
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 (Amazon SNS) 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 see <http://aws.amazon.com/sns>. For detailed information about Amazon SNS features and their associated API calls, see the [Amazon SNS Developer Guide](#).

We also provide SDKs that enable you to access Amazon SNS from your preferred programming language. The SDKs contain functionality that automatically takes care of tasks such as: cryptographically signing your service requests, retrying requests, and handling error responses. For a list of available SDKs, go to [Tools for Amazon Web Services](#).

This document was last updated on June 11, 2014.

Actions

The following actions are supported:

- [AddPermission](#) (p. 3)
- [ConfirmSubscription](#) (p. 5)
- [CreatePlatformApplication](#) (p. 7)
- [CreatePlatformEndpoint](#) (p. 10)
- [CreateTopic](#) (p. 13)
- [DeleteEndpoint](#) (p. 15)
- [DeletePlatformApplication](#) (p. 17)
- [DeleteTopic](#) (p. 19)
- [GetEndpointAttributes](#) (p. 21)
- [GetPlatformApplicationAttributes](#) (p. 24)
- [GetSubscriptionAttributes](#) (p. 26)
- [GetTopicAttributes](#) (p. 28)
- [ListEndpointsByPlatformApplication](#) (p. 31)
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- [ListSubscriptions](#) (p. 37)
- [ListSubscriptionsByTopic](#) (p. 39)
- [ListTopics](#) (p. 41)
- [Publish](#) (p. 43)
- [RemovePermission](#) (p. 48)
- [SetEndpointAttributes](#) (p. 50)
- [SetPlatformApplicationAttributes](#) (p. 52)
- [SetSubscriptionAttributes](#) (p. 54)
- [SetTopicAttributes](#) (p. 56)
- [Subscribe](#) (p. 59)
- [Unsubscribe](#) (p. 62)

AddPermission

Description

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 Parameters \(p. 74\)](#).

AWSAccountIds.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.

Type: String list

Required: Yes

ActionName.member.N

The action you want to allow for the specified principal(s).

Valid values: any Amazon SNS action name.

Type: String list

Required: Yes

Label

A unique identifier for the new policy statement.

Type: String

Required: Yes

TopicArn

The ARN of the topic whose access control policy you wish to modify.

Type: String

Required: Yes

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotFound

Indicates that the requested resource does not exist.

HTTP Status Code: 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%2FKp13pjndwJ7rr1sZszy6MZM1OhRBCHx1ZaZFiw%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

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 Parameters \(p. 74\)](#).

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 requires AWS authentication.

Type: String

Required: No

Token

Short-lived token sent to an endpoint during the `Subscribe` action.

Type: String

Required: Yes

TopicArn

The ARN of the topic for which you wish to confirm a subscription.

Type: String

Required: Yes

Response Elements

The following element is returned in a structure named `ConfirmSubscriptionResult`.

SubscriptionArn

The ARN of the created subscription.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotFound

Indicates that the requested resource does not exist.

HTTP Status Code: 404

SubscriptionLimitExceeded

Indicates that the customer already owns the maximum allowed number of subscriptions.

HTTP Status Code: 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>
```

CreatePlatformApplication

Description

Creates a platform application object for one of the supported push notification services, such as APNS and GCM, to which devices and mobile apps may register. You must specify `PlatformPrincipal` and `PlatformCredential` attributes when using the `CreatePlatformApplication` action. The `PlatformPrincipal` is received from the notification service. For APNS/APNS_SANDBOX, `PlatformPrincipal` is "SSL certificate". For GCM, `PlatformPrincipal` is not applicable. For ADM, `PlatformPrincipal` is "client id". The `PlatformCredential` is also received from the notification service. For APNS/APNS_SANDBOX, `PlatformCredential` is "private key". For GCM, `PlatformCredential` is "API key". For ADM, `PlatformCredential` is "client secret". The `PlatformApplicationArn` that is returned when using `CreatePlatformApplication` is then used as an attribute for the `CreatePlatformEndpoint` action. For more information, see [Using Amazon SNS Mobile Push Notifications](#).

Request Parameters

For information about the common parameters that all actions use, see [Common Parameters \(p. 74\)](#).

Attributes.entry.N

For a list of attributes, see [SetPlatformApplicationAttributes](#)

Type: String to String map

Required: Yes

Name

Application names must be made up of only uppercase and lowercase ASCII letters, numbers, underscores, hyphens, and periods, and must be between 1 and 256 characters long.

Type: String

Required: Yes

Platform

The following platforms are supported: ADM (Amazon Device Messaging), APNS (Apple Push Notification Service), APNS_SANDBOX, and GCM (Google Cloud Messaging).

Type: String

Required: Yes

Response Elements

The following element is returned in a structure named `CreatePlatformApplicationResult`.

PlatformApplicationArn

`PlatformApplicationArn` is returned.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

Examples

Sample Request

```
POST http://sns.us-west-2.amazonaws.com/ HTTP/1.1
...
Attributes.entry.2.key=PlatformPrincipal
&SignatureMethod=HmacSHA256
&Attributes.entry.1.value=AIZaSyClE2lcV2zEKTLYYo645zfk2jhQPfeyxDo
&Attributes.entry.2.value=There+is+no+principal+for+GCM
&AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE
&Signature=82sHzg1Wfbgisw3i%2BHA2OgBmRktsqUKFinknkq3u%2FQ4%3D
&Timestamp=2013-07-01T15%3A49%3A50.354Z
&Name=gcmpushapp
&Attributes.entry.1.key=PlatformCredential
&Action=CreatePlatformApplication
&Version=2010-03-31
&SignatureVersion=2
&Platform=GCM
```

Sample Response

