# Amazon Simple Notification Service

## API Reference

## API Version 2010-03-31

# Amazon Simple Notification Service: API Reference

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# Welcome

Amazon Simple Notification Service is a web service that enables you to build distributed web-enabled applications. Applications can use Amazon SNS to easily push real-time notification messages to interested subscribers over multiple delivery protocols. For more information about this product go to http://aws.amazon.com/sns. For detailed information about Amazon SNS features and their associated API calls, go to the Amazon SNS Getting Started Guide.

This document was last updated on May 24, 2012.

# Actions

The actions described in this guide are called using the AWS Query protocol.

The following actions are supported:

# AddPermission

## Description

The AddPermission action adds a statement to a topic's access control policy, granting access for the specified AWS accounts to the specified actions.

## Request Parameters

For information about the common parameters that all actions use, see Common Query Parameters (p. 42).

| Name | Description | Required |
|------|-------------|----------|
| *AWSAccountId.member.N* | The AWS account IDs of the users (principals) who will be given access to the specified actions. The users must have AWS accounts, but do not need to be signed up for this service.<br>Type: String list | Yes |
| *ActionName.member.N* | The action you want to allow for the specified principal(s).<br><br>Valid values: any Amazon SNS action name.<br>Type: String list | Yes |
| *Label* | A unique identifier for the new policy statement.<br>Type: String | Yes |
| *TopicArn* | The ARN of the topic whose access control policy you wish to modify.<br>Type: String | Yes |

## Errors

For information about the common errors that all actions use, see Common Errors (p. 44).

| Error | Description | HTTP Status Code |
|-------|-------------|------------------|
| AuthorizationError | Indicates that the user has been denied access to the requested resource. | 403 |
| InternalError | Indicates an internal service error. | 500 |
| InvalidParameter | Indicates that a request parameter does not comply with the associated constraints. | 400 |
| NotFound | Indicates that the requested resource does not exist. | 404 |

# Examples

## Sample Request

```
http://sns.us-east-1.amazonaws.com/
?TopicArn=arn%3Aaws%3Asns%3Aus-east-1%3A123456789012%3AMy-Test
&ActionName.member.1=Publish
&ActionName.member.2=GetTopicAttributes
&Label=NewPermission
&AWSAccountId.member.1=987654321000
&AWSAccountId.member.2=876543210000
&Action=AddPermission
&SignatureVersion=2
&SignatureMethod=HmacSHA256
&Timestamp=2010-03-31T12%3A00%3A00.000Z
&AWSAccessKeyId=(AWS Access Key ID)
&Signature=k%2FAU%2FKp13pjndwJ7rr1sZszy6MZMlOhRBCHx1ZaZFiw%3D
```

## Sample Response

```
<AddPermissionResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">
  <ResponseMetadata>
    <RequestId>6a213e4e-33a8-11df-9540-99d0768312d3</RequestId>
  </ResponseMetadata>
</AddPermissionResponse>
```

# ConfirmSubscription

## Description

The ConfirmSubscription action verifies an endpoint owner's intent to receive messages by validating the token sent to the endpoint by an earlier Subscribe action. If the token is valid, the action creates a new subscription and returns its Amazon Resource Name (ARN). This call requires an AWS signature only when the AuthenticateOnUnsubscribe flag is set to "true".

## Request Parameters

For information about the common parameters that all actions use, see Common Query Parameters (p. 42).

| Name | Description | Required |
|------|-------------|----------|
| *AuthenticateOnUnsubscribe* | Disallows unauthenticated unsubscribes of the subscription. If the value of this parameter is `true` and the request has an AWS signature, then only the topic owner and the subscription owner can unsubscribe the endpoint. The unsubscribe action will require AWS authentication.<br>Type: String | No |
| *Token* | Short-lived token sent to an endpoint during the Subscribe action.<br>Type: String | Yes |
| *TopicArn* | The ARN of the topic for which you wish to confirm a subscription.<br>Type: String | Yes |

## Response Elements

The following elements come wrapped in a `ConfirmSubscriptionResult` structure.

| Name | Description |
|------|-------------|
| SubscriptionArn | The ARN of the created subscription.<br>Type: String |

## Errors

For information about the common errors that all actions use, see Common Errors (p. 44).

| Error | Description | HTTP Status Code |
|-------|-------------|------------------|
| AuthorizationError | Indicates that the user has been denied access to the requested resource. | 403 |
| InternalError | Indicates an internal service error. | 500 |

| Error | Description | HTTP Status Code |
|---|---|---|
| InvalidParameter | Indicates that a request parameter does not comply with the associated constraints. | 400 |
| NotFound | Indicates that the requested resource does not exist. | 404 |
| SubscriptionLimitExceeded | Indicates that the customer already owns the maximum allowed number of subscriptions. | 403 |

# Examples

## Sample Request

```
https://sns.us-east-1.amazonaws.com/
?Action=ConfirmSubscription
&TopicArn=arn:aws:sns:us-east-1:123456789012:My-Topic
&Token=51b2ff3edb475b7d91550e0ab6edf0c1de2a34e6ebaf6
 c2262a001bcb7e051c43aa00022ceecce70bd2a67b2042da8d8
 eb47fef7a4e4e942d23e7fa56146b9ee35da040b4b8af564cc4
 184a7391c834cb75d75c22981f776ad1ce8805e9bab29da2329
 985337bb8095627907b46c8577c8440556b6f86582a95475802
 6f41fc62041c4b3f67b0f5921232b5dae5aaca1
```

## Sample Response

```
<ConfirmSubscriptionResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">

  <ConfirmSubscriptionResult>
    <SubscriptionArn>arn:aws:sns:us-east-1:123456789012:My-Topic:80289ba6-0fd4-
4079-afb4-ce8c8260f0ca</SubscriptionArn>
  </ConfirmSubscriptionResult>
  <ResponseMetadata>
    <RequestId>7a50221f-3774-11df-a9b7-05d48da6f042</RequestId>
  </ResponseMetadata>
</ConfirmSubscriptionResponse>
```

# CreateTopic

## Description

The CreateTopic action creates a topic to which notifications can be published. Users can create at most 100 topics. For more information, see http://aws.amazon.com/sns. This action is idempotent, so if the requester already owns a topic with the specified name, that topic's ARN will be returned without creating a new topic.

