

Oracle® Cloud

Using the Marketo Adapter with Oracle Integration Generation 2



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Preface

This guide describes how to configure this adapter as a connection in an integration in Oracle Integration.



Note:

The use of this adapter may differ depending on the features you have, or whether your instance was provisioned using Standard or Enterprise edition. These differences are noted throughout this guide.

Topics:

- [Audience](#)
- [Documentation Accessibility](#)
- [Diversity and Inclusion](#)
- [Related Resources](#)
- [Conventions](#)

Audience

This guide is intended for developers who want to use this adapter in integrations in Oracle Integration.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

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Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and

partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

Related Resources

See these Oracle resources:

- Oracle Cloud
<http://cloud.oracle.com>
- *Using Integrations in Oracle Integration Generation 2*
- *Using the Oracle Mapper with Oracle Integration Generation 2*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1

Understand the Marketo Adapter

Review the following conceptual topics to learn about the Marketo Adapter and how to use it as a connection in integrations in Oracle Integration. A typical workflow of adapter and integration tasks is also provided.

Topics

- [Marketo Adapter Capabilities](#)
- [Marketo Adapter Restrictions](#)
- [What Application Version Is Supported?](#)
- [Workflow to Create and Add a Marketo Adapter Connection to an Integration](#)



Note:

There are overall service limits for Oracle Integration. A service limit is the quota or allowance set on a resource. See [Service Limits](#).

Marketo Adapter Capabilities

The Marketo Adapter enables you to create an integration with a Marketo application. You can configure the Marketo Adapter as an invoke connection in an integration in Oracle Integration.

The Marketo Adapter provides the following benefits:

- Supports all custom objects created by the user at [Marketo.com](#), along with standard objects.
- Provides metadata caching support.
- Provides invoke (target) support for performing the following types of operations against objects from the Lead Database module of the Marketo application:
 - Create or Update Information (create or update records from Marketo)
 - Query Information (get records from Marketo)
 - Delete Information (delete records from Marketo)
 - Bulk Extract (extracts bulk records from Marketo)
 - Bulk Import (import bulk records into Marketo)
- Supports Marketo APIs protected using OAuth 2.0 two-legged authentication.

The Marketo Adapter is one of many predefined adapters included with Oracle Integration. You can configure the Marketo Adapter as an invoke connection in an integration in Oracle Integration.

Marketo Adapter Restrictions

Note the following Marketo Adapter restrictions.

The bulk extract feature has the following restrictions:

- Maximum concurrent export jobs: 2
- Maximum queued export jobs: 10
- File retention period: 10 days
- Maximum time span for date range filter (createdAt or updatedAt): 31 days
- Maximum limit of daily export quota: 500 MB per day

See [Bulk Extract](#).



Note:

There are overall service limits for Oracle Integration. A service limit is the quota or allowance set on a resource. See [Service Limits](#).

What Application Version Is Supported?

For information about which application version is supported by this adapter, see the [Connectivity Certification Matrix](#).

See [Connectivity Certification Matrix](#).

Workflow to Create and Add a Marketo Adapter Connection to an Integration

You follow a very simple workflow to create a connection with an adapter and include the connection in an integration in Oracle Integration.

This table lists the workflow steps for both adapter tasks and overall integration tasks, and provides links to instructions for each step.

Step	Description	More Information
1	Access Oracle Integration.	Go to <code>https://hostname:port_number/ic</code> .
2	Create the adapter connections for the applications you want to integrate. The connections can be reused in multiple integrations and are typically created by the administrator.	Create a Marketo Adapter Connection
3	Create the integration. When you do this, you add trigger (source) and invoke (target) connections to the integration.	Create Integrations of <i>Using Integrations in Oracle Integration Generation 2</i> and Add the Marketo Adapter Connection to an Integration .

Step	Description	More Information
4	Map data between the trigger connection data structure and the invoke connection data structure.	Map Data of <i>Using Integrations in Oracle Integration Generation 2</i>
5	(Optional) Create lookups that map the different values used by those applications to identify the same type of object (such as gender codes or country codes).	Manage Lookups of <i>Using Integrations in Oracle Integration Generation 2</i>
6	Activate the integration.	Activate Integrations of <i>Using Integrations in Oracle Integration Generation 2</i>
7	Monitor the integration on the dashboard.	Monitor Integrations of <i>Using Integrations in Oracle Integration Generation 2</i>
8	Track payload fields in messages during runtime.	Assign Business Identifiers for Tracking Fields in Messages and Manage Business Identifiers for Tracking Fields in Messages of <i>Using Integrations in Oracle Integration Generation 2</i>
9	Manage errors at the integration level, connection level, or specific integration instance level.	Manage Errors of <i>Using Integrations in Oracle Integration Generation 2</i>

2

Create a Marketo Adapter Connection

A connection is based on an adapter. You define connections to the specific cloud applications that you want to integrate. The following topics describe how to define connections.

Topics

- [Prerequisites for Creating a Connection](#)
- [Create a Connection](#)
- [Upload an SSL Certificate](#)

Prerequisites for Creating a Connection

You must satisfy the following prerequisites to create a connection with the Marketo Adapter:

- [Create an API Only User Role](#)
- [Obtain the Client ID and Client Secret](#)
- [Obtain the Munchkin ID](#)

Create an API Only User Role

You must create a new user with the **API Only** role. Once done, create a custom service to use with the REST API.

1. Log in to your Marketo account.
2. On the Home page, click **Admin**.
3. Click **Users & Roles**, and click **Invite New User**.
4. Enter an email address, first name, and last name for the **API Only** user, and click **NEXT**.
5. Select **Admin or API Role** in the **Roles** field, select the **API Only** check box, and then click **NEXT**.
6. Click **SEND**.

Create a Custom Service:

1. On the Home page, navigate to **Admin > LaunchPoint**.
2. Click **LaunchPoint**, click **New**, and then click **New Service**.
3. Enter a display name for the service, select **Custom** from the dropdown list, select the **API Only** user from the dropdown list, and then click **CREATE**.

