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Preface

This document explains how to use the iWay Application Adapter for Microsoft Exchange.

Note: This Release 7.0.x content is currently being updated to support iWay Release 8.0.x software. In the meantime, it can serve as a reference for your use of iWay Release 8. If you have any questions, please contact Customer_Success@ibi.com.

How This Manual Is Organized

This manual includes the following chapters:

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<th>Chapter/Appendix</th>
<th>Contents</th>
</tr>
</thead>
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<td>Configuring the Adapter in an iWay Environment</td>
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Documentation Conventions

The following table describes the documentation conventions that are used in this manual.
<table>
<thead>
<tr>
<th>Convention</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>THIS TYPEFACE or this typeface</td>
<td>Denotes syntax that you must enter exactly as shown.</td>
</tr>
<tr>
<td><em>this typeface</em></td>
<td>Represents a placeholder (or variable), a cross-reference, or an important term. It may also indicate a button, menu item, or dialog box option that you can click or select.</td>
</tr>
<tr>
<td>underscore</td>
<td>Indicates a default setting.</td>
</tr>
<tr>
<td>Key + Key</td>
<td>Indicates keys that you must press simultaneously.</td>
</tr>
<tr>
<td>{ }</td>
<td>Indicates two or three choices. Type one of them, not the braces.</td>
</tr>
<tr>
<td></td>
<td>Separates mutually exclusive choices in syntax. Type one of them, not the symbol.</td>
</tr>
<tr>
<td>...</td>
<td>Indicates that you can enter a parameter multiple times. Type only the parameter, not the ellipsis (...).</td>
</tr>
<tr>
<td>. . .</td>
<td>Indicates that there are (or could be) intervening or additional commands.</td>
</tr>
</tbody>
</table>

**Related Publications**

Visit our Technical Documentation Library at [http://documentation.informationbuilders.com](http://documentation.informationbuilders.com). You can also contact the Publications Order Department at (800) 969-4636.

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You can also access support services electronically, 24 hours a day, with InfoResponse Online. InfoResponse Online is accessible through our website, http://www.informationbuilders.com. It connects you to the tracking system and known-problem database at the Information Builders support center. Registered users can open, update, and view the status of cases in the tracking system and read descriptions of reported software issues. New users can register immediately for this service. The technical support section of http://www.informationbuilders.com also provides usage techniques, diagnostic tips, and answers to frequently asked questions.

Call Information Builders Customer Support Services (CSS) at (800) 736-6130 or (212) 736-6130. Customer Support Consultants are available Monday through Friday between 8:00 a.m. and 8:00 p.m. EST to address all your questions. Information Builders consultants can also give you general guidance regarding product capabilities and documentation. Please be ready to provide your six-digit site code number (xxxx.xx) when you call.

To learn about the full range of available support services, ask your Information Builders representative about InfoResponse Online, or call (800) 969-INFO.

**Help Us to Serve You Better**

To help our consultants answer your questions effectively, be prepared to provide specifications and sample files and to answer questions about errors and problems.

The following tables list the environment information our consultants require.

<table>
<thead>
<tr>
<th>Platform</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System</td>
<td></td>
</tr>
<tr>
<td>OS Version</td>
<td></td>
</tr>
<tr>
<td>JVM Vendor</td>
<td></td>
</tr>
<tr>
<td>JVM Version</td>
<td></td>
</tr>
</tbody>
</table>

The following table lists the deployment information our consultants require.

<table>
<thead>
<tr>
<th>Adapter Deployment</th>
<th>For example, JCA, Business Services Provider, iWay Service Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container</td>
<td>For example, WebSphere</td>
</tr>
<tr>
<td>Version</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>---</td>
</tr>
<tr>
<td><strong>Enterprise Information System (EIS) - if any</strong></td>
<td></td>
</tr>
<tr>
<td>EIS Release Level</td>
<td></td>
</tr>
<tr>
<td>EIS Service Pack</td>
<td></td>
</tr>
<tr>
<td>EIS Platform</td>
<td></td>
</tr>
</tbody>
</table>

The following table lists iWay-related information needed by our consultants.

| iWay Adapter |  |
| iWay Release Level |  |
| iWay Patch |  |

The following table lists additional questions to help us serve you better.

<table>
<thead>
<tr>
<th>Request/Question</th>
<th>Error/Problem Details or Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did the problem arise through a service or event?</td>
<td></td>
</tr>
<tr>
<td>Provide usage scenarios or summarize the application that produces the problem.</td>
<td></td>
</tr>
<tr>
<td>When did the problem start?</td>
<td></td>
</tr>
<tr>
<td>Can you reproduce this problem consistently?</td>
<td></td>
</tr>
<tr>
<td>Describe the problem.</td>
<td></td>
</tr>
<tr>
<td>Describe the steps to reproduce the problem.</td>
<td></td>
</tr>
<tr>
<td>Specify the error message(s).</td>
<td></td>
</tr>
<tr>
<td>Request/Question</td>
<td>Error/Problem Details or Information</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>Any change in the application environment: software configuration, EIS/database configuration, application, and so forth?</td>
<td></td>
</tr>
<tr>
<td>Under what circumstance does the problem not occur?</td>
<td></td>
</tr>
</tbody>
</table>

The following is a list of error/problem files that might be applicable.

- Input documents (XML instance, XML schema, non-XML documents)
- Transformation files
- Error screen shots
- Error output files
- Trace files
- Service Manager package to reproduce problem
- Custom functions and agents in use
- Diagnostic Zip
- Transaction log

For information on tracing, see the *iWay Service Manager User’s Guide*.

### User Feedback

In an effort to produce effective documentation, the Technical Content Management staff welcomes your opinions regarding this document. Please use the Reader Comments form at the end of this document to communicate your feedback to us or to suggest changes that will support improvements to our documentation. You can also contact us through our website, [http://documentation.informationbuilders.com/connections.asp](http://documentation.informationbuilders.com/connections.asp).

Thank you, in advance, for your comments.
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Introducing the iWay Application Adapter for Microsoft Exchange

The iWay Application Adapter for Microsoft Exchange integrates email contacts and calendar functions. The adapter also supports attachments with email messages.

This section provides an overview of the iWay Application Adapter for Microsoft Exchange and summarizes how to use it to integrate Microsoft Exchange systems with other applications.