## Request Parameters

For information about the common parameters that all actions use, see Common Query Parameters (p. 42).

| Name | Description | Required |
|------|-------------|----------|
| *Name* | The name of the topic you want to create.<br><br>Constraints: Topic names must be made up of only uppercase and lowercase ASCII letters, numbers, underscores, and hyphens, and must be between 1 and 256 characters long.<br>Type: String | Yes |

## Response Elements

The following elements come wrapped in a `CreateTopicResult` structure.

| Name | Description |
|------|-------------|
| `TopicArn` | The Amazon Resource Name (ARN) assigned to the created topic.<br>Type: String |

## Errors

For information about the common errors that all actions use, see Common Errors (p. 44).

| Error | Description | HTTP Status Code |
|-------|-------------|------------------|
| `AuthorizationError` | Indicates that the user has been denied access to the requested resource. | 403 |
| `InternalError` | Indicates an internal service error. | 500 |
| `InvalidParameter` | Indicates that a request parameter does not comply with the associated constraints. | 400 |
| `TopicLimitExceeded` | Indicates that the customer already owns the maximum allowed number of topics. | 403 |

# Examples

## Sample Request

```
http://sns.us-east-1.amazonaws.com/
?Name=My-Topic
&Action=CreateTopic
&SignatureVersion=2
&SignatureMethod=HmacSHA256
&Timestamp=2010-03-31T12%3A00%3A00.000Z
&AWSAccessKeyId=(AWS Access Key ID)
&Signature=gfzIF53exFVdpSNb8AiwN3Lv%2FNYXh6S%2Br3yySK70oX4%3D
```

## Sample Response

```
<CreateTopicResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">
  <CreateTopicResult>
    <TopicArn>arn:aws:sns:us-east-1:123456789012:My-Topic</TopicArn>
  </CreateTopicResult>
  <ResponseMetadata>
    <RequestId>a8dec8b3-33a4-11df-8963-01868b7c937a</RequestId>
  </ResponseMetadata>
</CreateTopicResponse>
```

# DeleteTopic

## Description

The DeleteTopic action deletes a topic and all its subscriptions. Deleting a topic might prevent some messages previously sent to the topic from being delivered to subscribers. This action is idempotent, so deleting a topic that does not exist will not result in an error.

## Request Parameters

For information about the common parameters that all actions use, see Common Query Parameters (p. 42).

| Name | Description | Required |
|------|-------------|----------|
| *TopicArn* | The ARN of the topic you want to delete.<br>Type: String | Yes |

## Errors

For information about the common errors that all actions use, see Common Errors (p. 44).

| Error | Description | HTTP Status Code |
|-------|-------------|------------------|
| AuthorizationError | Indicates that the user has been denied access to the requested resource. | 403 |
| InternalError | Indicates an internal service error. | 500 |
| InvalidParameter | Indicates that a request parameter does not comply with the associated constraints. | 400 |
| NotFound | Indicates that the requested resource does not exist. | 404 |

## Examples

### Sample Request

```
http://sns.us-east-1.amazonaws.com/
&TopicArn=arn%3Aaws%3Asns%3Aus-east-1%3A123456789012%3AMy-Topic
&Action=DeleteTopic
&SignatureVersion=2
&SignatureMethod=HmacSHA256
&Timestamp=2010-03-31T12%3A00%3A00.000Z
&AWSAccessKeyId=(AWS Access Key Id)
&Signature=mQA3nJI%2BcmAIY7r8HCArGElSqPX5JG4UGzF4yo0RygE%3D
```

# Sample Response

```
<DeleteTopicResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">
  <ResponseMetadata>
    <RequestId>f3aa9ac9-3c3d-11df-8235-9dab105e9c32</RequestId>
  </ResponseMetadata>
</DeleteTopicResponse>
```

# GetSubscriptionAttributes

## Description

The GetSubscriptionAttribtues action returns all of the properties of a subscription.

## Request Parameters

For information about the common parameters that all actions use, see Common Query Parameters (p. 42).

| Name | Description | Required |
|------|-------------|----------|
| *SubscriptionArn* | The ARN of the subscription whose properties you want to get. Type: String | Yes |

## Response Elements

The following elements come wrapped in a `GetSubscriptionAttributesResult` structure.

| Name | Description |
|------|-------------|
| Attributes | A map of the subscription's attributes. Attributes in this map include the following:<br><br>• SubscriptionArn -- the subscription's ARN<br>• TopicArn -- the topic ARN which the subscription is associated with<br>• Owner -- the AWS account ID of the subscription's owner<br>• ConfirmationWasAuthenticated -- True if the subscription confirmation request was authenticated<br>• DeliveryPolicy -- the JSON serialization of the subscription's delivery policy<br>• EffectiveDeliveryPolicy -- the JSON serialization of the effective delivery policy which takes into the topic delivery policy and account system defaults<br><br>Type: String to String map |

## Errors

For information about the common errors that all actions use, see Common Errors (p. 44).

| Error | Description | HTTP Status Code |
|-------|-------------|------------------|
| AuthorizationError | Indicates that the user has been denied access to the requested resource. | 403 |
| InternalError | Indicates an internal service error. | 500 |
| InvalidParameter | Indicates that a request parameter does not comply with the associated constraints. | 400 |
| NotFound | Indicates that the requested resource does not exist. | 404 |

# Examples

## Sample Request

```
 http://sns.us-east-1.amazonaws.com/
 ?SubscriptionArn=arn%3Aaws%3Asns%3Aus-east-1%3A123456789012%3AMy-Top
ic%3A80289ba6-0fd4-4079-afb4-ce8c8260f0ca
 &Action=GetSubscriptionAttributes
 &SignatureVersion=2
 &SignatureMethod=HmacSHA256
 &Timestamp=2010-03-31T12%3A00%3A00.000Z
 &AWSAccessKeyId=(AWS Access Key Id)
 &Signature=92lBGRVq0%2BxhaACaBGqtdemy%2Bi9isfgyTljCbJM80Yk%3D
```

## Sample Response

```
<GetSubscriptionAttributesResponse xmlns="http://sns.amazonaws.com/doc/2010-03-
31/">
  <GetSubscriptionAttributesResult>
    <Attributes>
      <entry>
        <key>Owner</key>
        <value>123456789012</value>
      </entry>
      <entry>
        <key>DeliveryPolicy</key>
        <value>{"healthyRetryPolicy":{"numRetries":10}}</value>
      </entry>
      <entry>
        <key>SubscriptionArn</key>
        <value>arn:aws:sns:us-east-1:123456789012:My-Topic:80289ba6-0fd4-4079-
afb4-ce8c8260f0ca</value>
      </entry>
    </Attributes>
  </GetSubscriptionAttributesResult>
  <ResponseMetadata>
    <RequestId>057f074c-33a7-11df-9540-99d0768312d3</RequestId>
  </ResponseMetadata>
</GetTopicAttributesResponse>
```

# GetTopicAttributes

## Description

The GetTopicAttributes action returns all of the properties of a topic. Topic properties returned might differ based on the authorization of the user.

