Amazon Kinesis Adapter for SAP Integration Suite

Version 1.0.0 – November 2025

THE BEST RUN SAP

Contents

1 Introduction

1.1 Objective

This is the official guide for the Amazon Kinesis Adapter for SAP Integration Suite. This guide covers all relevant information for integration developers to start working with the Amazon Kinesis adapter. Read this guide carefully before using the Adapter.

1.2 Coding Samples

Any software coding and/or code lines/strings ("Code") included in this documentation are only examples and are not intended to be used in a productive system environment. The Code is only intended to better explain and visualize the syntax and phrasing rules of certain coding. The correctness and completeness of the Code given herein are not guaranteed.

1.3 Internet Hyperlinks

The documentation may contain hyperlinks to the Internet. These hyperlinks are intended to serve as a hint about where to find related information. The availability and the correctness of this related information or the ability of this information to serve a particular purpose are not warranted.

1.4 Overview

Amazon Kinesis is an Amazon Web Services (AWS) offering designed to handle real-time streaming data at scale, enabling users to easily collect and process large volumes of data streams for immediate insights. It supports dynamic data sources such as website clicks, IoT devices, and social media feeds.

The Amazon Kinesis adapter connects the SAP Integration Suite to Amazon Kinesis Data Streams, streamlining data communication and enhancing real-time data processing. It enables you to ingest, process, and stream data from SAP systems in real time, facilitating use cases such as real-time analytics, event-driven applications, and IoT data processing. You can stream SAP transactional data for real-time business intelligence or monitor device sensor data for immediate insights.

1.5 Features

Amazon Kinesis adapter has the following features:

- Allows you to access and perform operations on Kinesis Data Stream entities such as **Stream**, **Shards**, and **Record**.

- Supports **Basic** configuration type that provides convenient UI options for supported operations, whereas **Advanced** enables proficient users to perform calls with greater control while connecting to the API endpoint.

- Supports multiple authentication types: **Access and Secret Key**, **Security Token Service (Assume Role)**, and **Security Token Service (Assume Role with Web Identity)**.

- Supports flexible input handling via the Adapter UI *(***UI-Configurable***)* or through the Request Payload Source *(***Exchange body***)*.

- Provides support for Base64 **encoding** when performing the **PutRecords** operation.

2 Installation and Configuration

This section details the file(s) available as part of the installation package and the prerequisites to configure the Amazon Kinesis adapter.

The Amazon Kinesis adapter is available as part of your SAP Integration Suite license.

2.1 Adapter Installation on Cloud Foundry

Before the adapter can be used in the Cloud Foundry environment, it must be deployed to the SAP Integration Suite tenant.

2.1.1 Prerequisites

To deploy the Amazon Kinesis adapter, you must have access to the *SAP Integration Suite* license.

2.1.2 Procedure

You can deploy the adapter using the following methods:

The following installation procedure is compatible with Apache Camel 2, Apache Camel 3, and Edge Integration Cell (EIC) platform.

2.1.2.1 Adapter Installation by creating a New Integration Flow

The Amazon Kinesis adapter is available for selection in the Receiver adapter list and can be deployed in the **Design** tab directly as you use it in an Integration flow.

Purpose

To install an adapter for use in your Integration flow.

Procedure

Go to **Design** workspace and select the integration package where you want to create a new Integration flow.

1. Click **Edit** to make the package editable.

2. Go to the **Artifacts** tab. Click **Add** and select **Integration Flow**.
3. Enter **Name** and **ID** for your flow. Additionally, select **Runtime Profile** from the drop-down and choose **Sender** and **Receiver** systems from the list . Finally, click **Add** to create the integration flow.
4. Go to the newly created integration flow and click **Edit** to make it editable.
5. In the integration flow, click **End** to add a **Connector** between the **End** and the **Receiver** Box.
   A drop-down with the available adapters appears. The Amazon Kinesis adapter should show up in the list.
6. Select the Amazon Kinesis adapter from the list. The adapter is now imported which *triggers* an adapter deployment. Once the adapter is deployed, a success message is displayed.
   After the above steps are done, the adapter is successfully deployed in your Design workspace of the SAP Integration Suite tenant.

2.1.2.2 Adapter Installation without Creating a New Integration Flow

> The following procedure explains how the adapter is migrated from the Discover workspace to the Design workspace of the SAP Integration tenant.

This method is useful for scenarios where integration flow packages are migrated from development to a higher environment such as Production.

The adapter can be imported into the Design workspace without creating an integration flow. Use the Transport Management Service (TMS) to import/transport the adapter to a higher environment. Alternatively, if the TMS is not available in the landscape, the adapter package can be imported to the Design workspace by copying it from the Discover workspace.

Purpose

To copy the integration package from the Discover workspace and import the Amazon Kinesis adapter to the Design workspace, follow these steps:

Procedure

1. Go to **Discover** workspace.
2. In the search box, search for **Amazon Kinesis Adapter for SAP Integration Suite** package.
3. Select the package and click **Copy**. This copies the package from the Discover workspace to the Design workspace.
4. Go to Design workspace and select the copied **Amazon Kinesis Adapter for SAP Integration Suite** package.

5. In the **Actions** tab of the selected package, click **Deploy**. This completes the adapter deployment to the Design workspace.

2.2 Monitor the Deployment Status

After the adapter deployment is complete, you can check the status in the **Monitor** section.

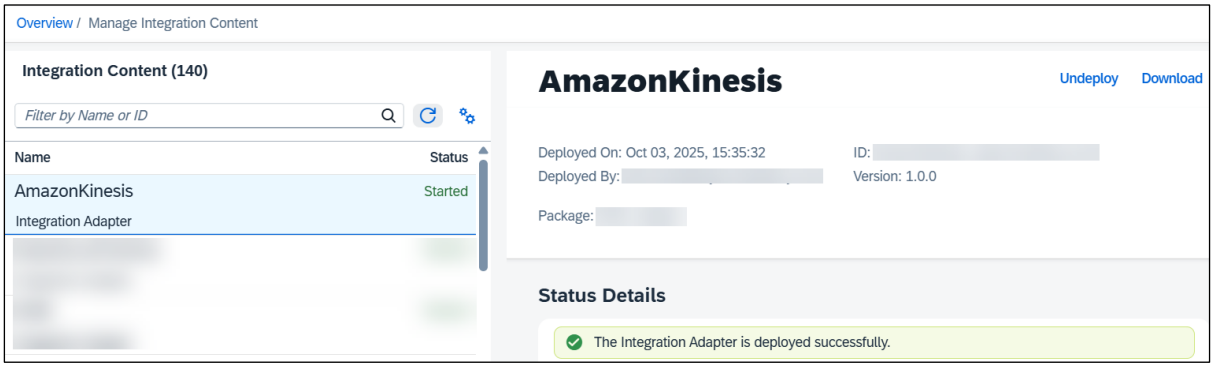
Purpose

To check the status of the deployed adapter.

