AWS AppSync: API Reference
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Welcome

AWS AppSync provides API actions for creating and interacting with data sources using GraphQL from your application.

This document was last published on April 2, 2020.
Actions

The following actions are supported:

- CreateApiCache (p. 4)
- CreateApiKey (p. 7)
- CreateDataSource (p. 10)
- CreateFunction (p. 15)
- CreateGraphqlApi (p. 18)
- CreateResolver (p. 23)
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- StartSchemaCreation (p. 88)
- TagResource (p. 91)
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- UpdateApiKey (p. 98)
- UpdateDataSource (p. 101)
- UpdateFunction (p. 106)
- UpdateGraphqlApi (p. 109)
- UpdateResolver (p. 113)
• UpdateType (p. 117)
CreateApiCache

Creates a cache for the GraphQL API.

Request Syntax

```plaintext
POST /v1/apis/apiId/ApiCaches HTTP/1.1
Content-type: application/json

{
    "apiCachingBehavior": "string",
    "atRestEncryptionEnabled": boolean,
    "transitEncryptionEnabled": boolean,
    "ttl": number,
    "type": "string"
}
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 4)
The GraphQL API Id.

Request Body

The request accepts the following data in JSON format.

apiCachingBehavior (p. 4)
Caching behavior.

- **FULL_REQUEST_CACHING**: All requests are fully cached.
- **PER_RESOLVER_CACHING**: Individual resolvers that you specify are cached.

Type: String

Valid Values: FULL_REQUEST_CACHING | PER_RESOLVER_CACHING

Required: Yes

atRestEncryptionEnabled (p. 4)
At rest encryption flag for cache. This setting cannot be updated after creation.

Type: Boolean

Required: No

transitEncryptionEnabled (p. 4)
Transit encryption flag when connecting to cache. This setting cannot be updated after creation.

Type: Boolean

Required: No
**ttl (p. 4)**

TTL in seconds for cache entries.
Valid values are between 1 and 3600 seconds.
Type: Long
Required: Yes

**type (p. 4)**

The cache instance type.
- **T2_SMALL**: A t2.small instance type.
- **T2_MEDIUM**: A t2.medium instance type.
- **R4_LARGE**: A r4.large instance type.
- **R4_XLARGE**: A r4.xlarge instance type.
- **R4_2XLARGE**: A r4.2xlarge instance type.
- **R4_4XLARGE**: A r4.4xlarge instance type.
- **R4_8XLARGE**: A r4.8xlarge instance type.
Type: String
Valid Values: T2_SMALL | T2_MEDIUM | R4_LARGE | R4_XLARGE | R4_2XLARGE | R4_4XLARGE | R4_8XLARGE
Required: Yes

### Response Syntax

```
HTTP/1.1 200
Content-type: application/json
{
   "apiCache": {
      "apiCachingBehavior": "string",
      "atRestEncryptionEnabled": boolean,
      "status": "string",
      "transitEncryptionEnabled": boolean,
      "ttl": number,
      "type": "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.

**apiCache (p. 5)**

The ApiCache object.
Type: ApiCache (p. 122) object
Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

ConcurrentModificationException

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateApiKey

Creates a unique key that you can distribute to clients who are executing your API.

Request Syntax

```
POST /v1/apis/apiId/apikeys HTTP/1.1
Content-type: application/json

{
  "description": "string",
  "expires": number
}
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 7)

The ID for your GraphQL API.

Request Body

The request accepts the following data in JSON format.

description (p. 7)

A description of the purpose of the API key.

Type: String

Required: No

expires (p. 7)

The time from creation time after which the API key expires. The date is represented as seconds since the epoch, rounded down to the nearest hour. The default value for this parameter is 7 days from creation time. For more information, see ApiKey (p. 124).

Type: Long

Required: No

Response Syntax

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

{
  "apiKey": {
    "description": "string",
    "expires": number,
    "id": "string"
  }
```

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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.

apiKey (p. 7)

The API key.

Type: ApiKey (p. 124) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

ApiKeyLimitExceededException

The API key exceeded a limit. Try your request again.

HTTP Status Code: 400

ApiKeyValidityOutOfBoundsException

The API key expiration must be set to a value between 1 and 365 days from creation (for CreateApiKey) or from update (for UpdateApiKey).

HTTP Status Code: 400

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

LimitExceededException

The request exceeded a limit. Try your request again.

HTTP Status Code: 429

LimitExceededException

The request exceeded a limit. Try your request again.

HTTP Status Code: 429

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404
UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateDataSource

Creates a DataSource object.

Request Syntax

POST /v1/apis/{apiId}/datasources HTTP/1.1
Content-type: application/json

{
  "description": "string",
  "dynamodbConfig": {
    "awsRegion": "string",
    "deltaSyncConfig": {
      "baseTableTTL": number,
      "deltaSyncTableName": "string",
      "deltaSyncTableTTL": number
    },
    "tableName": "string",
    "useCallerCredentials": boolean,
    "versioned": boolean
  },
  "elasticsearchConfig": {
    "awsRegion": "string",
    "endpoint": "string"
  },
  "httpConfig": {
    "authorizationConfig": {
      "authorizationType": "string",
      "awsIamConfig": {
        "signingRegion": "string",
        "signingServiceName": "string"
      }
    },
    "endpoint": "string"
  },
  "lambdaConfig": {
    "lambdaFunctionArn": "string"
  },
  "name": "string",
  "relationalDatabaseConfig": {
    "rdsHttpEndpointConfig": {
      "awsRegion": "string",
      "awsSecretStoreArn": "string",
      "databaseName": "string",
      "dbClusterIdentifier": "string",
      "schema": "string"
    },
    "relationalDatabaseSourceType": "string"
  },
  "serviceRoleArn": "string",
  "type": "string"
}

URI Request Parameters

The request requires the following URI parameters.

apiid (p. 10)

The API ID for the GraphQL API for the DataSource.
Request Body

The request accepts the following data in JSON format.

**description (p. 10)**

A description of the DataSource.

Type: String

Required: No

**dynamodbConfig (p. 10)**

Amazon DynamoDB settings.

Type: DynamodbDataSourceConfig (p. 133) object

Required: No

**elasticsearchConfig (p. 10)**

Amazon Elasticsearch Service settings.

Type: ElasticsearchDataSourceConfig (p. 134) object

Required: No

**httpConfig (p. 10)**

HTTP endpoint settings.

Type: HttpDataSourceConfig (p. 139) object

Required: No

**lambdaConfig (p. 10)**

AWS Lambda settings.

Type: LambdaDataSourceConfig (p. 141) object

Required: No

**name (p. 10)**

A user-supplied name for the DataSource.

Type: String


Pattern: \[\_A-Za-z\]_[0-9A-Za-z]*

Required: Yes

**relationalDatabaseConfig (p. 10)**

Relational database settings.

Type: RelationalDatabaseDataSourceConfig (p. 146) object

Required: No
serviceRoleArn (p. 10)

The AWS IAM service role ARN for the data source. The system assumes this role when accessing the data source.

Type: String

Required: No

type (p. 10)

The type of the DataSource.

Type: String

Valid Values: AWS_LAMBDA | AMAZON_DYNAMODB | AMAZON_ELASTICSEARCH | NONE | HTTP | RELATIONAL_DATABASE

Required: Yes

Response Syntax

HTTP/1.1 200
Content-type: application/json

```json
{
    "dataSource": {
        "dataSourceArn": "string",
        "description": "string",
        "dynamodbConfig": {
            "awsRegion": "string",
            "deltaSyncConfig": {
                "baseTableTTL": number,
                "deltaSyncTableName": "string",
                "deltaSyncTableTTL": number
            },
            "tableName": "string",
            "useCallerCredentials": boolean,
            "versioned": boolean
        },
        "elasticsearchConfig": {
            "awsRegion": "string",
            "endpoint": "string"
        },
        "httpConfig": {
            "authorizationConfig": {
                "authorizationType": "string",
                "awsIamConfig": {
                    "signingRegion": "string",
                    "signingServiceName": "string"
                }
            },
            "endpoint": "string"
        },
        "lambdaConfig": {
            "lambdaFunctionArn": "string"
        },
        "name": "string",
        "relationalDatabaseConfig": {
            "rdsHttpEndpointConfig": {
                "awsRegion": "string",
                "awsSecretStoreArn": "string",
                "databaseName": "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.

dataSource (p. 12)

The DataSource object.

Type: DataSource (p. 130) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

ConcurrentModificationException

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
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• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
CreateFunction

Creates a Function object.

A function is a reusable entity. Multiple functions can be used to compose the resolver logic.

Request Syntax

