
AWS AppSync

API Reference

API Version 2017-07-25



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 June 6, 2022.

Actions

The following actions are supported:

- [AssociateApi](#) (p. 4)
- [CreateApiCache](#) (p. 6)
- [CreateApiKey](#) (p. 10)
- [CreateDataSource](#) (p. 13)
- [CreateDomainName](#) (p. 18)
- [CreateFunction](#) (p. 21)
- [CreateGraphQLApi](#) (p. 25)
- [CreateResolver](#) (p. 30)
- [CreateType](#) (p. 35)
- [DeleteApiCache](#) (p. 38)
- [DeleteApiKey](#) (p. 40)
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- [DisassociateApi](#) (p. 54)
- [FlushApiCache](#) (p. 56)
- [GetApiAssociation](#) (p. 58)
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- [StartSchemaCreation](#) (p. 108)
- [TagResource](#) (p. 111)

- [UntagResource](#) (p. 114)
- [UpdateApiCache](#) (p. 116)
- [UpdateApiKey](#) (p. 119)
- [UpdateDataSource](#) (p. 122)
- [UpdateDomainName](#) (p. 127)
- [UpdateFunction](#) (p. 130)
- [UpdateGraphqlApi](#) (p. 134)
- [UpdateResolver](#) (p. 139)
- [UpdateType](#) (p. 143)

AssociateApi

Maps an endpoint to your custom domain.

Request Syntax

```
POST /v1/domainnames/domainName/apiassociation HTTP/1.1
Content-type: application/json

{
  "apiId": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

domainName (p. 4)

The domain name.

Length Constraints: Minimum length of 1. Maximum length of 253.

Pattern: `^(*[\w\d-]*\.)?([\w\d-]+\.)+[\w\d-]+$`

Required: Yes

Request Body

The request accepts the following data in JSON format.

apiId (p. 4)

The API ID.

Type: String

Required: Yes

Response Syntax

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

{
  "apiAssociation": {
    "apiId": "string",
    "associationStatus": "string",
    "deploymentDetail": "string",
    "domainName": "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.

[apiAssociation \(p. 4\)](#)

The `ApiAssociation` object.

Type: [ApiAssociation \(p. 148\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

AccessDeniedException

You don't 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

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

CreateApiCache

Creates a cache for the GraphQL API.

Request Syntax

```
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 uses the following URI parameters.

apiId (p. 6)

The GraphQL API ID.

Required: Yes

Request Body

The request accepts the following data in JSON format.

apiCachingBehavior (p. 6)

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. 6)

At-rest encryption flag for cache. You cannot update this setting after creation.

Type: Boolean

Required: No

transitEncryptionEnabled (p. 6)

Transit encryption flag when connecting to cache. You cannot update this setting after creation.

Type: Boolean

Required: No

ttl (p. 6)

TTL in seconds for cache entries.

Valid values are 1–3,600 seconds.

Type: Long

Required: Yes

type (p. 6)

The cache instance type. Valid values are

- `SMALL`
- `MEDIUM`
- `LARGE`
- `XLARGE`
- `LARGE_2X`
- `LARGE_4X`
- `LARGE_8X` (not available in all regions)
- `LARGE_12X`

Historically, instance types were identified by an EC2-style value. As of July 2020, this is deprecated, and the generic identifiers above should be used.

The following legacy instance types are available, but their use is discouraged:

- **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` | `SMALL` | `MEDIUM` | `LARGE` | `XLARGE` | `LARGE_2X` | `LARGE_4X` | `LARGE_8X` | `LARGE_12X`

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 \(p. 7\)](#)

The `ApiCache` object.

Type: [ApiCache \(p. 149\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [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 invoke 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 uses the following URI parameters.

apiId (p. 10)

The ID for your GraphQL API.

Required: Yes

Request Body

The request accepts the following data in JSON format.

description (p. 10)

A description of the purpose of the API key.

Type: String

Required: No

expires (p. 10)

From the creation time, the 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. 151).

Type: Long

Required: No

Response Syntax

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

{
  "apiKey": {
    "deletes": number,
    "description": "string",
```

```
    "expires": number,  
    "id": "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.

