aws

API Reference

Amazon Polly

API Version 2016-06-10

Amazon Polly: API Reference

Services or capabilities described in AWS documentation might vary by Region. To see the differences applicable to the AWS European Sovereign Cloud Region, see the AWS European Sovereign Cloud User Guide.

Table of Contents

Welcome

Amazon Polly is a web service that makes it easy to synthesize speech from text.

The Amazon Polly service provides API operations for synthesizing high-quality speech from plain text and Speech Synthesis Markup Language (SSML), along with managing pronunciations lexicons that enable you to get the best results for your application domain.

Authenticated API calls must be signed using the Signature Version 4 Signing Process. For more information, see Signing AWS API Requests in the *IAM User Guide*.

This document was last published on July 8, 2026.

Actions

The following actions are supported:

- DeleteLexicon
- DescribeVoices
- GetLexicon
- GetSpeechSynthesisTask
- ListLexicons
- ListSpeechSynthesisTasks
- PutLexicon
- StartSpeechSynthesisStream
- StartSpeechSynthesisTask
- SynthesizeSpeech

DeleteLexicon

Deletes the specified pronunciation lexicon stored in an AWS Region. A lexicon which has been deleted is not available for speech synthesis, nor is it possible to retrieve it using either the `GetLexicon` or `ListLexicon` APIs.

For more information, see Managing Lexicons.

Request Syntax

```
DELETE /v1/lexicons/LexiconName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

LexiconName

The name of the lexicon to delete. Must be an existing lexicon in the region.

Pattern: `[0-9A-Za-z]{1,20}`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Error Types.

LexiconNotFoundException

Amazon Polly can't find the specified lexicon. This could be caused by a lexicon that is missing, its name is misspelled or specifying a lexicon that is in a different region.

Verify that the lexicon exists, is in the region (see ListLexicons) and that you spelled its name is spelled correctly. Then try again.

HTTP Status Code: 404

ServiceFailureException

An unknown condition has caused a service failure.

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeVoices

Returns the list of voices that are available for use when requesting speech synthesis. Each voice speaks a specified language, is either male or female, and is identified by an ID, which is the ASCII version of the voice name.

When synthesizing speech (`SynthesizeSpeech`), you provide the voice ID for the voice you want from the list of voices returned by `DescribeVoices`.

For example, you want your news reader application to read news in a specific language, but giving a user the option to choose the voice. Using the `DescribeVoices` operation you can provide the user with a list of available voices to select from.

You can optionally specify a language code to filter the available voices. For example, if you specify `en-US`, the operation returns a list of all available US English voices.

This operation requires permissions to perform the `polly:DescribeVoices` action.

Request Syntax

```
GET /v1/voices?
Engine=Engine&IncludeAdditionalLanguageCodes=IncludeAdditionalLanguageCodes&LanguageCode=Langua
 HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

Engine

Specifies the engine (`standard`, `neural`, `long-form` or `generative`) used by Amazon Polly when processing input text for speech synthesis.

Valid Values: `standard | neural | long-form | generative`

IncludeAdditionalLanguageCodes

Boolean value indicating whether to return any bilingual voices that use the specified language as an additional language. For instance, if you request all languages that use US English (es-US), and there is an Italian voice that speaks both Italian (it-IT) and US English, that voice will be included if you specify `yes` but not if you specify no.

LanguageCode

The language identification tag (ISO 639 code for the language name-ISO 3166 country code) for filtering the list of voices returned. If you don't specify this optional parameter, all available voices are returned.

Valid Values: `arb | cmn-CN | cy-GB | da-DK | de-DE | en-AU | en-GB | en-GB-WLS | en-IN | en-US | es-ES | es-MX | es-US | fr-CA | fr-FR | is-IS | it-IT | ja-JP | hi-IN | ko-KR | nb-NO | nl-NL | pl-PL | pt-BR | pt-PT | ro-RO | ru-RU | sv-SE | tr-TR | en-NZ | en-ZA | ca-ES | de-AT | yue-CN | ar-AE | fi-FI | en-IE | nl-BE | fr-BE | cs-CZ | de-CH | en-SG`

NextToken

An opaque pagination token returned from the previous `DescribeVoices` operation. If present, this indicates where to continue the listing.

Length Constraints: Minimum length of 0. Maximum length of 4096.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "NextToken": "string",
   "Voices": [
      {
         "AdditionalLanguageCodes": [ "string" ],
         "Gender": "string",
         "Id": "string",
         "LanguageCode": "string",
         "LanguageName": "string",
         "Name": "string",
         "SupportedEngines": [ "string" ]
      }
   ]
```

```
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

The pagination token to use in the next request to continue the listing of voices. `NextToken` is returned only if the response is truncated.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 4096.

Voices

A list of voices with their properties.

Type: Array of Voice objects

Errors

For information about the errors that are common to all actions, see Common Error Types.

InvalidNextTokenException

The NextToken is invalid. Verify that it's spelled correctly, and then try again.

HTTP Status Code: 400

ServiceFailureException

An unknown condition has caused a service failure.

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetLexicon

Returns the content of the specified pronunciation lexicon stored in an AWS Region. For more information, see Managing Lexicons.

Request Syntax

```
GET /v1/lexicons/LexiconName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

LexiconName

Name of the lexicon.

Pattern: `[0-9A-Za-z]{1,20}`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "Lexicon": {
      "Content": "string",
      "Name": "string"
   },
   "LexiconAttributes": {
      "Alphabet": "string",
      "LanguageCode": "string",
      "LastModified": number,
      "LexemesCount": number,
```

```
      "LexiconArn": "string",
      "Size": number
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Lexicon

Lexicon object that provides name and the string content of the lexicon.

Type: Lexicon object

LexiconAttributes

Metadata of the lexicon, including phonetic alphabetic used, language code, lexicon ARN, number of lexemes defined in the lexicon, and size of lexicon in bytes.

Type: LexiconAttributes object

Errors

For information about the errors that are common to all actions, see Common Error Types.

LexiconNotFoundException

Amazon Polly can't find the specified lexicon. This could be caused by a lexicon that is missing, its name is misspelled or specifying a lexicon that is in a different region.

Verify that the lexicon exists, is in the region (see ListLexicons) and that you spelled its name is spelled correctly. Then try again.

HTTP Status Code: 404

ServiceFailureException

An unknown condition has caused a service failure.

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetSpeechSynthesisTask

Retrieves a specific SpeechSynthesisTask object based on its TaskID. This object contains information about the given speech synthesis task, including the status of the task, and a link to the S3 bucket containing the output of the task.

Request Syntax

```
GET /v1/synthesisTasks/TaskId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

TaskId

The Amazon Polly generated identifier for a speech synthesis task.

