Oracle® Cloud

Using the SAP Ariba Adapter with Oracle Integration
# Add the SAP Ariba Adapter Connection to an Integration

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Preface

This guide describes how to configure the SAP Ariba Adapter as a connection in an integration in Oracle Integration.

Note:
The information in this guide applies to all of your Oracle Integration instances. It doesn’t matter which edition you’re using, what features you have, or who manages your cloud environment. You’ll find what you need here, including notes about any differences between the various flavors of Oracle Integration when necessary.

Topics
• Audience
• Documentation Accessibility
• Related Resources
• Conventions

Audience

This guide is intended for developers who want to use the SAP Ariba 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.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Related Resources

See these Oracle resources:
• Oracle Cloud
  http://cloud.oracle.com
• Using Integrations in Oracle Integration
• Using the Oracle Mapper with Oracle Integration

Conventions

The following text conventions are used in this document:

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

Review the following conceptual topics to learn about the SAP Ariba 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:

• SAP Ariba Adapter Capabilities
• SAP Ariba Adapter Restrictions
• What Application Version Is Supported?
• SAP Ariba Adapter Use Cases
• Workflow to Create and Add an SAP Ariba Adapter Connection to an Integration

SAP Ariba Adapter Capabilities

The SAP Ariba Adapter is a predefined adapter included with Oracle Integration. Use the SAP Ariba Adapter to manage your business-to-business (B2B) transactions.

SAP Ariba is a cloud-based B2B application that is used to connect buyers and sellers. The application allows sellers to manage their catalogs, bids, purchases, and invoices and provides buyers with the ability to search for suppliers, negotiate savings, procure goods and services, and track spending. SAP Ariba can improve the efficiency of your requisition to pay and catalog to cash processes. SAP Ariba integrates with your E-procurement system to provide a fast shopping experience that offers greater control over goods and services purchasing, encourages collaboration with suppliers, and ensures catalog and contract compliance. The user interface makes it easy for users to list and compare items from preferred providers at preferred prices. SAP Ariba seamlessly connects buyers and sellers with end-to-end connectivity on order fulfillment, confirmations, and shipping notices.

SAP Ariba provides an Integration Tool Kit (ITK) method to integrate SAP Ariba with other third-party systems to exchange master and transactional data through comma-separated value (CSV) files. The SAP Ariba Adapter provides support for the ITK feature. The SAP Ariba Adapter enables you to extract data as bulk files from the SAP Ariba Cloud application and import data into the SAP Ariba Cloud application. This is known as a file-based bulk transaction.

You can perform the following transactions:

• Import Ariba data: Load data into Ariba in .csv file format.
• Export Ariba data: Extract data from Ariba in .csv file format.

You can export required data from an inbound SAP Ariba system to an outbound external system with Oracle Integration. See Subscribe to Incoming Events with an SAP Ariba Adapter Connection.
SAP Ariba Adapter Restrictions

Note the following SAP Ariba Adapter restrictions.

• Multipurpose Internet Mail Extensions (MIME) attachments in an Ariba outbound SOAP service scenario are not supported because this is not supported by the Oracle Integration Adapter SDK. To continue without attachments, ensure that the attachments are disabled in the Ariba sandbox.

• During the data import process from any adapter or system, the SAP Ariba Adapter performs the following tasks:
  – Compresses a large data file and turns it into a ZIP file
  – Sends only a 10 MB ZIP file to the SAP Ariba sandbox
  – Updates the status to 200

For large data, the SAP Ariba Adapter divides the total data into chunks of 10 MB (zipped file size) and sends ZIP files of 10 MB in size in each turn. The SAP Ariba Adapter retains ZIP files of less than 10 MB in size (does not send the file to the SAP Ariba sandbox), but updates the status to 200. The SAP Ariba Adapter sends a ZIP file less than 10 MB in size in the final submit call.

Note:

The status update to 200 by the SAP Ariba Adapter means data has been transferred to the sandbox. A status update to 200 does not include any information about data processing in the SAP Ariba sandbox. For information about data processing, check the SAP Ariba sandbox.

• The Transactional data operation does not show tasks that are not part of any batch process. For example, the Import Catalog Views operation is not part of any batch process. Therefore, the SAP Ariba Adapter does not show it in the user interface.
  While loading the Transactional data into SAP Ariba, the selected task should be part of a batch process. Otherwise, you cannot see the task in the user interface and cannot load the data.

What Application Version Is Supported?

For information about which application version is supported by this adapter, see the Oracle Integration Adapters Certification Matrix under section Oracle Integration Adapters Certification at the top of the page:

Oracle Integration Adapters Certification Matrix

SAP Ariba Adapter Use Cases

This use case describes how a pharmaceutical company used the SAP Ariba Adapter to simplify supply chain management, reduce order complexity, and improve the efficiency of supply operations.
A customer makes an online purchase of a medication produced by the pharmaceutical company.

The SAP Ariba Adapter sends the purchase request to the pharmaceutical company.

The pharmaceutical company locates the requested medication and prepares it for shipment.

