stub\)](#)
- [Associate Sender Endpoint with Outbound Service \(Generate Stub\)](#)

Inbound Service Associations

Receiver Endpoint		Inbound Service	Edit	Delete
Business System	Interface			
		Name Namespace		
BS_New_SAPMW71_Receiver_SLD	Interface_TestAddRecv	http://test.webMethods.com/AddInts	Test_XI.services.new_recvAddInts	
TestAddIntsReceiver	TestAddIntsReceiverIf	http://test.webMethods.com/AddInts	sample.xi.addInts.receiveAddIntsInput	

Outbound Service Associations

Sender Endpoint		Outbound Service	Edit	Delete
Business System	Interface			
		Name Namespace		
BS_New_SAPMW71_Sender_SLD	Interface_TestAddSend	http://test.webMethods.com/AddInts	Test_XI.services.new_sendAddInts	
TestAddIntsSender	TestAddIntsSenderIf	http://test.webMethods.com/AddInts	sample.xi.addInts.sendAddIntsInput	

9 Messages

■ Viewing Messages	56
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Viewing Messages

You can display a list of all messages you have sent or received.

Start Integration Server Administrator. In the **webMethods Adapter for PI/PO** navigation area, click **Messages**. The system displays the **Messages** page.

The following fields are displayed for each message sent or received:

Field	Description
Date	Specifies the date and time the message is sent or received.
GUID	Unique ID for each message sent or received.
Status	<p>Specifies the status of the message sent or received.</p> <ul style="list-style-type: none"> ■ Received. MessageObject has been received but has not yet been processed. ■ Processed. MessageObject is currently being processed. ■ Committed. MessageObject was successfully processed. An application error might have occurred during processing. ■ Failed. MessageObject could not be processed because a technical error occurred.
Sender	Specifies the names of the sender business systems.
Receiver	Specifies the names of the receiver business systems.
Quality of Service	<p>Specifies whether the sending business partner is sending the MessageObject synchronously or asynchronously. Values for this field are as follows:</p> <ul style="list-style-type: none"> ■ BestEffort. Delivery mode is synchronous. If the receiving business partner does not receive the message (for example, because of a technical error), the sending service does not try to resend. ■ ExactlyOnce. Delivery mode is asynchronous. If the receiving business partner does not receive the message (for example, because of a technical error), the sending service tries to resend. ■ ExactlyOnceInOrder. Delivery mode is asynchronous. The sending service sends the message to a queue you identify so that all messages in the queue will be received by the business partner in the order they are sent. If the business partner does not receive the message (for example, because of a technical error), the sending service tries to resend.
Delete	Click to delete the message.

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Integration Server

default :: host.docker.internal :: Administrator

▼ webMethods Adapter for PI/PO

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PI/PO > Messages

• [Delete All Messages](#)