## Request Parameters

For information about the common parameters that all actions use, see Common Query Parameters (p. 42).

| Name | Description | Required |
|------|-------------|----------|
| *TopicArn* | The ARN of the topic whose properties you want to get.<br>Type: String | Yes |

## Response Elements

The following elements come wrapped in a `GetTopicAttributesResult` structure.

| Name | Description |
|------|-------------|
| Attributes | A map of the topic's attributes. Attributes in this map include the following:<br><br>• TopicArn -- the topic's ARN<br>• Owner -- the AWS account ID of the topic's owner<br>• Policy -- the JSON serialization of the topic's access control policy<br>• DisplayName -- the human-readable name used in the "From" field for notifications to email and email-json endpoints<br>• SubscriptionsPending -- the number of subscriptions pending confirmation on this topic<br>• SubscriptionsConfirmed -- the number of confirmed subscriptions on this topic<br>• SubscriptionsDeleted -- the number of deleted subscriptions on this topic<br>• DeliveryPolicy -- the JSON serialization of the topic's delivery policy<br>• EffectiveDeliveryPolicy -- the JSON serialization of the effective delivery policy which takes into account system defaults<br><br>Type: String to String map |

## Errors

For information about the common errors that all actions use, see Common Errors (p. 44).

| Error | Description | HTTP Status Code |
|-------|-------------|------------------|
| AuthorizationError | Indicates that the user has been denied access to the requested resource. | 403 |
| InternalError | Indicates an internal service error. | 500 |

| Error | Description | HTTP Status Code |
|---|---|---|
| InvalidParameter | Indicates that a request parameter does not comply with the associated constraints. | 400 |
| NotFound | Indicates that the requested resource does not exist. | 404 |

# Examples

## Sample Request

```
http://sns.us-east-1.amazonaws.com/
?TopicArn=arn%3Aaws%3Asns%3Aus-east-1%3A123456789012%3AMy-Topic
&Action=GetTopicAttributes
&SignatureVersion=2
&SignatureMethod=HmacSHA256
&Timestamp=2010-03-31T12%3A00%3A00.000Z
&AWSAccessKeyId=(AWS Access Key Id)
&Signature=92lBGRVq0%2BxhaACaBGqtdemy%2Bi9isfgyTljCbJM80Yk%3D
```

## Sample Response

```
<GetTopicAttributesResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">
  <GetTopicAttributesResult>
    <Attributes>
      <entry>
        <key>Owner</key>
        <value>123456789012</value>
      </entry>
      <entry>
        <key>Policy</key>
        <value>{
"Version":"2008-10-17","Id":"us-east-1/698519295917/test__de
fault_policy_ID","Statement" : [{"Effect":"Allow","Sid":"us-east-
1/698519295917/test__default_statement_ID","Principal" : {"AWS": "*"},"Ac
tion":["SNS:GetTopicAttributes","SNS:SetTopicAttributes","SNS:AddPermis
sion","SNS:RemovePermission","SNS:DeleteTopic","SNS:Subscribe","SNS:ListSubscrip
tionsByTopic","SNS:Publish","SNS:Receive"],"Resource":"arn:aws:sns:us-east-
1:698519295917:test","Condition" : {"StringLike" : {"AWS:SourceArn":
"arn:aws:*:*:698519295917:*"}}}]}</value>
      </entry>
      <entry>
        <key>TopicArn</key>
        <value>arn:aws:sns:us-east-1:123456789012:My-Topic</value>
      </entry>
    </Attributes>
```

```
    </GetTopicAttributesResult>
    <ResponseMetadata>
      <RequestId>057f074c-33a7-11df-9540-99d0768312d3</RequestId>
    </ResponseMetadata>
</GetTopicAttributesResponse>
```

# ListSubscriptions

## Description

The ListSubscriptions action returns a list of the requester's subscriptions. Each call returns a limited list of subscriptions, up to 100. If there are more subscriptions, a NextToken is also returned. Use the NextToken parameter in a new ListSubscriptions call to get further results.

## Request Parameters

For information about the common parameters that all actions use, see .

| Name | Description | Required |
|------|-------------|----------|
| *NextToken* | Token returned by the previous ListSubscriptions request.<br>Type: String | No |

## Response Elements

The following elements come wrapped in a `ListSubscriptionsResult` structure.

| Name | Description |
|------|-------------|
| NextToken | Token to pass along to the next ListSubscriptions request. This element is returned if there are more subscriptions to retrieve.<br>Type: String |
| Subscriptions | A list of subscriptions.<br>Type: Subscription (p. 40) list |

## Errors

For information about the common errors that all actions use, see .

| Error | Description | HTTP Status Code |
|-------|-------------|------------------|
| AuthorizationError | Indicates that the user has been denied access to the requested resource. | 403 |
| InternalError | Indicates an internal service error. | 500 |
| InvalidParameter | Indicates that a request parameter does not comply with the associated constraints. | 400 |

# Examples

## Sample Request

```
http://sns.us-east-1.amazonaws.com/
&Action=ListSubscriptions
&SignatureVersion=2
&SignatureMethod=HmacSHA256
&Timestamp=2010-03-31T12%3A00%3A00.000Z
&AWSAccessKeyId=(AWS Access Key ID)
&Signature=SZmBxEPqfs9R7xxhSt6C1b7PnOEvg%2BSVyyMYJfLRFCA%3D
```

## Sample Response

```
<ListSubscriptionsResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">
  <ListSubscriptionsResult>
    <Subscriptions>
      <member>
        <TopicArn>arn:aws:sns:us-east-1:698519295917:My-Topic</TopicArn>
        <Protocol>email</Protocol>
        <SubscriptionArn>arn:aws:sns:us-east-1:123456789012:My-Topic:80289ba6-
0fd4-4079-afb4-ce8c8260f0ca</SubscriptionArn>
        <Owner>123456789012</Owner>
        <Endpoint>example@amazon.com</Endpoint>
      </member>
    </Subscriptions>
  </ListSubscriptionsResult>
  <ResponseMetadata>
    <RequestId>384ac68d-3775-11df-8963-01868b7c937a</RequestId>
  </ResponseMetadata>
</ListSubscriptionsResponse>
```

# ListSubscriptionsByTopic

## Description

The ListSubscriptionsByTopic action returns a list of the subscriptions to a specific topic. Each call returns a limited list of subscriptions, up to 100. If there are more subscriptions, a NextToken is also returned. Use the NextToken parameter in a new ListSubscriptionsByTopic call to get further results.

