## Contents

**Preface** .................................................................................................................. 7
  - Documentation Conventions .................................................................................. 7
  - Related Publications ............................................................................................. 8
  - Customer Support .................................................................................................. 8
  - Help Us to Serve You Better .................................................................................. 9
  - User Feedback ........................................................................................................ 11
  - Information Builders Consulting and Training ..................................................... 11

**1. Introducing iWay Trading Partner Manager** ......................................................... 13
  - About iWay Trading Partner Manager .................................................................. 13
  - iWay Trading Partner Manager Architecture ....................................................... 14
    - iWay Trading Partner Manager Web Console..................................................... 14
    - iWay Trading Partner Manager Runtime Functions .......................................... 15
    - iWay Trading Partner Manager Repository ....................................................... 15

**2. Installing iWay Trading Partner Manager** .......................................................... 17
  - Prerequisites ........................................................................................................... 17
  - Quick Start .............................................................................................................. 18
  - Installing iWay Trading Partner Manager on Windows ........................................ 20
  - Installing iWay Trading Partner Manager on Linux ............................................. 34
  - Using the Start and Stop Menu Options .................................................................. 43
  - Installation Considerations ..................................................................................... 44
    - Host Names Containing Underscore Characters. ............................................... 44
    - 404 Error on Startup and Database Updates. ....................................................... 45
    - Password Encryption. ......................................................................................... 45
    - Host-Based Authentication Using PostgreSQL ................................................. 46
  - Uninstalling iWay Trading Partner Manager .......................................................... 46
  - Using SQL Scripts .................................................................................................... 48
  - Configuring and Enabling LDAP ............................................................................ 50

**3. Configuring and Using iWay Trading Partner Manager** ....................................... 59
  - Using the iWay Trading Partner Manager Console ................................................ 59
    - Navigating the Console and Common Usability Features. .................................... 62
    - User Profile (Sign Out). ....................................................................................... 62
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>About TPM</td>
<td>63</td>
</tr>
<tr>
<td>TPM Console REST API.</td>
<td>64</td>
</tr>
<tr>
<td>Showing and Hiding the Left Navigation Pane</td>
<td>65</td>
</tr>
<tr>
<td>Pagination Tool</td>
<td>66</td>
</tr>
<tr>
<td>Working With Table Columns</td>
<td>67</td>
</tr>
<tr>
<td>Showing and Hiding Columns</td>
<td>67</td>
</tr>
<tr>
<td>Resizing Columns</td>
<td>68</td>
</tr>
<tr>
<td>Moving Columns</td>
<td>69</td>
</tr>
<tr>
<td>Sorting</td>
<td>70</td>
</tr>
<tr>
<td>Filtering</td>
<td>72</td>
</tr>
<tr>
<td>Buttons</td>
<td>73</td>
</tr>
<tr>
<td>Partners</td>
<td>74</td>
</tr>
<tr>
<td>Partner Information</td>
<td>87</td>
</tr>
<tr>
<td>Partner Contact</td>
<td>89</td>
</tr>
<tr>
<td>Partner System</td>
<td>91</td>
</tr>
<tr>
<td>Partner System Messages</td>
<td>94</td>
</tr>
<tr>
<td>Routes</td>
<td>95</td>
</tr>
<tr>
<td>Route Details</td>
<td>111</td>
</tr>
<tr>
<td>Code Substitution</td>
<td>112</td>
</tr>
<tr>
<td>Route Contacts</td>
<td>114</td>
</tr>
<tr>
<td>Standards</td>
<td>117</td>
</tr>
<tr>
<td>Standards Code Substitution</td>
<td>121</td>
</tr>
<tr>
<td>Messages</td>
<td>124</td>
</tr>
<tr>
<td>Message Format Overview</td>
<td>124</td>
</tr>
<tr>
<td>Message Type Overview</td>
<td>128</td>
</tr>
<tr>
<td>Systems</td>
<td>131</td>
</tr>
<tr>
<td>Environments</td>
<td>139</td>
</tr>
<tr>
<td>Administration</td>
<td>142</td>
</tr>
<tr>
<td>Users</td>
<td>143</td>
</tr>
<tr>
<td>Role</td>
<td>147</td>
</tr>
<tr>
<td>Metadata</td>
<td>151</td>
</tr>
<tr>
<td>LDAP Configuration</td>
<td>154</td>
</tr>
<tr>
<td>Database Configuration</td>
<td>159</td>
</tr>
</tbody>
</table>
Preface

This documentation describes how to install and configure iWay Trading Partner Manager (TPM). It is intended for users with knowledge of trading partner management and EDI business relationships.

How This Manual Is Organized

This manual includes the following chapters:

<table>
<thead>
<tr>
<th>Chapter/Appendix</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introducing iWay Trading Partner Manager</td>
</tr>
<tr>
<td></td>
<td>Provides an overview of iWay Trading Partner Manager (TPM), including key features and components.</td>
</tr>
<tr>
<td>2</td>
<td>Installing iWay Trading Partner Manager</td>
</tr>
<tr>
<td></td>
<td>Provides iWay Trading Partner Manager (TPM) prerequisite information and describes how to install iWay TPM.</td>
</tr>
<tr>
<td>3</td>
<td>Configuring and Using iWay Trading Partner Manager</td>
</tr>
<tr>
<td></td>
<td>Describes how to configure and use iWay Trading Partner Manager (TPM).</td>
</tr>
<tr>
<td>4</td>
<td>Using Runtime Functions</td>
</tr>
<tr>
<td></td>
<td>Provides a reference for all of the runtime functions that are provided with iWay Trading Partner Manager (TPM).</td>
</tr>
<tr>
<td>A</td>
<td>REST API Reference</td>
</tr>
<tr>
<td></td>
<td>Describes the usage of iWay Trading Partner Manager (TPM) Representational state transfer (REST) API.</td>
</tr>
</tbody>
</table>

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</td>
<td>Denotes syntax that you must enter exactly as shown.</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>this typeface</td>
<td></td>
</tr>
<tr>
<td>Convention</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</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 Content Library at [http://documentation.informationbuilders.com](http://documentation.informationbuilders.com). You can also contact the Publications Order Department at (800) 969-4636.

**Customer Support**

Do you have questions about this product?

Join the Focal Point community. Focal Point is our online developer center and more than a message board. It is an interactive network of more than 3,000 developers from almost every profession and industry, collaborating on solutions and sharing tips and techniques. Access Focal Point at [http://forums.informationbuilders.com/eve/forums](http://forums.informationbuilders.com/eve/forums).
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. 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 table lists 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, iWay Business Services Provider, iWay Service Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container</td>
<td>For example, WebSphere</td>
</tr>
</tbody>
</table>
The following table lists iWay-related information needed by our consultants.

<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><strong>Request/Question</strong></td>
<td><strong>Error/Problem Details or Information</strong></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. You can contact us through our website, [http://documentation.informationbuilders.com/connections.asp](http://documentation.informationbuilders.com/connections.asp).

Thank you, in advance, for your comments.

**Information Builders Consulting and Training**

Interested in training? Information Builders Education Department offers a wide variety of training courses for this and other Information Builders products.
For information on course descriptions, locations, and dates, or to register for classes, visit our website (http://education.informationbuilders.com) or call (800) 969-INFO to speak to an Education Representative.
This section provides an overview of iWay Trading Partner Manager (TPM), including key features and components.

**In this chapter:**

- About iWay Trading Partner Manager
- iWay Trading Partner Manager Architecture

### About iWay Trading Partner Manager

iWay Trading Partner Manager (TPM) provides a centralized repository to manage trading partner information and their relationships. iWay TPM provides an intuitive web console where trading partner related information can be viewed and managed. Supported trading partner information types include:

- Personal information, such as a partner contact.
- Message-specific information, such as exchanged message formats.
- System-specific information, which enables dynamic routing of the partner transaction to a configured system.

The centralized trading partner repository enables you to store and update partner information without interfering with a business process.

The partner-related information is accessed through a set of iWay TPM runtime functions, which follow the standards of iWay Functional Language (iFL). The dynamic lookup for partner information allows partner-specific processing of messages by a non-partner specific configuration. iWay TPM function calls enable a business channel to receive multiple documents from various partners. This dynamically determines the inbound and outbound partners based on the message information and route the message to a proper system.
The following diagram illustrates the relationships between the various iWay TPM components.

**iWay Trading Partner Manager Architecture**

iWay Trading Partner Manager (TPM) framework consists of an iWay TPM web console for design time, iWay TPM runtime functions, and REST API interface.

**iWay Trading Partner Manager Web Console**

The iWay TPM web console conforms to Web 2.0 standards and is designed using AJAX (Asynchronous JavaScript and XML).

The iWay TPM web console can be accessed using the following URL:

http://localhost:8092
The iWay TPM sign in screen opens, as shown in the following image.

To sign in to the iWay TPM web console, you can use the default user name *admin* and the password *iway*.

**iWay Trading Partner Manager Runtime Functions**

iWay TPM includes a set of predefined function calls, which provide easy access to iWay TPM data during runtime. The iWay TPM function calls are compliant with the iWay Functional Language (iFL) specification and can be used wherever iFL is accessible.

**iWay Trading Partner Manager Repository**

iWay TPM stores partner information as it is defined by the user in a repository. You are required to configure the iWay TPM repository that is accessible through a JDBC provider. Once iWay TPM is configured to use a defined JDBC provider, all of the underlying tables in the configured repository are automatically created. You have an option to preconfigure the database, in which case, iWay TPM will not automatically generate the tables. The iWay TPM web console writes and reads information from this repository, which enables you to manage partner information. The iWay TPM runtime functions use this repository to retrieve partner data and to process the message.
iWay TPM supports the following databases for repository configuration purposes.

- MS SQL Server Version 2005 and higher
- Oracle Version 8i, 9i, 10g, and 11g
- PostgreSQL (Postgres) Version 12
Chapter 2

Installing iWay Trading Partner Manager

This section provides iWay Trading Partner Manager (TPM) prerequisite information and describes how to install iWay TPM.

In this chapter:

- Prerequisites
- Quick Start
- Installing iWay Trading Partner Manager on Windows
- Installing iWay Trading Partner Manager on Linux
- Using the Start and Stop Menu Options
- Installation Considerations
- Uninstalling iWay Trading Partner Manager
- Using SQL Scripts
- Configuring and Enabling LDAP

Prerequisites

Before you install iWay Trading Partner Manager (TPM), ensure that the following requirements are available in your environment:

- **Java**
  
  Oracle Java Development Kit (JDK) version 8

- **Database Management System (DBMS)**
  
  iWay TPM currently supports the following:

  - Microsoft SQL Server (MSSQL)
  - Oracle
  - PostgreSQL (Postgres)
Notes:

- Back up your existing database before proceeding with the iWay TPM installation.
- iWay TPM database tables must be created or updated prior to installation.
- When configuring the name of your iWay TPM database using a database management utility (for example, SQL Server Management Studio), ensure that you specify a case-insensitive name for the database (for example, `tpml5_repos`, and not `TPM15_Repos`).

Quick Start

This section outlines the key steps that are required to install iWay Trading Partner Manager (TPM) in your environment. Ensure these steps are completed in the order specified.

1. Enter the following URL in your browser and sign in to the iWay Service Manager (iSM) Administration Console.

   http://localhost:9999/ism

2. Configure a new Data Provider for use with iWay TPM.

   ![iWay Service Manager](image)

For more information, see the iWay Service Manager User's Guide.
3. Click **Tools** and select **Trading Partner Manager** under Applications in the left pane, as shown in the following image.

4. Click **Add** to configure a new iWay TPM Access Handler.

5. Stop and then start iSM.

   The required databases are created.

6. Download and run the iWay TPM installer.

   **Note:** Ensure that the database driver, database name, ports, and credentials, match the values that you specified during the configuration of the Data Provider in step 2.

7. Complete the iWay TPM installation.

8. Enter the following URL in your browser:

   \[http://hostname:port_number\]

   where:

   **hostname**
   
   Is the name of the system hosting iWay TPM.

   **port_number**
   
   Is the port number that you specified for the iWay TPM server during the installation.

   For example:

   \[http://localhost:8092\]
The iWay TPM login page opens in your browser, as shown in the following image.