```
HTTP/1.1 200 OK
...
<CreatePlatformApplicationResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">
  <CreatePlatformApplicationResult>
    <PlatformApplicationArn>arn:aws:sns:us-west-2:123456789012:app/GCM/gcmpushapp</PlatformApplicationArn>
  </CreatePlatformApplicationResult>
  <ResponseMetadata>
    <RequestId>b6f0e78b-e9d4-5a0e-b973-adc04e8a4ff9</RequestId>
  </ResponseMetadata>
</CreatePlatformApplicationResponse>
```

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Examples



CreatePlatformEndpoint

Description

Creates an endpoint for a device and mobile app on one of the supported push notification services, such as GCM and APNS. `CreatePlatformEndpoint` requires the `PlatformApplicationArn` that is returned from `CreatePlatformApplication`. The `EndpointArn` that is returned when using `CreatePlatformEndpoint` can then be used by the `Publish` action to send a message to a mobile app or by the `Subscribe` action for subscription to a topic. The `CreatePlatformEndpoint` action is idempotent, so if the requester already owns an endpoint with the same device token and attributes, that endpoint's ARN is returned without creating a new endpoint. For more information, see [Using Amazon SNS Mobile Push Notifications](#).

When using `CreatePlatformEndpoint` with Baidu, two attributes must be provided: `ChannelId` and `UserId`. The token field must also contain the `ChannelId`. For more information, see [Creating an Amazon SNS Endpoint for Baidu](#).

Request Parameters

For information about the common parameters that all actions use, see [Common Parameters \(p. 74\)](#).

Attributes.entry.N

For a list of attributes, see [SetEndpointAttributes](#).

Type: String to String map

Required: No

CustomUserData

Arbitrary user data to associate with the endpoint. Amazon SNS does not use this data. The data must be in UTF-8 format and less than 2KB.

Type: String

Required: No

PlatformApplicationArn

`PlatformApplicationArn` returned from `CreatePlatformApplication` is used to create a an endpoint.

Type: String

Required: Yes

Token

Unique identifier created by the notification service for an app on a device. The specific name for `Token` will vary, depending on which notification service is being used. For example, when using APNS as the notification service, you need the device token. Alternatively, when using GCM or ADM, the device token equivalent is called the registration ID.

Type: String

Required: Yes

Response Elements

The following element is returned in a structure named `CreatePlatformEndpointResult`.

EndpointArn

EndpointArn returned from CreateEndpoint action.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotFound

Indicates that the requested resource does not exist.

HTTP Status Code: 404

Examples

Sample Request

```
POST http://sns.us-west-2.amazonaws.com/ HTTP/1.1
...
PlatformApplicationArn=arn%3Aaws%3Asns%3Aus-west-
2%3A123456789012%3Aapp%2FGCM%2Fgcmpushapp
&Action=CreatePlatformEndpoint
&SignatureMethod=HmacSHA256
&CustomUserData=UserId%3D27576823
&AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE
&Token=APA91bGi7fFackClxj1qT66VYEucGHochmf1VQAr9k...jsM0PKPxKhd
dCzx6paEsyay9Zn3D4wNUJb8m6HZrBEXAMPLE
&SignatureVersion=2
&Version=2010-03-31
&Signature=Rg5vXBS6OfgPtWkt1u32p1w14uiGh%2BKOicvXNWTEz2w%3D
&Timestamp=2013-07-01T15%3A49%3A50.598Z
```

Sample Response

```
HTTP/1.1 200 OK
...
<CreatePlatformEndpointResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">
  <CreatePlatformEndpointResult>
    <EndpointArn>arn:aws:sns:us-west-2:123456789012:endpoint/GCM/gcmpush
app/5e3e9847-3183-3f18-a7e8-671c3a57d4b3</EndpointArn>
  </CreatePlatformEndpointResult>
  <ResponseMetadata>
    <RequestId>6613341d-3e15-53f7-bf3c-7e56994ba278</RequestId>
  </ResponseMetadata>
</CreatePlatformEndpointResponse>
```

CreateTopic

Description

Creates a topic to which notifications can be published. Users can create at most 3000 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 is returned without creating a new topic.

Request Parameters

For information about the common parameters that all actions use, see [Common Parameters \(p. 74\)](#).

Name

The name of the topic you want to create.

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.

Type: String

Required: Yes

Response Elements

The following element is returned in a structure named `CreateTopicResult`.

TopicArn

The Amazon Resource Name (ARN) assigned to the created topic.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

TopicLimitExceeded

Indicates that the customer already owns the maximum allowed number of topics.

HTTP Status Code: 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>
```

DeleteEndpoint

Description

Deletes the endpoint from Amazon SNS. This action is idempotent. For more information, see [Using Amazon SNS Mobile Push Notifications](#).

Request Parameters

For information about the common parameters that all actions use, see [Common Parameters \(p. 74\)](#).

EndpointArn

EndpointArn of endpoint to delete.

Type: String

Required: Yes

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

Examples

Sample Request

```
POST http://sns.us-west-2.amazonaws.com/ HTTP/1.1
...
Action=DeleteEndpoint
&SignatureMethod=HmacSHA256
&AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE
&EndpointArn=arn%3Aaws%3Asns%3Aus-west-2%3A123456789012%3Aendpoint%2FGCM%2Fgcm
pushapp%2F5e3e9847-3183-3f18-a7e8-671c3a57d4b3
&SignatureVersion=2
&Version=2010-03-31
&Signature=LIc6GI3JbNhmHBEDmSxzZp648XPe5CMeFny%2BTQFtomQ%3D
```

```
&Timestamp=2013-07-01T23%3A00%3A12.456Z
```

Sample Response

```
HTTP/1.1 200 OK
...
<DeleteEndpointResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">
  <ResponseMetadata>
    <RequestId>c1d2b191-353c-5a5f-8969-fbdd3900afa8</RequestId>
  </ResponseMetadata>
</DeleteEndpointResponse>
```

DeletePlatformApplication

Description

Deletes a platform application object for one of the supported push notification services, such as APNS and GCM. For more information, see [Using Amazon SNS Mobile Push Notifications](#).

Request Parameters

For information about the common parameters that all actions use, see [Common Parameters \(p. 74\)](#).

PlatformApplicationArn

PlatformApplicationArn of platform application object to delete.

Type: String

Required: Yes

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

Examples

Sample Request

```
POST http://sns.us-west-2.amazonaws.com/ HTTP/1.1
...
PlatformApplicationArn=arn%3Aaws%3Asns%3Aus-west-
2%3A123456789012%3Aapp%2FGCM%2Fgcmpushapp
&Action=DeletePlatformApplication
&SignatureMethod=HmacSHA256
&AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE
&SignatureVersion=2
&Version=2010-03-31
&Signature=Mh7X%2BQo%2BGpcm5B1IpkovBaRiJCJOqvF1IOYzL62SGrg%3D
```

```
&Timestamp=2013-07-01T23%3A02%3A03.872Z
```

Sample Response

```
HTTP/1.1 200 OK
...
<DeletePlatformApplicationResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">
  <ResponseMetadata>
    <RequestId>097dac18-7a77-5823-a8dd-e65476dcb037</RequestId>
  </ResponseMetadata>
</DeletePlatformApplicationResponse>
```

DeleteTopic

Description

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 does not result in an error.

Request Parameters

For information about the common parameters that all actions use, see [Common Parameters \(p. 74\)](#).

TopicArn

The ARN of the topic you want to delete.

Type: String

Required: Yes

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotFound

Indicates that the requested resource does not exist.