In this chapter:

- iWay Application Adapter for Microsoft Exchange
- About Microsoft Exchange Server
- Features of the iWay Application Adapter for Microsoft Exchange
- Microsoft Exchange Server Versions and Exchange Web Services API Files
- Application Adapter for Microsoft Exchange Component Information

iWay Application Adapter for Microsoft Exchange

The iWay Application Adapter for Microsoft Exchange uses Microsoft Exchange web services to interact with mailboxes for Microsoft Exchange Server 2007 and 2010.

The adapter can monitor email accounts from different platforms, select inbound messages, send and receive messages and attachments, and filter or custom process email based on content using contextual pattern matching of the subject. In addition, the iWay Application Adapter for Microsoft Exchange supports calendar functions, such as creating appointments.

The adapter works with the following object types from Microsoft Exchange Server:

- Calendar
- Contacts
- Inbox

The adapter supports the following service-based functions:

**Calendar Functions**

- CreateAppointment
In addition, the iWay Application Adapter for Microsoft Exchange supports the NewMessage event-based function. This function detects and processes email messages for a configured inbox.

The adapter provides support for both pre-processing and post-processing of both message bodies and attachments. The following graphic displays a typical scenario for using the iWay Application Adapter for Microsoft Exchange.
The iWay Application Adapter for Microsoft Exchange, in conjunction with the iWay Adapter Framework, receives information in the form of an XML document, and processes these documents. Actions (processes) are performed against the Microsoft Exchange Server based on the content of the SOAP document, which is also known as a request.

The adapter maps requests to their individual Microsoft Exchange web services and calls them. This allows end users to concentrate on business logic and high-level details of messages and events through the passing and receiving of XML documents without having to learn the programmatic languages and APIs necessary to communicate with a Microsoft Exchange Server.

About Microsoft Exchange Server

Microsoft Exchange Server enables you to send and receive email and other forms of interactive communication through computer networks. Designed to operate with an email client application, such as Microsoft Outlook, Exchange Server also operates with other email client applications.

Features of the iWay Application Adapter for Microsoft Exchange

The iWay Application Adapter for Microsoft Exchange provides a means to exchange real-time business data between messaging systems and other application, database, or external business partner systems. The adapter supports inbound and outbound integration operations, using services and events.

- **Services:** Applications use this capability to initiate a business event.
- **Events:** Applications use this capability to access data only when a business event occurs.

The iWay Application Adapter for Microsoft Exchange:

- Supports bidirectional operations between the adapter and the Exchange Server.
- Includes the iWay Application Explorer (iAE), a GUI tool that explores metadata and builds XML schemas or web services.
- Enables the transfer of data to and from a mail server, including email and calendar functions.
Adapter Services

The iWay Application Adapter for Microsoft Exchange exposes the services that are listed and described in the following table:

<table>
<thead>
<tr>
<th>Service</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FindMessages</td>
<td>Retrieves a list of messages from the Inbox of the user defined by the adapter target. Only the folder specified is searched. If no folder name is provided, the search is done in the Inbox root folder. Messages that contain the specified string in the subject or body of the message are returned. The service returns the ID of the messages, their subject, and so on. To retrieve the contents of the message body, you must use the GetMessage service.</td>
</tr>
<tr>
<td>GetMessage</td>
<td>Retrieves the body of a message with a given ID. Also returns a list of attachments associated with the message, if there are any. Only the names and IDs of attachments are returned. To retrieve the full contents of an attachment, you must use the GetAttachment service.</td>
</tr>
<tr>
<td>GetAttachment</td>
<td>Retrieve the contents of an attachment with a given ID. Since attachments are stored as binary objects, this service returns them as a Base64 encoded string.</td>
</tr>
<tr>
<td>ListFolders</td>
<td>Returns a list of the folder names defined under the Inbox folder.</td>
</tr>
<tr>
<td>FindContacts</td>
<td>Returns a list of contacts that match a given company name or display name.</td>
</tr>
<tr>
<td>FindAppointments</td>
<td>Returns a list of appointments from the users calendar that starts within a specified time range. The times must be specified in the format yyyy-MM-ddThh:mm:ssZ.</td>
</tr>
</tbody>
</table>

Microsoft Exchange Server Versions and Exchange Web Services API Files

iWay Application Adapter for Microsoft Exchange supports the following versions:

- Microsoft Exchange Server 2007 SP1 and SP2
- Microsoft Exchange Server 2010 SP1
- Exchange Web Services (EWS) API Version 1.1.5
To work with Microsoft Exchange Server 2010 SP1, the following files must be added to <ism_home>\lib directory:

- EWSAPI-1.1.5.jar
- jcifs-1.3.17.jar

You can download EWS API Version 1.1.5 from the following website:

http://archive.msdn.microsoft.com/ewsjavaapi

Perform the following steps:

1. Extract the downloaded .zip archive and copy the EWSAPI-1.1.5.jar file to the following directory:
   <iWayHome>\lib

2. Download the latest version of JCIFS from the following website:
   http://jcifs.samba.org/

3. Extract the downloaded .zip archive and copy the jcifs-1.3.17.jar file to the following directory:
   <iWayHome>\lib

Application Adapter for Microsoft Exchange

Component Information

The iWay Application Adapter for Microsoft Exchange works with the following components:

- iWay Service Manager
- iWay Explorer
- iWay Business Services Provider (iBSP)

iWay Service Manager

iWay Service Manager is the heart of the Universal Adapter Framework and is an open transport service bus. Service Manager uses graphical tools to create sophisticated integration services without the need for custom integration code by:

- Creating metadata from target applications.
- Transforming and mapping interfaces.
- Managing stateless processes.
Its capability to manage complex adapter interactions makes it an ideal foundation for a service-oriented architecture.

iWay Explorer

iWay Explorer uses a tree metaphor to introspect the system metadata. The Explorer enables you to create XML schemas and web services for the associated object. In addition, you can create ports and channels to listen for events.

External applications that access Microsoft Exchange through the adapter use either XML schemas or web services to pass data between the external application and the adapter.

iWay Business Services Provider

The iWay Business Services Provider (iBSP) exposes, as web services, enterprise assets that are accessible from adapters regardless of the programming language or the particular operating system.

iBSP simplifies the creation and execution of web services when running:

- Custom and legacy applications.
- Database queries and stored procedures.
- Packaged applications.
- Terminal emulation and screen-based systems.
- Transactional systems.