9. Enter the following default login credentials:
   - Username: admin
   - Password: iway

10. Click Sign in to begin using iWay TPM.

Installing iWay Trading Partner Manager on Windows

On Windows, the iWay Trading Partner Manager (TPM) installer is packaged as a self-extracting (.exe) file (for example, tpm-installer-1.5.x-Windows.exe).

Before continuing with the iWay TPM installation, create a directory on your file system for your JDBC driver .jar files. For example:

   C:\jdbcjars

Copy your JDBC driver .jar files to this directory, as shown in the following image.
In addition, create a directory on your file system where you would like to install iWay TPM. For example:

C:\iWay_TPM

To install and run iWay TPM:

1. Double-click the iWay TPM installation file (for example, tpm-installer-1.5.x-Windows.exe).

The iWay TPM installer (InstallAnywhere) loads on your system, as shown in the following image.

   ![InstallAnywhere](image)

   The installer is preparing to install...
   
   58%
   
   Cancel

If you already have an instance of iWay TPM installed on your system, then the Manage Instances dialog box is displayed, as shown in the following image.

   ![Manage Instances](image)

   Manage instances by selecting one of the following options:
   
   - Install a New Instance
   
   - Modify an Existing Instance

   C:\
   
   OK  Cancel

You can install a new instance of iWay TPM if there is already one installed. Select Install a New Instance, and then click OK.

**Note:** Do not use the Modify an Existing Instance option, which is not supported in the current release.
Once loaded, the Introduction screen of the iWay TPM installer is displayed, as shown in the following image.

2. Click Next.
The Choose Installation Folder screen is displayed, as shown in the following image.

3. Click Choose, and select the directory you created before you started the installation (for example, C:\iWay_TPM).

4. Click Next.
The Choose Java Virtual Machine screen is displayed, as shown in the following image.

5. Select a specific version of Java that is installed on your system, or accept the default version that is automatically detected by the installer.

6. Click Next.
The Specify Location of JDBC .jar Files screen is displayed, as shown in the following image.

7. Select the directory on your file system you created earlier, which contains your JDBC driver .jar files (for example, C:\jdbcjars).

8. Click Next.
9. Specify an available port number on your system to be used by the iWay TPM server.
   
   **Note:** The older versions of iWay TPM used port 8080 as default port number. To avoid any conflicts with your previous version of iWay TPM, it is recommended to use a different port number (for example, 8092) with the new version of iWay TPM.

10. Click Next.
The Enter TPM Database Parameters screen is displayed, as shown in the following image.

11. Select SQL Server, Oracle, or Postgres as the database type.

12. Enter the JDBC driver class name, connection URL string, and user name for the database you are configuring with iWay TPM.

**JDBC Driver Classes**

SQL Server:

`com.microsoft.sqlserver.jdbc.SQLServerDriver`

Oracle:

`oracle.jdbc.driver.OracleDriver`

Postgres:

`org.postgresql.Driver`

**Connection URLs**

SQL Server:

`jdbc:sqlserver://[HOST][INSTANCE][:PORT][;databaseName=[DB]]`

Oracle:
jdbc:oracle:thin:@[HOST][:PORT]:[SID]

Postgres:
jdbc:postgresql://[host]:[port]/[databasename]

13. Click Next.

The Enter Password screen is displayed, as shown in the following image.

14. Enter the password for the database you are configuring with iWay TPM.
15. Click Next.
The TPM database connection test results screen is displayed, which shows the results of a connection test to your database, as shown in the following image.

16. If the connection test is successful, click Next to continue. If you encounter any issues, click Previous to adjust your database connection parameters and retest your connection.

Note any messages regarding running SQL scripts to create database tables or update an existing database. If you are required to run any SQL scripts, then see Using SQL Scripts on page 48 for more information.

The Install TPM as a Windows Service screen is displayed, as shown in the following image.
17. Click Yes if you would like to install TPM as a Windows service.

18. Click Next to continue.

The Pre-Installation Summary screen is displayed, as shown in the following image.

19. Review the iWay TPM installation summary and click Install if all of the information is correct. If you want to change any value, click Previous to return to the appropriate screen.
A progress indicator is displayed during the iWay TPM installation, as shown in the following image.

When the installation has finished, a prompt to start the iWay TPM server is displayed, as shown in the following image.
If you selected to install iWay TPM as a Windows service earlier in the installation (Step 17), then you can now start the iWay TPM Server.

20. Click Yes, and then click Next.

iWay TPM will automatically start and run in the background.

For more information on how to start and stop iWay TPM through the Windows Start menu, see *Using the Start and Stop Menu Options* on page 43.

The Install Complete screen is displayed, as shown in the following image.
21. Click Done. 
You are now ready to run iWay TPM and verify your installation.

22. Open your browser and enter the following URL:

http://hostname:port_number

where:

hostname
Is the name of the system hosting iWay TPM.

port_number
Is the port number that you specified for the iWay TPM server during the installation. For example:

http://localhost:8092

The iWay TPM login page opens in your browser, as shown in the following image.

![iWay TPM Login Page](image)

23. Enter the following default login credentials:

- Username: **admin**
Password: iway

24. Click Sign in to begin using iWay TPM.

The iWay Trading Partner Manager console opens, as shown in the following image.

Installing iWay Trading Partner Manager on Linux

On Linux, the iWay Trading Partner Manager (TPM) installer is packaged as a binary (.bin) file (for example, tpm-installer-1.5.x-Linux.bin).

Before continuing with the iWay TPM installation, create a directory in your root for your JDBC driver .jar files. For example:

/jdbcjars

Copy your JDBC driver .jar files to this directory.

In addition, create a directory in your root where you would like to install iWay TPM. For example:

/iway_tpm

To install and run iWay TPM:

1. Ensure you have the proper permissions (read/write/execute) on the target Linux system where you are installing iWay TPM.

2. Enter the following command at the prompt:

   ./tpm-installer-1.5.x-Linux.bin
The iWay TPM installer loads and displays an Introduction screen, as shown in the following image.

3. Press Enter to continue.

The Choose Installation Folder screen is displayed, as shown in the following image.

4. Type an absolute path to an existing folder you have created for your iWay TPM installation, or press Enter to accept the default.

If you specify a path to an existing folder, you will be prompted to confirm the path, as shown in the following image.

5. Confirm your installation folder.
6. Press *Enter* to continue.

The Choose Java Virtual Machine screen is displayed, as shown in the following image.

![Choose Java Virtual Machine](image)

7. Select a specific version of Java that is installed on your system, or accept the default version that is automatically detected by the installer.

8. Press *Enter* to continue.

The Specify Location of JDBC .jar Files screen is displayed, as shown in the following image.

![Specify Location of JDBC .jar Files](image)

9. Specify the directory on your system you created earlier, which contains your JDBC driver .jar files (for example, `/jdbcjars`).

10. Press *Enter* to continue.

The Specify TPM Server Port Number screen is displayed, as shown in the following image.

![Specify TPM Server Port Number](image)

11. Specify an available port number on your system to be used by the iWay TPM server.
Note: The older versions of iWay TPM used port 8080 as default port number. To avoid any conflicts with your previous version of iWay TPM, it is recommended to use a different port number (for example, 8092) with the new version of iWay TPM.

12. Type a port number and press Enter to continue.

The Enter TPM Database Choice screen is displayed, as shown in the following image.

13. Select SQL Server (1, default), Oracle (2), or Postgres (3) as the database type.

14. Press Enter to continue.

The Enter TPM Database Parameters screen is displayed, as shown in the following image.

15. Enter the JDBC driver class name, connection URL string, and user name for the database you are configuring with iWay TPM.

**JDBC Driver Classes**

SQL Server:

`com.microsoft.sqlserver.jdbc.SQLServerDriver`

Oracle:

`oracle.jdbc.driver.OracleDriver`

Postgres:

`org.postgresql.Driver`

**Connection URLs**
SQL Server:
jdbc:sqlserver://[HOST][INSTANCE][:PORT][;databaseName=[DB]]

Oracle:
jdbc:oracle:thin:@[HOST][:PORT]:[SID]

Postgres:
jdbc:postgresql://[host]:[port]/[databasename]

16. Press Enter to continue.

The Enter Password screen is displayed, as shown in the following image.

17. Enter the password for the database you are configuring with iWay TPM.
18. Press Enter to continue.
The TPM database connection test results screen is displayed, which shows the results of a connection test to your database, as shown in the following image.

![TPM database connection test results](image)

If the connection test is successful, press Enter to continue. If you encounter any issues, adjust your database connection parameters and retest your connection.

Note any messages regarding running SQL scripts to create database tables or update an existing database. If you are required to run any SQL scripts, then see Using SQL Scripts on page 48 for more information.
The Pre-Installation Summary screen is displayed, as shown in the following image.

```
Pre-Installation Summary

Please Review the Following Before Continuing:

Product Name:
  Trading Partner Manager

Install Folder:
  /home/iwayqa/iway_tpm

Link Folder:
  /home/iwayqa/Trading Partner Manager

Product Version
  1.5.0

Install Path
  /home/iwayqa/iway_tpm

Jdk Home
  /usr/java/jdk1.8.0_221

Disk Space Information (for Installation Target):
  Required: 54,462,525 Bytes
  Available: 190,531,452,928 Bytes

PRESS <ENTER> TO CONTINUE:
```

20. Review the iWay TPM installation summary and press *Enter* to continue if all of the information is correct.

A progress indicator is displayed during the iWay TPM installation, as shown in the following image.
When the installation has finished, a prompt to start the iWay TPM server is displayed, as shown in the following image.

21. Select Yes (1) or No (2, default), and then press Enter to continue.

If you selected Yes, iWay TPM will automatically start and run in the background.

The Installation Complete screen is displayed, as shown in the following image.

22. Press Enter to exit the installer.

You are now ready to run iWay TPM and verify your installation.

23. Open your browser and enter the following URL:

   http://hostname:port_number

where:

hostname
   Is the name of the system hosting iWay TPM.

port_number
   Is the port number that you specified for the iWay TPM server during the installation.
   For example:

   http://localhost:8092
The iWay TPM login page opens in your browser, as shown in the following image.

24. Enter the following default login credentials:

- Username: admin
- Password: iway

25. Click Sign in to begin using iWay TPM.
The iWay Trading Partner Manager console opens, as shown in the following image.

Using the Start and Stop Menu Options

The iWay Trading Partner Manager (TPM) installation adds a *Trading Partner Manager* entry to the Windows Start menu, as shown in the following image.

You can start or stop iWay TPM by clicking one of the corresponding menu options.

**Note:** The menu options include the port number that you specified for the iWay TPM Server during the installation (for example, 8092). If you have multiple instances of iWay TPM installed in your environment, a corresponding Start TPM and Stop TPM menu option would be listed for each instance with the specific port number.
Clicking **Start TPM** opens a Windows command prompt that automatically runs the startup script (**tpmstart.bat**), as shown in the following image.

![Command Prompt Window](image)

Do not close the command prompt window while iWay TPM is running. However, you can minimize the command prompt window as needed.

Clicking **Stop TPM** runs the shutdown script, which stops iWay TPM.

### Installation Considerations

This section describes installation considerations for iWay Trading Partner Manager (TPM).

### Host Names Containing Underscore Characters

For security purposes, Apache Tomcat versions 8.5.x and higher have implemented stricter validation policies for host names containing underscore (_) characters, which are no longer allowed in host (domain) names.

If you configured iWay TPM to use a host name that contains an underscore character (for example, `system_tpm`), the following exception is generated when starting iWay TPM:
The host [system_tpm:8092] is not valid

Note: further occurrences of request parsing errors will be logged at DEBUG level.

java.lang.IllegalArgumentException: The character [_] is never valid in a domain name.

As a workaround, adjust your host name by removing any underscore (_) characters.

404 Error on Startup and Database Updates

When installing iWay TPM, if you received any messages regarding SQL scripts during the iWay TPM database connection test phase, ensure that the correct SQL script is executed. For more information, see Using SQL Scripts on page 48.

Password Encryption

In the latest version of iWay TPM, different encryption is used for passwords. The migration script updates the admin user and you will log in as an administrator the first time. You may want to clean your user file, or set new passwords as part of the migration process.

After updating the default user in the database, you will no longer be able to log in to an older version of iWay TPM with this database. If you need to connect to an older version of iWay TPM, then you must manually add a new user to the database.