HTTP Status Code: 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%2BcmAIY7r8HCArGE1SqPX5JG4UGzF4yo0RygE%3D
```

Sample Response

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

GetEndpointAttributes

Description

Retrieves the endpoint attributes for a device on one of the supported push notification services, such as GCM and APNS. For more information, see [Using Amazon SNS Mobile Push Notifications](#).

Request Parameters

For information about the common parameters that all actions use, see [Common Parameters \(p. 74\)](#).

EndpointArn

EndpointArn for GetEndpointAttributes input.

Type: String

Required: Yes

Response Elements

The following element is returned in a structure named `GetEndpointAttributesResult`.

Attributes

Attributes include the following:

- `CustomUserData` -- arbitrary user data to associate with the endpoint. Amazon SNS does not use this data. The data must be in UTF-8 format and less than 2KB.
- `Enabled` -- flag that enables/disables delivery to the endpoint. Amazon SNS will set this to false when a notification service indicates to Amazon SNS that the endpoint is invalid. Users can set it back to true, typically after updating `Token`.
- `Token` -- device token, also referred to as a registration id, for an app and mobile device. This is returned from the notification service when an app and mobile device are registered with the notification service.

Type: String to String map

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotFound

Indicates that the requested resource does not exist.

HTTP Status Code: 404

Examples

Sample Request

```
POST http://sns.us-west-2.amazonaws.com/ HTTP/1.1
...
Action=GetEndpointAttributes
&SignatureMethod=HmacSHA256
&AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE
&EndpointArn=arn%3Aaws%3Asns%3Aus-west-2%3A123456789012%3Aendpoint%2FGCM%2Fgcm
pushapp%2F5e3e9847-3183-3f18-a7e8-671c3a57d4b3
&SignatureVersion=2
&Version=2010-03-31
&Signature=%2B2egbEoT4npw3p5H3wiIdzZBoTn4KI3UWmMFyBsHH9c%3D
&Timestamp=2013-07-01T22%3A44%3A56.515Z
```

Sample Response

```
HTTP/1.1 200 OK
...
<GetEndpointAttributesResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">

  <GetEndpointAttributesResult>
    <Attributes>
      <entry>
        <key>Enabled</key>
        <value>>true</value>
      </entry>
      <entry>
        <key>CustomUserData</key>
        <value>UserId=01234567</value>
      </entry>
      <entry>
        <key>Token</key>
        <value>APA91bGi7fFachkC1xj1qT66VYEucGHochmf1VQAr9k...jsM0PKPxKhd
dCzx6paEsyay9Zn3D4wNUJb8m6HZrBEXAMPLE</value>
      </entry>
    </Attributes>
  </GetEndpointAttributesResult>
  <ResponseMetadata>
    <RequestId>6c725a19-a142-5b77-94f9-1055a9ea04e7</RequestId>
  </ResponseMetadata>
</GetEndpointAttributesResponse>
```

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GetPlatformApplicationAttributes

Description

Retrieves the attributes of the platform application object for the supported push notification services, such as APNS and GCM. For more information, see [Using Amazon SNS Mobile Push Notifications](#).

Request Parameters

For information about the common parameters that all actions use, see [Common Parameters \(p. 74\)](#).

PlatformApplicationArn

PlatformApplicationArn for GetPlatformApplicationAttributesInput.

Type: String

Required: Yes

Response Elements

The following element is returned in a structure named `GetPlatformApplicationAttributesResult`.

Attributes

Attributes include the following:

- `EventEndpointCreated` -- Topic ARN to which `EndpointCreated` event notifications should be sent.
- `EventEndpointDeleted` -- Topic ARN to which `EndpointDeleted` event notifications should be sent.
- `EventEndpointUpdated` -- Topic ARN to which `EndpointUpdate` event notifications should be sent.
- `EventDeliveryFailure` -- Topic ARN to which `DeliveryFailure` event notifications should be sent upon Direct Publish delivery failure (permanent) to one of the application's endpoints.

Type: String to String map

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotFound

Indicates that the requested resource does not exist.

HTTP Status Code: 404

Examples

Sample Request

```
POST http://sns.us-west-2.amazonaws.com/ HTTP/1.1
...
PlatformApplicationArn=arn%3Aaws%3Asns%3Aus-west-
2%3A123456789012%3Aapp%2FGCM%2Fgcmpushapp
&Action=GetPlatformApplicationAttributes
&SignatureMethod=HmacSHA256
&AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE
&SignatureVersion=2
&Version=2010-03-31
&Signature=UGMaCq8CCJGSYX09Ehr2VuHIBYSe6WbxkqgMKRslTK4%3D
&Timestamp=2013-07-01T22%3A40%3A50.643Z
```

Sample Response

```
HTTP/1.1 200 OK
...
<GetPlatformApplicationAttributesResponse xmlns="http://sns.amazon
aws.com/doc/2010-03-31/">
  <GetPlatformApplicationAttributesResult>
    <Attributes>
      <entry>
        <key>AllowEndpointPolicies</key>
        <value>>false</value>
      </entry>
    </Attributes>
  </GetPlatformApplicationAttributesResult>
  <ResponseMetadata>
    <RequestId>74848df2-87f6-55ed-890c-c7be80442462</RequestId>
  </ResponseMetadata>
</GetPlatformApplicationAttributesResponse>
```

GetSubscriptionAttributes

Description

Returns all of the properties of a subscription.

Request Parameters

For information about the common parameters that all actions use, see [Common Parameters \(p. 74\)](#).

SubscriptionArn

The ARN of the subscription whose properties you want to get.

Type: String

Required: Yes

Response Elements

The following element is returned in a structure named `GetSubscriptionAttributesResult`.

Attributes

A map of the subscription's attributes. Attributes in this map include the following:

- `SubscriptionArn` -- the subscription's ARN
- `TopicArn` -- the topic ARN that the subscription is associated with
- `Owner` -- the AWS account ID of the subscription's owner
- `ConfirmationWasAuthenticated` -- true if the subscription confirmation request was authenticated
- `DeliveryPolicy` -- the JSON serialization of the subscription's delivery policy
- `EffectiveDeliveryPolicy` -- the JSON serialization of the effective delivery policy that takes into account the topic delivery policy and account system defaults

Type: String to String map

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotFound

Indicates that the requested resource does not exist.

HTTP Status Code: 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=921BGRVq0%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

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 Parameters \(p. 74\)](#).

TopicArn

The ARN of the topic whose properties you want to get.

Type: String

Required: Yes

Response Elements

The following element is returned in a structure named `GetTopicAttributesResult`.

Attributes

A map of the topic's attributes. Attributes in this map include the following:

- `TopicArn` -- the topic's ARN
- `Owner` -- the AWS account ID of the topic's owner
- `Policy` -- the JSON serialization of the topic's access control policy
- `DisplayName` -- the human-readable name used in the "From" field for notifications to email and email-json endpoints
- `SubscriptionsPending` -- the number of subscriptions pending confirmation on this topic
- `SubscriptionsConfirmed` -- the number of confirmed subscriptions on this topic
- `SubscriptionsDeleted` -- the number of deleted subscriptions on this topic
- `DeliveryPolicy` -- the JSON serialization of the topic's delivery policy
- `EffectiveDeliveryPolicy` -- the JSON serialization of the effective delivery policy that takes into account system defaults

Type: String to String map

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotFound

Indicates that the requested resource does not exist.

HTTP Status Code: 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=921BGRVq0%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>
```


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Examples

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

ListEndpointsByPlatformApplication

Description

Lists the endpoints and endpoint attributes for devices in a supported push notification service, such as GCM and APNS. The results for `ListEndpointsByPlatformApplication` are paginated and return a limited list of endpoints, up to 100. If additional records are available after the first page results, then a `NextToken` string will be returned. To receive the next page, you call `ListEndpointsByPlatformApplication` again using the `NextToken` string received from the previous call. When there are no more records to return, `NextToken` will be null. For more information, see [Using Amazon SNS Mobile Push Notifications](#).