The pharmaceutical company uses the SAP Ariba Adapter to inform the customer that their purchase has shipped and provides tracking information.

The SAP Ariba Adapter updates the inventory information for the product ordered by the customer.

**Workflow to Create and Add an SAP Ariba 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.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>More Information</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>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.</td>
<td>Create an SAP Ariba Adapter Connection</td>
</tr>
<tr>
<td>2</td>
<td>Create the integration. When you do this, you add trigger and invoke connections to the integration.</td>
<td>Create Integrations and Add the SAP Ariba Adapter Connection to an Integration</td>
</tr>
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<td>3</td>
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</tr>
<tr>
<td>4</td>
<td>(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).</td>
<td>Manage Lookups of Using Integrations in Oracle Integration</td>
</tr>
<tr>
<td>5</td>
<td>Activate the integration.</td>
<td>Manage Integrations of Using Integrations in Oracle Integration</td>
</tr>
<tr>
<td>6</td>
<td>Monitor the integration on the dashboard.</td>
<td>Monitor Integrations of Using Integrations in Oracle Integration</td>
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<tr>
<td>7</td>
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<td>Assign Business Identifiers for Tracking Fields in Messages and Manage Business Identifiers for Tracking Fields in Messages of Using Integrations in Oracle Integration</td>
</tr>
<tr>
<td>8</td>
<td>Manage errors at the integration level, connection level, or specific integration instance level.</td>
<td>Manage Errors of Using Integrations in Oracle Integration</td>
</tr>
</tbody>
</table>
Create an SAP Ariba Adapter Connection

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

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 SAP Ariba Adapter:
• Complete Ariba SOAP Web Services Prerequisites
• Complete SAP Ariba ITK Prerequisites

Complete Ariba SOAP Web Services Prerequisites

Perform the following SAP Ariba SOAP web services prerequisites.
You must have an existing SAP Ariba user account. A user account is required to provide the credentials necessary to create the connection and integration.

• Configure Basic Authentication
• Configure the SAP Ariba Endpoints
• Configure the SAP Ariba Integration
• Obtain the SAP Ariba Host Name and Partition (Site/Realm Name)

Configure Basic Authentication

Configure basic authentication for the SAP Ariba Adapter.

1. Log in to the SAP Ariba Spent Management application.
2. Navigate to Manage > Core Administration (Downstream) / Administration (Upstream) > Integration Configuration > Integration Manager > Endpoint Point Configuration.
3. Click Create New.
4. On the End Point Configuration - Create End Point page, provide the required endpoint name.
5. Enter a username and password, then re-enter the password a second time for confirmation. The password must have at least 12 characters and can be a maximum of 16 characters.

6. Copy this value and the password. You need these values when configuring security on the Connections page.

7. Click Save.

Configure the SAP Ariba Endpoints

Configure the SAP Ariba outbound and inbound endpoints.

- Configure the SAP Ariba Outbound Endpoint
- Configure the SAP Ariba Inbound Endpoint

Configure the SAP Ariba Outbound Endpoint

Configure the SAP Ariba outbound endpoint.

1. Log in to the SAP Ariba Spent Management application.

2. Navigate to Manage > Core Administration (Downstream) / Administration (Upstream) > Integration Manager > End Point Configuration.

3. Click Create New. The End Point Configuration - Create End Point page is displayed.

4. On the End Point Configuration - Create End Point page, enter the required endpoint name.

5. Select Outbound in the Type field.

6. Paste the integration endpoint URL in the URL field.

**Note:**

Ensure that the endpoint URL contains a public IP with an open port.

7. Provide the HTTP Authentication credentials.

8. Click Save.

Configure the SAP Ariba Inbound Endpoint

Configure the SAP Ariba inbound endpoint.

1. Log in to the SAP Ariba Spent Management application.

2. Navigate to Manage > Core Administration (Downstream) / Administration (Upstream) > Integration Manager > End Point Configuration.

3. Click Create New. The End Point Configuration - Create End Point page is displayed.

4. On the End Point Configuration - Create End Point page, enter the required endpoint name.

5. Select Inbound in the Type field.
6. Paste the integration endpoint URL in the **URL** field.

    **Note:**
    Ensure that the endpoint URL contains a public IP with an open port.

7. Provide the HTTP Authentication credentials.
8. Click **Save**.

### Configure the SAP Ariba Integration

Configure the SAP Ariba integration.

- Enable the **Import/Export Web Services Tasks**
- Complete the **Test Connection**

### Enable the Import/Export Web Services Tasks

Enable the import/export web services tasks.

1. Log in to the SAP Ariba Spent Management application.
2. Navigate to **Manage > Core Administration (Downstream) / Administration (Upstream) > Integration Manager > Integration Configuration**.
3. Search the required task name in the **Search** filters.
4. Click **Actions** for the respective task, and select **Enable**.

### Complete the Test Connection

You must enable several tasks to complete the test connection.

1. Enable the following tasks to complete the test connection.
   - Catalog Item Search (Downstream)
   - Import Document (Upstream)

   See [Enable the Import/Export Web Services Tasks](#).