Coupled with a platform and language independent messaging protocol called SOAP (Simple Object Access Protocol), XML enables application development and integration by assembling previously built components from multiple web services.
Chapter 2

Application Adapter for Microsoft Exchange
Supported Platforms Matrix

iWay Software is committed to support the diverse environments and varied systems of our users through support for leading enterprise applications, platforms, and databases.

This section specifies version, platform, and database support information for iWay Application Adapter for Microsoft Exchange. It is designed to provide a consolidated view of Microsoft Exchange releases and the various operating systems and databases, on which they are supported.

In this chapter:

- Application Adapter for Microsoft Exchange Supported Platforms Overview
- Supported Microsoft Exchange Versions
- Microsoft Exchange Operating Systems
- Databases
- Java Development Kit (JDK)
- Application Adapter for Microsoft Exchange Communication Modes
- Application Adapter for Microsoft Exchange Object Types and Interfaces
- Application Adapter for Microsoft Exchange Communication Types
- Application Adapter for Microsoft Exchange Operations
- Application Adapter for Microsoft Exchange Data Types
- Application Adapter for Microsoft Exchange Security
- Other Application Adapter for Microsoft Exchange Functions
- Application Adapter for Microsoft Exchange Known Limitations
- Related Information for the Application Adapter for Microsoft Exchange in Specific iWay Releases

Application Adapter for Microsoft Exchange Supported Platforms Overview

The iWay Application Adapter for Microsoft Exchange utilizes Microsoft Exchange web services to interact with Microsoft Exchange Server.
Supported Microsoft Exchange
Versions

iWay Application Adapter for Microsoft Exchange supports the following versions:

- MS Exchange Server 2007 SP1 and SP2
- MS Exchange Server 2010 SP1
- Exchange Web Services (EWS) API 1.1.5

Microsoft Exchange
Operating Systems

iWay Application Adapter for Microsoft Exchange supports all of the operating systems that are listed in the iWay Installation and Configuration Guide under Operating System Requirements.

Databases

iWay Application Adapter for Microsoft Exchange does not work function directly with databases, but works only with Exchange Web Services (EWS) API 1.1.5.

Java Development Kit (JDK)

iWay Application Adapter for Microsoft Exchange supports the Java Development Kit (JDK) versions that are listed in the iWay Installation and Configuration Guide under Java Requirements.

Application Adapter for Microsoft Exchange
Communication Modes

iWay Application Adapter for Microsoft Exchange supports the following communication modes:

- **Services.** iWay Application Adapter for Microsoft Exchange can receive messages from the Microsoft Exchange server.

- **Events.** iWay Application Adapter for Microsoft Exchange can send messages to the Microsoft Exchange server.
**Application Adapter for Microsoft Exchange**

**Object Types and Interfaces**

The iWay Application Adapter for Microsoft Exchange objects will not list groups of methods and calls. Each object can be used as service and events for different operations. The following object types and interfaces are supported:

- Calendar
- Contacts
- Inbox

**Application Adapter for Microsoft Exchange**

**Communication Types**

iWay Application Adapter for Microsoft Exchange supports the following communication types:

- **Calendar**: Synchronous
- **Contacts**: Synchronous
- **Inbox**: Synchronous

**Application Adapter for Microsoft Exchange**

**Operations**

iWay Application Adapter for Microsoft Exchange supports the following operations, which can be performed for each of the objects:

- Calendar
  - CreateAppointment
  - FindAppointment
- Contacts
  - CreateContact
  - FindContacts
- Inbox
  - FindMessages
  - GetAttachment
Application Adapter for Microsoft Exchange

Data Types

The String Data Type is used in the iWay Application Adapter for Microsoft Exchange.

Application Adapter for Microsoft Exchange

Security

The iWay Application Adapter for Microsoft Exchange supports Basic and NTML Authentication.

Other Application Adapter for Microsoft Exchange

Functions

There is no known list related to other functions for iWay Application Adapter for Microsoft Exchange.

Application Adapter for Microsoft Exchange

Known Limitations

The iWay Application Adapter for Microsoft Exchange does not support other operations aside from the Basic and NTML Authentication and Operations mentioned above.

Related Information for the Application Adapter for Microsoft Exchange

in Specific iWay Releases

For more information, see the iWay New Features Bulletin and Release Notes documentation for a specific release (for example, iWay Version 7.0.2).
This chapter provides a quick start guide for the iWay Application Adapter for Microsoft Exchange.

**In this chapter:**

- Application Adapter for Microsoft Exchange Quick Start Overview
- Microsoft Exchange Quick Start Guide

**Application Adapter for Microsoft Exchange Quick Start Overview**

This quick start guide summarizes the high-level key steps that are required to install, configure, and use the iWay Application Adapter for Microsoft Exchange. The quick start guide does not elaborate on any of the steps in detail. Instead, cross-references are provided for the corresponding sections in the *iWay Application Adapter for Microsoft Exchange User’s Guide*. Users of the iWay Application Adapter for Microsoft Exchange are encouraged to follow the sequence of steps in this guide to quickly connect to a Microsoft Exchange system and begin using the adapter. To gain a complete understanding about the adapter, it is recommended for users to review the entire *iWay Application Adapter for Microsoft Exchange User’s Guide*, as the quick start guide section is not a replacement for that level of detail.

**Microsoft Exchange Quick Start Guide**

This section lists and describes the key configuration steps for configuring the iWay Application Adapter for Microsoft Exchange and then integrating with Microsoft Exchange Server.

1. Ensure that you are using a supported environment, as described in *Application Adapter for Microsoft Exchange Supported Platforms Matrix* on page 17.

2. Copy the Exchange Web Services (EWS) API files to the \lib subdirectory where iWay Service Manager (iSM) is installed.

   For more information, see *Microsoft Exchange Server Versions and Exchange Web Services API Files* on page 14.

3. Open iWay Integration Tools (iIT) and access the iWay Explorer tab to create a new configuration.
4. Add the iWay Application Adapter for Microsoft Exchange to iWay Explorer.
   For more information, see How to Add the Microsoft Exchange Adapter to iWay Explorer on page 32.

5. Create and configure an adapter target to your Microsoft Exchange Server.
   For more information, see Working With a Target on page 34.

6. Examine the available metadata for your Microsoft Exchange Server objects that you want to integrate and create corresponding XML request and response documents.
   For more information, see Viewing Application System Objects on page 44 and Creating an XML Schema on page 46.

7. Create an XML request document (payload) based on the generated XML request schema (for example, SendMessage).
   For more information, see Sample XML Request Documents on page 53.