```
POST /v1/apis/<apiId>/functions HTTP/1.1
Content-type: application/json

{
  "dataSourceName": "string",
  "description": "string",
  "functionVersion": "string",
  "name": "string",
  "requestMappingTemplate": "string",
  "responseMappingTemplate": "string"
}
```

URI Request Parameters

The request requires the following URI parameters.

**apiId (p. 15)**

The GraphQL API ID.

Request Body

The request accepts the following data in JSON format.

**dataSourceName (p. 15)**

The Function DataSource name.

Type: String


Pattern: [_A-Za-z][_0-9A-Za-z]*

Required: Yes

**description (p. 15)**

The Function description.

Type: String

Required: No

**functionVersion (p. 15)**

The version of the request mapping template. Currently the supported value is 2018-05-29.

Type: String
Response Syntax

HTTP/1.1 200
Content-type: application/json

{
  "functionConfiguration": {
    "dataSourceName": "string",
    "description": "string",
    "functionArn": "string",
    "functionId": "string",
    "functionVersion": "string",
    "name": "string",
    "requestMappingTemplate": "string",
    "responseMappingTemplate": "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.

functionConfiguration (p. 16)

The Function object.
Type: FunctionConfiguration (p. 135) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

ConcurrentModificationException

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateGraphqlApi

Creates a GraphqlApi object.

Request Syntax

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

{
   "additionalAuthenticationProviders": [
      {
         "authenticationType": "string",
         "openIDConnectConfig": {
            "authTTL": number,
            "clientId": "string",
            "iatTTL": number,
            "issuer": "string"
         },
         "userPoolConfig": {
            "appIdClientRegex": "string",
            "awsRegion": "string",
            "userPoolId": "string"
         }
      }
   ],
   "authenticationType": "string",
   "logConfig": {
      "cloudWatchLogsRoleArn": "string",
      "excludeVerboseContent": boolean,
      "fieldLogLevel": "string"
   },
   "name": "string",
   "openIDConnectConfig": {
      "authTTL": number,
      "clientId": "string",
      "iatTTL": number,
      "issuer": "string"
   },
   "tags": {
      "String": "string"
   },
   "userPoolConfig": {
      "appIdClientRegex": "string",
      "awsRegion": "string",
      "defaultAction": "string",
      "userPoolId": "string"
   },
   "xrayEnabled": boolean
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.
additionalAuthenticationProviders (p. 18)

A list of additional authentication providers for the GraphqlApi API.
Type: Array of AdditionalAuthenticationProvider (p. 121) objects
Required: No

authenticationType (p. 18)

The authentication type: API key, AWS IAM, OIDC, or Amazon Cognito user pools.
Type: String
Valid Values: API_KEY | AWS_IAM | AMAZON_COGNITO_USER_POOLS | OPENID_CONNECT
Required: Yes

logConfig (p. 18)

The Amazon CloudWatch Logs configuration.
Type: LogConfig (p. 142) object
Required: No

name (p. 18)

A user-supplied name for the GraphqlApi.
Type: String
Required: Yes

openIDConnectConfig (p. 18)

The OpenID Connect configuration.
Type: OpenIDConnectConfig (p. 143) object
Required: No

tags (p. 18)

A TagMap object.
Type: String to string map
Key Length Constraints: Minimum length of 1. Maximum length of 128.
Key Pattern: ^(?!aws:)[a-zA-Z\-\=\._/:]+$ Value Length Constraints: Maximum length of 256.
Required: No

userPoolConfig (p. 18)

The Amazon Cognito user pool configuration.
Type: UserPoolConfig (p. 152) object
Required: No

xrayEnabled (p. 18)

A flag indicating whether to enable X-Ray tracing for the GraphqlApi.
Type: Boolean
Required: No

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
  "graphqlApi": {
    "additionalAuthenticationProviders": [
      {
        "authenticationType": "string",
        "openIDConnectConfig": {
          "authTTL": number,
          "clientId": "string",
          "iatTTL": number,
          "issuer": "string"
        },
        "userPoolConfig": {
          "appIdClientRegex": "string",
          "awsRegion": "string",
          "userPoolId": "string"
        }
      }
    ],
    "apiId": "string",
    "arn": "string",
    "authenticationType": "string",
    "logConfig": {
      "cloudWatchLogsRoleArn": "string",
      "excludeVerboseContent": boolean,
      "fieldLogLevel": "string"
    },
    "name": "string",
    "openIDConnectConfig": {
      "authTTL": number,
      "clientId": "string",
      "iatTTL": number,
      "issuer": "string"
    },
    "tags": {
      "string": "string"
    },
    "uris": {
      "string": "string"
    },
    "userPoolConfig": {
      "appIdClientRegex": "string",
      "awsRegion": "string",
      "defaultAction": "string",
      "userPoolId": "string"
    },
    "xrayEnabled": boolean
  }
}

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.

**graphqlApi** (p. 20)

The `graphqlApi`.

Type: `graphqlApi` (p. 137) object

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

**ApiLimitExceededException**

The GraphQL API exceeded a limit. Try your request again.

HTTP Status Code: 400

**BadRequestException**

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

**ConcurrentModificationException**

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409

**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

**LimitExceededException**

The request exceeded a limit. Try your request again.

HTTP Status Code: 429

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

## See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
CreateResolver

Creates a Resolver object.

A resolver converts incoming requests into a format that a data source can understand and converts the data source's responses into GraphQL.

Request Syntax

POST /v1/apis/{apiId}/types/{typeName}/resolvers HTTP/1.1
Content-type: application/json

```json
{
    "cachingConfig": {
        "cachingKeys": [ "string" ],
        "ttl": number
    },
    "dataSourceName": "string",
    "fieldName": "string",
    "kind": "string",
    "pipelineConfig": {
        "functions": [ "string" ]
    },
    "requestMappingTemplate": "string",
    "responseMappingTemplate": "string",
    "syncConfig": {
        "conflictDetection": "string",
        "conflictHandler": "string",
        "lambdaConflictHandlerConfig": {
            "lambdaConflictHandlerArn": "string"
        }
    }
}
```

URI Request Parameters

The request requires the following URI parameters.

- **apiId (p. 23)**
  The ID for the GraphQL API for which the resolver is being created.

- **typeName (p. 23)**
  The name of the Type.
  Pattern: [_A-Za-z][_0-9A-Za-z]*

Request Body

The request accepts the following data in JSON format.

- **cachingConfig (p. 23)**
  The caching configuration for the resolver.
Type:  **CachingConfig** *(p. 128)*  object

Required: No

dataSourceName *(p. 23)*

The name of the data source for which the resolver is being created.

Type: String


Pattern:  \[A-Za-z][0-9A-Za-z]*

Required: No

fieldName *(p. 23)*

The name of the field to attach the resolver to.

Type: String


Pattern:  \[A-Za-z][0-9A-Za-z]*

Required: Yes

**kind** *(p. 23)*

The resolver type.

- **UNIT**: A UNIT resolver type. A UNIT resolver is the default resolver type. A UNIT resolver enables you to execute a GraphQL query against a single data source.
- **PIPELINE**: A PIPELINE resolver type. A PIPELINE resolver enables you to execute a series of Function in a serial manner. You can use a pipeline resolver to execute a GraphQL query against multiple data sources.

Type: String

Valid Values:  UNIT  |  PIPELINE

Required: No

pipelineConfig *(p. 23)*

The PipelineConfig.

Type:  PipelineConfig *(p. 144)*  object

Required: No

requestMappingTemplate *(p. 23)*

The mapping template to be used for requests.

A resolver uses a request mapping template to convert a GraphQL expression into a format that a data source can understand. Mapping templates are written in Apache Velocity Template Language (VTL).

Type: String


Required: Yes
responseMappingTemplate (p. 23)

The mapping template to be used for responses from the data source.
Type: String
Required: No

syncConfig (p. 23)

The SyncConfig for a resolver attached to a versioned datasource.
Type: SyncConfig (p. 149) object
Required: No

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
   "resolver": {
      "cachingConfig": {
         "cachingKeys": [ "string" ],
         "ttl": number
      },
      "dataSourceName": "string",
      "fieldName": "string",
      "kind": "string",
      "pipelineConfig": {
         "functions": [ "string" ]
      },
      "requestMappingTemplate": "string",
      "resolverArn": "string",
      "responseMappingTemplate": "string",
      "syncConfig": {
         "conflictDetection": "string",
         "conflictHandler": "string",
         "lambdaConflictHandlerConfig": {
            "lambdaConflictHandlerArn": "string"
         }
      },
      "typeName": "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.

resolver (p. 25)

The Resolver object.
Type: Resolver (p. 147) object
Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

ConcurrentModificationException

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateType

Creates a Type object.

Request Syntax

POST /v1/apis/apId/types HTTP/1.1
Content-type: application/json

{  
  "definition": "string",
  "format": "string"
}

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 27)

The API ID.

Request Body

The request accepts the following data in JSON format.

definition (p. 27)

The type definition, in GraphQL Schema Definition Language (SDL) format. For more information, see the GraphQL SDL documentation.

Type: String

Required: Yes

format (p. 27)

The type format: SDL or JSON.

Type: String

Valid Values: SDL | JSON

Required: Yes

Response Syntax

HTTP/1.1 200
Content-type: application/json

{  
  "type": {
    "arn": "string",
    "definition": "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.

**type (p. 27)**

The Type object.

Type: Type (p. 150) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

**BadRequestException**

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

**ConcurrentModificationException**

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409

**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
See Also

- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteApiCache

Deletes an ApiCache object.

Request Syntax

```
DELETE /v1/apis/apiId/ApiCaches HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

`apiId` (p. 30)

The API ID.

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 Errors (p. 155).

`BadRequestException`

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

`ConcurrentModificationException`

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409

`InternalFailureException`

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

`NotFoundException`

The resource specified in the request was not found. Check the resource, and then try again.
HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteApiKey

Deletes an API key.

Request Syntax

```
DELETE /v1/apis/apid/apikeys/id HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

- **apid (p. 32)**
  - The API ID.
- **id (p. 32)**
  - The ID for the API key.

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 Errors (p. 155).

- **BadRequestException**
  - The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.
    - HTTP Status Code: 400

- **InternalFailureException**
  - An internal AWS AppSync error occurred. Try your request again.
    - HTTP Status Code: 500

- **NotFoundException**
  - The resource specified in the request was not found. Check the resource, and then try again.
    - HTTP Status Code: 404
UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteDataSource

Deletes a DataSource object.

Request Syntax

```
DELETE /v1/apis/apId/datasources/name HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 34)

The API ID.

name (p. 34)

The name of the data source.


Pattern: \[_A-Za-z\[_0-9A-Za-z\]*

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 Errors (p. 155).

**BadRequestException**

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

**ConcurrentModificationException**

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409
**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

---

**See Also**

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

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

---
DeleteFunction

Deletes a Function.

