Informatica

Informatica® Cloud Data Integration
July 2024

IDMS Connector

Informatica Cloud Data Integration IDMS Connector
July 2024
July 2022

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Preface

Learn how to use the *IDMS Connector* to retrieve IDMS records from a PowerExchange environment and write the data to a supported target. The IDMS connector works with Cloud Data Integration mappings, mapping tasks, and taskflows. Learn how to configure connections, mappings, and mapping tasks and to run and monitor mapping tasks.

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CHAPTER 1

Introduction to IDMS Connector

You can use IDMS Connector to connect to a PowerExchange IDMS environment to retrieve records from IDMS data sources on z/OS. The PowerExchange Listener retrieves the data and records from the IDMS data sources and also retrieves source metadata from the data map repository. The PowerExchange Listener returns the data records to the PowerExchange Bulk Reader, which then sends them to Data Integration. Data Integration can then send the records to a supported target.

IDMS Connector works with the Informatica Cloud Secure Agent. When you install and start the Secure Agent, it downloads the IDMS Connector components and the PowerExchangeClient packages. When you define a runtime environment, you configure a Secure Agent group.

IDMS Connector must be able to connect to an active PowerExchange environment that includes the PowerExchange Listener. You do not need to copy the PowerExchange DBMOVER configuration file to the Cloud Secure Agent system. For more information about configuring PowerExchange for IDMS sources, see the *PowerExchange Bulk Data Movement Guide*.

To retrieve source records from the data map repository, you run a mapping task.

When you define mappings in Data Integration, you select the data maps that PowerExchange generated for the IDMS data sources. The IDMS Connector metadata adapter can then retrieve the source metadata from the data maps and store this information in the cloud.

After you use the IDMS Connector to materialize a target, you can use PowerExchange Change Data Capture (CDC), if this option is available at your site, with the Cloud IDMS CDC Connector to update the target with change data on a continuous basis.

Note: IDMS Connector does not work with the Hosted Agent.

IDMS Connector usage scenario

You can use IDMS Connector to connect to an on-premises PowerExchange for an IDMS system from a Linux and Windows system where the Secure Agent is installed.

With Informatica Intelligent Cloud Services interfaces, you gain access to easy-to-use, browser-based interfaces for defining mappings and mapping tasks and running and monitoring mapping tasks. When you run the mapping and mapping tasks, IDMS Connector components, in conjunction with Data Integration, read and process the records that IDMS Connector retrieved from the PowerExchange IDMS data source.

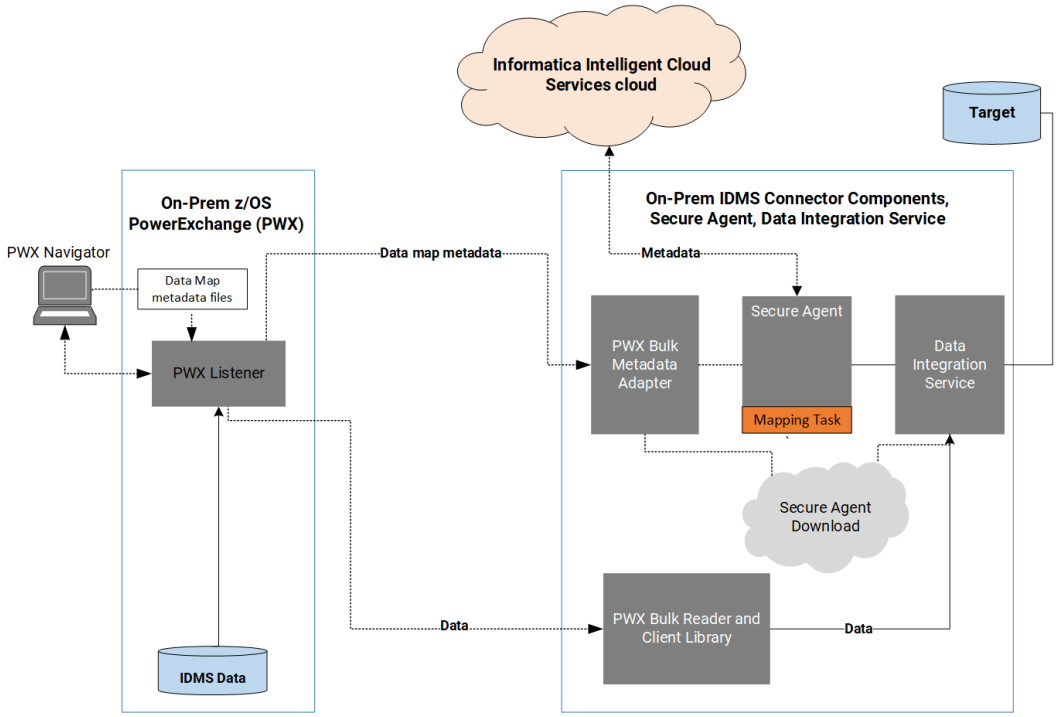
Also, you must run a PowerExchange Listener on the z/OS system where the IDMS source is located. Verify that this PowerExchange Listener can communicate with the Secure Agent System.