[apiKey \(p. 10\)](#)

The API key.

Type: [ApiKey \(p. 151\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [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",
  "openSearchServiceConfig": {
    "awsRegion": "string",
    "endpoint": "string"
  },
  "relationalDatabaseConfig": {
    "rdsHttpEndpointConfig": {
      "awsRegion": "string",
      "awsSecretStoreArn": "string",
      "databaseName": "string",
      "dbClusterIdentifier": "string",
      "schema": "string"
    },
    "relationalDatabaseSourceType": "string"
  },
  "serviceRoleArn": "string",
  "type": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

apId (p. 13)

The API ID for the GraphQL API for the DataSource.

Required: Yes

Request Body

The request accepts the following data in JSON format.

description (p. 13)

A description of the DataSource.

Type: String

Required: No

dynamodbConfig (p. 13)

Amazon DynamoDB settings.

Type: [DynamodbDataSourceConfig \(p. 162\)](#) object

Required: No

elasticsearchConfig (p. 13)

Amazon OpenSearch Service settings.

As of September 2021, Amazon Elasticsearch service is Amazon OpenSearch Service. This configuration is deprecated. For new data sources, use [CreateDataSource:openSearchServiceConfig \(p. 15\)](#) to create an OpenSearch data source.

Type: [ElasticsearchDataSourceConfig \(p. 163\)](#) object

Required: No

httpConfig (p. 13)

HTTP endpoint settings.

Type: [HttpDataSourceConfig \(p. 169\)](#) object

Required: No

lambdaConfig (p. 13)

AWS Lambda settings.

Type: [LambdaDataSourceConfig \(p. 172\)](#) object

Required: No

name (p. 13)

A user-supplied name for the DataSource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

[openSearchServiceConfig \(p. 13\)](#)

Amazon OpenSearch Service settings.

Type: [OpenSearchServiceDataSourceConfig \(p. 175\)](#) object

Required: No

[relationalDatabaseConfig \(p. 13\)](#)

Relational database settings.

Type: [RelationalDatabaseDataSourceConfig \(p. 178\)](#) object

Required: No

[serviceRoleArn \(p. 13\)](#)

The AWS Identity and Access Management (IAM) service role Amazon Resource Name (ARN) for the data source. The system assumes this role when accessing the data source.

Type: String

Required: No

[type \(p. 13\)](#)

The type of the DataSource.

Type: String

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

Required: Yes

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",
  "openSearchServiceConfig": {
    "awsRegion": "string",
    "endpoint": "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. 15)

The DataSource object.

Type: [DataSource \(p. 157\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

CreateDomainName

Creates a custom DomainName object.

Request Syntax

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

{
  "certificateArn": "string",
  "description": "string",
  "domainName": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

certificateArn (p. 18)

The Amazon Resource Name (ARN) of the certificate. This can be an AWS Certificate Manager (ACM) certificate or an AWS Identity and Access Management (IAM) server certificate.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:[a-z-]*:(acm|iam):[a-z0-9-]*:\d{12}:(certificate|server-certificate)/[0-9A-Za-z_-]*$`

Required: Yes

description (p. 18)

A description of the DomainName.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 255.

Pattern: `^.*$`

Required: No

domainName (p. 18)

The domain name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 253.

Pattern: `^(*[w\d-]*\.)?([\w\d-]+\.)+[\w\d-]+$`

Required: Yes

Response Syntax

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

{
  "domainNameConfig": {
    "appsyncDomainName": "string",
    "certificateArn": "string",
    "description": "string",
    "domainName": "string",
    "hostedZoneId": "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.

domainNameConfig (p. 19)

The configuration for the DomainName.

Type: [DomainNameConfig](#) (p. 160) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 188).