Request Syntax

DELETE /v1/apis/apiId/functions/functionId HTTP/1.1

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 36)

The GraphQL API ID.

functionId (p. 36)

The Function ID.


Pattern: [\_A-Za-z][\_0-9A-Za-z]*

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 Errors (p. 155).

ConcurrentModificationException

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

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
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteGraphQLApi

Deletes a GraphQLApi object.

Request Syntax

```
DELETE /v1/apis/ apiId HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

`apiId (p. 38)`

The API ID.

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 Errors (p. 155).

- **AccessDeniedException**
  
  You do not have access to perform this operation on this resource.

  HTTP Status Code: 403

- **BadRequestException**
  
  The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

  HTTP Status Code: 400

- **ConcurrentModificationException**
  
  Another modification is in progress at this time and it must complete before you can make your change.

  HTTP Status Code: 409

- **InternalFailureException**
  
  An internal AWS AppSync error occurred. Try your request again.
HTTP Status Code: 500

`NotFoundException`

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

`UnauthorizedException`

You are not authorized to perform this operation.

HTTP Status Code: 401

**See Also**

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteResolver

Deletes a Resolver object.

Request Syntax

DELETE /v1/apis/apid/types/typeName/resolvers/fieldName HTTP/1.1

URI Request Parameters

The request requires the following URI parameters.

apid (p. 40)

The API ID.

fieldName (p. 40)

The resolver field name.


Pattern: [\_A-Za-z][\_0-9A-Za-z]*

typeName (p. 40)

The name of the resolver type.


Pattern: [\_A-Za-z][\_0-9A-Za-z]*

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 Errors (p. 155).

ConcurrentModificationException

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409
InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteType

Deletes a Type object.

**Request Syntax**

```
DELETE /v1/apis/{apiId}/types/{typeName} HTTP/1.1
```

**URI Request Parameters**

The request requires the following URI parameters.

- **apiId (p. 42)**
  - The API ID.
- **typeName (p. 42)**
  - The type name.
  - Pattern: `[A-Za-z][0-9A-Za-z]*`

**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 Errors (p. 155)](#).

- **BadRequestException**
  - The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.
  - HTTP Status Code: 400

- **ConcurrentModificationException**
  - Another modification is in progress at this time and it must complete before you can make your change.
  - HTTP Status Code: 409
InternalFailureException
An internal AWS AppSync error occurred. Try your request again.
HTTP Status Code: 500

NotFoundException
The resource specified in the request was not found. Check the resource, and then try again.
HTTP Status Code: 404

UnauthorizedException
You are not authorized to perform this operation.
HTTP Status Code: 401

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
FlushApiCache

Flushes an ApiCache object.

Request Syntax

```
DELETE /v1/apis/apiId/FlushCache HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 44)

The API ID.

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 Errors (p. 155).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

ConcurrentModificationException

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.
HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetApiCache

Retrieves an ApiCache object.

Request Syntax

GET /v1/apis/apiId/ApiCaches HTTP/1.1

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 46)

The API ID.

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
    "apiCache": {
        "apiCachingBehavior": "string",
        "atRestEncryptionEnabled": boolean,
        "status": "string",
        "transitEncryptionEnabled": boolean,
        "ttl": number,
        "type": "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.

apiCache (p. 46)

The ApiCache object.

Type: ApiCache (p. 122) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).
**BadRequestException**

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

**ConcurrentModificationException**

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409

**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

### See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetDataSource

Retrieves a DataSource object.

Request Syntax

GET /v1/apis/{apiId}/datasources/{name} HTTP/1.1

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 48)

The API ID.

name (p. 48)

The name of the data source.


Pattern: [\_A-Za-z][\_0-9A-Za-z]*

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
  "dataSource": {
    "dataSourceArn": "string",
    "description": "string",
    "dynamodbConfig": {
      "awsRegion": "string",
      "deltaSyncConfig": {
        "baseTableTTL": number,
        "deltaSyncTableName": "string",
        "deltaSyncTableTTL": number
      },
      "tableName": "string",
      "useCallerCredentials": boolean,
      "versioned": boolean
    },
    "elasticsearchConfig": {
      "awsRegion": "string",
      "endpoint": "string"
    },
    "httpConfig": {
      "authorizationConfig": {
        "authorizationType": "string",
        "awsIamConfig": {
          "SigningRegion": "string",
          "connectionConfig": {
            "host": "string",
            "port": number
          }
        }
      }
    }
  }
}
"signingServiceName": "string"
}
},
"endpoint": "string"
},
"lambdaConfig": {
"lambdaFunctionArn": "string"
},
"name": "string",
"relationalDatabaseConfig": {
"rdsHttpEndpointConfig": {
"awsRegion": "string",
"awsSecretStoreArn": "string",
"databaseName": "string",
"dbClusterIdentifier": "string",
"schema": "string"
},
"relationalDatabaseSourceType": "string"
},
"serviceRoleArn": "string",
"type": "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.

dataSource (p. 48)

The DataSource object.

Type: DataSource (p. 130) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

ConcurrentModificationException

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.
HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

**See Also**

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetFunction

Get a Function.

Request Syntax

```plaintext
GET /v1/apis/apiId/functions/functionId HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

- `apiId` (p. 51)
  - The GraphQL API ID.
- `functionId` (p. 51)
  - The Function ID.
  
  
  Pattern: \[_A-Za-z\]\[_0-9A-Za-z\]*

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

```
{
  "functionConfiguration": {
    "dataSourceName": "string",
    "description": "string",
    "functionArn": "string",
    "functionId": "string",
    "functionVersion": "string",
    "name": "string",
    "requestMappingTemplate": "string",
    "responseMappingTemplate": "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.

- `functionConfiguration` (p. 51)
  - The Function object.
Type: FunctionConfiguration (p. 135) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

ConcurrentModificationException

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetGraphqlApi

Retrieves a GraphqlApi object.

Request Syntax

```
GET /v1/apis/apiId HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 53)

The API ID for the GraphQL API.

Request Body

The request does not have a request body.

Response Syntax

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

{
  "graphqlApi": {
    "additionalAuthenticationProviders": [
      {
        "authenticationType": "string",
        "openIDConnectConfig": {
          "authTTL": number,
          "clientId": "string",
          "iatTTL": number,
          "issuer": "string"
        },
        "userPoolConfig": {
          "appIdClientRegex": "string",
          "awsRegion": "string",
          "userPoolId": "string"
        }
      }
    ],
    "apiId": "string",
    "arn": "string",
    "authenticationType": "string",
    "logConfig": {
      "cloudWatchLogsRoleArn": "string",
      "excludeVerboseContent": boolean,
      "fieldLogLevel": "string"
    },
    "name": "string",
    "openIDConnectConfig": {
      "authTTL": number,
      "clientId": "string",
      "iatTTL": number,
  ```

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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.

graphQLApi (p. 53)

The GraphQLApi object.

Type: GraphQLApi (p. 137) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

AccessDeniedException

You do not have access to perform this operation on this resource.

HTTP Status Code: 403

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.
HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetIntrospectionSchema

Retrieves the introspection schema for a GraphQL API.

Request Syntax

```
GET /v1/apis/{apiId}/schema?format=format&includeDirectives=includeDirectives HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

**apiId (p. 56)**

The API ID.

**format (p. 56)**

The schema format: SDL or JSON.

Valid Values: SDL | JSON

**includeDirectives (p. 56)**

A flag that specifies whether the schema introspection should contain directives.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200

schema
```

Response Elements

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

The response returns the following as the HTTP body.

**schema (p. 56)**

The schema, in GraphQL Schema Definition Language (SDL) format.

For more information, see the GraphQL SDL documentation.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).
**GraphQLSchemaException**

The GraphQL schema is not valid.

HTTP Status Code: 400

**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

---

**See Also**

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetResolver

Retrieves a Resolver object.

Request Syntax

GET /v1/apis/apiId/types/typeName/resolvers/fieldName HTTP/1.1

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 58)
The API ID.

fieldName (p. 58)
The resolver field name.
Pattern: [_A-Za-z][_0-9A-Za-z]*

typeName (p. 58)
The resolver type name.
Pattern: [_A-Za-z][_0-9A-Za-z]*

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

```json
{
   "resolver": {
      "cachingConfig": {
         "cachingKeys": [ "string" ],
         "ttl": number
      },
      "dataSourceName": "string",
      "fieldName": "string",
      "kind": "string",
      "pipelineConfig": {
         "functions": [ "string" ]
      },
      "requestMappingTemplate": "string",
      "resolverArn": "string",
      "responseMappingTemplate": "string",
      "syncConfig": {
      }
   }
}
```
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.

**resolver (p. 58)**

The Resolver object.

Type: `Resolver (p. 147)` object

Errors

For information about the errors that are common to all actions, see [Common Errors (p. 155)](#).

**ConcurrentModificationException**

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409

**NotFoundException**

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
See Also

- AWS SDK for Python
- AWS SDK for Ruby V3
GetSchemaCreationStatus

Retrieves the current status of a schema creation operation.

Request Syntax

GET /v1/apis/{apiId}/schemacreation HTTP/1.1

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 61)
The API ID.

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
  "details": "string",
  "status": "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.

details (p. 61)
Detailed information about the status of the schema creation operation.
Type: String

status (p. 61)
The current state of the schema (PROCESSING, FAILED, SUCCESS, or NOT_APPLICABLE). When the schema is in the ACTIVE state, you can add data.
Type: String
Valid Values: PROCESSING | ACTIVE | DELETING | FAILED | SUCCESS | NOT_APPLICABLE
Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

**BadRequestException**

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetType

Retrieves a Type object.

Request Syntax

GET /v1/apis/{apiId}/types/{typeName}?format={format} HTTP/1.1

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 63)

The API ID.

format (p. 63)

The type format: SDL or JSON.