8. Create iWay Business Services (web services) based on the generated XML schema documents.
   For more information, see Creating Business Services on page 49.

9. Test the iWay Business Service (web service) that has been created.
   Using the SendMessage XML request (Send Message on page 54) use the appropriate email IDs to send the message.

10. Verify the response by logging into your Microsoft Exchange Server.

11. Configure a channel using the iWay Service Manager (iSM) Administration Console, which can be deployed to retrieve incoming documents and produce output based on defined logic.
    For more information, see Configuring the Adapter in an iWay Environment on page 55.
This section describes how to configure the iWay Application Adapter for Microsoft Exchange.

In this chapter:

- Copying the Exchange Web Services API Library Files
- Defining a Keystore
- Creating a Keystore
- Generating a Certificate
- Importing a Certificate to a Keystore
- Importing the SSL Certificate

Copying the Exchange Web Services API Library Files

Before you use the iWay Application Adapter for Microsoft Exchange to integrate with Microsoft Exchange Server 2010 SP1, ensure that the Exchange Web Services (EWS) API library files are copied to the following directory:

<\WayHome>\lib

where:

<\WayHome>

Is the root location where iWay Service Manager (iSM) is currently installed.

For more information, see Microsoft Exchange Server Versions and Exchange Web Services API Files on page 14.

Defining a Keystore

The keystore file is a key database file that contains both public keys and private keys. Public keys are stored as signer certificates while private keys are stored in the personal certificates. The keys are used for a variety of purposes, including authentication and data integrity.
The keystore will be used for encrypting or signing something with your private key, while the trust stores will be used mostly to authenticate remote servers.

Creating a Keystore

Create a keystore using the following keytool command:

```
keytool -genkey -alias privetKeyAlias -keyalg RSA -keystore keystore.jks
```

```
keytool -genkey -alias iway -keyalg RSA -keystore e:/keystore/iwaykeystore.jks
```

The keytool will prompt you to enter the following values:

- Common Name (CN)
- Organizational Unit (OU)
- Organization (O)
- Locality (L)
- State (S)
- Country (C)

The Common Name (CN) value must match the domain name of your web application if you are planning to use this keystore for your servlet container.

You can verify keystore contents using the following command:

```
keytool -list -v -keystore keystore.jks
```

For example:

```
keytool -list -v -keystore e:/keystore/iwaykeystore.jks
```

Generating a Certificate

Generate the Certificate Signing Request (CSR) using the following keytool command:

```
keytool -certreq -v -alias privetKeyAlias -file csr-for-myserver.cer -keystore keystore.jks
```

For example:

```
keytool -export -alias iway -file E:\keystore\iway.cer -keystore e:/keystore/iwaykeystore.jks
```
Importing a Certificate to a Keystore

Import a certificate to a keystore using the following `keytool` command:

```
keytool -import -v -noprompt -trustcacerts -alias publicKeyName -file root-cert.cer -keystore keystore.jks
```

For example:

```
keytool -import -v -noprompt -trustcacerts -alias ibi -file E:\keystore\ibi.cer -keystore e:/keystore/iwaykeystore.jks
```

Importing the SSL Certificate

Obtain the SSL certificate for the Microsoft Exchange Server you will be using and make it available for use by iWay Service Manager (iSM) as the default SSL certificate.

**Procedure:** How to Import the SSL Certificate

To import the SSL certificate:

1. Enter the following URL in Microsoft Internet Explorer to begin loading the WSDL for Microsoft Exchange Server:

   `https://SERVER_NAME/ews/Exchange.asmx`

   where:

   `SERVER_NAME`

   Is the name of the system hosting the Microsoft Exchange Server.
The Certificate dialog box opens, as shown in the following image.

2. Click *Install Certificate*. 
The Certificate Import Wizard opens, as shown in the following image.

3. Click *Place all certificates in the following store* and then click *Browse* to the right of the Certificate store field. The Select Certificate Store dialog opens.

4. Select a location for the SSL certificate and then click *OK*. 

---

iWay Application Adapter for Microsoft Exchange User’s Guide
Creating XML Schemas and Business Services

The iWay Application Adapter for Microsoft Exchange supports email exchanges and calendar functions between Internet users and others connected through TCP/IP or other networks. This section describes how to use iWay Explorer to create schemas and Business Services for allowing interaction between iWay Application Adapter for Microsoft Exchange and a Microsoft Exchange server.

In this chapter:

- Starting iWay Explorer
- Adding the Microsoft Exchange Adapter to iWay Explorer
- Working With a Target
- Viewing Application System Objects
- Creating an XML Schema
- Creating Business Services

Starting iWay Explorer

This section describes how to start iWay Explorer.

Procedure: How to Open iWay Integration Tools

To open iWay Integration Tools:

1. Navigate to your local drive where you have iWay Integration Tools installed, and open the eclipse folder.
2. Double-click iit.exe.
iWay Integration Tools suite opens.

**Procedure:**  **How to Create an iWay Explorer Connection to an iSM Server**

This procedure assumes that you have opened iWay Integration Tools and are in the Workbench.

1. Click the *iWay Explorer* tab to make it active.

2. Click the *Launch iWay Resource Creator Wizard* button on the tool bar.
   In the following image, the iWay Explorer tab is active, and the cursor is pointing to the Launch iWay Resource Creator Wizard button.

   ![iWay Explorer Tab Active](image)

   When you click the button, the Resource Selection Dialog / New iWay Connection dialog box opens.

3. Under the Type heading, click *iWay Configuration*, which is the type of resource that you are going to create.
4. Click Next to open the Add iWay Configuration / Select Connection Types dialog box.

5. In the Configuration Alias field, click a name from the drop-down list, or type a name for the configuration, for example, SampleConfig. The drop-down list contains the names of configurations that you have used before.

   **Tip:** The name that you supply is used only for display purposes in the tree. It is not a server connection property.

6. For Connection Type, click the radio button for the method that you are using to connect to iSM.

7. Optionally, select the *Connect to Host upon Wizard Completion* check box if you want iWay Explorer to automatically connect to this instance of iSM after you have created it. If you select this option, all the explorer environments under the new iSM connection are automatically connected to iSM when this procedure is finished. If you do not select this option, the explorer environments are not automatically connected to iSM. You can connect to an individual explorer environment when you want to access it.

8. Click Next to continue the procedure.

9. If you selected an HTTP Connection, the Add iWay Configuration / Enter Connection Information dialog box opens.

   - Verify the values in the three fields, or type the valid value or values.