AccessDeniedException

You don't 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

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 V2](#)
- [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. You can use multiple functions 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",
  "maxBatchSize": number,
  "name": "string",
  "requestMappingTemplate": "string",
  "responseMappingTemplate": "string",
  "syncConfig": {
    "conflictDetection": "string",
    "conflictHandler": "string",
    "lambdaConflictHandlerConfig": {
      "lambdaConflictHandlerArn": "string"
    }
  }
}
```

URI Request Parameters

The request uses the following URI parameters.

apiId (p. 21)

The GraphQL API ID.

Required: Yes

Request Body

The request accepts the following data in JSON format.

dataSourceName (p. 21)

The Function DataSource name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

description (p. 21)

The Function description.

Type: String

Required: No

functionVersion (p. 21)

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

Type: String

Required: Yes

maxBatchSize (p. 21)

The maximum batching size for a resolver.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 2000.

Required: No

name (p. 21)

The `Function` name. The function name does not have to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

requestMappingTemplate (p. 21)

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

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `^\.*$`

Required: No

responseMappingTemplate (p. 21)

The `Function` response mapping template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `^\.*$`

Required: No

syncConfig (p. 21)

Describes a Sync configuration for a resolver.

Specifies which Conflict Detection strategy and Resolution strategy to use when the resolver is invoked.

Type: [SyncConfig \(p. 182\)](#) object

Required: No

Response Syntax

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

{
  "functionConfiguration": {
    "dataSourceName": "string",
    "description": "string",
    "functionArn": "string",
    "functionId": "string",
    "functionVersion": "string",
    "maxBatchSize": number,
    "name": "string",
    "requestMappingTemplate": "string",
    "responseMappingTemplate": "string",
    "syncConfig": {
      "conflictDetection": "string",
      "conflictHandler": "string",
      "lambdaConflictHandlerConfig": {
        "lambdaConflictHandlerArn": "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. 23)

The Function object.

Type: [FunctionConfiguration \(p. 164\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [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",
      "lambdaAuthorizerConfig": {
        "authorizerResultTtlInSeconds": number,
        "authorizerUri": "string",
        "identityValidationExpression": "string"
      },
      "openIDConnectConfig": {
        "authTTL": number,
        "clientId": "string",
        "iatTTL": number,
        "issuer": "string"
      },
      "userPoolConfig": {
        "appIdClientRegex": "string",
        "awsRegion": "string",
        "userPoolId": "string"
      }
    }
  ],
  "authenticationType": "string",
  "lambdaAuthorizerConfig": {
    "authorizerResultTtlInSeconds": number,
    "authorizerUri": "string",
    "identityValidationExpression": "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. 25)

A list of additional authentication providers for the `GraphQLApi` API.

Type: Array of [AdditionalAuthenticationProvider](#) (p. 147) objects

Required: No

authenticationType (p. 25)

The authentication type: API key, AWS Identity and Access Management (IAM), OpenID Connect (OIDC), Amazon Cognito user pools, or AWS Lambda.

Type: String

Valid Values: `API_KEY` | `AWS_IAM` | `AMAZON_COGNITO_USER_POOLS` | `OPENID_CONNECT` | `AWS_LAMBDA`

Required: Yes

lambdaAuthorizerConfig (p. 25)

Configuration for AWS Lambda function authorization.

Type: [LambdaAuthorizerConfig](#) (p. 170) object

Required: No

logConfig (p. 25)

The Amazon CloudWatch Logs configuration.

Type: [LogConfig](#) (p. 173) object

Required: No

name (p. 25)

A user-supplied name for the `GraphQLApi`.

Type: String

Required: Yes

openIDConnectConfig (p. 25)

The OIDC configuration.

Type: [OpenIDConnectConfig](#) (p. 174) object

Required: No

tags (p. 25)

A `TagMap` object.

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Value Length Constraints: Maximum length of 256.

Value Pattern: `^[\\s\\w+-=\\.:/@]*$`

Required: No

userPoolConfig (p. 25)

The Amazon Cognito user pool configuration.

Type: [UserPoolConfig \(p. 185\)](#) object

Required: No

xrayEnabled (p. 25)

A flag indicating whether to use AWS X-Ray tracing for the GraphQLApi.

Type: Boolean

Required: No

Response Syntax

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

{
  "graphqlApi": {
    "additionalAuthenticationProviders": [