Obtain the Client ID and Client Secret

1. Log in to your Marketo account.
2. On the Home page, click **Admin**.
3. In the left pane, click **LaunchPoint**.

4. Click **View Details**. Marketo populates the **Details** section with the following IDs:
 - **Client Id**
 - **Client Secret**

Obtain the Munchkin ID

1. Log in to your Marketo account.
2. On the Home page, click **Admin**.
3. In the left pane, click **Munchkin**.
The Munchkin ID appears in the **Munchkin Account ID** field.

Create a Connection

Before you can build an integration, you have to create the connections to the applications with which you want to share data.

To create a connection in Oracle Integration:

1. In the left navigation pane, click **Home > Integrations > Connections**.
2. Click **Create**.

Note:

You can also create a connection in the integration canvas of:

- An orchestrated integration (See Define Inbound Triggers and Outbound Invokes.)
- A basic routing integration (See Add a Trigger (Source) Connection.)

3. In the Create Connection — Select Adapter dialog, select the adapter to use for this connection. To find the adapter, scroll through the list, or enter a partial or full name in the **Search** field and click



Search.

4. In the Create Connection dialog, enter the information that describes this connection.
 - a. Enter a meaningful name to help others find your connection when they begin to create their own integrations. The name you enter is automatically added in capital letters to the **Identifier** field. If you modify the identifier name, don't include blank spaces (for example, SALES OPPORTUNITY).
 - b. Enter optional keywords (tags). You can search on the connection keywords on the Connections page.
 - c. Select the role (direction) in which to use this connection (trigger, invoke, or both). Only the roles supported by the adapter are displayed for selection. When you select a role, only the connection properties and security policies appropriate to that role are displayed on the Connections page. If you select an adapter that supports both invoke and trigger, but select only one of those roles, you'll get an error when you try to drag the adapter into the section you didn't select. For example, let's say you configure a connection for the Oracle

Service Cloud (RightNow) Adapter as only an **invoke**. Dragging the adapter to a **trigger** section in the integration produces an error.

- d. Enter an optional description of the connection.
5. Click **Create**.

Your connection is created. You're now ready to configure the connection details, such as connection properties, security policies, connection login credentials, and (for certain connections) agent group.

Configure Connection Properties

Enter connection information so your application can process requests.

1. Go to the **Connection Properties** section.
2. In the **Munchkin ID** field, enter the munchkin ID. See [Obtain the Munchkin ID](#).

Configure Connection Security

Configure security for your Marketo Adapter connection.

1. Go to the **Security** section.
2. In the **Client Id** field, enter the client ID that you obtained after performing the steps in the prerequisites section. See [Obtain the Client ID and Client Secret](#).
3. In the **Client Secret** field, enter the client secret that you obtained after performing the steps in the prerequisites section. See [Obtain the Client ID and Client Secret](#).
4. In the **Confirm Client Secret** field, re-enter the client secret a second time for confirmation.

Test the Connection

Test your connection to ensure that it's configured successfully.

1. In the page title bar, click **Test**. What happens next depends on whether your connection uses a Web Services Description Language (WSDL) file.

If Your Connection...	Then...
Doesn't use a WSDL	The test starts automatically and validates the inputs you provided for the connection.
Uses a WSDL	A dialog prompts you to select the type of connection testing to perform: <ul style="list-style-type: none"> • Validate and Test: Performs a full validation of the WSDL, including processing of the imported schemas and WSDLs. Complete validation can take several minutes depending on the number of imported schemas and WSDLs. No requests are sent to the operations exposed in the WSDL. • Test: Connects to the WSDL URL and performs a syntax check on the WSDL. No requests are sent to the operations exposed in the WSDL.

2. Wait for a message about the results of the connection test.
 - If the test was successful, then the connection is configured properly.

- If the test failed, then edit the configuration details you entered. Check for typos, verify URLs and credentials, and download the diagnostic logs for additional details. Continue to test until the connection is successful.
3. When complete, click **Save**.

Upload an SSL Certificate

Certificates are used to validate outbound SSL connections. If you make an SSL connection in which the root certificate does not exist in Oracle Integration, an exception is thrown. In that case, you must upload the appropriate certificate. A certificate enables Oracle Integration to connect with external services. If the external endpoint requires a specific certificate, request the certificate and then upload it into Oracle Integration.

To upload an SSL certificate:

1. In the left navigation pane, click **Home > Settings > Certificates**. All certificates currently uploaded to the trust store are displayed in the Certificates dialog. The



link enables you to filter by name, certificate expiration date, status, type, category, and installation method (user-installed or system-installed). Certificates installed by the system cannot be deleted.

Certificates Upload			
6 Certificates			
Installed By: User			
Name	Type	Category	Status
mykey3 EXPIRES IN 1 MONTH	X.509	Identity	Configured
mykey2 EXPIRED	X.509	Identity	Configured
recert1586867745048 EXPIRES IN 4 YEARS	X.509	Trust	Configured
recert1586863610817 EXPIRES IN 4 YEARS	X.509	Trust	Configured
recert1586857607511 EXPIRES IN 4 YEARS	X.509	Trust	Configured
recert1586857416600 EXPIRES IN 4 YEARS	X.509	Trust	Configured

2. Click **Upload** at the top of the page. The Upload Certificate dialog box is displayed.
3. Enter an alias name and optional description.
4. In the **Type** field, select the certificate type. Each certificate type enables Oracle Integration to connect with external services.
 - **X.509 (SSL transport)**
 - **SAML (Authentication & Authorization)**
 - **PGP (Encryption & Decryption)**

X.509 (SSL transport)

1. Select a certificate category.
 - a. **Trust:** Use this option to upload a trust certificate.

- i. Click **Browse**, then select the trust file (for example, `.cer` or `.crt`) to upload.
- b. **Identity**: Use this option to upload a certificate for two-way SSL communication.
 - i. Click **Browse**, then select the keystore file (`.jks`) to upload.
 - ii. Enter the comma-separated list of passwords corresponding to key aliases.

 **Note:**

When an identity certificate file (JKS) contains more than one private key, all the private keys must have the same password. If the private keys are protected with different passwords, the private keys cannot be extracted from the keystore.

- iii. Enter the password of the keystore being imported.
- c. Click **Upload**.