### Obtain the SAP Ariba Host Name and Partition (Site/Realm Name)

Obtain the SAP Ariba host name and partition.

1. Log in to the SAP Ariba Spent Management application.
2. Navigate to **Manage > Core Administration (Downstream) / Administration (Upstream) > Integration Manager > Integration Configuration**.
3. Click **Actions** and select **Edit**. The Edit Data Import/Export Task page is displayed.
4. Click **View WSDL**. The WSDL opens in a new browser tab.
5. Scroll down to the bottom or search the `<soap:address>` field. The host name and realm name appear in the `<soap:address>` field.

```
<wsdl:port binding="typens:WSCatalogItemSearchBinding"
    name="WSCatalogItemSearchPortType">
  <soap:address location="https://Host_Name/Buyer/soap/Realm_Name/
    WSCatalogItemSearch"/>
```

See Configure Connection Security.

Complete SAP Ariba ITK Prerequisites

Perform the following SAP Ariba ITK prerequisites.

**Topics:**

- Configure SAP Ariba ITK Authentication
- Configure the SAP Ariba Integration
- Obtain the SAP Ariba Host Name and Partition (Site/Realm Name) to Configure Connection Properties for SAP Ariba
- Download the Sourcing Data Dictionary and Buyer Data Dictionary

Configure SAP Ariba ITK Authentication

Configure SAP Ariba ITK authentication.

1. Log in to the SAP Ariba Spent Management application.

2. Navigate to Manage > Core Administration (Downstream) / Administration (Upstream) > Integration Configuration > Integration Manager > Integration Toolkit Security.

3. From the **Select the Authentication Method** list, select **Shared Secret**.

4. Enter the integration shared secret password, then re-enter the password a second time for confirmation.

5. Copy this value and the password. You need these values when configuring security on the Connections page.
6. Click **Save**.

### Configure the SAP Ariba Integration

Configure the SAP Ariba integration.

Enable the import/export ITK (file) tasks.

1. Log in to the SAP Ariba Spent Management application.
2. Navigate to **Manage > Core Administration (Downstream) / Administration (Upstream) > Integration Manager > Integration Configuration**.
3. Search the required task name in the **Search** filters.
4. Click **Actions** for the respective task and select **Enable**.

### Obtain the SAP Ariba Host Name and Partition (Site/Realm Name) to Configure Connection Properties for SAP Ariba

Obtain the SAP Ariba host name and partition (site/realm name) to configure connection properties for SAP Ariba.

See [Obtain the SAP Ariba Host Name and Partition (Site/Realm Name)]().

### Download the Sourcing Data Dictionary and Buyer Data Dictionary

Download the sourcing data dictionary and buyer data dictionary to upload into Oracle Integration.

- You must have an existing SAP Ariba user account. A user account is required to provide the credentials necessary to create the connection and integration.
- To use the Ariba ITK method, you must perform the following tasks:
  1. Log in to SAP Ariba to download the data dictionaries.
  2. To download the sourcing data dictionary, navigate to **Home > Administration > Data Import/Export**, and click **Download Data Dictionary**.
  3. To download the buyer data dictionary, navigate to **Home > Core Administration > Data Import/Export**, and click **Download Data Dictionary**.
Create a Connection

The first step in creating an integration is to create the connections to the applications with which you want to share data.

1. In the navigation pane, click Integrations, then click 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.)

The Create Connection — Select Adapter dialog is displayed.

3. Select an adapter from the dialog. You can also search for the type of adapter to use by entering a partial or full name in the Search field, and clicking Search.

The Create New Connection dialog is displayed.

4. Enter the information to describe the connection.

   - 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, do not include a blank space (for example, Sales Opportunity).
   - Select the role (direction) in which to use this connection (trigger, invoke, or both). Only the roles supported by this 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, then try to drag the adapter into the section you did not select, you receive an error (for example, configure an Oracle Service Cloud (RightNow) Adapter as only an invoke, but drag the adapter to the trigger section).
   - Enter an optional description of the connection.
5. Click **Create**.

Your connection is created and you are now ready to configure connection details, such as email contact, connection properties, security policies, connection login credentials, and (for certain connections) agent group.

**Add a Contact Email**

From the Connection Administrator section of the connection, you can add a contact email address for notifications.

1. In the **Email Address** field, enter an email address to receive email notifications when problems occur.

2. In the upper right corner, click **Save**.

**Configure Connection Properties**

Enter connection information so your application can process requests.

1. Complete these fields:
   a. In the **Host Name** field, enter the host name of the SAP Ariba server. See *Obtain the SAP Ariba Host Name and Partition (Site/Realm Name)*.
   b. In the **Partition (Site Name)** field, enter the name of the SAP Ariba server partition on which to execute operations. See *Obtain the SAP Ariba Host Name and Partition (Site/Realm Name)*.
   c. In the **Buyer Data Dictionary** field, upload the buyer data dictionary you downloaded. See *Download the Sourcing Data Dictionary and Buyer Data Dictionary*. 
d. In the **Sourcing Data Dictionary** field, upload the source data dictionary you downloaded. See Download the Sourcing Data Dictionary and Buyer Data Dictionary.