      {
        "authenticationType": "string",
        "lambdaAuthorizerConfig": {
          "authorizerResultTtlInSeconds": number,
          "authorizerUri": "string",
          "identityValidationExpression": "string"
        },
        "openIDConnectConfig": {
          "authTTL": number,
          "clientId": "string",
          "iatTTL": number,
          "issuer": "string"
        },
        "userPoolConfig": {
          "appIdClientRegex": "string",
          "awsRegion": "string",
          "userPoolId": "string"
        }
      }
    ],
    "apiId": "string",
    "arn": "string",
    "authenticationType": "string",
    "lambdaAuthorizerConfig": {
```

```

    "authorizerResultTtlInSeconds": number,
    "authorizerUri": "string",
    "identityValidationExpression": "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"
  },
  "wafWebAclArn": "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. 27)

The GraphQLApi.

Type: [GraphQLApi \(p. 166\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [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

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

URI Request Parameters

The request uses the following URI parameters.

apiId (p. 30)

The ID for the GraphQL API for which the resolver is being created.

Required: Yes

typeName (p. 30)

The name of the Type.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

Request Body

The request accepts the following data in JSON format.

cachedConfig (p. 30)

The caching configuration for the resolver.

Type: [CachedConfig \(p. 155\)](#) object

Required: No

dataSourceName (p. 30)

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

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: No

fieldName (p. 30)

The name of the field to attach the resolver to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

kind (p. 30)

The resolver type.

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

Type: String

Valid Values: `UNIT` | `PIPELINE`

Required: No

maxBatchSize (p. 30)

The maximum batching size for a resolver.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 2000.

Required: No

pipelineConfig (p. 30)

The `PipelineConfig`.

Type: [PipelineConfig \(p. 176\)](#) object

Required: No

[requestMappingTemplate \(p. 30\)](#)

The mapping template to use 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).

VTL request mapping templates are optional when using an AWS Lambda data source. For all other data sources, VTL request and response mapping templates are required.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `^\.*$`

Required: No

[responseMappingTemplate \(p. 30\)](#)

The mapping template to use for responses from the data source.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `^\.*$`

Required: No

[syncConfig \(p. 30\)](#)

The SyncConfig for a resolver attached to a versioned data source.

Type: [SyncConfig \(p. 182\)](#) 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",
    "maxBatchSize": number,
    "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. 32)

The Resolver object.

Type: [Resolver](#) (p. 179) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 188).

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 aren't 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 V2](#)
- [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/apiId/types HTTP/1.1
Content-type: application/json

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

URI Request Parameters

The request uses the following URI parameters.

apiId (p. 35)

The API ID.

Required: Yes

Request Body

The request accepts the following data in JSON format.

definition (p. 35)

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

For more information, see the [GraphQL SDL documentation](#).

Type: String

Required: Yes

format (p. 35)

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",  
"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.

[type \(p. 35\)](#)

The `Type` object.

Type: [Type \(p. 183\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [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 uses the following URI parameters.

apiId (p. 38)

The API ID.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [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/apiId/apikeys/id HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

apiId (p. 40)

The API ID.

Required: Yes

id (p. 40)

The ID for the API key.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [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/apiId/datasources/name HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

apiId (p. 42)

The API ID.

Required: Yes

name (p. 42)

The name of the data source.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DeleteDomainName

Deletes a custom DomainName object.

Request Syntax