SAML (Authentication & Authorization)

1. Note that **Message Protection** is automatically selected as the only available certificate category and cannot be deselected. Use this option to upload a keystore certificate with SAML token support. Create, read, update, and delete (CRUD) operations are supported with this type of certificate.
2. Click **Browse**, then select the certificate file (`.cer` or `.crt`) to upload.
3. Click **Upload**.

PGP (Encryption & Decryption)

1. Select a certificate category. Pretty Good Privacy (PGP) provides cryptographic privacy and authentication for communication. PGP is used for signing, encrypting, and decrypting files. You can select the private key to use for encryption or decryption when configuring the stage file action.
 - a. **Private**: Uses a private key of the target location to decrypt the file.
 - i. Click **Browse**, then select the PGP file to upload.
 - ii. Enter the PGP private key password.
 - b. **Public**: Uses a public key of the target location to encrypt the file.
 - i. Click **Browse**, then select the PGP file to upload.
 - ii. In the **ASCII-Armor Encryption Format** field, select **Yes** or **No**. **Yes** shows the format of the encrypted message in ASCII armor. ASCII armor is a binary-to-textual encoding converter. ASCII armor formats encrypted messaging in ASCII. This enables messages to be sent in a standard messaging format. This selection impacts the visibility of message content. **No** causes the message to be sent in binary format.
 - iii. From the **Cipher Algorithm** list, select the algorithm to use. Symmetric-key algorithms for cryptography use the same cryptographic keys for both encryption of plain text and decryption of cipher text.
- c. Click **Upload**.

3

Add the Marketo Adapter Connection to an Integration

When you drag the Marketo Adapter into an integration, the Adapter Endpoint Configuration Wizard appears. This wizard guides you through configuration of endpoint properties.

The following sections describe the wizard pages that guide you through configuration of the Marketo Adapter as an invoke in an integration. The Marketo Adapter cannot be configured as a trigger connection in an integration.

Topics:

- [Basic Info Page](#)
- [Invoke Action Page](#)
- [Invoke Operations Page](#)
- [Invoke Configure Fields Page](#)
- [Summary Page](#)

Basic Info Page

You can enter a name and description on the Basic Info page of each adapter in your integration.

Element	Description
What do you want to call your endpoint?	Provide a meaningful name so that others can understand the responsibilities of this connection. You can include English alphabetic characters, numbers, underscores, and hyphens in the name. You can't include the following characters: <ul style="list-style-type: none">• No blank spaces (for example, My Inbound Connection)• No special characters (for example, #;83& or righ(t)now4) except underscores and hyphens• No multibyte characters
What does this endpoint do?	Enter an optional description of the connection's responsibilities. For example: <code>This connection receives an inbound request to synchronize account information with the cloud application.</code>

Invoke Action Page

Select the action to perform.

Element	Description
Select Action	<ul style="list-style-type: none"> • Query Information: Retrieves information from the Marketo application corresponding to the selected object and operation. • Create or Update Information: Performs operations for account creation, opportunity status update, and so on. • Delete Information: Deletes records from the Marketo application. • Extract Bulk Data: Extracts a large volume of records from Marketo for objects such as Leads, Activities, Program Members, and Custom Objects. • Import Bulk Data: Imports a large volume of records into Marketo for three object types: Leads, Custom Objects, and Program Members.

Invoke Operations Page

Enter the details based on the action you selected on the Action page.

- [Query Information](#)
- [Create or Update Information](#)
- [Delete Information](#)
- [Extract Bulk Data](#)
- [Import Bulk Data](#)

Note:

Some objects and operations enable you to select the fields to receive (on the Invoke Configure Fields page) in response to the query operation. For the remaining objects, the Invoke Configure Fields page is disabled.

Query Information

Element	Description
Field to search on	Some operations support a filter for the GET operation. Select a field from the dropdown list. The selected field is used to filter the records.
Select Object	Use the scrolling list to select an object within the selected action.

Element	Description
Filter by object name	Type the initial letters of the object name to filter the display of names in the list. You can also select a filter type: <ul style="list-style-type: none"> • All: Displays all objects. • Standard: Displays standard objects delivered as part of the Marketo application. • Custom: Displays custom objects created.
Select Operation	Select an operation name, such as Get Named Accounts .
Filter by operation name	Type the initial letters of the operation name to filter the display of names in the list.
Specify the Number of Results to Return (Default and Maximum Value is 300)	Enter a numerical value between 1 - 300 as the number of records to return per API call.

Create or Update Information

Element	Description
Select an action for the sync operation	Sync operations support the sync action. Select a sync action: <ul style="list-style-type: none"> • Create Only: Creates a new record. This action does not allow creation of duplicate records. • Update Only: Updates the existing records in the Marketo application. • Create Or Update: Creates or updates records in the Marketo application. If the matching record is not found, this operation creates a new record. Otherwise, it updates the matching existing record. • Create Duplicate (This field is displayed if you selected the Lead object.): Creates a new record in the application. This action enables the creation of duplicate records if the record already exists.
Field to Deduplicate On	This field is displayed if you selected the Update Only action. The Field to Deduplicate On field enables you to select the Dedupe By options. <ul style="list-style-type: none"> • Id Field: Select this field to use the Id field of the selected object to deduplicate records. • Dedupe Fields: Select this field to use the set of dedupe fields defined on the selected object to deduplicate records.
Select Object	Use the scrolling list to select an object within the selected action.

Element	Description
Filter by object name	Type the initial letters of the object name to filter the display of names in the list. You can also select a filter type: <ul style="list-style-type: none"> • All: Displays all objects. • Standard: Displays standard objects delivered as part of the Marketo application. • Custom: Displays custom objects created.
Select Operation	Select an operation name, such as Get Named Accounts .
Filter by operation name	Type the initial letters of the operation name to filter the display of names in the list.

Delete Information

Element	Description
Delete records by	Certain delete operations support the deleteBy values feature. Select a field by which to delete records: <ul style="list-style-type: none"> • Id Field: Select this field to use the Id field of the selected object to delete the duplicate records. • Dedupe Fields: Select this field to use the set of dedupe fields defined on the selected object to delete records.
Select Object	Use the scrolling list to select an object within the selected action.
Filter by object name	Type the initial letters of the object name to filter the display of names in the list. You can also select a filter type: <ul style="list-style-type: none"> • All: Displays all objects. • Standard: Displays standard objects delivered as part of the Marketo application. • Custom: Displays the custom objects created.
Select Operation	Select an operation name, such as Get Named Accounts .
Filter by operation name	Type the initial letters of the operation name to filter the display of names in the list.