Procedure

1. Under the **Monitor** tab, click **Integrations and APIs**. This opens the **Overview** page.
2. On the **Overview** page, go to **Manage Integration Content** section and click **All**. This opens the **Integration Content** page with a list of all the deployed adapters.

Here, you can check and confirm the deployment status of your adapter.

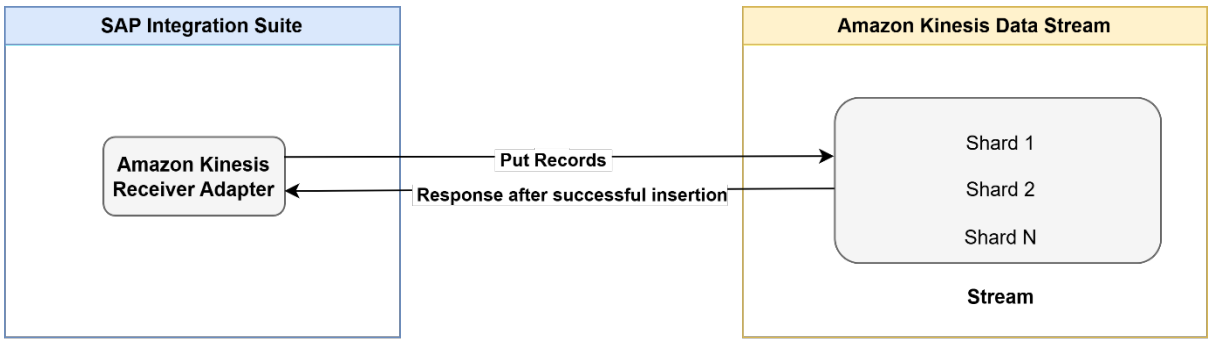


3 Getting Started: Amazon Kinesis Adapter

This section explains how to configure the Amazon Kinesis adapter for SAP Integration Suite. You can find information about adapter architecture, application configuration, and authentication for the Amazon Kinesis Adapter.

3.1 Architecture Overview

The Amazon Kinesis adapter is designed to function as a receiver adapter. SAP Integration Suite acts as the initiator of the calls. SAP Integration Suite tenant sends the operation request to Amazon Kinesis Data Streams (this is a receiver system), Amazon Kinesis Data Streams works on the request and sends the data back to the SAP Integration Suite tenant.



3.2 Application Configuration

This section contains links to set up and configure Amazon Kinesis Data Streams before using it in an integration scenario.

- For an overview of Amazon Kinesis Data Streams, see Amazon Kinesis Data Streams.
- To create an AWS Account, see Create an AWS Account.

3.3 Authentication

This section details the authentication mechanism supported by the Amazon Kinesis Adapter in the SAP Integration Suite.

The adapter supports standard AWS authentication methods, including **Access and Secret Keys** for long-term credentials, and **Security Token Service (STS)** methods such as **AssumeRole** and **AssumeRoleWithWebIdentity** for temporary, IAM role-based access. Using STS allows you to securely assume AWS roles without directly storing permanent credentials, enhancing security and flexibility for cross-account or federated access scenarios.

You can securely store the security artifacts in SAP Security Material. This ensures that credentials can be safely provided to the Adapter.

Before setting up the authentication, you must create credentials in the Security Material of the SAP Integration Suite.

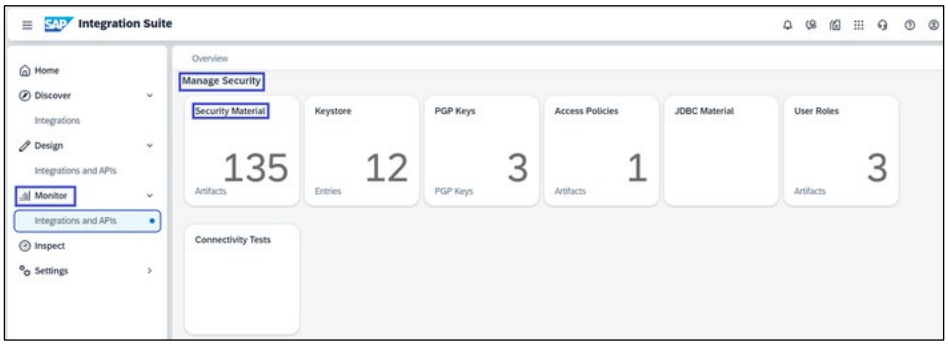
3.3.1 Creating OAuth2 Client Credentials

Purpose

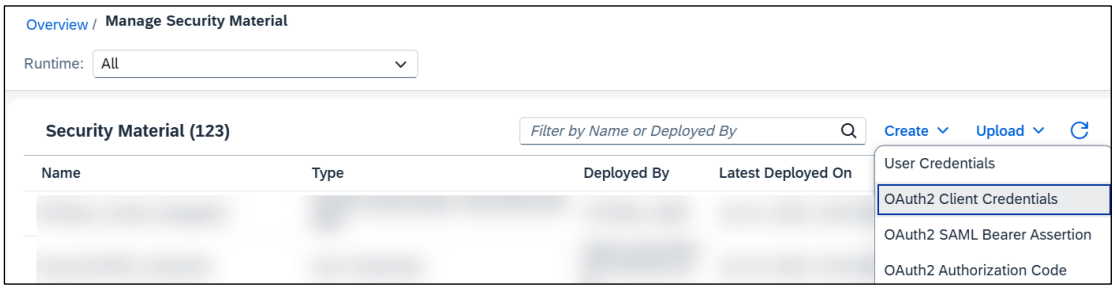
To create credentials in Security Material for **OAuth2 Client Credentials**.

Procedure

1. In SAP Integration Suite, navigate to **Monitor** > **Integrations and APIs**. This opens the **Overview** page.
2. On the **Overview** page, go to **Manage Security** section and click **Security Material**.