```
DELETE /v1/domainnames/domainName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

domainName (p. 44)

The domain name.

Length Constraints: Minimum length of 1. Maximum length of 253.

Pattern: `^(*[\w\d-]*\.)?([\w\d-]+\.)+[\w\d-]+$`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

AccessDeniedException

You don't 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

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 V2](#)
- [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 uses the following URI parameters.

apiId (p. 46)

The GraphQL API ID.

Required: Yes

functionId (p. 46)

The Function ID.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [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 uses the following URI parameters.

apiId (p. 48)

The API ID.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

AccessDeniedException

You don't 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 aren't 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 V2](#)
- [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/apiId/types/typeName/resolvers/fieldName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

apiId (p. 50)

The API ID.

Required: Yes

fieldName (p. 50)

The resolver field name.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

typeName (p. 50)

The name of the resolver type.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [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 uses the following URI parameters.

apiId (p. 52)

The API ID.

Required: Yes

typeName (p. 52)

The type name.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DisassociateApi

Removes an `ApiAssociation` object from a custom domain.

Request Syntax

```
DELETE /v1/domainnames/domainName/apiassociation HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

`domainName` (p. 54)

The domain name.

Length Constraints: Minimum length of 1. Maximum length of 253.

Pattern: `^(*[\w\d-]*\.)?([\w\d-]+\.)+[\w\d-]+$`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

AccessDeniedException

You don't 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

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 V2](#)
- [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 uses the following URI parameters.

`apiId` (p. 56)

The API ID.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

GetApiAssociation

Retrieves an `ApiAssociation` object.

Request Syntax

```
GET /v1/domainnames/domainName/apiassociation HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

`domainName` (p. 58)

The domain name.

Length Constraints: Minimum length of 1. Maximum length of 253.

Pattern: `^(*[\w\d-]*\.)?([\w\d-]+\.\.)([\w\d-]+)$`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "apiAssociation": {
    "apiId": "string",
    "associationStatus": "string",
    "deploymentDetail": "string",
    "domainName": "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.

`apiAssociation` (p. 58)

The `ApiAssociation` object.

Type: [ApiAssociation](#) (p. 148) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

AccessDeniedException

You don't 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

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 V2](#)
- [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 uses the following URI parameters.

apiId (p. 60)

The API ID.

Required: Yes

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. 60)

The ApiCache object.

Type: [ApiCache](#) (p. 149) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 188).

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 aren't 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 V2](#)
- [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 uses the following URI parameters.

apiId (p. 62)

The API ID.

Required: Yes

name (p. 62)

The name of the data source.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

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",
        "signingServiceName": "string"
      }
    },
    "endpoint": "string"
  },
  "lambdaConfig": {
    "lambdaFunctionArn": "string"
  },
  "name": "string",
  "openSearchServiceConfig": {
    "awsRegion": "string",
    "endpoint": "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. 62)

The DataSource object.

Type: [DataSource \(p. 157\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

GetDomainName

Retrieves a custom DomainName object.