For example, to add a user called super:

```
USE [INSERT DATABASE NAME HERE]

INSERT INTO tpm_users (Username,Firstname,Surname,RoleName,Password,BlockUser) VALUES ('super','Internal','User','1','ENCR(31253149323632253186317723632173233216322725232522
55321432173218)','Unblock')
```

Ensure to restart iWay TPM after modifying or changing passwords.
Host-Based Authentication Using PostgreSQL

To enable host-based authentication using PostgreSQL (other than localhost), you must configure the `pg_hba.conf` file. On PostgreSQL, client authentication is controlled by the `pg_hba.conf` file, which is stored in the database cluster’s data directory (for example, `C:\Program Files\PostgreSQL\11\data`).

For more information about using and configuring the `pg_hba.conf` file, see the following website:


Uninstalling iWay Trading Partner Manager

To uninstall iWay Trading Partner Manager (TPM):

1. Click Change TPM Installation from the Trading Partner Manager entry in the Windows Start menu, as shown in the following image.

![Change TPM Installation](image)

The Maintenance Mode screen is displayed, as shown in the following image.

![Maintenance Mode](image)
2. Select **Uninstall Product**, and then click **Next**.

The Uninstall Trading Partner Manager screen is displayed, as shown in the following image.

![Uninstall Trading Partner Manager](image)

3. Click **Next** to continue.

A progress indicator is displayed during the iWay TPM uninstallation, as shown in the following image.

![Progress Indicator](image)
When the uninstallation process has finished, the Uninstall Complete screen is displayed, as shown in the following image.

4. Click **Done**.

**Using SQL Scripts**

The iWay TPM installer creates a *sql* subdirectory under the root installation (for example, `C:\iWay_TPM\tpm\sql`) where several SQL scripts are included for Microsoft SQL Server (MSSQL), Oracle, and PostgreSQL (Postgres) databases, as shown in the following image.

MSSQL:

- **tpm_mssql.sql**. Creates a new iWay TPM database on MSSQL, including all required tables.
- **tpm_mssql_drop_tables.sql**. Drops (deletes) existing iWay TPM tables on MSSQL.
- **tpm_mssql_migration.sql.** This SQL script is for an existing instance of iWay TPM, which will migrate your database from an older version of iWay TPM to the latest version of iWay TPM.

Oracle:

- **tpm_oracle.sql.** Creates a new iWay TPM database on Oracle, including all required tables.

- **tpm_oracle_drop_tables.sql.** Drops (deletes) existing iWay TPM tables on Oracle.

PostgreSQL (Postgres):

- **tpm_postgres.sql.** Creates a new iWay TPM database on PostgreSQL, including all required tables.

Pay close attention to any messages displayed by the iWay TPM installer regarding SQL scripts during the iWay TPM database connection test phase. These messages will determine which SQL script(s) you must run.
The following image shows an SQL script being run using Microsoft SQL Server Management Studio.

The SQL script was pasted into a query window, the database focus was changed to the database that needed to be modified, and then the query was executed.

**Configuring and Enabling LDAP**

To configure and enable LDAP using iWay Trading Partner Manager (TPM):

1. Install iWay TPM in your environment.
2. Ensure the iWay TPM service has started and is running.
3. Open your browser and enter the following URL:

\[ http://hostname:port_number \]
where:

hostname
   Is the name of the system hosting iWay TPM.

port_number
   Is the port number that you specified for the iWay TPM server during your installation. For example, http://localhost:8092.

4. Sign in to iWay TPM console as an administrator using the following default credentials:

   - **Username**: admin
   - **Password**: iway

5. Click **Sign in**.
The iWay TPM console is displayed, as shown in the following image.
6. Expand the *Administration* menu in the left pane, and then click *LDAP Configuration*, as shown in the following image.

![LDAP Configuration in Administration menu](image-url)
The LDAP Configuration page opens, as shown in the following image.

The LDAP Configuration page is organized by two tabs, LDAP Settings (default) and Role Mapper.

7. Review the LDAP settings and modify these settings according to your environment and requirements.

8. Click Edit.
The Edit LDAP Properties dialog opens, which allows you to modify your LDAP settings, as shown in the following image.

9. Click **Test Connection** to validate your LDAP connection, and then click **Save**.
10. Click the **Role Mapper** tab, as shown in the following image.

![Role Mapper Tab](image)

The Role Mapper tab allows you to cross-reference (map) specific LDAP groups to corresponding iWay TPM roles.

**Note:** In the current version of iWay TPM, there is a limitation using LDAP when mapping groups. If a user exists in multiple groups, only one group can be mapped. This will be addressed in the next version of iWay TPM.

11. Return to the **LDAP Settings** tab, and click the **Use LDAP authentication** check box, as shown in the following image.

![Use LDAP authentication](image)
12. Stop and then start iWay TPM using the shortcuts from the Windows Start menu, as shown in the following image.

![iWay TPM Start Menu Screenshot](image)

13. Sign in to iWay TPM using an LDAP user name and password.
This section describes how to configure and use iWay Trading Partner Manager (TPM).

In this chapter:

- Using the iWay Trading Partner Manager Console

Using the iWay Trading Partner Manager Console

The iWay Trading Partner Manager (TPM) console is responsible for managing trading partner data. This section describes how to navigate and use the iWay TPM console to work with partners and all of the available facilities.

Procedure: How to Access the iWay Trading Partner Manager Console

To access the iWay Trading Partner Manager (TPM) console:

1. Enter the following URL in your web browser:

   http://localhost:8092
The iWay TPM sign in screen opens, as shown in the following image.

2. Enter *admin* as the user name (default) and *iway* as a password.
3. Click *Sign in*. 
The iWay Trading Partner Manager console opens, as shown in the following image.

![TPM Console Image]

The various TPM facilities can be accessed by clicking the tabs at the top of the pane. The following sections describe the TPM facilities in more detail:

- For more information about using the Partners facility, see Partners on page 74.
- For more information about using the Routes facility, see Routes on page 95.
- For more information about using the Standards facility, see Standards on page 117.
- For more information about using the Messages facility, see Messages on page 124.
- For more information about using the Systems facility, see Systems on page 131.
- For more information about using the Environments facility, see Environments on page 139.
- For more information about using the Administration facility, see Administration on page 142.
Navigating the Console and Common Usability Features

There is an array of usability features that are shared and are available by all the facilities within the iWay TPM console. This section covers the basic usability features available. Note that the availability of some of the features described in this section are dependent on the user privileges.

User Profile (Sign Out)

To view your user profile or need to sign out from the iWay TPM console, click the User Profile icon, which is located in the upper-right corner of the iWay TPM console, as shown in the following image.

A user profile dialog expands, which also includes a Sign Out button, as shown in the following image.
To close this dialog, click anywhere outside of this area. If you need to sign out, click **Sign Out**, and you will be returned to the iWay TPM Sign In screen.

**About TPM**

To view your iWay TPM version and build information, which may be requested if you contact Customer Support, click the **About TPM** icon, which is located in the upper-right corner of the iWay TPM console, as shown in the following image.

The **About TPM** Console dialog opens, as shown in the following image.

Click **Close** to return to the iWay TPM console.
TPM Console REST API

iWay TPM includes a wide selection of REST API calls that can be accessed through a Swagger-based UI. To access the REST API, click the TPM Console REST API icon, which is located in the upper-right corner of the iWay TPM console, as shown in the following image.

The TPM Console REST API opens in a new browser tab, as shown in the following image.

Close this browser tab to return to the iWay TPM console.

For more information on the iWay TPM REST API, see REST API Reference on page 201.
Showing and Hiding the Left Navigation Pane

The left navigation pane is displayed (expanded) by default when you sign in to the iWay TPM console, as shown in the following image.

You can quickly toggle (show or hide) this navigation pane as required. For example, you may want to view additional columns in the Partners area. To hide this navigation pane, click the Navigation Toggle icon, as shown in the following image.
The navigation pane is now hidden, as shown in the following image.

![Navigation Pane Image]

To restore the navigation pane, click the *Navigation Toggle* icon again.

**Pagination Tool**

Located at the bottom of the main pane for each category, the pagination tool allows you to quickly navigate through the pages of all defined components (for example, partners, routes, systems, and so on).

![Pagination Tool Image]

Total number of partners: 149
If a large number of components are defined, you can go to the next page by clicking the right arrow button. To navigate to the last page of the set, click the End button. By default, the first 10 objects of the set are displayed based on the latest edited information.

**Working With Table Columns**

This section describes how to work with table columns in the Trading Partner Manager Console.

**Showing and Hiding Columns**

You can toggle (show / hide) specific columns on each defined component page (for example, partners, routes, systems, and so on). A drop-down menu is available on the right side of each page, as shown in the following image.

![Image of a drop-down menu for column selection]

Click the drop-down menu and select or deselect the column(s) for display in the table.
Resizing Columns

To resize a column in the table, hover your cursor between any two columns. Your cursor changes and displays a resize option. Drag to the left or to the right to resize the column as required and release the cursor.

The column is resized, as shown in the following image.
Moving Columns

You can also move (reorder) any columns in the table as required. Hover your cursor on the header of the column you want to move.

Click and drag the column to its new location in the table. The following image shows the City column being moved to the right of the Postal Code column.

Release the cursor to drop the column in its new position.
**Sorting**

You can quickly sort column values (lowest to highest, highest to lowest, A to Z, or Z to A) by clicking the sort arrow in the column header, as shown in the following image.

![Sorting Image]

The column values are refreshed accordingly.
You can also sort by a specific term or keyword. Begin typing a value in the column header field, which also auto completes your entry based on available data, as shown in the following image.

The column values are refreshed based on your entry.
Filtering

To filter values on a page, simply type a value in the filter field, located in the upper-right as shown in the following image.

The table on the page is refreshed based on your entry.

To clear the filtered results and reset the table, click *Clear All*, as shown in the following image.
Buttons

Located at the top pane for each category, buttons enable the user to perform common actions. The following image shows the buttons that are available on the Partners page.

![Partners page with buttons](image)

The following table lists and describes several key buttons.

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="New" /></td>
<td>Creates a new entry for a particular asset. For example, on the Partners page, this button is used to add a new partner.</td>
</tr>
<tr>
<td><img src="image" alt="Clear All" /></td>
<td>Clears any filters or selections on the column level and page level.</td>
</tr>
<tr>
<td><img src="image" alt="Import Partner" /></td>
<td>Only available from the Partners page, this button allows you to import a partner from a JSON (.json) file.</td>
</tr>
</tbody>
</table>
Partners

Partner is defined as either a physical or logical end-point. Partner most commonly represents an organization which sends and/or receives messages using a configured application. Partner information constitutes a set of attributes about partner characteristics as a unit, and defines the type of messages that can be processed by the partner and on various systems.

The following image represents a relationship between Partner and System which is formed through a Partner System definition.

The Partner page is used to manage partner information, partner contacts, and partner systems. The initial view of the partner displays the Partner Information screen where the user is able to open additional sections by clicking on the menu list.

When a specific partner is selected in the left pane, the partner tabs in the right pane provide all the related information about that partner. The partner is automatically opened in Edit mode, enabling the user to update its information. The following partner information tabs are available:

- **Partners.** This tab provides general partner information such as name, address, and so on.
- **Partner System.** This tab shows the systems associated with a partner for processing messages.
- **Partner Contact.** This tab provides partner contact information which can consist of multiple contacts within an organization.
**Procedure:** How to Add a Trading Partner

A Trading Partner definition requires a definition of partner information, system, and Partner Systems which ties in the given system to a given partner. The Partner System is critical, since a single system can be shared by multiple partners for message processing.

The following list represents general components which have to be created for a full Partner profile.

- **Partner.** This component contains general partner information as defined on the Partner Information screen.

- **Partner System.** This component establishes a defined Partner System and Messages which can be processed by a given partner on a given system. This is defined on the Partner screen under Partner Systems.

- **System.** System definition available for multiple partners to share. This is defined on the Systems screen. For more information, see Systems on page 131.

To add a trading partner using the iWay Trading Partner Manager (TPM) console

1. Select the Partners tab in the iWay TPM console, and click New to add a new partner.
The New Partner dialog opens, as shown in the following image.

Two subtabs are available (Partner Details and Partner Address Information).