**Note:**
You can upload the data dictionaries from the local host using the **Upload** option or enter the host location of the file.

2. Click **OK**.

3. Configure connection security.

**Configure Connection Security**

Configure security for your SAP Ariba Adapter connection by selecting the security policy and security token.

1. In the **Security Policy** list, select the security policy.
   - **Basic Authentication**
   - **Ariba ITK Authentication Policy**

2. If you select **Basic Authentication**:
   a. In the **Username** field, enter the user name for the SAP Ariba account.
   b. In the **Password** field, enter the password for the SAP Ariba account.
   c. In the **Confirm Password** field, re-enter the password.

   See Configure Basic Authentication.

3. If you select **Ariba ITK Authentication Policy**:
   a. In the **ITK Shared Key** field, enter the key you obtained. See Configure SAP Ariba ITK Authentication.

4. Click **OK**.

**Test the Connection**

Test your connection to ensure that it is successfully configured.

1. In the upper right corner of the page, click **Test**.

2. If your adapter connection uses a WSDL, you are prompted to select the type of connection testing to perform:
   - **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.

   If successful, the following message is displayed and the progress indicator shows 100%.

   **Connection** connection_name **was tested successfully**.
3. If your connection was unsuccessful, an error message is displayed with details. Verify that the configuration details you entered are correct.

4. When complete, click **Save**, then click **Close**.

## 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 navigation pane, click **Integrations**, then click the < arrow next to **Designer**.
2. Click **Settings > Certificates**.

   All certificates currently uploaded to the trust store are displayed in the Certificates dialog. The **Filter By > Type** list displays the following details:

   - **Preinstalled**: Displays the certificates automatically installed in Oracle Integration. These certificates cannot be deleted.
   - **Uploaded**: Displays the certificates uploaded by individual users. These certificates can be deleted and updated.

3. You can also search for certificates in the **Search** field. The search results are limited to a maximum of ten records sorted by name for performance and usability reasons. To ensure that your search results are more granular, enter as much of the certificate name as possible.

4. Click **Upload** at the top of the page.

5. In the Upload Certificate dialog box, select the certificate type. Each certificate type enables Oracle Integration to connect with external services.

   - **Trust Certificate**: Use this option to upload a trust certificate.
     a. Enter a unique alias for the certificate.
     b. Click **Browse**, then select the trust file (for example, `.cer` or `.crt`) to upload.

   - **Message Protection Certificate**: Use this option to upload a keystore certificate with SAML token support. Create, read, update, and delete (CRUD) operations are supported on this type of certificate.
     a. Enter a unique alias for the certificate.
     b. Click **Browse**, then select the certificate file (`.cer` or `.crt`) to upload.

   - **Identity Certificate**: Use this option to upload a certificate for two-way SSL communication.
     a. Click **Browse**, then select the keystore file (`.jks`) to upload.
     b. Enter the password of the keystore being imported.
     c. Enter the comma-separated list of aliases from the keystore being imported.
d. Enter the comma-separated list of passwords corresponding to key aliases.

e. If you want to display the passwords in clear text, select **Show Key Password(s)**. This enables you to ensure that you are correctly entering a list of keystore passwords.

5. Click **Upload**.

6. Click the certificate name to view details such as the subject of the certificate, the issuer of the certificate, the date the certificate was issued, and the date the certificate expires.
Add the SAP Ariba Adapter Connection to an Integration

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

These topics describe the wizard pages that guide you through configuration of the SAP Ariba Adapter as an invoke in an integration. The SAP Ariba Adapter cannot be used as a trigger in an integration.

Topics:
- Basic Info Page
- Trigger Operations Page
- Invoke Operations Page
- Invoke Service Options Page
- Invoke Configure Operation Page
- Invoke Task Operation Mappings Page
- Summary Page
- Summary Page - Ariba ITK Method
- Perform SAP Ariba Adapter Postconfiguration Tasks

Basic Info Page

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

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What do you want to call your endpoint?</strong></td>
<td>Provide a meaningful name so that others can understand the responsibilities of this connection. You can include English alphabetic characters, numbers, underscores, and dashes in the name. You cannot include the following:</td>
</tr>
<tr>
<td></td>
<td>• Blank spaces (for example, My Inbound Connection)</td>
</tr>
<tr>
<td></td>
<td>• Special characters (for example, ¦;83∂ or righ(t)now4)</td>
</tr>
<tr>
<td></td>
<td>• Multibyte characters</td>
</tr>
</tbody>
</table>
### What does this endpoint do?
Enter an optional description of the connection’s responsibilities. For example: This connection receives an inbound request to synchronize account information with the cloud application.

