Due to the nature of this material, this document refers to numerous hardware and software products by their trademarks. In most, if not all cases, these designations are claimed as trademarks or registered trademarks by their respective companies. It is not this publisher’s intent to use any of these names generically. The reader is therefore cautioned to investigate all claimed trademark rights before using any of these names other than to refer to the product described.
Contents

Preface ......................................................................... 7
  Documentation Conventions ............................................................ 7
  Related Publications .................................................................. 8
  Customer Support .................................................................... 8
  Help Us to Serve You Better ............................................................ 9
  User Feedback ...................................................................... 11
  iWay Software Training and Professional Services ............................ 11

1. Introducing Omni-Gen™ for Supplier ........................................... 13
  What is Omni-Gen™? ................................................................. 13
  Omni-Gen™ for Supplier .............................................................. 14
  Related Documentation .............................................................. 14

2. Installing Omni-Gen™ for Supplier ............................................. 17
  Overview ........................................................................... 17
  Installation Prerequisites ............................................................. 17
  Install Omni-Gen Server and Omni Governance Console on Windows ................................ 19
  Known Issues and Considerations ..................................................... 55
    Error 500 Screen in Omni Governance Console..................................... 55

3. Configuring Omni-Gen™ for Supplier ........................................... 57
  Configuring Omni-Gen™ for Supplier .................................................... 57
    Loading Metadata (MData) Using the Omni Governance Console ...................... 69

4. Loading Sample Data ................................................................. 71
  Creating a Database Connection ....................................................... 71
  Accessing the Sample Data ........................................................... 73
  Loading the Omni-Gen Relational OnRamp Tables ........................................ 75

5. Understanding the Omni-Gen™ for Supplier Data Model ......................... 81
  Data Model Definition ................................................................ 81
    SUPPLIER...................................................................... 82
    SUPPLIER ALTERNATE ID......................................................... 83
    SUPPLIER ITEM................................................................ 84
    ADDRESS...................................................................... 85
    ADDRESS_DUNS................................................................ 86
<table>
<thead>
<tr>
<th>Reference Tables</th>
<th>Data Quality Rules</th>
<th>Cleansing</th>
<th>Matching</th>
<th>Merging</th>
<th>Remediation</th>
</tr>
</thead>
</table>

### 6. WSO2 Identity Server and MData Synchronization

**Functional Overview**

**Using WSO2 Identity Server and MData Synchronization**

**Prerequisites**

**Using Synchronization**

1. **Step 1: Initialization of the Analysis for the Sync.**
2. **Step 2: Progressing the Analysis.**
3. **Step 3: Summarizing the Analysis.**
4. **Step 4: Viewing Analysis Details.**
5. **Step 5: Customizing Roles/Users to be Synchronized (Optional).**
6. **Step 6: Customizing Updated Policies.**
7. **Step 7: Executing the Actual Synchronization.**
This documentation describes how to install and use Omni-Gen™ for Supplier. It is intended for developers and administrators of Master Data Management (MDM) and Data Quality (DQ) solutions who are using Omni-Gen™.

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 Introducing Omni-Gen™ for Supplier</td>
<td>Provides an overview of Omni-Gen™ and introduces Omni-Gen™ for Supplier.</td>
</tr>
<tr>
<td>2 Installing Omni-Gen™ for Supplier</td>
<td>Describes how to install Omni-Gen™ for Supplier.</td>
</tr>
<tr>
<td>3 Configuring Omni-Gen™ for Supplier</td>
<td>Describes how to configure Omni-Gen™ for Supplier.</td>
</tr>
<tr>
<td>4 Loading Sample Data</td>
<td>Describes how to load sample data for Omni-Gen™ for Supplier.</td>
</tr>
<tr>
<td>5 Understanding the Omni-Gen™ for Supplier Data Model</td>
<td>Provides reference information for the Omni-Gen™ for Supplier data model.</td>
</tr>
<tr>
<td>6 WSO2 Identity Server and MData Synchronization</td>
<td>Describes how to synchronize internal data structures using Omni Governance Console (OGC) when adding a new subject.</td>
</tr>
</tbody>
</table>

Documentation Conventions

The following table lists and describes the documentation conventions that are used in this manual.

<table>
<thead>
<tr>
<th>Convention</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>THIS TYPEFACE or this typeface</td>
<td>Denotes syntax that you must type exactly as shown.</td>
</tr>
</tbody>
</table>
### Related Publications

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

### 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 every 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 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. Be prepared to provide your six-digit site code (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 that 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 additional questions to help us serve you better.

<table>
<thead>
<tr>
<th>Request/Question</th>
<th>Error/Problem Details or Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did the problem arise through a service or event?</td>
<td></td>
</tr>
<tr>
<td>Request/Question</td>
<td>Error/Problem Details or Information</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</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 messages.</td>
<td></td>
</tr>
<tr>
<td>Any change in the application environment: software configuration, EIS/database</td>
<td></td>
</tr>
<tr>
<td>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 and 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
- Custom functions and agents in use
- Diagnostic Zip
- Transaction log
User Feedback

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

Thank you, in advance, for your comments.

iWay Software Training and Professional Services

Interested in training? Our Education Department offers a wide variety of training courses for iWay Software 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.

Interested in technical assistance for your implementation? Our Professional Services department provides expert design, systems architecture, implementation, and project management services for all your business integration projects. For information, visit our website, http://www.informationbuilders.com/consulting.
Introducing Omni-Gen™ for Supplier

This section provides an overview of Omni-Gen™ and introduces Omni-Gen™ for Supplier.

In this chapter:

- What is Omni-Gen™?
- Omni-Gen™ for Supplier
- Related Documentation

What is Omni-Gen™?

Omni-Gen is an enterprise solution from Information Builders that accelerates the deployment of complete master data management (MDM), data quality (DQ), and data integration applications. It can be thought of as master data or data quality in a box, and allows for traditional integration and big data integration.

Omni-Gen automates best practices associated with multi-domain MDM implementations. These processes involve data integration, cleansing, and mastering, and are usually implemented manually, with months spent on specification, design, coding, and testing.

Omni-Gen, by contrast, enables organizations to rapidly develop the models and golden records they require for a result, and then automatically generates the processes needed to complete the job. By default, Omni-Gen provides change history and cross-domain references management. This ensures a better and more comprehensive result on the very first cut of a project.

Key features and components that are provided by Omni-Gen include:

- Omni Designer provides a visual (business-centric) model-driven and agile-enabled environment for the definition of multiple interrelated MDM domains (for example, golden records), along with reference data and rules for cleansing, validating, and mastering records.

- Omni Governance Console (OGC) allows business users to view, monitor, compare, and report on mission-critical data; identify and rectify faulty information; and create a complete, historical web-based view of mastered golden records.
Data Quality Workbench allows you to analyze data and create rules for data standardization and enrichment without any previous knowledge of DQ products. You can access Data Quality Workbench through the OGC.

Data Quality Monitor provides information about the data quality of records in your system and its impact on business. This information can be used for further analysis and provides a basis for business decisions. You can access Data Quality Monitor through the OGC.

Omni-Gen Server maintains auditable history, reconciliation of master data references, remediation processing, enhanced application logging, and more.

Omni-Gen is available in three editions:

- Integration Edition, which includes everything you need for data profiling and sophisticated integration projects.
- Master Data Management Edition, which includes everything in the Data Quality Edition and adds technology, such as automated match/merge, for data mastering.

**Omni-Gen™ for Supplier**

Omni-Gen™ for Supplier is a prepackaged solution for mastering the Supplier domain. It provides all of the required components including a predefined model, DQ rules, and OGC perspectives. This all-in-one prepackaged mastering solution can also be extended to meet specific client requirements and demands.

**Related Documentation**

The Omni-Gen™ for Supplier User's Guide references several key components that are included with the product. For more information, you can refer to the following documentation set that is provided with Omni-Gen™ Master Data Management (MDM) and Data Quality (DQ) Editions:

- Omni-Gen™ MDM and DQ Editions Release Notes
- Omni-Gen™ Installer User's Guide
- Omni-Gen™ Operation and Management Guide
- Omni-Gen™ API Services Reference Guide
- Omni Console User's Guide
1. Introducing Omni-Gen™ for Supplier

- Data Quality Monitor Installation and Configuration Guide
- Data Quality Monitor User's Guide
- Data Quality Workbench User's Guide
- Omni™ Designer User's Guide
- Omni-Gen™ Integration Services User's Guide
- Omni-Gen™ Address Cleansing (Loqate) Installation and Configuration Guide
Chapter 2

Installing Omni-Gen™ for Supplier

This section describes how to install Omni-Gen™ for Supplier.