## Request Parameters

For information about the common parameters that all actions use, see Common Query Parameters (p. 42).

| Name | Description | Required |
|------|-------------|----------|
| *NextToken* | Token returned by the previous ListSubscriptionsByTopic request.<br>Type: String | No |
| *TopicArn* | The ARN of the topic for which you wish to find subscriptions.<br>Type: String | Yes |

## Response Elements

The following elements come wrapped in a `ListSubscriptionsByTopicResult` structure.

| Name | Description |
|------|-------------|
| NextToken | Token to pass along to the next ListSubscriptionsByTopic request. This element is returned if there are more subscriptions to retrieve.<br>Type: String |
| Subscriptions | A list of subscriptions.<br>Type: Subscription (p. 40) list |

## Errors

For information about the common errors that all actions use, see Common Errors (p. 44).

| Error | Description | HTTP Status Code |
|-------|-------------|------------------|
| AuthorizationError | Indicates that the user has been denied access to the requested resource. | 403 |
| InternalError | Indicates an internal service error. | 500 |
| InvalidParameter | Indicates that a request parameter does not comply with the associated constraints. | 400 |
| NotFound | Indicates that the requested resource does not exist. | 404 |

# Examples

## Sample Request

```
http://sns.us-east-1.amazonaws.com/
?TopicArn=arn%3Aaws%3Asns%3Aus-east-1%3A123456789012%3AMy-Topic
&Action=ListSubscriptionsByTopic
&SignatureVersion=2
&SignatureMethod=HmacSHA256
&Timestamp=2010-03-31T12%3A00%3A00.000Z
&AWSAccessKeyId=(AWS Access Key ID)
&Signature=SZmBxEPqfs9R7xxhSt6C1b7PnOEvg%2BSVyyMYJfLRFCA%3D
```

## Sample Response

```
<ListSubscriptionsByTopicResponse xmlns="http://sns.amazonaws.com/doc/2010-03-
31/">
  <ListSubscriptionsByTopicResult>
    <Subscriptions>
      <member>
        <TopicArn>arn:aws:sns:us-east-1:123456789012:My-Topic</TopicArn>
        <Protocol>email</Protocol>
        <SubscriptionArn>arn:aws:sns:us-east-1:123456789012:My-Topic:80289ba6-
0fd4-4079-afb4-ce8c8260f0ca</SubscriptionArn>
        <Owner>123456789012</Owner>
        <Endpoint>example@amazon.com</Endpoint>
      </member>
    </Subscriptions>
  </ListSubscriptionsByTopicResult>
  <ResponseMetadata>
    <RequestId>b9275252-3774-11df-9540-99d0768312d3</RequestId>
  </ResponseMetadata>
</ListSubscriptionsByTopicResponse>
```

# ListTopics

## Description

The ListTopics action returns a list of the requester's topics. Each call returns a limited list of topics, up to 100. If there are more topics, a NextToken is also returned. Use the NextToken parameter in a new ListTopics call to get further results.

## Request Parameters

For information about the common parameters that all actions use, see Common Query Parameters (p. 42).

| Name | Description | Required |
|------|-------------|----------|
| *NextToken* | Token returned by the previous ListTopics request.<br>Type: String | No |

## Response Elements

The following elements come wrapped in a `ListTopicsResult` structure.

| Name | Description |
|------|-------------|
| NextToken | Token to pass along to the next ListTopics request. This element is returned if there are additional topics to retrieve.<br>Type: String |
| Topics | A list of topic ARNs.<br>Type: Topic (p. 40) list |

## Errors

For information about the common errors that all actions use, see Common Errors (p. 44).

| Error | Description | HTTP Status Code |
|-------|-------------|------------------|
| AuthorizationError | Indicates that the user has been denied access to the requested resource. | 403 |
| InternalError | Indicates an internal service error. | 500 |
| InvalidParameter | Indicates that a request parameter does not comply with the associated constraints. | 400 |

# Examples

## Sample Request

```
http://sns.us-east-1.amazonaws.com/
?Action=ListTopics
&SignatureVersion=2
&SignatureMethod=HmacSHA256
&Timestamp=2010-03-31T12%3A00%3A00.000Z
&AWSAccessKeyId=(AWS Access Key ID)
&Signature=tPg1qKNTNVPydnL3Yx5Fqm2O9GxCr9vh3EF5r9%2F5%2BJs%3D
```

## Sample Response

```
<ListTopicsResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">
  <ListTopicsResult>
    <Topics>
      <member>
        <TopicArn>arn:aws:sns:us-east-1:123456789012:My-Topic</TopicArn>
      </member>
    </Topics>
  </ListTopicsResult>
  <ResponseMetadata>
    <RequestId>3f1478c7-33a9-11df-9540-99d0768312d3</RequestId>
  </ResponseMetadata>
</ListTopicsResponse>
```

# Publish

## Description

The Publish action sends a message to all of a topic's subscribed endpoints. When a messageId is returned, the message has been saved and Amazon SNS will attempt to deliver it to the topic's subscribers shortly. The format of the outgoing message to each subscribed endpoint depends on the notification protocol selected.