Request Parameters

For information about the common parameters that all actions use, see [Common Parameters \(p. 74\)](#).

NextToken

`NextToken` string is used when calling `ListEndpointsByPlatformApplication` action to retrieve additional records that are available after the first page results.

Type: String

Required: No

PlatformApplicationArn

PlatformApplicationArn for `ListEndpointsByPlatformApplicationInput` action.

Type: String

Required: Yes

Response Elements

The following elements are returned in a structure named `ListEndpointsByPlatformApplicationResult`.

Endpoints

Endpoints returned for `ListEndpointsByPlatformApplication` action.

Type: [Endpoint \(p. 66\)](#) list

NextToken

`NextToken` string is returned when calling `ListEndpointsByPlatformApplication` action if additional records are available after the first page results.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotFound

Indicates that the requested resource does not exist.

HTTP Status Code: 404

Examples

Sample Request

```
POST http://sns.us-west-2.amazonaws.com/ HTTP/1.1
...
PlatformApplicationArn=arn%3Aaws%3Asns%3Aus-west-2%3A123456789012%3Aapp%2FGCM%2Fgcmpushapp
&Action=ListEndpointsByPlatformApplication
&SignatureMethod=HmacSHA256
&AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE
&SignatureVersion=2
&Version=2010-03-31
&Signature=e6H4sJSCRBBlh%2BaigB%2FtYgp4%2Bjl7dikAQ6WKf%2BMTwNM%3D
&Timestamp=2013-07-01T23%3A00%3A52.515Z
```

Sample Response

```
HTTP/1.1 200 OK
...
<ListEndpointsByPlatformApplicationResponse xmlns="http://sns.amazon
aws.com/doc/2010-03-31/">
  <ListEndpointsByPlatformApplicationResult>
    <Endpoints>
      <member>
        <EndpointArn>arn:aws:sns:us-west-2:123456789012:endpoint/GCM/gcmpush
app/5e3e9847-3183-3f18-a7e8-671c3a57d4b3</EndpointArn>
        <Attributes>
          <entry>
            <key>Enabled</key>
            <value>>true</value>
          </entry>
          <entry>
            <key>CustomUserData</key>
            <value>UserId=27576823</value>
          </entry>
        </Attributes>
      </member>
    </Endpoints>
  </ListEndpointsByPlatformApplicationResult>
</ListEndpointsByPlatformApplicationResponse>
```

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```
    </entry>
    <entry>
      <key>Token</key>
      <value>APA91bGi7fFachkC1xj1qT66VYEucGHochmf1VQAr9k... jsM0PKPxKhd
dCzx6paEsyay9Zn3D4wNUJb8m6HZrBEXAMPLE</value>
    </entry>
  </Attributes>
</member>
</Endpoints>
</ListEndpointsByPlatformApplicationResult>
<ResponseMetadata>
  <RequestId>9a48768c-dac8-5a60-aec0-3cc27ea08d96</RequestId>
</ResponseMetadata>
</ListEndpointsByPlatformApplicationResponse>
```

ListPlatformApplications

Description

Lists the platform application objects for the supported push notification services, such as APNS and GCM. The results for `ListPlatformApplications` are paginated and return a limited list of applications, up to 100. If additional records are available after the first page results, then a `NextToken` string will be returned. To receive the next page, you call `ListPlatformApplications` using the `NextToken` string received from the previous call. When there are no more records to return, `NextToken` will be null. For more information, see [Using Amazon SNS Mobile Push Notifications](#).

Request Parameters

For information about the common parameters that all actions use, see [Common Parameters \(p. 74\)](#).

NextToken

`NextToken` string is used when calling `ListPlatformApplications` action to retrieve additional records that are available after the first page results.

Type: String

Required: No

Response Elements

The following elements are returned in a structure named `ListPlatformApplicationsResult`.

NextToken

`NextToken` string is returned when calling `ListPlatformApplications` action if additional records are available after the first page results.

Type: String

PlatformApplications

Platform applications returned when calling `ListPlatformApplications` action.

Type: [PlatformApplication \(p. 71\)](#) list

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

Examples

Sample Request

```
POST http://sns.us-west-2.amazonaws.com/ HTTP/1.1
...
Action=ListPlatformApplications
&SignatureMethod=HmacSHA256
&AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE
&SignatureVersion=2
&Version=2010-03-31
&Signature=drVbTuyR5N9e88WJMNPzBOjNFNvawkCaMfZi0xa9kIQ%3D
&Timestamp=2013-07-01T22%3A33%3A55.618Z
```

Sample Response