Message List

Messages 1 - 20 [sorted by GUID ascending] >>

Date	GUID	Status	Sender	Receiver	Quality of Service	Delete
28/4/21 11:23 AM	01bde171-a7e6-11eb-ba3f-d428c0a8009d	Outbound	BS_New_SAPMW71_Sender_SLD		Best Effort	✘
10/9/19 3:07 AM	05007170-0344-11E9-A49D-E2CAC0A68219	Committed	TestAddIntsSender	TestAddIntsReceiver	Best Effort	✘
4/5/21 3:19 PM	05c28550-acbe-11eb-8885-c1b4c0a8009d	Outbound	BS_New_Sender_SLD		Best Effort	✘
13/1/16 8:06 PM	0F57AAE0-BA03-11E5-84F1-F5AA0A14F840	Outbound	TestAddIntsSender		Best Effort	✘
28/4/21 11:23 AM	0ff51a10-a7e6-11eb-aa87-d428c0a8009d	Sent	TestAddIntsSender		Best Effort	✘
26/4/21 5:59 PM	17b9ca50-a68b-11eb-cbbbcc-89c0a8009d	Outbound	TestAddIntsSender		Best Effort	✘
14/5/20 11:01 AM	25bd3b0-95a4-11ea-b489-e8a90a156d1f	Outbound	TestAddIntsSender		Best Effort	✘
15/2/21 6:04 PM	27ce2ed0-df8a-11eb-c44d-df87c0a8b316	Outbound	TestAddIntsSender		Best Effort	✘
13/1/16 8:07 PM	2B04C7F0-8A03-11E5-8869-F5AA0A14F840	Outbound	TestAddIntsSender		Best Effort	✘
14/5/20 11:16 AM	30c9b850-95a6-11ea-aea7-e8a90a156d1f	Sent	TestAddIntsSender		Best Effort	✘
14/5/20 11:16 AM	3154E820-95A6-11EA-C111-E8A90A15FD1F	Committed	TestAddIntsSender	TestAddIntsReceiver	Best Effort	✘
10/9/19 11:25 PM	367F8AC0-03F4-11E9-87E9-D575C0A68219	Outbound	TestAddIntsSender		Best Effort	✘
14/5/20 11:23 AM	3cb567a0-95a7-11ea-92ce-e8a90a156d1f	Outbound	TestAddIntsSender		Best Effort	✘
15/2/21 6:19 PM	3f0be1e0-df8c-11eb-a65d-df87c0a8b316	Sent	TestAddIntsSender		Best Effort	✘
15/2/21 6:19 PM	3f842a60-df8c-11eb-92c2-df87c0a8b316	Committed	TestAddIntsSender	TestAddIntsReceiver	Best Effort	✘
28/4/21 11:03 AM	45a33230-a7e7-11eb-9c5d-cfcd0a8009d	Outbound	TestAddIntsSender		Best Effort	✘
14/5/20 11:30 AM	48502c0-95a8-11ea-8fb6-e8a90a156d1f	Outbound	TestAddIntsSender		Best Effort	✘
13/1/16 8:58 PM	4C65FDE0-8A0A-11E5-8508-F5AA0A14F840	Outbound	TestAddIntsSender		Best Effort	✘
28/4/21 11:32 AM	4c9b8c90-a7e7-11eb-cf45-d428c0a8009d	Sent	TestAddIntsSender		Best Effort	✘
28/4/21 11:32 AM	4d732490-a7e7-11eb-8ab0-d428c0a8009d	Committed	TestAddIntsSender	TestAddIntsReceiver	Best Effort	✘

- You can sort the table by a particular column by clicking the column's heading.
- You can sort the column in ascending or descending order.
- You can select  and  icon to view the previous and next list of messages respectively.
- You can delete a message by clicking ✘ icon.
- You can delete all messages by clicking **Delete All Messages**.

10 Environment

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Overview

SAP SLD or SAP System Landscape Directory is the central component used to register and hold information about the systems in the SAP landscape. Metadata of systems in the landscape and their software components are stored in SAP SLD. For more information, see the SAP PI/PO Server documentation.

When you register Integration Server instance in the SAP SLD, the SAP_XIAdapterEngine object represents the Integration Server instance. When you create a service-endpoint association, XI Adapter creates a corresponding SAP_XIAdapterService object in the SAP SLD. XI Adapter associates the SAP_XIAdapterService object with the SAP_XIAdapterEngine object. Before you can unregister Integration Server instance in the SAP SLD, you must delete all service-endpoint associations so XI Adapter will delete the corresponding SAP_XIAdapterService objects in the SAP SLD.

Note:

- You can use XI Adapter without registering the Integration Server instance in the SAP SLD. For more information, see “ [watt.xi.sld.access](#)” on page 78.
- You can use XI Adapter to register one Integration Server instance in one SAP SLD only.

Registering your Integration Server Instance in SAP SLD

➤ To register your Integration Server instance in the SAP SLD.

1. Start Integration Server Administrator.
2. In the **Adapters** menu in Integration Server Administrator's navigation area, click **webMethods Adapter for PI/PO**. The system displays the **Servers** page.
3. In the **webMethods Adapter for PI/PO** navigation area, click **Environment**. The system displays the **Environment** page.
 - If SLD access is disabled, an appropriate message is displayed.
 - If SLD access is enabled and Integration Server instance is registered in the SAP SLD, then the details of Integration Server instance registered in the SAP SLD is displayed. You must delete the existing Integration Server instance registered in the SAP SLD before registering a new Integration Server instance.
 - If SLD access is enabled and the Integration Server instance is not registered in the SAP SLD, the link to **Add SLD Server** is displayed.
4. Click **Add SLD Server**. The system displays the **Add SLD Server** page.