## Request Parameters

For information about the common parameters that all actions use, see Common Query Parameters (p. 42).

| Name | Description | Required |
|------|-------------|----------|
| *Message* | The message you want to send to the topic.<br><br>If you want to send the same message to all transport protocols, include the text of the message as a String value.<br><br>If you want to send different messages for each transport protocol, set the value of the `MessageStructure` parameter to `json` and use a JSON object for the `Message` parameter. See the Examples section for the format of the JSON object.<br><br>Constraints: Messages must be UTF-8 encoded strings at most 32 KB in size (32768 bytes, not 32768 characters).<br><br>JSON-specific constraints:<br><br>• Keys in the JSON object that correspond to supported transport protocols must have simple JSON string values.<br>• The values will be parsed (unescaped) before they are used in outgoing messages.<br>• Outbound notifications are JSON encoded (meaning that the characters will be reescaped for sending).<br>• Values have a minimum length of 0 (the empty string, "", is allowed).<br>• Values have a maximum length bounded by the overall message size (so, including multiple protocols may limit message sizes).<br>• Non-string values will cause the key to be ignored.<br>• Keys that do not correspond to supported transport protocols will be ignored.<br>• Duplicate keys are not allowed.<br>• Failure to parse or validate any key or value in the message will cause the Publish call to return an error (no partial delivery).<br><br>Type: String | Yes |

| Name | Description | Required |
|---|---|---|
| *MessageStructure* | Set `MessageStructure` to `json` if you want to send a different message for each protocol. For example, using one publish action, you can send a short message to your SMS subscribers and a longer message to your email subscribers. If you set `MessageStructure` to `json`, the value of the `Message` parameter must:<br><br>• be a syntactically valid JSON object; and<br>• contain at least a top-level JSON key of "default" with a value that is a string.<br><br>You can define other top-level keys that define the message you want to send to a specific transport protocol (e.g. "http").<br><br>For information about sending different messages for each protocol using the AWS Management Console, go to Create Different Messages for Each Protocol in the *Amazon Simple Notification Service Getting Started Guide*.<br><br>Valid value: `json`<br>Type: String | No |
| *Subject* | Optional parameter to be used as the "Subject" line of when the message is delivered to e-mail endpoints. This field will also be included, if present, in the standard JSON messages delivered to other endpoints.<br><br>Constraints: Subjects must be ASCII text that begins with a letter, number or punctuation mark; must not include line breaks or control characters; and must be less than 100 characters long.<br>Type: String | No |
| *TopicArn* | The topic you want to publish to.<br>Type: String | Yes |

# Response Elements

The following elements come wrapped in a `PublishResult` structure.

| Name | Description |
|---|---|
| MessageId | Unique identifier assigned to the published message.<br><br>Length Constraint: Maximum 100 characters<br>Type: String |

# Errors

For information about the common errors that all actions use, see Common Errors (p. 44).

| Error | Description | HTTP Status Code |
|---|---|---|
| AuthorizationError | Indicates that the user has been denied access to the requested resource. | 403 |
| InternalError | Indicates an internal service error. | 500 |
| InvalidParameter | Indicates that a request parameter does not comply with the associated constraints. | 400 |
| NotFound | Indicates that the requested resource does not exist. | 404 |

# Examples

## Sample Request

```
The following example publishes the same message to all protocols:

http://sns.us-east-1.amazonaws.com/
?Subject=My%20first%20message
&TopicArn=arn%3Aaws%3Asns%3Aus-east-1%3A698519295917%3AMy-Topic
&Message=Hello%20world%21
&Action=Publish
&SignatureVersion=2
&SignatureMethod=HmacSHA256
&Timestamp=2010-03-31T12%3A00%3A00.000Z
&AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE
&Signature=9GZysQ4Jpnz%2BHklqM7VFTvEcjR2LIUtn6jW47054xxE%3D

Use the following JSON object format for the Message parameter to send differ
ent messages to each protocol (linebreaks added for readability):
  {
"default" : "some message",
"email" : "some email message",
"email-json" : "some email-json message",
"http" : "some http message",
"https" : "some https message",
"sqs" : "some sqs message"
  }
```

## Sample Response

```
<PublishResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">
  <PublishResult>
    <MessageId>94f20ce6-13c5-43a0-9a9e-ca52d816e90b</MessageId>
```

```
   </PublishResult>
   <ResponseMetadata>
     <RequestId>f187a3c1-376f-11df-8963-01868b7c937a</RequestId>
   </ResponseMetadata>
</PublishResponse>
```

# RemovePermission

## Description

The RemovePermission action removes a statement from a topic's access control policy.

## Request Parameters

For information about the common parameters that all actions use, see Common Query Parameters (p. 42).

| Name | Description | Required |
|------|-------------|----------|
| *Label* | The unique label of the statement you want to remove.<br>Type: String | Yes |
| *TopicArn* | The ARN of the topic whose access control policy you wish to modify.<br>Type: String | Yes |

## Errors

For information about the common errors that all actions use, see Common Errors (p. 44).

| Error | Description | HTTP Status Code |
|-------|-------------|------------------|
| AuthorizationError | Indicates that the user has been denied access to the requested resource. | 403 |
| InternalError | Indicates an internal service error. | 500 |
| InvalidParameter | Indicates that a request parameter does not comply with the associated constraints. | 400 |
| NotFound | Indicates that the requested resource does not exist. | 404 |

## Examples

### Sample Request

```
http://sns.us-east-1.amazonaws.com/
?TopicArn=arn%3Aaws%3Asns%3Aus-east-1%3A123456789012%3AMy-Test
&Label=NewPermission
&Action=RemovePermission
&SignatureVersion=2
&SignatureMethod=HmacSHA256
&Timestamp=2010-03-31T12%3A00%3A00.000Z
&AWSAccessKeyId=(AWS Access Key ID)
&Signature=N1abwRY9i7zaSQmbAlm71pPf9EEFOqNbQL1alzw2yCg%3D
```

## Sample Response

```
<RemovePermissionResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">
  <ResponseMetadata>
    <RequestId>d170b150-33a8-11df-995a-2d6fbe836cc1</RequestId>
  </ResponseMetadata>
</RemovePermissionResponse>
```

# SetSubscriptionAttributes

## Description

The SetSubscriptionAttributes action allows a subscription owner to set an attribute of the topic to a new value.