---

## Trigger Operations Page

Select the SAP Ariba event operation to which to subscribe.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ariba Solution</td>
<td>Identifies the SAP Ariba application type on which the operation is executed.</td>
</tr>
<tr>
<td>Operation</td>
<td>Select the event operation to which to subscribe. A use case is provided for this operation. See Subscribe to Incoming Events with an SAP Ariba Adapter Connection.</td>
</tr>
<tr>
<td>Description</td>
<td>Provides a description of the selected event operation.</td>
</tr>
</tbody>
</table>

## Invoke Operations Page

Enter the SAP Ariba Adapter invoke operation values for your integration.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ariba Solution</td>
<td>Identifies the SAP Ariba application type on which the operation is executed.</td>
</tr>
</tbody>
</table>

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*Oracle*
### Operations

Selects the API operation to perform. These are the available operations:

- **Import Contract Workspace** — Imports contract workspace information from an external application into the SAP Ariba application.
- **Create Suppliers** — Imports supplier information from an external application into SAP Ariba.
- **Create Event** — Imports event information from an external application into SAP Ariba.
- **Create External Request For Approval** — Imports external requests for approval from an external application into SAP Ariba.
- **Create Remittance** — Returns the amount paid to suppliers for each invoice. Select this operation when remittance information is imported from an ERP application directly into SAP Ariba.
- **Create Sourcing Project** — Creates a sourcing project.
- **Create Organizations** — Creates an organization.
- **Create External Contract Information** — Returns contract information from external applications.
- **Create Procurement Unit** — Imports procurement unit information from an external application into SAP Ariba.
- **Create Requisitions** — Imports requisition information from an external application into SAP Ariba.
- **Catalog Item Search** — Searches for catalog items in SAP Ariba to allow the synchronization of operations between SAP Ariba and external applications.

### Description

A description of the selected API operation.

---

### Invoke Service Options Page

Select the Ariba service option to use with the Ariba ITK method.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Ariba Service Option** | • **Extract data from Ariba**: Extracts data from Ariba in .csv file format. This option enables you to select Ariba export tasks for both solutions (buying and sourcing).  
  • **Load data into Ariba**: Loads data into Ariba in .csv file format. This option enables you to select Ariba import tasks for both solutions (buying and sourcing). |
| **Description**       | Describes the service option selected.                                       |
Invoke Configure Operation Page

Select the Ariba solution, service type operation, operation mode, and task name.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ariba Solution</td>
<td>• <strong>Buyer</strong>: Select this solution if you want to integrate downstream data with ERP. • <strong>Sourcing</strong>: Select this solution if you want to integrate upstream data with ERP.</td>
</tr>
<tr>
<td>Service Type</td>
<td>Select the service type operation: • <strong>Master Data</strong>: Data that is stored permanently. This data is used to create business documents such as requisitions, receipts, or invoices. Examples of master data are as follows: – Name, description, cost, length, dimensions, and vendor details. – Product master data, employee master data, and person master data. – Vendor master data (the data available in name, address, and telephone number). • <strong>Transaction Data</strong>: Data that changes frequently. For example, warehouse data changes after every purchase order. Process requests (PRs), process orders (POs), receipts, and invoices are all examples of transactional data. Examples of transactional data are as follows: – Purchase requisitions – Receipt</td>
</tr>
<tr>
<td>Final Batch</td>
<td>Select to catch the final batch of records from a file that is loaded into the Ariba Cloud application.</td>
</tr>
<tr>
<td>Operation Mode</td>
<td>• <strong>Full-Upload</strong>: Uploads all data. • <strong>Incremental-Upload</strong>: Uploads only updated or newly-added records.</td>
</tr>
<tr>
<td>Task Name</td>
<td>Select the task name. A description is displayed for the selected name.</td>
</tr>
</tbody>
</table>

Invoke Task Operation Mappings Page

Select the task and the operation to perform on the task.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task Name</td>
<td>Select the task name. For example, you can select <strong>Import Enterprise Users</strong>, which imports enterprise users from ERP to SAP Ariba.</td>
</tr>
</tbody>
</table>
### Summary Page

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

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operation Name</strong></td>
<td>Select the operation to perform on the selected task. For example, if you selected <strong>Import Enterprise Users</strong>, select from the following operations:</td>
</tr>
<tr>
<td></td>
<td>• <strong>Default</strong>: Creates users in SAP Ariba or, if the users already exist, updates the users.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Delete</strong>: Deletes users in SAP Ariba.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Load</strong>: Loads users into SAP Ariba.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Create</strong>: Creates users in SAP Ariba.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Update</strong>: Updates users in SAP Ariba.</td>
</tr>
</tbody>
</table>

**Selected Operations for Ariba Task**  
Displays the selected task and operation name.

### Summary Page - Ariba ITK Method

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

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Summary** | Displays a summary of the configuration values you defined on previous pages of the wizard.  
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.  
To return to a previous page to update any values, click the appropriate tab in the left panel or click **Back**. Click **Cancel** to cancel your configuration details. |

### Perform SAP Ariba Adapter Postconfiguration Tasks

Complete these postconfiguration tasks after you have configured the invoke connection, mapped the data and tracking fields, and activated the integration.
• Complete these procedures in the SAP Ariba Administration and Data Maintenance Fundamentals Guide: Collecting Access and Security Information, Configuring an End Point, Configuring an Integration Task for Web Services, and Enabling and Disabling Configured Integration Tasks. The Administration and Data Maintenance Fundamentals Guide is available at https://connect.ariba.com/AC. An SAP Ariba user account is required to access the documentation.
You can use the SAP Ariba Adapter to implement the following common patterns.