2. Enter the information for the trading partner you are creating.

The following table lists and describes the properties in the New Partner dialog.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Partner Details</strong></td>
<td></td>
</tr>
<tr>
<td>Partner Name</td>
<td>This is the unique name given for the partner.</td>
</tr>
<tr>
<td>BU Name</td>
<td></td>
</tr>
<tr>
<td>Site Code</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>Partner Parent</td>
<td></td>
</tr>
</tbody>
</table>

Using the iWay Trading Partner Manager Console
<table>
<thead>
<tr>
<th><strong>Property</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>BU Name</td>
<td>Name of the Business Unit.</td>
</tr>
<tr>
<td>Site Code</td>
<td>This is the site code of the partner.</td>
</tr>
<tr>
<td>Type</td>
<td>Specify a predefined type (optional).</td>
</tr>
<tr>
<td>Description</td>
<td>Partner function description.</td>
</tr>
<tr>
<td>Partner Parent</td>
<td>Select the partner parent if applicable. Partner parents can carry the main information, and child partners can have specific information. For example, the Sunkis partner parent has main contacts, while the Sunkis Canada child partner has regional contacts.</td>
</tr>
</tbody>
</table>

**Partner Address Information**

<table>
<thead>
<tr>
<th><strong>Property</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization Address 1</td>
<td>First line of the address.</td>
</tr>
<tr>
<td>Organization Address 2</td>
<td>Second line of the address.</td>
</tr>
<tr>
<td>City</td>
<td>Name of the city.</td>
</tr>
<tr>
<td>Postal Code</td>
<td>Postal code of the city.</td>
</tr>
<tr>
<td>State</td>
<td>State (if applicable).</td>
</tr>
<tr>
<td>Province</td>
<td>Province (if applicable).</td>
</tr>
<tr>
<td>Country</td>
<td>Country of the partner.</td>
</tr>
</tbody>
</table>

3. Click Save when you are finished
The new trading partner is added, as shown in the following image.

To edit an existing trading partner, click the options menu to the left of the trading partner in the corresponding row, as shown in the following image.
Click *Edit* from the menu, as shown in the following image.
The Edit Partner dialog opens, as shown in the following image.

After editing the trading partner information, click Save.
To delete an existing trading partner, select the trading partner and click Remove from the options menu, as shown in the following image.

The Delete Partner confirmation dialog opens, as shown in the following image.

4. Click Yes to confirm the removal of the selected trading partner.
5. To associate a trading partner system with the trading partner you just created, select the trading partner in the Partners table and then click Partner System from the menu, as shown in the following image.

![Partner System](image)

**Note:** A trading partner system must already be available in the Systems section of the iWay TPM console. For more information, see Systems on page 131.

6. Click New to create a new partner system, as shown in the following image.

![Partner System](image)
The New Partner System dialog opens, as shown in the following image.

Partner system creation enables the linkage of partner and specific system(s) which can process corresponding messages. This is a logical link which is later used by an application at runtime.

7. Enter the information for the trading partner system you are creating and select an existing system from the System drop-down list.

The System drop-down list is populated with available systems that have been created using the Systems facility. As a result, you must define a system before it can be associated with a trading partner. For more information, see **Systems** on page 131.

8. Click Save when you are finished.
The new trading partner system is added, as shown in the following image.

![Edit Partner System Dialog](image)

To edit an existing trading partner system, select the trading partner system from the table and click *Edit* from the options menu, as shown in the following image.

![Edit Options Menu](image)

The Edit Partner System dialog opens, where you can quickly edit and save your trading partner system information.
To delete an existing trading partner system, select the trading partner system and click *Remove* from the options menu, as shown in the following image.

The Delete Partner System confirmation dialog opens, where you must click *Yes* to confirm the removal of the selected trading partner system.

9. To associate a set of messages with a trading partner system, select the partner system from the table and click *New* in the Partner System Messages area, as shown in the following image.
The New Partner System Message dialog opens, as shown in the following image.

This dialog enables you to select the input and output message types to be processed by the selected trading partner system.
10. From the Select Input Message and Select Output Message lists on the left, select the required system messages to be added. Use the available buttons to add them to the Selected Input Message and Selected Output Message lists on the right side.

11. Click Save when you are finished.

You are returned to the Partner System Messages pane, which now lists the message you selected for the trading partner system, as shown in the following image.

Note: The same message can be associated with multiple systems and partners, but based on its unique metadata attributes, it can be processed differently at runtime.

Partner Information

This section provides an example of the partner information pane that is displayed when a partner is selected.
The following table lists and describes the properties in the Partners tab.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>An ID number that is associated with the partner.</td>
</tr>
<tr>
<td>Name</td>
<td>This is the required unique partner name to identify a specific partner.</td>
</tr>
<tr>
<td>Address 1</td>
<td>Required first line of the partner address.</td>
</tr>
<tr>
<td>Address 2</td>
<td>Optional second line of the partner address.</td>
</tr>
<tr>
<td>Postal Code</td>
<td>Required ZIP or Postal code for the partner address.</td>
</tr>
<tr>
<td>City</td>
<td>Required name of the city or town for the partner address.</td>
</tr>
<tr>
<td>State</td>
<td>Optional state (if applicable).</td>
</tr>
<tr>
<td>Country</td>
<td>Required country for the partner address.</td>
</tr>
<tr>
<td>Province</td>
<td>Optional Province (if applicable).</td>
</tr>
<tr>
<td>Parent Partner</td>
<td>This is a selection of existing partners which can be assigned as a parent partner. This enables the child partner to store local unique attributes, while the parent partner stores shared attributes for multiple child partners.</td>
</tr>
<tr>
<td>Last User Update</td>
<td>This field indicates the user who last updated the information.</td>
</tr>
<tr>
<td>Description</td>
<td>This is an optional but recommended description of the function of the partner.</td>
</tr>
<tr>
<td>Site Code</td>
<td>This is the optional site code to be assigned as a partner attribute.</td>
</tr>
</tbody>
</table>
Property | Description
--- | ---
BU Name | This is the optional business unit name to be assigned as a partner attribute.

**Partner Contact**

The Partner Contacts tab is designed to store contact information for a partner. Some uses might include contact information to whom notifications for unprocessed or erroneous transactions are sent. The following image shows a sample partner contact.

![Partner Contact Image]

The following table lists and describes the properties in the Partner Contact tab.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>An ID number that is associated with the partner contact.</td>
</tr>
<tr>
<td>Name</td>
<td>This is a required, unique contact name.</td>
</tr>
<tr>
<td>Primary Contact</td>
<td>You must select either true or false to indicate if this is the main contact.</td>
</tr>
<tr>
<td>Property</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Auto Notify Contact</td>
<td>Used in message processing logic, select either true or false to identify if the failed messages should or should not always be sent to this contact (recommended setting is false).</td>
</tr>
<tr>
<td>Phone</td>
<td>This is the phone number of the contact.</td>
</tr>
<tr>
<td>Mobile</td>
<td>This is the mobile phone number of the contact.</td>
</tr>
<tr>
<td>email</td>
<td>This is the email address of the contact, which must be of proper email format.</td>
</tr>
<tr>
<td>Address 1</td>
<td>First line of the address of the contact.</td>
</tr>
<tr>
<td>Address 2</td>
<td>Second line of the address of the contact.</td>
</tr>
<tr>
<td>City</td>
<td>City or town for the address.</td>
</tr>
<tr>
<td>Postal Code</td>
<td>ZIP or Postal code for the address.</td>
</tr>
<tr>
<td>State</td>
<td>State for the address (if applicable).</td>
</tr>
<tr>
<td>Country</td>
<td>Country for the address.</td>
</tr>
<tr>
<td>Province</td>
<td>Province for the address (if applicable).</td>
</tr>
<tr>
<td>Last User Update</td>
<td>This field indicates the user who last updated the information.</td>
</tr>
</tbody>
</table>

Using the iWay Trading Partner Manager Console

90 Information Builders
Partner System

The Partner System tab is designed to store systems and system messages which correspond to a given partner. Note that the system can be either a logical or real resource (such as channel, target, and so on). This view enables the management of systems, which can process assigned messages for a given partner. For example, if a partner has two systems associated with it, where the first system can process messages of type A and the second system can process messages of type B, then at runtime it can be routed to a proper system for processing (for example, sending to a proper internal queue, channel, or adapter target) simply by examining a message and determining its type.

The following image shows a single partner system with three types of messages which can be processed on this system.
To edit the partner system properties, select a partner system from the table, and then click *Edit* from the options menu, as shown in the following image.
The Edit Partner System dialog opens, as shown in the following image.

The following table lists and describes the properties you can modify for a partner system.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner System Name</td>
<td>This is a required and unique partner system name that identifies the partner and system relationship.</td>
</tr>
<tr>
<td>Type</td>
<td>Specify a predefined type (optional).</td>
</tr>
<tr>
<td>Domain</td>
<td>Optional Domain (if applicable).</td>
</tr>
<tr>
<td>Code</td>
<td>Optional System Code (if applicable).</td>
</tr>
<tr>
<td>System</td>
<td>This is a required selection of existing system as defined under the System pane. The system must be predefined before a partner system relationship can be established.</td>
</tr>
</tbody>
</table>
Click Save after you have finished editing the partner system information.

**Partner System Messages**

The Partner System Messages pane defines a set of messages that can be processed by a given partner system. It also establishes the direction for message processing such as the *in* and *out* direction. The values in the Message Type ID column must be defined prior to the partner system messages configuration and are selectable from the available messages.

The following image shows two messages that can be processed as input and one message which can be processed as output for a given partner system. A complete relationship between partner, system, and message is known as a business channel.
Routes

A business route is a combination of an inbound business channel and an outbound business channel, where each channel is a combination of a system that is sending or receiving messages of a partner. For a complete relationship, the user must define Partner, the Partner System, and the Message Type prior to defining a route. The route always sends messages in one direction, but to establish a bidirectional relationship, you must create two routes. Routes enable the application to dynamically retrieve the stored relationship between partners and identify the routing mechanism and direction to be used.
Procedure: How to Create an Advanced Trading Partner Route

To create an advanced trading partner route using the iWay TPM console:

1. Expand Routes from the left navigation pane in the iWay TPM console and click Advanced Routes, as shown in the following image.
3. Configuring and Using iWay Trading Partner Manager

The Advanced Routes page opens, as shown in the following image.

![Advanced Routes page](image)

2. Click New to add a new route, as shown in the following image.

![New route button](image)
The New Route dialog opens, as shown in the following image.

3. Enter the information for the trading partner route you are creating as required.
The following table lists and describes the properties of the New Route dialog. An asterisk (*) character indicates a required property.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route Name</td>
<td>This is the unique name for the route.</td>
</tr>
<tr>
<td>Type</td>
<td>Specify a predefined type (optional).</td>
</tr>
<tr>
<td>Environment</td>
<td>This is the environment in which this route exists.</td>
</tr>
<tr>
<td>Route Description</td>
<td>This is an optional description for the route.</td>
</tr>
<tr>
<td><strong>Route details From Partner</strong></td>
<td></td>
</tr>
<tr>
<td>From Partner</td>
<td>This is the initializing partner from which the message is being received.</td>
</tr>
<tr>
<td>Partner System Message From</td>
<td>This is the message format to be processed from the initializing partner.</td>
</tr>
<tr>
<td>Partner System From</td>
<td>This is the channel for the initializing partner.</td>
</tr>
<tr>
<td><strong>Route details To Partner</strong></td>
<td></td>
</tr>
<tr>
<td>To Partner</td>
<td>This is the destination partner to whom the message is sent.</td>
</tr>
<tr>
<td>Partner System Message To</td>
<td>This is the message format for the destination partner.</td>
</tr>
<tr>
<td>Partner System To</td>
<td>This is the channel for the destination partner.</td>
</tr>
</tbody>
</table>

4. Click Save when you are finished.
The new route is added, as shown in the following image.

To edit an existing route, click the options menu to the left of the route in the corresponding row, as shown in the following image.
Click *Edit* from the menu, as shown in the following image.
The Edit Route dialog opens, as shown in the following image.

![Edit Route dialog](image)

After editing the route information, click Save.
To delete an existing route, select the route and click Remove from the options menu, as shown in the following image.

The Delete Route confirmation dialog opens, as shown in the following image.

Click Yes to confirm the removal of the selected route.
Procedure: How to Create a Basic Trading Partner Route

To create a basic trading partner route using the iWay TPM console:

1. Expand Routes from the left navigation pane in the iWay TPM console and click Basic Routes, as shown in the following image.
2. Click New to add a new route, as shown in the following image.
3. Enter the information for the trading partner route you are creating as required.