Valid Values: SDL | JSON

typeName (p. 63)

The type name.


Pattern: [\_A-Za-z][\_0-9A-Za-z]*

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{  
  "type": {  
    "arn": "string",
    "definition": "string",
    "description": "string",
    "format": "string",
    "name": "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.
**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 155).

**BadRequestException**

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

**ConcurrentModificationException**

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409

**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

**See Also**

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListApiKeys

Lists the API keys for a given API.

**Note**
API keys are deleted automatically sometime after they expire. However, they may still be included in the response until they have actually been deleted. You can safely call `DeleteApiKey` to manually delete a key before it's automatically deleted.

**Request Syntax**

```
GET /v1/apis/{apiId}/apikeys?maxResults={maxResults}&nextToken={nextToken} HTTP/1.1
```

**URI Request Parameters**

The request requires the following URI parameters.

- **apiId** *(p. 65)*
  
  The API ID.

- **maxResults** *(p. 65)*
  
  The maximum number of results you want the request to return.
  
  Valid Range: Minimum value of 0. Maximum value of 25.

- **nextToken** *(p. 65)*
  
  An identifier that was returned from the previous call to this operation, which can be used to return the next set of items in the list.
  
  
  Pattern: [\S\s]+

**Request Body**

The request does not have a request body.

**Response Syntax**

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

{
  "apiKeys": [
    {
      "description": "string",
      "expires": number,
      "id": "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.

apiKeys (p. 65)

The ApiKey objects.

Type: Array of ApiKey (p. 124) objects

nextToken (p. 65)

An identifier to be passed in the next request to this operation to return the next set of items in the list.

Type: String


Pattern: [\S]+

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
See Also

- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListDataSources

Lists the data sources for a given API.

Request Syntax

GET /v1/apis/apid/datasources?maxResults=maxResults&nextToken=nextToken HTTP/1.1

URI Request Parameters

The request requires the following URI parameters.

apidid (p. 68)

The API ID.

maxResults (p. 68)

The maximum number of results you want the request to return.

Valid Range: Minimum value of 0. Maximum value of 25.

nextToken (p. 68)

An identifier that was returned from the previous call to this operation, which can be used to return the next set of items in the list.


Pattern: [\S]+

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{  
   "dataSources": [  
      {  
         "dataSourceArn": "string",
         "description": "string",
         "dynamodbConfig": {  
            "awsRegion": "string",
            "deltaSyncConfig": {  
               "baseTableTTL": number,
               "deltaSyncTableName": "string",
               "deltaSyncTableTTL": number
            },
            "tableName": "string",
            "useCallerCredentials": boolean,
            "versioned": boolean
         }
      }  
   ]
}

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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.

dataSources (p. 68)

The DataSource objects.

Type: Array of DataSource (p. 130) objects

nextToken (p. 68)

An identifier to be passed in the next request to this operation to return the next set of items in the list.

Type: String


Pattern: [\S]+

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).
BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListFunctions

List multiple functions.

**Request Syntax**

```
GET /v1/apis/{apiId}/functions?maxResults={maxResults}&nextToken={nextToken} HTTP/1.1
```

**URI Request Parameters**

The request requires the following URI parameters.

- `apiId` (p. 71)
  - The GraphQL API ID.
- `maxResults` (p. 71)
  - The maximum number of results you want the request to return.
  - Valid Range: Minimum value of 0. Maximum value of 25.
- `nextToken` (p. 71)
  - An identifier that was returned from the previous call to this operation, which can be used to return the next set of items in the list.
  - Pattern: `\S+`

**Request Body**

The request does not have a request body.

**Response Syntax**

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

{
   "functions": [
      {
         "dataSourceName": "string",
         "description": "string",
         "functionArn": "string",
         "functionId": "string",
         "functionVersion": "string",
         "name": "string",
         "requestMappingTemplate": "string",
         "responseMappingTemplate": "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.

**functions (p. 71)**

A list of function objects.

Type: Array of FunctionConfiguration (p. 135) objects

**nextToken (p. 71)**

An identifier that was returned from the previous call to this operation, which can be used to return the next set of items in the list.

Type: String


Pattern: [\S]+

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

**BadRequestException**

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
See Also

- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListGraphqlApis

Lists your GraphQL APIs.

Request Syntax

GET /v1/apis?maxResults=maxResults&nextToken=nextToken HTTP/1.1

URI Request Parameters

The request requires the following URI parameters.

maxResults (p. 74)
The maximum number of results you want the request to return.

Valid Range: Minimum value of 0. Maximum value of 25.

nextToken (p. 74)
An identifier that was returned from the previous call to this operation, which can be used to return the next set of items in the list.


Pattern: [\S]+

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
  "graphqlApis": [
    {
      "additionalAuthenticationProviders": [
        {
          "authenticationType": "string",
          "openIDConnectConfig": {
            "authTTL": number,
            "clientId": "string",
            "iatTTL": number,
            "issuer": "string"
          },
          "userPoolConfig": {
            "appIdClientRegex": "string",
            "awsRegion": "string",
            "userPoolId": "string"
          }
        }
      ],
      "apiId": "string",
      "arn": "string"
    }
  ]
}

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"authenticationType": "string",
"logConfig": {
  "cloudWatchLogsRoleArn": "string",
  "excludeVerboseContent": boolean,
  "fieldLogLevel": "string"
},
"name": "string",
"openIDConnectConfig": {
  "authTTL": number,
  "clientId": "string",
  "iatTTL": number,
  "issuer": "string"
},
"tags": {
  "string": "string"
},
"uris": {
  "string": "string"
},
"userPoolConfig": {
  "appIdClientRegex": "string",
  "awsRegion": "string",
  "defaultAction": "string",
  "userPoolId": "string"
},
"xrayEnabled": boolean
],
"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.

graphqlApis (p. 74)

The GraphQL objects.

Type: Array of GraphQL object

nextToken (p. 74)

An identifier to be passed in the next request to this operation to return the next set of items in the list.

Type: String


Pattern: [\S]+

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.
HTTP Status Code: 400

**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

### See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListResolvers

Lists the resolvers for a given API and type.

**Request Syntax**

```plaintext
GET /v1/apis/apiId/types/typeName/resolvers?maxResults=maxResults&nextToken=nextToken
HTTP/1.1
```

**URI Request Parameters**

The request requires the following URI parameters.

- **apiId (p. 77)**
  The API ID.
- **maxResults (p. 77)**
  The maximum number of results you want the request to return.
  Valid Range: Minimum value of 0. Maximum value of 25.
- **nextToken (p. 77)**
  An identifier that was returned from the previous call to this operation, which can be used to return the next set of items in the list.
  Pattern: `[\S]+`
- **typeName (p. 77)**
  The type name.

**Request Body**

The request does not have a request body.

**Response Syntax**

```
HTTP/1.1 200
Content-type: application/json
{
  "nextToken": "string",
  "resolvers": [
    {
      "cachingConfig": {
        "cachingKeys": [ "string" ],
        "ttl": number
      },
      "dataSourceName": "string",
      "fieldName": "string",
      "kind": "string",
      "pipelineConfig": {
      }
    }
  ]
}
```
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 (p. 77)

An identifier to be passed in the next request to this operation to return the next set of items in the list.

Type: String


Pattern: [\S]+

resolvers (p. 77)

The Resolver objects.

Type: Array of Resolver (p. 147) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404
UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListResolversByFunction

List the resolvers that are associated with a specific function.

**Request Syntax**

```plaintext
GET /v1/apis/apiId/functions/functionId/resolvers?maxResults=maxResults&nextToken=nextToken
HTTP/1.1
```

**URI Request Parameters**

The request requires the following URI parameters.

- **apiId (p. 80)**  
  The API ID.

- **functionId (p. 80)**  
  The Function ID.

- **maxResults (p. 80)**  
  The maximum number of results you want the request to return.
  
  Valid Range: Minimum value of 0. Maximum value of 25.

- **nextToken (p. 80)**  
  An identifier that was returned from the previous call to this operation, which you can use to return the next set of items in the list.

  
  Pattern: [\S]+

**Request Body**

The request does not have a request body.

**Response Syntax**

```plaintext
HTTP/1.1 200
Content-type: application/json
{
  "nextToken": "string",
  "resolvers": [
  {
    "cachingConfig": {
      "cachingKeys": [ "string" ],
      "ttl": number
    },
    "dataSourceName": "string",
    "fieldName": "string",
    "kind": "string",
    "pipelineConfig": {
```
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 (p. 80)

An identifier that can be used to return the next set of items in the list.

Type: String


Pattern: [\S]+

resolvers (p. 80)

The list of resolvers.

Type: Array of Resolver (p. 147) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404
UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListTagsForResource

Lists the tags for a resource.

Request Syntax

```
GET /v1/tags/resourceArn HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

- **resourceArn (p. 83)**
  - The GraphQL API ARN.
  - Length Constraints: Minimum length of 70. Maximum length of 75.
  - Pattern: `^arn:aws:appsync:[A-Za-z-_./-]{0,63}:[0-9A-Za-z_\-]{26}$`

Request Body

The request does not have a request body.

Response Syntax

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

{
    "tags": {
        "string": "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.

- **tags (p. 83)**
  - A TagMap object.
  - Type: String to string map
  - Key Pattern: `^[!\s\w\./-]+$`
  - Value Length Constraints: Maximum length of 256.
Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

AccessDeniedException

You do not have access to perform this operation on this resource.

HTTP Status Code: 403

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

LimitExceededException

The request exceeded a limit. Try your request again.

HTTP Status Code: 429

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListTypes

Lists the types for a given API.

Request Syntax

```
GET /v1/apis/{apiId}/types?format=format&maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

- **apiId (p. 85)**
  - The API ID.
- **format (p. 85)**
  - The type format: SDL or JSON.
    - Valid Values: SDL | JSON
- **maxResults (p. 85)**
  - The maximum number of results you want the request to return.
    - Valid Range: Minimum value of 0. Maximum value of 25.
- **nextToken (p. 85)**
  - An identifier that was returned from the previous call to this operation, which can be used to return the next set of items in the list.
    - Pattern: [\S]+

Request Body

The request does not have a request body.

