

Oracle® Cloud

Using the Azure Service Bus Adapter with Oracle Integration 3



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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 <https://www.oracle.com/corporate/accessibility/>.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit <https://support.oracle.com/portal/> or visit [Oracle Accessibility Learning and Support](#) if you are hearing impaired.

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 at <http://cloud.oracle.com>
- *Using Integrations in Oracle Integration 3*
- *Using the Oracle Mapper with Oracle Integration 3*
- Oracle Integration documentation on the Oracle Help Center.

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.
monospace	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 Azure Service Bus Adapter

Review the following topics to learn about the Azure Service Bus 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:

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

Azure Service Bus Adapter Capabilities

The Azure Service Bus Adapter enables you to create an integration between the Azure Service Bus cloud platform and Oracle Integration. The Azure Service Bus Adapter allows you to connect to Azure Service Bus with both public and private access through the connectivity agent. You can configure the Azure Service Bus Adapter as a trigger connection or invoke connection in an integration in Oracle Integration.

The Azure Service Bus Adapter provides the following capabilities:

- Consumes messages from an Azure Service Bus queue or topic
- Publish messages to an Azure Service Bus queue or topic
- Receives messages from an Azure Service Bus queue or topic
- Supports creating a topic subscription or using an existing one to poll or consume messages
- Supports custom and standard headers
- Supports SQL filters for topic subscription
- Support dead lettering of the rejected messages due to an incorrect format
- Supports the following message structures:
 - Avro schema
 - Sample JSON
 - Sample XML
 - XML schema (XSD)
 - Opaque schema
- Supports bulk operations for publishing and consuming messages up to 10 MB in size
- Supports OAuth 2.0 Client Credentials authentication

The Azure Service Bus Adapter is one of many predefined adapters included with Oracle Integration. See the Adapters page in the Oracle Help Center.

Azure Service Bus Adapter Restrictions

Note the following Azure Service Bus Adapter restrictions.

- Only the string data type for custom headers is supported.
- When creating a topic, the Azure Service Bus Adapter generates a subscription with default settings. You can access the portal to modify the settings for the created subscription.
- The correlation filter and multiple filters are not supported.
- The Azure Service Bus Adapter does not support the following operators for filters:
 - >
 - >=
 - <
 - <=



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](#).

Workflow to Create and Add an Azure Service Bus 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 https://instance_URL/ic/home
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 an Azure Service Bus Adapter Connection
3	Create the integration. When you do this, you add trigger (source) and invoke (target) connections to the integration.	Understand Integration Creation and Best Practices in <i>Using Integrations in Oracle Integration 3</i> and Add the Azure Service Bus 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 in <i>Using Integrations in Oracle Integration 3</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 in <i>Using Integrations in Oracle Integration 3</i>
6	Activate the integration.	Activate an Integration in <i>Using Integrations in Oracle Integration 3</i>
7	Monitor the integration on the dashboard.	Monitor Integrations During Runtime in <i>Using Integrations in Oracle Integration 3</i>
8	Track payload fields in messages during runtime.	Assign Business Identifiers for Tracking Fields in Messages and Track Integration Instances in <i>Using Integrations in Oracle Integration 3</i>
9	Manage errors at the integration level, connection level, or specific integration instance level.	Manage Errors in <i>Using Integrations in Oracle Integration 3</i>

2

Create an Azure Service Bus 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 a Certificate to Connect with External Services](#)

Prerequisites for Creating a Connection

You must satisfy the following prerequisites to create a connection with the Azure Service Bus Adapter:

- Register an application in the Azure portal and obtain the tenant ID and client ID. See [Register an Application](#).
- [Create a New Client Secret](#).
- You must have a service bus namespace in Azure. See [Create a namespace in the Azure portal](#).
- For authorizing access to the Azure Service Bus namespace, Azure provides built-in roles. [Azure built-in roles for Azure Service Bus](#) provides more details on the roles.
- Ensure firewall port permissions are verified by:
 - Confirming accessibility to the Advanced Message Queuing Protocol (AMQP) ports 5671 and 5672.
 - Confirming the endpoint is permitted through the firewall.

Register an Application

1. Sign in to the Azure portal.
2. Navigate to **Identity > Applications > App registrations**.
3. Click **New registration**.
4. Name the application and select a supported account type.
5. Click **Register**. The tenant ID and client ID are displayed.
6. Copy the tenant ID and client ID. You'll need to enter those values on the Connections page when you configure security for your Azure Service Bus Adapter connection in Oracle Integration. See [Configure Connection Security](#).