```
HTTP/1.1 200 OK
...
<ListPlatformApplicationsResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">
  <ListPlatformApplicationsResult>
    <PlatformApplications>
      <member>
        <PlatformApplicationArn>arn:aws:sns:us-west-2:123456789012:app/APNS_SANDBOX/apnspushapp</PlatformApplicationArn>
        <Attributes>
          <entry>
            <key>AllowEndpointPolicies</key>
            <value>>false</value>
          </entry>
        </Attributes>
      </member>
      <member>
        <PlatformApplicationArn>arn:aws:sns:us-west-2:123456789012:app/GCM/gcmpushapp</PlatformApplicationArn>
        <Attributes>
          <entry>
            <key>AllowEndpointPolicies</key>
            <value>>false</value>
          </entry>
        </Attributes>
      </member>
    </PlatformApplications>
  </ListPlatformApplicationsResult>
  <ResponseMetadata>
    <RequestId>315a335e-85d8-52df-9349-791283cbb529</RequestId>
  </ResponseMetadata>
</ListPlatformApplicationsResponse>
```

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ListSubscriptions

Description

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 [Common Parameters \(p. 74\)](#).

NextToken

Token returned by the previous `ListSubscriptions` request.

Type: String

Required: No

Response Elements

The following elements are returned in a structure named `ListSubscriptionsResult`.

NextToken

Token to pass along to the next `ListSubscriptions` request. This element is returned if there are more subscriptions to retrieve.

Type: String

Subscriptions

A list of subscriptions.

Type: [Subscription \(p. 72\)](#) list

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 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=SZmBxEPqfs9R7xxhSt6Clb7PnOEvg%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

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 Parameters \(p. 74\)](#).

NextToken

Token returned by the previous `ListSubscriptionsByTopic` request.

Type: String

Required: No

TopicArn

The ARN of the topic for which you wish to find subscriptions.

Type: String

Required: Yes

Response Elements

The following elements are returned in a structure named `ListSubscriptionsByTopicResult`.

NextToken

Token to pass along to the next `ListSubscriptionsByTopic` request. This element is returned if there are more subscriptions to retrieve.

Type: String

Subscriptions

A list of subscriptions.

Type: [Subscription \(p. 72\)](#) list

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotFound

Indicates that the requested resource does not exist.

HTTP Status Code: 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

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 Parameters \(p. 74\)](#).

NextToken

Token returned by the previous `ListTopics` request.

Type: String

Required: No

Response Elements

The following elements are returned in a structure named `ListTopicsResult`.

NextToken

Token to pass along to the next `ListTopics` request. This element is returned if there are additional topics to retrieve.

Type: String

Topics

A list of topic ARNs.

Type: [Topic \(p. 73\)](#) list

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 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=tPglqKNTNVPydnL3Yx5Fqm2O9GxCr9vh3EF5r9%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

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.

To use the `Publish` action for sending a message to a mobile endpoint, such as an app on a Kindle device or mobile phone, you must specify the `EndpointArn`. The `EndpointArn` is returned when making a call with the `CreatePlatformEndpoint` action. The second example below shows a request and response for publishing to a mobile endpoint.

Request Parameters

For information about the common parameters that all actions use, see [Common Parameters \(p. 74\)](#).

Message

The message you want to send to the topic.

If you want to send the same message to all transport protocols, include the text of the message as a `String` value.

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.

Constraints: Messages must be UTF-8 encoded strings at most 256 KB in size (262144 bytes, not 262144 characters).

JSON-specific constraints:

- Keys in the JSON object that correspond to supported transport protocols must have simple JSON string values.
- The values will be parsed (unescaped) before they are used in outgoing messages.
- Outbound notifications are JSON encoded (meaning that the characters will be reescaped for sending).
- Values have a minimum length of 0 (the empty string, "", is allowed).
- Values have a maximum length bounded by the overall message size (so, including multiple protocols may limit message sizes).
- Non-string values will cause the key to be ignored.
- Keys that do not correspond to supported transport protocols are ignored.
- Duplicate keys are not allowed.
- Failure to parse or validate any key or value in the message will cause the `Publish` call to return an error (no partial delivery).

Type: `String`

Required: Yes

MessageAttributes.entry.N

Message attributes for `Publish` action.

Type: `String` to [MessageAttributeValue \(p. 70\)](#) map

Required: No

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:

- be a syntactically valid JSON object; and
- contain at least a top-level JSON key of "default" with a value that is a string.

You can define other top-level keys that define the message you want to send to a specific transport protocol (e.g., "http").

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*.

Valid value: `json`

Type: String

Required: No

Subject

Optional parameter to be used as the "Subject" line when the message is delivered to email endpoints. This field will also be included, if present, in the standard JSON messages delivered to other endpoints.

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.

Type: String

Required: No

TargetArn

Either `TopicArn` or `EndpointArn`, but not both.

Type: String

Required: No

TopicArn

The topic you want to publish to.

Type: String

Required: No

Response Elements

The following element is returned in a structure named `PublishResult`.

MessageId

Unique identifier assigned to the published message.

Length Constraint: Maximum 100 characters

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

EndpointDisabled

Exception error indicating endpoint disabled.

HTTP Status Code: 400

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

InvalidParameterValue

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotFound

Indicates that the requested resource does not exist.

HTTP Status Code: 404

PlatformApplicationDisabled

Exception error indicating platform application disabled.

HTTP Status Code: 400

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 different 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"
}
```

POST http://sns.us-west-2.amazonaws.com/ HTTP/1.1

...

Action=Publish

&Message=%7B%22default%22%3A%22This+is+the+default+Message%22%2C%22APNS_SANDBOX%22%3A%22pushapp%2F98e9ced9-f136-3893-9d60-776547eafebb%22%2C%22email%22%3A%22some%22%2C%22http%22%3A%22some%22%2C%22https%22%3A%22some%22%2C%22sqs%22%3A%22some%22%7D%22%7D

&TargetArn=arn%3Aaws%3Aus-west-2%3A803981987763%3Aendpoint%2FAPNS_SANDBOX%2Fpushapp%2F98e9ced9-f136-3893-9d60-776547eafebb

&SignatureMethod=HmacSHA256

&AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE

&SignatureVersion=2

&Version=2010-03-31

&Signature=vmqc4XRupKXsDAdN4j4Ayw5LQljXMps3kss4bkDfCk%3D

&Timestamp=2013-07-18T22%3A44%3A09.452Z

&MessageStructure=json

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>
```

HTTP/1.1 200 OK

...

```
<PublishResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">
  <PublishResult>
    <MessageId>567910cd-659e-55d4-8ccb-5aaf14679dc0</MessageId>
  </PublishResult>
  <ResponseMetadata>
    <RequestId>d74b8436-ae13-5ab4-a9ff-ce54dfea72a0</RequestId>
  </ResponseMetadata>
</PublishResponse>
```



RemovePermission

Description

Removes a statement from a topic's access control policy.

Request Parameters

For information about the common parameters that all actions use, see [Common Parameters \(p. 74\)](#).

Label

The unique label of the statement you want to remove.

Type: String

Required: Yes

TopicArn

The ARN of the topic whose access control policy you wish to modify.

Type: String

Required: Yes

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotFound

Indicates that the requested resource does not exist.

HTTP Status Code: 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>
```

SetEndpointAttributes

Description

Sets the attributes for an endpoint for a device on one of the supported push notification services, such as GCM and APNS. For more information, see [Using Amazon SNS Mobile Push Notifications](#).

Request Parameters

For information about the common parameters that all actions use, see [Common Parameters \(p. 74\)](#).

Attributes.entry.N

A map of the endpoint attributes. Attributes in this map include the following:

- `CustomUserData` -- arbitrary user data to associate with the endpoint. Amazon SNS does not use this data. The data must be in UTF-8 format and less than 2KB.
- `Enabled` -- flag that enables/disables delivery to the endpoint. Amazon SNS will set this to false when a notification service indicates to Amazon SNS that the endpoint is invalid. Users can set it back to true, typically after updating `Token`.
- `Token` -- device token, also referred to as a registration id, for an app and mobile device. This is returned from the notification service when an app and mobile device are registered with the notification service.

Type: String to String map

Required: Yes

EndpointArn

EndpointArn used for SetEndpointAttributes action.

Type: String

Required: Yes

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotFound

Indicates that the requested resource does not exist.