In this chapter:

- Overview
- Installation Prerequisites
- Install Omni-Gen Server and Omni Governance Console on Windows
- Known Issues and Considerations

Overview

Omni-Gen™ for Supplier can be installed on Windows (64-bit) platforms.

The Omni-Gen installer is developed using InstallAnywhere and follows common installer models.

First, installation information is collected from the user through a series of prompts. Then, an image is installed to the file system specified by the user, and finally, the contents of the image are configured based on the collected information.

Installation Prerequisites

Before Omni-Gen™ for Supplier, which includes Omni-Gen Server (OGS) and the Omni Governance Console (OGC), are installed, ensure that the following prerequisites are configured on your environment:

1. One or two empty database schemas must be built and ready for use.

   Note: The creation of the database is generally the responsibility of a database administrator.

   A database administrator’s user name and password for the database(s) must also be available.

   OmniGen uses the following logical sets of tables to perform MDM and OGC functions:

   - **Mastering (Database) Tables.** This is automatically created in the same database, specified in the prompts for the Remediation Database of the OmniGen Installer.
Remediation Tables. This is automatically created in the same database, specified in the prompts for the Remediation Database of the OmniGen Installer.

Data Quality Repository Tables (commonly referred to as the "repo" database). This is created in the location specified in the prompts for the Data Quality (DQ) Database of the OmniGen Installer. When configuring the two (Remediation and DQ) database locations, you can configure two separate locations for Remediation and DQ, or you can configure one location for all the tables. The example in this document uses two different database names, one for Remediation tables and the other for DQ tables.

2. Java Development Kit (JDK) Version 1.8.121 or higher.
   
   **Note:** Omni-Gen Server (OGS) and Omni Governance Console (OGC) requires Java Development Kit (JDK) version 8.
   
   a. Verify that the JAVA_HOME environment variable is defined properly.
   b. Verify that %JAVA_HOME%\bin is the first element in your PATH.

3. Acquire the required DBMS specific JDBC .jar files for use by OGC and ensure these files are available on the machine where OGC will be installed.

   - **DB2:** db2jcc4.jar, db2jcc_license_cu.jar
   - **Oracle:** ojdbc7.jar
   - **Postgres:** postgresql-9.3-1102.jdbc4.jar
   - **SQL Server (Microsoft):** sqljdbc42.jar
   - **SQL Server (Open Source):** jtds-1.3.1.jar
   - **Teradata:** terajdbc4.jar, tdgssconfig.jar

4. Ensure that the database server is configured to allow TCP connections and that the TCP ports are active.

5. Ensure that you have the proper administrative rights to modify the Java CA certificate (cacerts) store and add files to the following directory:

   JAVA_HOME/jre/lib/security

   Modifying cacerts is required for interacting with the WSO2 Identity Server (WSO2 IS).

6. GBG Loqate Address Verification

   Loqate is used to facilitate address cleansing operations and must be installed on the system where Omni-Gen™ for Supplier is running.
The recommended installation location (destination folder) is `C:\loqate`, which matches the default location that is specified in the Data Quality (DQ) cleansing plans that are prepackaged with Omni-Gen™ for Supplier. If you choose a different installation location, then you will have to manually update the Loqate step in each DQ cleansing plan with your specific path.

For more information on downloading Loqate and obtaining a required license, contact iWay Customer Support. For more information on installing and configuring Loqate, see the *Omni-Gen™ Address Cleansing (Loqate) Installation and Configuration Guide*.

Install Omni-Gen Server and Omni Governance Console on Windows

This procedure assumes that a database server (for example, an MS SQL Server), a Repository Server (for example, SVN), and iWay Data Quality Suite (DQS), are already installed.

1. Verify that the JAVA HOME environment variable (for Java Development Kit version 8) is defined properly and that `%JAVA HOME%\bin` is the first element in your PATH.

2. Download the installer (`omnigen-installer-3.6.3-Windows-SUPPLIER.exe`) from the Information Builders Technical Support Center.

   [http://techsupport.informationbuilders.com](http://techsupport.informationbuilders.com)

3. In the File Explorer, right-click the downloaded `omnigen-installer-3.6.3-Windows-SUPPLIER.exe` file and select *Run as administrator*.

   The InstallAnywhere window appears, as shown in the following image.
When the install is ready to begin, the Install Omnigen SUPPLIER Edition window opens, as shown in the following image.

4. Click Next.
The Accept License Agreement pane opens, as shown in the following image.

5. Read the License Agreement, select the *I accept the terms of the License Agreement* check box, and then click *Next*. 
6. In the *Where would you like to install* field, enter the location where you wish to install all of the required files for Omni-Gen.

The installer will create a file tree named *OmniGen* at the location you have specified. For example, if you accept the default location as `C:\`, then the installer will install Omni-Gen to:

`C:\OmniGen`

7. After you have indicated an installation directory, click *Next*. 
The Choose Java Virtual Machine pane opens, as shown in the following image.

8. Ensure that the Java version located is version 1.8 or higher, then click Next.
The Specify Base Port Number pane opens, as shown in the following image.

9. Specifying a base port number will automatically assign a set of port numbers for use by Omni-Gen Supplier components, and is used when installing more than one instance of Omni-Gen Supplier on a single machine. If you are installing a second instance of Omni-Gen Supplier, or need to configure different ports to avoid conflicts with systems already deployed on your Omni-Gen Supplier host, then see your system administrator. Otherwise, click Next to continue.
The Specify Hostname and Domain pane opens, as shown in the following image.

The default host name is this machine on which you are currently installing.

10. Enter the host domain in the Domain field and then click Next.
The Configure OmniGen Repository Tomcat Ports pane opens, as shown in the following image.

11. Verify the ports that are indicated by default and modify accordingly if required.
12. Click Next.
The Specify Location of OmniGen Designer pane opens, which prompts for the parameters that define the location of Omni Designer, as shown in the following image.

13. Accept the default parameters and click Next.
The Specify Location of Source Control .jar Files pane opens, which asks you to select a folder containing the Source Code Control System (SCCS) .jar files, as shown in the following image.

14. Change the location of the SCCS .jar files if necessary, then click **Next**.

If you have not created a folder for the SCCS .jar files, then the following error message is displayed:

If you receive this message, click **Cancel** and then create a new folder. Place the SCCS .jar files in that folder and click **Choose** in the Specify Location of Source Control .jar Files pane to navigate and select that new folder.
The Select Source Code Control System and Location is the next pane that opens, as shown in the following image.

15. Define the location and credentials for your source control repository by selecting either `svn` or `git`.

16. Click Next.
The Specify Location of JDBC .jar Files pane opens, as shown in the following image.

17. Specify the location of your JDBC .jar file(s) and click Next.
The Configure OmniGen Server Databases pane opens, which provides an overview regarding Omni-Gen databases and configuration parameters, as shown in the following image.

18. Review this information and click Next to continue.
The Select the DBMS type of the Remediation Database pane opens, as shown in the following image.

19. Specify the database that you want to use for Omni-Gen Server (OGS) and the Remediation database.

20. Click Next.
The Enter OGS Database Parameters pane opens for your selected database, as shown in the following image.

21. Specify the DBMS-specific parameters for the combined OGS and Remediation database, and then click Next.
22. Verify the database URL and click Next.
If the following message appears, indicating that your connection test failed, then verify that your database name exists in SQL (or the DBMS you are using).
When your database exists and the user name, password, and host are correct, the following message appears, indicating that your connection test passed for the specified database.

23. Click Next to continue.
24. Select the DBMS type used for the Data Quality (DQ) database and click Next.
The Enter DQ Database Parameters: SQL Server with Microsoft or Open driver pane opens, as shown in the following image.

25. If you are using the same database for OGS, click Next, or enter new parameters for the DQ database, and then click Next.
The Verify the Data Quality Database URL pane opens, as shown in the following image.

26. Verify the database URL and click Next.
If the test is successful, then the Data Quality Database Connection Test Passed pane opens, as shown in the following image.

If the test is not successful, click Previous twice, correct the connection parameters, and retest the URL.