   - The Connection String field contains the URL that connects to the iSM.

   - The SOAP Port/Endpoint field contains the SOAP port number.

   - The Console Port/Endpoint field contains the port number that the iSM Administration Console is listening on.

   - Optionally, under Presets, click *Local Connection* to insert values for a local default iSM connection in the fields, or click *Servlet* to insert values for a sample servlet connection.

   - Click *Finish*.

The new iSM connection is added to the tree on the iWay Explorer tab.
Adding the Microsoft Exchange Adapter to iWay Explorer

In the following image, an iSM connection named SampleConfig was added to iWay Explorer. The tree is expanded to show the five explorer environments that are available.

![Image of iWay Explorer with SampleConfig connection]

Adding the Microsoft Exchange Adapter to iWay Explorer

iWay Explorer supports access to many different application systems. When you connect to and expand the Adapters node, the iWay adapters for the supported application systems are displayed. They are the iWay adapters that you have installed and are licensed to use.

**Procedure:** How to Add the Microsoft Exchange Adapter to iWay Explorer

In this procedure, you are going to add the iWay Application Adapter for Microsoft Exchange to the list of adapters displayed in the Adapters node.

1. Right-click the Adapters node, and click *Edit* from the menu.
   The Edit Adapters dialog opens, prompting you to select the iWay adapter or adapters to add to iWay Explorer.
2. Select the check box for Exchange, as shown in the following image.

![Image of Adapter Selection Page]

3. Click Finish. The tree is automatically refreshed and displays the new adapter.
In the following image, the Exchange adapter is displayed in the Adapters node of iWay Explorer.

**Working With a Target**

To browse the business objects of an application system, you must create a target for that system. The target is the means by which you connect to the system. It contains the logon properties used to access the system.

Using the target, you must establish a connection to an application system every time you want to browse the system in iWay Explorer.
Procedure: How to Create a Target

To create a target:

1. Right-click the Adapters node, and click Connect from the menu.

2. Once you are connected, expand the Adapters node.
3. Right-click *Exchange*, and click *Add Target* from the menu.
The Add Target dialog opens and displays the generic target properties.

4. Supply the values for the fields on the dialog box as follows.
   a. In the Name field, type a descriptive name for the target, for example, *MS_Exchange_Target*.
   b. In the Description field, optionally type a brief description of the target.
   c. From the Type drop-down list, select *Exchange 2007 Web Services* (default).

5. Select the *Connect to target upon wizard completion* check box if you want iWay Explorer to automatically connect to this target after you have created it.
   If you deselect this option, iWay Explorer will not automatically connect to the target. From the tree, you can connect to an individual target when you want to access the associated application system.

6. Click Next.
The Add Target dialog opens and displays the Microsoft Exchange target properties.

7. Supply the connection information for the Microsoft Exchange server to which you are connecting.

The following table lists and describes the Microsoft Exchange target parameters that are available.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Endpoint</td>
<td>The Microsoft Exchange server service endpoint. For example:</td>
</tr>
<tr>
<td></td>
<td><a href="https://ibiwebmail7.ibi.com/ews/Exchange.asmx">https://ibiwebmail7.ibi.com/ews/Exchange.asmx</a></td>
</tr>
<tr>
<td><strong>Parameter</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>--------------------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>User name</td>
<td>The user name used to connect to the Microsoft Exchange server.</td>
</tr>
<tr>
<td>Password</td>
<td>The password that is associated with the user name.</td>
</tr>
<tr>
<td>Domain *</td>
<td>The Microsoft Exchange server domain.</td>
</tr>
<tr>
<td>Host *</td>
<td>The name of the machine where Microsoft Exchange server is being hosted.</td>
</tr>
<tr>
<td>Server Version *</td>
<td>The web services API version. Select one of the following versions from the drop-down list:</td>
</tr>
<tr>
<td></td>
<td>- MS Exchange Server 2007</td>
</tr>
<tr>
<td></td>
<td>- MS Exchange Server 2007 SP1</td>
</tr>
<tr>
<td></td>
<td>- MS Exchange Server 2007 SP2</td>
</tr>
<tr>
<td></td>
<td>- MS Exchange Server 2010 SP1</td>
</tr>
<tr>
<td></td>
<td>- Undefined</td>
</tr>
<tr>
<td>Keystore File</td>
<td>The path to the certificate keystore file.</td>
</tr>
<tr>
<td>Keystore Password</td>
<td>The certificate keystore password.</td>
</tr>
<tr>
<td>Keystore Type</td>
<td>The certificate keystore type. Select one of the following versions from the drop-down list:</td>
</tr>
<tr>
<td></td>
<td>- JKS</td>
</tr>
<tr>
<td></td>
<td>- PKCS12</td>
</tr>
</tbody>
</table>

8. Click *Finish* when you are done.
The new target is added to the Adapters node of iWay Explorer.

**Procedure:**  How to Connect to a Target

1. Expand the *Exchange* node to locate the name of the target that you want to connect to, for example, *MS_Exchange_Target*.

2. Right-click the target, and click *Connect* from the menu.
The Target Connection Dialog opens.

3. Click Finish.
The MS_Exchange_Target node icon changes to green, and three folders are displayed, reflecting a successful connection. You can click a folder and then expand it to display its contents.

Procedure: **How to Disconnect From a Target**

Although you can maintain multiple open connections to different application systems, it is a good practice to close a connection when you are not using it.

1. In the tree, expand the **Exchange** node to locate the name of the target from which you want to disconnect, for example, **MS_Exchange_Target**.
2. Right-click the target, and click **Disconnect from Target** from the menu. The connection to the application system is closed.

Procedure: **How to Edit a Target**

After you create a target, you can edit the information that you provided during the creation procedure.

1. In the tree, expand the **Exchange** node to locate the name of the target that you want to edit, for example, **MS_Exchange_Target**.
2. Right-click the target, and click **Edit Target** from the menu.
The Add Target dialog opens and displays the Microsoft Exchange target properties.

3. Modify the connection properties as required.

4. Optionally select the Reconnect to target upon wizard completion check box if you want iWay Explorer to automatically connect to this target after you have edited it. iWay Explorer will use the modified properties to connect.

5. Click Finish when you have made your edits.
**Procedure: How to Delete a Target**

You can delete a target that is no longer needed. You can delete it whether or not it is closed. If open, the target automatically closes before it is deleted.