Field	Description
Adapter Engine	Specifies the name of the Integration Server instance registered in the SAP SLD. This field is automatically generated and cannot be edited.
Host name	Specify the name of the device that hosts the SAP SLD).
Port	Specify the port used by the SAP SLD.
Type	Specify the type of authentication to connect to the SAP SLD. Possible values are: <ul style="list-style-type: none"> None. Default. SAP SLD uses no authentication. Basic. SAP SLD uses http authentication.
User name	Specify the name used to log in to the SAP SLD.
Password	Specify the password used to log in to the SAP SLD. If you need to change the password later, you can click Change password and provide the new password.

The screenshot shows the 'Add SLD Server' configuration page in the WebMethods Integration Server. The page is titled 'PI/PO > Environment > Add SLD Server'. A navigation menu on the left includes 'Servers', 'Business Systems', 'Message Types', 'Interfaces', 'Services', 'Messages', 'Environment' (selected), 'Settings', and 'About'. The main content area has a breadcrumb 'PI/PO > Environment > Add SLD Server' and a link 'Return to XI Environment'. The configuration fields are as follows:

- Adapter Engine:** Name: weM_ART@SAG-0H79N13.5555
- SLD Server:** Host name: [text input], Port: 50000
- Authentication Type:** Type: Basic
- Login Parameters:** User name: [text input], Password: [text input]

At the bottom, there are 'Add' and 'Cancel' buttons.

- Click **Add**. The system returns to the **Environment** page and lists the name assigned to the Integration Server and the SAP SLD information you added.
- In the **Registered** column, click **No**.

- The system adds an SAP_XIAdapterEngine object that represents the Integration Server instance in the SAP SLD and then changes the word **No** to **Yes**.
- The system also adds associated objects in the SAP SLD that enables the SAP Runtime Workbench to perform runtime checks against the Integration Server instance.

Unregistering your Integration Server Instance in SAP SLD

When you create a service-endpoint association, XI Adapter creates a corresponding SAP_XIAdapterService object in the SAP SLD. XI Adapter associates the object with the SAP_XIAdapterEngine object that represents the Integration Server instance. Before you can unregister the Integration Server instance in the SAP SLD, you must delete all service-endpoint associations, so XI Adapter will delete the corresponding SAP_XIAdapterService objects in the SAP SLD. For more information, see [“Associating Sender Endpoint with Outbound Service” on page 46](#) and [“Associating Receiver Endpoint with Inbound Service” on page 50](#).

➤ **To unregister your Integration Server instance in the SAP SLD.**

1. In the **Adapters** menu in Integration Server Administrator's navigation area, click **webMethods Adapter for PI/PO**. The system displays the **Servers** page.
2. In the **webMethods Adapter for PI/PO** navigation area, click **Environment**. The system displays the **Environment** page.

The screenshot shows the 'WEBMETHODS Integration Server' interface. The left navigation pane is expanded to 'webMethods Adapter for PI/PO', with 'Environment' selected. The main content area shows 'PI/PO > Environment' and a table titled 'SLD Configuration'.

SLD Configuration						
Adapter Engine Name	Host Name	Port	Auth. Type	Registered	Edit	Delete
webM_ART@SAG-DH75N13:5555	vmnxsappo750	50000	Basic	No		

3. In the **Registered** column, click **Yes**.

The system deletes the following:

- The system deletes the SAP_XIAdapterEngine object that represents the Integration Server instance in the SAP SLD and then changes the word **No** to **Yes**.
- The system deletes the associated objects in the SAP SLD that enabled the SAP Runtime Workbench to perform runtime checks against the Integration Server instance.

Viewing Your Integration Server Instance Registered in SAP SLD

To view the Integration Server instance registered in SAP SLD.