27. Click Next to continue.
The Select the OmniGen Server Runtime Protocol pane opens, as shown in the following image.

28. Select the desired server runtime protocol, and click Next to continue.
29. Accept the default values, but change them if the infrastructure manager informs you of a conflict and recommends change(s) to an alternate available port(s).

30. Click Next.
The Install the Controller as a Windows Service pane opens, as shown in the following image.

31. Accept the default or modify as required. Click Next to continue.
32. Accept the default or modify as required. Click Next to continue.
The Verify the OmniGen Governance Console’s Tomcat Parameters pane opens, as shown in the following image.

The *Hostname* parameter defaults to the machine on which you are currently installing Omni-Gen.

33. Accept the default values and click Next.
The Configure OGC Email Server pane opens, as shown in the following image.

34. Unless you are adding the e-mail option, leave the parameter values blank, click Next, and proceed to the Preserve or Create New WSO2 Repository pane in the installer (skip to Step 36).

35. To enable the e-mail option, provide values for the following parameters as they apply to your SMTP, e-mail server:

- **SMTP Host.** Host name of your SMTP server (for example, smtp.ibi.com).

- **SMTP Port.** SMTP port on that server (usually port 25).

- **Email Notification From.** E-mail address from which the Assignment e-mails will originate (for example, OmniGen_Remediation@ibi.com).

- **SMTP Username.** User name for accessing the e-mail server.

- **SMTP Password.** Password associated with the user name for accessing the e-mail server.

- **SMTP SSL Enabled (true or false).** Specify, true if your e-mail server supports or requires SSL authentication.
In addition, each user who will receive e-mail notifications must have a valid e-mail address in their WSO2 user profile.

- Each LDAP user with the Data Steward or Data Supervisor role, and who will receive Assignment e-mails, must have a valid e-mail address in their Active Directory profile. When it makes the LDAP connection, WSO2 will bring back those email addresses to its Local User Store profile of the user.

- Each hardcoded user in the WSO2 *Primary* domain must have an email in their WSO2 user profile.

Following the Configure OGC Email Server pane, the Preserve or Create New WSO2 Repository pane opens, as shown in the following image.

36. For new Omni-Gen installations, ensure that Yes is selected, and then click Next.
The Verify the WSO2 parameters pane opens, as shown in the following image.

37. Confirm the WSO2 parameters and then click Next.
The Enter WSO2 Certificate Parameters pane opens, as shown in the following image.

38. Collect the parameters to generate the certificate for WSO2.

The parameters are used to build a unique certificate to secure the Omni Governance Console to the WSO2 communication.
39. Ensure that the address of your host is correct (not localhost), and then enter the other parameters. For example:

40. Click Next.
The Verify or change JVM Memory Settings pane opens, as shown in the following image.

41. Change the values only if you are instructed by Information Builders or iWay Support analysts, otherwise, click Next.
The Pre-Installation Summary pane opens, as shown in the following image.

42. Review all of the settings in the Pre-Installation Summary pane and then click Next.
The Ready To Install pane opens, indicating that the configuration for installation is complete, as shown in the following image.

43. Click *Install* to proceed with installation.
Progress of the installation is shown on the Installing OmniGen pane, as shown in the following image.
The Omni-Gen Supplier installation is complete when the Install Complete pane is displayed, as shown in the following image.

You are now ready to configure Omni-Gen™ for Supplier. For more information, see Configuring Omni-Gen™ for Supplier on page 57.

Known Issues and Considerations

This section describes known issues and considerations for Omni-Gen™ for Supplier Version 3.4.

Error 500 Screen in Omni Governance Console

An Error 500 screen is displayed whenever an Omni Governance Console (OGC) user attempts to use the Advanced Search feature in 360 Viewer on certain fields in Supplier Sub Collections.

This error occurs on certain advanced search filters for Address Omni Collection, Email Omni Collection, Phone Omni Collection, and Vendor PO Omni Collection. Any of these fields being added to the Advanced Search Sub Collections Filter and used will cause the error.
None of these fields are configured in the default search list that is shipped with Omni-Gen™ for Supplier Version 3.4. Users who customize the Advanced Search filters are advised not to use the filters (columns) below until a Hotfix addressing the usage of these fields is made available.

**Note:** The fields are displayable (configurable in views, but not filterable).

The filters (columns) to avoid are:

- In Table Supplier Address Master (for Address Omni Collection)
  - Address Geographic Area
  - Address Geographic Area Description
  - Address Type
  - Address Type Description

- In Table Supplier Email Master (for Email Omni Collection)
  - Email Type
  - Email Type Description

- In Table Supplier Phone Master (for Phone Omni Collection)
  - Phone Type
  - Phone Type Description

- In Table Supplier Vendor PO Master (for Vendor PO Omni Collection)
  - shiptoGeographicArea
  - OrderPriority
  - VendorGeographic Area

The following error message is displayed when using these filters (columns):

```
Internal Server Error. Source response info: Error Type: DaoException
Message: An exception occurred while creating a query in EntityManage
```
Chapter 3

Configuring Omni-Gen™ for Supplier

This section describes how to configure Omni-Gen™ for Supplier to quickly get started with using the product. For more information on detailed use of the related product areas, see the corresponding documentation for Omni-Gen™ Master Data Management (MDM) and Data Quality (DQ) Editions.

1. Open a command prompt window.

2. Execute the following command:

   `omni start-controller`

   This will start only the controller and none of the other services. The services can be started one at a time using the Omni Console.

3. Login to the Omni Console, which can be accessed using the following default URL:

   `https://host.domain:9500/`

   Where the `host` is the host of your machine and the `domain` is the domain for your machine. The default user ID and password is `ibi / ibi`. 

Note: Since there is no bundle currently deployed, you are not able to start the service for Omni Server (under Data Processing) and the five services listed under Data Quality. These services will be started after a deployment bundle is deployed.

5. Open Omni Designer by navigating to C:\omnigen\OmniDesigner, right-click OmniDesigner.exe and select Run as Administrator from the context menu.
6. Create a new repository.
   a. Click the Add Service icon in the Designer Repository tab, which is located in the lower-left.
b. Specify a repository name (for example, Supplier) and leave the default values for the remaining parameters.

c. Click Add Service.

The new repository service is added as a node in the Designer Repository tab.

d. Right-click the new repository service (for example, Supplier) and select Login from the context menu.
The Authentication required dialog opens, as shown in the following image.

![Authentication dialog]

e. Enter the following login credentials:
   - Username: super
   - Password: super

f. Click Login.

7. Import the project (that contains the Supplier model and required artifacts) into Omni Designer.
Right-click in the Project Explorer area, select Import Project, and then click from Release Bundle, as shown in the following image.

The Select a Repository Service dialog opens, as shown in the following image.

8. Select Supplier and then click Import.
9. Select your local repository into which the project will be imported.
10. Browse to the Supplier project located in:

\[C:\omnigen\OmniGenData\OmniSupplier\OmniGenforSupplier_1.0.0.RC.1.zip\]
11. Provide a project name (for example, Supplier) and then click Finish, as shown in the following image.

![Image of Omni Designer Project window]

A progress information window opens, which provides a status on the import process. Please wait (more than a minute) until the system loads all of the artifacts.

The Project has been Successfully Imported window opens. Click OK.
After the project is imported, the Supplier model is loaded. You can use the Project Explorer tab in the left pane to review the model, as shown in the following image.
If any changes are made to this project, right-click the Supplier project and select Commit from the context menu, as shown in the following image.

This will commit changes to the source management system.

You can now generate a project bundle for deployment.
12. Right-click the Supplier project and select **Generate Project Bundle**, as shown in the following image.

![Image of generate project bundle dialog]

The Project Bundle Generation dialog opens, as shown in the following image.
13. Provide a description (optional), the proper bundle versioning, and then click Generate. Please wait a minute for the project bundle to generate.

14. Once this process has finished, close Omni Designer. Open a browser and enter the following URL to create the deployable project bundle:

   https://host.domain:9502

   This process gathers all of the artifacts for DQ, Remediation, Model, OGC, and others, and packages them for deployment into runtime.

15. Click the green run icon, which writes the deployable project bundle to disk as a .zip file. When the deployment bundle is generated successfully, a message is displayed, as shown in the following image.

16. Return to the Omni Console - Managed Services page at:

   https://host.domain:9500/pages/managed_services

17. Optionally, stop the Designer Repository and Deployment Bundler services.

   **Note:** You should stop these two services only if you need to free up resources on your system.

18. From the Omni Console - Deployment page, click Install Bundle and browse to the project bundle that you recently generated, which by default is located in the following directory:
C:\omnigen\deploymentbundle

Please wait a minute to install as the system must load all of the artifacts and establish all of the repositories.