Create a New Client Secret

1. Sign in to the Azure portal.

2. Navigate to **Identity > Applications > App registrations**.
3. Select your application.
4. Click **Certificates & secrets**.
5. Click **Client secrets**, and click **New client secret**.
6. Enter a description for the secret, and select a duration.
7. Click **Add**. The client secret is displayed in the **Value** column.
8. Copy the client secret from the **Value** column. You'll need to enter the client secret on the Connections page when you configure security for your Azure Service Bus Adapter connection in Oracle Integration. See [Configure Connection Security](#).

Create a Connection

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

To create a connection in Oracle Integration:

1. In the navigation pane, click **Design**, then **Connections**.
2. Click **Create**.

 **Note:**

You can also create a connection in the integration canvas. See Define Inbound Triggers and Outbound Invokes.

3. In the Create connection panel, 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.
4. Enter the information that describes this connection.

Element	Description
Name	Enter a meaningful name to help others find your connection when they begin to create their own integrations.
Identifier	Automatically displays the name in capital letters that you entered in the Name field. If you modify the identifier name, don't include blank spaces (for example, SALES OPPORTUNITY).

Element	Description
Role	<p>Select the role (direction) in which to use this connection.</p> <p>Note: <i>Only</i> the roles supported by the adapter you selected are displayed for selection. Some adapters support all role combinations (trigger, invoke, or trigger and invoke). Other adapters support fewer role combinations.</p> <p>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.</p> <p>For example, assume 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.</p>
Keywords	Enter optional keywords (tags). You can search on the connection keywords on the Connections page.
Description	Enter an optional description of the connection.
Share with other projects	<p>Note: This field only appears if you are creating a connection in a project.</p> <p>Select to make this connection publicly available in other projects. Connection sharing eliminates the need to create and maintain separate connections in different projects.</p> <p>When you configure an adapter connection in a different project, the Use a shared connection field is displayed at the top of the Connections page. If the connection you are configuring matches the same type and role as the publicly available connection, you can select that connection to reference (inherit) its resources.</p> <p>See Add and Share a Connection Across a Project.</p>

5. Click **Create**.

Your connection is created. You're now ready to configure the connection properties, security policies, and (for some connections) access type.

Configure Connection Properties

Enter connection information so your application can process requests.

1. Go to the **Properties** section.
2. In the **Tenant ID** field, enter the tenant ID that you obtained after performing the prerequisite steps. See [Prerequisites for Creating a Connection](#).
3. In the **Namespace** field, enter your service bus namespace. See [Prerequisites for Creating a Connection](#).

Configure Connection Security

Configure security for your Azure Service Bus Adapter connection.

1. Go to the **Security** section.
2. In the **Client Id** field, enter the client ID that you obtained after performing the prerequisite steps. See [Prerequisites for Creating a Connection](#).
3. In the **Client Secret** field, enter the client secret that you obtained after performing the prerequisite steps. See [Prerequisites for Creating a Connection](#).

Configure the Endpoint Access Type

Configure access to your endpoint. Depending on the capabilities of the adapter you are configuring, options may appear to configure access to the public internet, to a private endpoint, or to an on-premises service hosted behind a fire wall.

Select the Endpoint Access Type

Select the option for accessing your endpoint.

Option	This Option Appears If Your Adapter Supports ...
Public gateway	Connections to endpoints using the public internet.
Connectivity agent	Connections to on-premises endpoints through the connectivity agent. <ol style="list-style-type: none"> 1. Click Associate agent group. The Associate agent group panel appears. 2. Select the agent group, and click Use. To configure an agent group, you must download and install the on-premises connectivity agent. See Download and Run the Connectivity Agent Installer and About Creating Hybrid Integrations Using Oracle Integration in <i>Using Integrations in Oracle Integration 3</i> .

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 adapter connection uses a Web Services Description Language (WSDL) file. Only some adapter connections use WSDLs.

If Your Connection...	Then...
Doesn't use a WSDL	The test starts automatically and validates the inputs you provided for the connection.


If Your Connection...	Then...
Uses a WSDL	<p>A dialog prompts you to select the type of connection testing to perform:</p> <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.