Response Syntax

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

{
    "nextToken": "string",
    "types": [
        {
            "arn": "string",
            "definition": "string",
            "description": "string",
            "format": "string",
            "name": "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 (p. 85)

An identifier to be passed in the next request to this operation to return the next set of items in the list.

Type: String


Pattern: [\S]+

types (p. 85)

The `Type` objects.

Type: Array of `Type (p. 150)` objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

ConcurrentModificationException

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401
See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
StartSchemaCreation

Adds a new schema to your GraphQL API.

This operation is asynchronous. Use GetSchemaCreationStatus (p. 61) to determine when it has completed.

Request Syntax

```
POST /v1/apis/apiId/schemacreation HTTP/1.1
Content-type: application/json
{
    "definition": blob
}
```

URI Request Parameters

The request requires the following URI parameters.

- `apiId` (p. 88)
  - The API ID.

Request Body

The request accepts the following data in JSON format.

- `definition` (p. 88)
  - The schema definition, in GraphQL schema language format.
  - Type: Base64-encoded binary data object
  - Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
{
    "status": "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.
status (p. 88)

The current state of the schema (PROCESSING, FAILED, SUCCESS, or NOT_APPLICABLE). When the schema is in the ACTIVE state, you can add data.

Type: String

Valid Values: PROCESSING | ACTIVE | DELETING | FAILED | SUCCESS | NOT_APPLICABLE

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

ConcurrentModificationException

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
• AWS SDK for Ruby V3
TagResource

Tags a resource with user-supplied tags.

Request Syntax

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

{
  "tags": {
    "string": "string"
  }
}
```

URI Request Parameters

The request requires the following URI parameters.

resourceArn (p. 91)

The GraphQL API ARN.

Length Constraints: Minimum length of 70. Maximum length of 75.

Pattern: ^arn:aws:appsync:[A-Za-z0-9_/.-](0,63)\d(12):apis/[0-9A-Za-z_\-]{26}$

Request Body

The request accepts the following data in JSON format.

tags (p. 91)

A TagMap object.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: ^(?!aws:\)[a-zA-Z\-+=._:/\]+$\n
Value Length Constraints: Maximum length of 256.

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 Errors (p. 155).

AccessDeniedException

You do not have access to perform this operation on this resource.

HTTP Status Code: 403

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

LimitExceededException

The request exceeded a limit. Try your request again.

HTTP Status Code: 429

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UntagResource

Untags a resource.

Request Syntax

```plaintext
DELETE /v1/tags/resourceArn?tagKeys=tagKeys HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

**resourceArn (p. 93)**

The GraphqlApi ARN.

Length Constraints: Minimum length of 70. Maximum length of 75.

Pattern: `^arn:aws:appsync:[A-Za-z0-9_/.-]{0,63}:d{12}:apis/[0-9A-Za-z_-]{26}$`

**tagKeys (p. 93)**

A list of TagKey objects.

Array Members: Minimum number of 1 item. Maximum number of 50 items.


Pattern: `^(?!aws:)\[a-zA-Z+=-._:/\]+\$`

Request Body

The request does not have a request body.

Response Syntax

```plaintext
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 Errors (p. 155).

**AccessDeniedException**

You do not have access to perform this operation on this resource.

HTTP Status Code: 403
See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateApiCache

Updates the cache for the GraphQL API.

Request Syntax

POST /v1/apis/<apiId>/ApiCaches/update HTTP/1.1
Content-type: application/json
{
  "apiCachingBehavior": "string",
  "ttl": number,
  "type": "string"
}

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 95)
   The GraphQL API Id.

Request Body

The request accepts the following data in JSON format.

apiCachingBehavior (p. 95)
   Caching behavior.
   • FULL_REQUEST_CACHING: All requests are fully cached.
   • PER_RESOLVER_CACHING: Individual resolvers that you specify are cached.
   Type: String
   Valid Values: FULL_REQUEST_CACHING | PER_RESOLVER_CACHING
   Required: Yes

ttl (p. 95)
   TTL in seconds for cache entries.
   Valid values are between 1 and 3600 seconds.
   Type: Long
   Required: Yes

type (p. 95)
   The cache instance type.
   • T2_SMALL: A t2.small instance type.
   • T2_MEDIUM: A t2.medium instance type.
   • R4_LARGE: A r4.large instance type.
Response Syntax

HTTP/1.1 200
Content-type: application/json

```
{
    "apiCache": {
        "apiCachingBehavior": "string",
        "atRestEncryptionEnabled": boolean,
        "status": "string",
        "transitEncryptionEnabled": boolean,
        "ttl": number,
        "type": "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.

**apiCache (p. 96)**

The `ApiCache` object.

Type: `ApiCache (p. 122)` object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

**BadRequestException**

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

**ConcurrentModificationException**

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409
**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

---

**See Also**

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateApiKey

Updates an API key.

Request Syntax

```
POST /v1/apis/{apiId}/apikeys/{id} HTTP/1.1
Content-type: application/json

{
    "description": "string",
    "expires": number
}
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 98)

The ID for the GraphQL API.

id (p. 98)

The API key ID.

Request Body

The request accepts the following data in JSON format.

description (p. 98)

A description of the purpose of the API key.

Type: String

Required: No

expires (p. 98)

The time from update time after which the API key expires. The date is represented as seconds since the epoch. For more information, see ApiKey (p. 124).

Type: Long

Required: No

Response Syntax

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

{
    "apiKey": {
        "description": "string",
        "expires": 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.

apiKey (p. 98)

The API key.

Type: ApiKey (p. 124) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

ApiKeyValidityOutOfBoundsException

The API key expiration must be set to a value between 1 and 365 days from creation (for CreateApiKey) or from update (for UpdateApiKey).

HTTP Status Code: 400

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

LimitExceededException

The request exceeded a limit. Try your request again.

HTTP Status Code: 429

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateDataSource

Updates a DataSource object.

Request Syntax

```
POST /v1/apis/{apiId}/datasources/{name} HTTP/1.1
Content-type: application/json

{
    "description": "string",
    "dynamodbConfig": {
        "awsRegion": "string",
        "deltaSyncConfig": {
            "baseTableTTL": number,
            "deltaSyncTableName": "string",
            "deltaSyncTableTTL": number
        },
        "tableName": "string",
        "useCallerCredentials": boolean,
        "versioned": boolean
    },
    "elasticsearchConfig": {
        "awsRegion": "string",
        "endpoint": "string"
    },
    "httpConfig": {
        "authorizationConfig": {
            "authorizationType": "string",
            "awsSamlConfig": {
                "SigningRegion": "string",
                "signingServiceName": "string"
            }
        },
        "endpoint": "string"
    },
    "lambdaConfig": {
        "lambdaFunctionArn": "string"
    },
    "relationalDatabaseConfig": {
        "rdsHttpEndpointConfig": {
            "awsRegion": "string",
            "awsSecretStoreArn": "string",
            "databaseName": "string",
            "dbClusterIdentifier": "string",
            "schema": "string"
        },
        "relationalDatabaseSourceType": "string"
    },
    "serviceRoleArn": "string",
    "type": "string"
}
```

URI Request Parameters

The request requires the following URI parameters.

**apiId (p. 101)**

The API ID.
name (p. 101)

The new name for the data source.
Pattern: [\_A-Za-z][\_0-9A-Za-z]*

Request Body

The request accepts the following data in JSON format.

description (p. 101)

The new description for the data source.
Type: String
Required: No

dynamodbConfig (p. 101)

The new Amazon DynamoDB configuration.
Type: DynamodbDataSourceConfig (p. 133) object
Required: No

elasticsearchConfig (p. 101)

The new Elasticsearch Service configuration.
Type: ElasticsearchDataSourceConfig (p. 134) object
Required: No

httpConfig (p. 101)

The new HTTP endpoint configuration.
Type: HttpDataSourceConfig (p. 139) object
Required: No

lambdaConfig (p. 101)

The new AWS Lambda configuration.
Type: LambdaDataSourceConfig (p. 141) object
Required: No

relationalDatabaseConfig (p. 101)

The new relational database configuration.
Type: RelationalDatabaseDataSourceConfig (p. 146) object
Required: No

serviceRoleArn (p. 101)

The new service role ARN for the data source.
Type: String
Response Syntax

HTTP/1.1 200
Content-type: application/json

{
    "dataSource": {
        "dataSourceArn": "string",
        "description": "string",
        "dynamodbConfig": {
            "awsRegion": "string",
            "deltaSyncConfig": {
                "baseTableTTL": number,
                "deltaSyncTableName": "string",
                "deltaSyncTableTTL": number
            },
            "tableName": "string",
            "useCallerCredentials": boolean,
            "versioned": boolean
        },
        "elasticsearchConfig": {
            "awsRegion": "string",
            "endpoint": "string"
        },
        "httpConfig": {
            "authorizationConfig": {
                "authorizationType": "string",
                "awsIamConfig": {
                    "signingRegion": "string",
                    "signingServiceName": "string"
                }
            },
            "endpoint": "string"
        },
        "lambdaConfig": {
            "lambdaFunctionArn": "string"
        },
        "name": "string",
        "relationalDatabaseConfig": {
            "rdsHttpEndpointConfig": {
                "awsRegion": "string",
                "awsSecretStoreArn": "string",
                "databaseName": "string",
                "dbClusterIdentifier": "string",
                "schema": "string"
            },
            "relationalDatabaseSourceType": "string"
        },
        "serviceRoleArn": "string",
        "type": "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.

dataSource (p. 103)
   The updated DataSource object.
   Type: DataSource (p. 130) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).

BadRequestException
   The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.
   HTTP Status Code: 400

ConcurrentModificationException
   Another modification is in progress at this time and it must complete before you can make your change.
   HTTP Status Code: 409

InternalFailureException
   An internal AWS AppSync error occurred. Try your request again.
   HTTP Status Code: 500

NotFoundException
   The resource specified in the request was not found. Check the resource, and then try again.
   HTTP Status Code: 404

UnauthorizedException
   You are not authorized to perform this operation.
   HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
UpdateFunction

Updates a Function object.

Request Syntax

```
POST /v1/apis/apiId/functions/functionId HTTP/1.1
Content-type: application/json
```

```json
{
    "dataSourceName": "string",
    "description": "string",
    "functionVersion": "string",
    "name": "string",
    "requestMappingTemplate": "string",
    "responseMappingTemplate": "string"
}
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 106)

The GraphQL API ID.

functionId (p. 106)

The function ID.