You will see the deployment steps as they are being executed, as shown in the following image.

![Deployment Progress](image)
19. Upon completion, the system will be configured for the given domain mastering.

20. Navigate to Services and start all of the remaining services for data processing.

After all of the services up and running, the system is ready for data load, processing, and data access.

Loading Metadata (MData) Using the Omni Governance Console

The first user who accesses the Omni Governance Console (OGC) with the SystemAdministrator role will be prompted to load OGC metadata, which defines the layout of the screens in OGC.

1. Access the Omni Governance Console (OGC) by using the following URL:
   
   https://host.domain:9501/ogc/

2. Login as a user with the SystemAdministrator role.
3. Load the predefined set of metadata, as shown in the following image.

![Metadata Upload Image](image)

**Note:** You can customize this view and you can also export or import the definition for sharing. The MDATA.xml file is located in the following directory:

C:\omnigen\OmniGenData\mdata

4. Once the MData is loaded, you can navigate the various console components. If you had loaded sample data, then you would see this data populated throughout the console. Otherwise, you will see only column layouts with no data, as shown in the following image.

![Console View with No Data](image)
Creating a Database Connection

Before continuing, you must first create a database connection, which is used by the Data Quality (DQ) plans.

**Note:** The database connection you create in iWay DQS must match the database properties that you defined for the combined Omni-Gen Server (OGS) and Remediation database during the Omni-Gen™ for Supplier installation. For example, the database name must match in both areas. To review the installation, see Step 20 in *Install Omni-Gen Server and Omni Governance Console on Windows*.

To create a database connection:

1. Right-click *Databases* and select *New Database Connection* from the context menu, as shown in the following image.
The Edit Database Connection dialog opens, as shown in the following image.

2. From the Database type drop-down list, select the same database you specified to use for the combined Omni-Gen Server (OGS) and Remediation database during the Omni-Gen™ for Supplier installation.

3. Enter *OmniGenDatabase* as the connection name followed by the connection parameters (including your user name and password).

   All of the connection parameters (including the database name) must match the database properties you defined for the combined Omni-Gen Server (OGS) and Remediation database during the Omni-Gen™ for Supplier installation.

   If your database type is not available in the drop-down list, create it by:

   a. Clicking *Manage*.

   b. Selecting your database type (for example, MS SQL).

   c. Clicking *Add*.
4. Click **Test Connection** to verify your connection parameters.

A success message is displayed if your database is accessible and all of your connection parameters are valid, as shown in the following image.

5. Click **OK** and then **Finish** to complete the process of adding a database connection.

**Accessing the Sample Data**

After Omni-Gen™ for Supplier is installed, sample data, including Data Quality (DQ) plans that you can edit and run, is available in the following location:

C:\omnigen\OmniGenData\OmniSupplier\OmniGen
The following image shows the contents of this folder.

Open iWay Data Quality Server (DQS) and verify or change the perspective in the upper-right corner to iWay DQS, as shown in the following image.

There are two ways you can access the sample data for Omni-Gen™ for Supplier:

1. Using the File Explorer tab.

   Simply browse to the following folder in the File Explorer tab:
   
   C:\omnigen\OmniGenData\OmniSupplier\OmniGen

   Double-click 01_LoadRamp.plan or 02.0_LoadRampControl.plan, which opens the selected plan as a tab in your workspace area. You can modify, save, and run the sample DQ plans as required.

2. Importing the \OmniGen folder into your workspace.

   a. Right-click DQ Projects in the File Explorer tab and select Import from the context menu.

      The Import dialog opens.

   b. Expand General, select Existing Projects into Workspace, and then click Next.

      The Import Projects pane opens.

   c. Ensure Select root directory is selected and click Browse to the right of this field.
4. Loading Sample Data

d. Browse to the following folder:

   C:\omnigen\OmniGenData\OmniSupplier\OmniGen


e. Ensure the OmniGen folder is selected and then click Finish.

   The project is loaded as OmniGenForSupplier2-loadRamp, which contains a subfolder called data, and two DQ plans (01_LoadRamp.plan and 02.0_LoadRampControl.plan).

f. Double-click 01_LoadRamp.plan or 02.0_LoadRampControl.plan, which opens the selected plan as a tab in your workspace area, as shown in the following image.

![Image of OmniGen workspace]

   You can modify, save, and run the sample DQ plans as required.

**Loading the Omni-Gen Relational OnRamp Tables**

You must now load the sample data to the Omni-Gen Relational OnRamp tables and execute the job to process the data using Omni-Gen.
To load the Omni-Gen Relational OnRamp:

1. In the File Explorer tab, double-click *01_LoadRamp.plan*, as shown in the following image.

The plan appears in the workspace area, as shown in the following image.
2. Right-click anywhere in the white space area of the opened plan and select Run from the context menu, as shown in the following image.
Once the process is complete, a success message is displayed, as shown in the following image. If you encounter any errors, then you must verify if you require a schema in your SQL statement by double-clicking on each of the JDBC Writer steps and changing the Table Name as required.

**Note:** Due to the maximum Oracle column name length, the load plan JDBC Writer attribute to column name mapping must be modified to account for the shortened column names.

To process the data, continue in iWay DQS to load the sample data from the ramp into Omni-Gen.
3. Double-click *02.0_LoadRampControl.plan*, as shown in the following image.

4. Right-click anywhere in the white space area of the opened plan and select *Run* from the context menu, as shown in the following image.

You are prompted to save changes.

5. Click *Yes*.

Once the process is complete, a success message is displayed.
During the process, you can switch to the Omni Console (Processing --> Work Orders) to verify that the work order is set to ACTIVE, as shown in the following image.

![Work Orders Screenshot]

**Note:** It may take some time to process the data based on the system availability. When you refresh the screen, you should see that all work orders have been processed successfully.
Understanding the Omni-Gen™ for Supplier Data Model

This section provides reference information for the Omni-Gen™ for Supplier data model.

In this chapter:

- Data Model Definition
- Data Quality Rules

Data Model Definition

**Important:** This data model is used as the base for Supplier reporting built into WebFOCUS. Any modifications made to this model will impact any related reporting. Only additions should be made to this data model. Labels can be created in WebFOCUS to change any attribute name.

The Omni-Gen™ for Supplier data model includes the following subjects:

- SUPPLIER
- SUPPLIER ALTERNATE ID
- SUPPLIER ITEM
- ADDRESS
- ADDRESS_DUNS
- VENDOR PURCHASE ORDER
- VENDOR PURCHASE ORDER LINE
- ITEM
- ITEM ALTERNATE ID
- SALES ORGANIZATION
- CONTRACT
- CONTRACT LINE
- INVOICE
SUPPLIER

The SUPPLIER subject identifies basic master data about suppliers such as name, trade prohibition indicator, ownership type, and social security number/tax identification number.

SUPPLIER subject attributes include:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>first_name</td>
<td>The first name for a supplier party.</td>
</tr>
<tr>
<td>middle_name</td>
<td>The middle name for a supplier party.</td>
</tr>
<tr>
<td>last_name</td>
<td>The last name for a supplier party.</td>
</tr>
<tr>
<td>full_name</td>
<td>The full name for a vendor party, such as when a person is providing services as a supplier.</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>company_name</td>
<td>The legally identified name for a supplier organization.</td>
</tr>
<tr>
<td>dba_name</td>
<td>The doing business as name for a supplier organization.</td>
</tr>
<tr>
<td>trade_prohibi_ind</td>
<td>A Y/N indicator that identifies a trade prohibition for a given supplier such as statutory or administrative debarment.</td>
</tr>
<tr>
<td>primary_geographic_area</td>
<td>The primary geographic area (e.g., region, branch, store, sales region) assigned to the supplier.</td>
</tr>
<tr>
<td>credit_rating</td>
<td>The classification of a vendor into a range of credit ratings (for example, High Risk, Moderate Risk, or Low Risk).</td>
</tr>
<tr>
<td>vendor_pay_priority</td>
<td>The priority ranking for a given vendor in relation to their invoice payment. For example, High, Standard, or Low.</td>
</tr>
<tr>
<td>ownership_type</td>
<td>The classification of a vendor into an ownership type, such as women owned, minority owned, or Indian owned.</td>
</tr>
<tr>
<td>legal_class_type</td>
<td>The type of business, such as nonprofit, limited partnership, trust, or sole proprietor.</td>
</tr>
<tr>
<td>prim_sales_org</td>
<td>The primary sales organization assigned to a supplier.</td>
</tr>
</tbody>
</table>

**SUPPLIER ALTERNATE ID**

The SUPPLIER ALTERNATE ID subject identifies any alternate identifiers for the supplier.