3. On the **Manage Security Material** page, click **Create** to select **OAuth2 Client Credentials** from the dropdown.



4. In the **Create OAuth2 Client Credentials** popup, provide the below details.

Parameter	Description
Name	Specify the name for the credentials.
Description	Specify the description for the credentials.
Token Service URL	Specify the URL of the OAuth2 authorization server that issues the access token. **Example**: https://login.microsoftonline.com/<tenant ID>/oauth2/v2.0/token Sample Value: https://login.microsoftonline.com/140d0cc2-1123-41f-a952-f7dykl321v/oauth2/v2.0/token
Client ID	Specify the ID of the client to which you are connecting. **Note:** This value can be found under **Overview** in the Azure Portal.
Client Secret	Specify the Secret key of the client to which you are connecting. **Note:** This value can be found under **Certificate and Secrets** in the Azure Portal.
Client Authentication	Select the Client Authentication which allows you to access an application using Client ID and Client Secret. By default, the Send as Body Parameter is selected, this option sends the Client ID and Client Secret as a JSON content to the authentication server in the request body. Example: **Send as Body Parameter**

Parameter	Description
Scope	Specify the OAuth2 scope information to be included in the request body. **Example**: api://<clientid>/.default
Content Type	Select the content type to indicate the media type. Ensure Content Type is set to '**application/x-www-form-urlencoded**':

5. Click **Deploy** to complete the process.

When you refresh the **Manage Security Material** page, the new artifact is displayed (with Type **OAuth2 Client Credentials**) in the artifact table.

3.3.2 Creating Secure Parameter

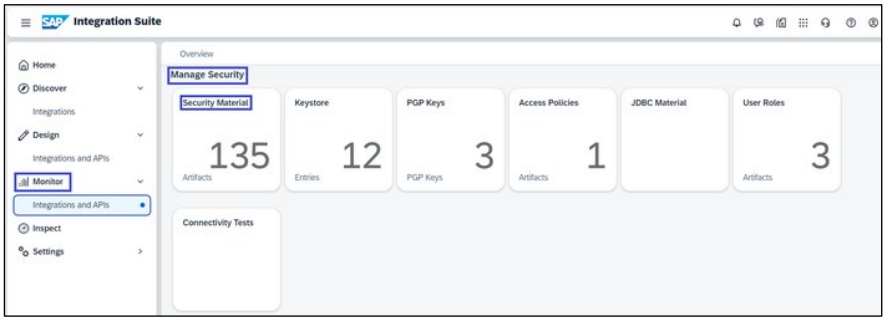
Purpose

To create credentials in Security Material for **Secure Parameter**.

Procedure

1. In SAP Integration Suite, navigate to **Monitor > Integrations and APIs**. This opens the **Overview** page.

2. On the **Overview** page, go to **Manage Security** section and click **Security Material**.



3. On **Manage Security Material** page, click **Create** to select **Secure Parameter** from the dropdown.

4. In the **Create Secure Parameter** popup, provide the below details.

Parameter	Description
Name	Specify the name of the security artifact. The artifact name is used as an alias for the confidential data.
Description	Enter a description for the artifact (optional).
Secure Parameter	Enter the confidential value of the attribute. The permissible length of the secure parameter for Cloud Foundry is a maximum of 4096 characters.
Repeat Secure Parameter	Repeat the confidential value of the attribute.

5. Click **Deploy** to complete the process.

When you refresh the **Manage Security Material** page, the new artifact is displayed (with Type **Credentials**) in the artifact table.

4 Amazon Kinesis Adapter Configuration

This section describes the parameters to be configured for your Amazon Kinesis adapter. You need to configure the **Connection** and **Processing** tabs. A description and example usage for every field has been added.

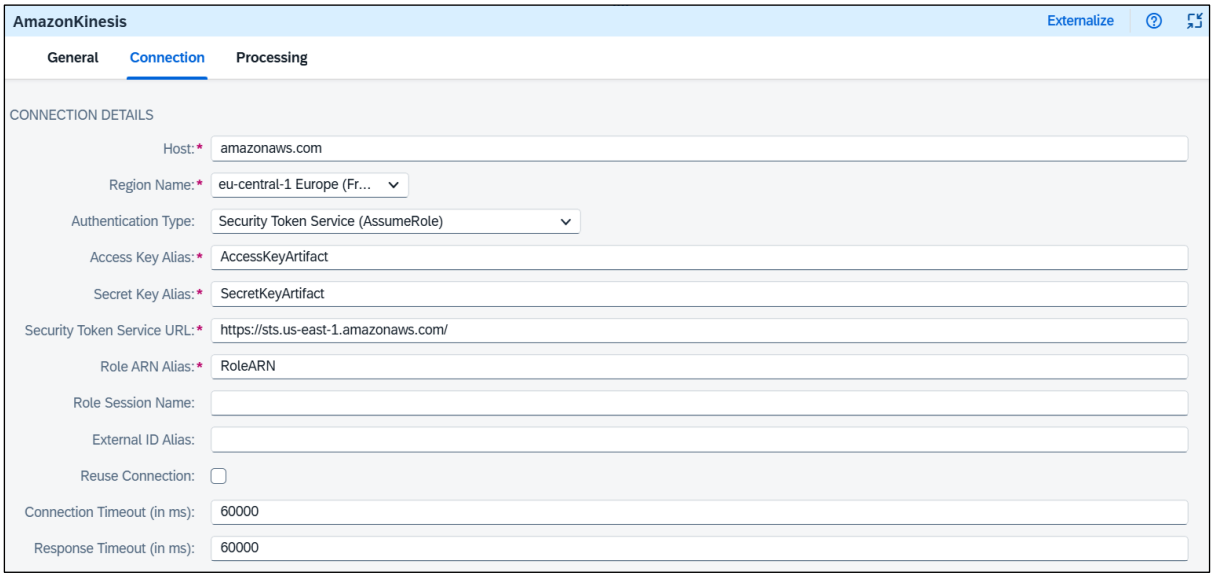
4.1 Receiver Adapter

In this section, you will learn how to configure the Amazon Kinesis receiver adapter. On selecting the Amazon Kinesis adapter from the list of adapters, you must configure the **Connection** and **Processing** tabs.

4.1.1 Connection

The Connection tab contains connection and authentication parameters for the Amazon Kinesis adapter.

The Security artifact created in the previous section (Authentication) should be used in the **Connection tab** of the Adapter, as shown in the figure below.



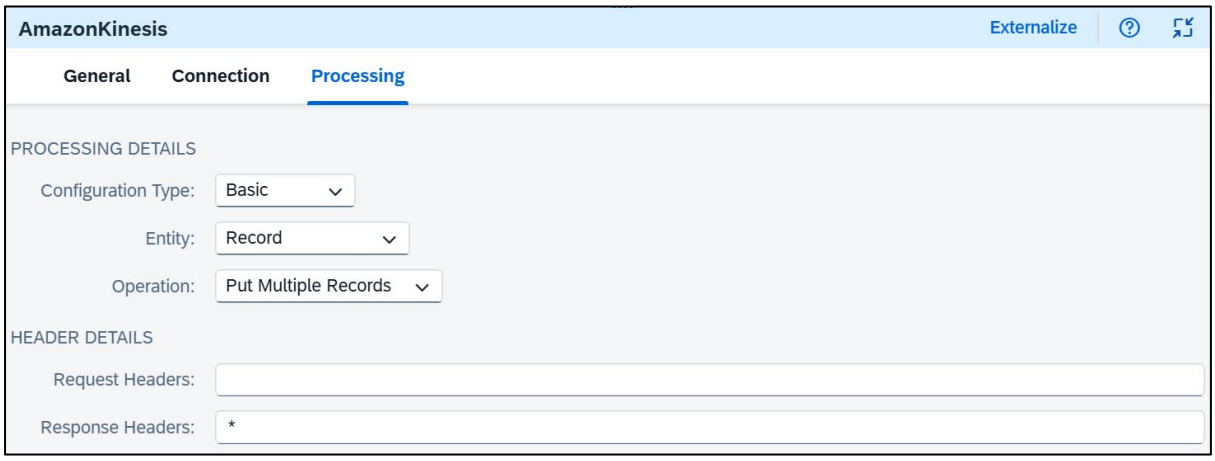
The connection tab contains the following fields:

Parameter	Description
Host	Specify the host for the Amazon Kinesis Data Streams service. Example: `amazonaws.com`
Region Name	Select the AWS region where the Data Stream resides. Example: **eu-central-1 Europe (Frankfurt)** If the required region is not listed in the dropdown, you can manually specify the value. Example: `cn-north-1`
Authentication Type	Select the authentication type. • **Access and Secret Key** for access with long-term credentials. • **Security Token Service (AssumeRole)** for temporary IAM role-based access. • **Security Token Service (AssumeRoleWithWebIdentity)** to use a Web Identity Provider.
Access Key Alias	Specify the name of the Secure Parameter artifact that stores the AWS Access Key.
Secret Key Alias	Specify the name of the Secure Parameter artifact that stores the AWS Secret Key.
Microsoft Entra ID Credential (Only available when **Security Token Service (AssumeRoleWithWebIdentity)** is selected.)	Specify the OAuth2 Client Credentials security artifact created for Microsoft Entra ID as a Web Identity Provider. A trust should be established between your Microsoft Entra ID and your AWS account, which enables AWS to validate tokens issued by Entra ID and grant access to AWS services.

Parameter	Description
External ID Alias (Only available when **Security Token Service (AssumeRole)** is selected.)	Specify the name of the secure parameter that stores the External ID, as defined in the condition of the IAM role's trust relationship. Example: `KinesisExternalID`
Security Token Service URL	Specify the URL used to fetch temporary credentials from the Security Token Service (STS) via the AssumeRole. Default value: `https://sts.us-east-1.amazonaws.com/` Example: "https://sts.<region>.amazonaws.com/" for a region-specific token, or "https://sts.amazonaws.com/" for global. AWS recommends using Regional STS endpoints within your applications and avoid using the global (legacy) STS endpoint.
Role ARN Alias	Specify the name of the Secure Parameter artifact which stores the Amazon Resource Name (ARN) of the IAM role to be used for fetching temporary credentials via the Security Token Service (STS). **To find your Role ARN:** AWS Console → IAM → Roles → [Select Role] → Summary → Copy Role ARN Example: `arn:aws:iam::123456789:role/AWSRole_Test`
Role Session Name	Specify the Role Session Name for a session of the same role assumed with different principals. Example: `kinesis-adapter-prod`
Reuse Connection	Enable this property to reuse the connection.
Connection Timeout (in ms)	Specify the maximum waiting time (in milliseconds) for the connection to be established.
Response Timeout (in ms)	Specify the maximum waiting time (in milliseconds) for a response message to be received.

4.1.2 Processing

This section lists the processing tab configurations for the Amazon Kinesis Adapter.



Parameter	Description
Configuration Type	Select the required configuration type: **Basic** to use dropdowns and parameter text fields, or **Advanced** to specify request parameters that require a custom setup.
Entity	Select the required entity.
Operation	Select the operation to be performed for the selected entity.
Request Payload Source	Select an option to specify the source for request payload. **UI Configurable** provides user-friendly fields to create the payload automatically while **Exchange Body** allows you to specify the required structure and values.
Stream ARN	Specify the Amazon Resource Name (ARN) of the Kinesis Data Stream to be used for this operation. To find your Stream ARN: AWS Console → Kinesis → Data Streams → [Select Stream] → Details → Copy Stream ARN Example: `arn:aws:kinesis:us-east-1:123456789:stream/Test`
Stream Name	Specify the name of the Amazon Kinesis Data Stream to be used.
Partition Key	Specify the Partition Key for the record. A data stream can have multiple shards. This field determines which shard in the stream the data record is assigned to. Partition keys are Unicode strings with a maximum length of 256 characters.

Parameter	Description
Encode Data	Enable to encode the data being sent to Amazon Kinesis Data Streams. The stream expects data to be encoded in Base64 format. If the data is already encoded, this field should be disabled.
Explicit Hash Key	Specify the Explicit Hash Key for the record. It is a hash value that overrides the partition key hash to explicitly determine which shard the data record is assigned to.
Retention Period (in hrs)	Specify the Retention Period (in hours). If you have not changed the value after creation of the Stream, then it should be 24 hours. You can set a minimum value of 24 hours.
Shard ID	Specify the shard ID of the Amazon Kinesis Data Streams to perform the operation.
Adjacent Shard ID	Specify the ID of the adjacent shard that will be merged with the current shard.
Shard Iterator	Specify the position in the shard from which you want to start reading data records sequentially.
Maximum Results	Specify the maximum results to be listed. The maximum permissible value is 10000
New Starting Hash Key	Specify the hash key value that will serve as the starting hash key for one of the child shards created by the split. This value must fall within the current shard's hash key range. All hash keys equal to or greater than this value are assigned to the new child shard, while lower hash keys remain with the other child shard.
Shard Iterator Type	Select the shard position from which to start reading data records. • **After Sequence Number** • **At Sequence Number** • **At Timestamp** • **Latest** • **Trim Horizon**

Parameter	Description
Timestamp	Specify the timestamp to use for the request. A timestamp is the Unix epoch date with precision in milliseconds. Example: 1459799926.48
Starting Sequence Number	Specify the sequence number of the data record in the shard from which to start reading.
Stream Mode	Select the capacity mode for the new Amazon Kinesis Data Stream mode. • **Provisioned** • **On-demand** For more information, see Data Stream Capacity Mode.
Shard Count	Specify the number of shards that the stream will use for this operation.
Tag Key	Specify the name of the tag. Example: Environment
Tag Value	Specify the value of the tag. Example: Prod
Enforce Consumer Deletion	Enable to force deletion of the stream even if it has registered consumers. If disabled, Delete Stream fails with a Resource In Use Exception when consumers are registered.
Exclusive Start Stream Name	Specify the name of the stream to start the list with.
Exclusive Start Shard ID	Specify the Shard ID from which to start the stream description. The response includes shards starting immediately after this Shard ID.
Limit	Specify the maximum number of records to be returned. Value ranges from 1 to 10000.
Next Token	Specify the next token received in a list response to fetch the next set of response.
Shard Filter	Enable to filter shards.