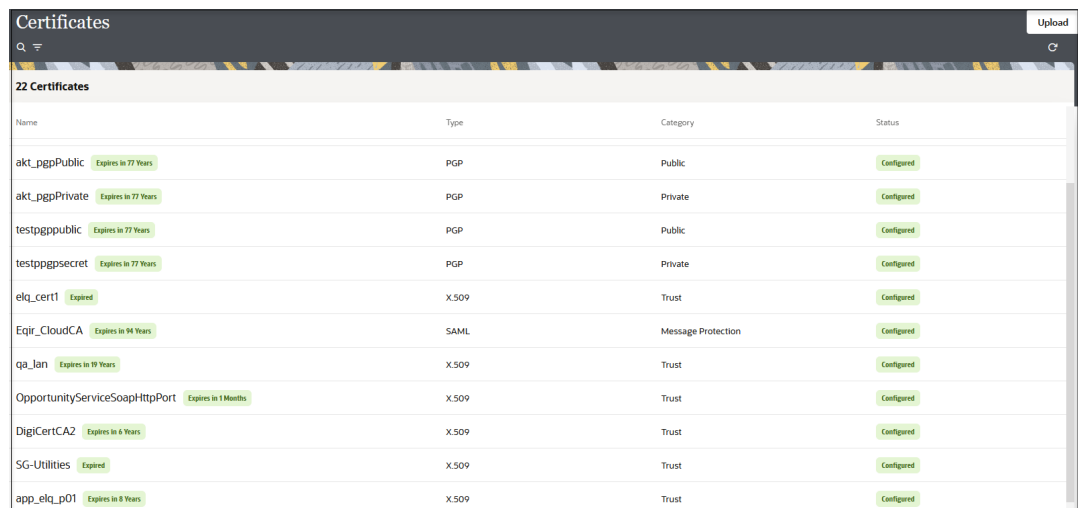
2. Wait for a message about the results of the connection test.
 - If the test was successful, then the connection is configured properly.
 - If the test failed, then edit the configuration details you entered. Check for typos and verify URLs and credentials. Continue to test until the connection is successful.
3. When complete, click **Save**.

Upload a Certificate to Connect with External Services

Certificates allow Oracle Integration to connect with external services. If the external service/endpoint needs a specific certificate, request the certificate and then import it into Oracle Integration.

If you make an SSL connection in which the root certificate does not exist in Oracle Integration, an exception error 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.

1. Sign in to Oracle Integration.
2. In the navigation pane, click **Settings**, then **Certificates**.
All certificates currently uploaded to the trust store are displayed on the Certificates page.
3. Click **Filter**  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.



Name	Type	Category	Status
akt_pgpPublic <small>Expires in 77 Years</small>	PGP	Public	Configured
akt_pgpPrivate <small>Expires in 77 Years</small>	PGP	Private	Configured
testpgppublic <small>Expires in 77 Years</small>	PGP	Public	Configured
testpgppsecret <small>Expires in 77 Years</small>	PGP	Private	Configured
elq_cert1 <small>Expired</small>	X.509	Trust	Configured
Eqir_CloudCA <small>Expires in 94 Years</small>	SAML	Message Protection	Configured
qa_jan <small>Expires in 19 Years</small>	X.509	Trust	Configured
OpportunityServiceSoapHttpPort <small>Expires in 1 Month</small>	X.509	Trust	Configured
DigiCertCA2 <small>Expires in 6 Years</small>	X.509	Trust	Configured
SG-Utilities <small>Expired</small>	X.509	Trust	Configured
app_elq_p01 <small>Expires in 8 Years</small>	X.509	Trust	Configured

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

The Upload certificate panel is displayed.

5. Enter an alias name and optional description.
6. In the **Type** field, select the certificate type. Each certificate type enables Oracle Integration to connect with external services.
 - [Digital Signature](#)
 - [X.509 \(SSL transport\)](#)
 - [SAML \(Authentication & Authorization\)](#)
 - [PGP \(Encryption & Decryption\)](#)
 - [Signing key](#)

Digital Signature

The digital signature security type is typically used with adapters created with the Rapid Adapter Builder. See [Learn About the Rapid Adapter Builder in Oracle Integration in *Using the Rapid Adapter Builder with Oracle Integration 3*](#).

1. Click **Browse** to select the digital certificate. The certificate must be an X509Certificate. This certificate provides inbound RSA signature validation. See [RSA Signature Validation in *Using the Rapid Adapter Builder with Oracle Integration 3*](#).
2. Click **Upload**.