Pattern: `^[a-zA-Z0-9_-]{1,100}$`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "SynthesisTask": {
      "CreationTime": number,
      "Engine": "string",
      "LanguageCode": "string",
      "LexiconNames": [ "string" ],
      "OutputFormat": "string",
      "OutputUri": "string",
      "RequestCharacters": number,
```

```
      "SampleRate": "string",
      "SnsTopicArn": "string",
      "SpeechMarkTypes": [ "string" ],
      "TaskId": "string",
      "TaskStatus": "string",
      "TaskStatusReason": "string",
      "TextType": "string",
      "VoiceId": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

SynthesisTask

SynthesisTask object that provides information from the requested task, including output format, creation time, task status, and so on.

Type: SynthesisTask object

Errors

For information about the errors that are common to all actions, see Common Error Types.

InvalidTaskIdException

The provided Task ID is not valid. Please provide a valid Task ID and try again.

HTTP Status Code: 400

ServiceFailureException

An unknown condition has caused a service failure.

HTTP Status Code: 500

SynthesisTaskNotFoundException

The Speech Synthesis task with requested Task ID cannot be found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListLexicons

Returns a list of pronunciation lexicons stored in an AWS Region. For more information, see Managing Lexicons.

Request Syntax

```
GET /v1/lexicons?NextToken=NextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

NextToken

An opaque pagination token returned from previous `ListLexicons` operation. If present, indicates where to continue the list of lexicons.

Length Constraints: Minimum length of 0. Maximum length of 4096.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "Lexicons": [
      {
         "Attributes": {
            "Alphabet": "string",
            "LanguageCode": "string",
            "LastModified": number,
            "LexemesCount": number,
            "LexiconArn": "string",
            "Size": number
         },
```

```
            "Name": "string"
        }
    ],
    "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Lexicons

A list of lexicon names and attributes.

Type: Array of LexiconDescription objects

NextToken

The pagination token to use in the next request to continue the listing of lexicons. `NextToken` is returned only if the response is truncated.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 4096.

Errors

For information about the errors that are common to all actions, see Common Error Types.

InvalidNextTokenException

The NextToken is invalid. Verify that it's spelled correctly, and then try again.

HTTP Status Code: 400

ServiceFailureException

An unknown condition has caused a service failure.

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListSpeechSynthesisTasks

Returns a list of SpeechSynthesisTask objects ordered by their creation date. This operation can filter the tasks by their status, for example, allowing users to list only tasks that are completed.

Request Syntax

```
GET /v1/synthesisTasks?MaxResults=MaxResults&NextToken=NextToken&Status=Status HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

MaxResults

Maximum number of speech synthesis tasks returned in a List operation.

Valid Range: Minimum value of 1. Maximum value of 100.

NextToken

The pagination token to use in the next request to continue the listing of speech synthesis tasks.

Length Constraints: Minimum length of 0. Maximum length of 4096.

Status

Status of the speech synthesis tasks returned in a List operation

Valid Values: `scheduled | inProgress | completed | failed`

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
```

```
{
   "NextToken": "string",
   "SynthesisTasks": [
      {
         "CreationTime": number,
         "Engine": "string",
         "LanguageCode": "string",
         "LexiconNames": [ "string" ],
         "OutputFormat": "string",
         "OutputUri": "string",
         "RequestCharacters": number,
         "SampleRate": "string",
         "SnsTopicArn": "string",
         "SpeechMarkTypes": [ "string" ],
         "TaskId": "string",
         "TaskStatus": "string",
         "TaskStatusReason": "string",
         "TextType": "string",
         "VoiceId": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

An opaque pagination token returned from the previous List operation in this request. If present, this indicates where to continue the listing.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 4096.

SynthesisTasks

List of SynthesisTask objects that provides information from the specified task in the list request, including output format, creation time, task status, and so on.

Type: Array of SynthesisTask objects

Errors

For information about the errors that are common to all actions, see Common Error Types.

InvalidNextTokenException

The NextToken is invalid. Verify that it's spelled correctly, and then try again.

HTTP Status Code: 400

ServiceFailureException

An unknown condition has caused a service failure.

HTTP Status Code: 500

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

PutLexicon

Stores a pronunciation lexicon in an AWS Region. If a lexicon with the same name already exists in the region, it is overwritten by the new lexicon. Lexicon operations have eventual consistency, therefore, it might take some time before the lexicon is available to the SynthesizeSpeech operation.

For more information, see Managing Lexicons.

Request Syntax

```
PUT /v1/lexicons/LexiconName HTTP/1.1
Content-type: application/json

{
   "Content": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

LexiconName

Name of the lexicon. The name must follow the regular express format [0-9A-Za-z]{1,20}. That is, the name is a case-sensitive alphanumeric string up to 20 characters long.

Pattern: `[0-9A-Za-z]{1,20}`

Required: Yes

Request Body

The request accepts the following data in JSON format.

Content

Content of the PLS lexicon as string data.

Type: String

Required: Yes

Response Syntax

```
HTTP/1.1 200
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Error Types.

InvalidLexiconException

Amazon Polly can't find the specified lexicon. Verify that the lexicon's name is spelled correctly, and then try again.

HTTP Status Code: 400

LexiconSizeExceededException

The maximum size of the specified lexicon would be exceeded by this operation.

HTTP Status Code: 400

MaxLexemeLengthExceededException

The maximum size of the lexeme would be exceeded by this operation.

HTTP Status Code: 400

MaxLexiconsNumberExceededException

The maximum number of lexicons would be exceeded by this operation.

HTTP Status Code: 400

ServiceFailureException

An unknown condition has caused a service failure.

HTTP Status Code: 500

UnsupportedPlsAlphabetException

The alphabet specified by the lexicon is not a supported alphabet. Valid values are `x-sampa` and `ipa`.

HTTP Status Code: 400

UnsupportedPlsLanguageException

The language specified in the lexicon is unsupported. For a list of supported languages, see Lexicon Attributes.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

StartSpeechSynthesisStream

Synthesizes UTF-8 input, plain text, or SSML over a bidirectional streaming connection. Specify synthesis parameters in HTTP/2 headers, send text incrementally as events on the input stream, and receive synthesized audio as it becomes available.