The following table lists and describes the properties of the New Route dialog. An asterisk (*) character indicates a required property.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route Name*</td>
<td>This is the unique name for the route.</td>
</tr>
</tbody>
</table>
### Property | Description
--- | ---
Type | Specify a predefined type (optional).
From Partner* | This is the initializing partner from which the message is being received.
Message Format From* | This is the message format to be processed from the initializing partner.
Channel From* | This is the channel for the initializing partner.
To Partner* | This is the destination partner to whom the message is sent.
Message Format To* | This is the message format for the destination partner.
Channel To* | This is the channel for the destination partner.
Environment* | This is the environment in which this route exists.
Route Description | This is an optional description for the route.

4. Click **Save** when you are finished.

The new route is added, as shown in the following image.
To edit an existing route, click the options menu to the left of the route in the corresponding row, as shown in the following image.

Click *Edit* from the menu, as shown in the following image.
The Edit Route dialog opens, as shown in the following image.

![Edit Route dialog](image)

After editing the route information, click Save.
To delete an existing route, select the route and click *Remove* from the options menu, as shown in the following image.

The Delete Route confirmation dialog opens, as shown in the following image.

Click Yes to confirm the removal of the selected route.
Route Details

The Routes tab provides a table that lists all of the available routes in iWay TPM and provides details for each route, as shown in the following image.
**Code Substitution**

Code substitution enables the translation of identifying elements from one partner to another through a business route. Each partner system within a business route has a domain and code where the combination is unique. They are used to determine where a message came from and where it should be routed to. Both partners in a business route knows the unique identifiers of the other, even though they might not be the same. For example, Partner 1 knows itself as \( A \) and sends a message to partner \( B \). The receiving partner knows \( A \) as \( X \) and knows itself as \( Y \). The business route enables the application to convert \( A \) to \( X \) and \( B \) to \( Y \) to send the message correctly. The sending partner sends the message from \( A \) to \( B \), but the receiving partner receives the message as \( X \) to \( Y \), as illustrated in the following diagram.

The Code Substitution tab can be accessed from the Advanced Routes and Basic Routes pages in the iWay TPM console, as shown in the following image.
To create a new code substitution for a business route, select the business route, and then click New, as shown in the following image.
The New Code Substitution dialog opens, as shown in the following image.

Provide the necessary information, and then click Save.

**Route Contacts**

The route contacts for the business route enables the configuration of the contacts for the business route. The selection of contacts which can be added to the business route contacts is limited to the list obtained from the two partners associated with the business route.
The Route Contacts tab can be accessed from the Advanced Routes and Basic Routes pages in the iWay TPM console, as shown in the following image.

To add a contact to a business route, select the business route, and then click New, as shown in the following image.
The New Route Contact dialog opens, as shown in the following image.

Select an available contact from the table, and then click OK. You are returned to the Route Contacts tab, which is now updated with the selected contact, as shown in the following image.
Standards

The message standard is the name of a given standard for message formats, such as HL7 or CIDX. A message standard consists of message formats, which are specific sub-types or versions of a standard. In turn, message formats consist of specific message types. The following diagram provides an overview of the message standard component. For more information about message formats and message types, see *Messages* on page 124.

One of the key features of standards, is the ability to define not only a user-defined standard to group application specific messages, but also to create standard code substitutions.
To access the Standards page, click *Standards* from the left navigation pane in the iWay TPM console, as shown in the following image.
The Standards page opens, which lists all of the standards currently defined, as shown in the following image.

To define a new standard, click New, as shown in the following image.
The New Standard dialog opens, as shown in the following image.

Provide a name and description of the standard, which makes this standard available to the message format definition process. When you are finished, click Save.

The new standard that you defined is added to the table in the Standard tab, as shown in the following image.
Standards Code Substitution

When sending a message from one system to another, it is likely that the two systems may use different message standards or formats. The application processing the message (the message engine), takes into account the format and converts the message from an inbound format to an outbound format. However, the content of the message might need to be adjusted for specific values. This is where the standard code substitution is used.

For example, you may have a use case where the Product_Code field must be converted from B_001 to BUN before the message can be processed by a receiving system.

On the Standards page, which displays the Standard tab by default, select an available standard from the table. Then, click the Code Substitution tab, as shown in the following image.

![Image of Standards Code Substitution tab with a table of code substitutions]
To define a new code substitution, click New, as shown in the following image.

The New Code Substitution dialog opens, as shown in the following image.

Provide values for the available properties according to your requirements and then click Save.
The new code substitution that you defined is added to the table in the Code Substitution tab, as shown in the following image.

<table>
<thead>
<tr>
<th>ID</th>
<th>Code Substitution Name</th>
<th>Standard From</th>
<th>Standard To</th>
<th>Code</th>
<th>Substitution Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>unitOfMeasureCode</td>
<td>AXAPTA</td>
<td>UN/CEFACT</td>
<td>LTR</td>
<td>LTR</td>
</tr>
</tbody>
</table>

To edit or remove a code substitution, select the corresponding row in the table for the code substitution, and then click the options menu to the right, as shown in the following image.

Select Edit or Remove from the menu.
Messages

This section provides an overview on message format and message type.

Message Format Overview

A message format is a specific version or a sub-type of a message standard. Message format is used to group specific message types. For example, if message standard is CIDX, then the message format can be CIDX202 (version 2.02). The following diagram illustrates a message format component.
To access the Messages page, click Messages from the left navigation pane in the iWay TPM console, as shown in the following image.
The Messages page opens, and displays the Message Format tab by default, which lists all defined message formats, as shown in the following image.

To add a new message format, click New, as shown in the following image.
The New Message Format dialog opens, as shown in the following image.

![New Message Format dialog](image)

Provide a name, description, and select an associated standard from the drop-down list. When you are finished, click Save.
The new message format that you defined is added to the table, as shown in the following image.

**Message Type Overview**

The message type is a specific type of message within the format. For example, Shipnotice is a message type within the CIDX202 format, which is associated with the CIDX standard. The message type can also be associated with a specific schema to define the structure and validation for the message. The message type values can be used by a processing system to identify which transforms can be used to convert the message before sending it to the destination system. It is also used in conjunction with unique identifiers for partner systems to determine the routing of the message.
To review and create message types, ensure the Message Format tab is selected on the Messages page. Select an available message format from the table, and then click the Message Type tab, as shown in the following image.

**Note:** The numeric value within the Message Type tab indicates the number of message types that are currently defined for a selected message format.

To add a new message type, click New, as shown in the following image.
The New Message Type dialog opens, as shown in the following image.

Provide a message type name, schema name with an optional location, and description. When you are finished, click Save.
The new message type that you defined is added to the table, as shown in the following image.

Systems

Systems are physical end-systems, such as machines or applications (iSM channels), that can send messages to the processing engine. The systems are directly mapped to iSM components, such as adapters, channels, and listeners, to make them accessible during TPM runtime to the application. Before a system is defined, the appropriate iSM component must be created and made available in iSM. In some instances, systems can also represent a logical system used for routing messages, in which case there is no iSM component associated with the defined system. A system can only be in one environment at a time.
To access the Systems page, click Systems from the left navigation pane in the iWay TPM console, as shown in the following image.
The Systems page opens in the iWay TPM console, as shown in the following image.

The System tab is selected by default, which lists all the defined systems and enables the creation of new systems for TPM use.
To review the partners that are associated with a specific system, ensure the System tab is selected on the Systems page. Select an available system from the table, and then click the Partners tab, as shown in the following image.

![Image of the Partners tab](image)

**Note:** The numeric value within the Partners tab indicates the number of partners that are currently associated with the selected system.
To edit an existing system, click the options menu to the left of the system in the corresponding row, as shown in the following image.

Click *Edit* from the menu, as shown in the following image.
The Edit System dialog opens, as shown in the following image.

When you are finished editing the system information, click Save.

To delete an existing system, select the system and click Remove from the options menu, as shown in the following image.
The Delete System confirmation dialog opens, as shown in the following image.

![Delete System dialog](image)

**Note:** Deleting a system will delete all the associated partner systems using this defined system.

**Procedure:** How to Create a System

To create a system using the iWay TPM console:

1. From the Systems page, select the System tab, and then click New, as shown in the following image.
2. Enter the information for the system you are creating.

The following table lists and describes the properties in the Create New System dialog.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Name</td>
<td>A unique name for the system.</td>
</tr>
<tr>
<td>Type</td>
<td>Specify a predefined type (optional).</td>
</tr>
<tr>
<td>Environment</td>
<td>The environment to which this system applies (for example, DEV, QA, PROD).</td>
</tr>
<tr>
<td>Description</td>
<td>An optional description for the system being created.</td>
</tr>
</tbody>
</table>

3. Click Save.
The new system is added to the table in the System tab, as shown in the following image.

<table>
<thead>
<tr>
<th>ID</th>
<th>System Name</th>
<th>Last Update</th>
<th>Type</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>test</td>
<td>2018-10-09T19:08:44.000+0000</td>
<td>default</td>
<td>DEV</td>
</tr>
<tr>
<td>2</td>
<td>inna_sys</td>
<td>2019-02-19T16:19.000+0000</td>
<td>default</td>
<td>PERF</td>
</tr>
<tr>
<td>3</td>
<td>innovis</td>
<td>2019-05-17T18:01:35.113+0000</td>
<td>default</td>
<td>PROD</td>
</tr>
<tr>
<td>4</td>
<td>Innovis_test</td>
<td>2019-06-17T14:05:11.000+0000</td>
<td>default</td>
<td>TEST</td>
</tr>
<tr>
<td>5</td>
<td>arltest</td>
<td>2019-07-22T18:56:20.413+0000</td>
<td>default</td>
<td>QA</td>
</tr>
<tr>
<td>1005</td>
<td>ASZ_out</td>
<td>2019-08-20T13:32:03.000+0000</td>
<td>default</td>
<td>TEST</td>
</tr>
<tr>
<td>1006</td>
<td>CanadaSystem</td>
<td>2019-11-13T17:42:49.480+0000</td>
<td>default</td>
<td>TEST</td>
</tr>
<tr>
<td>1007</td>
<td>Test_Sys</td>
<td>2019-12-19T21:13:20.218+0000</td>
<td>default</td>
<td>QA</td>
</tr>
</tbody>
</table>

**Environments**

The main environments page allows the management of the environments defined in iWay Trading Partner Manager. With different environments, you can organize an infrastructure. Systems and business routes can be associated to an environment. This is a valuable option for applications which share the same database repository to store information for multiple environments such as developer and quality assurance environments. However, it is always recommended to have a separate database repository for the production environment, rather than using this shared repository approach.
To access the Environments page, click *Environments* from the left navigation pane in the iWay TPM console, as shown in the following image.
The Environments page opens in the iWay TPM console, as shown in the following image.

The Environments page enables the management and creation of pre-defined and new environments for the application.
Administration

The Administration menu in the iWay TPM console allows administrators to add, delete, and edit other users. Administrators can also designate various roles to managed users. The Administration menu is designed to provide an audit trail of user login activity as well as various settings and metadata management. To access the Administration menu, expand Administration in the left navigation pane, as shown in the following image.

Note: Users who are not designated as administrators will not be able to access the Administration menu.
Users

The Users section allows administrators to add, delete, and edit other users.
Procedure: How to Create a New User

To create a new user:

1. From the Administration menu, click Users, and then click New, as shown in the following image.
The New User dialog opens, as shown in the following image.

![New User Dialog](image)

The following table lists and describes the properties in the New User dialog.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Name</td>
<td>This is the unique name of the user.</td>
</tr>
<tr>
<td>Password</td>
<td>This is the password of the user.</td>
</tr>
<tr>
<td>Confirm Password</td>
<td>You must re-enter the password in this field.</td>
</tr>
<tr>
<td>First Name</td>
<td>This is the first name of the user.</td>
</tr>
<tr>
<td>Last Name</td>
<td>This is the last name of the user.</td>
</tr>
</tbody>
</table>
2. Provide the required information for the new user and click Save.

   The new created user will appear in the screen of available users.

   To edit an existing user, select the user and then click Edit from the options menu, as shown in the following image.

   ![Edit User dialog](image)

   The Edit User dialog opens. Modify the user properties as required and then click Save.