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. The following supported cipher algorithms are FIPS-compliant:
 - AES128
 - AES192
 - AES256
 - TDES
 - c. Click **Upload**.

Signing key

A signing key is a secret key used to establish trust between applications. Signing keys are used to sign ID tokens, access tokens, SAML assertions, and more. Using a private signing key, the token is digitally signed and the server verifies the authenticity of the token by using a public signing key. You must upload a signing key to use the OAuth Client Credentials using JWT Client Assertion and OAuth using JWT User Assertion security policies in REST Adapter invoke connections. Only PKCS1- and PKCS8-formatted files are supported.

1. Select **Public** or **Private**.
2. Click **Browse** to upload a key file.

If you selected **Private**, and the private key is encrypted, a field for entering the private signing key password is displayed after key upload is complete.
3. Enter the private signing key password. If the private signing key is not encrypted, you are not required to enter a password.
4. Click **Upload**.

3

Add the Azure Service Bus Adapter Connection to an Integration

When you drag the Azure Service Bus Adapter into the trigger or invoke area of an integration, the Adapter Endpoint Configuration Wizard is invoked. This wizard guides you through configuration of the Azure Service Bus Adapter endpoint properties.

The following sections describe the wizard pages that guide you through configuration of the Azure Service Bus Adapter as a trigger or invoke in an integration.

Topics:

- [Basic Info Page](#)
- [Trigger Operations Page](#)
- [Invoke Operations Page](#)
- [Trigger or Invoke Message Structure Page](#)
- [Trigger or Invoke Headers Page](#)
- [Trigger or Invoke Filter 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: This connection receives an inbound request to synchronize account information with the cloud application.

Trigger Operations Page

Enter the required details on the Operation page.

Element	Description
Select Resource	Select the resource: <ul style="list-style-type: none"> • Queue • Topic
Select Queue (Only shown if you select Queue .)	Select a queue from the list such as queue_avro , queue_json , and so on. Note: Only those queues with a status of Active or SendDisabled (on the Azure Service Bus Portal) are displayed for selection.
Select Topic (Only shown if you select Topic .)	Select a topic from the list, such as topic_avro_k , topic-json , topic_xml_k , topic-xsd-j , and so on. Note: Only those topics with a status of Active or SendDisabled (on the Azure Service Bus Portal) are displayed for selection.
Select Subscription Option (Only shown if you select Topic .)	Select the subscription option: <ul style="list-style-type: none"> • Create New Subscription • Select Existing Subscription Note: If you select Create New Subscription , a new subscription is created at the time of activation.
Select Subscription (Only shown if you choose Select Existing Subscription .)	Select an existing subscription from the list such as Bulk_Consume , Bulk_Polling , and so on. Note: <ul style="list-style-type: none"> • All the subscriptions that are created and are active within this topic on the Azure Service Bus Portal are displayed for selection. • Dedicate one subscription to one integration to avoid any loss or delay of messages.
Specify the value of the frequency (in seconds) at which records will be fetched	Specify the frequency at which to fetch records. The maximum value is 600 seconds, and the default value is 10 seconds.
Specify the value for the maximum number of records to be fetched	Specify the number of messages to receive. You can enter a number between 1 and 5000. The default value is 1. Note: This field specifies the upper boundary of records to fetch. It does not guarantee the specified number of records to retrieve from the stream in a single run. Remaining messages are fetched in subsequent runs.
Do you want to specify the message structure?	<ul style="list-style-type: none"> • Yes: Select to define the message structure to use on the Message Structure page of the wizard. • No: Select to not specify a message structure.
Do you want to specify the headers for the message?	<ul style="list-style-type: none"> • Yes: Select to define the custom headers to use on the Headers page of the wizard. • No: Select to not define custom headers.
Do you want to specify the Filters for the Subscription ? (Only shown if you select Consume .)	<ul style="list-style-type: none"> • Yes: Select to define a SQL-like conditional expression for system and custom headers (based on which messages are filtered) on the Filters page of the wizard. • No: Select to not specify filters.

Invoke Operations Page

Enter the required details on the Operations Page.