This operation serves as a bidirectional counterpart to `SynthesizeSpeech`:

- SynthesizeSpeech

Request Syntax

```
POST /v1/synthesisStream HTTP/1.1
x-amzn-Engine: Engine
x-amzn-LanguageCode: LanguageCode
x-amzn-LexiconNames: LexiconNames
x-amzn-OutputFormat: OutputFormat
x-amzn-SampleRate: SampleRate
x-amzn-VoiceId: VoiceId
Content-type: application/json

{
   "CloseStreamEvent": {
   },
   "TextEvent": {
      "FlushStreamConfiguration": {
         "Force": boolean
      },
      "Text": "string",
      "TextType": "string"
   }
}
```

URI Request Parameters

The request uses the following URI parameters.

Engine

Specifies the engine for Amazon Polly to use when processing input text for speech synthesis. Currently, only the `generative` engine is supported. If you specify a voice that the selected engine doesn't support, Amazon Polly returns an error.

Valid Values: `standard | neural | long-form | generative`

Required: Yes

LanguageCode

An optional parameter that sets the language code for the speech synthesis request. Specify this parameter only when using a bilingual voice. If a bilingual voice is used and no language code is specified, Amazon Polly uses the default language of the bilingual voice.

Valid Values: `arb | cmn-CN | cy-GB | da-DK | de-DE | en-AU | en-GB | en-GB-WLS | en-IN | en-US | es-ES | es-MX | es-US | fr-CA | fr-FR | is-IS | it-IT | ja-JP | hi-IN | ko-KR | nb-NO | nl-NL | pl-PL | pt-BR | pt-PT | ro-RO | ru-RU | sv-SE | tr-TR | en-NZ | en-ZA | ca-ES | de-AT | yue-CN | ar-AE | fi-FI | en-IE | nl-BE | fr-BE | cs-CZ | de-CH | en-SG`

LexiconNames

The names of one or more pronunciation lexicons for the service to apply during synthesis. Amazon Polly applies lexicons only when the lexicon language matches the voice language.

Array Members: Maximum number of 5 items.

Pattern: `[0-9A-Za-z]{1,20}`

OutputFormat

The audio format for the synthesized speech. Currently, Amazon Polly does not support JSON speech marks.

Valid Values: `json | mp3 | ogg_opus | ogg_vorbis | pcm | mulaw | alaw`

Required: Yes

SampleRate

The audio frequency, specified in Hz.

VoiceId

The voice to use in synthesis. To get a list of available voice IDs, use the DescribeVoices operation.

Valid Values: `Aditi | Amy | Astrid | Bianca | Brian | Camila | Carla | Carmen | Celine | Chantal | Conchita | Cristiano | Dora | Emma | Enrique | Ewa | Filiz | Gabrielle | Geraint | Giorgio | Gwyneth | Hans | Ines | Ivy | Jacek | Jan | Joanna | Joey | Justin | Karl | Kendra | Kevin | Kimberly | Lea | Liv | Lotte | Lucia | Lupe | Mads | Maja | Marlene | Mathieu | Matthew | Maxim | Mia | Miguel | Mizuki | Naja | Nicole | Olivia | Penelope | Raveena | Ricardo | Ruben | Russell | Salli | Seoyeon | Takumi | Tatyana | Vicki | Vitoria | Zeina | Zhiyu | Aria | Ayanda | Arlet | Hannah | Arthur | Daniel | Liam | Pedro | Kajal | Hiujin | Laura | Elin | Ida | Suvi | Ola | Hala | Andres | Sergio | Remi | Adriano | Thiago | Ruth | Stephen | Kazuha | Tomoko | Niamh | Sofie | Lisa | Isabelle | Zayd | Danielle | Gregory | Burcu | Jitka | Sabrina | Jasmine | Jihye | Ambre | Beatrice | Florian | Lennart | Lorenzo | Tiffany`

Required: Yes

Request Body

The request accepts the following data in JSON format.

CloseStreamEvent

An event indicating the end of the input stream.

Type: CloseStreamEvent object

Required: No

TextEvent

A text event containing content to be synthesized.

Type: TextEvent object

Required: No

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "AudioEvent": {
      "AudioChunk": blob
   },
   "ServiceFailureException": {
   },
   "ServiceQuotaExceededException": {
   },
   "StreamClosedEvent": {
      "RequestCharacters": number
   },
   "ThrottlingException": {
   },
   "ValidationException": {
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AudioEvent

An audio event containing synthesized speech.

Type: AudioEvent object

ServiceFailureException

An unknown condition has caused a service failure.

Type: Exception

HTTP Status Code: 500

ServiceQuotaExceededException

An exception indicating a service quota would be exceeded.

Type: Exception

HTTP Status Code: 402

StreamClosedEvent

An event, with summary information, indicating the stream has closed.

Type: StreamClosedEvent object

ThrottlingException

An exception indicating the request was throttled.

Type: Exception

HTTP Status Code: 400

ValidationException

An exception indicating the input failed validation.

Type: Exception

HTTP Status Code: 400

Errors

For information about the errors that are common to all actions, see Common Error Types.

ServiceFailureException

An unknown condition has caused a service failure.

HTTP Status Code: 500

ServiceQuotaExceededException

The request would cause a service quota to be exceeded.

quotaCode

The quota code identifying the specific quota.

serviceCode

The service code identifying the originating service.

HTTP Status Code: 402

ThrottlingException

The request was denied because of request throttling.

throttlingReasons

A list of reasons explaining why the request was throttled.

HTTP Status Code: 400

ValidationException

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

fields

The fields that caused the validation error.

reason

The reason the request failed validation.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

StartSpeechSynthesisTask

Allows the creation of an asynchronous synthesis task, by starting a new `SpeechSynthesisTask`. This operation requires all the standard information needed for speech synthesis, plus the name of an Amazon S3 bucket for the service to store the output of the synthesis task and two optional parameters (`OutputS3KeyPrefix` and `SnsTopicArn`). Once the synthesis task is created, this operation will return a `SpeechSynthesisTask` object, which will include an identifier of this task as well as the current status. The `SpeechSynthesisTask` object is available for 72 hours after starting the asynchronous synthesis task.