SUPPLIER ALTERNATE ID subject attributes include:
<table>
<thead>
<tr>
<th><strong>Name</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>supplier_iden_type</td>
<td>The type of alternate identifier assigned to the entire supplier, such as Commercial and Government Entity (CAGE), NATO Supply Code For Manufacturers (NSCM), or Data Universal Number System (DUNS). For an individual supplier, this could be their passport number or driver’s license.</td>
</tr>
<tr>
<td>alt_identifier_id</td>
<td>The alternate identifier for the supplier.</td>
</tr>
<tr>
<td>issuing_country</td>
<td>The country issuing the alternate identifier.</td>
</tr>
<tr>
<td>supplier_iden_active</td>
<td>A Y/N indicator identifying whether the alternate identifier is active.</td>
</tr>
</tbody>
</table>

**SUPPLIER ITEM**

The SUPPLIER ITEM subject maps the item identifier of the enterprise to the item identifier and item name of the supplier.

SUPPLIER ITEM subject attributes include:

<table>
<thead>
<tr>
<th><strong>Name</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>item_id</td>
<td>The item identifier of the enterprise.</td>
</tr>
<tr>
<td>sup_item_id</td>
<td>The item identifier of the supplier for the item of the enterprise.</td>
</tr>
<tr>
<td>sup_item_name</td>
<td>The name for the item of the supplier.</td>
</tr>
<tr>
<td>supp_item_start_dt</td>
<td>The start date for the item of the supplier.</td>
</tr>
<tr>
<td>supp_item_end_dt</td>
<td>The end date for the item of the supplier.</td>
</tr>
</tbody>
</table>
**ADDRESS**

The ADDRESS subject identifies address data including address type, time zone, and geographic area. The geographic area can represent a division, branch, department, or other geographical grouping of a company used for reporting purposes.

ADDRESS subject attributes include:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>address_type</td>
<td>The type of address, such as corporate, sold to, ship to, or bill to.</td>
</tr>
<tr>
<td>primary_ind</td>
<td>A Y/N indicator identifying the primary address for a supplier.</td>
</tr>
<tr>
<td>address_status</td>
<td>The current status for an address.</td>
</tr>
<tr>
<td>attn_to_contact</td>
<td>The name of the attention to contact portion of the address.</td>
</tr>
<tr>
<td>street_address1</td>
<td>The first line of the street address portion of the address associated to a supplier party.</td>
</tr>
<tr>
<td>street_address2</td>
<td>The second line of the street address portion of the address associated to a supplier party.</td>
</tr>
<tr>
<td>city</td>
<td>The city portion of the address associated to a supplier party.</td>
</tr>
<tr>
<td>state_territory</td>
<td>The state or territory portion of the address associated to a supplier party.</td>
</tr>
<tr>
<td>county</td>
<td>The county portion of the address associated to a supplier party.</td>
</tr>
<tr>
<td>postal_code</td>
<td>The zip or postal code portion of the address associated to a supplier party.</td>
</tr>
<tr>
<td>time_zone</td>
<td>The time zone associated with the address.</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>address_geo_area</td>
<td>The geographic area associated with the address. For example, the address may be located in a specific sales region.</td>
</tr>
<tr>
<td>latitude</td>
<td>The geospatial latitude for an address.</td>
</tr>
<tr>
<td>longitude</td>
<td>The geospatial longitude for an address.</td>
</tr>
<tr>
<td>CAGE_cd</td>
<td>Commercial and Governmental Entity code assigned to the location or address of the supplier.</td>
</tr>
</tbody>
</table>

**ADDRESS_DUNS**

The ADDRESS_DUNS subject identifies the DUNS numbers associated with an address. Note that the DUNS number can be assigned to the supplier, address, or address DUNS levels of the model.

ADDRESS_DUNS subject attributes include:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAGE_cd</td>
<td>Commercial and Governmental Entity code assigned to the DUNS number of the supplier.</td>
</tr>
<tr>
<td>DUNS_Number</td>
<td>The Dun and Bradstreet Data Universal numbering system number assigned to a supplier.</td>
</tr>
</tbody>
</table>

**VENDOR PURCHASE ORDER**

The VENDOR PURCHASE ORDER subject identifies general master data about the vendor purchase order such as bill to customer, sales order date, and order priority. Several attributes are available for comparison such as requested ship to address, ship date, order quantity, and committed/actuals. Metrics are available for the order fill rate and return rate.

VENDOR PURCHASE ORDER subject attributes include:
### Name | Description
---|---
fulfill_supp_id | The unique identifier for the fulfilling supplier.
vendor_po_type | The type of purchase order such as standard, blanket, or standing.
vendor_po_date | The date the purchase order was placed.
req_st_street | The purchase orders requested ship to street address.
req_sh_city | The purchase orders requested ship to city.
req_sh_state | The purchase orders requested ship to state/territory.
req_sh_zip | The purchase orders requested ship to zip/postal code.
req_sh_country | The purchase orders requested ship to country.
rec_st_street | The actual ship to street address used for shipment of a purchase order’s goods.
rec_st_city | The actual ship to city used for shipment of a purchase order’s goods.
rec_st_state | The actual ship to state/territory used for shipment of a purchase order’s goods.
rec_st_zip | The actual ship to zip/postal code used for shipment of a purchase order’s goods.
rec_st_country | The actual ship to country used for shipment of a purchase order’s goods.
req_ship_dt | The requested ship date of the purchase order.
cmt_ship_dt | The ship date committed to by the purchase order’s vendor.
act_ship_dt | The actual date that goods shipped for the purchase order.
order_priority | The order priority assigned to a purchase order.
order_status | The status assigned to a purchase order.
### Name | Description
--- | ---
sold_sales_org | The sales organization that will be responsible for this purchase.
related_contract | The contract that covers all purchases made under a vendor purchase order.

### VENDOR PURCHASE ORDER LINE

The **VENDOR PURCHASE ORDER LINE** identifies the line items of the purchase order. This details the item ordered, quantity, delivery date requested, and expected unit price. There are several attributes provided for reporting, such as being able to compare requested, committed, and actual delivery dates, delivered versus returned item quantities, and expected, invoiced, and paid amounts.

**VENDOR PURCHASE ORDER LINE** subject attributes include:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>requested_item_id</td>
<td>The item requested on a purchase order line.</td>
</tr>
<tr>
<td>requested_item_qty</td>
<td>The requested quantity of an item.</td>
</tr>
<tr>
<td>committed_item_id</td>
<td>The item committed to be provided on a purchase order.</td>
</tr>
<tr>
<td></td>
<td>This can differ from the requested product.</td>
</tr>
<tr>
<td>committed_item_qty</td>
<td>The committed quantity of an item.</td>
</tr>
<tr>
<td>requested_delivery_dt</td>
<td>The date requested for delivery.</td>
</tr>
<tr>
<td>committed_delivery_dt</td>
<td>The committed date for delivery of the enterprise.</td>
</tr>
<tr>
<td>actual_delivery_dt</td>
<td>The actual date of the delivery.</td>
</tr>
<tr>
<td>delivered_item_id</td>
<td>The item actually delivered on a purchase order line.</td>
</tr>
<tr>
<td></td>
<td>This can differ from the committed item.</td>
</tr>
<tr>
<td>delivered_item_qty</td>
<td>The delivered quantity of an item.</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>returned_item_id</td>
<td>The returned item applied against this purchase order line. Depending on the return policy of the enterprise, this item can differ from the delivered item.</td>
</tr>
<tr>
<td>returned_item_qty</td>
<td>The returned quantity of an item.</td>
</tr>
<tr>
<td>po_In_uom</td>
<td>The unit of measure for quantities on the purchase order line.</td>
</tr>
<tr>
<td>unit_pri_amt</td>
<td>The unit price expected for the requested item.</td>
</tr>
<tr>
<td>invoiced_unit_pri_amt</td>
<td>The invoiced unit price amount.</td>
</tr>
<tr>
<td>paid_unit_amt</td>
<td>The amount actually paid per unit for an item.</td>
</tr>
<tr>
<td>r_sales_org_id</td>
<td>The sales organization responsible for the purchase order line.</td>
</tr>
<tr>
<td>vendor_po_In_dt</td>
<td>The creation date for the purchase order line.</td>
</tr>
<tr>
<td>po_In_status</td>
<td>The status of the purchase order line.</td>
</tr>
<tr>
<td>po_In_contract</td>
<td>The contract that covers the item on the purchase order line.</td>
</tr>
</tbody>
</table>

**ITEM**

The ITEM table identifies the products and/or services that can be provided by a supplier.