Request Syntax

```
GET /v1/domainnames/domainName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

domainName (p. 65)

The domain name.

Length Constraints: Minimum length of 1. Maximum length of 253.

Pattern: `^(*[\w\d-]*\.)?([\w\d-]+\.)+[\w\d-]+$`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "domainNameConfig": {
    "appsyncDomainName": "string",
    "certificateArn": "string",
    "description": "string",
    "domainName": "string",
    "hostedZoneId": "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.

domainNameConfig (p. 65)

The configuration for the DomainName.

Type: [DomainNameConfig](#) (p. 160) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

AccessDeniedException

You don't 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

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

GetFunction

Get a Function.

Request Syntax

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

URI Request Parameters

The request uses the following URI parameters.

apiId (p. 67)

The GraphQL API ID.

Required: Yes

functionId (p. 67)

The Function ID.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

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",
    "maxBatchSize": number,
    "name": "string",
    "requestMappingTemplate": "string",
    "responseMappingTemplate": "string",
    "syncConfig": {
      "conflictDetection": "string",
      "conflictHandler": "string",
      "lambdaConflictHandlerConfig": {
        "lambdaConflictHandlerArn": "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. 67)

The `Function` object.

Type: [FunctionConfiguration](#) (p. 164) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 188).

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 aren't 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 V2](#)
- [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 uses the following URI parameters.

apiId (p. 69)

The API ID for the GraphQL API.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "graphqlApi": {
    "additionalAuthenticationProviders": [
      {
        "authenticationType": "string",
        "lambdaAuthorizerConfig": {
          "authorizerResultTtlInSeconds": number,
          "authorizerUri": "string",
          "identityValidationExpression": "string"
        },
        "openIDConnectConfig": {
          "authTTL": number,
          "clientId": "string",
          "iatTTL": number,
          "issuer": "string"
        },
        "userPoolConfig": {
          "appIdClientRegex": "string",
          "awsRegion": "string",
          "userPoolId": "string"
        }
      }
    ],
    "apiId": "string",
    "arn": "string",
    "authenticationType": "string",
    "lambdaAuthorizerConfig": {
      "authorizerResultTtlInSeconds": number,
      "authorizerUri": "string",
      "identityValidationExpression": "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"
    },
    "wafWebAclArn": "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 \(p. 69\)](#)

The `GraphQLApi` object.

Type: [GraphQLApi \(p. 166\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

AccessDeniedException

You don't 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 aren't 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 V2](#)
- [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 uses the following URI parameters.

apiId (p. 72)

The API ID.

Required: Yes

format (p. 72)

The schema format: SDL or JSON.

Valid Values: `SDL` | `JSON`

Required: Yes

includeDirectives (p. 72)

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. 72)

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 \(p. 188\)](#).

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 aren't 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 V2](#)
- [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 uses the following URI parameters.

apiId (p. 74)

The API ID.

Required: Yes

fieldName (p. 74)

The resolver field name.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

typeName (p. 74)

The resolver type name.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
  "resolver": {
    "cachingConfig": {
      "cachingKeys": [ "string" ],
      "ttl": number
    },
    "dataSourceName": "string",
    "fieldName": "string",
    "kind": "string",
```

```
    "maxBatchSize": number,
    "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 \(p. 74\)](#)

The Resolver object.

Type: [Resolver \(p. 179\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [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 uses the following URI parameters.

apiId (p. 77)

The API ID.

Required: Yes

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. 77)

Detailed information about the status of the schema creation operation.

Type: String

status (p. 77)

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 \(p. 188\)](#).

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 aren't 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 V2](#)
- [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 uses the following URI parameters.

apiId (p. 79)

The API ID.

Required: Yes

format (p. 79)

The type format: SDL or JSON.

Valid Values: `SDL` | `JSON`

Required: Yes

typeName (p. 79)

The type name.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

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.

type (p. 79)

The `Type` object.

Type: [Type](#) (p. 183) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 188).

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 aren't 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 V2](#)
- [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 60 days 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 uses the following URI parameters.

apiId (p. 82)

The API ID.

Required: Yes

maxResults (p. 82)

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

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

nextToken (p. 82)

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.

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `[\\S]+`

Request Body

The request does not have a request body.

Response Syntax

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

{
  "apiKeys": [
    {
      "deletes": number,
      "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. 82)

The `ApiKey` objects.

Type: Array of [ApiKey \(p. 151\)](#) objects

nextToken (p. 82)

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

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `[\\S]+`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [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/apiId/datasources?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

apiId (p. 85)

The API ID.

Required: Yes

maxResults (p. 85)

The maximum number of results that 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 you can use to return the next set of items in the list.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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
    },
    "elasticsearchConfig": {
        "awsRegion": "string",
        "endpoint": "string"
    },
    "httpConfig": {
        "authorizationConfig": {
            "authorizationType": "string",
            "awsIamConfig": {
                "signingRegion": "string",
                "signingServiceName": "string"
            }
        },
        "endpoint": "string"
    },
    "lambdaConfig": {
        "lambdaFunctionArn": "string"
    },
    "name": "string",
    "openSearchServiceConfig": {
        "awsRegion": "string",
        "endpoint": "string"
    },
    "relationalDatabaseConfig": {
        "rdsHttpEndpointConfig": {
            "awsRegion": "string",
            "awsSecretStoreArn": "string",
            "databaseName": "string",
            "dbClusterIdentifier": "string",
            "schema": "string"
        },
        "relationalDatabaseSourceType": "string"
    },
    "serviceRoleArn": "string",
    "type": "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.

dataSources (p. 85)

The DataSource objects.

Type: Array of [DataSource](#) (p. 157) objects

nextToken (p. 85)

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

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: [\\S]+

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListDomainNames

Lists multiple custom domain names.

Request Syntax

```
GET /v1/domainnames?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

maxResults (p. 88)

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

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

nextToken (p. 88)

The API token.

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `[\\S]+`

Request Body

The request does not have a request body.