Integration with the PowerExchange environment

You must have a functional on-premises PowerExchange environment that can retrieve records from IDMS data sources on a z/OS system. The IDMS Connector retrieves records from the data map metadata.

You must have a license that allows your organization to use the IDMS Connector and PowerExchangeClient packages on a z/OS system. On each system from which you plan to use IDMS Connector, install the Secure Agent. After you start the Secure Agent the first time, the IDMS Connector and PowerExchangeClient package are installed locally. You then can use Cloud Data Integration, Administrator, and Monitor interfaces to configure IDMS connections, mappings, and mapping tasks and to run and monitor mapping tasks.

The following image shows the general architecture of the IDMS Connector components in relation to Cloud Data Integration and the remote IDMS source system:



This configuration spans the following on-premises systems:

- The Windows system where the PowerExchange Navigator client runs.
- The z/OS system where the IDMS data sources and PowerExchange Listener run.
- The system where the IDMS Connector components and Secure Agent run.

Based on this configuration, the following processing occurs:

1. PowerExchange retrieves records from IDMS data sources and sends the data to the PowerExchange Listener for z/OS.

   You defined a data map for each IDMS source in the PowerExchange Navigator.

2. When you design a mapping in Data Integration, you associate the Source transformation with an IDMS connection. You can define the connection in either Data Integration or Administrator. The PWX Bulk Metadata Adapter then uses the connection to connect to the PowerExchange Listener on z/OS and retrieve data map metadata files for the IDMS source from the PowerExchange Listener.

   In the mapping, you must also define a Target transformation and connection and map the source fields to target fields.

3. The Secure Agent in conjunction with Data Integration sends the data map metadata to the Informatica Intelligent Cloud Services repository in the cloud.
4. When you run the mapping task that is associated with the mapping, all of the metadata, connection properties, mapping information, advanced source properties, runtime properties, and advanced session properties are pushed down to the on-premises Secure Agent in the form of a session .xml file.
5. The PWX Bulk Reader on the Secure Agent machine communicates with the PowerExchange Listener on the z/OS machine to retrieve the records from the PowerExchange Listener.
6. Data Integration transmits the records to the mapped target.

Alternative configurations of PowerExchange with the IDMS Connector components and Cloud Data Integration are possible. For example, the PowerExchange Navigator can run on any supported Windows system, including a Windows system where the IDMS Connector and Secure Agent run.

IDMS Connector asset types

The following table lists the Data Integration asset types that the IDMS Connector uses:

Asset Type	Required or Optional?
Mapping	Required
Mapping task	Optional
Taskflow	Optional

Software requirements

Verify that your PowerExchange system and IDMS Connector system meet the following software requirements for integration with Informatica Cloud Data Integration:

- A remote PowerExchange installation exists on the IDMS source system. Also a local or remote PowerExchange installation exists where you plan to run the PowerExchange Navigator. For all PowerExchange installations, the following PowerExchange versions are supported:
  - PowerExchange 10.5.2
  - PowerExchange 10.5.1
  - PowerExchange 10.5
  - PowerExchange 10.4.1
  - PowerExchange 10.4.0 HotFix 1
  - PowerExchange 10.4.0
- IDMS Connector components run on the same Linux or Windows operating system as for the Informatica Secure Agent. For more information, see the Product Availability Matrix (PAM) for Informatica Intelligent Cloud Services (IICS) <*current_version*>, which is available on Informatica Network at https://network.informatica.com/community/informatica-network/product-availability-matrices. You must have a login to access this location.

- The supported versions of IDMS source databases and operating systems are the same as those that PowerExchange supports. For more information, see the **PWX Classic** tab in the Product Availability Matrix (PAM) for Informatica <current_pwx_version>, which is available on Informatica Network at https://network.informatica.com/community/informatica-network/product-availability-matrices.

Supported targets

IDMS Connector is certified with the following target types:

- Amazon Redshift
- Aurora PostgreSQL
- Db2 for z/OS
- Db2 for i
- Google BigQuery
- Microsoft SQL Server and Amazon Relational Database Service (RDS) for SQL Server
- MySQL
- Oracle and Amazon RDS for Oracle
- PostgreSQL
- Snowflake

Important: Other Cloud Data Integration targets are expected to work but have not been fully tested and certified with this source type. Informatica recommends that you use other targets in your test environment first.

IDMS Connector rules and guidelines

Review the IDMS Connector rules and guidelines before you begin configuring connections, mappings, and mapping tasks.