Extract Bulk Data

Element	Description
Select Object	Select an object name, such as Leads , Activities , Program Members , and so on. You can also select custom object names.

Element	Description
Filter by object name	Type the initial letters of the object name to filter the display of names in the list. You can also select a filter type: <ul style="list-style-type: none"> • All: Displays all objects. • Standard: Displays standard objects delivered as part of the Marketo application. • Custom: Displays the custom objects created.
Select Operation	Select an operation name, such as Create Export Leads . The operations available for selection are based on the object selected.
Filter by operation name	Type the initial letters of the operation name to filter the display of names in the list.

An Extract Bulk Data use case is provided. See [Process Large Data Sets Asynchronously with Different Bulk Extract Operations](#).

Import Bulk Data

Element	Description
Select Object	Select an object within the selected action.
Filter by object name	Type the initial letters of the object name to filter the display of names in the list. You can also select a filter type: <ul style="list-style-type: none"> • All: Displays all objects. • Standard: Displays standard objects delivered as part of the Marketo application. • Custom: Displays the custom objects created.
Select Operation	Select an operation, such as Import Program Member . For bulk import operations in Marketo, a comma-separate value (CSV) file is used as input.

An Import Bulk Data use case is provided. See [Process Large Data Sets Asynchronously with Different Bulk Import Operations](#).

Invoke Configure Fields Page

If you selected **Query Information** or **Extract Bulk Data** on the Action page, and an object (such as **Leads**, **Program Members**, and so on) and an operation (such as **Get Leads By Id**, **Create Extract Bulk Data**, and so on) on the Operations page, select the fields to use.

Element	Description
Search Field	Type the initial letters of the field name to filter the display of names in the list.
Available Fields	Use the scrolling list to select a field within the available fields. A user can select multiple response fields from the shuttle object.

Element	Description
Selected Fields	Displays the list of selected fields.

Summary Page

You can review the specified adapter configuration values on the Summary page.

Element	Description
Summary	<p>Displays a summary of the configuration values you defined on previous pages of the wizard.</p> <p>The information that is displayed can vary by adapter. For some adapters, the selected business objects and operation name are displayed. For adapters for which a generated XSD file is provided, click the XSD link to view a read-only version of the file.</p> <p>To return to a previous page to update any values, click the appropriate tab in the left panel or click Back.</p> <p>To cancel your configuration details, click Cancel.</p>

4

Implement Common Patterns Using the Marketo Adapter

You can use the Marketo Adapter to implement the following common pattern.

Topics:

- [Synchronize Marketo Leads with a Salesforce Application](#)
- [Process Large Data Sets Asynchronously with Different Bulk Import Operations](#)
- [Process Large Data Sets Asynchronously with Different Bulk Extract Operations](#)

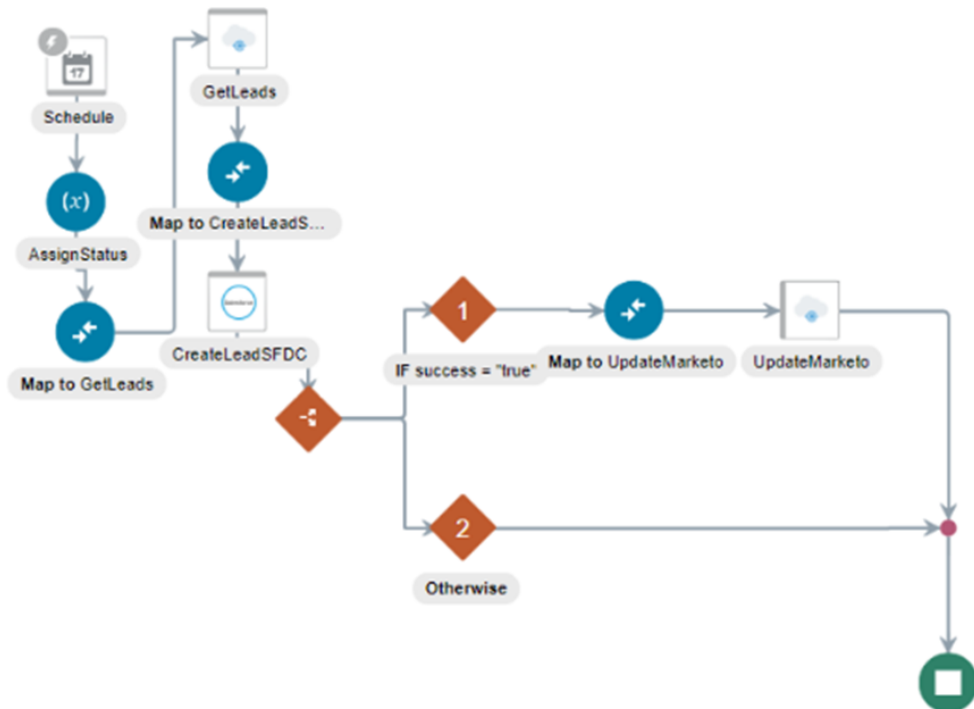
Synchronize Marketo Leads with a Salesforce Application

This use case provides an overview of how to synchronize Marketo leads to the Salesforce application.

This use case uses the following operations:

- **Get Leads:** Requests the details of leads from Marketo using the Lead Database Module based on the filters provided.
 - **Create Lead:** Creates a Marketo lead in Salesforce.
1. Create a scheduled orchestrated integration.
 2. Drag and drop an Assign action and create two variables:
 - **Status=New**
 - **Status_update=Processed**
 3. Drag the Marketo Adapter into the integration canvas.
 4. Configure the Marketo Adapter as follows:
 - a. On the Basic Info page, provide a name.
 - b. On the Action page, select **Query Information**.
 - c. On the Operations page, select the following details:
 - i. **Leads** object
 - ii. **Get Leads By Filter** operation
 - iii. **Custom_Field 2** from the **Field to Search On** dropdown list
 - d. On the Configure Fields page, select a field for the response.
 - e. Review your selections on the Summary page.
 5. In the mapper, map the **status** variable to **sync leads** (with **Custom_Field2 = New**) in Marketo.
 6. Drag a Salesforce Adapter into the integration canvas and configure it with the **Create, Update Or Delete Information** action.