Pattern: \[_A-Za-z\][\_0-9A-Za-z]*

Request Body

The request accepts the following data in JSON format.

dataSourceName (p. 106)

The Function DataSource name.

Type: String


Pattern: \[_A-Za-z\][\_0-9A-Za-z]*

Required: Yes

description (p. 106)

The Function description.

Type: String

Required: No
functionVersion (p. 106)

The version of the request mapping template. Currently the supported value is 2018-05-29.

Type: String

Required: Yes

name (p. 106)

The Function name.

Type: String


Pattern: [_A-Za-z][_0-9A-Za-z]*

Required: Yes

requestMappingTemplate (p. 106)

The Function request mapping template. Functions support only the 2018-05-29 version of the request mapping template.

Type: String


Required: Yes

responseMappingTemplate (p. 106)

The Function request mapping template.

Type: String


Required: No

Response Syntax

HTTP/1.1 200
Content-type: application/json

{  "functionConfiguration": {   "dataSourceName": "string",   "description": "string",   "functionArn": "string",   "functionId": "string",   "functionVersion": "string",   "name": "string",   "requestMappingTemplate": "string",   "responseMappingTemplate": "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.

**functionConfiguration (p. 107)**

The Function object.

Type: FunctionConfiguration (p. 135) object

---

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 155).

**ConcurrentModificationException**

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409

**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

---

**See Also**

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateGraphqlApi

Updates a GraphqlApi object.

Request Syntax

POST /v1/apis/apiId HTTP/1.1
Content-type: application/json

{
  "additionalAuthenticationProviders": [
    {
      "authenticationType": "string",
      "openIDConnectConfig": {
        "authTTL": number,
        "clientId": "string",
        "iatTTL": number,
        "issuer": "string"
      },
      "userPoolConfig": {
        "appIdClientRegex": "string",
        "awsRegion": "string",
        "userPoolId": "string"
      }
    }
  ],
  "authenticationType": "string",
  "logConfig": {
    "cloudWatchLogsRoleArn": "string",
    "excludeVerboseContent": boolean,
    "fieldLogLevel": "string"
  },
  "name": "string",
  "openIDConnectConfig": {
    "authTTL": number,
    "clientId": "string",
    "iatTTL": number,
    "issuer": "string"
  },
  "userPoolConfig": {
    "appIdClientRegex": "string",
    "awsRegion": "string",
    "defaultAction": "string",
    "userPoolId": "string"
  },
  "xrayEnabled": boolean
}

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 109)

The API ID.

Request Body

The request accepts the following data in JSON format.
additionalAuthenticationProviders (p. 109)
A list of additional authentication providers for the GraphQLApi API.
Type: Array of AdditionalAuthenticationProvider (p. 121) objects
Required: No

authenticationType (p. 109)
The new authentication type for the GraphQLApi object.
Type: String
Valid Values: API_KEY | AWS_IAM | AMAZON_COGNITO_USER_POOLS | OPENID_CONNECT
Required: No

logConfig (p. 109)
The Amazon CloudWatch Logs configuration for the GraphQLApi object.
Type: LogConfig (p. 142) object
Required: No

name (p. 109)
The new name for the GraphQLApi object.
Type: String
Required: Yes

openIDConnectConfig (p. 109)
The OpenID Connect configuration for the GraphQLApi object.
Type: OpenIDConnectConfig (p. 143) object
Required: No

userPoolConfig (p. 109)
The new Amazon Cognito user pool configuration for the GraphQLApi object.
Type: UserPoolConfig (p. 152) object
Required: No

xrayEnabled (p. 109)
A flag indicating whether to enable X-Ray tracing for the GraphQLApi.
Type: Boolean
Required: No

Response Syntax

HTTP/1.1 200
Content-type: application/json
{
  "graphqlApi": {
    "additionalAuthenticationProviders": [
      
      
    ]
  }
}
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.

graphqlApi (p. 110)

The updated GraphQLApi object.

Type: GraphQLApi (p. 137) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 155).
**AccessDeniedException**

You do not have access to perform this operation on this resource.

HTTP Status Code: 403

**BadRequestException**

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

**ConcurrentModificationException**

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409

**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

**See Also**

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateResolver

Updates a Resolver object.

Request Syntax

```
POST /v1/apis/<apiId>/types/<typeName>/resolvers/<fieldName> HTTP/1.1
Content-type: application/json

{
  "cachingConfig": {
    "cachingKeys": [ "string" ],
    "ttl": number
  },
  "dataSourceName": "string",
  "kind": "string",
  "pipelineConfig": {
    "functions": [ "string" ]
  },
  "requestMappingTemplate": "string",
  "responseMappingTemplate": "string",
  "syncConfig": {
    "conflictDetection": "string",
    "conflictHandler": "string",
    "lambdaConflictHandlerConfig": {
      "lambdaConflictHandlerArn": "string"
    }
  }
}
```

URI Request Parameters

The request requires the following URI parameters.

**apiId (p. 113)**

The API ID.

**fieldName (p. 113)**

The new field name.


Pattern: [_A-Za-z][_0-9A-Za-z]*

**typeName (p. 113)**

The new type name.


Pattern: [_A-Za-z][_0-9A-Za-z]*

Request Body

The request accepts the following data in JSON format.
cachingConfig (p. 113)
The caching configuration for the resolver.
Type: CachingConfig (p. 128) object
Required: No

dataSourceName (p. 113)
The new data source name.
Type: String
Pattern: [\_A-Za-z][\_0-9A-Za-z]*
Required: No

kind (p. 113)
The resolver type.
• UNIT: A UNIT resolver type. A UNIT resolver is the default resolver type. A UNIT resolver enables
you to execute a GraphQL query against a single data source.
• PIPELINE: A PIPELINE resolver type. A PIPELINE resolver enables you to execute a series of
Function in a serial manner. You can use a pipeline resolver to execute a GraphQL query against
multiple data sources.
Type: String
Valid Values: UNIT | PIPELINE
Required: No

pipelineConfig (p. 113)
The PipelineConfig.
Type: PipelineConfig (p. 144) object
Required: No

requestMappingTemplate (p. 113)
The new request mapping template.
Type: String
Required: Yes

responseMappingTemplate (p. 113)
The new response mapping template.
Type: String
Required: No

syncConfig (p. 113)
The SyncConfig for a resolver attached to a versioned datasource.
Type: **SyncConfig (p. 149)** object

Required: No

## Response Syntax

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

{
   "resolver": {
      "cachingConfig": {
         "cachingKeys": [ "string" ],
         "ttl": number
      },
      "dataSourceName": "string",
      "fieldName": "string",
      "kind": "string",
      "pipelineConfig": {
         "functions": [ "string" ]
      },
      "requestMappingTemplate": "string",
      "resolverArn": "string",
      "responseMappingTemplate": "string",
      "syncConfig": {
         "conflictDetection": "string",
         "conflictHandler": "string",
         "lambdaConflictHandlerConfig": {
            "lambdaConflictHandlerArn": "string"
         }
      },
      "typeName": "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.

**resolver (p. 115)**

The updated `Resolver` object.

Type: **Resolver (p. 147)** object

## Errors

For information about the errors that are common to all actions, see **Common Errors (p. 155).**

**ConcurrentModificationException**

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409
InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
**UpdateType**

Updates a Type object.

**Request Syntax**

```
POST /v1/apis/apiId/types/typeName HTTP/1.1
Content-type: application/json

{
    "definition": "string",
    "format": "String"
}
```

**URI Request Parameters**

The request requires the following URI parameters.

- **apiId** (p. 117)
  
  The API ID.

- **typeName** (p. 117)
  
  The new type name.
  
  
  Pattern: [A-Za-z][0-9A-Za-z]*

**Request Body**

The request accepts the following data in JSON format.

- **definition** (p. 117)
  
  The new definition.
  
  Type: String
  
  Required: No

- **format** (p. 117)
  
  The new type format: SDL or JSON.
  
  Type: String
  
  Valid Values: SDL | JSON
  
  Required: Yes

**Response Syntax**

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

**type (p. 117)**

The updated `Type` object.

Type: `Type (p. 150)` object

**Errors**

For information about the errors that are common to all actions, see `Common Errors (p. 155)`.

**BadRequestException**

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and then try again.

HTTP Status Code: 400

**ConcurrentModificationException**

Another modification is in progress at this time and it must complete before you can make your change.