HTTP Status Code: 404

Examples

Sample Request

```
POST http://sns.us-west-2.amazonaws.com/ HTTP/1.1
...
Attributes.entry.1.key=CustomUserData
&Action=SetEndpointAttributes
&SignatureMethod=HmacSHA256
&Attributes.entry.1.value=My+custom+userdata
&AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE
&EndpointArn=arn%3Aaws%3Asns%3Aus-west-2%3A123456789012%3Aendpoint%2FGCM%2Fgcm
pushapp%2F5e3e9847-3183-3f18-a7e8-671c3a57d4b3
&SignatureVersion=2
&Version=2010-03-31
&Signature=CFTGfGOS5vgSU3%2FZgv2h%2FJdWgr2JQdJSrUU9k38wSM%3D
&Timestamp=2013-07-01T22%3A56%3A45.582Z
```

Sample Response

```
HTTP/1.1 200 OK
...
<SetEndpointAttributesResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">
  <ResponseMetadata>
    <RequestId>2fe0bfc7-3e85-5ee5-a9e2-f58b35e85f6a</RequestId>
  </ResponseMetadata>
</SetEndpointAttributesResponse>
```

SetPlatformApplicationAttributes

Description

Sets the attributes of the platform application object for the supported push notification services, such as APNS and GCM. For more information, see [Using Amazon SNS Mobile Push Notifications](#).

Request Parameters

For information about the common parameters that all actions use, see [Common Parameters \(p. 74\)](#).

Attributes.entry.N

A map of the platform application attributes. Attributes in this map include the following:

- `PlatformCredential` -- The credential received from the notification service. For APNS/APNS_SANDBOX, `PlatformCredential` is "private key". For GCM, `PlatformCredential` is "API key". For ADM, `PlatformCredential` is "client secret".
- `PlatformPrincipal` -- The principal received from the notification service. For APNS/APNS_SANDBOX, `PlatformPrincipal` is "SSL certificate". For GCM, `PlatformPrincipal` is not applicable. For ADM, `PlatformPrincipal` is "client id".
- `EventEndpointCreated` -- Topic ARN to which `EndpointCreated` event notifications should be sent.
- `EventEndpointDeleted` -- Topic ARN to which `EndpointDeleted` event notifications should be sent.
- `EventEndpointUpdated` -- Topic ARN to which `EndpointUpdate` event notifications should be sent.
- `EventDeliveryFailure` -- Topic ARN to which `DeliveryFailure` event notifications should be sent upon Direct Publish delivery failure (permanent) to one of the application's endpoints.

Type: String to String map

Required: Yes

PlatformApplicationArn

PlatformApplicationArn for SetPlatformApplicationAttributes action.

Type: String

Required: Yes

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotFound

Indicates that the requested resource does not exist.

HTTP Status Code: 404

Examples

Sample Request

```
POST http://sns.us-west-2.amazonaws.com/ HTTP/1.1
...
Attributes.entry.1.key=EventEndpointCreated&PlatformApplication
Arn=arn%3Aaws%3Asns%3Aus-west-2%3A123456789012%3Aapp%2FGCM%2Fgcmpushapp
&Action=SetPlatformApplicationAttributes
&SignatureMethod=HmacSHA256
&Attributes.entry.1.value=arn%3Aaws%3Asns%3Aus-west-2%3A123456789012%3Atopicarn
&AWSAccessKeyId=AKIAIOSFODNN7EXAMPLE
&SignatureVersion=2
&Version=2010-03-31
&Signature=06L2TsW3jih%2FGKDYuT8w4NojSrTf4Ig2GKqGeJPhPT4%3D
&Timestamp=2013-07-01T22%3A53%3A17.800Z
```

Sample Response

```
HTTP/1.1 200 OK
...
<SetPlatformApplicationAttributesResponse xmlns="http://sns.amazon
aws.com/doc/2010-03-31/">
  <ResponseMetadata>
    <RequestId>cf577bcc-b3dc-5463-88f1-3180b9412395</RequestId>
  </ResponseMetadata>
</SetPlatformApplicationAttributesResponse>
```


SetSubscriptionAttributes

Description

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 Parameters \(p. 74\)](#).

AttributeName

The name of the attribute you want to set. Only a subset of the subscriptions attributes are mutable.

Valid values: `DeliveryPolicy` | `RawMessageDelivery`

Type: String

Required: Yes

AttributeValue

The new value for the attribute in JSON format.

Type: String

Required: No

SubscriptionArn

The ARN of the subscription to modify.

Type: String

Required: Yes

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotFound

Indicates that the requested resource does not exist.

HTTP Status Code: 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-Topic%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%2BcmAIY7r8HCArGE1SqPX5JG4UGzF4yo0RygE%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

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 Parameters \(p. 74\)](#).

AttributeName

The name of the attribute you want to set. Only a subset of the topic's attributes are mutable.

Valid values: `Policy` | `DisplayName` | `DeliveryPolicy`

Type: String

Required: Yes

AttributeValue

The new value for the attribute.

Type: String

Required: No

TopicArn

The ARN of the topic to modify.

Type: String

Required: Yes

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotFound

Indicates that the requested resource does not exist.

HTTP Status Code: 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%2BcmAIY7r8HCArGE1SqPX5JG4UGzF4yo0RygE%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%2BcmAIY7r8HCArGE1SqPX5JG4UGzF4yo0RygE%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

Amazon Simple Notification Service API Reference

Examples

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

Subscribe

Description

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 [Common Parameters \(p. 74\)](#).

Endpoint

The endpoint that you want to receive notifications. Endpoints vary by protocol:

- For the `http` protocol, the endpoint is an URL beginning with "http://"
- For the `https` protocol, the endpoint is a URL beginning with "https://"
- For the `email` protocol, the endpoint is an email address
- For the `email-json` protocol, the endpoint is an email address
- For the `sms` protocol, the endpoint is a phone number of an SMS-enabled device
- For the `sqs` protocol, the endpoint is the ARN of an Amazon SQS queue
- For the `application` protocol, the endpoint is the `EndpointArn` of a mobile app and device.

Type: String

Required: No

Protocol

The protocol you want to use. Supported protocols include:

- `http` -- delivery of JSON-encoded message via HTTP POST
- `https` -- delivery of JSON-encoded message via HTTPS POST
- `email` -- delivery of message via SMTP
- `email-json` -- delivery of JSON-encoded message via SMTP
- `sms` -- delivery of message via SMS
- `sqs` -- delivery of JSON-encoded message to an Amazon SQS queue
- `application` -- delivery of JSON-encoded message to an `EndpointArn` for a mobile app and device.

Type: String

Required: Yes

TopicArn

The ARN of the topic you want to subscribe to.

Type: String

Required: Yes

Response Elements

The following element is returned in a structure named `SubscribeResult`.