1. Start Integration Server Administrator.
2. In the **Adapters** menu in Integration Server Administrator's navigation area, click **webMethods Adapter for PI/PO**. The system displays the **Servers** page.
3. In the **webMethods Adapter for PI/PO** navigation area, click **Environment**. The system displays the **Environment** page.
 - If SLD access is disabled, an appropriate message is displayed.
 - If SLD access is enabled and Integration Server instance is registered in the SAP SLD, then the following fields are displayed:
 - The **Environment** page lists the **Adapter Engine Name, Host name, Port, Type** and **Registered** for the Integration Server instance added in the SAP SLD.
 - You can register the Integration Server instance in the SAP SLD by clicking **No** in the **Registered** column.
 - You can unregister the Integration Server instance in the SAP SLD by clicking **Yes** in the **Registered** column.
 - You can edit the Integration Server instance added in the SAP SLD by clicking  icon in the **Edit** column.
 - You remove the Integration Server instance added in the SAP SLD by clicking  icon in the **Delete** column.

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Integration Server default :: host.docker.internal :: Administrator

▼ **webMethods Adapter for PI/PO**

- Servers
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- Settings
- About

PI/PO > Environment

SLD Configuration

Adapter Engine Name	Host Name	Port	Auth. Type	Registered	Edit	Delete
webM_ART@SAG-DH75N13:5555	vmnxsappo750	50000	Basic	No		

- If SLD access is enabled and the Integration Server instance is not registered in the SAP SLD, the link to **Add SLD Server** is displayed.

WEBMETHODS
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▼ **webMethods Adapter for PI/PO**

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PI/PO > Environment

- [Add SLD Server](#)

11 Settings

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Editing Settings

> To edit XI Adapter settings

1. Start Integration Server Administrator.
2. In the **Adapters** menu in Integration Server Administrator's navigation area, click **webMethods Adapter for PI/PO**. The system displays the **Servers** page.
3. In the **webMethods Adapter for PI/PO** navigation area, click **Settings**. The system displays the **Settings** page.
4. In **Settings** page click on **Change Settings**. The system displays the **Edit** page.

Fields	Description
Messages	
Maximum resend attempts	Specify the maximum number of times you want XI Adapter to resend an outbound, asynchronous MessageObject to a business partner when technical errors occur in the PI/PO environment or in the business partner's system during the first attempt to send.
Resend interval (seconds)	Specify the number of seconds you want XI Adapter to wait between the attempts to resend the outbound, asynchronous MessageObject when technical errors occur in the PI/PO environment or in the business partner's system during the first attempt to send.
Validate incoming messages	<p>Specify if inbound MessageObjects must be validated. Possible values are:</p> <ul style="list-style-type: none"> ■ On. ■ Off. Default. <p>Each MessageObject is enclosed in a SOAP message. You can specify that you want to validate the MessageObjects your XI Adapter receives against a Document Type that defines the SOAP document structure. To see the fields in the Document Type, see the SOAPHeader Document Type in the <code>wm.xi.interfaces.records</code> folder in XI Adapter package.</p> <p>Typically, you would only use validation to test and debug your environment. For example:</p> <ul style="list-style-type: none"> ■ When new adapters have been added to your Integration Server or the environment of one or more of your business partners and you want to catch any errors.

Fields	Description
	<ul style="list-style-type: none"> ■ When you are running low-level tests using XI Adapter and XI Adapter http service. ■ When you are running XI Adapter in a test environment.

Logging

Level of Logging Specify the level of logging. Possible values are:

- **0 (C-Critical)**
- **1 (E-Error)**
- **2 (W-Warning)**
- **3 (I-Information)**
- **4 (D-Debug) [Default].**
- **5 (V1-Verbose1)**
- **6 (V2-Verbose2)**
- **7 (V3-Verbose3)**
- **8 (V4-Verbose4)**
- **9 (V5-Verbose5)**
- **10 (V6-Verbose6)**

You can choose any one level of logging.

Logging level V1-V6 is used to produce detailed debug and trace level logs. The higher log level will produce the higher number of logs. This must be used to understand and identify the issues only.

Facilities

Specifies the facilities that can be logged including ADK issues, connections, services, SAP and other runtime issues. Possible values are:

- **0000 General Debugging**
- **0001 ADK**
- **0002 Connection**
- **0003 XI Services**
- **0004 Admin Services.**
- **0005 Router and Transaction Manager**

Fields	Description
	<ul style="list-style-type: none"> ■ 0006 SAP XML Coder ■ 0007 SAP XML Message Format ■ 0008 System Landscape Directory ■ 0009 Runtime Checks ■ 0010 Sample services
	You can select multiple facilities to log.