Response Syntax

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

{
  "domainNameConfigs": [
    {
      "appsyncDomainName": "string",
      "certificateArn": "string",
      "description": "string",
      "domainName": "string",
      "hostedZoneId": "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.

domainNameConfigs (p. 88)

Lists configurations for multiple domain names.

Type: Array of [DomainNameConfig \(p. 160\)](#) objects

nextToken (p. 88)

The API token.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: [\\S]+

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

AccessDeniedException

You don't 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

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 V2](#)
- [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 uses the following URI parameters.

apiId (p. 90)

The GraphQL API ID.

Required: Yes

maxResults (p. 90)

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

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

nextToken (p. 90)

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.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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",
      "maxBatchSize": number,
      "name": "string",
      "requestMappingTemplate": "string",
      "responseMappingTemplate": "string",
      "syncConfig": {
        "conflictDetection": "string",
```

```
        "conflictHandler": "string",
        "lambdaConflictHandlerConfig": {
            "lambdaConflictHandlerArn": "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. 90)

A list of `Function` objects.

Type: Array of [FunctionConfiguration](#) (p. 164) objects

nextToken (p. 90)

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.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `[\\S]+`

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 188).

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 aren't 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 V2](#)
- [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 uses the following URI parameters.

maxResults (p. 93)

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

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

nextToken (p. 93)

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.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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",
          "lambdaAuthorizerConfig": {
            "authorizerResultTtlInSeconds": number,
            "authorizerUri": "string",
            "identityValidationExpression": "string"
          },
          "openIDConnectConfig": {
            "authTTL": number,
            "clientId": "string",
            "iatTTL": number,
            "issuer": "string"
          },
          "userPoolConfig": {
            "appIdClientRegex": "string",
            "awsRegion": "string",

```



```

        "userPoolId": "string"
      }
    },
    "apiId": "string",
    "arn": "string",
    "authenticationType": "string",
    "lambdaAuthorizerConfig": {
      "authorizerResultTtlInSeconds": number,
      "authorizerUri": "string",
      "identityValidationExpression": "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"
    },
    "wafWebAclArn": "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 \(p. 93\)](#)

The `GraphQLApi` objects.

Type: Array of [GraphQLApi \(p. 166\)](#) objects

[nextToken \(p. 93\)](#)

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

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `[\\S]+`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [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

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

URI Request Parameters

The request uses the following URI parameters.

apiId (p. 96)

The API ID.

Required: Yes

maxResults (p. 96)

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

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

nextToken (p. 96)

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.

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: [\\S]+

typeName (p. 96)

The type name.

Required: Yes

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",
    "maxBatchSize": number,
    "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.

nextToken (p. 96)

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

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: [\\S]+

resolvers (p. 96)

The Resolver objects.

Type: Array of [Resolver](#) (p. 179) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 188).

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 aren't 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 V2](#)
- [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

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

URI Request Parameters

The request uses the following URI parameters.

apiId (p. 99)

The API ID.

Required: Yes

functionId (p. 99)

The function ID.

Required: Yes

maxResults (p. 99)

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

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

nextToken (p. 99)

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.

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: [\\S]+

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",
    "maxBatchSize": number,
    "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.

nextToken (p. 99)

An identifier that you can use to return the next set of items in the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: [\\S]+

resolvers (p. 99)

The list of resolvers.

Type: Array of [Resolver](#) (p. 179) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 188).

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 aren't 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 V2](#)
- [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 uses the following URI parameters.

resourceArn (p. 102)

The GraphQLApi Amazon Resource Name (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}$`

Required: Yes

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. 102)

A TagMap object.

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Value Length Constraints: Maximum length of 256.

Value Pattern: `^[\s\w+ -= \. : / @] * $`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

AccessDeniedException

You don't 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 aren't 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 V2](#)
- [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 uses the following URI parameters.

apiId (p. 105)

The API ID.

Required: Yes

format (p. 105)

The type format: SDL or JSON.

Valid Values: `SDL` | `JSON`

Required: Yes

maxResults (p. 105)

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

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

nextToken (p. 105)

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.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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. 105)

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

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: [\\S]+

types (p. 105)

The Type objects.