**Topics:**
- **Import User Data with Ariba ITK**
- **Export Supplier Data with Ariba ITK**
- **Subscribe to Incoming Events with an SAP Ariba Adapter Connection**

**Import User Data with Ariba ITK**

You can import user data into SAP Ariba with the import Ariba ITK feature provided with the SAP Ariba Adapter.

To create an import Ariba ITK integration:

1. Configure an FTP Adapter and SAP Ariba Adapter.
2. Create a scheduled orchestration integration.
3. Drag an FTP Adapter into the integration canvas to download a CSV file and configure it as follows.
   - Select the **Download a File** operation.
   - Select a transfer mode.
   - Select the input directory from which to read the CSV file.
   - Enter a file name to download from the input directory.
   - Select an output directory into which to download the file.

When complete, the Summary page looks as follows:

![Summary page screenshot](image-url)
4. Drag a stage file action after the FTP Adapter to read the CSV format data from the downloaded location and configure it as follows.
   a. On the Configure Operation page, select **Read File in Segments** from the **Choose Stage File Operation** list.
   b. Specify the file name and directory name.
   c. Enter the batch size for processing the file in logical chunks in the **Segment Size** field.
   d. Enable the **Process Sequentially** option.
   e. On the Format Definition page, click **Choose File** and upload a file (for this example, Masterdata_info.csv is uploaded). This action creates a schema.

When complete, the Summary page looks as follows:

5. Drag an SAP Ariba Adapter into the stage file action and configure it as follows:
   a. On the Basic Info page, enter a name.
   b. On the Service Options page, select **Load data into Ariba**.
   c. On the Operations page, select **Buyer** as the **Ariba Solution**.
   d. Select **Master Data** as the **Service Type**. Master data is stored permanently and used to create business documents such as requisitions, receipts, and invoices.
   e. Select **Incremental-Upload** as the **Operation Mode**.
   f. Select **Import Enterprise Users** as the **Task Name**.
g. On the Task-Operation Mapping page, select a task (for example, **Import Enterprise Users**) as the **Task Name**.

h. Select an operation (for example, **Load**) from the **Operation Name** list.

6. In the mapper, map appropriate source elements to target elements:

![Mapper Diagram]

7. Drag another SAP Ariba Adapter after the stage file action and configure it as follows. This SAP Ariba Adapter catches the final batch of records from the file that is loaded into the Ariba Cloud application.

   a. On the Basic Info page, enter a name.
   
   b. On the Service Options page, select **Load data into Ariba**.
   
   c. On the Operations page, select **Buyer** as the **Ariba Solution**.
   
   d. Select the **Final Batch** check box.
   
   e. Remove the mapper for the SAP Ariba Adapter. Mappings are not required.
The completed integration looks as follows:

Export Supplier Data with Ariba ITK

You can extract supplier data from SAP Ariba in CSV file format with the export ITK feature provided with the SAP Ariba Adapter.

To create an export Ariba ITK integration:

1. Create a scheduled orchestrated integration.

2. Drag an assign action into the integration canvas and configure it as follows. This variable stores the status of the records extracted for the Export Supplier operation.
   a. Enter a name (for this example, is_EOF_assign).
   b. Assign a value (for this example, "false").

3. Drag a while action below the assign action. The while activity enables the flow to continue until the status of the variable is_EOF_assign is not equal to false for the Export Supplier operation.

4. Configure the while action. While is_EOF_assign='false', the loop continues until it reaches the end of the file.
5. Drag an SAP Ariba Adapter into the while action and configure it as follows:
   a. On the Basic Info page, enter a name.
   b. On the Service Options page, select Extract data from Ariba.
   c. On the Operations page, select Buyer as the Ariba Solution.
   d. Select Master Data as the Service Type.
   e. Select Full-Upload as the Operation Mode.
   f. Select Export Suppliers as the Task Name.
   g. On the Task-Operation Mapping page, select the appropriate tasks.

6. In the mapper, map appropriate source elements to target elements.

7. Add an assign action to update the is_End_of_File variable. This action validates the response from Ariba to update the is_EOF_assign variable.
The completed integration looks as follows.

8. Activate the integration.
9. From the hamburger menu, click **Submit Now**.

Subscribe to Incoming Events with an SAP Ariba Adapter Connection

You can export required data from an inbound SAP Ariba system to an outbound external system with Oracle Integration. This use case provides an example of how to export purchase requisition data from SAP Ariba to an SAP ERP system. When you create a new purchase requisition in SAP Ariba, after it gets approved, the purchase requisition data is sent to the external system per the integration and endpoint configuration.