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Integration Server
default :: host.docker.internal :: Administrator

PI/PO > Settings > Edit

• [Return to Settings](#)

Messages

Maximum resend attempts	<input type="text" value="10"/>
Resend interval (seconds)	<input type="text" value="30"/>
Validate incoming messages	<input type="radio"/> On <input checked="" type="radio"/> Off

Logging

Level of Logging	<input type="text" value="10 (V6-Verbose6)"/>
Facilities	<p>Select All Unselect All</p> <ul style="list-style-type: none"> 0000 General Debugging 0001 ADK 0002 Connection 0003 XI services 0004 Admin services 0005 Router and Transaction Manager 0006 SAP XML Coder 0007 SAP XML Message Format 0008 System Landscape Directory <p>(Highlighted entries will be logged)</p>

5. Update the settings and click **Save** to save the changes.

The system displays the **Settings** page.

Viewing Settings

To view settings

1. Start Integration Server Administrator.
2. In the **Adapters** menu in Integration Server Administrator's navigation area, click **webMethods Adapter for PI/PO**. The system displays the **Servers** page.
3. In the **webMethods Adapter for PI/PO** navigation area, click **Settings**. The system displays the **Settings** page. For description of each field, see the table of fields in “[Editing Settings](#)” on page 66.

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webMethods Adapter for PI/PO

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PI/PO > Settings

- [Change Settings](#)

Messages	
Maximum resend attempts	10
Resend interval (seconds)	30
Validate incoming messages	Off

Logging	
Level of Logging	10
Facilities	0000 General Debugging 0001 ADK 0002 Connection 0003 XI services 0004 Admin services 0005 Router and Transaction Manager 0006 SAP XML Coder 0007 SAP XML Message Format 0008 System Landscape Directory (Highlighted entries will be logged)

A Built-In Services

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Overview

The table below briefly describes the public services in XI Adapter. The sections that follow describe each service in detail.

Service	Function
pub.xi.Router:outboundMessageObject	Receives data from an outbound service on a webMethods adapter, creates a MessageObject from the data, and sends the MessageObject to one or more business partners through an SAP PI/PO Server. Can return synchronous results from the business partners.
pub.xi.Router:inboundMessageObject	Receives a MessageObject from a business partner through an SAP PI/PO Server and passes the MessageObject's sender endpoint, quality of service, and payload to an inbound service on a webMethods adapter. Can return synchronous results to the business partner.
pub.xi.Client:http	Sends a MessageObject directly to an SAP PI/PO Server without using the pub.xi.Router:outboundMessageObject service. Used for testing and debugging.

XI Adapter also comes with sample services that show you how to use the public services.

pub.xi.Router:outboundMessageObject

The `outboundMessageObject` service `pub.xi.Router:outboundMessageObject`, receives data from an outbound service on a webMethods adapter, creates a MessageObject from the data, and sends the MessageObject to one or more business partners through an SAP PI/PO Server. If you send the MessageObject synchronously, the service can also return results from the business partners.

Input Parameters

Name	Description
<i>payload</i>	Document Type that contains the data from the outbound service.
<i>serviceName</i>	Optional. String that contains the fully qualified name of the outbound service (for example, <code>sample.xi.AddInts:sendAddIntsInput</code>). Use this field if you want to step through or trace the outbound service.