- You can use IDMS connections for sources only. Do not select this connection type for a target.
- IDMS Connector connects to the PowerExchange Listener by using the **Listener Location** property that you specify in the IDMS connection definition. On the Connector system, you do not need to create a local copy of the DBMOVER configuration file that contains a NODE statement pointing to the PowerExchange Listener.
- If you upgrade your system to a later PowerExchange version, you must stop the Secure Agent that connects to the older PowerExchange Listener before you try to connect to the upgraded PowerExchange Listener. After you edit the connection properties to specify the upgraded PowerExchange Listener, restart the Secure Agent before you try to establish the connection again. For more information, see "Upgrading to a new version of PowerExchange" on page 24.

Prerequisite tasks for using IDMS Connector

Before you begin configuring IDMS connections, mappings, and mapping tasks, you must complete several prerequisite tasks in PowerExchange and in Informatica Intelligent Cloud Services Administrator. Make sure you have a user role that allows you to perform these tasks.

- Verify that the PowerExchange installations on the z/OS source system and PowerExchange Navigator system use a PowerExchange version that the IDMS Connector supports. Test your configuration by verifying that PowerExchange is able to retrieve records from IDMS data sources.
- If you localize PowerExchange messages in Japanese, before you start the Secure Agent, create a copy of the PowerExchange dbmover_ja.cfg file. Then set the PWX_CONFIG environment variable to point to the copy. For more information about the dbmover_ja.cfg configuration file, see the *PowerExchange Reference Manual*.
- Download the Secure Agent. The Secure Agent can then download the IDMS Connector components and PowerExchangeClient packages based on your licensing. The download also creates a Secure Agent group that contains a Secure Agent as the runtime environment. You can add another Secure Agent to the group. You must have at least one runtime environment in each organization so that users in the organization can run tasks.

  Note: IDMS Connector does not support the Hosted Agent.
- In Administrator, configure user roles if the predefined roles are not sufficient. Then assign one or more roles to each user or user group. The roles must provide the privileges that the users require to perform all of their tasks. Usually, the organization administrator configures user roles.
- If you do not want users to run scheduled mapping tasks during a certain period, define a blackout period for all schedules on the **Schedules** page in Administrator.

Task flow for using IDMS Connector

To use IDMS Connector, create a source connection, mapping, and optional mapping task. Also create a target connection if one is not already defined.

Before you begin, in the Administrator, you must complete the prerequisite tasks. See "Prerequisite tasks for using IDMS Connector" on page 11.

1. In Administrator, create a source connection with the type of **IDMS**. Test the connection.

   Alternatively, you can create a source connection in Data Integration when you configure a mapping. When you create a connection, you must set some connection properties that are specific to IDMS Connector. For more information, see "IDMS connection properties" on page 13.

   IDMS Connector uses this connection to retrieve source metadata and data records from PowerExchange.
2. Create a target connection with a supported target type, if one is not already defined.
3. In Data Integration, configure a mapping. Validate the mapping and then save it.
4. Optional. Create a mapping task that is associated with the mapping.
5. Run the mapping or mapping task. For more information, see "Running a mapping task" on page 22.

6. Monitor the job status for the mapping or mapping task. For more information, see "Monitoring a mapping task" on page 23.

   If a job has the status of Failed or Warning, check the session log for related error or informational messages. Then try to correct the issues that caused the failure and rerun the mapping.

CHAPTER 2

IDMS CDC Connections

You must create an IDMS CDC connection to connect to a PowerExchange Listener to read from IDMS data sources.

The PWX Bulk Reader that is on the system where the Secure Agent runs requires the connection information to retrieve IDMS data records from PowerExchange.

You can create an IDMS connection in Administrator or Data Integration, provided that your assigned user role allows this action. Use one of the following methods:

- In Administrator, click **Connections** on the navigation bar. On the **Connections** page, click **New Connection** and then enter connection details and properties for a connection that has the type of **IDMS CDC**.
- In Data Integration, when you create a mapping, click **Source** on the mapping canvas and then under **Properties**, click **Source** to display the **Properties** > **Source** panel. To create a connection, click **New Connection** , select **Actual Data**, and define a connection that has the type of **IDMS CDC**. Alternatively, if you previously defined an IDMS CDC connection, select it from the **Connection** list.

When you configure a connection, you must specify a runtime environment for the connection. The runtime environment must contain a Secure Agent with the status "Up and Running."

After you create an IDMS CDC connection, it becomes available for use within the organization and can be used in multiple mappings.

IDMS connection properties

When you configure an IDMS connection, you must set the connection properties.

The following table describes IDMS connection properties:

Property	Description
Connection Name	A name for the IDMS connection. This name must be unique within the organization. Connection names can contain alphanumeric characters, spaces, and the following special characters: _ . + - Spaces at the beginning or end of the name are trimmed and are not saved as part of the name. Maximum length is 100 characters. Connection names are not case sensitive.
Description	Description of the IDMS connection. Maximum length is 4000 characters.
Type	Type of connection. For IDMS, the type must be **IDMS**.

Property	Description
Runtime Environment	Name of the runtime environment that contains the Secure Agent that you want to use to run mapping tasks.