- a. On the Basic Info page, provide a name.
 - b. On the Action page, select **Create, Update Or Delete Information**.
 - c. On the Operations page, select the **Lead** operation and the **Create** operation.
 - d. Review your selections on the Summary page.
7. In the mapper, perform the required mappings to create a lead in Salesforce.
 8. Drag a switch action with the condition **if success="true"** (that is, if the **Lead** is synchronized to Salesforce.com).
 9. Drag a Marketo Adapter and configure it with the **Create or Update Information** action.
 - a. On the Action page, select **Create or Update Information**.
 - b. On the Operation page, select the following details:
 - i. **Leads** object
 - ii. **Sync lead** operation
 - iii. **Update Only**
 - c. Review your selections on the Summary page.
 10. Update the **Custom_Field2** field as a response in Marketo (that is, **Processed** when the lead gets created in Salesforce.com). The completed integration looks as follows.



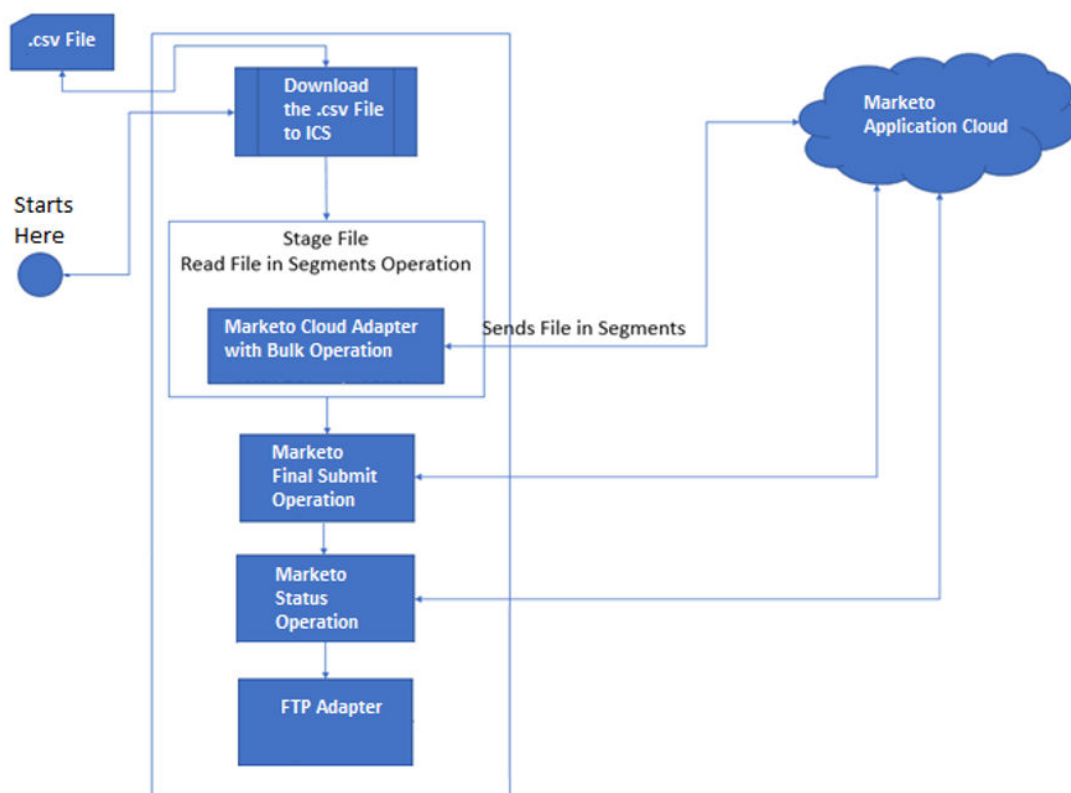
11. Activate the integration.
 - a. At the end of the row for the integration, click the **Switch to Activate** icon.
 - b. If needed, check the **Enable Tracing** check box. The **Include Payload** check box is displayed.

- c. If needed, check the **Include Payload** check box.
- d. Click **Submit Now**. The integration is deployed.

Process Large Data Sets Asynchronously with Different Bulk Import Operations

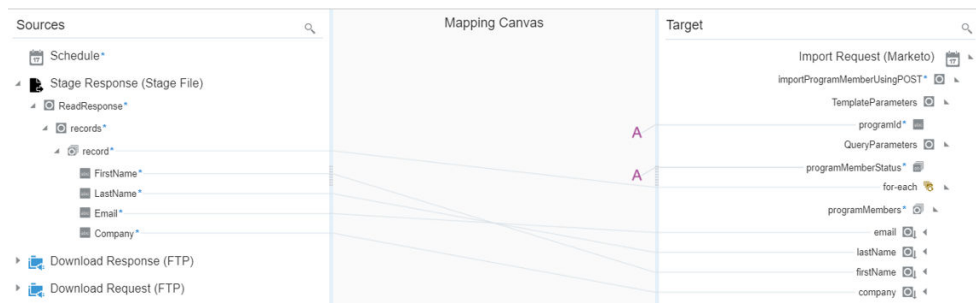
The Marketo Bulk API enables you to handle huge data sets asynchronously with different bulk operations. For every bulk operation, the Marketo application creates a job. The job contains a nonempty CSV file that is 9 MB or less in size. Because the jobs are processed in parallel, no execution order is followed.

This use case describes how to configure the Marketo Adapter to import a large volume of program member records into Marketo. Similarly, you can import a large volume of records for leads and custom objects. To perform this operation, you create FTP Adapter and Marketo Adapter connections in Oracle Integration. In this use case, a CSV file is used as input.



1. Create a scheduled orchestration integration.
2. Drag an FTP Adapter into the integration canvas.
3. Configure the FTP Adapter as follows:
 - a. On the Operations page, select **Download File** from the **Select Operation** list.
 - b. Select **ASCII** from the **Select a Transfer Mode** list.
 - c. Provide the input directory, file name, and download directory.