Request Syntax

```
POST /v1/synthesisTasks HTTP/1.1
Content-type: application/json

{
   "Engine": "string",
   "LanguageCode": "string",
   "LexiconNames": [ "string" ],
   "OutputFormat": "string",
   "OutputS3BucketName": "string",
   "OutputS3KeyPrefix": "string",
   "SampleRate": "string",
   "SnsTopicArn": "string",
   "SpeechMarkTypes": [ "string" ],
   "Text": "string",
   "TextType": "string",
   "VoiceId": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

Engine

Specifies the engine (`standard`, `neural`, `long-form` or `generative`) for Amazon Polly to use when processing input text for speech synthesis. Using a voice that is not supported for the engine selected will result in an error.

Type: String

Valid Values: `standard | neural | long-form | generative`

Required: No

LanguageCode

Optional language code for the Speech Synthesis request. This is only necessary if using a bilingual voice, such as Aditi, which can be used for either Indian English (en-IN) or Hindi (hi-IN).

If a bilingual voice is used and no language code is specified, Amazon Polly uses the default language of the bilingual voice. The default language for any voice is the one returned by the DescribeVoices operation for the `LanguageCode` parameter. For example, if no language code is specified, Aditi will use Indian English rather than Hindi.

Type: String

Valid Values: `arb | cmn-CN | cy-GB | da-DK | de-DE | en-AU | en-GB | en-GB-WLS | en-IN | en-US | es-ES | es-MX | es-US | fr-CA | fr-FR | is-IS | it-IT | ja-JP | hi-IN | ko-KR | nb-NO | nl-NL | pl-PL | pt-BR | pt-PT | ro-RO | ru-RU | sv-SE | tr-TR | en-NZ | en-ZA | ca-ES | de-AT | yue-CN | ar-AE | fi-FI | en-IE | nl-BE | fr-BE | cs-CZ | de-CH | en-SG`

Required: No

LexiconNames

List of one or more pronunciation lexicon names you want the service to apply during synthesis. Lexicons are applied only if the language of the lexicon is the same as the language of the voice.

Type: Array of strings

Array Members: Maximum number of 5 items.

Pattern: `[0-9A-Za-z]{1,20}`

Required: No

OutputFormat

The format in which the returned output will be encoded. For audio stream, this will be mp3, ogg_vorbis, ogg_opus, mu-law, a-law, or pcm. For speech marks, this will be json.

Type: String

Valid Values: `json | mp3 | ogg_opus | ogg_vorbis | pcm | mulaw | alaw`

Required: Yes

OutputS3BucketName

Amazon S3 bucket name to which the output file will be saved.

Type: String

Pattern: `^[a-z0-9][\.\-a-z0-9]{1,61}[a-z0-9]$`

Required: Yes

OutputS3KeyPrefix

The Amazon S3 key prefix for the output speech file.

Type: String

Pattern: `^[0-9a-zA-Z\/\!\-_\.\*\'\(\):;\$@=+\,\?&]{0,800}$`

Required: No

SampleRate

The audio frequency specified in Hz.

The valid values for mp3 and ogg_vorbis are "8000", "16000", "22050", and "24000". The default value for standard voices is "22050". The default value for neural voices is "24000". The default value for long-form voices is "24000". The default value for generative voices is "24000".

Valid values for pcm are "8000" and "16000" The default value is "16000".

Valid value for ogg_opus is "48000".

Valid value for mu-law and a-law is "8000".

Type: String

Required: No

SnsTopicArn

ARN for the SNS topic optionally used for providing status notification for a speech synthesis task.

Type: String

Pattern: `^arn:aws(-(cn|iso(-b)?|us-gov))?:sns:[a-z0-9_-]{1,50}:\d{12}:[a-zA-Z0-9_-]{1,251}([a-zA-Z0-9_-]{0,5}|\.fifo)$`

Required: No

SpeechMarkTypes

The type of speech marks returned for the input text.

Type: Array of strings

Array Members: Maximum number of 4 items.

Valid Values: `sentence | ssml | viseme | word`

Required: No

Text

The input text to synthesize. If you specify ssml as the TextType, follow the SSML format for the input text.

Type: String

Required: Yes

TextType

Specifies whether the input text is plain text or SSML. The default value is plain text.

Type: String

Valid Values: `ssml | text`

Required: No

VoiceId

Voice ID to use for the synthesis.

Type: String

Valid Values: Aditi | Amy | Astrid | Bianca | Brian | Camila | Carla | Carmen | Celine | Chantal | Conchita | Cristiano | Dora | Emma | Enrique | Ewa | Filiz | Gabrielle | Geraint | Giorgio | Gwyneth | Hans | Ines | Ivy | Jacek | Jan | Joanna | Joey | Justin | Karl | Kendra | Kevin | Kimberly | Lea | Liv | Lotte | Lucia | Lupe | Mads | Maja | Marlene | Mathieu | Matthew | Maxim | Mia | Miguel | Mizuki | Naja | Nicole | Olivia | Penelope | Raveena | Ricardo | Ruben | Russell | Salli | Seoyeon | Takumi | Tatyana | Vicki | Vitoria | Zeina | Zhiyu | Aria | Ayanda | Arlet | Hannah | Arthur | Daniel | Liam | Pedro | Kajal | Hiujin | Laura | Elin | Ida | Suvi | Ola | Hala | Andres | Sergio | Remi | Adriano | Thiago | Ruth | Stephen | Kazuha | Tomoko | Niamh | Sofie | Lisa | Isabelle | Zayd | Danielle | Gregory | Burcu | Jitka | Sabrina | Jasmine | Jihye | Ambre | Beatrice | Florian | Lennart | Lorenzo | Tiffany

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "SynthesisTask": {
      "CreationTime": number,
      "Engine": "string",
      "LanguageCode": "string",
      "LexiconNames": [ "string" ],
      "OutputFormat": "string",
      "OutputUri": "string",
      "RequestCharacters": number,
      "SampleRate": "string",
      "SnsTopicArn": "string",
      "SpeechMarkTypes": [ "string" ],
```

```
      "TaskId": "string",
      "TaskStatus": "string",
      "TaskStatusReason": "string",
      "TextType": "string",
      "VoiceId": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

SynthesisTask

SynthesisTask object that provides information and attributes about a newly submitted speech synthesis task.

Type: SynthesisTask object

Errors

For information about the errors that are common to all actions, see Common Error Types.

EngineNotSupportedException

This engine is not compatible with the voice that you have designated. Choose a new voice that is compatible with the engine or change the engine and restart the operation.

HTTP Status Code: 400

InvalidS3BucketException

The provided Amazon S3 bucket name is invalid. Please check your input with S3 bucket naming requirements and try again.

HTTP Status Code: 400

InvalidS3KeyException

The provided Amazon S3 key prefix is invalid. Please provide a valid S3 object key name.

HTTP Status Code: 400

InvalidSampleRateException

The specified sample rate is not valid.

HTTP Status Code: 400

InvalidSnsTopicArnException

The provided SNS topic ARN is invalid. Please provide a valid SNS topic ARN and try again.

HTTP Status Code: 400

InvalidSsmlException

The SSML you provided is invalid. Verify the SSML syntax, spelling of tags and values, and then try again.

HTTP Status Code: 400

LanguageNotSupportedException

The language specified is not currently supported by Amazon Polly in this capacity.

HTTP Status Code: 400

LexiconNotFoundException

Amazon Polly can't find the specified lexicon. This could be caused by a lexicon that is missing, its name is misspelled or specifying a lexicon that is in a different region.

Verify that the lexicon exists, is in the region (see ListLexicons) and that you spelled its name is spelled correctly. Then try again.

HTTP Status Code: 404

MarksNotSupportedForFormatException

Speech marks are not supported for the `OutputFormat` selected. Speech marks are only available for content in `json` format.

HTTP Status Code: 400

ServiceFailureException

An unknown condition has caused a service failure.

HTTP Status Code: 500

SsmlMarksNotSupportedForTextTypeException

SSML speech marks are not supported for plain text-type input.

HTTP Status Code: 400

TextLengthExceededException

The value of the "Text" parameter is longer than the accepted limits. For the `SynthesizeSpeech` API, the limit for input text is a maximum of 6000 characters total, of which no more than 3000 can be billed characters. For the `StartSpeechSynthesisTask` API, the maximum is 200,000 characters, of which no more than 100,000 can be billed characters. SSML tags are not counted as billed characters.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

SynthesizeSpeech

Synthesizes UTF-8 input, plain text or SSML, to a stream of bytes. SSML input must be valid, well-formed SSML. Some alphabets might not be available with all the voices (for example, Cyrillic might not be read at all by English voices) unless phoneme mapping is used. For more information, see How it Works.

Request Syntax