Name	Description
<i>messageID</i>	<p data-bbox="862 258 1474 428">Optional. String that contains the message ID you want to use. Use this field if you want to override the GUID that the <code>outboundMessageService</code> automatically creates for the outbound <code>MessageObject</code>.</p> <p data-bbox="862 457 1474 627">The message ID must be a GUID and must conform to ISO Standard 11578. In addition, the message ID must be in the following format, where x is a number from 0 through 9 or letter from a through f:</p> <pre data-bbox="862 667 1214 730"> XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX (8) (4) (4) (4) (12) </pre> <p data-bbox="862 770 1029 802">For example:</p> <p data-bbox="862 831 1360 863">40c693b4-e592-11d6-90c1-f9060a125f3a</p> <p data-bbox="862 892 1474 953">The message ID must be globally unique or the SAP PI/PO Server will ignore the <code>MessageObject</code>.</p>
<i>queueID</i>	<p data-bbox="862 982 1474 1119">Optional. String that identifies the queue to which to send the outbound <code>MessageObject</code>. Use this field if you call the <code>outboundMessageObject</code> service from an asynchronous outbound service.</p> <p data-bbox="862 1148 1474 1352">If you specify this field, XI Adapter automatically sets the <i>qualityOfService</i> field in the outbound <code>MessageObject</code>'s message header to <code>ExactlyOnceInOrder</code>. For more information about <code>ExactlyOnceInOrder</code>, see “Viewing Messages” on page 56.</p>
<i>traceLevel</i>	<p data-bbox="862 1381 1474 1551">Optional. String that specifies whether you want XI Adapter and the SAP PI/PO Server to store trace information in the reply <code>MessageObject</code>. The string also indicates how much trace information to store. Values are as follows:</p> <ul data-bbox="862 1581 1417 1787" style="list-style-type: none"> <li data-bbox="862 1581 1336 1612">■ 0. Do not store trace information. <li data-bbox="862 1642 1360 1673">■ 1. Store minimal trace information. <li data-bbox="862 1703 1417 1734">■ 2. Store intermediate trace information. <li data-bbox="862 1764 1284 1795">■ 3. Store all trace information. <p data-bbox="862 1824 1146 1856">The default value is 0.</p>

Output Parameters

Name	Description
<i>SAP:MessageHeader</i>	<p>Document Type that contains the message header of the reply MessageObject. The Document Type contains the sender endpoint, the receiver endpoint, and the quality of service value, among other fields, from the reply MessageObject's message header. If an application error occurred on the business partner's system when the outboundMessageObject service tried to send the MessageObject, the message header also contains information about that error.</p> <p>To see the fields in the <i>SAP:MessageHeader</i> Document Type, see the <code>wm.xi.interfaces.records</code> folder in XI Adapter package.</p>
<i>SAP:ErrorHeader</i>	<p>Optional. Document Type that contains a description of the technical error if a technical error occurred in the SAP PI/PO environment or on the business partner's system when the outboundMessageObject service tried to send the MessageObject. The Document Type contains the following fields:</p> <ul style="list-style-type: none"> ■ <i>SAP:Code</i>. Error code that consists of a category and an ID, separated by a period (For example, <code>ROUTING.NO_RECEIVER_CASE_BE</code>). See the SAP PI/PO Server documentation for a complete list of error codes. ■ <i>SAP:Text</i>. Error message text. See the SAP PI/PO Server documentation for a complete list of messages.
<i>SAP:TraceHeader</i>	<p>Optional. String that contains the trace information, if you set the traceLevel input field to store trace information.</p>
<i>payload</i>	<p>Optional. Document Type that contains a payload containing results from the business partner, if you sent the MessageObject synchronously.</p>

pub.xi.Router:inboundMessageObject

The `pub.xi.Router:inboundMessageObject` service receives a MessageObject from a business partner through an SAP PI/PO Server and passes the receiver endpoint, quality-of-service value, and payload to the inbound service that is associated with the corresponding receiver endpoint. If the business partner sends the MessageObject synchronously, the service can also return results to the business partner.

This service is mostly used internally. However you can call it if you are testing or debugging your integration environment and you want to access XI Adapter directly instead of accessing through an SAP PI/PO Server.

Input Parameters

Name	Description
<i>SAP:MessageHeader</i>	Document Type that contains the sender endpoint, the receiver endpoint, and the quality of service value, among other fields, from the inbound MessageObject's message header. For more information on the fields in the <i>SAP:MessageHeader</i> field, see the <code>wm.xi.interfaces.records</code> folder in XI Adapter package.
<i>SAP:TraceHeader</i>	Optional. Document Type that contains the trace information, if the business partner set the <i>traceLevel</i> field in the inbound MessageObject's message header.
<i>payloadIn</i>	Document Type that contains the payload from the inbound MessageObject.

Output Parameters

Name	Description
<i>SAP:TraceHeader</i>	Optional. Document Type that contains all trace information from the input field and any trace information added by the inboundMessageObject service, if you used the <i>SAP:TraceHeader</i> input field.
<i>applicationError</i>	Optional. Document Type that contains a description of the application error, if the business partner sent the MessageObject synchronously and an application error occurred when your backend system tried to process the task.
<i>payloadOut</i>	Optional. Document Type that contains a payload containing results from your backend system, if the business partner sent the MessageObject synchronously.

pub.xi.Client:http

The `pub.xi.Client:http` service sends a MessageObject directly to an SAP PI/PO Server without using the `pub.xi.Router:outboundMessageObject` service.