Element	Description
Select Resource	Select the resource: <ul style="list-style-type: none"> • Queue • Topic
What operation do you want to perform on the Servicebus?	Select the operation: <ul style="list-style-type: none"> • Publish • Consume
Select Queue (Only shown if you select Queue .)	Select a queue from the list, such as queue-avro , queue-json , and so on. Note: <ul style="list-style-type: none"> • If you select the operation as Publish, only those queues that are in Active or ReceiveDisabled status (on the Azure Service Bus Portal) are displayed for selection. • If you select the operation as Consume then only those queues that are in Active or SendDisabled status (on the Azure Service Bus Portal) are displayed for selection.
Select Topic (Only shown if you select Topic .)	Select a topic from the list, such as topic-avro , topic-json , topic-xml , topic-xsd-j , and so on. Note: <ul style="list-style-type: none"> • If you select Operation as Publish, then only those topics with Status: Active (on the Azure Service Bus Portal) are displayed for selection. • If you select Operation as Consume then only those topics with Status: Active or SendDisabled (on the Azure Service Bus Portal) are displayed for selection
Select Subscription Option (Only shown if you select Topic and Consume .)	Select the subscription option: <ul style="list-style-type: none"> • Create New Subscription • Select Existing Subscription Note: If you select Create New subscription , a new subscription is created at the time of activation.
Select Subscription (Only shown if you choose Select Existing Subscription .)	Select an existing subscription from the list, such as Bulk_Consume , and so on. Note: <ul style="list-style-type: none"> • All the subscriptions that are created and are active within this topic on the Azure Service Bus Portal are displayed for selection. • Dedicate one subscription to one integration to avoid any loss or delay of messages.

Element	Description
Specify the value for the maximum number of records to be fetched (Only shown if you select Consume .)	Specify the number of messages to consume. You can enter a number between 1 and 5000. The default value is 1. Note: This field specifies the upper boundary of records to fetch. It does not guarantee the specified number of records to retrieve from the stream in a single run. Remaining messages are fetched in subsequent runs.
Do you want to specify the message structure?	<ul style="list-style-type: none"> • Yes Select to define the message structure to use on the Message Structure page of the wizard. • No: Select to not define the message structure.
Do you want to specify the headers for the message?	<ul style="list-style-type: none"> • Yes: Select to define the custom headers to use on the Headers page of the wizard. • No: Select to not define custom headers.
Do you want to specify the Filters for the Subscription ? (Only shown if you select Topic and Consume .)	<ul style="list-style-type: none"> • Yes Select to define a SQL-like conditional expression for system and custom headers (based on which messages are filtered) on the Filters page of the wizard. • No: Select to not define filters.

Trigger or Invoke Message Structure Page

Select the message structure to use. This page is displayed if you selected **Yes** for the **Do you want to specify the message structure?** field on the Trigger Receive Operations page or Invoke Operations page.

Element	Description
How would you like to specify the message structure?	Select a message structure: <ul style="list-style-type: none"> • Avro Schema (AVSC) document • Sample JSON document • XML schema (XSD) document • Sample XML document
Select File	Click Drag and Drop to select the file. Once selected, the file name is displayed in the File Name field.
Element	Select the element if you specified an XSD or Avro file.

Trigger or Invoke Headers Page

Define the message custom headers structure to attach to the message. This page is displayed if you selected **Yes** for the **Do you want to specify the headers for the message?** field on the Trigger Receive Operations page or Invoke Operations page.

Element	Description
Specify Message Custom Headers	Specify headers and optional descriptions.

Trigger or Invoke Filter Page

Specify SQL-like conditional expression for system and custom headers, based on which messages are filtered. This page is displayed if you selected **Yes** for the **Do you want to specify the Filters for the Subscription?** field on the Trigger Receive Operations page or Invoke Operations page.

Element	Description
Add System or Custom headers for SQL Filter	Specify a SQL-like conditional expression for system and custom headers based on messages filtered in a topic subscription. Note: SQL filters are created during flow activation for topic subscription.

Summary Page

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

Element	Description
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 Go back . To cancel your configuration details, click Cancel .

4

Implement Common Patterns Using the Azure Service Bus Adapter

You can use the Azure Service Bus Adapter to implement the following common patterns.

Topics:

- [Use the Azure Service Bus Adapter to Publish/Consume Messages in an Integration](#)

Note:

Oracle Integration offers a number of prebuilt integrations, known as *recipes*, that provide you with a head start in building your integrations. You can start with a recipe, and then customize it to fit your needs and requirements. Depending upon the solution provided, a variety of adapters are configured in the prebuilt integrations. See the Recipes and Accelerators page on the Oracle Help Center.