```
POST /v1/speech HTTP/1.1
Content-type: application/json

{
   "Engine": "string",
   "LanguageCode": "string",
   "LexiconNames": [ "string" ],
   "OutputFormat": "string",
   "SampleRate": "string",
   "SpeechMarkTypes": [ "string" ],
   "Text": "string",
   "TextType": "string",
   "VoiceId": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

Engine

Specifies the engine (`standard`, `neural`, `long-form`, or `generative`) for Amazon Polly to use when processing input text for speech synthesis. Provide an engine that is supported by the voice you select. If you don't provide an engine, the standard engine is selected by default. If a chosen voice isn't supported by the standard engine, this will result in an error. For information on Amazon Polly voices and which voices are available for each engine, see Available Voices.

Type: String

Valid Values: `standard | neural | long-form | generative`

Required: No

LanguageCode

Optional language code for the Synthesize Speech request. This is only necessary if using a bilingual voice, such as Aditi, which can be used for either Indian English (en-IN) or Hindi (hi-IN).

If a bilingual voice is used and no language code is specified, Amazon Polly uses the default language of the bilingual voice. The default language for any voice is the one returned by the DescribeVoices operation for the `LanguageCode` parameter. For example, if no language code is specified, Aditi will use Indian English rather than Hindi.

Type: String

Valid Values: `arb | cmn-CN | cy-GB | da-DK | de-DE | en-AU | en-GB | en-GB-WLS | en-IN | en-US | es-ES | es-MX | es-US | fr-CA | fr-FR | is-IS | it-IT | ja-JP | hi-IN | ko-KR | nb-NO | nl-NL | pl-PL | pt-BR | pt-PT | ro-RO | ru-RU | sv-SE | tr-TR | en-NZ | en-ZA | ca-ES | de-AT | yue-CN | ar-AE | fi-FI | en-IE | nl-BE | fr-BE | cs-CZ | de-CH | en-SG`

Required: No

LexiconNames

List of one or more pronunciation lexicon names you want the service to apply during synthesis. Lexicons are applied only if the language of the lexicon is the same as the language of the voice. For information about storing lexicons, see PutLexicon.

Type: Array of strings

Array Members: Maximum number of 5 items.

Pattern: `[0-9A-Za-z]{1,20}`

Required: No

OutputFormat

The format in which the returned output will be encoded. For audio stream, this will be mp3, ogg_vorbis, ogg_opus, mu-law, a-law or pcm. For speech marks, this will be json.

When pcm is used, the content returned is audio/pcm in a signed 16-bit, 1 channel (mono), little-endian format.

Type: String

Valid Values: `json | mp3 | ogg_opus | ogg_vorbis | pcm | mulaw | alaw`

Required: Yes

SampleRate

The audio frequency specified in Hz.

The valid values for mp3 and ogg_vorbis are "8000", "16000", "22050", "24000", "44100" and "48000". The default value for standard voices is "22050". The default value for neural voices is "24000". The default value for long-form voices is "24000". The default value for generative voices is "24000".

Valid values for pcm are "8000" and "16000" The default value is "16000".

Valid value for ogg_opus is "48000".

Valid value for mu-law and a-law is "8000".

Type: String

Required: No

SpeechMarkTypes

The type of speech marks returned for the input text.

Type: Array of strings

Array Members: Maximum number of 4 items.

Valid Values: `sentence | ssml | viseme | word`

Required: No

Text

Input text to synthesize. If you specify `ssml` as the `TextType`, follow the SSML format for the input text.

Type: String

Required: Yes

TextType

Specifies whether the input text is plain text or SSML. The default value is plain text. For more information, see Using SSML.

Type: String

Valid Values: `ssml | text`

Required: No

VoiceId

Voice ID to use for the synthesis. You can get a list of available voice IDs by calling the DescribeVoices operation.

Type: String

Valid Values: `Aditi | Amy | Astrid | Bianca | Brian | Camila | Carla | Carmen | Celine | Chantal | Conchita | Cristiano | Dora | Emma | Enrique | Ewa | Filiz | Gabrielle | Geraint | Giorgio | Gwyneth | Hans | Ines | Ivy | Jacek | Jan | Joanna | Joey | Justin | Karl | Kendra | Kevin | Kimberly | Lea | Liv | Lotte | Lucia | Lupe | Mads | Maja | Marlene | Mathieu | Matthew | Maxim | Mia | Miguel | Mizuki | Naja | Nicole | Olivia | Penelope | Raveena | Ricardo | Ruben | Russell | Salli | Seoyeon | Takumi | Tatyana | Vicki | Vitoria | Zeina | Zhiyu | Aria | Ayanda | Arlet | Hannah | Arthur | Daniel | Liam | Pedro | Kajal | Hiujin | Laura | Elin | Ida | Suvi | Ola | Hala | Andres | Sergio | Remi | Adriano | Thiago | Ruth | Stephen | Kazuha | Tomoko | Niamh | Sofie | Lisa | Isabelle | Zayd | Danielle | Gregory | Burcu | Jitka | Sabrina | Jasmine | Jihye | Ambre | Beatrice | Florian | Lennart | Lorenzo | Tiffany`

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-Type: ContentType
```

```
x-amzn-RequestCharacters: RequestCharacters

AudioStream
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The response returns the following HTTP headers.