Typically, you would only call this service if you are testing or debugging your integration environment and:

- You want to make sure the SAP PI/PO Server can process the MessageObject.
- You experienced problems with the MessageObject and want to find the root cause of the problems.

Input Parameters

Name	Description
<i>url</i>	String that contains the URL of the SAP PI/PO Server to which you want to send the outbound MessageObject.
<i>auth</i>	<p>Optional. Document Type that contains authorization information, the service submits if the SAP PI/PO Server specified in the <i>url</i> field is protected.</p> <ul style="list-style-type: none"> ■ type. Type of authentication the service uses when it submits this request. Currently, only basic authentication is supported. If you are accessing a protected resource, set type to Basic. ■ user. User name the service uses to log in to the SAP PI/PO Server. ■ pass. Password the service uses to log in to the SAP PI/PO Server.
<i>SAP:MessageHeader</i>	<p>Document Type that contains the message header of the outbound MessageObject.</p> <p>The Document Type must comply with the syntax and semantics of the SAP XML Message Format as described in the <i>SAP XML Message Format</i> white paper.</p>
<i>payload</i>	Document Type that contains the payload of the outbound MessageObject.

Output Parameters

Name	Description
<i>SAP:MessageHeader</i>	Document Type that contains the message header of the reply MessageObject. The message header might be different than it was for the outbound MessageObject.
<i>SAP:ErrorHeader</i>	<p>Optional. Document Type that contains a description of the technical error, if a technical error occurred. The Document Type contains these fields:</p> <ul style="list-style-type: none"> ■ <i>SAP:Code</i>. Error code that consists of a category and an ID, separated by a period (for example, ROUTING.NO_RECEIVER_CASE_BE) See the SAP PI/PO Server documentation for a complete list of error codes. ■ <i>SAP:Text</i>. Error message text. See the SAP PI/PO Server documentation for a complete list of messages.
<i>payload</i>	Optional. Document Type that contains the results from the business partner, if you sent the outbound MessageObject synchronously.

B Configuration Parameters

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watt.xi.protocol.3

Configures XI Adapter to use XI 3.0 protocol for each outgoing message when communicating with SAP PI/PO single-stack servers of version 7.4 and higher. Default value is `false`.

Note:

The compatibility with SAP PI/PO server of release 7.5 and higher requires the installation of XI Adapter 4.6 latest fix.

You can configure the following properties in the SAP PI/PO server:

- Set receiver communication channel to HTTP.
- Set message protocol to XI 3.0

You can configure the following property on the **Extended Settings** screen (**Settings > Extended**) in Integration Server Administrator:

```
watt.xi.protocol.3=true
```

Restart Integration Server.

watt.xi.sld.access

Enables XI Adapter to register Integration Server instance in the SAP System Landscape Directory(SLD). XI Adapter also registers all changes to the business systems and service endpoint associations with the SAP System Landscape Directory(SLD).

Possible values are:

- `on`. Default.
- `off`. Disables XI Adapter from registering the Integration Server instance and XI Adapter artifacts with the SAP System Landscape Directory(SLD). This does not affect the runtime operations of the adapter.

You can configure the following property on the **Extended Settings** screen (**Settings > Extended**) in Integration Server Administrator:

```
watt.xi.sld.access=off
```

Restart Integration Server.

watt.xi.htmlEncode

Enables the encoding of the special characters in the payload document before sending out. The special characters are encoded as follows:

- `'>` as `">"`
- `'<` as `"<"`

- '&' as "&"
- "" as ""

Possible values are:

- true.
- false. Default.

Note:

- This property is equivalent to the *encode* input field in the public service `pub.xml:documentToXMLString`.
- The setting of the global property `watt.xi.htmlEncode` can be overwritten for specific documents by setting the individual runtime field *htmlEncode* for the following public services: `pub.xi.Client:http` and `pub.xi.Router:outboundMessageObject`. This runtime input field setting is equivalent to the configuration parameter and will override the parameter during the execution of the public service.

Restart Integration Server.