Parameter	Description
Stream Creation Timestamp	Specify the Stream creation timestamp to distinguish between data streams that have the same name. For example, if you create a data stream and then delete it, and you later create another data stream with the same name, you can use this input parameter to specify which of the two streams you want to list the shards for. A timestamp is the Unix epoch date with precision in milliseconds. Example: `1459799926.48`
Shard Filter Type	Select the shard filter type to retrieve the desired shards. • **After Shard ID** • **At Latest** • **At Timestamp** • **At Trim Horizon** • **From Timestamp** • **From Trim Horizon**
HTTP Method	Select the required HTTP method from the available dropdown.
Relative URL	Specify the relative URL if required. This field is not mandatory to be populated unless explicitly required as per your configuration.
Query	Specify the query that should be transferred with the HTTP request. Example: `param1=value1&param2=value2`
Request Headers	Enter a list of custom headers, separated by a pipe (|), to be sent to the target system. Use an asterisk (*) to send all custom headers to the target system. All Camel-specific headers and HTTP protocol headers except "date" are excluded by default even if you specify them. Note that this value can also be read dynamically using an exchange header or property.

Parameter	Description
Response Headers	Enter a list of headers, separated by a pipe (|), coming from the target system's response to be received in the message. Use an asterisk (*) to receive all the headers from the target system, which is also the default value. All Camel-specific headers and HTTP protocol headers except "date" are excluded by default even if you specify them. Note that this value can also be read dynamically using an exchange header or property.

5 Amazon Kinesis Supported Operations

This section lists and describes some of the operations supported by the Amazon Kinesis adapter. For more information about any adapter supported operations, see Official Documentation.

> The adapter offers two configuration modes: **Basic**, which uses a guided UI with predefined input fields, and **Advanced**, which allows manual configuration through HTTP method, Relative URL, headers, and payload, etc.

5.1 Create Stream

The **Create Stream** operation allows you to create a data stream for capturing and transporting continuous data records.

You can choose between **on-demand** or **provisioned** capacity modes:

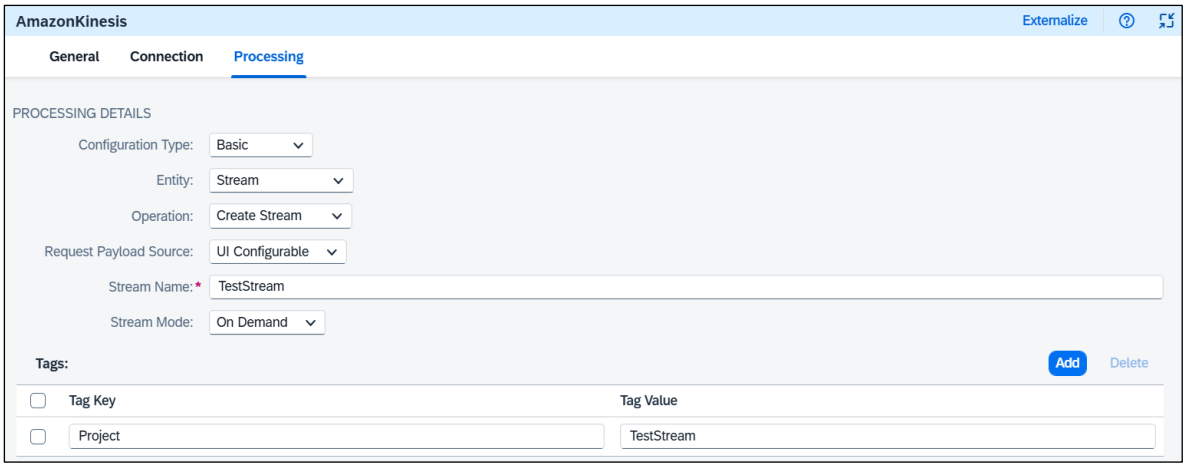
- **On-demand mode**: No capacity planning required. Kinesis automatically scales the stream to handle throughput.
- **Provisioned mode**: You must specify the number of shards. Each shard supports:
    - Reads: 5 transactions per second, 2 MiB/sec.
    - Writes: 1,000 records/sec, 1 MiB/sec.

For the default shard limit for an AWS account, see Amazon Kinesis Data Streams Limits.

The **Create Stream** operation below demonstrates both **Basic** and **Advanced** configuration modes. This applies to all supported operations.

5.1.1 Basic Configuration

In **Basic Configuration**, the operation is configured through a structured user interface that presents all required fields. This mode simplifies configuration and minimizes the need for manual input.



Parameter	Value
Configuration Type	Select the configuration type as **Basic** to work with the dropdowns and parameter text fields.
Entity	Select the entity as **Stream**.
Operation	Select the operation as **Create Stream**.
Request Payload Source	Select the request payload source as **UI Configurable** to enter the required values directly in the UI fields.
Stream Name	Specify the name of the Data Stream as `TestStream`.
Stream Mode	Select the Stream Mode as **On Demand**
Tag Key	Specify the key for the tag as `Project`
Tag Value	Specify the value of the tag as `TestStream`

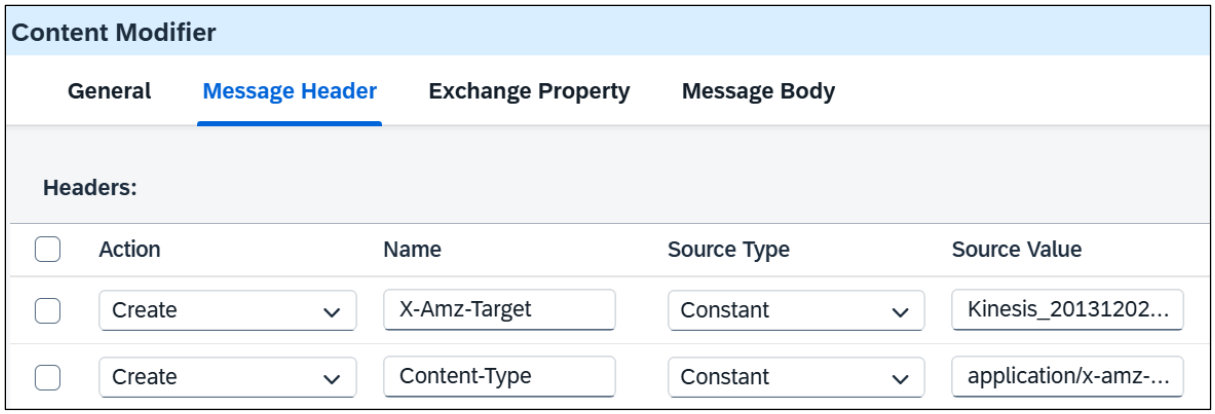
5.1.2 Advanced Configuration

The **Advanced Configuration** enables you to perform the same operation manually by specifying request parameters for a customized setup.