ITEM subject attributes include:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>item_name</td>
<td>The type of phone number, such as home, office, FAX, or mobile.</td>
</tr>
<tr>
<td>item_short_desc</td>
<td>The short description for an item.</td>
</tr>
<tr>
<td>item_long_desc</td>
<td>The long description for an item.</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>key_item_ind</td>
<td>A Yes/No flag identifying whether an item is included in the major products tracked by the company.</td>
</tr>
<tr>
<td>item_base_uom</td>
<td>The standard/base unit of measure for an item. For a service, this will identify the billing unit of measure such as hour, day, or per job.</td>
</tr>
<tr>
<td>item_base_cost</td>
<td>The base cost amount for an item.</td>
</tr>
<tr>
<td>item_base_price</td>
<td>The base price for a base unit of measure of an item.</td>
</tr>
<tr>
<td>item_sku</td>
<td>The stock keeping unit for an item.</td>
</tr>
<tr>
<td>item_barcode</td>
<td>The barcode for an item.</td>
</tr>
<tr>
<td>item_gtin</td>
<td>The global trade item number for an item.</td>
</tr>
<tr>
<td>item_start_dt</td>
<td>The date that an item became effective.</td>
</tr>
<tr>
<td>item_end_dt</td>
<td>The end date for an item.</td>
</tr>
<tr>
<td>item_eol_dt</td>
<td>The end of life date for an item.</td>
</tr>
<tr>
<td>item_type</td>
<td>The type of item such as Product or Service. Groupings or hierarchy levels below this are maintained in Omni Grouping.</td>
</tr>
</tbody>
</table>

**ITEM ALTERNATE ID**

The ITEM ALTERNATE ID table identifies any alternate identifiers for the item.

ITEM ALTERNATE ID subject attributes include:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>item_alt_id_type</td>
<td>The type of identifier such a global product identifier, CAS number, or EINECS number.</td>
</tr>
<tr>
<td>item_alt_id_value</td>
<td>The alternate identifier value of the item.</td>
</tr>
</tbody>
</table>
SALES ORG

The SALES ORG table identifies any level sales organization of the enterprise such as a division, branch, or region.

SALES ORG subject attributes include:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>item_alt_id_active_ind</td>
<td>A Y/N indicator identifying whether the alternate ID of the item is active</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>sales_org_name</td>
<td>The name for the sales organization.</td>
</tr>
<tr>
<td>sales_org_desc</td>
<td>The description of the sales organization.</td>
</tr>
<tr>
<td>sales_org_start_dt</td>
<td>The start date for a sales organization.</td>
</tr>
<tr>
<td>sales_org_end_dt</td>
<td>The end date for a sales organization.</td>
</tr>
<tr>
<td>primary_geo_area</td>
<td>The primary geographical area assigned to a sales organization.</td>
</tr>
</tbody>
</table>

CONTRACT

The CONTRACT table identifies any contract or agreement that is related to purchasing of items and/or services.

CONTRACT subject attributes include:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>contract_signed_dt</td>
<td>The date on which a contract was signed.</td>
</tr>
<tr>
<td>contract_st_dt</td>
<td>The start date for a contract.</td>
</tr>
<tr>
<td>contract_end_dt</td>
<td>The actual end date for a contract.</td>
</tr>
<tr>
<td>contract_renew_dt</td>
<td>The next renewal date for a contract.</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------------------------------------------------------</td>
</tr>
<tr>
<td>expected_expire_dt</td>
<td>The estimated expiration date for a contract.</td>
</tr>
<tr>
<td>prim_supplier</td>
<td>The primary supplier providing products or services through the contract.</td>
</tr>
<tr>
<td>contract_status</td>
<td>The current status of a contract.</td>
</tr>
<tr>
<td>contract_type</td>
<td>The type of contract such as cooperative merchandising agreement, subscription, warranty, service contract, or purchasing agreement.</td>
</tr>
</tbody>
</table>

**CONTRACT LINE**

The CONTRACT LINE table identifies each of the line items on a contract. The line item level identifies the items or services covered by the contract and any associated minimum, maximum, or mandatory quantities to be purchased.

CONTRACT LINE attributes include:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>contract_ln_st_dt</td>
<td>The start date for a contract line.</td>
</tr>
<tr>
<td>contract_ln_end_dt</td>
<td>The end date for a contract line.</td>
</tr>
<tr>
<td>contract_item_id</td>
<td>The identifier of an enterprise for the item covered on a contract line.</td>
</tr>
<tr>
<td>contract_item_price</td>
<td>The expected price for a single unit of measure of the ordered item.</td>
</tr>
<tr>
<td>contract_item_uom</td>
<td>The unit of measure for the quantities of the item. For a Service, this could be the per hour, day, or job unit of measure for example.</td>
</tr>
<tr>
<td>min_purchase_qty</td>
<td>The minimum purchase quantity for a contract line item.</td>
</tr>
<tr>
<td>max_purchase_qty</td>
<td>The maximum purchase quantity for a contract line item.</td>
</tr>
</tbody>
</table>
### item_list_price

The list price for an item at the time of the contract line creation.

### list_price_discount_percent

The discount percentage associated with a contract line.

### term_text

The textual description of the terms of the contract line such as Net 30, 2/10 Net 30, EOM, or 15 MFI.

### contract_sla_text

The textual description of the service level agreement for the contract such as meantime to recover, turnaround time or first call resolution time.

### contract_ln_status

The current status of the contract line.

### mandatory_purchase_qty

The mandatory amount of an item that is required to be purchased during the effective period of the contract line.

---

**INVOICE**

The INVOICE table identifies any invoice received from a supplier. Any overall charges, such as shipping and handling charges, can be tracked at this header level of the invoice along with any overall discount that is applied to the entire invoice.

INVOICE attributes include:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoice_dt</td>
<td>The date on which an invoice was issued.</td>
</tr>
<tr>
<td>invoice_contract_id</td>
<td>The contract that covers the items on an invoice.</td>
</tr>
<tr>
<td>invoice_status</td>
<td>The current status of an invoice.</td>
</tr>
<tr>
<td>invoice_supplier</td>
<td>The supplier submitting the invoice.</td>
</tr>
<tr>
<td>invoice_type</td>
<td>The type of invoice such as Draft, Prepayment, or Standard.</td>
</tr>
<tr>
<td>invoice_shipment_amt</td>
<td>The amount charged for shipment costs related to the invoice.</td>
</tr>
</tbody>
</table>
### Name | Description
--- | ---
invoice_handling_amt | The amount charged for handling costs related to the invoice.
invoice_discount_amt | The discount amount allowed for an entire invoice.
invoice_level_payment_amt | Any payment amount that was posted to the entire invoice. Payments can also be posted at the line item level.
invoice_related_po | The vendor purchase order related to an invoice.

### INVOICE LINE

The INVOICE LINE table identifies each of the line items on an invoice. The line item level identifies the items or services covered by the invoice and the associated quantities and prices. It can also be used to track and compare the billed, adjustments, discounts, and actual payment amounts.

**INVOICE LINE attributes include:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>invoice_item_id</td>
<td>The item that is billed for on the invoice line.</td>
</tr>
<tr>
<td>invoice_item_qty</td>
<td>The quantity of an item that is covered by an invoice line.</td>
</tr>
<tr>
<td>invoice_item_uom</td>
<td>The unit of measure to be used for the invoice line quantity.</td>
</tr>
<tr>
<td>invoice_item_price</td>
<td>The price per unit to be used for the invoice line quantity.</td>
</tr>
<tr>
<td>item_list_price</td>
<td>The list price effective for an item on an invoice line.</td>
</tr>
<tr>
<td>invoice_item_adjust_amt</td>
<td>The amount of adjustments taken against an invoice line.</td>
</tr>
<tr>
<td>invoice_item_discount_amt</td>
<td>The amount of discounts taken against an invoice line.</td>
</tr>
<tr>
<td>invoice_item_paid_amt</td>
<td>The amount paid against an invoice line.</td>
</tr>
<tr>
<td>invoice_adjust_reason</td>
<td>The reason that an adjustment was taken against the invoice line.</td>
</tr>
</tbody>
</table>
### invoice_discount_reason
The reason that a discount was taken against an invoice line.