ContentType

Specifies the type audio stream. This should reflect the `OutputFormat` parameter in your request.

- If you request `mp3` as the `OutputFormat`, the `ContentType` returned is audio/mpeg.
- If you request `ogg_vorbis` as the `OutputFormat`, the `ContentType` returned is audio/ogg.
- If you request `ogg_opus` as the `OutputFormat`, the `ContentType` returned is audio/ogg.
- If you request `pcm` as the `OutputFormat`, the `ContentType` returned is audio/pcm in a signed 16-bit, 1 channel (mono), little-endian format.
- If you request `mu-law` as the `OutputFormat`, the `ContentType` returned is audio/mulaw.
- If you request `a-law` as the `OutputFormat`, the `ContentType` returned is audio/alaw.
- If you request `json` as the `OutputFormat`, the `ContentType` returned is application/x-json-stream.

RequestCharacters

Number of characters synthesized.

The response returns the following as the HTTP body.

AudioStream

Stream containing the synthesized speech.

Errors

For information about the errors that are common to all actions, see Common Error Types.

EngineNotSupportedException

This engine is not compatible with the voice that you have designated. Choose a new voice that is compatible with the engine or change the engine and restart the operation.

HTTP Status Code: 400

InvalidSampleRateException

The specified sample rate is not valid.

HTTP Status Code: 400

InvalidSsmlException

The SSML you provided is invalid. Verify the SSML syntax, spelling of tags and values, and then try again.

HTTP Status Code: 400

LanguageNotSupportedException

The language specified is not currently supported by Amazon Polly in this capacity.

HTTP Status Code: 400

LexiconNotFoundException

Amazon Polly can't find the specified lexicon. This could be caused by a lexicon that is missing, its name is misspelled or specifying a lexicon that is in a different region.

Verify that the lexicon exists, is in the region (see ListLexicons) and that you spelled its name is spelled correctly. Then try again.

HTTP Status Code: 404

MarksNotSupportedForFormatException

Speech marks are not supported for the `OutputFormat` selected. Speech marks are only available for content in `json` format.

HTTP Status Code: 400

ServiceFailureException

An unknown condition has caused a service failure.

HTTP Status Code: 500

SsmlMarksNotSupportedForTextTypeException

SSML speech marks are not supported for plain text-type input.

HTTP Status Code: 400

TextLengthExceededException

The value of the "Text" parameter is longer than the accepted limits. For the `SynthesizeSpeech` API, the limit for input text is a maximum of 6000 characters total, of which no more than 3000 can be billed characters. For the `StartSpeechSynthesisTask` API, the maximum is 200,000 characters, of which no more than 100,000 can be billed characters. SSML tags are not counted as billed characters.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

Data Types

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

> **Note**
>
> The order of each element in a data type structure is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

- AudioEvent
- CloseStreamEvent
- FlushStreamConfiguration
- Lexicon
- LexiconAttributes
- LexiconDescription
- StartSpeechSynthesisStreamActionStream
- StartSpeechSynthesisStreamEventStream
- StreamClosedEvent
- SynthesisTask
- TextEvent
- ThrottlingReason
- ValidationExceptionField
- Voice

AudioEvent

Contains a chunk of synthesized audio data.

Contents

AudioChunk

A chunk of synthesized audio data encoded in the format specified by the `OutputFormat` parameter.

Type: Base64-encoded binary data object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CloseStreamEvent

Indicates the end of the input stream. After sending this event, the input stream will be closed and all audio will be returned.

Contents

The members of this exception structure are context-dependent.

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

FlushStreamConfiguration

Configuration that controls when synthesized audio data is sent on the output stream.

Contents

Force

Specifies whether to force the synthesis engine to immediately write buffered audio data to the output stream.

Type: Boolean

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Lexicon

Provides lexicon name and lexicon content in string format. For more information, see Pronunciation Lexicon Specification (PLS) Version 1.0.

Contents

Content

Lexicon content in string format. The content of a lexicon must be in PLS format.

Type: String

Required: No

Name

Name of the lexicon.

Type: String

Pattern: `[0-9A-Za-z]{1,20}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

LexiconAttributes

Contains metadata describing the lexicon such as the number of lexemes, language code, and so on. For more information, see Managing Lexicons.

Contents

Alphabet

Phonetic alphabet used in the lexicon. Valid values are `ipa` and `x-sampa`.

Type: String

Required: No

LanguageCode

Language code that the lexicon applies to. A lexicon with a language code such as "en" would be applied to all English languages (en-GB, en-US, en-AUS, en-WLS, and so on.

Type: String

Valid Values: `arb | cmn-CN | cy-GB | da-DK | de-DE | en-AU | en-GB | en-GB-WLS | en-IN | en-US | es-ES | es-MX | es-US | fr-CA | fr-FR | is-IS | it-IT | ja-JP | hi-IN | ko-KR | nb-NO | nl-NL | pl-PL | pt-BR | pt-PT | ro-RO | ru-RU | sv-SE | tr-TR | en-NZ | en-ZA | ca-ES | de-AT | yue-CN | ar-AE | fi-FI | en-IE | nl-BE | fr-BE | cs-CZ | de-CH | en-SG`

Required: No

LastModified

Date lexicon was last modified (a timestamp value).

Type: Timestamp

Required: No

LexemesCount

Number of lexemes in the lexicon.

Type: Integer

Required: No

LexiconArn

Amazon Resource Name (ARN) of the lexicon.

Type: String

Required: No

Size

Total size of the lexicon, in characters.

Type: Integer

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

LexiconDescription

Describes the content of the lexicon.

Contents

Attributes

Provides lexicon metadata.

Type: LexiconAttributes object

Required: No

Name

Name of the lexicon.

Type: String

Pattern: `[0-9A-Za-z]{1,20}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

StartSpeechSynthesisStreamActionStream

Inbound event stream for sending input and control events to manage bidirectional speech synthesis.

Contents

CloseStreamEvent

An event indicating the end of the input stream.

Type: CloseStreamEvent object

Required: No

TextEvent

A text event containing content to be synthesized.

Type: TextEvent object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

StartSpeechSynthesisStreamEventStream

Outbound event stream that contains synthesized audio data and stream status events.

Contents

AudioEvent

An audio event containing synthesized speech.

Type: AudioEvent object

Required: No

ServiceFailureException

An unknown condition has caused a service failure.

Type: Exception

HTTP Status Code: 500

Required: No

ServiceQuotaExceededException

An exception indicating a service quota would be exceeded.

Type: Exception

HTTP Status Code: 402

Required: No

StreamClosedEvent

An event, with summary information, indicating the stream has closed.

Type: StreamClosedEvent object

Required: No

ThrottlingException

An exception indicating the request was throttled.