   To delete an existing user, select the user and then click Remove from the options menu, as shown in the following image.

   ![Delete User dialog](image)

   The Delete User confirmation dialog opens. Click Yes to confirm the removal of the selected user.
Role
The Roles section allows administrators to add, delete, and edit roles which can be assigned to the users.
Procedure: How to Create a New Role

To create a new role:

1. From the Administration menu, click Roles, and then click New, as shown in the following image.
The New Role dialog opens, as shown in the following image.

![New Role dialog]

The following table lists and describes the properties in the New Role dialog.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Name</td>
<td>This is the unique name for the role.</td>
</tr>
</tbody>
</table>
Using the iWay Trading Partner Manager Console

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>This is the description for the role.</td>
</tr>
<tr>
<td>Permissions</td>
<td>Specify the access rights for each area (also represents each tab in the iWay TPM console):</td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="View" /> Only view the rights.</td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="View and Edit" /> Allows you to view and edit existing information, but not to create or delete.</td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="Create, View, Edit, and Delete" /> Full rights to a given tab.</td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="No Access" /> Tab will not be visible.</td>
</tr>
</tbody>
</table>

2. Provide the required information for the new role and click Save.

The created role will appear in the screen of available roles shown below, and is available to be assigned to users.
To edit an existing role, select the role and click *Edit*, as shown in the following image.

![Edit Role](image)

The Edit Role dialog opens. Modify the role properties as required and then click *Save*.

To delete an existing role, select the role and click *Delete*, as shown in the following image.

![Delete Role](image)

The Delete Role confirmation dialog opens. Click *Yes* to confirm the removal of the selected role.

**Note:** If a role is associated with any user, you will not be able to delete it.

**Metadata**

The MetaData section allows those users with designated rights to manage metadata nodes and data types for all objects within iWay TPM. This area enables the creation or deletion of metadata nodes for a given object such as partner. The created metadata is available for all instances of an object, such as centralizing the management. For example, the ReceiverID metadata node created for the partner object will be available for all partners created, but will store different values specific to a given partner.
The following image shows the MetaData Configuration screen, which can be accessed from the Administration menu.
The following image shows the Data Type Configuration screen, which can be accessed from the Administration menu.
LDAP Configuration

The LDAP Configuration section allows system administrators to enable and configure LDAP authentication with iWay TPM. The LDAP Settings tab is selected by default and shows the current LDAP configuration properties, as shown in the following image.

Note: By default, iWay TPM uses database authentication, which is based on user authentication information stored in the database that has been configured for iWay TPM.
To enable LDAP, click *Use LDAP authentication*, as shown in the following image.

![LDAP Configuration](image)

To edit LDAP settings and test your connection, click *Edit*. 

---

### 3. Configuring and Using iWay Trading Partner Manager

- To enable LDAP, click *Use LDAP authentication*, as shown in the following image.
- To edit LDAP settings and test your connection, click *Edit*. 

---
The Edit LDAP Properties dialog opens, as shown in the following image.

Modify your LDAP properties as required, click Test Connection to verify, and then click Save.

**Note:** The Save button is only enabled when the LDAP connection test is successful.
The following message is displayed when the LDAP connection test is successful:

![Ping Succeeded!]

The following message is displayed when the LDAP connection test is unsuccessful:

![Ping Failed]

In the LDAP Configuration section, the Role Mapper tab allows you to map LDAP groups with iWay TPM roles, as shown in the following image.

![Role Mapper Image]

To create a mapping, click New.
The New Group Mapper dialog opens, as shown in the following image.

![New Group Mapper](image)

Type your LDAP Group name in the field and select a corresponding role from the TPM Role drop-down list. Click Save.

You are returned to the Role Mapper tab where your new mapping is added to the table.

To edit or delete a role mapping, click a specific row in the table and select Edit or Remove from the options menu, as shown in the following image.

![Role mapping options](image)

For more information on configuring LDAP, see Configuring and Enabling LDAP on page 50.
Database Configuration

The Database Configuration section allows system administrators to review, modify, and test connection settings for the iWay TPM database that has been configured (for example, SQL Server or Oracle).

To edit your database settings and test your connection, click *Edit*, as shown in the following image.
The Edit Database Properties dialog opens, as shown in the following image.

Modify your database properties as required, click Test Connection to verify, and then click Save.

**Note:** The Save button is only enabled when the database connection test is successful.

The following message is displayed when the database connection test is successful:
The following message is displayed when the database connection test is unsuccessful:

![Ping Failed]

Audit

The Audit section in the Administration menu is organized by three areas, which allow administrators to monitor user login activity, domains, and metadata in iWay TPM.

![Audit Section]

Login Audit
The Login Audit page provides the user name, the login status, login date/time, and IP address.

Domains Audit
The Domains Audit page allows you to review which domain (for example, Partner) was added, modified, or deleted based on a specific user ID. You can also specify a time frame (From Date / To Date) to narrow your search.

Metadata Audit
The Metadata Audit page allows you to review which metadata nodes were added, modified, or deleted based on a specific user ID and domain (for example, Partner). You can also specify a time frame (From Date / To Date) to narrow your search.

### Extensible Metadata

Extensible metadata is one of the key features of iWay Trading Partner Manager (TPM). It enables the application to extend the definition of any object (for example, partner, system, message, and so on) to contain application specific attributes. The metadata is defined in the iWay TPM console and then accessed by an application at runtime through the standard TPM function calls such as providing additional attributes to facilitate proper routing and message processing. For example, a ReceiverID metadata field can be associated with a partner, so when the application receives an EDI message, it can do a look up to retrieve the partner information based on the ReceiverID from the incoming message and continue message processing.
Metadata Management

Metadata management is performed through the Administration menu of the iWay TPM console. Once the Administration menu is accessed, a user (with proper permissions) can expand the MetaData menu and select the MetaData Configuration submenu. The MetaData Configuration page opens and displays a set of sub-tabs where each tab represents an object (for example, Partners, Systems, and so on) as shown in the following image.

You can define a metadata type for each object, and further extend this metadata by defining metadata nodes for each type.
You can easily manage extensive lists of metadata by using the available controls in each table (for example, sorting, filtering, and scrolling), as shown in the following image.

**Procedure:** How to Create a Metadata Type

To create a metadata type:

1. On the MetaData Configuration page, click the sub-tab for the object you wish to create the metadata type (for example, Partners).
2. Click New in the Meta Data Types table, as shown in the following image.

The New MetaData Type dialog opens, as shown in the following image.

3. Specify a name for the new metadata type, which is required, and a brief description (optional).

4. Click Save.
The new metadata type is added to the table, as shown in the following image.

5. To edit or delete a metadata type, select the metadata type and click *Edit* or *Remove* from the options menu, as shown in the following image.

**Procedure:** How to Create a Metadata Node

To create a metadata node:

1. On the MetaData Configuration page, click the sub-tab for the object you wish to create the metadata type (for example, Partners).
2. Select a metadata type from the Meta Data Types table.
3. Click **New** in the Meta Data Nodes for *(selected metadata type)* table, as shown in the following image.
The Add TPA Nodes dialog opens, as shown in the following image.

4. Specify a name for the TPA node, select an available data type from the drop-down list, and a description (optional).

**Note:** You can define multiple TPA nodes if required, but you must define at least one.
5. Click Save.

The newly created metadata node is displayed in the Meta Data Nodes for *(selected metadata type)* table, as shown in the following image.

![Image of Meta Data Nodes](image)

This metadata node is now available for all partner objects and can be assigned partner specific values.

For more information on partner assignment, see *Assigning Metadata Values* on page 177.
Procedure: How to Delete a Metadata Node

To delete a metadata node, right-click the metadata node you wish to delete in the Meta Data Nodes for (selected metadata type) table and select Delete TPA Node from the menu, as shown in the following image.

The Delete TPA Node confirmation dialog opens, as shown in the following image.

Click Yes to confirm or No to cancel.
Note: This action deletes all instances of the metadata node for all objects (domains) using this metadata. For example, if you delete this location_test metadata node from the Partner object, then it will also delete all the references to this metadata node and its values.

Procedure: How to Edit a Metadata Node

To edit a metadata node, right-click on the metadata node you wish to edit in the Meta Data Nodes for (selected metadata type) table and select Edit TPA Node from the menu, as shown in the following image.
The Edit TPA Node dialog opens, as shown in the following image.

Modify the metadata node as required and click Save.

If you have to rename the node, then the new name will affect all object instances referencing the renamed metadata node as well as any application which might already be using the node. As a result, this option should be used with caution.

**Procedure: How to Group Metadata Nodes**

When dealing with extensive metadata, it is recommended and useful to group the metadata fields rather than having a list of all the nodes. The grouping is visual only and access to any node within a tree is the same at runtime and does not require tree navigation as the metadata node is being retrieved by name, and should still be unique.
To group metadata nodes:

1. Right-click an existing metadata node and select *New TPA Subnode* from the menu, as shown in the following image.
The New TPA Node dialog opens, as shown in the following image.

2. Specify a name (for example, ack_dir), select an available data type from the drop-down list, and provide a description (optional).

3. Click Save.

4. Click the right arrow (>) to expand the row.
The new node (ack_dir) appears as a sub-node of the metadata node you created (in this case, location_test), as shown in the following image.

![Metadata Node Image]

You can add additional nodes or groups of nodes as required.

**Assigning Metadata Values**

Metadata nodes are managed by the administrator who has access to the MetaData section in the Administration menu. The actual assignment of values to the metadata nodes is done by someone who has access to the specific object and proper edit rights. The user accessing and managing partner information does not require full administration rights.

The following example uses a Partner to demonstrate the process of metadata assignment. The same approach can be followed and used for any other object, such as System, Partner System, Partner Contact, and so on.
To assign a value to a specific object, such as Partners, navigate to the corresponding tab (for example, Partners). Select a partner and click Metadata from the options menu, as shown in the following image.
A metadata management screen opens, providing access to all metadata nodes available for the selected object, as shown in the following image.

To edit a metadata value, click the corresponding row in the Value column and enter a value in the field.

Once you are done, click Save to save your changes.

After the metadata values have been added to all required nodes, click the X icon (Close) in the upper-right corner to exit the screen. The metadata updates are now available to the application runtime.

**Adding Data Types**

You can add new data types, which can be specified during the configuration of metadata nodes.
To add a data type:

1. Expand **MetaData** in the Administration menu and click **Data Type Configuration**, as shown in the following image.
The Data Type Configuration page opens, as shown in the following image.

2. Click New, as shown in the following image.
The New Data Type dialog opens, as shown in the following image.

3. Specify a name, regex value, and a description (optional) for your new data type.
4. Click Save.

The new data type is added to the table, as shown in the following image.
5. To edit or delete a data type, click a specific row in the table and select *Edit* or *Remove* from the options menu, as shown in the following image.
Using Runtime Functions

This section provides a reference for all of the runtime functions that are provided with iWay Trading Partner Manager (TPM).

In this chapter:

- iWay Trading Partner Manager Runtime Functions

iWay Trading Partner Manager Runtime Functions

iWay Trading Partner Manager (TPM) runtime functions allows users to retrieve the information from the TPM repository via standard iWay runtime functions. For every TPM runtime function there is corresponding custom function.

TPM functions can be used as custom functions as well as runtime functions. Even though this section only describes runtime functions, this information is also applicable for custom functions.

Installation

Before continuing, validate the iWay Service Manager (iSM) installation. Runtime functions are installed during the TPM installation (when the iwxtpm.jar file is copied to the etc\manager \extensions directory).
To check if runtime functions are installed properly navigate to the iSM command prompt and type `funcs`. A list of all the runtime functions, along with iSM runtime functions, is displayed.

TPM runtime functions include `_TPA`, `_TPAW`, `_TPID`, `_TPN`, `_TPP`, `_TPR`, `_TPRB`, `_TPS`, and `_TPT`, which should be present in the list. The following sections provide details for each TPM runtime function.

**Note:** TPM runtime functions are overloaded, which means that the same function parameter can take `++` or a value. As a result, use caution when executing these functions.

**TPA Function**

The TPA function can be used to retrieve data for a domain from the TPM repository. To better understand the TPA function, an understanding of TPM schema and the relationship between various TPM domains like partner, system, partnersystem, messagetype, and messageformat, is required. Domains are mapped directly to the database table.