Listener Location	Host name or IP address of the system where the PowerExchange Listener that processes requests for IDMS runs. Also include the Listener port number. Enter the value in the following format, where *host_name* can be a host name or IP address:
	`host_name:port_number`
	For example:
	`PWXMLSNR:14673`

User Name	A user name that can be used to access the PowerExchange Listener when PowerExchange Listener security is enabled. For more information, see the SECURITY statement in the *PowerExchange Reference Manual*.
Password	Password that is associated with the user name that is specified in the **User Name** property.
Schema Name	The schema name of the IDMS source.
Code Page	The code page that the Secure Agent for the Data Integration Service uses to extract data from the source database.
Offload Processing	Controls whether to use offload processing. Offload processes transfers bulk data processing from the source system to the target system. Options are: - **Auto**. Cloud Data Integration determines whether to use offload processing. - **Filter After**. Offloads the bulk data processing to the target, including the filtering of data. - **Filter Before**. Offloads processing to the target but continues to filter data on the source system. - **No**. Disables offload processing. Default is No.
Offload Threads	The number of threads that Cloud Data Integration uses to process bulk data. For optimal performance, this value should not exceed the number of installed or available processors on the machine where the secure agent runs. Valid values are 1 through 64. Default is 0, which disables multithreading. Not all connection types support offload threads. If the **Offload Threads** connection property for one of these connections is set to a nonzero value, processing continues without threads.
Array Size	For IDMS data sources and sequential files, the size of the storage array, in number of records, that is used for partitioned or multithreaded sessions. For partitioned sessions, this array size is shared across the partitions. For multithreaded sessions, each thread has this array size. Valid values are from 1 through 5000. Default is 25. To tune partitioned sessions, particularly when the **Write Mode** property specifies **Confirm Write On**, increase the array size.
Replace Low Values with Spaces	Controls whether to replace embedded nulls in character data with spaces. Select this property to replace embedded nulls. By default, this property is selected.
Connection Retry Period	Number of seconds that the PowerExchange Bulk Reader tries to reconnect to the PowerExchange Listener after the initial connection attempt fails. If a connection cannot be established within the retry period, the mapping task fails. The default is 0, which disables connection retries.

Property	Description
Custom Properties	Custom properties or connection property overrides. Custom properties are properties that you can specify to override PowerExchange default settings. You can enter multiple properties by using a semicolon (;) as the separator. For example: `<property>=<value>;<property>=<value>` Normally, you set custom properties only at the direction of Informatica Global Customer Support. **Note:** These properties are equivalent to the **PWX Override** options for the PowerExchange Client for PWX NRDB Batch connections in PowerCenter. You can also specify connection property overrides in this field or through a parameter file. To specify connection property overrides through a parameter file, you set a parameter in the form of `$<ParameterName>`, where you prefix a user-defined parameter name with a dollar sign character ($). Then configure a mapping task for the mapping to use a parameter file that contains the user-defined parameter definition by specifying the parameter file name in the **Parameter File Name** field on the **Runtime Options** tab. **Note:** - If you enter the same parameter for both the mapping and connection, the connection custom property takes precedence. - If you have a parameter file, the parameter name you specify in this field must match an entry defined in the parameter file. For more information, see the “Connection overrides reference” chapter.
Write Properties > Write Mode	Options are: - **Confirm Write On**. Sends data to the PowerExchange Listener and waits for a success or no success response before sending more data. This mode sends data synchronously to the PowerExchange Listener rather than buffering the data. - **Confirm Write Off**. Sends data asynchronously to the PowerExchange Listener by buffering the data. This mode does not wait for a success or no success response. Default is **Confirm Write On**.

CHAPTER 3

Mappings and mapping tasks with IDMS Connector

In Data Integration, create a mapping that includes an IDMS source and a target of a supported type. Then optionally create a mapping task that is associated with the mapping to process data based on the mapping.

The mapping and mapping task information is stored in the Informatica Intelligent Cloud Services cloud.

To process the IDMS records, run the mapping task in your runtime environment. The mapping task runs on premises, on the same machine where the Secure Agent and PowerExchange client components run. The mapping task uses the mapping and mapping task information pushed down from the Informatica Intelligent Cloud Services cloud. During a mapping task run, the PWX Bulk Reader retrieves the IDMS data records and Data Integration transmits the records to the target based on the mapping.

After a mapping task ends, you can determine its job status and view the session log from either the Data Integration or Monitor interface.

Mapping configuration

You must configure a mapping that contains a Source transformation for an IDMS source and map it to a Target transformation.

To begin creating a mapping in Data Integration, click **New** > **Mappings** > **Mapping** and then click **Create**. In the **New Mapping** dialog box, click **Mapping** > **Continue**.

When you define a Source transformation in a mapping, specify a name for the transformation, an IDMS connection, the source type, and the data map tables for the IDMS source object. You can also set some additional source properties. The PWX Bulk Metadata Adapter retrieves metadata for the source table from the PowerExchange-generated data map, including the field definitions.