HTTP Status Code: 409

**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource, and then try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
Data Types

The AWS AppSync 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:

- `AdditionalAuthenticationProvider (p. 121)`
- `ApiCache (p. 122)`
- `ApiKey (p. 124)`
- `AuthorizationConfig (p. 126)`
- `AwsIamConfig (p. 127)`
- `CachingConfig (p. 128)`
- `CognitoUserPoolConfig (p. 129)`
- `DataSource (p. 130)`
- `DeltaSyncConfig (p. 132)`
- `DynamodbDataSourceConfig (p. 133)`
- `ElasticsearchDataSourceConfig (p. 134)`
- `FunctionConfiguration (p. 135)`
- `GraphqlApi (p. 137)`
- `HttpDataSourceConfig (p. 139)`
- `LambdaConflictHandlerConfig (p. 140)`
- `LambdaDataSourceConfig (p. 141)`
- `LogConfig (p. 142)`
- `OpenIDConnectConfig (p. 143)`
- `PipelineConfig (p. 144)`
- `RdsHttpEndpointConfig (p. 145)`
- `RelationalDatabaseDataSourceConfig (p. 146)`
- `Resolver (p. 147)`
- `SyncConfig (p. 149)`
- `Type (p. 150)`
- `UserPoolConfig (p. 152)`
AdditionalAuthenticationProvider

Describes an additional authentication provider.

Contents

authenticationType

The authentication type: API key, AWS IAM, OIDC, or Amazon Cognito user pools.

Type: String

Valid Values: API_KEY | AWS_IAM | AMAZON_COGNITO_USER_POOLS | OPENID_CONNECT

Required: No

openIDConnectConfig

The OpenID Connect configuration.

Type: OpenIDConnectConfig (p. 143) object

Required: No

userPoolConfig

The Amazon Cognito user pool configuration.

Type: CognitoUserPoolConfig (p. 129) 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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ApiCache

The ApiCache object.

Contents

**apiCachingBehavior**

Caching behavior.

- **FULL_REQUEST_CACHING**: All requests are fully cached.
- **PER_RESOLVER_CACHING**: Individual resolvers that you specify are cached.

Type: String

Valid Values: FULL_REQUEST_CACHING | PER_RESOLVER_CACHING

Required: No

**atRestEncryptionEnabled**

At rest encryption flag for cache. This setting cannot be updated after creation.

Type: Boolean

Required: No

**status**

The cache instance status.

- **AVAILABLE**: The instance is available for use.
- **CREATING**: The instance is currently creating.
- **DELETING**: The instance is currently deleting.
- **MODIFYING**: The instance is currently modifying.
- **FAILED**: The instance has failed creation.

Type: String

Valid Values: AVAILABLE | CREATING | DELETING | MODIFYING | FAILED

Required: No

**transitEncryptionEnabled**

Transit encryption flag when connecting to cache. This setting cannot be updated after creation.

Type: Boolean

Required: No

**ttl**

TTL in seconds for cache entries.

Valid values are between 1 and 3600 seconds.

Type: Long

Required: No

**type**

The cache instance type.
• **T2_SMALL**: A t2.small instance type.
• **T2_MEDIUM**: A t2.medium instance type.
• **R4_LARGE**: A r4.large instance type.
• **R4_XLARGE**: A r4.xlarge instance type.
• **R4_2XLarge**: A r4.2xlarge instance type.
• **R4_4XLarge**: A r4.4xlarge instance type.
• **R4_8XLarge**: A r4.8xlarge instance type.

Type: String

Valid Values: T2_SMALL | T2_MEDIUM | R4_LARGE | R4_XLARGE | R4_2XLarge | R4_4XLarge | R4_8XLarge

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 Go
• AWS SDK for Java
• AWS SDK for Ruby V3
**ApiKey**

Describes an API key.

Customers invoke AWS AppSync GraphQL API operations with API keys as an identity mechanism. There are two key versions:

**da1**: This version was introduced at launch in November 2017. These keys always expire after 7 days. Key expiration is managed by Amazon DynamoDB TTL. The keys ceased to be valid after February 21, 2018 and should not be used after that date.

- **ListApiKeys** returns the expiration time in milliseconds.
- **CreateApiKey** returns the expiration time in milliseconds.
- **UpdateApiKey** is not available for this key version.
- **DeleteApiKey** deletes the item from the table.

- Expiration is stored in Amazon DynamoDB as milliseconds. This results in a bug where keys are not automatically deleted because DynamoDB expects the TTL to be stored in seconds. As a one-time action, we will delete these keys from the table after February 21, 2018.

**da2**: This version was introduced in February 2018 when AppSync added support to extend key expiration.

- **ListApiKeys** returns the expiration time in seconds.
- **CreateApiKey** returns the expiration time in seconds and accepts a user-provided expiration time in seconds.
- **UpdateApiKey** returns the expiration time in seconds and accepts a user-provided expiration time in seconds. Key expiration can only be updated while the key has not expired.
- **DeleteApiKey** deletes the item from the table.

- Expiration is stored in Amazon DynamoDB as seconds.

**Contents**

**description**

A description of the purpose of the API key.

Type: String

Required: No

**expires**

The time after which the API key expires. The date is represented as seconds since the epoch, rounded down to the nearest hour.

Type: Long

Required: No

**id**

The API key ID.

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AuthorizationConfig

The authorization config in case the HTTP endpoint requires authorization.

Contents

authorizationType

The authorization type required by the HTTP endpoint.

- **AWS_IAM**: The authorization type is Sigv4.

  Type: String

  Valid Values: **AWS_IAM**

  Required: Yes

awslamConfig

The AWS IAM settings.

Type: **AwslamConfig (p. 127) 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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AwsIamConfig

The AWS IAM configuration.

Contents

signingRegion

The signing region for AWS IAM authorization.

Type: String
Required: No

signingServiceName

The signing service name for AWS IAM authorization.

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
CachingConfig

The caching configuration for a resolver that has caching enabled.

Contents

cachingKeys

The caching keys for a resolver that has caching enabled.

Valid values are entries from the $context.identity and $context.arguments maps.

Type: Array of strings

Required: No

ttl

The TTL in seconds for a resolver that has caching enabled.

Valid values are between 1 and 3600 seconds.

Type: Long

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
CognitoUserPoolConfig

Describes an Amazon Cognito user pool configuration.

Contents

appIdClientRegex

A regular expression for validating the incoming Amazon Cognito user pool app client ID.

Type: String

Required: No

awsRegion

The AWS Region in which the user pool was created.

Type: String

Required: Yes

userPoolId

The user pool ID.

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
DataSource

Describes a data source.

Contents

dataSourceArn

The data source ARN.
Type: String
Required: No
description

The description of the data source.
Type: String
Required: No
dynamodbConfig

Amazon DynamoDB settings.
Type: DynamodbDataSourceConfig (p. 133) object
Required: No
elasticsearchConfig

Amazon Elasticsearch Service settings.
Type: ElasticsearchDataSourceConfig (p. 134) object
Required: No
httpConfig

HTTP endpoint settings.
Type: HttpDataSourceConfig (p. 139) object
Required: No
lambdaConfig

AWS Lambda settings.
Type: LambdaDataSourceConfig (p. 141) object
Required: No
name

The name of the data source.
Type: String
Pattern: [_A-Za-z][_0-9A-Za-z]*
**relationalDatabaseConfig**

Relational database settings.

Type: RelationalDatabaseDataSourceConfig (p. 146) object

Required: No

**serviceRoleArn**

The AWS IAM service role ARN for the data source. The system assumes this role when accessing the data source.

Type: String

Required: No

**type**

The type of the data source.

- **AMAZON_DYNAMODB**: The data source is an Amazon DynamoDB table.
- **AMAZON_ELASTICSEARCH**: The data source is an Amazon Elasticsearch Service domain.
- **AWS_LAMBDA**: The data source is an AWS Lambda function.
- **NONE**: There is no data source. This type is used when you wish to invoke a GraphQL operation without connecting to a data source, such as performing data transformation with resolvers or triggering a subscription to be invoked from a mutation.
- **HTTP**: The data source is an HTTP endpoint.
- **RELATIONAL_DATABASE**: The data source is a relational database.

Type: String

Valid Values: AWS_LAMBDA | AMAZON_DYNAMODB | AMAZON_ELASTICSEARCH | NONE | HTTP | RELATIONAL_DATABASE

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
DeltaSyncConfig

Describes a Delta Sync configuration.

Contents

**baseTableTTL**

The number of minutes an Item is stored in the datasource.

Type: Long

Required: No

**deltaSyncTableName**

The Delta Sync table name.

Type: String

Required: No

**deltaSyncTableTTL**

The number of minutes a Delta Sync log entry is stored in the Delta Sync table.

Type: Long

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
DynamodbDataSourceConfig

Describes an Amazon DynamoDB data source configuration.

Contents

awsRegion

The AWS Region.
Type: String
Required: Yes

deltaSyncConfig

The DeltaSyncConfig for a versioned datasource.
Type: DeltaSyncConfig (p. 132) object
Required: No

tableName

The table name.
Type: String
Required: Yes

useCallerCredentials

Set to TRUE to use Amazon Cognito credentials with this data source.
Type: Boolean
Required: No

versioned

Set to TRUE to use Conflict Detection and Resolution with this data source.
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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ElasticsearchDataSourceConfig

Describes an Elasticsearch data source configuration.

Contents

awsRegion

  The AWS Region.
  
  Type: String
  
  Required: Yes

endpoint

  The endpoint.
  
  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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
FunctionConfiguration

A function is a reusable entity. Multiple functions can be used to compose the resolver logic.

Contents

dataSourceName

The name of the DataSource.

Type: String


Pattern: \[\_A-Za-z\][\_0-9A-Za-z]*

Required: No
description

The Function description.

Type: String

Required: No
functionArn

The ARN of the Function object.