1. In the tree, expand the *Exchange* node to locate the name of the target that you want to delete, for example, *MS_Exchange_Target*.
2. Right-click the target, and click *Delete Target* from the menu. Application Explorer displays a prompt, asking you to confirm the deletion of the selected target.
3. Click *OK* to proceed with the deletion.

**Viewing Application System Objects**

After you create and connect to the target for an application system, iWay Explorer displays the application objects for that system. You can explore and browse the application object metadata.

For example, for Microsoft Exchange, you can view Calendar, Contacts, and Inbox metadata.

**Procedure: How to View Application System Objects**

To view application system objects:

1. Expand the iWay Explorer tree to locate the name of the target for the application system whose objects you want to view. For example, for Exchange, locate *MS_Exchange_Target*. 
Three folders are displayed beneath the target name (Calendar, Contacts, and Inbox).

2. Click a desired folder, for example, Inbox, and expand it.

   A list of methods or services related to the Inbox functionality are displayed.

3. Right-click the FindMessages method to display the menu options that are available.
Creating an XML Schema

You can create XML request and response schemas for the Microsoft Exchange metadata that you want to use with your adapter. Optionally, you can store the schemas in a folder (directory) on your file system, using the iWay Explorer export feature.

Procedure: How to Create an XML Schema

To create an XML schema:

1. Expand the connected target node and locate the method for which you want to create XML request and response schemas.

   For example, for Microsoft Exchange, expand Inbox and select GetMessage.
2. Right-click *GetMessage*, and click *Open Schemas* from the menu.
Application Explorer creates request and response schemas for the selected method. By default, the Response tab in the right pane is selected (active), and Application Explorer displays the response schema in that pane.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!- Generated by the IBSE 2011-10-27T18:11:10Z -->
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
    targetNamespace="http://schemas.ibi.com/iwebxml2007/services"
    xmlns:tns="http://schemas.ibi.com/iwebexchange2007/services" elementFormDefault="qualified">
    <xs:element name="getMessageResponse">
        <xs:complexType>
            <xs:sequence>
                <xs:element name="Message">
                    <xs:complexType>
                        <xs:sequence>
                            <xs:element name="Id" type="xs:string"/>
                            <xs:element name="Subject" type="xs:string"/>
                            <xs:element name="FromEmail" type="xs:string"/>
                            <xs:element name="ReceivedAt" type="xs:dateTime"/>
                            <xs:element name="Attachments">
                                <xs:complexType>
                                    <xs:sequence>
                                        <xs:element name="Attachment">
                                            <xs:complexType>
                                                <xs:sequence>
                                                    <xs:element name="Id" type="xs:string"/>
                                                    <xs:element name="Name" type="xs:string"/>
                                                    <xs:element name="Contents">
                                                        <xs:complexType>
                                                            <xs:sequence/>
                                                        </xs:complexType>
                                                    </xs:element>
                                                </xs:sequence>
                                            </xs:complexType>
                                        </xs:element>
                                    </xs:sequence>
                                </xs:complexType>
                            </xs:element>
                        </xs:sequence>
                    </xs:complexType>
                </xs:element>
            </xs:sequence>
        </xs:complexType>
    </xs:element>
</xs:schema>
```

3. In the right pane, click the Request tab to display the request schema.

**Procedure: How to Export an XML Schema**

To export an XML schema:

1. Right-click the method whose schemas you want to export, for example, GetMessage.
2. From the menu, click either Export Request Schema or Export Response Schema.
3. In the Save As dialog box that opens, select the folder on your file system in which to store the exported schema. By default, Application Explorer stores the file in your workspace folder, followed by the path that you specify on the Save As dialog box.
4. Type a name for the exported schema. By default, the file name extension is .xsd.
5. Click OK when you are done.

iWay Explorer stores the exported schema in the folder that you selected, using the name that you supplied.
Creating Business Services

Business Service Explorer provides web developers with a simple, consistent mechanism for extending the capabilities of an iWay adapter. The iWay Business Services Provider (iBSP) exposes iWay functionality as a number of web services. It serves as a gateway to heterogeneous backend applications and databases.

A web service is a self-contained, modularized function that you can publish and access across a network using open standards. It is the implementation of an interface by a component, and is an executable entity. For the caller or sender, a web service can be considered a black box that may require input while typically delivering a result.

Web services integrate within an enterprise and across enterprises on any communication technology stack, whether asynchronous or synchronous, in any format.

Creating an iWay Business Service

After you browse the business object repository for an application system, and generate XML schemas for an object that you want to use with an iWay adapter, you can create an iWay Business Service for that object.

The Web Service Description Language (WSDL) file is an XML file that describes the web service documents and provides access to the service. It specifies the location of the service and the operations (or methods) that the service exposes.

You can delete an iWay Business Service that you no longer need.

Procedure: How to Create an iWay Business Service

To create an iWay Business Service:

1. In the Application Explorer tree, expand the target node to which you are connected and locate the method for which you want to create an iWay Business Service. For example:
2. Right-click the method, for example, GetMessage, and click Create iWay Business Service from the menu. The Add Business Service window in the Select or Create a Business Service dialog box opens, prompting you for information about the new service.

3. Supply the values for the fields on the dialog box as follows.
   a. From the Existing Service Names drop-down list, click <new service> if you want to create a new service name or select an existing service name.
   b. If you are creating a new service name, type the name in the Service Name field, for example, GetMessage.
   c. In the Service Description field, optionally type a brief description of the new business service.

4. Click Next.

   The Add Business Service window in the Select Business License dialog box opens.

5. Supply the values for the fields on the dialog box as follows.
   a. From the License drop-down list, select the license definition that you want to use with this business service.
   b. In the Method Name field, accept the default value or type a descriptive name for the method that the service exposes.
c. In the Method Description field, optionally type a brief description of the method.

6. Click Finish.

Business Service Explorer adds the new iWay Business Service beneath the Business Service Explorer node in the tree.

![Diagram of Service Explorer]

The right pane displays the available licenses.

7. To test the new iWay Business Service, click the test link in the right pane. The iWay Business Services that are licensed under test are displayed.

8. Click the GetMessage link.

The operations (methods) that are supported are displayed.

9. Click the GetMessage link.
The test pane for the GetMessage method opens.

10. In the input xml field, enter an XML request document that queries the iWay Business Service named GetMessage.

To view sample XML request documents that can be used for testing purposes, see Sample XML Request Documents on page 53.

11. Click Invoke.

The result of the test is displayed in the right pane.

Procedure: How to Export a WSDL File

1. Connect to the Business Service Explorer and expand the tree to locate the name of the iWay Business Service whose WSDL file you want to export.

2. Right-click the name of the iWay Business Service, for example, GetMessage, and click Export WSDL from the menu.

3. In the Save As dialog box that opens, select the folder on your file system in which to store the exported WSDL file. By default, Business Service Explorer stores the file in your workspace folder followed by the path that you specify on the Save As dialog box.

4. Type a name for the exported WSDL file. By default, the file name extension is .wsdl.

5. Click OK when you are done.
Business Service Explorer stores the exported WSDL file in the folder that you selected, using the name that you supplied.

**Procedure: How to Delete an iWay Business Service**

1. Connect to the Business Service Explorer, and expand the tree to locate the name of the iWay Business Service that you want to delete.
2. Right-click the name of the iWay Business Service, for example, *GetMessage*, and click *Delete* from the menu.
3. Business Service Explorer displays a prompt, asking you to confirm the deletion of the selected iWay Business Service.
4. Click *OK* to proceed with the deletion.

**Sample XML Request Documents**

This section provides sample XML request documents that can be used to test web services that are generated using the iWay Application Adapter for Microsoft Exchange.

**Find Appointment**

The following sample XML request document finds an appointment in Microsoft Exchange.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!--Sample XML file generated by XMLSpy v2011 (http://www.altova.com)-->
<tns:FindAppointments location="Exchange2007/Calendar/FindAppointments"
 xsi:schemaLocation="http://schemas.ibi.com/iwexchange2007/services
FindAppointments_request.xsd"
 xmlns:tns="http://schemas.ibi.com/iwexchange2007/services"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <tns:TimeRange>
    <tns:From>2011-10-06T09:30:47Z</tns:From>
    <tns:To>2011-10-07T09:30:47Z</tns:To>
  </tns:TimeRange>
</tns:FindAppointments>
```