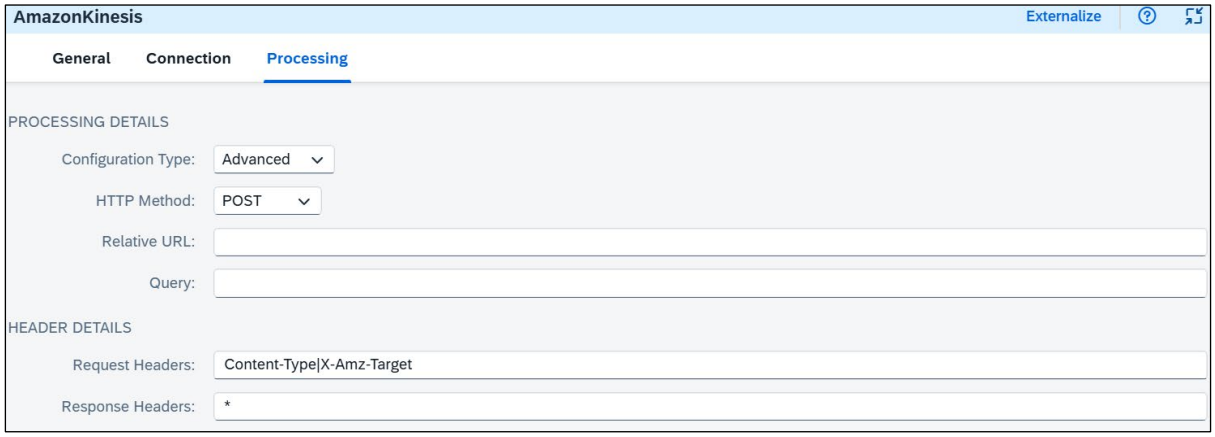
- When using Advanced Configuration, the required request headers must be explicitly provided for each operation.
- For instance, the Create Stream operation requires the following headers:
- X-Amz-Target: `Kinesis_20131202.CreateStream`
- Content-Type: `application/x-amz-json-1.1`

- Ensure that the correct headers and input payload are provided for each operation.
- In the Basic Configuration, headers are handled automatically and do not need to be specified. Manually specifying these headers may lead to errors or unexpected behavior.

These headers can be added using the content modifier, as demonstrated below. For more details, see Create Stream.



The Amazon Kinesis adapter can be configured as shown below.



Parameter	Value
Configuration Type	Select the configuration type as **Advanced** to specify the relative URL.
HTTP Method	Select the HTTP Method as **POST**. Ensure that you use the correct HTTP method as specified in the official Amazon Kinesis API documentation.
Request Headers	Specify the header names as `X-Amz-Target` and `Content-Type`, separated by a pipe (|).

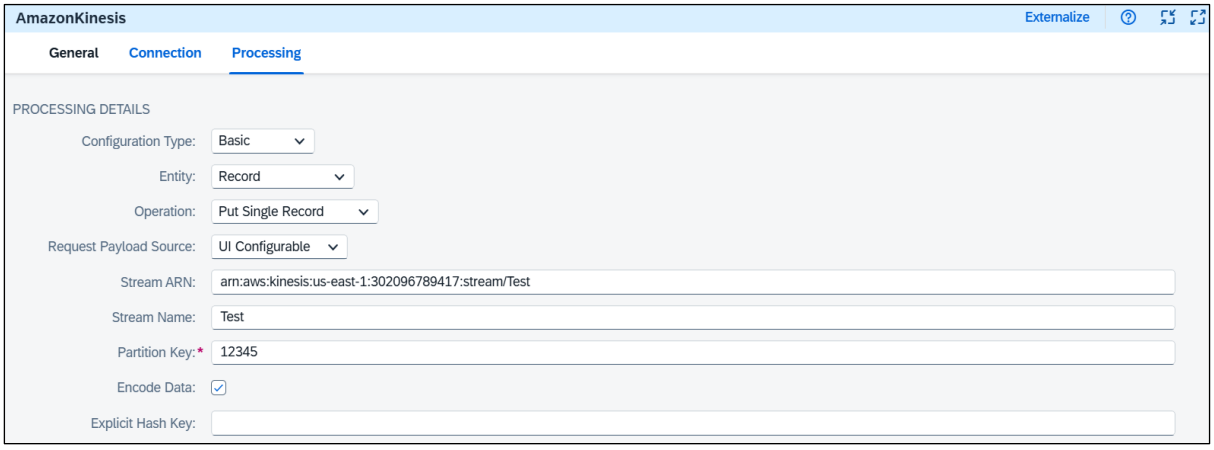
For the complete list of descriptions about the fields below, refer to the Processing tab.

Request Syntax:

```
{
"ShardCount": number,
"StreamModeDetails": {
    "StreamMode": "string"
   },
      "StreamName": "string",
      "Tags": { "string": "string"
     }
}
```

5.2 Put Single Record

The Put Single Record operation writes a single data record into a stream for real-time ingestion and processing. Each shard supports up to **1,000 records per second** and **1 MiB of data per second** for writes.



When using this operation, you must provide either the **Stream ARN** or the **Stream Name** parameter, or both. It is recommended to use the **Stream ARN** parameter when invoking this API.

Parameter	Value
Configuration Type	Select the configuration type as **Basic** to work with the dropdowns and parameter text fields.
Entity	Select the entity as **Record**.
Operation	Select the operation as **Put Single Record**.

Parameter	Value
Request Payload Source	Select the request payload source as **UI Configurable** to enter the required values directly in the UI fields.
Stream ARN	Specify the ARN of the Data Stream as `arn:aws:kinesis:us-east-1:302096789417:stream/Test`.
Stream Name	Specify the name of the Data Stream as `Test`
Partition Key	Specify the partition key of the record as `12345`.
Encode Data	Enable to encode the data being sent to Amazon Kinesis Data Streams.

