



Informatica™

Informatica® Application Integration  
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# Amazon SNS Connector Guide

Informatica Application Integration Amazon SNS Connector Guide  
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# Preface

Read the *Amazon SNS Connector Guide* to learn how to set up and use Amazon SNS connections.

This guide assumes that you have an understanding of the Amazon SNS web service, how to create Amazon SNS endpoints, and how to define service calls using Application Integration.

# CHAPTER 1

## Introduction to Amazon SNS Connector

This chapter includes the following topics:

- [Amazon SNS Connector, 5](#)
- [Amazon SNS Connector Implementation, 5](#)
- [Subscriber Protocols, 6](#)

### Amazon SNS Connector

Amazon SNS Connector is a Service Connector you can use to create and manage topics, subscribe to topics, and publish messages to topics on the Amazon Service Notification Server (SNS).

Amazon SNS is a web service that coordinates and manages the delivery of messages from a topic to subscribing endpoints.

Create an Amazon SNS connection to connect to Amazon SNS server. Use the connection when you configure a service call in a process to perform multiple activities. Verify that you have valid Access Key ID and Secret Access Key values in Amazon Web Service before you create the connection. You must provide these key values when you create the Amazon SNS connection.

### Amazon SNS Connector Implementation

Amazon SNS Connector is a Service Connector you can use to perform multiple tasks on the Amazon Service Notification Server (SNS).

You can use the Create Topic service to create a topic to which publishers can send notifications and messages. Each topic has a unique name, the Amazon resource name, that identifies the Amazon SNS endpoint for publishers to post messages and subscribers to register for notifications.

You can use the Subscribe Topic service to subscribe an endpoint to a topic. A subscribing endpoint may be a mobile app, web server, email address, or an Amazon SQS queue that can receive notification messages from Amazon SNS. Once you subscribe an endpoint to a topic and the subscription is confirmed, Amazon SNS Connector sends push messages and notifications from the topic to the subscriber endpoints. Subscribers receive all messages published to the topics to which they subscribe, and all subscribers to a topic receive the same messages.

You can use the Publish Message service to publish messages to a topic. The format of the outgoing message to each endpoint depends on the subscription protocol you select for the subscribed endpoint.

Amazon SNS uses signature version 4 signing process for secure communication. The Signature Version 4 signing process describes how to add authentication information to AWS requests. For security, most requests to AWS must be signed with the access key ID and secret access key.

## Subscriber Protocols

When you subscribe to a topic, you can choose various protocol options to publish the messages.

The following table describes the subscriber protocol options:

Protocol	Description
HTTP / HTTPS	Receive messages to one or more HTTP or HTTPS endpoints as an HTTP POST request. The subscribed endpoint is an URL beginning with http:// or https://
SMS	Receive SMS notifications to SMS-enabled mobile phones and smart phones. The subscribed endpoint is a phone number of an SMS-enabled device. <b>Note:</b> SMS notifications are supported for phone numbers in the United States.
email	Receive messages to an email account. The subscribed endpoint is an email address.
SQS	Receive a published message as an Amazon SQS message to the subscribed queue. The subscribed endpoint is the ARN of an Amazon SQS queue.
application	Receive notifications and messages based on application events and system alerts. The subscribed endpoint is the endpoint ARN of a mobile app and device.
Lambda	Run the Lambda function subscribed to the topic with the payload of the published message. The subscribed endpoint is the ARN of an AWS Lambda function.

**Note:** To actually subscribe to the topic, an endpoint owner must complete the confirmation process.

For more information, see the Amazon SNS documentation.

## CHAPTER 2

# Amazon SNS Connections

This chapter includes the following topics:

- [Amazon SNS Connections Overview, 7](#)
- [Basic Connection Properties, 7](#)
- [Amazon SNS Connection Properties, 8](#)

## Amazon SNS Connections Overview

Use an Amazon SNS connection to subscribe to topics and publish messages to topics on the Amazon Service Notification Server (SNS).

After you create an Amazon SNS connection, you can validate and save the connection.

You can then publish the Amazon SNS connection and click the **Metadata** tab to view the generated process objects for the connection.

## Basic Connection Properties

The following table describes the basic properties that you can configure on the **Properties** tab of the connection creation page:

Properties	Description
Name	Required. Unique name for the Amazon SNS connection that identifies it in the Process Designer. The name must start with an alphabet, and can contain only alphabets, numbers, or hyphens (-).
Location	Optional. The location of the project or folder where you want to save the connection. Click <b>Browse</b> to select a location.  If the <b>Explore</b> page is currently active and a project or folder is selected, the default location for the connection is the selected project or folder. Otherwise, the default location is the location of the most recently saved asset.
Description	Optional. Description of the connection.

Properties	Description
Type	Required. The type of connection you want to use for the connector or service connector. Select <b>Amazon SNS</b> .
Run on	Required. The Cloud Server, the name of the Secure Agent group, or the Secure Agent machine where the connection must run.
Connection Test	Not supported for Amazon SNS Connector.
OData-Enabled	Not supported for Amazon SNS Connector.