SubscriptionArn

The ARN of the subscription, if the service was able to create a subscription immediately (without requiring endpoint owner confirmation).

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotFound

Indicates that the requested resource does not exist.

HTTP Status Code: 404

SubscriptionLimitExceeded

Indicates that the customer already owns the maximum allowed number of subscriptions.

HTTP Status Code: 403

Examples

The following example Query request subscribes an SQS queue to an SNS topic. For more information, see [Subscribe Queue to Amazon SNS Topic](#) in the Amazon SQS Developer Guide.

Sample Request

```
http://sns.us-west-2.amazonaws.com/  
&Action=Subscribe  
&Endpoint=arn%3Aaws%3Asqs%3Aus-west-2%3A123456789012%3AMyQueue  
&Version=2010-03-31  
&Protocol=sqs  
&TopicArn=arn%3Aaws%3Asns%3Aus-west-2%3A123456789012%3AMyTopic
```

Sample Response

Amazon Simple Notification Service API Reference

Examples

```
<SubscribeResponse xmlns="http://sns.amazonaws.com/doc/2010-03-31/">
  <SubscribeResult>
    <SubscriptionArn>arn:aws:sns:us-west-2:123456789012:MyTopic:6b0e71bd-7e97-
4d97-80ce-4a0994e55286</SubscriptionArn>
  </SubscribeResult>
  <ResponseMetadata>
    <RequestId>c4407779-24a4-56fa-982c-3d927f93a775</RequestId>
  </ResponseMetadata>
</SubscribeResponse>
```


Unsubscribe

Description

Deletes a subscription. If the subscription requires authentication for deletion, only the owner of the subscription or the 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 Parameters \(p. 74\)](#).

SubscriptionArn

The ARN of the subscription to be deleted.

Type: String

Required: Yes

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 76\)](#).

AuthorizationError

Indicates that the user has been denied access to the requested resource.

HTTP Status Code: 403

InternalError

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameter

Indicates that a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotFound

Indicates that the requested resource does not exist.

HTTP Status Code: 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=e8IwhPzuWeMvPDVrN7jUVxasd3Wv2Lu08x6rE23VCv8%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](#) (p. 65)
- [CreatePlatformApplicationResult](#) (p. 65)
- [CreatePlatformEndpointResult](#) (p. 65)
- [CreateTopicResult](#) (p. 66)
- [Endpoint](#) (p. 66)
- [GetEndpointAttributesResult](#) (p. 66)
- [GetPlatformApplicationAttributesResult](#) (p. 67)
- [GetSubscriptionAttributesResult](#) (p. 67)
- [GetTopicAttributesResult](#) (p. 68)
- [ListEndpointsByPlatformApplicationResult](#) (p. 68)
- [ListPlatformApplicationsResult](#) (p. 69)
- [ListSubscriptionsByTopicResult](#) (p. 69)
- [ListSubscriptionsResult](#) (p. 70)
- [ListTopicsResult](#) (p. 70)
- [MessageAttributeValue](#) (p. 70)
- [PlatformApplication](#) (p. 71)
- [PublishResult](#) (p. 72)
- [SubscribeResult](#) (p. 72)
- [Subscription](#) (p. 72)
- [Topic](#) (p. 73)

ConfirmSubscriptionResult

Description

Response for ConfirmSubscriptions action.

Contents

SubscriptionArn

The ARN of the created subscription.

Type: String

Required: No

CreatePlatformApplicationResult

Description

Response from CreatePlatformApplication action.

Contents

PlatformApplicationArn

PlatformApplicationArn is returned.

Type: String

Required: No

CreatePlatformEndpointResult

Description

Response from CreateEndpoint action.

Contents

EndpointArn

EndpointArn returned from CreateEndpoint action.

Type: String

Required: No

CreateTopicResult

Description

Response from CreateTopic action.

Contents

TopicArn

The Amazon Resource Name (ARN) assigned to the created topic.

Type: String

Required: No

Endpoint

Description

Endpoint for mobile app and device.

Contents

Attributes

Attributes for endpoint.

Type: String to String map

Required: No

EndpointArn

EndpointArn for mobile app and device.

Type: String

Required: No

GetEndpointAttributesResult

Description

Response from GetEndpointAttributes of the EndpointArn.

Contents

Attributes

Attributes include the following:

- `CustomUserData` -- arbitrary user data to associate with the endpoint. Amazon SNS does not use this data. The data must be in UTF-8 format and less than 2KB.

- `Enabled` -- flag that enables/disables delivery to the endpoint. Amazon SNS will set this to false when a notification service indicates to Amazon SNS that the endpoint is invalid. Users can set it back to true, typically after updating Token.
- `Token` -- device token, also referred to as a registration id, for an app and mobile device. This is returned from the notification service when an app and mobile device are registered with the notification service.

Type: String to String map

Required: No

GetPlatformApplicationAttributesResult

Description

Response for GetPlatformApplicationAttributes action.

Contents

Attributes

Attributes include the following:

- `EventEndpointCreated` -- Topic ARN to which EndpointCreated event notifications should be sent.
- `EventEndpointDeleted` -- Topic ARN to which EndpointDeleted event notifications should be sent.
- `EventEndpointUpdated` -- Topic ARN to which EndpointUpdate event notifications should be sent.
- `EventDeliveryFailure` -- Topic ARN to which DeliveryFailure event notifications should be sent upon Direct Publish delivery failure (permanent) to one of the application's endpoints.

Type: String to String map

Required: No

GetSubscriptionAttributesResult

Description

Response for GetSubscriptionAttributes action.

Contents

Attributes

A map of the subscription's attributes. Attributes in this map include the following:

- `SubscriptionArn` -- the subscription's ARN
- `TopicArn` -- the topic ARN that the subscription is associated with
- `Owner` -- the AWS account ID of the subscription's owner
- `ConfirmationWasAuthenticated` -- true if the subscription confirmation request was authenticated

- `DeliveryPolicy` -- the JSON serialization of the subscription's delivery policy
- `EffectiveDeliveryPolicy` -- the JSON serialization of the effective delivery policy that takes into account the topic delivery policy and account system defaults

Type: String to String map

Required: No

GetTopicAttributesResult

Description

Response for GetTopicAttributes action.

Contents

Attributes

A map of the topic's attributes. Attributes in this map include the following:

- `TopicArn` -- the topic's ARN
- `Owner` -- the AWS account ID of the topic's owner
- `Policy` -- the JSON serialization of the topic's access control policy
- `DisplayName` -- the human-readable name used in the "From" field for notifications to email and email-json endpoints
- `SubscriptionsPending` -- the number of subscriptions pending confirmation on this topic
- `SubscriptionsConfirmed` -- the number of confirmed subscriptions on this topic
- `SubscriptionsDeleted` -- the number of deleted subscriptions on this topic
- `DeliveryPolicy` -- the JSON serialization of the topic's delivery policy
- `EffectiveDeliveryPolicy` -- the JSON serialization of the effective delivery policy that takes into account system defaults

Type: String to String map

Required: No

ListEndpointsByPlatformApplicationResult

Description

Response for ListEndpointsByPlatformApplication action.