- The SAP Ariba Adapter supports the ability to subscribe to events, including the following:
  - Export Purchase Orders
  - Export Change Purchase Orders
- Export Close Purchase Orders
- Export Receipts
- Export Advance Payments

Common use cases for this feature are as follows:

- Exporting purchase orders from SAP Ariba and creating sales orders in Oracle ERP Cloud.
- Exporting goods receipts to Oracle ERP Cloud.
- Exporting payments for an out-of-the-box Oracle ERP Cloud integration.

1. Create an SAP Ariba Adapter connection.
2. Create an orchestrated integration.
3. Drag the SAP Ariba Adapter into the integration canvas as a trigger connection.
4. On the Basic Info page, specify a name and optional description.
5. On the Operations page, configure the inbound event for which to receive data. For this example, the **Export Purchase Orders** operation is selected.
6. On the Summary page, review your selections.
7. Drag an adapter into the integration canvas as an invoke connection (for example, an Oracle ERP Cloud Adapter or SAP Adapter).
8. Perform the necessary mappings.
9. Activate the integration.
10. Copy the integration endpoint URL. You use this URL to configure the SAP Ariba Cloud application to export purchase order data.
11. Log in to SAP Ariba.
12. Navigate to the **Administration** tab and click **End Point Configuration**. You now configure the triggering event in SAP Ariba.
13. Click **Create New**.
14. Add the integration endpoint URL.
15. Configure the HTTP authentication as per the password rules.
    
    Passwords are case-sensitive and must be between 12 and 16 characters in length. They can include any alphabetical characters and punctuation marks, and must include at least one number between the first and last character. They must also include at least one letter (for example, `go2ariba`).

16. Click **Save** to save the endpoint configuration.
17. Navigate to the **Administration** tab and click **Integration Configuration**.
18. In the **Configuration** section, select **Edit**.
19. View the endpoint configuration you created previously.

Endpoint and integration configuration is now complete.
Troubleshoot the SAP Ariba Adapter

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

- Errors When Testing a Connection
- Read Time Out Exception Error Due to Frequent Data Transfer Events
- SAP Ariba Adapter Known Issues and Solutions
- Invalid SOAP Message Response Error

Additional integration troubleshooting information is provided. See Troubleshoot Oracle Integration of *Using Integrations in Oracle Integration*.

Errors When Testing a Connection

Note the following potential SAP Ariba Adapter test connection errors and remedies.

**Incorrect Shared Secret Key Error**

The following error occurs when you enter an incorrect SAP Ariba shared secret key.

Unable to test connection "ARIBA_ITK_CONNECTION".
- The shared secret configured is null or does not match the one configured on the server.

**Solution:** Provide the correct SAP Ariba shared secret key.

**Incorrect Partition Name/Realm Name/Site Name Error**

The following error occurs when you enter an incorrect partition name/realm name/site name.

Unable to test connection "ARIBA_ITK_CONNECTION".
- Please provide the correct connection properties : Partition Name

**Solution:** Provide the correct connection properties (that is, partition name).

**Incorrect Host Name or Partition Name Error**

The following error occurs when you enter an incorrect host name or partition name.

Unable to test connection "ARIBA_ITK".
- Please check your Host Name and Partition Name and try again.

**Solution:** Check your host name or partition name and provide the correct values.
Data Dictionary Upload Error

The following error occurs when you do not upload the data dictionary file.

Unable to test connection "ARIBA_ITK_CONNECTION".
- Please enter at least one Data Dictionary.

Solution: Upload a data dictionary file.

Invalid Data Dictionary Error

The following error occurs when you upload an invalid data dictionary file.

Unable to test connection "ARIBA_ITK_CONNECTION".
- Please enter a valid Data Dictionary.
- Error occurred while reading the data dictionary: Invalid file. Try to upload the correct file and try again.

Solution: Upload a valid data dictionary file. To obtain the data dictionary file, see Download the Sourcing Data Dictionary and Buyer Data Dictionary.

Read Time Out Exception Error Due to Frequent Data Transfer Events

If you design an integration in which data transfer events occur frequently, which causes data transfer events to run without a sufficient time interval, the following error can occur.

Exception occurred inside ITKEndpoint : invoke :
java.net.SocketTimeoutException:

Read timed out[[oracle.cloud.connector.api.CloudInvocationException:

java.net.SocketTimeoutException: Read timed out . . .

SAP Ariba recommends that you schedule a task with a minimum interval of 30 minutes between subsequent data transfer events.
SAP Ariba Adapter Known Issues and Solutions

Note the following SAP Ariba Adapter issues and solutions.

Integration Execution Takes More than 310 Seconds

The following error occurs when you execute an integration that takes more than 310 seconds.

Timeout has occurred after 310 seconds.

**Solution:** Select a smaller date range (that is, the *from* and *to-date* values when creating the integration).

ZIP File Extraction During the Export Process

The following error may occur while extracting a ZIP file during the export process.

Error sending bytes: Error while extracting contents from ZIP. No Entries found, it is either invalid or corrupt. :Application Error.”