In the user's environment, the target can reside on premises or in a cloud. If you do not want to send all of the incoming fields to the target, you can define one or more exclusion field rules. As part of configuring the target, you must also map the incoming fields to the target fields. You can map fields automatically based on the field names or map them manually.

IDMS source properties in mappings

When you create a mapping, you configure a Source transformation for an IDMS source and set some source properties for the Source transformation.

Click the Source transformation box on the mapping canvas. Then configure the source properties in the **Source Properties** panel below the mapping canvas.

If you have multiple Source transformations in a mapping, configure source properties for each source. If you use a specific connection instead of a connection parameter, enter the same connection for all sources.

Note: If a mapping includes source tables or columns that have special characters in their names, the associated mapping task fails because it cannot import the source metadata. Special characters include s #, $, @, %, *, !, and ~. Therefore, ensure that none of the source tables and mapped columns have names with any special character. Rename the tables and columns if necessary.

The **Source Properties** panel contains the following tabs on which you can enter information:

- **General** tab. Specify a user-defined name and optional description for the IDMS source.
- **Source** tab. Configure the source properties under **Details** and under **Advanced**. The advanced properties are available only if you enter a specific connection for the source. If you enter a parameter for the source connection, the advanced properties are not displayed. However, you can define these properties in the associated mapping task after you select a specific source connection for the task.

  The following table describes the IDMS source properties under **Details**:

Property	Description
Connection	*Required*. Select a source connection of the type **IDMS**, or click **New Connection** to create one. Alternatively, you can define a connection parameter in the mapping and enter a specific connection in each mapping task that is associated with the mapping. If you want to use a connection parameter with a specific source object, you must first select a specific connection so that you can access the source to select the source object in the **Object** field. After you select the source object, define the connection parameter. To define a connection parameter, click **New Parameter** next to the **Connection** property and enter the following information: - Enter a parameter name that begins with a letter and is up to 200 characters in length, including @, #, _, and alphanumeric characters. - In the **Type** property, verify that **connection** is selected. - Leave the **Connection Type** property blank. After you click **OK**, the parameter appears in the **Connection** property.
Source Type	*Required*. **Multi Group** is selected by default. Alternatively, you can define a parameter for the source object in the mapping and enter a specific source object in each mapping task that is associated with the mapping. To define a parameter, select **Parameter** as the source type, and then specify the parameter in the **Parameter** property.

Property	Description
Parameter	Parameter to use for the source object. This field only appears when you select **Parameter** as the source type. To parameterize a source object, click **New Parameter**. Enter the parameter name and then select the type **multi group data object**. This type of parameter can accept a set of groups. From the New Input Parameter dialog box, you can add or delete groups for the parameter. When you create a multi-group data object parameter, the corresponding links are also created. You can use these links in the mapping to connect to downstream transformations.
Schema, Data Map, and Tables	On the **Source** tab, click the pencil icon to select a schema, a data map, or table. **Note:** The **Preview Data** feature is not supported.

Note: The Filter and Sort options under **Query Options** are not supported.

The following table describes the optional source properties under **Advanced**:

Advanced Property	Description
Map Name Override	Overrides the data map name of the source PowerExchange data map.
Map Schema Override	Overrides the schema name in the source PowerExchange data map.

Advanced Property	Description

Filter Overrides	One or more conditions that filter the source records that the PWX Bulk Reader retrieves from the PowerExchange Listener. Based on the filter conditions, a WHERE clause is appended to the default SQL SELECT query that the PWX Bulk Reader uses to read the records.
	IDMS Connector supports two forms of filter condition syntax. For single record source definitions such as single record nonrelational data maps, specify a single filter condition statement. You can specify a single filter condition or join numerous filter conditions by using the conditional operands that PowerExchange supports for NRDB SQL statements. For example:
	`column1 is NULL and column2='A'`
	For multi-record nonrelational source definitions, you can also use the following syntax:
	`group_name1=filter_condition;group_name2=filter_condition;...`
	Use the group_name form to specify filter conditions for one or more record types in a multi-record source definition. To apply a filter condition to all records in a multi-record source definition, use a single filter condition without group_name. You cannot combine single filter conditions with group_name conditions.
	You must use the nonrelational SQL syntax that PowerExchange supports for comparison and LIKE operators. For more information, see the "PowerExchange Nonrelational SQL" chapter in the *PowerExchange Reference Manual*. If the filter includes a date or timestamp column, ensure that the range of years in the column data is within the range of years for PowerExchange data filtering, as controlled by the DATERANGE statement in the DBMOVER configuration file. The default range is 1800 to 2200.
	For example, to select records in which the TYPE column has a value of A or D, specify the following condition:
	`TYPE='A' or TYPE='D'`
	Maximum length of the entire SELECT statement that PowerExchange builds, including the WHERE clause with the filter conditions, is 8192 bytes.
	Note: If you specify the **Filter Overrides** attribute and also specify an **SQL Query Override** attribute value that contains a filtering WHERE clause, the resulting SELECT statement contains a WHERE clause that uses the AND operator to associate the Filter Overrides filter conditions with the SQL Query Override conditions. For example:
	`SELECT * from schema.table WHERE Filter_Overrides_conditions AND SQL_Query_Override_conditions`