### invoice_ln_status
The status of the invoice line.

### invoice_ln_related_po
The vendor purchase order related directly to an invoice line.

### invoice_ln_contract
The contract whose terms and conditions cover the invoice line item.

---

**ACCOUNT**

The ACCOUNT table identifies any financial accounts associated with the supplier. This part of the model can be used to track dates, credit limits, and credit ratings associated with each account.

ACCOUNT attributes include:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>account_type</td>
<td>The item that is billed for on the invoice line.</td>
</tr>
<tr>
<td>account_name</td>
<td>The quantity of an item that is covered by an invoice line.</td>
</tr>
<tr>
<td>account_open_dt</td>
<td>The unit of measure to be used for the invoice line quantity.</td>
</tr>
<tr>
<td>account_renew_dt</td>
<td>The price per unit to be used for the invoice line quantity.</td>
</tr>
<tr>
<td>account_close_dt</td>
<td>The list price effective for an item on an invoice line.</td>
</tr>
<tr>
<td>credit_limit</td>
<td>The amount of adjustments taken against an invoice line.</td>
</tr>
<tr>
<td>credit_rating</td>
<td>The amount of discounts taken against an invoice line.</td>
</tr>
<tr>
<td>credit_terms</td>
<td>The amount paid against an invoice line.</td>
</tr>
</tbody>
</table>
ACCOUNT TEAM

The ACCOUNT TEAM table identifies any members of the enterprise which are assigned to the supplier.

ACCOUNT TEAM attributes include:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>current_ind</td>
<td>A Y/N indicator identifying whether this team is the most current one assigned.</td>
</tr>
<tr>
<td>credit_rep</td>
<td>The person assigned as credit representative for the supplier.</td>
</tr>
<tr>
<td>direct_sales_rep</td>
<td>The person assigned as the direct sales representative for the supplier.</td>
</tr>
<tr>
<td>account_exec</td>
<td>The person assigned as the account executive for the supplier.</td>
</tr>
<tr>
<td>account_team_start_dt</td>
<td>The start date for the account team assignment.</td>
</tr>
<tr>
<td>account_team_end_dt</td>
<td>The end date for the account team assignment.</td>
</tr>
</tbody>
</table>

CONTACT

The CONTACT table identifies any significant contacts associated with the supplier. The person name and primary contact type can be tracked.

CONTACT attributes include:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>primary_ind</td>
<td>A Y/N indicator identifying whether this is the primary contact for the supplier.</td>
</tr>
<tr>
<td>contact_type</td>
<td>The primary type associated to the contact such as buyer, accounts receivable, or delivery receipt.</td>
</tr>
<tr>
<td>title</td>
<td>The title for the contact such as Mr., Dr., Mrs., or Ms.</td>
</tr>
</tbody>
</table>
5. Understanding the Omni-Gen™ for Supplier Data Model

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>first_name</td>
<td>The first name of the contact</td>
</tr>
<tr>
<td>middle_name</td>
<td>The middle name of the contact.</td>
</tr>
<tr>
<td>last_name</td>
<td>The last name of the contact.</td>
</tr>
<tr>
<td>full_name</td>
<td>The full name of the contact. This is usually a combination of the first name, middle name and last name.</td>
</tr>
</tbody>
</table>

**PHONE**

The PHONE subject identifies the phone number for the supplier such as home, office, FAX, or mobile.

PHONE subject attributes include:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>primary_ind</td>
<td>A Y/N indicator identifying the primary phone number for a supplier.</td>
</tr>
<tr>
<td>active_ind</td>
<td>A Y/N indicator identifying the phone number is currently active.</td>
</tr>
<tr>
<td>phone_type</td>
<td>The type of phone number, such as home, office, FAX, or mobile.</td>
</tr>
<tr>
<td>phone_number</td>
<td>The actual digits of the phone number.</td>
</tr>
<tr>
<td>extension</td>
<td>The extension portion of the phone number.</td>
</tr>
<tr>
<td>comm_status</td>
<td>The current status of the phone number such as unconfirmed, opt-in, or opt-out.</td>
</tr>
</tbody>
</table>

**EMAIL**

The EMAIL subject identifies the email address for the supplier, such as personal or business.

EMAIL subject attributes include:
<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>primary_ind</td>
<td>A Y/N indicator identifying whether this is the primary email for a supplier.</td>
</tr>
<tr>
<td>email_type</td>
<td>The actual value of the email address.</td>
</tr>
<tr>
<td>comm_status</td>
<td>The type of email address, such as personal or business.</td>
</tr>
<tr>
<td>email_address</td>
<td>The status of an email address such as unconfirmed, opt-in, or opt-out.</td>
</tr>
</tbody>
</table>

**Reference Tables**

Omni-Gen™ for Supplier also includes the following reference tables.

- **Account types.** Identifies the acceptable values for the status of an account such as unconfirmed, credit hold, active, or closed.
- **Address Status types.** Identifies the acceptable values for the status of an address such as unconfirmed, active, or inactive.
- **Alternate Item ID types.** Identifies the acceptable values for the type of alternate item identifier such as Global Product ID.
- **Comm Status types.** Identifies the acceptable values for the status of an email or phone number such as unconfirmed, opt-in, or opt-out.
- **Contract Types.** Identifies the acceptable values for the types of contracts such as the cooperative merchandising agreement or purchasing agreement.
- **Contract Status types.** Identifies the acceptable values for the status of a contract such as pending, open, or closed.
- **Credit Rating types.** Identifies the acceptable values for the supplier’s credit rating such as Prime, High, Speculative, Default Imminent, or In Default.
- **Email Types.** Identifies the acceptable values for the supplier's email type such as a home, cell, or business.

- **Geographic Area types.** Identifies the acceptable values for the supplier’s geographic area or region as derived from their address such as the Southern, Western, Eastern, or Northern.

- **Invoice Adjustment Reason types.** Identifies the acceptable values for the type of an adjustment that was taken against an invoice.

- **Invoice Discount Reason types.** Identifies the acceptable values for the type of a discount taken against an invoice.

- **Invoice Status types.** Identifies the acceptable values for the status of an invoice such as received, open, closed, or approved for payment.

- **Invoice types.** Identifies the acceptable values for the types of invoice such as Standard, Prepayment, or Draft.

- **Item types.** Identifies the acceptable values for the types of an item such as products or services.

- **Legal Class types.** Identifies the acceptable values for the legal classification of the supplier such as non-profit, trust, or sole proprietor.

- **Phone types.** Identifies the acceptable values for the supplier’s phone types such as home or business.

- **Order Line Status types.** Identifies the acceptable values for the status of a purchase order line such as open, closed, or partially shipped.

- **Order Status types.** Identifies the acceptable values for the status of a purchase order such as open, closed or partially shipped.

- **Order types.** Identifies the acceptable values for a purchase order’s types such as Blanket, Standing, or Standard.

- **Order Priority types.** Identifies the acceptable values for the supplier’s order priority such as Top 10, Customer Expedited, High, Standard, or Low.

- **Ownership types.** Identifies the acceptable values for the supplier’s ownership type such as woman, minority, or Indian owned.

- **Supplier Identifier types.** Identifies the acceptable values for the type of alternate identifiers assigned to a supplier such as active or inactive.
Unit of Measure types. Identifies the acceptable values for units of measure such as tons, each, carton, or case.

Vendor’s Payment Priority types. Identifies the acceptable values for the supplier’s assigned payment priority such as High, Standard, or Low.

Data Quality Rules

This section provides a reference for the applicable Data Quality (DQ) rules (Cleansing, Matching, Merging, and Remediation).

Cleansing

- Cleanse Address:
  Verify and standardize address subject.
  
  Prerequisites:
  
  - Loqate for address cleansing and verification.
  
  Tags:
  
  - ERR_NO_ZIP_ON_USA_ADDRESS – Address does not have a ZIP code.
  - ERR_ADDRESS_INVALID – Address is invalid based on Loqate address verification and standardization.

- Cleanse Name:
  If name parts are populated, populate full name. If full name is populated, parse full name to populate name parts.
  