**Find Contact**

The following sample XML request document finds a contact in Microsoft Exchange.
Send Message

The following sample XML request document sends a message from one contact to another contact.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!--Sample XML file generated by XMLSpy v2014 rel. 2 (x64) (http://www.altova.com)-->  
  <Subject>test qa automation</Subject>
  <Body>No attachmet</Body>
  <To>
    <Email>iwaytester@ibi.com</Email>
  </To>
  <Attachments>
    <Attachment>
      <Name></Name>
      <Contents></Contents>
    </Attachment>
  </Attachments>
</SendMessage>
```
Configuring the Adapter in an iWay Environment

After you successfully configure the iWay Application Adapter for Microsoft Exchange to represent a particular adapter target, the adapter can be assigned to an iWay Service Manager listener and channel.

In this chapter:
- Defining the Microsoft Exchange Adapter in iWay Service Manager
- Configuring the Microsoft Exchange Listener
- Adding the Microsoft Exchange Listener to an Inlet
- Configuring a Channel

Defining the Microsoft Exchange Adapter in iWay Service Manager

Before configuring the iWay Application Adapter for Microsoft Exchange in iWay Service Manager (iSM), you must first create a target, which represents a connection to a Microsoft Exchange server, using iWay Explorer. For more information on configuring targets and connections using iWay Explorer, see How to Create a Target on page 35.

You can define the adapter in the iSM Administration Console. The configuration process creates run-time connection and persistent data files within iSM. The configuration process interrogates the iSM repository entries that were built when the target and connection were created using iWay Explorer. The define adapter process creates the run-time repository based on the design-time repository.

Procedure: How to Define the Adapter

To define the adapter:

1. In the iSM Administration Console, select Registry, then Adapters.
The Adapters pane opens, as shown in the following image.

2. Click Add.

The iBSP URL pane opens, as shown in the following image.

3. Enter your iBSP URL, which is the location of the iSM repository, for example, http://localhost:9000. This field is required.

4. Click Next.

An adapter selection pane opens, as shown in the following image.

5. From the Adapter drop-down list, select Exchange, then click Next.
The Target drop-down list is displayed, as shown in the following image.

6. From the Target drop-down list, select the target you configured for the iWay Application Adapter for Microsoft Exchange in iWay Explorer, then click Next.

The connection information associated with the target selected is displayed, as shown in the following image.

a. The Create Error Document parameter determines whether an error document is returned if an error occurs. You can enable or disable this parameter according to your requirements.
b. The Persist Connection parameter determines whether the adapter connection will be reused between executes. You can enable or disable this parameter according to your requirements.

c. Review the connection information you specified in iWay Explorer. You can change or update any of the settings according to your requirements.

7. Click Next.

The name and description pane for the adapter opens, as shown in the following image.

![Name and Description Pane](image)

8. Provide a name and optionally, a description for the adapter, and click Finish.

You are returned to the Adapters pane where the defined adapter is added to the list of available adapters, as shown in the following image.

![Adapters Pane](image)
Procedure: How to Modify or Update Adapter Connection Properties

The following image shows the Adapters pane, which displays the name of the adapter and the description.

To modify or update an adapter connection:

1. From the Adapters list, click the adapter reference you defined (for example, MS_Exchange_Adapter).

The target connection information pane opens, as shown in the following image.
You cannot change the name of the adapter or the target, but you can edit the connection information.

a. If you modify any of the target connection information in this pane, click Update Connection Properties.

b. If you make changes or additions to the adapter target in iWay Explorer, click Update Adapter Data.

2. Click Finish.

Configuring the Microsoft Exchange Listener

After you have defined the iWay Application Adapter for Microsoft Exchange in iWay Service Manager, you can configure the Microsoft Exchange listener, which will be added to a channel.

Procedure: How to Configure the Microsoft Exchange Listener

To configure the Microsoft Exchange listener:

1. In the iSM Administration Console, select Registry, then Listeners.

The Listeners pane opens, as shown in the following image.

2. Click Add.
3. Select *Exchange* from the Type drop-down list.

The configuration parameters pane for the Microsoft Exchange listener opens, as shown in the following image.

4. Specify values for the Microsoft Exchange listener parameters according to your system configuration and requirements.

The following table lists and describes the Microsoft Exchange listener parameters that are available.
Note: Parameter names that are marked with an asterisk character (*) are required.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accepts non-XML (flat) only</td>
<td>If set to true, this listener expects flat (non-XML) documents. Automatic parsing is not performed. By default, this parameter is set to false.</td>
</tr>
<tr>
<td>Service Endpoint *</td>
<td>The web services endpoint.</td>
</tr>
<tr>
<td>User name *</td>
<td>A valid Microsoft Exchange user name.</td>
</tr>
<tr>
<td>Password *</td>
<td>A valid Microsoft Exchange password.</td>
</tr>
<tr>
<td>Domain *</td>
<td>The Microsoft Exchange server domain.</td>
</tr>
<tr>
<td>Host *</td>
<td>The Microsoft Exchange server host name.</td>
</tr>
<tr>
<td>Server Version *</td>
<td>The web services API version. Select one of the following versions from the drop-down list:</td>
</tr>
<tr>
<td></td>
<td>- Exchange2007</td>
</tr>
<tr>
<td></td>
<td>- Exchange2007_SP1</td>
</tr>
<tr>
<td></td>
<td>- Undefined</td>
</tr>
<tr>
<td></td>
<td>The default version selected is Exchange2007.</td>