Advanced Property	Description

SQL Query Override	An SQL statement that overrides the default SQL query that the PWX Bulk Reader uses to retrieve records from PowerExchange.
	The connector replaces the default SQL query with the SQL statement that you enter and passes the SQL statement to Cloud Data Integration for processing.
	You must use the nonrelational SQL syntax that PowerExchange supports. For more information, see the "PowerExchange Nonrelational SQL" chapter in the *PowerExchange Reference Manual*.
	If the override statement includes a date or timestamp column, ensure that the range of years in the column data is within the range of years for PowerExchange data checking and filtering, as controlled by the DATERANGE statement in the DBMOVER configuration file. The default range is 1800 to 2200.
	For example, to select records for the USER source table when the TYPE column has the value of A or D, specify the following query:
	`SELECT ID, NAME from USER where TYPE='A' or TYPE='D';`
	Maximum length of the SELECT query override statement is 8192 bytes.
	Note: If you specify an **SQL Query Override** attribute value that contains a filtering WHERE clause and also specify the **Filter Overrides** attribute, the resulting SELECT statement contains a WHERE clause that uses the AND operator to associate the SQL Query Override conditions with the Filter Overrides filter conditions. For example:
	`SELECT * from schema.table WHERE Filter_Overrides_conditions AND SQL_Query_Override_conditions`
	For a multiple-record source, use the following syntax:
	`group_name1=sql_query_override1; group_name2=sql_query_override2;...`
	For example, you can select only records with ID column values that contain DBA for a multi-record source with two records called USER1 and USER2 by specifying the following SQL query override:
	`USER1=Select ID, NAME from USER1 where ID='DBA'; USER2=Select ID, NAME from USER2 where ID='DBA';`

Tracing Level	The level of detail that appears in the session log for a Source transformation. Select one of the following options, which are listed in order of increasing detail: - **Terse** - **Normal** - **Verbose Initialization** - **Verbose Data** Default is **Normal**.

- **Fields** tab. Select the fields that you want to use in the data flow. You can edit field metadata such as precision and scale if necessary.

Note: Ignore the **Partitions** tab. Key-range partitioning is not supported.

Targets in mappings with IDMS sources

To configure a target in a mapping, click the Target transformation box on the mapping canvas. Then configure the target properties in the **Properties** > **Target** panel below the mapping canvas.

Note: To determine which target types are supported by the IDMS Connector, see "Supported targets" on page 10.

- **General** tab. Specify a user-defined name and optional description for the target.

- **Incoming Fields** tab. Optionally review the included fields and define field exclusion rules and renaming criteria.
- **Target** tab. Configure the target properties under **Details** and under **Advanced**. The advanced properties are available only if you enter a specific connection for the target. Target properties vary based on the supported target that you select.
- **Target Fields** tab. Optionally add fields, delete fields, or edit field metadata such as native data type, precision, and scale.
- **Field Mapping** tab. Map the incoming fields to the target fields. You can manually map an incoming field to a target field or automatically map fields based on the field names. If you entered a connection parameter, you must select **Automatic** as the field map option to be able to validate the mapping. Alternatively, you can completely or partially parameterize field mappings, and then define the specific field mappings in the mapping task. For more information, see Transformations > Target Transformation > Target Transformation Field Mappings in the Data Integration Help.

For more information, see the appropriate target connector guide for target for specific instructions.

Lookup Transformation

You can configure a cached Lookup transformation when you use an IDMS connection in a mapping to return data from an IDMS source based on a specified lookup condition. However, the IDMS Connector does not support uncached lookup.

For more information, see Cloud Data Integration *Transformations*.

Mapping task configuration

Configure a mapping task for a mapping with an IDMS source. When you run the mapping task, the IDMS records are transmitted to the target.

Note: SQL ELT optimization and Visio templates are not supported for IDMS mapping tasks.

To begin configuring a mapping task, perform one of the following actions:

- In Data Integration, click **New** > **Mapping Task** and then click **Create**.
- While the mapping is open, select **New Mapping Task** from the **Actions** menu.

Then enter information on some or all of the following pages in the mapping task wizard:

- **Definition**. Enter a name for the mapping task, a project or folder location for the mapping task, and the runtime environment that contains the Secure Agent or Secure Agent Group under which the mapping task will run. If you began creating the mapping task without first opening the mapping, you must also select the mapping with which to associate the mapping task. The description is optional.
- **Sources**. This page appears only if you defined a parameter for the connection. If you defined a connection parameter, select or create the specific connection that you want the mapping task to use.
- **Targets**. This page appears only if you defined a parameter for the target connection or object in the mapping. For more information about configuring targets in mapping tasks, click the help icon on this page.
- **Runtime Options**. Optionally define a schedule for running the mapping task. You can also define email notification options and some Advanced options such as Pre-Processing Commands, Post-Processing Commands, and Maximum Number of Log Files.