- d. Review your selections on the Summary page.
4. Drag a stage file action into the integration canvas below the FTP Adapter and configure it to read the downloaded file. The stage file action helps the Marketo Adapter fetch data in the form of segments (a single segment contains 200 records).
 - a. On the Basic Info page, provide a name.
 - b. On the Configure Operation page, select **Read Files in Segments** from the **Choose Stage File Operation** field.
 - c. Specify the XPath expression for the file name in the **Specify the File Name** field.
 - d. Specify the directory name in the **Specify the Directory to read from** field.
 - e. On the Scheme Options page, select **Create a new schema from a CSV file** from the **Do you want to create a new schema or select an existing one** list.
 - f. On the Format Definition page, click **Choose File** and upload the sample CSV file in the **Select a New Delimited Data File** field.
 - g. Review your selections on the Summary page.
5. Drag a Marketo Adapter inside the stage file action and configure it with the required bulk operation.
 - a. On the Basic Info page, provide a name.
 - b. On the Action page, select **Import Bulk Data**.
 - c. On the Operations page, select the **Program Members** object, and then select the **Import Program Member** operation.
 - d. Review your selections on the Summary page.
6. In the mapper, map the stage file action elements to the Marketo input payload.

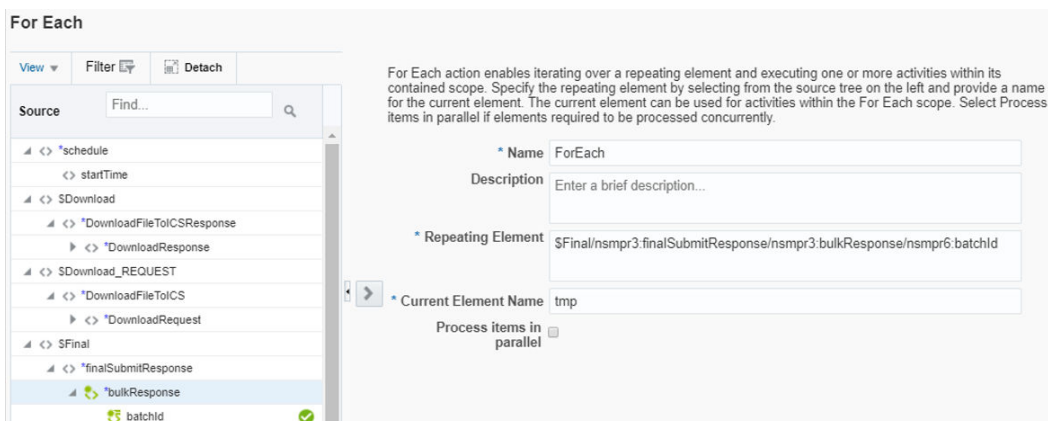


7. Drag a Marketo Adapter below the stage file action and configure it with the **Final Submit** operation.
 - a. On the Basic Info page, provide a name.
 - b. On the Action page, select **Import Bulk Data**.
 - c. On the Operations page, select the **Final Submit** operation in the **Select Operation** field.

 **Note:**

You cannot select the object on which to perform the operation because this Marketo Adapter connection performs the activity for the operation that was configured for the Marketo endpoint inside the stage file action.

- d. Review your selections on the Summary page.
8. Drag a for-each action into the canvas, select **batchId** as the repeating element to get from the **Final Submit** response, provide a name, and provide a current element name.



For Each

View Filter Detach

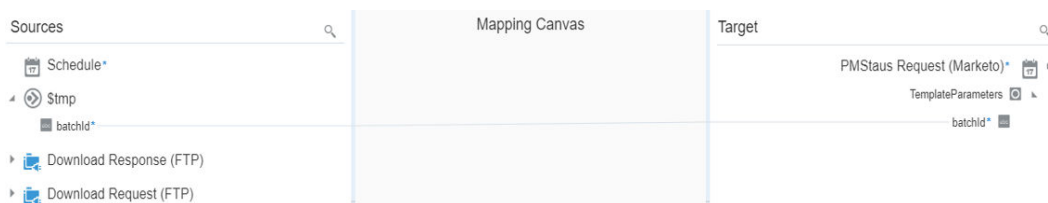
Source Find...

- schedule
- startime
- SDownload
 - DownloadFileToICSResponse
 - DownloadResponse
 - SDownload_REQUEST
 - DownloadFileToICS
 - DownloadRequest
 - SFinal
 - finalSubmitResponse
 - bulkResponse
 - batchId

For Each action enables iterating over a repeating element and executing one or more activities within its contained scope. Specify the repeating element by selecting from the source tree on the left and provide a name for the current element. The current element can be used for activities within the For Each scope. Select Process items in parallel if elements required to be processed concurrently.

- Name: ForEach
- Description: Enter a brief description...
- Repeating Element: \$Final/nsmpr3.finalSubmitResponse/nsmpr3.bulkResponse/nsmpr6.batchId
- Current Element Name: tmp
- Process items in parallel:

9. Drag a Marketo Adapter to configure the **Import Program Members Status** operation inside the for-each action.
 - a. On the Basic Info page, provide a name.
 - b. On the Action page, select **Import Bulk Data**.
 - c. On the Operations page, select the **Program Members** object, and then select the **Import Program Member Status** operation.
 - d. Review your selections on the Summary page.
10. In the mapper, map the current element name **batchId** to the Program Member Status request.