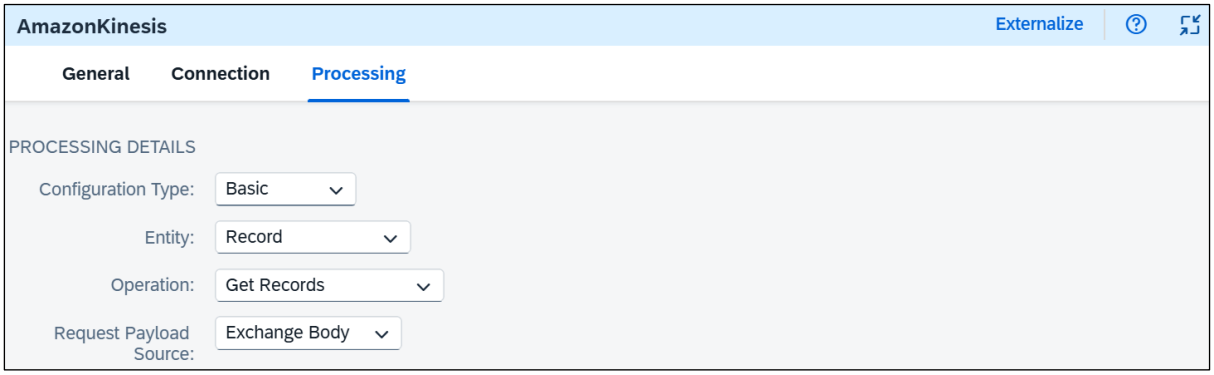
For the complete list of descriptions about the fields below, refer to the Processing tab.

After a record is written to the stream, it cannot be modified or repositioned within the stream.

5.3 Get Records

The **Gets Records** operation retrieves data records from a Kinesis data stream's shard.

Each data record retrieved using the Get Records operation can be up to **1 MiB** in size, and each shard can support a read throughput of up to **2 MiB per second**. A single Get Records call can return a maximum of **10,000 records** or up to **10 MiB** of data, whichever limit is reached first.



Parameter	Value
Configuration Type	Select the configuration type as **Basic** to work with the dropdowns and parameter text fields.
Entity	Select the entity as **Record**.

Parameter	Value
Operation	Select the operation as **Get Records**.
Request Payload Source	Select the request payload source as **Exchange Body** to manually provide the request body. When the request payload source is set to Exchange Body, the necessary input payload must be provided through the message body for the operation.

To read records from a shard, you must specify a shard iterator using the Shard Iterator parameter. This iterator determines the starting position within the shard for sequential reading. If no records are available at the iterator's position, Get Records will return an empty list. You may need to make multiple calls to reach a portion of the shard that contains data.

Request Syntax:

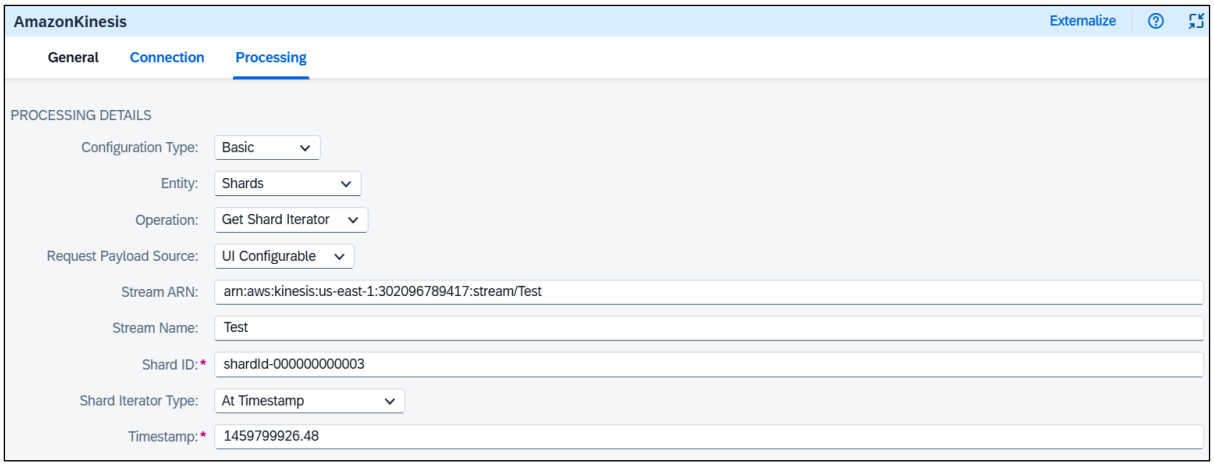
```
{
"Limit": number,
"ShardIterator": "string",
"StreamARN": "string"
}
```

Response Syntax:

```
{
"ChildShards": [
{
"HashKeyRange": {
"EndingHashKey": "string",
"StartingHashKey": "string" },
"ParentShards": [ "string" ],
"ShardId": "string" } ],
"MillisBehindLatest": number,
"NextShardIterator": "string",
"Records": [ { Response Syntax API Version 2013-12-02 61 Amazon Kinesis Data Streams
Service API Reference "ApproximateArrivalTimestamp": number,
"Data": blob, "EncryptionType": "string",
"PartitionKey": "string",
"SequenceNumber": "string" }
]
}
```

5.4 Get Shard Iterator

The **Get Shard Iterator** operation provides a shard iterator, which remains valid for up to 5 minutes. A shard iterator defines the position within a shard from which data records are read sequentially. This position is determined using the sequence number of a data record, which uniquely identifies each record added to the stream at the time it is ingested. Each stream consists of one or more shards.



When using this operation, you must provide either the **Stream ARN** or the **Stream Name** parameter, or both. It is recommended to use the **Stream ARN** parameter when invoking this API.

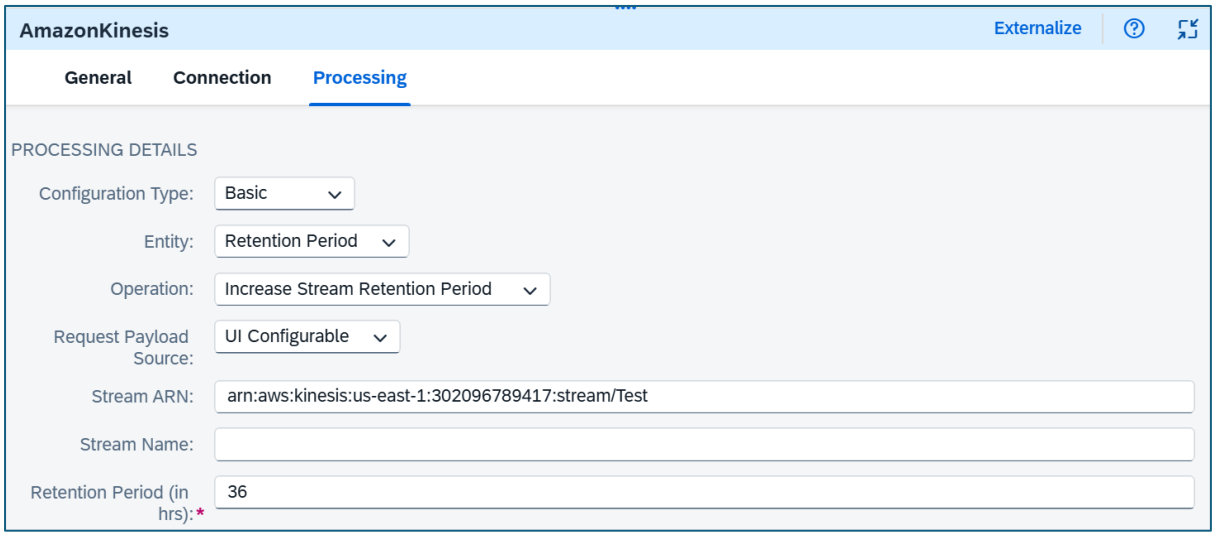
Parameter	Value
Configuration Type	Select the configuration type as **Basic** to work with the dropdowns and parameter text fields.
Entity	Select the entity as **Shards**.
Operation	Select the operation as **Get Shard Iterator**.
Request Payload Source	Select the request payload source as **UI Configurable** to enter the required values directly in the UI fields.
Stream ARN	Specify the ARN of the Data Stream as `arn:aws:kinesis:us-east-1:302096789417:stream/Test.`
Stream Name	Specify the name of the Data Stream as `Test`.
Shard ID	Specify the Shard ID as `shardId-000000000003` .
Shard Iterator Type	Specify the Shard Iterator type as **At Timestamp**.
Timestamp	Specify the timestamp as `1459799926.48`