## Request Parameters

For information about the common parameters that all actions use, see Common Query Parameters (p. 42).

| Name | Description | Required |
|---|---|---|
| *AttributeName* | The name of the attribute you want to set. Only a subset of the subscriptions attributes are mutable.<br><br>Valid values: `DeliveryPolicy`<br>Type: String | Yes |
| *AttributeValue* | The new value for the attribute in JSON format.<br>Type: String | Yes |
| *SubscriptionArn* | The ARN of the subscription to modify.<br>Type: String | Yes |

## Errors

For information about the common errors that all actions use, see Common Errors (p. 44).

| Error | Description | HTTP Status Code |
|---|---|---|
| `AuthorizationError` | Indicates that the user has been denied access to the requested resource. | 403 |
| `InternalError` | Indicates an internal service error. | 500 |
| `InvalidParameter` | Indicates that a request parameter does not comply with the associated constraints. | 400 |
| `NotFound` | Indicates that the requested resource does not exist. | 404 |

## Examples

## Sample Request

```
The following example sets the delivery policy to 5 total retries

  http://sns.us-east-1.amazonaws.com/
```

```
  ?AttributeValue={"healthyRetryPolicy":{"numRetries":5}}
  &SubscriptionArn=arn%3Aaws%3Asns%3Aus-east-1%3A123456789012%3AMy-Top
ic%3A80289ba6-0fd4-4079-afb4-ce8c8260f0ca
  &AttributeName=DeliveryPolicy
  &Action=SetSubscriptionAttributes
  &SignatureVersion=2
  &SignatureMethod=HmacSHA256
  &Timestamp=2010-03-31T12%3A00%3A00.000Z
  &AWSAccessKeyId=(AWS Access Key Id)
  &Signature=mQA3nJI%2BcmAIY7r8HCArGElSqPX5JG4UGzF4yo0RygE%3D

The JSON format for the DeliveryPolicy AttributeValue (linebreaks added for
readability):
{
    "healthyRetryPolicy":
    {
        "minDelayTarget":  <int>,
        "maxDelayTarget": <int>,
        "numRetries": <int>,
        "numMaxDelayRetries": <int>,
        "backoffFunction": "<linear|arithmetic|geometric|exponential>"
    },
    "throttlePolicy":
    {
        "maxReceivesPerSecond": <int>
    }
}
```

## Sample Response

```
<SetSubscriptionAttributesResponse xmlns="http://sns.amazonaws.com/doc/2010-03-
31/">
  <ResponseMetadata>
    <RequestId>a8763b99-33a7-11df-a9b7-05d48da6f042</RequestId>
  </ResponseMetadata>
</SetSubscriptionAttributesResponse>
```

# SetTopicAttributes

## Description

The SetTopicAttributes action allows a topic owner to set an attribute of the topic to a new value.

## Request Parameters

For information about the common parameters that all actions use, see Common Query Parameters (p. 42).

| Name | Description | Required |
|------|-------------|----------|
| *AttributeName* | The name of the attribute you want to set. Only a subset of the topic's attributes are mutable.<br><br>Valid values: `Policy` \| `DisplayName` \| `DeliveryPolicy`<br>Type: String | Yes |
| *AttributeValue* | The new value for the attribute.<br>Type: String | Yes |
| *TopicArn* | The ARN of the topic to modify.<br>Type: String | Yes |

## Errors

For information about the common errors that all actions use, see Common Errors (p. 44).

| Error | Description | HTTP Status Code |
|-------|-------------|------------------|
| `AuthorizationError` | Indicates that the user has been denied access to the requested resource. | 403 |
| `InternalError` | Indicates an internal service error. | 500 |
| `InvalidParameter` | Indicates that a request parameter does not comply with the associated constraints. | 400 |
| `NotFound` | Indicates that the requested resource does not exist. | 404 |

## Examples

## Sample Request

```
The following example sets the DisplayName attribute to MyTopicName

  http://sns.us-east-1.amazonaws.com/
  ?AttributeValue=MyTopicName
```

```
  &TopicArn=arn%3Aaws%3Asns%3Aus-east-1%3A123456789012%3AMy-Topic
  &AttributeName=DisplayName
  &Action=SetTopicAttributes
  &SignatureVersion=2
  &SignatureMethod=HmacSHA256
  &Timestamp=2010-03-31T12%3A00%3A00.000Z
  &AWSAccessKeyId=(AWS Access Key Id)
  &Signature=mQA3nJI%2BcmAIY7r8HCArGElSqPX5JG4UGzF4yo0RygE%3D

The following example sets the delivery policy to 5 total retries

  http://sns.us-east-1.amazonaws.com/
  ?AttributeValue={"http":{"defaultHealthyRetryPolicy":{"numRetries":5}}}
  &TopicArn=arn%3Aaws%3Asns%3Aus-east-1%3A123456789012%3AMy-Topic
  &AttributeName=DeliveryPolicy
  &Action=SetTopicAttributes
  &SignatureVersion=2
  &SignatureMethod=HmacSHA256
  &Timestamp=2010-03-31T12%3A00%3A00.000Z
  &AWSAccessKeyId=(AWS Access Key Id)
  &Signature=mQA3nJI%2BcmAIY7r8HCArGElSqPX5JG4UGzF4yo0RygE%3D

The JSON format for the DeliveryPolicy AttributeValue (linebreaks added for
readability):
{
    "http": {
    "defaultHealthyRetryPolicy":
        {
        "minDelayTarget":  <int>,
        "maxDelayTarget": <int>,
        "numRetries": <int>,
        "numMaxDelayRetries": <int>,
        "backoffFunction": "<linear|arithmetic|geometric|exponential>"
        },
    "disableSubscriptionOverrides": <boolean>,
    "defaultThrottlePolicy":
        {
        "maxReceivesPerSecond": <int>
        }
    }
}
```

## Sample Response

```
<SetTopicAttributesResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">
  <ResponseMetadata>
    <RequestId>a8763b99-33a7-11df-a9b7-05d48da6f042</RequestId>
  </ResponseMetadata>
</SetTopicAttributesResponse>
```

# Subscribe

## Description

The Subscribe action prepares to subscribe an endpoint by sending the endpoint a confirmation message. To actually create a subscription, the endpoint owner must call the ConfirmSubscription action with the token from the confirmation message. Confirmation tokens are valid for three days.