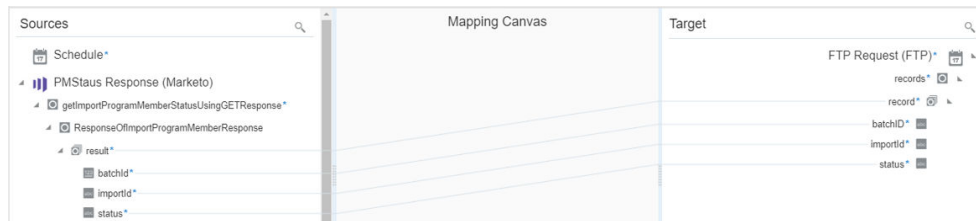
Sources Mapping Canvas Target

- Schedule*
- Stmp
 - batchId*
- Download Response (FTP)
- Download Request (FTP)

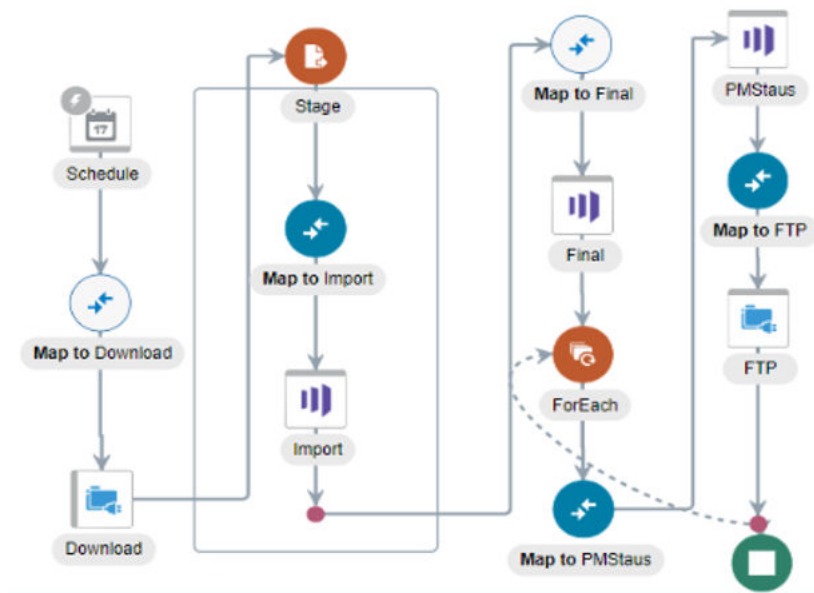
- PMSatus Request (Marketo)*
 - TemplateParameters
 - batchId*

11. Drag an FTP Adapter connection below the Marketo Adapter and configure the FTP endpoint to write the Marketo Program Member Status response to a file for future use.
 - a. On the Basic Info page, provide a name.
 - b. On the Operations page, select **Write File** from the **Select Operation** list.
 - c. Select **ASCII** from the **Select a Transfer Mode** list.
 - d. Specify the output directory and file name pattern.

- e. On the Scheme page, select **Sample delimited document (CSV)** from the **Which one of the following choices would be used to describe the structure of the file contents** list.
 - f. On the File Contents-Definition page, click **Choose File** and upload the schema file in the **Select a New Delimited Data File** field.
 - g. Review your selections on the Summary page.
12. In the mapper, map the Marketo Program Member Status response to the FTP write request.



The complete integration looks as follows:



13. Specify the tracking variable.
 - a. Click **Tracking**.
 - b. Drag the required variable to use for the tracking reference (for this example, **startTime** is selected).
14. Activate the integration.
15. After successful activation, you can submit the integration and monitor the runtime in Oracle Integration.

Process Large Data Sets Asynchronously with Different Bulk Extract Operations

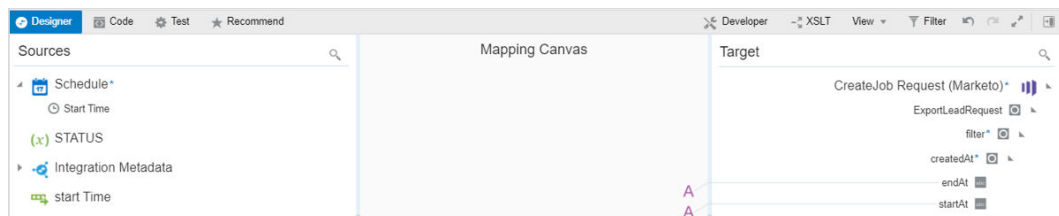
The Marketo Bulk API enables you to handle huge data sets asynchronously with different bulk operations. For every bulk operation, the Marketo application creates a job. The maximum limit of daily export quota is 500 MB per day.

This use case describes how to configure the Marketo Adapter to extract a large volume of Leads records from Marketo. Similarly, you can extract a large volume of records for Program Members and Activities.

1. Create a scheduled orchestration integration.
2. Drag an assign action into the integration canvas and create the following variable.

```
STATUS="false"
```

3. Drag a Marketo Adapter and configure it with the required bulk operation.
 - a. On the Basic Info page, provide a name.
 - b. On the Action page, select **Extract Bulk Data**.
 - c. On the Operations page, select the **Leads** object, the **Create Export Leads** operation, and the fields to configure for the response from **Available Fields**.
 - d. On the Configure Fields page, select the fields to configure for the response from **Available Fields**.
 - e. Review your selections on the Summary page.
4. In the mapper, perform the required mapping.



5. Drag a Marketo Adapter and configure it with the required bulk operation.
 - a. On the Basic Info page, provide a name.
 - b. On the Action page, select **Extract Bulk Data**.
 - c. On the Operations page, select the **Leads** object, then select the **Enqueue Export Leads** operation.
 - d. Review your selections on the Summary page.
6. In the mapper, map **exportid** from **Create Export Leads Response**.
7. Drag a while action and specify the condition as follows:

```
STATUS != "true"
```

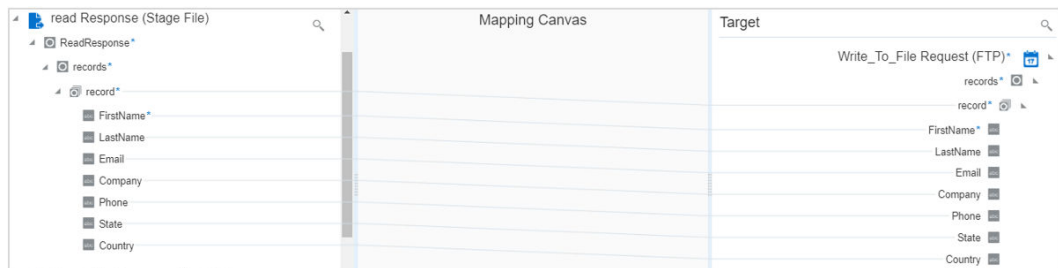
8. Drag a Marketo Adapter and configure it with the required bulk operation.