</tr>
<tr>
<td>Keystore File</td>
<td>The path to the certificate keystore file.</td>
</tr>
<tr>
<td>Keystore Password</td>
<td>The certificate keystore password.</td>
</tr>
<tr>
<td>Keystore Type</td>
<td>The certificate keystore type. Select one of the following versions from the drop-down list:</td>
</tr>
<tr>
<td></td>
<td>- JKS</td>
</tr>
<tr>
<td></td>
<td>- PKCS12</td>
</tr>
<tr>
<td></td>
<td>The default certificate keystore type selected is JKS.</td>
</tr>
<tr>
<td>Poll Interval *</td>
<td>The adapter poll interval in seconds. The default value is 0 (zero).</td>
</tr>
<tr>
<td>Subject</td>
<td>The mail subject to poll.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Max to Return</td>
<td>The maximum number of messages to return. The default value is 100.</td>
</tr>
<tr>
<td><strong>Advanced</strong></td>
<td></td>
</tr>
<tr>
<td>Execution Time Limit</td>
<td>The time limit for document execution (in seconds) before cancellation is attempted. In addition, refer to the Kill Interval system property. This applies to agent stacks and sets a lower limit for process flows.</td>
</tr>
<tr>
<td>Multithreading</td>
<td>The number of documents that can be processed in parallel for this listener. The default value is 1.</td>
</tr>
<tr>
<td>Maximum Threads</td>
<td>The number of parallel threads that can grow to the specified count automatically on demand. The default value is 1.</td>
</tr>
</tbody>
</table>

5. Click Next after you have finished specify the values for the Microsoft Exchange listener parameters.

The name and description pane for the Microsoft Exchange listener opens, as shown in the following image.

![Listeners](image)

6. Specify a name and description to identify the new listener and click Finish.
You are returned to the Listeners pane where the new Microsoft Exchange listener is added to the list of available listeners, as shown in the following image.

### Adding the Microsoft Exchange Listener to an Inlet

After you have configured the Microsoft Exchange listener, you can add it to an inlet in iWay Service Manager.

**Procedure:** How to Add the Microsoft Exchange Listener to an Inlet

To add the Microsoft Exchange listener to an inlet:

1. In the iSM Administration Console, select *Registry*, then *Inlets.*
2. Click Add.

The New Inlet Definition pane opens, as shown in the following image.

3. Specify a name and description to identify the new inlet and click Finish.

The Construct Inlet pane opens, as shown in the following image.
4. Click Add.

The Select component type pane opens, as shown in the following image.

By default, the Listener component type is selected by default.

5. Click Next.

The list of available listeners that have been configured is displayed, as shown in the following image.

6. Select the Microsoft Exchange listener that was previously configured (for example, MS_ExchangeListener).

7. Click Finish.
You are returned to the Construct Inlet pane, where the new inlet is now associated with the Microsoft Exchange listener, as shown in the following image.

Configuring a Channel

After you have configured the Microsoft Exchange listener and associated the listener with an inlet, you can configure a channel in iWay Service Manager.

Procedure: How to Configure a Channel

To configure a channel:

1. In the iSM Administration Console, select Registry, then Channels.

   The Channels pane opens, as shown in the following image.

2. Click Add.
The Channels pane opens, as shown in the following image.

3. Specify a name and description to identify the new channel and click Finish.

The Construct Channel pane opens, as shown in the following image.

4. Click Add.

The Select component type pane opens, as shown in the following image.

By default, the Inlet component type is selected by default.

5. Click Next.
The list of available inlets that have been configured is displayed, as shown in the following image.

6. Select the inlet that was previously configured (for example, MS_Exchange_Inlet).

7. Click Finish.

You are returned to the Construct Channel pane, where the previously configured inlet is now associated with the new channel, as shown in the following image.

8. Click Add.
The Select component type pane opens, as shown in the following image.

By default, the Route component type is selected by default.

9. Click Next.

The list of available routes that have been configured is displayed, as shown in the following image.

10. Select the move route, which is defined by default.

The move route simply transfers the input stream to the output stream. You can define more complex routes if required (for example, as process flows) for more advanced business logic.

11. Click Finish.
12. Click the **Default Route** icon in the Conditions column, as shown in the following image.

![Channels/MS_Exchange_Channel](image)

13. Click **Add** in the Construct Channel pane.

The Select component type pane opens, as shown in the following image.

![Channels/MS_Exchange_Channel](image)

14. Ensure **Outlet** is selected and then click **Next**.
The Outlet Definitions pane opens, which lists the available outlets that have been configured, as shown in the following image.

15. Select the outlet that was previously configured (for example, *ExchangeOutlet*).
16. Click *Add*.

You are returned to the Construct Channel pane, where the selected outlet (*ExchangeOutlet*) is now associated with the new channel, as shown in the following image.

The construction of the iSM channel is now complete.
17. Click *Build*.
All of the components for the iSM channel are compiled and the results are displayed in the results pane, as shown in the following image.

18. In the iSM Administration Console, select Deployments, then Channels.

The Channels pane opens, as shown in the following image.

19. Click Deploy.
The Available Channels pane opens, as shown in the following image.

20. Select the channel you have configured (for example, MS_Exchange_Channel) and click Deploy.

The Channel Management pane opens and lists the deployed channel, as shown in the following image.

You can start and stop the channel accordingly. For more information on channel management, see the *iWay Service Manager User’s Guide*.
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