Making frequent **GetShardIterator** requests can result in a **ProvisionedThroughputExceededException**.
To avoid this, refer to the throughput limits outlined in the GetRecords and Stream Limits.

5.5 Increase Stream Retention Period

The **Increase Stream Retention Period** operation extends the duration for which data records remain accessible in a Kinesis data stream after being ingested. The retention period can be increased up to a maximum of **8760 hours (365 days)**.

Increasing the retention period only affects records that have not yet expired; it does **not** restore access to data that was already expired under the previous retention period. For instance, if the retention is extended from 24 to 168 hours, data older than 24 hours prior to the change will still remain inaccessible.



When using this operation, you must provide either the **Stream ARN** or the **Stream Name** parameter, or both. It is recommended to use the **Stream ARN** parameter when invoking this API.

Parameter	Value
Configuration Type	Select the configuration type as **Basic** to work with the dropdowns and parameter text fields.
Entity	Select the entity as **Shards**.
Operation	Select the operation as **Get Shard Iterator**.
Request Payload Source	Select the request payload source as **UI Configurable** to enter the required values directly in the UI fields.

Parameter	Value
Stream ARN	Specify the ARN of the Data Stream as `arn:aws:kinesis:us-east-1:302096789417:stream/Test.`
Stream Name	Specify the name of the Data Stream as `Test`
Retention Period (in hrs)	Specify the Retention Period as `36`

6 References

This section includes the reference guides required to configure the Amazon Kinesis Adapter and set up Amazon Kinesis for integration with SAP Cloud Integration.

6.1 Microsoft Azure App Setup for AssumeRoleWithWebIdentityProvider

For more information about registering a new application in Azure and configuring the application ID URI, see https://aws.amazon.com/blogs/security/how-to-access-aws-resources-from-microsoft-entra-id-tenants-using-aws-security-token-service.

Note: Ensure that the Access Token version returned by Azure is version 2. For more information, see https://learn.microsoft.com/en-us/entra/identity-platform/access-tokens#token-formats

6.2 Configuring Identity Provider for Role Creation

Purpose

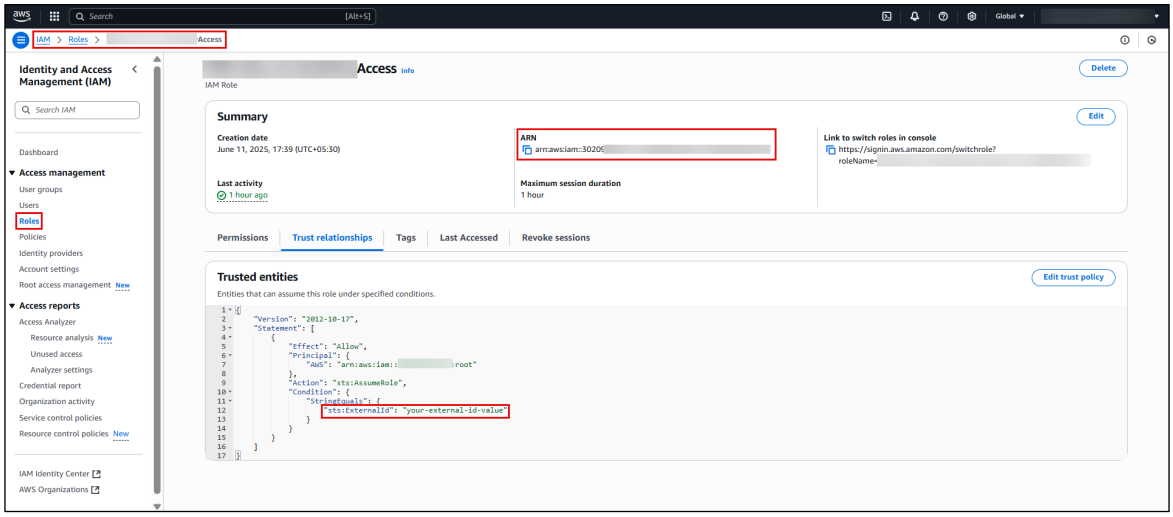
To add an Identity Provider and create a role with permissions to manage user identities outside of AWS.

Procedure

1. Sign in to the AWS Management Console and open the IAM console at https://console.aws.amazon.com/iam/.
2. In the navigation pane of the console, choose **Identity Provider** and **Add Provider**.
3. Select **OpenID Connect** and specify the **Provider URL** as https://login.microsoftonline.com/<<tenant id>>/v2.0
4. Under **Audience,** specify the client ID and click **Add Provider** to save changes.
5. In a new window, click **Assign Role** and select **Create a New Role**
6. Under the **Create Role** page, select **Trusted Identity Type** as **Web Identity** in case of **STS (WebIdentity)** and **AWS account** in case of **STS (Assume Role)**.
    a) For **Web Identity**, select required values for **Identity provider** and **Audience** from the dropdown and click **Next.**
    b) For **AWS account,** select the required **AWS account** and click **Next.**
7. On the next page, **Add Permissions** by searching and selecting your required permission policies.
8. Finally, enter the role **Name** and description to Finish.

6.3 Getting Role ARN and External ID from IAM Role

1. Go to the AWS Management Console and open the IAM service.
2. In the left menu, click **Roles** and select the configured IAM role.
3. On the role summary page, copy the **Role ARN** shown at the top.
4. You can also configure the **External ID** in the trust relationship, as shown in the example below.



7 Support

7.1 Troubleshooting

For errors that are common across all AWS service API actions, refer to the official Amazon Kinesis documentation.