## Request Parameters

For information about the common parameters that all actions use, see .

| Name | Description | Required |
|------|-------------|----------|
| *Endpoint* | The endpoint that you want to receive notifications. Endpoints vary by protocol:<br><br>• For the http protocol, the endpoint is an URL beginning with "http://"<br>• For the https protocol, the endpoint is a URL beginning with "https://"<br>• For the email protocol, the endpoint is an e-mail address<br>• For the email-json protocol, the endpoint is an e-mail address<br>• For the sms protocol, the endpoint is a phone number of an SMS-enabled device<br>• For the sqs protocol, the endpoint is the ARN of an Amazon SQS queue<br><br>Type: String | Yes |
| *Protocol* | The protocol you want to use. Supported protocols include:<br><br>• http -- delivery of JSON-encoded message via HTTP POST<br>• https -- delivery of JSON-encoded message via HTTPS POST<br>• email -- delivery of message via SMTP<br>• email-json -- delivery of JSON-encoded message via SMTP<br>• sms -- delivery of message via SMS<br>• sqs -- delivery of JSON-encoded message to an Amazon SQS queue<br><br>Type: String | Yes |
| *TopicArn* | The ARN of topic you want to subscribe to.<br>Type: String | Yes |

## Response Elements

The following elements come wrapped in a `SubscribeResult` structure.

| Name | Description |
|------|-------------|
| SubscriptionArn | The ARN of the subscription, if the service was able to create a subscription immediately (without requiring endpoint owner confirmation).<br>Type: String |

# Errors

For information about the common errors that all actions use, see Common Errors (p. 44).

| Error | Description | HTTP Status Code |
|---|---|---|
| AuthorizationError | Indicates that the user has been denied access to the requested resource. | 403 |
| InternalError | Indicates an internal service error. | 500 |
| InvalidParameter | Indicates that a request parameter does not comply with the associated constraints. | 400 |
| NotFound | Indicates that the requested resource does not exist. | 404 |
| SubscriptionLimitExceeded | Indicates that the customer already owns the maximum allowed number of subscriptions. | 403 |

# Examples

## Sample Request

```
http://sns.us-east-1.amazonaws.com/
?TopicArn=arn%3Aaws%3Asns%3Aus-east-1%3A123456789012%3AMy-Topic
&Endpoint=example%40amazon.com
&Protocol=email
&Action=Subscribe
&SignatureVersion=2
&SignatureMethod=HmacSHA256
&Timestamp=2010-03-31T12%3A00%3A00.000Z
&AWSAccessKeyId=(AWS Access Key ID)
&Signature=1%2FeGaDphxXq%2Fa89x6HvKh%2Fc1yLGXzuhS7vS2MslToDM%3D
```

## Sample Response

```
<SubscribeResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">
  <SubscribeResult>
    <SubscriptionArn>pending confirmation</SubscriptionArn>
  </SubscribeResult>
  <ResponseMetadata>
    <RequestId>a169c740-3766-11df-8963-01868b7c937a</RequestId>
  </ResponseMetadata>
</SubscribeResponse>
```

# Unsubscribe

## Description

The Unsubscribe action deletes a subscription. If the subscription requires authentication for deletion, only the owner of the subscription or the its topic's owner can unsubscribe, and an AWS signature is required. If the Unsubscribe call does not require authentication and the requester is not the subscription owner, a final cancellation message is delivered to the endpoint, so that the endpoint owner can easily resubscribe to the topic if the Unsubscribe request was unintended.

## Request Parameters

For information about the common parameters that all actions use, see Common Query Parameters (p. 42).

| Name | Description | Required |
|------|-------------|----------|
| *SubscriptionArn* | The ARN of the subscription to be deleted.<br>Type: String | Yes |

## Errors

For information about the common errors that all actions use, see Common Errors (p. 44).

| Error | Description | HTTP Status Code |
|-------|-------------|------------------|
| AuthorizationError | Indicates that the user has been denied access to the requested resource. | 403 |
| InternalError | Indicates an internal service error. | 500 |
| InvalidParameter | Indicates that a request parameter does not comply with the associated constraints. | 400 |
| NotFound | Indicates that the requested resource does not exist. | 404 |

## Examples

### Sample Request

```
http://sns.us-east-1.amazonaws.com/
 ?SubscriptionArn=arn%3Aaws%3Asns%3Aus-east-1%3A123456789012%3AMy-Top
ic%3A80289ba6-0fd4-4079-afb4-ce8c8260f0ca
 &Action=Unsubscribe
 &SignatureVersion=2
 &SignatureMethod=HmacSHA256
 &Timestamp=2010-03-31T12%3A00%3A00.000Z
 &AWSAccessKeyId=(AWS Access Key ID)
 &Signature=e8IwhPzuWeMvPDVrN7jUVxasd3Wv2LuO8x6rE23VCv8%3D
```

## Sample Response

```
<UnsubscribeResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">
  <ResponseMetadata>
    <RequestId>18e0ac39-3776-11df-84c0-b93cc1666b84</RequestId>
  </ResponseMetadata>
</UnsubscribeResponse>
```

# Data Types

The Amazon Simple Notification Service API contains several data types that various actions use. This section describes each data type in detail.

> **Note**
>
> The order of each element in the response is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

# ConfirmSubscriptionResult

## Description

## Contents

| Name | Description |
|------|-------------|
| SubscriptionArn | The ARN of the created subscription.<br>Type: String |

# CreateTopicResult

## Description

## Contents

| Name | Description |
|------|-------------|
| TopicArn | The Amazon Resource Name (ARN) assigned to the created topic.<br>Type: String |

# GetSubscriptionAttributesResult

## Description

## Contents

| Name | Description |
|------|-------------|
| Attributes | A map of the subscription's attributes. Attributes in this map include the following:<br><br>• SubscriptionArn -- the subscription's ARN<br>• TopicArn -- the topic ARN which the subscription is associated with<br>• Owner -- the AWS account ID of the subscription's owner<br>• ConfirmationWasAuthenticated -- True if the subscription confirmation request was authenticated<br>• DeliveryPolicy -- the JSON serialization of the subscription's delivery policy<br>• EffectiveDeliveryPolicy -- the JSON serialization of the effective delivery policy which takes into the topic delivery policy and account system defaults<br><br>Type: String to String map |