  Prerequisites:

  - None
  
  Tags:

  - ERR_NAME_BLANK – Full name attribute is blank.
  - ERR_LAST_NAME_BLANK – Last name attribute is blank.

- Cleanse SSN:
  Verify SSN conforms to US SSN standards based on Social Security Administration standards.
Prerequisites:

☐ None

Tags:

☐ INF_SSN_NULL – SSN is blank.

☐ ERR_SSN_ALL_ZEROS_IN_DIGIT_GROUP – One or more of the digit groups contains all zeros (0), where a digit group is defined as each of the 3 unique segments of a SSN.

☐ ERR_SSN_UNACCEPTED_NUMBER

☐ WRN_SSN_ZEROS_ADDED – Zeros were added to be beginning of the SSN to make it a valid length.

☐ ERR_SSN_USED_FOR_ADVERTISMENT – SSN was used during advertising campaigns and is not valid.

☐ ERR_SSN_NOT_A_NUMBER – SSN contains nonnumeric values.

☐ ERR_SSN_NO_9_DIGIT – SSN is not 9 digits in length, after removing dashes.

☐ Cleanse Email:

Verify email conforms to minimum standards and is not blacklisted.

Prerequisites:

☐ None

Tags:

☐ WRN_EMAIL_BLACKLISTED – Email included in email black list.

☐ ERR_INVALID_EMAIL_ADDR – Email address does not conform to a minimum of <value>@<value>.<value>

☐ Cleanse Phone:

Verify phone numbers follow US phone number length and area code is valid.

Prerequisites:

☐ None

Tags:

☐ WRN_UNKNOWN_AREA_CODE – Phone number contains an unknown area code.
Cleanse Purchase Order (PO) Addresses:
Verify PO addresses are valid.

Prerequisites:
Loqate for address cleansing and verification.

Tags:
- ERR_SHIP_TO_NO_ZIP_ON_USA_ADDRESS – Ship To address does not have Zip Code
- ERR_SHIP_TO_ADDRESS_INVALID – Ship To address invalid based on Loqate address verification and standardization
- ERR_REQUESTED_NO_ZIP_ON_USA_ADDRESS – Requested address does not have Zip Code
- ERR_REQUESTED_ADDRESS_INVALID – Requested address invalid based on Loqate address verification and standardization
- ERR_FULFILLING_NO_ZIP_ON_USA_ADDRESS – Fulfilling address does not have Zip Code
- ERR_FULFILLING_ADDRESS_INVALID – Fulfilling address invalid based on Loqate address verification and standardization

Matching

Matching is performed based on the following attributes:
- SSN
- Full Name and Name Parts
- email
- Phone Number

Each attribute has a weight assigned, based on the uniqueness of the attribute. Attributes may have reduced weighting where values do not have exact matches or contain transpositions. Attributes unique to the subject may have negative weighting when the values are completely or somewhat different.

It is considered a **Strong** match when the total combined score of the match is greater to or equal 200 and a **Potential** match when greater to or equal to 150, but less than 200.
Records that are considered a potential match have a matching ticket created. This allows a data steward to manually review the low-quality match for accuracy.

**Merging**

Merging is performed differently based on the subject, depending on the content of each subject.

- **Supplier:**
  - Most recent supplier record selected.

- **Phone:**
  - All unique phone numbers for each phone number type.

- **Address:**
  - All unique addresses for each address type.

- **Email:**
  - All unique email addresses for each email address type.

- **Purchase Order:**
  - All purchase orders. No merge is performed.

**Remediation**

Remediation creates two types of tickets (Cleansing and Matching).

Cleansing tickets are created whenever the tag begins with "ERR_". For a complete list of potential tags generated, see *Cleansing* on page 100.

Matching tickets are created when the match quality is only considered to be a ‘Potential’ match. For more information on match quality, see *Matching* on page 102.
This section describes how to synchronize internal data structures using Omni Governance Console (OGC) when adding a new subject.

In this chapter:

- Functional Overview
- Using WSO2 Identity Server and MData Synchronization
- Configuring the Environment

Functional Overview

WSO2 Identity Server and MData synchronization consists of two parts:

- **Interaction with OmniDomain.** To synchronize the internal data structure (referred to as MData) of OGC.

- **Integration with WSO2.** To synchronize permissive mechanisms of the OGC application.

Using WSO2 Identity Server and MData Synchronization

This section describes the prerequisites and steps performed when using the WSO2 Identity Server and MData Synchronization projects.

Prerequisites

The synchronization functionality is intended for use only in OGS Development mode.
To set this mode, click the Configuration drop-down list, then click the Runtime option in the left pane. In the Runtime section that appears, select the Omni Server Mode setting and set the Value to DEVELOPMENT to enable the functionality, as shown in the following image.

Note: If OGS is unresponsive (because it is not started or in error), the sync function will be disabled.

Using Synchronization

Note: Synchronization is not required when loading the MDATA.xml file, which is provided by the Omni-Gen™ for Supplier installer (version 3.4.2.1) for any new installation of the product.

When a new subject(s) is imported into the system, or when the structure of the current one is being altered, you will need to synchronize the updated data structure and the previously existing structure in OGC.

Initialization of the synchronization process can be performed by OGC and consist of the following parts:

- Analysis for the sync (and optional customization)
- Actual synchronization by the results of the previous action

The following is a sample synchronization process workflow of actions.
Step 1: Initialization of the Analysis for the Sync

From the OGC Application, click Login, select Administration, click the Sources tab, and then click Sync, as shown in the following image.

Step 2: Progressing the Analysis

The analysis for the synchronization process begins, and the status bar displays the dynamic progression status, as shown in the following image.
Step 3: Summarizing the Analysis

After the analysis is complete, a summary of the proposed synchronization appears, as shown in the following image.

![Image of summarized analysis]

Step 4: Viewing Analysis Details

Expand View Details to see the details of the potential update. View Details refers only to the actions modifying the OGC MData structure. To see the details for the WSO2 modifications, click the Details link by the respective summary items, as shown in the following image.

![Image of detailed view]
The following image shows the Details link for the Role(s) to be assigned to users found entry.

Step 5: Customizing Roles/Users to be Synchronized (Optional)

By default, four users (ds_a, ds_b, super_a, and super_b) are granted all the new domain roles (for example, permission to access the new Domains or Subjects). If you need to customize those defaults, click *Edit*.

A dialog appears, allowing you to refine the assigned domain roles. You can add/remove new domain roles and users, and the relations between them, as shown in the following image.
Step 6: Customizing Updated Policies

By default, new domain roles are added to all role sections in policies. If you need to change the default, click *Edit*. A dialog defining which domain roles refer to what role sections in all policies appears. You can match new domain roles to regular roles, as shown in the following image.

Step 7: Executing the Actual Synchronization

Click *Apply Changes* to start the actual synchronization process.
The Loading message appears, as shown in the following image.

Step 8: Summarizing the Synchronization

When the synchronization is complete, a summary appears displaying the synchronization details, as shown in the following image.

![Summary Image]

After all steps have been completed, the OGC application is completely in sync with the new OGS data structure, and fully functional in using the new data.

Configuring the Environment

The following SSL certificates setup occurs when using the synchronization functionality of your environment (for example, IntellijIdea, Eclipse, and so on) with the OGS deployed on a secured gateway (HTTPS).
**Note:** Perform the following steps only if you are running it in your IDE.

1. Add the new VM argument to your running configuration:

   ```
   -Djavax.net.ssl.trustStore=[path_to_certificates]\ibi-certs
   -Djavax.net.ssl.trustStorePassword=changeit 
   -Dhttps.protocols=TLSv1.1,TLSv1.2
   ```

   where:

   `ibi-certs`

   Is the name of the key storage.

2. Open *Run\Debug Configurations* and append the new arguments to the Command line field, as shown in the following image.

3. Copy the required certificate from the OGS location to your computer. For example:

   ```
   ..\[OGS_HOME_DIR]\omnigen\OmniGenData
   ```

4. Copy the following files:

   - `ibi-certs`
   - `omnigenstore`
   - `omnigenstore.pem`

   **Note:** The certificate can change from time to time. If this happens, you will have to update them.

5. Install JDK 1.7 with an update numbered 99 or higher, otherwise requests will fail even with the correct certificates.
6. After installation is complete, click File, select Project Structure, and then link Project SDK to the proper location, as shown in the following image.
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.