- a. On the Basic Info page, provide a name.
 - b. On the Action page, select **Extract Bulk Data**.
 - c. On the Operations page, select the **Leads** object, then select the **Export Leads Status** operation.
 - d. Review your selections on the Summary page.
9. Drag an FTP Adapter into the integration canvas and configure it as follows:
 - a. On the Operations page, select **Write File** from the **Select Operation** list.
 - b. Select **ASCII** from the **Select a Transfer Mode** list.
 - c. Provide the output directory and file name pattern.
 - d. On the Schema page, select **No**.
 - e. Review your selections on the Summary page.
 10. In the mapper, map the **Marketo Export Leads Status** response to the **FTP write** request.
 11. Drag a switch action inside the while loop and specify the condition.

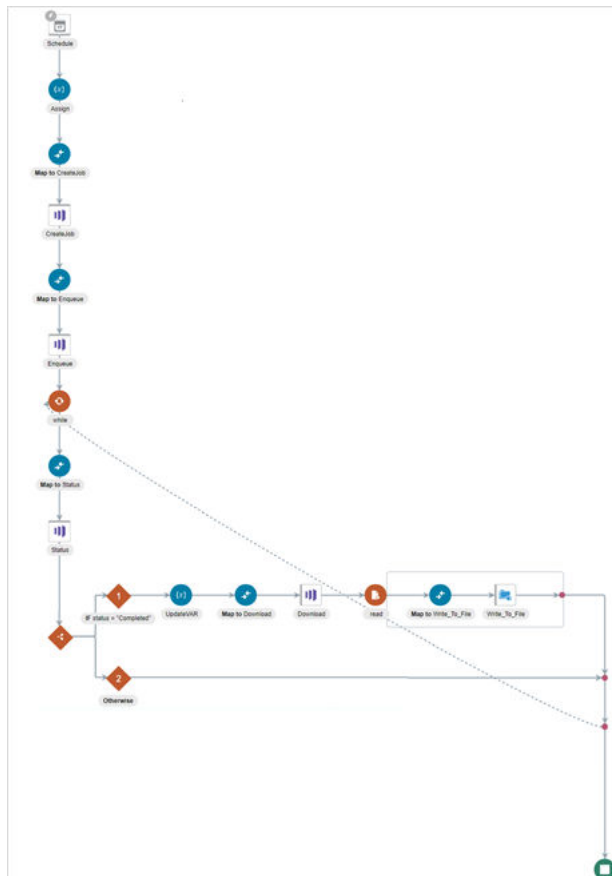
```
If status = "Completed" then update the STATUS variable as:
STATUS = "true"
```

- a. On the Basic Info page, provide a name.
 - b. On the Action page, select **Extract Bulk Data**.
 - c. On the Operations page, select the **Leads** object, then select the **Get Export Leads File** operation.
 - d. Review your selections on the Summary page.
12. Drag a Marketo Adapter and configure it with the required bulk operation.
 - a. On the Basic Info page, provide a name.
 - b. On the Action page, select **Extract Bulk Data**.
 - c. On the Operations page, select the **Leads** object, then select the **Get Export Leads File** operation.
 - d. Review your selections on the Summary page.
 13. In the mapper, map **exportid** from the **Marketo Export Leads Status** response.
 14. Drag a stage file action and configure it to read the downloaded file. The stage file action helps the Marketo Adapter fetch data in the form of segments (a single segment contains 200 records).
 - a. On the Basic Info page, provide a name.
 - b. On the Configure Operation page, select **Read Files in Segments** from the **Choose Stage File Operation** field.
 - c. Specify the XPath expression for the file name in the **Specify the File Name** field.
 - d. Specify the directory name in the **Specify the Directory to read from** field.
 - e. On the Schema Options page, select **Yes**, then select **Create a new schema from a CSV file** from the **Do you want to create a new schema or select an existing one** list.
 - f. On the Format Definition page, click **Choose File** and upload the sample CSV file in the **Select a New Delimited Data File** field.
 - g. Review your selections on the Summary page.
 15. Drag an FTP Adapter connection and configure the FTP endpoint to write the Marketo Export Leads data to a file for future use.

- a. On the Basic Info page, provide a name.
 - b. On the Operations page, select **Write File** from the **Select Operation** list.
 - c. Select **ASCII** from the **Select a Transfer Mode** list.
 - d. Specify the output directory and file name pattern.
 - e. On the Scheme page, select **Yes**, then select **Sample delimited document (e.g. CSV)** from the **Which one of the following choices would be used to describe the structure of the file contents** list.
 - f. On the File Contents-Definition page, click **Choose File** and upload the schema file in the **Select a New Delimited Data File** field.
 - g. Review your selections on the Summary page.
16. In the mapper, perform the required mapping.



The complete integration looks as follows:



17. Specify the tracking variable.
 - a. Click **Tracking**.
 - b. Drag the required variable to use for the tracking reference (for this example, **startTime** is selected).
18. Activate the integration.
19. After successful activation, you can submit the integration and monitor the runtime in Oracle Integration.

5

Troubleshoot the Marketo Adapter

Review the following topics to learn about troubleshooting issues with the Marketo Adapter.

Topics

- [Marketo Adapter Endpoint Configuration Issues](#)

Additional integration troubleshooting information is provided. See Troubleshoot Oracle Integration of *Using Integrations in Oracle Integration Generation 2* and the [Oracle Integration Troubleshooting](#) page in the Oracle Help Center.

Marketo Adapter Endpoint Configuration Issues

Note the following errors that can occur when the Marketo Adapter endpoint is configured as an invoke connection.

- The following error occurs when you drag the Marketo Adapter into the integration canvas:

```
CASDK-0007 : Unable to find valid certification path to requested target.  
Please upload the latest Marketo SSL Certificates
```

Solution: Upload valid Marketo Adapter certificates.

- While creating a new custom service in the Marketo application, the Marketo API Only User is not displayed in the dropdown list. Follow these steps to create a new Marketo API Only User:
 1. On the Home page, click **Admin**, and then click **Users and Roles**.
 2. Enable the **API Only** check box. This enables you to create a custom service for this user.