Properties for parameterized sources and connections

The **Sources** page appears in the mapping task wizard if you defined a parameter for the connection or source object in the associated mapping.

If you defined a parameter for the source connection in the mapping, you must select or create a specific connection for the mapping task. Ensure that the connection type is consistent with the source object type. After you select a connection, you can click **Advanced Options** to configure the optional advanced properties. For more information about these advanced properties, see "IDMS source properties in mappings" on page 17.

Note: If the mapping uses a specific source connection, you can specify these advanced properties in the mapping and also specify them in the mapping task. In this case, the properties in the mapping task override those in the mapping.

If you are parameterizing a source object, select the objects that correspond to the groups you selected in the mapping from the mapping task **Sources** tab. The number of objects you select must match the number of groups that were added in the multi group data object parameter. To select the source objects, click **Select**.

Note: To parameterize a source object, you must define a parameter of the type **multi group data object** for the mapping.

By default, the objects are associated with the groups in the order in which the objects appear in the table selection window. From the **Group Map** area, you can change the group to object association by using drag and drop to associate a group with a object.

When you finish entering information on the **Sources** page, click **Validate** to validate your entries.

Note: If the mapping specifies a connection parameter and you edit the mapping to change the source object, check the specific connection in the mapping task to determine if you need to reset it and then **Validate** the mapping task again.

Running a mapping task

A mapping task runs on-premises under control of the Secure Agent.

To run the mapping task, use any of the following methods:

- After you finish configuring the mapping task, click **Run**.
- Manually start the mapping task from the **Actions** menu on the **Explore** page.
- Create a schedule that runs the mapping task based on a date, time, and repeat frequency, such as hourly, daily, weekly, or monthly.
- Include the mapping task in a taskflow and then run the taskflow.

Monitoring a mapping task

After you run a mapping task, you can check the job status for the task to determine if the job succeeded, completed with warnings, or failed. If the job failed or ended with a warning, you can view the session log for the job to identify the error or warning conditions.

Each time a user or schedule starts a mapping task, Informatica Intelligent Cloud Services creates a job to run the task.

1. To view a list of mapping task jobs, use one of the following methods:
   - In Data Integration, select **My Jobs**. The **My Jobs** page lists all jobs that you, the user who is currently logged in, started. It does not include jobs that were started by a schedule.
   - In Monitor, select **All Jobs** or **Running Jobs**. The **All Jobs** page lists all of the running and completed jobs that members of your organization started or that were started by a schedule. The **Running Jobs** page lists only the jobs that are currently running or that have completed within the last 5 minutes.
2. On the **My Jobs**, **All Jobs**, or **Running Jobs** page, review the information about the jobs you're interested in. The following information is displayed by default and shown for each job instance:
   - Start date and time
   - End date and time
   - Number of rows processed
   - Current status, which can be one of the following values: Queued, Starting, Running, Success, Stopped, Suspended, Warning, or Failed.

   Tip: You can change the columns that are displayed by right-clicking the column-heading area and selecting or deselecting column names in the list.

   For more information about a job, click the job name to open a page that contains job details and a download link for the session log. You can also download the session log by moving the cursor to the right end of the row for a job and clicking the **Download Log** icon.
3. If the job status is Failed or Warning, gather more information about the error or warning condition in the following ways:
   - For a Failed job, hover the cursor over the Failed icon in the **Status** column. A brief description of the error condition appears, which you can copy.
   - Download the session log and look for error or warning messages that begin with the message ID prefix of "PWXPC" or "PWX."

   If possible, correct the error or warning condition and then restart the job. To restart the job from the **Jobs** or **My Jobs** page, move the cursor to the right end of the row for the job and click the **Restart** icon.

CHAPTER 4

IDMS administration

As the organization administrator of an IDMS Connector implementation, you might need to perform some administrative tasks to keep processing of records running smoothly.

To learn about some common administrative issues and tasks, read the following topic:

- "Upgrading to a new version of PowerExchange" on page 24

Upgrading to a new version of PowerExchange

The connector can retrieve data from only a single version of PowerExchange. If you upgrade your on-premise environment to a later supported PowerExchange version, use this task to move your Informatica Intelligent Cloud Services Data Integration connections to the new PowerExchange environment.

1. Upgrade the PowerExchange installation. For more information, see the *PowerExchange Installation and Upgrade Guide*.
2. In Monitor, open the **Running Jobs** page.
3. Make sure that any running mapping tasks that connect to the previous PowerExchange version run to completion, or stop the task if necessary.
4. Stop the Secure Agent that is specified in the connection configuration for any connection to the previous PowerExchange version.
5. In Data Integration, edit the connections to point to the new PowerExchange version.
6. If necessary, edit the mapping task configurations to specify the appropriate connection to the new version of the PowerExchange environment.
7. Start the mapping tasks again, when appropriate.