**Solution:** Re-execute the integration after waiting for some time or update Oracle Integration to the latest release.

Task Name Does Not Match with the Integration ToolKit Name

The following SAP Ariba sandbox error occurs when the task name does not match with the integration toolkit name.

Error sending bytes: Error occurred while downloading from Ariba:
Throwable
captured: Unexpected Error: Can't coerce variant [Variant vrealm_2068 "vrealm_2068" 20680 realm 11 ] in Realm [Realm id=2068 name=amgen-T label="Amgen - TEST" state=enabled variant=[Variant vrealm_2068 "vrealm_2068" 20680 realm 11 ] baseDomainVariant=vsap version=5 timeStateChanged=Tue Dec 06 00:00:00 PST 2016] to a different Realm [Realm id=2121 name=bconedemoinabox label="Bristlecone, Inc." state=enabled variant=[Variant vrealm_2121 "vrealm_2121" 21210 realm 12 ] baseDomainVariant=vsap version=7 timeStateChanged=Wed Jan 25 00:00:00 PST 2017] || No stack available. :Application Error.

**Solution:** Ensure that the task name and integration toolkit name are the same.
1. Open the buyer/sourcing data dictionary based upon the Ariba solution selection. See Prerequisites for Creating a Connection.

2. Based upon your service type selection (that is, transactional or master type task), you can navigate in the data dictionary Excel workbook to edit the task name.

3. For the transactional type task:
   a. Navigate to the Indexes worksheet in the data dictionary. Alternatively, click Ctrl + Left Click or scroll to the last worksheet, which is the Indexes worksheet.
   b. Search for the task name on the Indexes worksheet.
   c. Select the search result of the respective task and edit the task name under the task name column in the worksheet as per the integration toolkit name.

4. For the master type task:
   a. Search CombinedDataPull (for the buyer) on the Indexes worksheet and double-click CombinedDataPull.
   b. Search for the task name on CombinedDataPull, select the respective task, and edit the task name as per the integration toolkit name.

Similarly:

   a. Search Import Master Data Batch Pull (for sourcing) on the Indexes worksheet and double-click Import Master Data Batch Pull.
   b. Search for the task name on the Import Master Data Batch Pull, select the respective task, and edit the task name as per the Integration Toolkit name.

5. Check the integration toolkit name.
   a. Log in to Ariba Spent Management.
   b. Navigate to Home > Administration (for buyer)/CoreAdministration (for sourcing) > Data Import/Export.
   c. Search for the task name in the search filters and click the search result. You can see the integration toolkit names.
   d. Use this name as the task name in the data dictionary.

   Note: In case of more than one integration toolkit name, use any one of them as the task name.

6. Update the connection with the updated data dictionary.

7. Review the new task name:
   a. Open the created integration.
   b. Open the SAP Ariba Adapter.
   c. On the Operations page, the new task name appears.
Invalid SOAP Message Response Error

If you receive an invalid SOAP message response error, the root cause is that the web services error responses from Ariba did not follow SOAP 1.1 standards. Therefore, your ERP middleware could not consume the messages properly. The Ariba-generated responses did not contain enough information. This issue prevented you from troubleshooting the issues in the ERP system that impacted the data sent to the Ariba solution. The error message is as follows:

```xml
<fault xmlns="http://www.bea.com/wli/sb/context">
<errorCode>OSB-380001</errorCode>
<reason>java.lang.RuntimeException: javax.xml.soap.SOAPException: Error parsing envelope: most likely due to an invalid SOAP message.: Undeclared namespace prefix "soapenv" at [row,col {unknown-source}]: [1,14] </reason>
```

If you receive the invalid soap message response error or some other invocation error from Ariba, you must enable the following property in the Ariba sandbox.

```java
Application.Messaging.Channels.Util.IncludeNameSpaceDetailsInErrorResponse
```

Perform the following steps to create a service request to change the above property in the Ariba sandbox.

2. Click Service Requests.
3. Click Create a Service Request.
4. On the Create a Service Request page, click Continue to next step.
5. Click Configuration/Customization. This redirects you to the Request New Customization page.
6. Select the following attribute values and click Submit.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ariba Solution</td>
<td>Select SAP Ariba Buying and Invoicing from the list.</td>
</tr>
<tr>
<td>Solution Area</td>
<td>Select Integration/platform from the list.</td>
</tr>
<tr>
<td>Environments Impacted</td>
<td>Select Test from the list.</td>
</tr>
<tr>
<td>Business Problem/Requirement</td>
<td>Enter the problem/requirement.</td>
</tr>
<tr>
<td>Proposed Solution</td>
<td>Enter the solution. In this case, enable the following property in Ariba to avoid the service invocation from Ariba. Application.Messaging.Channels.Util.IncludeNameSpaceDetailsInErrorResponse</td>
</tr>
</tbody>
</table>
7. Once complete, you receive a confirmation email from the service request team. The service request team informs you about the status.

8. Once the property is enabled, check the same from the SAP Ariba Adapter.

9. If the property works fine, update the service request so it can be closed.

Access Ariba Note 164260 using your Ariba Connect credentials. See https://support.ariba.com/item/view/164260?min=1.