Along with these basic properties, you must also define the properties applicable to Amazon SNS Connector. The **Metadata** tab displays the process objects generated when you publish the Amazon SNS connection.

## Amazon SNS Connection Properties

The following table defines the Amazon SNS connection properties that you must configure in the **Connection Settings** section:

Connection Property	Description
SNS Endpoint	Required. The region-specific web endpoint that Amazon SNS uses to publish notification messages.
Access Key	Required. The access key ID that is used to access the Amazon account resources.
Secret Key	Required. The secret access key that is used to access the Amazon account resources. This value is associated with the access key and uniquely identifies the account.



## CHAPTER 3

# Amazon SNS Connector Processes

This chapter includes the following topics:

- [Services in Amazon SNS Connector, 9](#)
- [Process with Amazon SNS Connector Examples, 11](#)

## Services in Amazon SNS Connector

Activities that you can perform in Amazon SNS are listed as services that you can configure in a Service step in a process.

To configure a service, you need to identify and pass the input fields required for the service. You can also use the service output to perform other steps in the process.

### Create Topic

Application Integration creates a topic to which notifications and messages can be published.

#### Input Field

Name of the topic you want to create.

#### Output Fields

- Amazon resource name (ARN) assigned to the topic You can use the topic ARN to publish messages to, subscribe to, or unsubscribe from a topic.
- Topic ARN response
- Status code

### Delete Topic

Application Integration deletes a topic and all its subscriptions.

**Note:** When you delete a topic, messages that were previously sent to the topic might not be delivered to the topic subscribers.

#### Input Field

Amazon resource name of the topic that you want to delete.

**Output Field**

Status code

## List Topics

Application Integration returns a list of the requester's topics.

**Input Field**

Next token. Optional. Amazon SNS Connector returns up to 100 topics at a time. If there are more than 100 topics in the Amazon SNS server, the next token parameter is returned to support pagination. For example, you can configure a data decision step in a process and use the Next Token parameter to fetch the remaining topics.

**Output Fields**

- Topic List
- Status code
- Next token response
- Next token

## Publish Message

Application Integration sends a message to all the subscribed endpoints associated with a topic.

The format of the outgoing message to each subscribed endpoint depends on the notification protocol you select.

**Input Fields**

- The Amazon resource name assigned to the topic.
- Message you want to publish on the topic.
- Subject of the message you want to publish on the topic.

**Output Fields**

- Publish response
- Status code

## Set Display Name

Application Integration sets a display name to a topic. To publish SMS messages for a topic, you must assign a display name to the topic.

**Input Fields**

- The Amazon resource name of the topic to which you want to set a display name.
- Display name you want to set for the topic.

**Output Field**

Status code

## Subscribe Topic

Application Integration prepares to subscribe an endpoint by sending a confirmation message to the endpoint.

To actually subscribe to the topic, an endpoint owner must complete the confirmation process. For example, when you subscribe to an HTTP endpoint, the web application sends a confirmation message to the AWS service.

### Input Fields

- The Amazon resource name of the topic to which you want to subscribe.
- Endpoint to which you want to send the notification.
- Protocol to send the notification. You can choose one of the following subscriber protocol options: HTTP, HTTPS, email, application, SMS, SQS, and Lambda.

### Output Fields

- Subscribe result
- Response metadata
- Status code
- Request ID
- Error message

## Unsubscribe

Application Integration deletes a subscription to a topic.

### Input Field

The subscription ARN of the topic from which you want to unsubscribe. The subscription ARN value is available in the Subscribe Result output field of the Subscription service.

### Output Field

Status code

## Process with Amazon SNS Connector Examples

You can configure the Service steps in a process to perform multiple activities in Amazon SNS. For example, you can create a topic, subscribe to a topic, and publish messages to the topic.

### Publish a Message

You can publish a message to the subscribed endpoints associated with a topic.

In this example to publish a message, perform the following steps:

1. Create an Amazon SNS connection to connect to Amazon Simple Notification Service.
2. Create a process and configure a Service step using the services in an Amazon SNS connection.
3. Insert a step and select the Publish Message service. Specify the ARN of the topic to which you want to publish a message and specify the message that you want to publish.

4. Configure an assignment step to capture the status code and the publish response output fields of the Publish Message service.
5. Save, publish, and run the process. The message is published to all the subscribed endpoints of the topic.

### Create and Subscribe to a Topic

In this example to create a topic and subscribe to the topic, perform the following steps:

1. Create an Amazon SNS connection to connect to Amazon Simple Notification Service.
2. Create a process and configure a service step using the services in an Amazon SNS connection.
3. Insert a step and select the Create Topic service and specify a topic name as input for the service.
4. Insert a step and select the Subscribe Topic service and pass the Topic ARN output field of the Create Topic service as input. Select the protocol as email and specify a valid email address.
5. Create process variables to capture the value of the output fields of the Create Topic service to view the topic ARN and the status code.
6. Save, publish, and run the process.

The Secure Agent creates a topic based on the topic name you specify in the Create Topic service. Amazon SNS sends a confirmation message to the email address you specify in the Subscribe Topic service. Complete the confirmation process. The notification endpoint you specify in the Subscribe Topic service is subscribed to the topic.

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