Type: Exception

HTTP Status Code: 400

Required: No

ValidationException

An exception indicating the input failed validation.

Type: Exception

HTTP Status Code: 400

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

StreamClosedEvent

Indicates that the synthesis stream is closed and provides summary information.

Contents

RequestCharacters

The total number of characters synthesized during the streaming session.

Type: Integer

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SynthesisTask

SynthesisTask object that provides information about a speech synthesis task.

Contents

CreationTime

Timestamp for the time the synthesis task was started.

Type: Timestamp

Required: No

Engine

Specifies the engine (`standard`, `neural`, `long-form` or `generative`) for Amazon Polly to use when processing input text for speech synthesis. Using a voice that is not supported for the engine selected will result in an error.

Type: String

Valid Values: `standard | neural | long-form | generative`

Required: No

LanguageCode

Optional language code for a synthesis task. This is only necessary if using a bilingual voice, such as Aditi, which can be used for either Indian English (en-IN) or Hindi (hi-IN).

If a bilingual voice is used and no language code is specified, Amazon Polly uses the default language of the bilingual voice. The default language for any voice is the one returned by the DescribeVoices operation for the `LanguageCode` parameter. For example, if no language code is specified, Aditi will use Indian English rather than Hindi.

Type: String

Valid Values: `arb | cmn-CN | cy-GB | da-DK | de-DE | en-AU | en-GB | en-GB-WLS | en-IN | en-US | es-ES | es-MX | es-US | fr-CA | fr-FR | is-IS | it-IT | ja-JP | hi-IN | ko-KR | nb-NO | nl-NL | pl-PL | pt-BR | pt-PT | ro-RO | ru-RU | sv-SE | tr-TR | en-NZ | en-ZA | ca-ES | de-AT | yue-CN | ar-AE | fi-FI | en-IE | nl-BE | fr-BE | cs-CZ | de-CH | en-SG`

Required: No

LexiconNames

List of one or more pronunciation lexicon names you want the service to apply during synthesis. Lexicons are applied only if the language of the lexicon is the same as the language of the voice.

Type: Array of strings

Array Members: Maximum number of 5 items.

Pattern: `[0-9A-Za-z]{1,20}`

Required: No

OutputFormat

The format in which the returned output will be encoded. For audio stream, this will be mp3, ogg_vorbis, ogg_opus, mu-law, a-law, or pcm. For speech marks, this will be json.

Type: String

Valid Values: `json | mp3 | ogg_opus | ogg_vorbis | pcm | mulaw | alaw`

Required: No

OutputUri

Pathway for the output speech file.

Type: String

Required: No

RequestCharacters

Number of billable characters synthesized.

Type: Integer

Required: No

SampleRate

The audio frequency specified in Hz.

The valid values for mp3 and ogg_vorbis are "8000", "16000", "22050", and "24000". The default value for standard voices is "22050". The default value for neural voices is "24000". The default value for long-form voices is "24000". The default value for generative voices is "24000".

Valid values for pcm are "8000" and "16000" The default value is "16000".

Valid value for ogg_opus is "48000".

Valid value for mu-law and a-law is "8000".

Type: String

Required: No

SnsTopicArn

ARN for the SNS topic optionally used for providing status notification for a speech synthesis task.

Type: String

Pattern: `^arn:aws(-(cn|iso(-b)?|us-gov))?:sns:[a-z0-9_-]{1,50}:\d{12}:[a-zA-Z0-9_-]{1,251}([a-zA-Z0-9_-]{0,5}|\.fifo)$`

Required: No

SpeechMarkTypes

The type of speech marks returned for the input text.

Type: Array of strings

Array Members: Maximum number of 4 items.

Valid Values: `sentence | ssml | viseme | word`

Required: No

TaskId

The Amazon Polly generated identifier for a speech synthesis task.

Type: String

Pattern: `^[a-zA-Z0-9_-]{1,100}$`

Required: No

TaskStatus

Current status of the individual speech synthesis task.

Type: String

Valid Values: `scheduled | inProgress | completed | failed`

Required: No

TaskStatusReason

Reason for the current status of a specific speech synthesis task, including errors if the task has failed.

Type: String

Required: No

TextType

Specifies whether the input text is plain text or SSML. The default value is plain text.

Type: String

Valid Values: `ssml | text`

Required: No

VoiceId

Voice ID to use for the synthesis.

Type: String

Valid Values: `Aditi | Amy | Astrid | Bianca | Brian | Camila | Carla | Carmen | Celine | Chantal | Conchita | Cristiano | Dora | Emma | Enrique | Ewa | Filiz | Gabrielle | Geraint | Giorgio | Gwyneth | Hans | Ines | Ivy | Jacek | Jan | Joanna | Joey | Justin | Karl | Kendra | Kevin | Kimberly | Lea | Liv | Lotte | Lucia | Lupe | Mads | Maja | Marlene | Mathieu | Matthew | Maxim | Mia | Miguel | Mizuki | Naja | Nicole | Olivia | Penelope | Raveena | Ricardo | Ruben | Russell | Salli | Seoyeon | Takumi | Tatyana | Vicki | Vitoria | Zeina | Zhiyu | Aria`

| Ayanda | Arlet | Hannah | Arthur | Daniel | Liam | Pedro | Kajal | Hiujin | Laura | Elin | Ida | Suvi | Ola | Hala | Andres | Sergio | Remi | Adriano | Thiago | Ruth | Stephen | Kazuha | Tomoko | Niamh | Sofie | Lisa | Isabelle | Zayd | Danielle | Gregory | Burcu | Jitka | Sabrina | Jasmine | Jihye | Ambre | Beatrice | Florian | Lennart | Lorenzo | Tiffany

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TextEvent

Contains text content to be synthesized into speech.

Contents

Text

The text content to synthesize. If you specify `ssml` as the `TextType`, follow the SSML format for the input text.

Type: String

Required: Yes

FlushStreamConfiguration

Configuration for controlling when synthesized audio flushes to the output stream.

Type: FlushStreamConfiguration object

Required: No

TextType

Specifies whether the input text is plain text or SSML. Default: plain text.

Type: String

Valid Values: `ssml | text`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ThrottlingReason

Provides information about a specific throttling reason.

Contents

reason

The reason code explaining why the request was throttled.

Type: String

Required: No

resource

The resource that caused the throttling.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ValidationExceptionField

Information about a field that failed validation.

Contents

message

A message describing why the field failed validation.

Type: String

Required: Yes

name

The name of the field that failed validation.

Type: String

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Voice

Description of the voice.

Contents

AdditionalLanguageCodes

Additional codes for languages available for the specified voice in addition to its default language.