# GetTopicAttributesResult

## Description

## Contents

| Name | Description |
|------|-------------|
| Attributes | A map of the topic's attributes. Attributes in this map include the following: <br><br>• TopicArn -- the topic's ARN <br>• Owner -- the AWS account ID of the topic's owner <br>• Policy -- the JSON serialization of the topic's access control policy <br>• DisplayName -- the human-readable name used in the "From" field for notifications to email and email-json endpoints <br>• SubscriptionsPending -- the number of subscriptions pending confirmation on this topic <br>• SubscriptionsConfirmed -- the number of confirmed subscriptions on this topic <br>• SubscriptionsDeleted -- the number of deleted subscriptions on this topic <br>• DeliveryPolicy -- the JSON serialization of the topic's delivery policy <br>• EffectiveDeliveryPolicy -- the JSON serialization of the effective delivery policy which takes into account system defaults <br><br>Type: String to String map |

# ListSubscriptionsByTopicResult

## Description

## Contents

| Name | Description |
|------|-------------|
| NextToken | Token to pass along to the next ListSubscriptionsByTopic request. This element is returned if there are more subscriptions to retrieve. <br>Type: String |
| Subscriptions | A list of subscriptions. <br>Type: Subscription (p. 40) list |

# ListSubscriptionsResult

## Description

## Contents

| Name | Description |
| --- | --- |
| NextToken | Token to pass along to the next ListSubscriptions request. This element is returned if there are more subscriptions to retrieve.<br>Type: String |
| Subscriptions | A list of subscriptions.<br>Type: Subscription (p. 40) list |

# ListTopicsResult

## Description

## Contents

| Name | Description |
| --- | --- |
| NextToken | Token to pass along to the next ListTopics request. This element is returned if there are additional topics to retrieve.<br>Type: String |
| Topics | A list of topic ARNs.<br>Type: Topic (p. 40) list |

# PublishResult

## Description

## Contents

| Name | Description |
| --- | --- |
| MessageId | Unique identifier assigned to the published message.<br><br>Length Constraint: Maximum 100 characters<br>Type: String |

# SubscribeResult

## Description

## Contents

| Name | Description |
|------|-------------|
| SubscriptionArn | The ARN of the subscription, if the service was able to create a subscription immediately (without requiring endpoint owner confirmation).<br>Type: String |

# Subscription

## Description

A wrapper type for the attributes of an SNS subscription.

## Contents

| Name | Description |
|------|-------------|
| Endpoint | The subscription's endpoint (format depends on the protocol).<br>Type: String |
| Owner | The subscription's owner.<br>Type: String |
| Protocol | The subscription's protocol.<br>Type: String |
| SubscriptionArn | The subscription's ARN.<br>Type: String |
| TopicArn | The ARN of the subscription's topic.<br>Type: String |

# Topic

## Description

A wrapper type for the topic's Amazon Resource Name (ARN). To retrieve a topic's attributes, use GetTopicAttributes.

# Contents

| Name | Description |
|---|---|
| `TopicArn` | The topic's ARN.<br>Type: String |

# Common Query Parameters

This section lists the request parameters that all actions use. Any action-specific parameters are listed in the topic for the action.

| Parameter Name | Description | Required |
|---|---|---|
| *Action* | The action to perform.<br>Default: None<br>Type: String | Yes |
| *AuthParams* | The parameters required to authenticate a query request.<br>Contains:<br>AWSAccessKeyID<br>SignatureVersion<br>Timestamp<br>Signature<br>Default: None | Conditional |
| *AWSAccessKeyId* | The Access Key ID corresponding to the AWS Secret Access Key you used to sign the request.<br>Default: None<br>Type: String | Yes |
| *Expires* | The date and time at which the request signature expires, in the format YYYY-MM-DDThh:mm:ssZ, as specified in the ISO 8601 standard.<br>Condition: Requests must include either *Timestamp* or *Expires*, but not both.<br>Default: None<br>Type: String | Conditional |

| Parameter Name | Description | Required |
|---|---|---|
| *SecurityToken* | The temporary security token obtained through a call to AWS Security Token Service. For a list of services that support AWS Security Token Service, go to Using Temporary Security Credentials to Access AWS in *Using Temporary Security Credentials*.<br>Default: None<br>Type: String | |
| *Signature* | The digital signature you created for the request. Refer to the service's developer documentation for information about how to generate the signature.<br>Default: None<br>Type: String | Yes |
| *SignatureMethod* | The hash algorithm you used to create the request signature.<br>Default: None<br>Valid Values: `HmacSHA256` \| `HmacSHA1`.<br>Type: String | Yes |
| *SignatureVersion* | The signature version you use to sign the request. Set this to the value recommended in your product-specific documentation on security.<br>Default: None<br>Type: String | Yes |
| *Timestamp* | The date and time the request was signed, in the format YYYY-MM-DDThh:mm:ssZ, as specified in the ISO 8601 standard.<br>Condition: Requests must include either *Timestamp* or *Expires*, but not both.<br>Default: None<br>Type: String | Conditional |
| *Version* | The API version to use, in the format YYYY-MM-DD.<br>Default: None<br>Type: String | Yes |

# Common Errors

This section lists the common errors that all actions return. Any action-specific errors are listed in the topic for the action.

| Error | Description | HTTP Status Code |
|-------|-------------|------------------|
| IncompleteSignature | The request signature does not conform to AWS standards. | 400 |
| InternalFailure | The request processing has failed due to some unknown error, exception or failure. | 500 |
| InvalidAction | The action or operation requested is invalid. | 400 |
| InvalidClientTokenId | The X.509 certificate or AWS Access Key ID provided does not exist in our records. | 403 |
| InvalidParameterCombination | Parameters that must not be used together were used together. | 400 |
| InvalidParameterValue | A bad or out-of-range value was supplied for the input parameter. | 400 |
| InvalidQueryParameter | AWS query string is malformed, does not adhere to AWS standards. | 400 |
| MalformedQueryString | The query string is malformed. | 404 |
| MissingAction | The request is missing an action or operation parameter. | 400 |
| MissingAuthenticationToken | Request must contain either a valid (registered) AWS Access Key ID or X.509 certificate. | 403 |
| MissingParameter | An input parameter that is mandatory for processing the request is not supplied. | 400 |

| Error | Description | HTTP Status Code |
|---|---|---|
| OptInRequired | The AWS Access Key ID needs a subscription for the service. | 403 |
| RequestExpired | Request is past expires date or the request date (either with 15 minute padding), or the request date occurs more than 15 minutes in the future. | 400 |
| ServiceUnavailable | The request has failed due to a temporary failure of the server. | 503 |
| Throttling | Request was denied due to request throttling. | 400 |