Use the Azure Service Bus Adapter to Publish/Consume Messages in an Integration

The Azure Service Bus Adapter supports publishing messages to an Azure Service Bus queue or topic and consuming messages from an Azure Service Bus queue or topic.

This use case describes how the Azure Service Bus Adapter publishes account details (fetched from Salesforce) into Azure Service Bus. Subsequently, the Azure Service Bus Adapter consumes the account details within Azure Service Bus and creates customers in Shopify using the Shopify Adapter. This implementation pattern provides an overview of the steps.

You must create two integrations in Oracle Integration:

- [Configure a Salesforce Trigger Endpoint to Fetch Account Details from Salesforce and Configure the Azure Service Bus Invoke Endpoint to Publish the Accounts Details into Azure Service Bus](#)
- [Configure an Azure Service Bus Trigger Endpoint to Consume Account Details Within Azure Service Bus and Configure a Shopify Invoke Endpoint to Create Customers in Shopify](#)

Configure a Salesforce Trigger Endpoint to Fetch Account Details from Salesforce and Configure the Azure Service Bus Invoke Endpoint to Publish the Accounts Details into Azure Service Bus

1. Create the Salesforce Adapter and Azure Service Bus Adapter connections.
2. Create an application integration. This is the first of two integrations you create.
3. Drag a Salesforce Adapter into the integration as a trigger connection.

4. Configure the Salesforce Adapter as follows.
 - a. On the Basic Info page, provide a name.
 - b. On the Operations page, select **Streaming API**.
 - c. Select **Subscribe to platform events published on Salesforce.com**.
 - d. Select a platform event (for this example, **Account_Created**).
 - e. On the Summary page, review your selections.
5. Drag an Azure Service Bus Adapter into the integration canvas.
6. Configure the Azure Service Bus Adapter endpoint:
 - a. On the Basic info page, provide an endpoint name.
 - b. On the Operations page, select the resource as **Queue** or **Topic** and select the **Publish** operation.
 - c. Select the name of the queue/topic from the drop-down list.
 - d. Select **Yes** in the **Do you want to specify the message structure** field.
 - e. Select **Yes** if you want to specify the headers for the message.
 - f. On the Message Structure page, select the required message format and click **Drag and Drop** to select the required sample payload file.
 - g. On the Summary page, review your selections.
7. In the mapper, map the account details from Salesforce to the equivalent fields in Azure Service Bus.
8. Click **Validate**. The completed integration looks as follows.



9. When complete, save and activate the integration. As a result, the account details from Salesforce are fetched and published to Azure Service Bus.

Configure an Azure Service Bus Trigger Endpoint to Consume Account Details Within Azure Service Bus and Configure a Shopify Invoke Endpoint to Create Customers in Shopify

1. Create the Azure Service Bus Adapter and Shopify Adapter connections.
2. Create an application integration. This is the second of two integrations that you create.
3. Drag an Azure Service Bus Adapter into the integration as a trigger connection.
4. Configure the Azure Service Bus Adapter as follows.
 - a. On the Basic Info page, provide a name.
 - b. On the Operations page, select the resource as **Queue** or **Topic**.
 - c. Select the name of the queue/topic from the drop-down list.
 - d. Specify the frequency at which to fetch records (for example, 60 seconds) in the **Specify the value of the frequency (in seconds) at which records will be fetched** field.

- e. Specify the value for the maximum number of records to be fetched (for example, 5) in the **Specify the value for the maximum number of records to be fetched** field.
 - f. Select **Yes** if you want to specify the headers for the message.
 - g. On the Message Structure page, select the required message format and click **Drag and Drop** to select the required sample payload file.
 - h. On the Summary page, review your selections.
5. Drag a Shopify Adapter into the integration canvas.
 6. Configure the Shopify Adapter endpoint:
 - a. On the Basic info page, provide an endpoint name.
 - b. Select the **Create** action.
 - c. Select the module from the drop-down list.
 - d. Select a module. For this example, **Customers** is selected.
 - e. Select the **Customer** object.
 - f. On the Summary page, review your selections.
 7. In the mapper, map the account details from Azure Service Bus to the equivalent fields in Shopify.
 8. Click **Validate**.
The completed integration looks as follows.



9. When complete, save and activate the integration. As a result, Azure Service Bus consumes the account details and customers are created in Shopify.