For example, the default language for Aditi is Indian English (en-IN) because it was first used for that language. Since Aditi is bilingual and fluent in both Indian English and Hindi, this parameter would show the code `hi-IN`.

Type: Array of strings

Valid Values: `arb | cmn-CN | cy-GB | da-DK | de-DE | en-AU | en-GB | en-GB-WLS | en-IN | en-US | es-ES | es-MX | es-US | fr-CA | fr-FR | is-IS | it-IT | ja-JP | hi-IN | ko-KR | nb-NO | nl-NL | pl-PL | pt-BR | pt-PT | ro-RO | ru-RU | sv-SE | tr-TR | en-NZ | en-ZA | ca-ES | de-AT | yue-CN | ar-AE | fi-FI | en-IE | nl-BE | fr-BE | cs-CZ | de-CH | en-SG`

Required: No

Gender

Gender of the voice.

Type: String

Valid Values: `Female | Male`

Required: No

Id

Amazon Polly assigned voice ID. This is the ID that you specify when calling the `SynthesizeSpeech` operation.

Type: String

Valid Values: `Aditi | Amy | Astrid | Bianca | Brian | Camila | Carla | Carmen | Celine | Chantal | Conchita | Cristiano | Dora | Emma | Enrique`

| Ewa | Filiz | Gabrielle | Geraint | Giorgio | Gwyneth | Hans | Ines | Ivy | Jacek | Jan | Joanna | Joey | Justin | Karl | Kendra | Kevin | Kimberly | Lea | Liv | Lotte | Lucia | Lupe | Mads | Maja | Marlene | Mathieu | Matthew | Maxim | Mia | Miguel | Mizuki | Naja | Nicole | Olivia | Penelope | Raveena | Ricardo | Ruben | Russell | Salli | Seoyeon | Takumi | Tatyana | Vicki | Vitoria | Zeina | Zhiyu | Aria | Ayanda | Arlet | Hannah | Arthur | Daniel | Liam | Pedro | Kajal | Hiujin | Laura | Elin | Ida | Suvi | Ola | Hala | Andres | Sergio | Remi | Adriano | Thiago | Ruth | Stephen | Kazuha | Tomoko | Niamh | Sofie | Lisa | Isabelle | Zayd | Danielle | Gregory | Burcu | Jitka | Sabrina | Jasmine | Jihye | Ambre | Beatrice | Florian | Lennart | Lorenzo | Tiffany

Required: No

LanguageCode

Language code of the voice.

Type: String

Valid Values: arb | cmn-CN | cy-GB | da-DK | de-DE | en-AU | en-GB | en-GB-WLS | en-IN | en-US | es-ES | es-MX | es-US | fr-CA | fr-FR | is-IS | it-IT | ja-JP | hi-IN | ko-KR | nb-NO | nl-NL | pl-PL | pt-BR | pt-PT | ro-RO | ru-RU | sv-SE | tr-TR | en-NZ | en-ZA | ca-ES | de-AT | yue-CN | ar-AE | fi-FI | en-IE | nl-BE | fr-BE | cs-CZ | de-CH | en-SG

Required: No

LanguageName

Human readable name of the language in English.

Type: String

Required: No

Name

Name of the voice (for example, Salli, Kendra, etc.). This provides a human readable voice name that you might display in your application.

Type: String

Required: No

SupportedEngines

Specifies which engines (`standard`, `neural`, `long-form` or `generative`) are supported by a given voice.

Type: Array of strings

Valid Values: `standard | neural | long-form | generative`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see Signing AWS API requests in the *IAM User Guide*.

X-Amz-Algorithm

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

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: `AWS4-HMAC-SHA256`

Required: Conditional

X-Amz-Credential

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4_request"). The value is expressed in the following format: *access_key*/*YYYYMMDD*/*region*/*service*/aws4_request.

For more information, see Create a signed AWS API request in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

X-Amz-Date

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: `20120325T120000Z`.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see Elements of an AWS API request signature in the *IAM User Guide*.

Type: string

Required: Conditional

X-Amz-Security-Token

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS STS, see AWS services that work with IAM in the *IAM User Guide*.

Condition: If you're using temporary security credentials from AWS STS, you must include the security token.

Type: string

Required: Conditional

X-Amz-Signature

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

X-Amz-SignedHeaders

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see Create a signed AWS API request in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

Common Error Types

This section lists common error types that this AWS service may return. Not all services return all error types listed here. For errors specific to an API action for this service, see the topic for that API action.

AccessDeniedException

You don't have permission to perform this action. Verify that your IAM policy includes the required permissions.

HTTP Status Code: 403

ExpiredTokenException

The security token included in the request has expired. Request a new security token and try again.

HTTP Status Code: 403

IncompleteSignature

The request signature doesn't conform to AWS standards. Verify that you're using valid AWS credentials and that your request is properly formatted. If you're using an SDK, ensure it's up to date.

HTTP Status Code: 403

InternalFailure

The request can't be processed right now because of an internal server issue. Try again later. If the problem persists, contact AWS Support.

HTTP Status Code: 500

MalformedHttpRequestException

The request body can't be processed. This typically happens when the request body can't be decompressed using the specified content encoding algorithm. Verify that the content encoding header matches the compression format used.

HTTP Status Code: 400

NotAuthorized

You don't have permissions to perform this action. Verify that your IAM policy includes the required permissions.

HTTP Status Code: 401

OptInRequired

Your AWS account needs a subscription for this service. Verify that you've enabled the service in your account.

HTTP Status Code: 403

RequestAbortedException

The request was aborted before a response could be returned. This typically happens when the client closes the connection.

HTTP Status Code: 400

RequestEntityTooLargeException

The request entity is too large. Reduce the size of the request body and try again.

HTTP Status Code: 413

RequestTimeoutException

The request timed out. The server didn't receive the complete request within the expected time frame. Try again.

HTTP Status Code: 408

ServiceUnavailable

The service is temporarily unavailable. Try again later.

HTTP Status Code: 503

ThrottlingException

Your request rate is too high. The AWS SDKs automatically retry requests that receive this exception. Reduce the frequency of requests.

HTTP Status Code: 400

UnknownOperationException

The action or operation isn't recognized. Verify that the action name is spelled correctly and that it's supported by the API version you're using.

HTTP Status Code: 404

UnrecognizedClientException

The X.509 certificate or AWS access key ID you provided doesn't exist in our records. Verify that you're using valid credentials and that they haven't expired.

HTTP Status Code: 403

ValidationError

The input doesn't meet the required format or constraints. Check that all required parameters are included and that values are valid.

HTTP Status Code: 400