Type: String

Required: No
functionId

A unique ID representing the Function object.

Type: String

Required: No
functionVersion

The version of the request mapping template. Currently only the 2018-05-29 version of the template is supported.

Type: String

Required: No
name

The name of the Function object.

Type: String


Pattern: \[\_A-Za-z\][\_0-9A-Za-z]*

Required: No
**requestMappingTemplate**

The function request mapping template. Functions support only the 2018-05-29 version of the request mapping template.

Type: String


Required: No

**responseMappingTemplate**

The function response mapping template.

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
GraphqlApi

Describes a GraphQL API.

Contents

additionalAuthenticationProviders

A list of additional authentication providers for the GraphqlApi API.

Type: Array of AdditionalAuthenticationProvider (p. 121) objects

Required: No

apilid

The API ID.

Type: String

Required: No

arn

The ARN.

Type: String

Required: No

authenticationType

The authentication type.

Type: String

Valid Values: API_KEY | AWS_IAM | AMAZON_COGNITO_USER_POOLS | OPENID_CONNECT

Required: No

logConfig

The Amazon CloudWatch Logs configuration.

Type: LogConfig (p. 142) object

Required: No

name

The API name.

Type: String


Pattern: [ _A-Za-z ] [ _0-9A-Za-z ] *

Required: No

openIDConnectConfig

The OpenID Connect configuration.
type: OpenIDConnectConfig (p. 143) object

required: no
tags
the tags.
type: string to string map
key length constraints: minimum length of 1. maximum length of 128.
key pattern: ^(?!aws:)[a-zA-Z-+-=._:/]+$ 
value length constraints: maximum length of 256.
required: no
uris
the uris.
type: string to string map
required: no
userPoolConfig
the Amazon Cognito user pool configuration.
type: UserPoolConfig (p. 152) object
required: no
xrayEnabled
A flag representing whether X-Ray tracing is enabled for this GraphqlApi.
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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
HttpDataSourceConfig

Describes an HTTP data source configuration.

Contents

authorizationConfig

The authorization config in case the HTTP endpoint requires authorization.

Type: AuthorizationConfig (p. 126) object

Required: No

echo

The HTTP URL endpoint. You can either specify the domain name or IP, and port combination, and the URL scheme must be HTTP or HTTPS. If the port is not specified, AWS AppSync uses the default port 80 for the HTTP endpoint and port 443 for HTTPS endpoints.

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
LambdaConflictHandlerConfig

The LambdaConflictHandlerConfig object when configuring LAMBDA as the Conflict Handler.

Contents

lambdaConflictHandlerArn

The Arn for the Lambda function to use as the Conflict Handler.

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
LambdaDataSourceConfig

Describes an AWS Lambda data source configuration.

Contents

lambdaFunctionArn

The ARN for the Lambda function.

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
LogConfig

The CloudWatch Logs configuration.

Contents

cloudWatchLogsRoleArn

The service role that AWS AppSync will assume to publish to Amazon CloudWatch logs in your account.

Type: String

Required: Yes

ecludeVerboseContent

Set to TRUE to exclude sections that contain information such as headers, context, and evaluated mapping templates, regardless of logging level.

Type: Boolean

Required: No

fieldLogLevel

The field logging level. Values can be NONE, ERROR, or ALL.

- **NONE**: No field-level logs are captured.
- **ERROR**: Logs the following information only for the fields that are in error:
  - The error section in the server response.
  - Field-level errors.
  - The generated request/response functions that got resolved for error fields.
- **ALL**: The following information is logged for all fields in the query:
  - Field-level tracing information.
  - The generated request/response functions that got resolved for each field.

Type: String

Valid Values: **NONE | ERROR | ALL**

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
OpenIDConnectConfig

Describes an OpenID Connect configuration.

Contents

authTTL

The number of milliseconds a token is valid after being authenticated.

Type: Long

Required: No

clientId

The client identifier of the Relying party at the OpenID identity provider. This identifier is typically obtained when the Relying party is registered with the OpenID identity provider. You can specify a regular expression so the AWS AppSync can validate against multiple client identifiers at a time.

Type: String

Required: No

iatTTL

The number of milliseconds a token is valid after being issued to a user.

Type: Long

Required: No

issuer

The issuer for the OpenID Connect configuration. The issuer returned by discovery must exactly match the value of iss in the ID token.

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
PipelineConfig

The pipeline configuration for a resolver of kind PIPELINE.

Contents

functions

A list of Function objects.

Type: Array of strings
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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
RdsHttpEndpointConfig

The Amazon RDS HTTP endpoint configuration.

Contents

awsRegion

AWS Region for RDS HTTP endpoint.
Type: String
Required: No

awsSecretStoreArn

AWS secret store ARN for database credentials.
Type: String
Required: No

databaseName

Logical database name.
Type: String
Required: No

dbClusterIdentifier

Amazon RDS cluster ARN.
Type: String
Required: No

schema

Logical schema name.
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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
RelationalDatabaseDataSourceConfig

Describes a relational database data source configuration.

Contents

rdsHttpEndpointConfig

• Amazon RDS HTTP endpoint settings.
  Type: RdsHttpEndpointConfig (p. 145) object
  Required: No

relationalDatabaseSourceType

• Source type for the relational database.
  String
  Valid Values: RDS_HTTP_ENDPOINT
  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 Go
• AWS SDK for Java
• AWS SDK for Ruby V3
Resolver

Describes a resolver.

Contents

cachingConfig

The caching configuration for the resolver.

Type: CachingConfig (p. 128) object

Required: No

dataSourceName

The resolver data source name.

Type: String


Pattern: [_A-Za-z][_0-9A-Za-z]*

Required: No

fieldName

The resolver field name.

Type: String


Pattern: [_A-Za-z][_0-9A-Za-z]*

Required: No

kind

The resolver type.

• UNIT: A UNIT resolver type. A UNIT resolver is the default resolver type. A UNIT resolver enables you to execute a GraphQL query against a single data source.

• PIPELINE: A PIPELINE resolver type. A PIPELINE resolver enables you to execute a series of Function in a serial manner. You can use a pipeline resolver to execute a GraphQL query against multiple data sources.

Type: String

Valid Values: UNIT | PIPELINE

Required: No

pipelineConfig

The PipelineConfig.

Type: PipelineConfig (p. 144) object

Required: No
requestMappingTemplate

The request mapping template.

Type: String


Required: No

resolverArn

The resolver ARN.

Type: String

Required: No

responseMappingTemplate

The response mapping template.

Type: String


Required: No

syncConfig

The SyncConfig for a resolver attached to a versioned datasource.

Type: SyncConfig (p. 149) object

Required: No

typeName

The resolver type name.

Type: String


Pattern: \[_A-Za-z\[_0-9A-Za-z]*

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
SyncConfig

Describes a Sync configuration for a resolver.
Contains information on which Conflict Detection as well as Resolution strategy should be performed when the resolver is invoked.

Contents

conflictDetection

The Conflict Detection strategy to use.
- **VERSION**: Detect conflicts based on object versions for this resolver.
- **NONE**: Do not detect conflicts when executing this resolver.

Type: String
Valid Values: VERSION | NONE
Required: No

conflictHandler

The Conflict Resolution strategy to perform in the event of a conflict.
- **OPTIMISTIC_CONCURRENCY**: Resolve conflicts by rejecting mutations when versions do not match the latest version at the server.
- **AUTOMERGE**: Resolve conflicts with the Automerge conflict resolution strategy.
- **LAMBDA**: Resolve conflicts with a Lambda function supplied in the LambdaConflictHandlerConfig.

Type: String
Valid Values: OPTIMISTIC_CONCURRENCY | LAMBDA | AUTOMERGE | NONE
Required: No

lambdaConflictHandlerConfig

The LambdaConflictHandlerConfig when configuring LAMBDA as the Conflict Handler.

Type: LambdaConflictHandlerConfig (p. 140) 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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
Type

Describes a type.

Contents

arn
The type ARN.
Type: String
Required: No

definition
The type definition.
Type: String
Required: No
description
The type description.
Type: String
Required: No
format
The type format: SDL or JSON.
Type: String
Valid Values: SDL | JSON
Required: No
name
The type name.
Type: String
Pattern: [A-Za-z][0-9A-Za-z]*/
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 Go
- AWS SDK for Java
- AWS SDK for Ruby V3
UserPoolConfig

Describes an Amazon Cognito user pool configuration.

Contents

appIdClientRegex

A regular expression for validating the incoming Amazon Cognito user pool app client ID.

Type: String

Required: No

awsRegion

The AWS Region in which the user pool was created.

Type: String

Required: Yes

defaultAction

The action that you want your GraphQL API to take when a request that uses Amazon Cognito user pool authentication doesn't match the Amazon Cognito user pool configuration.

Type: String

Valid Values: ALLOW | DENY

Required: Yes

userPoolId

The user pool ID.

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 Go
- AWS SDK for Java
- 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 Signature Version 4 Signing Process in the Amazon Web Services General Reference.

Action

The action to be performed.

Type: string

Required: Yes

Version

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

Type: string

Required: Yes

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 Task 2: Create a String to Sign for Signature Version 4 in the Amazon Web Services General Reference.

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'HHMMSSZ). 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 Handling Dates in Signature Version 4 in the Amazon Web Services General Reference.

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 Security Token Service, go to AWS Services That Work with IAM in the IAM User Guide.

Condition: If you're using temporary security credentials from the AWS Security Token Service, 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 Task 1: Create a Canonical Request For Signature Version 4 in the Amazon Web Services General Reference.

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 Errors

This section lists the errors common to the API actions of all AWS services. For errors specific to an API action for this service, see the topic for that API action.

**AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 400

**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

**InvalidQueryParameter**

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

**ThrottlingException**

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