Contents

Endpoints

Endpoints returned for ListEndpointsByPlatformApplication action.

Type: [Endpoint \(p. 66\)](#) list

Required: No

NextToken

NextToken string is returned when calling ListEndpointsByPlatformApplication action if additional records are available after the first page results.

Type: String

Required: No

ListPlatformApplicationsResult

Description

Response for ListPlatformApplications action.

Contents

NextToken

NextToken string is returned when calling ListPlatformApplications action if additional records are available after the first page results.

Type: String

Required: No

PlatformApplications

Platform applications returned when calling ListPlatformApplications action.

Type: [PlatformApplication](#) (p. 71) list

Required: No

ListSubscriptionsByTopicResult

Description

Response for ListSubscriptionsByTopic action.

Contents

NextToken

Token to pass along to the next ListSubscriptionsByTopic request. This element is returned if there are more subscriptions to retrieve.

Type: String

Required: No

Subscriptions

A list of subscriptions.

Type: [Subscription](#) (p. 72) list

Required: No

ListSubscriptionsResult

Description

Response for ListSubscriptions action

Contents

NextToken

Token to pass along to the next `ListSubscriptions` request. This element is returned if there are more subscriptions to retrieve.

Type: String

Required: No

Subscriptions

A list of subscriptions.

Type: [Subscription \(p. 72\)](#) list

Required: No

ListTopicsResult

Description

Response for ListTopics action.

Contents

NextToken

Token to pass along to the next `ListTopics` request. This element is returned if there are additional topics to retrieve.

Type: String

Required: No

Topics

A list of topic ARNs.

Type: [Topic \(p. 73\)](#) list

Required: No

MessageAttributeValue

Description

The user-specified message attribute value. For string data types, the value attribute has the same restrictions on the content as the message body. For more information, see [Publish](#).

Name, type, and value must not be empty or null. In addition, the message body should not be empty or null. All parts of the message attribute, including name, type, and value, are included in the message size restriction, which is currently 256 KB (262,144 bytes). For more information, see [Using Amazon SNS Message Attributes](#).

Contents

BinaryValue

Binary type attributes can store any binary data, for example, compressed data, encrypted data, or images.

Type: Blob

Required: No

DataType

Amazon SNS supports the following logical data types: String, Number, and Binary. For more information, see [Message Attribute Data Types](#).

Type: String

Required: Yes

StringValue

Strings are Unicode with UTF8 binary encoding. For a list of code values, see http://en.wikipedia.org/wiki/ASCII#ASCII_printable_characters.

Type: String

Required: No

PlatformApplication

Description

Platform application object.

Contents

Attributes

Attributes for platform application object.

Type: String to String map

Required: No

PlatformApplicationArn

PlatformApplicationArn for platform application object.

Type: String

Required: No

PublishResult

Description

Response for Publish action.

Contents

MessageId

Unique identifier assigned to the published message.

Length Constraint: Maximum 100 characters

Type: String

Required: No

SubscribeResult

Description

Response for Subscribe action.

Contents

SubscriptionArn

The ARN of the subscription, if the service was able to create a subscription immediately (without requiring endpoint owner confirmation).

Type: String

Required: No

Subscription

Description

A wrapper type for the attributes of an Amazon SNS subscription.

Contents

Endpoint

The subscription's endpoint (format depends on the protocol).

Type: String

Required: No

Owner

The subscription's owner.

Type: String

Required: No

Protocol

The subscription's protocol.

Type: String

Required: No

SubscriptionArn

The subscription's ARN.

Type: String

Required: No

TopicArn

The ARN of the subscription's topic.

Type: String

Required: No

Topic

Description

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

Contents

TopicArn

The topic's ARN.

Type: String

Required: No

Common Parameters

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

Action

The action to be performed.

Default: None

Type: string

Required: Yes

AuthParams

The parameters that are required to authenticate a Conditional request. Contains:

- AWSAccessKeyID
- SignatureVersion
- Timestamp
- Signature

Default: None

Required: Conditional

AWSAccessKeyID

The access key ID that corresponds to the secret access key that you used to sign the request.

Default: None

Type: string

Required: Yes

Expires

The date and time when the request signature expires, expressed in the format YYYY-MM-DDThh:mm:ssZ, as specified in the ISO 8601 standard.

Condition: Requests must include either *Timestamp* or *Expires*, but not both.

Default: None

Type: string

Required: Conditional

SecurityToken

The temporary security token that was 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**.

Default: None

Type: string

Required: No

Signature

The digital signature that you created for the request. For information about generating a signature, go to the service's developer documentation.

Default: None

Type: string

Required: Yes

SignatureMethod

The hash algorithm that you used to create the request signature.

Default: None

Type: string

Valid Values: HmacSHA256 | HmacSHA1

Required: Yes

SignatureVersion

The signature version you use to sign the request. Set this to the value that is recommended for your service.

Default: None

Type: string

Required: Yes

Timestamp

The date and time when the request was signed, expressed in the format YYYY-MM-DDThh:mm:ssZ, as specified in the ISO 8601 standard.

Condition: Requests must include either *Timestamp* or *Expires*, but not both.

Default: None

Type: string

Required: Conditional

Version

The API version that the request is written for, expressed in the format YYYY-MM-DD.

Default: None

Type: string

Required: 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.

IncompleteSignature

The request signature does not conform to AWS standards.

HTTP Status Code: 400

InternalFailure

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

InvalidAction

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 400

InvalidClientTokenId

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

InvalidParameterCombination

Parameters that must not be used together were used together.

HTTP Status Code: 400

InvalidParameterValue

An invalid or out-of-range value was supplied for the input parameter.

HTTP Status Code: 400

InvalidQueryStringParameter

The AWS query string is malformed or does not adhere to AWS standards.

HTTP Status Code: 400

MalformedQueryString

The query string contains a syntax error.

HTTP Status Code: 404

MissingAction

The request is missing an action or a required parameter.

HTTP Status Code: 400

MissingAuthenticationToken

The request must contain either a valid (registered) AWS access key ID or X.509 certificate.

HTTP Status Code: 403

MissingParameter

A required parameter for the specified action is not supplied.

HTTP Status Code: 400

OptInRequired

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403

RequestExpired

The request reached the service more than 15 minutes after the date stamp on the request or more than 15 minutes after the request expiration date (such as for pre-signed URLs), or the date stamp on the request is more than 15 minutes in the future.

HTTP Status Code: 400

ServiceUnavailable

The request has failed due to a temporary failure of the server.

HTTP Status Code: 503

Throttling

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationError

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400