1. Partner and system are related through partnersystem.
2. Partner and message are related through partner `<>` partnersystem `<>` partnersystemmessages `<>` messagetype.
3. Businessroute and partner are related through Businessroute <-> businesschannel <-> partner. Since Businesschannel can be incoming and outgoing so businessroute has two columns idBusinessChannelFrom and idBusinessChannelTo to map the incoming and outgoing data.

TPA Function Examples

Note that table references in this example can be both in upper or lower case, if the database in use is not case sensitive. If the value into the function call is a string with spaces or special characters, it has to be enclosed into single quotes. The last value for the function calls indicated as default, represents a value which should be returned in case there is no data available. This section provides some examples for using the TPA function. It is highly recommended to test any TPM function call using the testfuncs tool.

The following statement is the general syntax.

\_TPA(DomainID, Domain, DomainProperty, 'Default value')

where:

DomainID
  Is the ID field for the domain.

Domain
  Is the Table reference to follow for the field retrieval.

DomainProperty
  Is the column name (or field) from which the value should be retrieved.

Default value
  Is the default value being returned if no data is found.

Consider the following use cases.

1. To find the partner name based on the known Partner ID (idPartner=2), users can create the following function:

\_TPA(2,Partner,'name','default')

In the above expression, you are provided the number 2 as the Partner ID, searching in the Partner table, and retrieving the value for name, which will return the name for the partner.

2. To find the partner system based on the known PartnerID (idPartner=2), users can create the following function:

\_TPA(2,/Partner/PartnerSystem/System,'name','default')
In the above expression, you are provided the number 2 as the Partner ID, creating a relationship between Partner and System objects through PartnerSystem, and retrieving the name for the system.

3. To find the contact name based on the known PartnerID (idPartner=2), users can create the following function:

   `_TPA(2,/Partner/Contact,'contactname','default')`

   In the above expression, you are provided the number 2 as the Partner ID, searching the Contact table associated with the partner, and retrieving the contactname value which will return the name of the contact for the partner.

4. To find the metadata value (for example, ack) based on the known PartnerID (idPartner=2), users can create the following function:

   `_TPA(2,Partner,'ack','default')`

   In the above expression, you are provided the number 2 as the Partner ID, and finding extended metadata attribute ack.

5. To find the partner system based on the known Business Route ID (idBusinessRoute=7), users can create the following function:

   `_TPA(7,/BusinessRoute/BusinessChannelFrom/PartnerSystem,'name','default')`

   For the outbound context, you must indicate BusinessChannelTo.

   In the above expression, you are provided the number 7 as the Business Route ID, and looking for a corresponding PartnerSystem which is related by BusinessChannelFrom (indicating incoming context).

6. To find the message format name based on the known Business Route ID (idBusinessRoute=7), users can create the following function.

   `_TPA(7,/BusinessRoute/BusinessChannelFrom/PartnerSystemMessages/MessageType/MessageFormat,'name','default')`

   In the above expression, you are provided the number 7 as the Business Route ID, and looking to retrieve the Message Format From field associated with the given route. As such, in the above reference, you are searching in the BusinessRoute, finding the BusinessChannelFrom for a given Business Route ID, then retrieving corresponding PartnerSystemMessages value and getting MessageType (for example, Invoice), and then based on the MessageType, you are searching in the MessageFormat domain and finding its name, which is AXAPTA30.

7. To find the metadata value based on the known Business Route ID (idBusinessRoute=7), users can create the following function.
In the above expression, you are provided the number 7 as the Business Route ID, and retrieving a value for the metadata node primary.

8. TPM functions have the ability to take SQL conditions and custom function arguments directly in runtime. These SQL statements are appended directly to the SQL statement prepared for the runtime function. For example:

```text
_TPA('and Description="Invoices", BusinessRoute, 'Name', 'not found')
```

In the above expression, you are provided the BusinessRoute description of Invoices rather than a Business Route ID. As a result, a Business Route Name which has this description will be returned. Internally, the following SQL statement will be formed and executed:

```sql
select Name from BusinessRoute where 1=1 and Description='Invoices'
```

Note that the apostrophe character (') needs to be escaped as that is a special character in the runtime functions. For more information on iWay Functional Language (iFL) syntax, see the iWay Functional Language Reference Guide.

In the event that the values for the TPA function call are retrieved using an SREG (Special Register), then the _CONCAT() function can be used to create the where clause string as shown in the modified example below.

```text
_TPA(_CONCAT('and Description=', SREG(RouteDescription)), BusinessRoute, 'Name', 'not found')
```

where:

```text
SREG(RouteDescription)
```

Evaluates to ‘Invoices’.

9. One of the complex examples of combining multiple functions together is to retrieve metadata values associated with Partner System Message. Given only the Partner Name and Message Name, the application can find a proper metadata field, for example, a Transform which should be applied to the message when it is received on a given Partner System.

The following statement enables the application to process any message type coming from any partner and still apply the proper transformation before sending the message to the outbound processing.

```text
_tpa(_CONCAT("partner.idpartner="", SREG(partnerid), ",
Message.Type.Name = ", "", SREG(MessageType), "," ), "/messagetype/businesschannelfrom/partnersystem/partner/partnersystemmessages/BUSINESSCHANNEL","transform","notfound")
```
Note:

- The SREG(partnerid) is already available and will evaluate to the Partner ID for the message being received. This can be done as an initial message processing where the TPID() function can be used to retrieve the Partner ID based on the incoming document.

- SREG(MessageType) is already available and will evaluate to the Message Type being processed. This can be done by retrieving or identifying the message type based on the incoming document.

For example, you are given the partner Sunkis USA, which has the Partner System Sunkis_USA. The processing inbound customized message, MSG1, has an associated metadata node transform with the value MSG_1_USA, indicating that before processing this message, this canonical transform should be applied.

After SREG(MessageType) is evaluated to MSG1, and SREG(partnerid) is evaluated to 3, you have the following function call:

```_tpa(_CONCAT("partner.idpartner='",3,"' ; Messagetype.Name = '"",MSG1,"'"),"/messagetype/businesschannelfrom/partnersystem/partner/partnersystemmessages/BUSINESSCHANNEL","transform","notfound")``

Internally, this TPA statement will result in selecting the transform metadata value where Partner ID is 3 and Message Name is MSG1. The selection will be done from the BUSINESSCHANNEL table, which is the last table in the table list. The relationship between all of the tables will be formed based on primary and foreign key relationships.

**TPAW Function**

The TPAW function is used to check a domain code and update it with the passed value if it is found. This function can also be used to increment or decrement the values, which is useful when creating a new control number. The TPAW function works the same as the TPA function with the exception that if a domain code is found, then it is incremented. If the data is not incremented and a default value to return is not specified, then the TPAW, Data not updated string is returned. Otherwise, the updated value is returned.

- domainId
- domain
- domainCode
- Operator (++, -- or new Domain Value)
- Default value

For example:
_TPAW(1,'system','controlnumber','++', Default value)

This example will increment the controlnumber by 1 in case it is found and will return the incremented value. In the event that the incremented value is not a number, then it will throw an exception and will return the exception.

**Note:** Use caution while passing the values. Passing the wrong values could make the system unstable.

For example:

- Executing _TPAW(1,'system','controlnumber','value1','default value') will update the controlnumber to value1 if systemid = 1 is found.
- Executing _TPAW(1,'system','controlnumber','11','default value') will update the controlnumber to value 11 is systemid = 1 is found.

The TPAW function has the following signature:

_TPAW(domainId, domain, domainCode, Operator, Default value)

**TPID Function**

The TPID function returns the unique ID for the table based on a column name and the value that is passed. The return value can then be used in conjunction with other runtime functions. This function accepts four parameters and returns a unique table ID:

- Domain
- DomainProperty
- DomainValue
- WhereClause

For example:

- To retrieve the Partner ID, based on a known Partner Name, users can use the following function:
  
  _TPID(Partner,'Name','Sunkis USA')

  The Partner ID for the Partner with the name Sunkis USA, is returned.

- To retrieve the Partner ID, based on a known Partner metadata value, users can use the following function:

  _TPID(Partner,'ReceiverID','2002452')
The Partner ID for the partner with the metadata field ReceiverID, equivalent to 2002452, is returned.

The TPID function call can also be used in conjunction with other calls that follow the standard of iWay Functional Language.

For example, to retrieve the ChannelTarget for the system, where the System Name is Canada System, users can use the following function:

```
TPA(_TPID(System,'Name','CanadaSystem'),System,ChannelTarget,'default')
```

The following list shows the results:

- `_TPID(System,'Name','CanadaSystem')` evaluates to 3 as the System ID.
- `_TPA(3,System,ChannelTarget,'default')` evaluates to `TPM.Sunkis.Canada`.

**TPN Function**

The TPN runtime function returns a trading partner name that is defined in a particular domain. This function accepts two parameters:

- domain (for example, DUNS or SAP)
- domainvalue (for example, DUNS ID or SAP Value)

For example executing `_TPN('403815327','DUNS')` will return a trading partner name where domain code = 'DUNS' and Domain ID = '403815327'. Running this function will execute the following underlying SQL:

```
```

Note that the TPN value is acquired from the incoming businesschannel as well as the outgoing businesschannel.

The usage for the TPN function is:
TPN(Domain, Domain Value)

TPP Function

The TPP function is used to access any attribute (column) from a partner table (domain). It accepts four parameters:

- PartnerName
- AttributeName
- Default value for no data
- Default Value

The fourth value is currently the default value that is returned. However, it is reserved for future use.

For example:

_TPP('walmart','buname','Default','No Data Found')

This example returns the attribute buname from a partner where partnername is walmart. In case 'walmart' is found but buname attribute is empty, 'Default' is returned. In the event that 'walmart' is not found, then the TPP function will return the “NO_DATA_FOUND” string.

The TPP function has the following signature:

_TPP(PartnerName, AttributeName, Default Value for no data, Default Value)

TPR Function

The TPR function returns trading partner routes for a given message type and is useful in determining where to send the messages based on the message type, domain, or code. The TPR function accepts five parameters:

- messagetype
- fromDomain
- fromCode
- toDomain
- toCode
Apart from the messagetype parameter, passing empty values to the TPR function will cause this function to ignore that value and create a result set based on the values that are passed. The messagetype parameter becomes the mandatory parameter and the remaining parameters are all optional. The TPR function can return multiple values and data is returned in XML format.

For example:

- Executing `_TPR('ProductCatalogUpdate','5790000243433', '5790001669133')` returns:

  ```xml
  <TPR><FROM><DOMAIN></DOMAIN><CODE>5790000243433</CODE></FROM><TO><DOMAIN></DOMAIN><CODE>5790001669133</CODE><MESSAGETYPE>ProductCatalogUpdate</MESSAGETYPE><ROUTEID>2103</ROUTEID><SYSTEMID>1472</SYSTEMID></TO></TPR>
  ```

- Executing `_TPR('DemandForecast','ZVMI','DCR_010', 'ZVMI', '02200650')` returns:

  ```xml
  <TPR><FROM><DOMAIN>ZVMI</DOMAIN><CODE>DCR_010</CODE></FROM><TO><DOMAIN>ZVMI</DOMAIN><CODE>02200650</CODE><MESSAGETYPE>DemandForecast</MESSAGETYPE><ROUTEID>208</ROUTEID><SYSTEMID>24</SYSTEMID></TO><TO><DOMAIN>ZVMI</DOMAIN><CODE>02200650</CODE><MESSAGETYPE>DemandForecast</MESSAGETYPE><ROUTEID>210</ROUTEID><SYSTEMID>87</SYSTEMID></TO></TPR>
  ```

- Executing `_TPR('Invoice','5790000243433', '5790001669133')` returns:

  ```xml
  <TPR><FROM><DOMAIN></DOMAIN><CODE>5790000243433</CODE></FROM><TO><DOMAIN></DOMAIN><CODE>5790001669133</CODE><MESSAGETYPE>Invoice</MESSAGETYPE><ROUTEID>2100</ROUTEID><SYSTEMID>1472</SYSTEMID></TO></TPR>
  ```

It is expected that the process flow calling the TPR function will take the output XML and iterate over it to get the correct ROUTEID and send the messages accordingly to these ROUTEID instances.

The TPR function has the following signature:

```python
_TRP(messagetype, fromDomain, fromCode, toDomain ,toCode)
```

**TPRB Function**

The TPRB function returns trading partner routes for a given route name and is useful in determining where to send the routes based on the route name or partner ID. The TPRB function accepts three parameters:

- `routename`
frompartnerid

topartnerid

The TPRB function has the following signature:

_TPRB(routename, frompartnerid, topartnerid)

Apart from the routename parameter, passing empty values to the TPRB function will cause this function to ignore that value and create a result set based on the values that are passed. The routename parameter becomes the mandatory parameter and the remaining parameters are all optional. The TPRB function can return multiple values and data is returned in XML format.

The following is sample XML output that is returned by a query that uses the TPRB function.

<TPRB>
  <BasicRoute>
    <id>12345</id>
    <name>route name 1</name>
    <frompartnerid>XX</frompartnerid>
    <topartnerid>YY</topartnerid>
  </BasicRoute>
  <BasicRoute>
    <id>23456</id>
    <name>route name 2</name>
    <frompartnerid>XX</frompartnerid>
    <topartnerid>ZZ</topartnerid>
  </BasicRoute>
</TPRB>

It is expected that the process flow calling the TPRB function will take the output XML and iterate over it to get the correct ROUTEID and send the messages accordingly to these ROUTEID instances.

TPS Function

The TPS function returns substitution codes for the given BusinessRoute and PartnerCodeSub. Code substitutions in TPM are related to translations at the partnersystem level.

The TPS function accepts six parameters. The first parameter (SubstitutionValueName) should be one of the following values to determine which substitution value to return:

1. SUBSTFROMCODE: Pass this in case substitution from code is needed.
2. SUBSTFROMDOMAIN: Pass this in case substitution from domain is needed.
3. SUBSTTOCODE: Pass this in case substitution to code is needed.
4. SUBSTTODOMAIN: Pass this in case substitution to domain is needed.
The remaining parameters are:

- RouteID
- FromDomain
- FromCode
- ToDomain
- ToCode

For example:

```plaintext
_TPS('SUBSTFROMCODE',1,'DUNS',403815327,'Buyer',0000100075) returns the substituted From Code where routeid = 1 and fromdomain = 'DUNS' and fromcode = '403815327' and toDomain = 'Buyer' and toCode = '0000100075'
```

Substitution is done based on the lookup performed in the PartnerCodeSub table.

In the event that no substitution is found, then the “NO_DATA_FOUND” string is returned.

The TPS function has the following signature:

```plaintext
_TPS(SubstitutionValueName, RouteID, FromDomain, FromCode, ToDomain, ToCode)
```

### TPT Function

The TPT runtime function provides a mechanism for retrieving code substitution values from one message format to another. This should not be confused with Partner Code substitutions that are obtained using the TPS function. TPT code substitutions are purely for message level translations (for example, the MeasurementValue field for Partner A is KG while Partner B expects LBS).

The TPT function accepts four parameters:

- formatname
- formatfrom
- formatofo
- code

The TPT function has the following signature:

```plaintext
_TPT(formatname,formatfrom,formatto,code)
```

If a substitution is found the function returns the substituted value, else it returns the passed value.
The following SQL statement is run within the application function logic:

```sql
select SubstCode from codesubstitution where name=#format.name# and
StandardFrom=(select idStandard from standard where Name = #format.From# )
and StandardTo=(select idStandard from standard where Name = #format.To#
) and Code=#code#
```

In addition, the application function logic checks if substcode is null or not. If substcode is null, then #code# is returned.

**Debugging Runtime Functions**

Debugging TPM runtime functions can be difficult if you are debugging directly from the process flow or other iWay Service Manager (iSM) components. As a best practice, it is recommended to first use TPM runtime functions directly from the iSM command prompt. This requires access to the iSM command prompt. If iSM is running on a remote machine, then remote access to that machine is also required.

**Procedure: How to Debug Runtime Functions**

To debug runtime functions:

1. If iSM is running as a service, stop the service.
2. Open a new terminal window (for example, a DOS prompt) and navigate to the `iwayhome` directory.
   
   For iSM 8.x installations, the `iwayhome` directory must contain `iway8.cmd` or `./iway8.sh`, depending on which platform you are using.
   
   For iSM 7.x installations, the `iwayhome` directory must contain `iway7.cmd` or `./iway7.sh`, depending on which platform you are using.
3. Start iSM in the terminal window using `iway8.cmd` or `./iway8.sh` (for iSM 8.x). For iSM 7.x, use `iway7.cmd` or `./iway7.sh`. 
Once started, the terminal window displays the following prompt:

```
DEBUG (w.nBAMLi.stener.33) Run NHTTP Worker
DEBUG (w.nBAMLi.stener) starting W.nBAMLi.stener.34
DEBUG (w.nBAMLi.stener) Run NHTTP Worker
DEBUG (w.nBAMLi.stener) starting W.nBAMLi.stener.35
DEBUG (w.nBAMLi.stener) Run NHTTP Worker
DEBUG (w.nBAMLi.stener) starting W.nBAMLi.stener.36
DEBUG (w.nBAMLi.stener) Run NHTTP Worker
DEBUG (w.nBAMLi.stener) starting W.nBAMLi.stener.37
DEBUG (w.nBAMLi.stener) Run NHTTP Worker
DEBUG (w.nBAMLi.stener) starting W.nBAMLi.stener.38
DEBUG (w.nBAMLi.stener) Run NHTTP Worker
DEBUG (w.nBAMLi.stener) starting W.nBAMLi.stener.39
DEBUG (w.nBAMLi.stener) Run NHTTP Worker
DEBUG (w.nBAMLi.stener) starting W.nBAMLi.stener.40
DEBUG (w.nBAMLi.stener) Run NHTTP Worker

Enter command:>
Enter command:>
Enter command:>
```

**Note:** If the `Enter command:` prompt does not display, press *Enter* after iSM is started.

4. Type `funcs` to check if all the TPM runtime functions are installed properly, as shown in the following image.

```
Enter command:>
```

```
_add _base64 _contains _leavg _elast _endswith _eval _delta _dirname _exists _floor _getopt _if _iserror _isxml _isnum _min _mod _pad _parse _regex _sha1 _sha2 _sign _sub _tpaw _tpi _tpp _tssql _ucase _urllencode _xpath _xpath2
```

```
Enter command:>
```

5. Type `SET DEEP on` at the command prompt to enable the DEEP debug level and to view the complete runtime information.

   **Note:** XML files are required to execute runtime functions.

6. Create a simple XML file using the following format:

   ```xml
   <?xml version="1.0" encoding="UTF-8"?><noop/>
   located at C:\test.xml
   ```

7. Type the following command to start the test tool:

   ```
   tool testfuncs C:\test.xml
   ```

   The `funcs - >` prompt displays, which allows you to execute TPM runtime functions.

8. Enter the TPM runtime function you want to check and press `Enter`.

   For example:

   ```
   _tpid("PARTNER","ftpport","90","geq")
   ```
This will produce output with the last line reading `<tpids><tpid>1</tpid><tpid>2</tpid><tpid>3</tpid></tpids>`, as shown in the following image.

**Note:** The SQL statement is executed with the TPM runtime function along with the other debug statements.
REST API Reference

This section describes the usage of iWay Trading Partner Manager (TPM) Representational state transfer (REST) API.

In this appendix:

- REST API Overview
- Retrieving a Partner List

REST API Overview

Representational state transfer (REST) is a software architectural style that defines a set of constraints to be used for creating Web services. Web services that conform to the REST architectural style, called RESTful Web services, provide interoperability between computer systems on the Internet. RESTful Web services allow the requesting systems to access and manipulate textual representations of Web resources by using a uniform and predefined set of stateless operations.

iWay Trading Partner Manager (TPM) exposes the REST API, which can be used to easily create custom web pages or display data in existing web pages. The REST API helps to perform the most common TPM operations available through the TPM user interface. That means the same transaction, pooling, and caching are available and can be using in conjunction with the TPM user interface. This appendix covers the usage of the iWay TPM REST API.

Accessing the TPM Console REST API

iWay TPM includes a wide selection of REST API calls that can be accessed through the Swagger UI.

After you have logged in to iWay TPM, click the TPM Console REST API icon, which is located in the upper-right corner of the iWay TPM user interface, as shown in the following image.
The TPM Console REST API opens in a new browser tab, as shown in the following image.
Swagger offers the ability for each REST API call to be test run from this console and also displays sample output.

Available TPM REST API Calls

You can access and test the following TPM REST API calls through the Swagger UI:

- Business Route End Point (business-route-end-point)
- Contact End Point (contact-end-point)
- Environment End Point (environment-end-point)
- Ldap Role Mapper End Point (ldap-role-mapper-end-point)
- Management Endpoint (management-endpoint)
- Message Format End Point (message-format-end-point)
- Message Type End Point (message-type-end-point)
- Meta Data End Point (meta-data-end-point)
- Partner End Point (partner-end-point)
- Partner System End Point (partner-system-end-point)
- Partner System Messages End Point (partner-system-messages-end-point)
Retrieving a Partner List

URL:

http://servername:8089/do?

The input parameters are listed in the following table:

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Type</th>
<th>Mandatory</th>
<th>Value</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>action</td>
<td>Constant</td>
<td>Y</td>
<td>partner</td>
<td></td>
</tr>
<tr>
<td>subaction</td>
<td>Constant</td>
<td>Y</td>
<td>getpartner</td>
<td></td>
</tr>
<tr>
<td>partnerid</td>
<td>Int</td>
<td>N</td>
<td></td>
<td>Passing partnerid will return just one Partner being partnerid is unique. This field can be used when a specific partner is needed for editing purposes.</td>
</tr>
<tr>
<td>Parameters</td>
<td>Type</td>
<td>Mandatory</td>
<td>Value</td>
<td>Comments</td>
</tr>
<tr>
<td>-------------</td>
<td>---------</td>
<td>-----------</td>
<td>-------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>partnername</td>
<td>String</td>
<td>N</td>
<td></td>
<td>The search performed is identical to an SQL search.</td>
</tr>
</tbody>
</table>

**Note:** Either partnerid or partnername should be passed otherwise all the partners will be returned.

An example of input would be:

<table>
<thead>
<tr>
<th>Type</th>
<th>Input</th>
</tr>
</thead>
<tbody>
<tr>
<td>action</td>
<td>partner</td>
</tr>
<tr>
<td>partnerid</td>
<td>7</td>
</tr>
<tr>
<td>subaction</td>
<td>getpartner</td>
</tr>
</tbody>
</table>

The responses are listed in the following table:

<table>
<thead>
<tr>
<th>Response</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>buname</td>
<td>String</td>
</tr>
<tr>
<td>city</td>
<td>String</td>
</tr>
<tr>
<td>country</td>
<td>String</td>
</tr>
<tr>
<td>idparent</td>
<td>String</td>
</tr>
<tr>
<td>orgaddress1</td>
<td>String</td>
</tr>
<tr>
<td>Postcode</td>
<td>String</td>
</tr>
<tr>
<td>Province</td>
<td>String</td>
</tr>
<tr>
<td>Sitecode</td>
<td>String</td>
</tr>
<tr>
<td>State</td>
<td>String</td>
</tr>
<tr>
<td>Response</td>
<td>Type</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td>updatedt</td>
<td>SQL Date format</td>
</tr>
<tr>
<td>updateuser</td>
<td></td>
</tr>
</tbody>
</table>

The following syntax is a sample JSON response:

```json
[{"buname":"TestinPartner7","orgaddress2":"west7","orgaddress":"west6","province":null,"updatedt":"2009-08-13 23:28:40.0","idparent":null,"idpartner":7,"country":"usa","postcode":"1602","sitecode":"Tes7","state":"nc","name":"Testing7_Edit","city":"eroe","updateuser":"admin"}]
```
Feedback

*Customer success is our top priority. Connect with us today!*

Information Builders Technical Content Management team is comprised of many talented individuals who work together to design and deliver quality technical documentation products. Your feedback supports our ongoing efforts!

You can also preview new innovations to get an early look at new content products and services. Your participation helps us create great experiences for every customer.

To send us feedback or make a connection, contact Sarah Buccellato, Technical Editor, Technical Content Management at Sarah_Buccellato@ibi.com.

To request permission to repurpose copyrighted material, please contact Frances Gambino, Vice President, Technical Content Management at Frances_Gambino@ibi.com.