CHAPTER 5

Data type reference

Data Integration uses the following data types in mappings and tasks with IDMS:

IDMS native data types

IDMS data types appear in the source and target transformations when you choose to edit metadata for the fields.

Transformation data types

Set of data types that appear in the transformations. They are internal data types based on ANSI SQL-92 generic data types, which the Secure Agent uses to move data across platforms. Transformation data types appear in all transformations in a mapping.

IDMS and transformation data types

When Data Integration reads source data, it converts the native data types to the comparable transformation data types before transforming the data. When Data Integration writes to a target, it converts the transformation data types to the comparable native data types.

The following table lists the IDMS data types that Data Integration supports and the corresponding transformation data types:

PowerExchange Datatype	Precision	Transformation Datatype	Range
BIN	10	Binary	1 to 104,857,600 bytes You can pass binary data from a source to a target, but you cannot perform transformations on binary data. PowerCenter does not support binary data for COBOL or flat file sources.
CHAR	10	String	1 to 104,857,600 characters Fixed-length or varying-length string.
DATE	10	Date/Time	Jan 1, 0001 A.D. to Dec 31, 9999 A.D. Combined date/time value, with precision to the nanosecond.
DOUBLE	18	Double	Precision of 15 digits Double-precision floating-point numeric value.

PowerExchange Datatype	Precision	Transformation Datatype	Range
FLOAT	7	Double	Precision of 15 digits Double-precision floating-point numeric value.
NUM8	3	Small Integer	Precision of 5 and scale of 0 Integer value.
NUM8U	3	Small Integer	Precision of 5 and scale of 0 Integer value.
NUM16	5	Small Integer	Precision of 5 and scale of 0 Integer value.
NUM16U	5	Integer	Precision of 10 and scale of 0 Integer value.
NUM32	10	Integer	Precision of 10 and scale of 0 Integer value.
NUM32U	19	Big Integer	Precision of 19, scale of 0. Integer value.
NUM64	19	Big Integer	Precision of 19, scale of 0. Integer value.
NUM64U	20	Decimal	Precision of 20, scale 0. Decimal value.
NUMCHAR	-	String	1 to 104,857,600 characters Fixed-length or varying-length string.
PACKED	15	Decimal	Precision 1 to 28 digits, scale of 0 to 28 Decimal value with declared precision and scale. Scale must be less than or equal to precision. If you pass a value with negative scale or declared precision greater than 28, the PowerCenter Integration Service converts it to a double.
TIME	5	Date/Time	Jan 1, 0001 A.D. to Dec 31, 9999 A.D. Combined date/time value, with precision to the nanosecond.
TIMESTAMP	5	Date/Time	Jan 1, 0001 A.D. to Dec 31, 9999 A.D. Combined date/time value, with precision to the nanosecond.
UPACKED	15	Decimal	Precision 1 to 28 digits, scale of 0 to 28 Decimal value with declared precision and scale. Scale must be less than or equal to precision. If you pass a value with negative scale or declared precision greater than 28, the PowerCenter Integration Service converts it to a double.

PowerExchange Datatype	Precision	Transformation Datatype	Range
UZONED	15	Decimal	Precision 1 to 28 digits, scale of 0 to 28 Decimal value with declared precision and scale. Scale must be less than or equal to precision. If you pass a value with negative scale or declared precision greater than 28, the PowerCenter Integration Service converts it to a double.
VARBIN	10	Binary	1 to 104,857,600 bytes You can pass binary data from a source to a target, but you cannot perform transformations on binary data. PowerCenter does not support binary data for COBOL or flat file sources.
VARCHAR	10	String	1 to 104,857,600 characters Fixed-length or varying-length string.
ZONED	15	Decimal	Precision 1 to 28 digits, scale of 0 to 28 Decimal value with declared precision and scale. Scale must be less than or equal to precision. If you pass a value with negative scale or declared precision greater than 28, the PowerCenter Integration Service converts it to a double.

CHAPTER 6

Connection overrides reference

When you create a mapping that uses this connector type, you can specify a connection property that allows you to specify connection property overrides through a parameter file in the connection properties panel **Custom Properties** field.

Connection overrides

The following table lists the connection overrides that you can specify for nonrelational sources such as Adabas, Datacom, IDMS, IMS, sequential file, and VSAM connections:

Connection Override	Default	Valid Values
Array Size	25	1 to 100000
Connection Retry Period	0	0 to 1000000
Offload Processing	No	A - Auto F - Filter After N - No Y - Yes
Offload Threads	0	0 to 64
Password	no default	A valid password for the specified user
Replace Low-values With Spaces	no default	Y|N
User Name	no default	A user name
Confirm Network Write	Confirm Write On	Y|N

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