Type: Array of [Type](#) (p. 183) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 188).

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 aren't 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 V2](#)
- [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. 77) 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 uses the following URI parameters.

apiId (p. 108)

The API ID.

Required: Yes

Request Body

The request accepts the following data in JSON format.

definition (p. 108)

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 \(p. 108\)](#)

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 \(p. 188\)](#).

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 aren't 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 V2](#)
- [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

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

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

URI Request Parameters

The request uses the following URI parameters.

resourceArn (p. 111)

The GraphQLApi Amazon Resource Name (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}$`

Required: Yes

Request Body

The request accepts the following data in JSON format.

tags (p. 111)

A TagMap object.

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Value Length Constraints: Maximum length of 256.

Value Pattern: `^[\\s\\w+-=\\.:/@]*`

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 \(p. 188\)](#).

AccessDeniedException

You don't 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 aren't 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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UntagResource

Untags a resource.

Request Syntax

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

URI Request Parameters

The request uses the following URI parameters.

resourceArn (p. 114)

The GraphQLApi Amazon Resource Name (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}$`

Required: Yes

tagKeys (p. 114)

A list of TagKey objects.

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

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

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

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

AccessDeniedException

You don't 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 aren't 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 V2](#)
- [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 uses the following URI parameters.

apiId (p. 116)

The GraphQL API ID.

Required: Yes

Request Body

The request accepts the following data in JSON format.

apiCachingBehavior (p. 116)

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. 116)

TTL in seconds for cache entries.

Valid values are 1–3,600 seconds.

Type: Long

Required: Yes

type (p. 116)

The cache instance type. Valid values are

- `SMALL`
- `MEDIUM`

- `LARGE`
- `XLARGE`
- `LARGE_2X`
- `LARGE_4X`
- `LARGE_8X` (not available in all regions)
- `LARGE_12X`

Historically, instance types were identified by an EC2-style value. As of July 2020, this is deprecated, and the generic identifiers above should be used.

The following legacy instance types are available, but their use is discouraged:

- **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` | `SMALL` | `MEDIUM` | `LARGE` | `XLARGE` | `LARGE_2X` | `LARGE_4X` | `LARGE_8X` | `LARGE_12X`

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. 117)

The `ApiCache` object.

Type: [ApiCache](#) (p. 149) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdateApiKey

Updates an API key. You can update the key as long as it's not deleted.

Request Syntax

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

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

URI Request Parameters

The request uses the following URI parameters.

apiId (p. 119)

The ID for the GraphQL API.

Required: Yes

id (p. 119)

The API key ID.

Required: Yes

Request Body

The request accepts the following data in JSON format.

description (p. 119)

A description of the purpose of the API key.

Type: String

Required: No

expires (p. 119)

From the update time, the time after which the API key expires. The date is represented as seconds since the epoch. For more information, see [ApiKey](#) (p. 151).

Type: Long

Required: No

Response Syntax

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

```
{
  "apiKey": {
    "deletes": number,
    "description": "string",
    "expires": number,
    "id": "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.

[apiKey \(p. 119\)](#)

The API key.

Type: [ApiKey \(p. 151\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [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",
      "awsIamConfig": {
        "signingRegion": "string",
        "signingServiceName": "string"
      }
    },
    "endpoint": "string"
  },
  "lambdaConfig": {
    "lambdaFunctionArn": "string"
  },
  "openSearchServiceConfig": {
    "awsRegion": "string",
    "endpoint": "string"
  },
  "relationalDatabaseConfig": {
    "rdsHttpEndpointConfig": {
      "awsRegion": "string",
      "awsSecretStoreArn": "string",
      "databaseName": "string",
      "dbClusterIdentifier": "string",
      "schema": "string"
    },
    "relationalDatabaseSourceType": "string"
  },
  "serviceRoleArn": "string",
  "type": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

apiId (p. 122)

The API ID.

Required: Yes

name (p. 122)

The new name for the data source.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

Request Body

The request accepts the following data in JSON format.

description (p. 122)

The new description for the data source.

Type: String

Required: No

dynamodbConfig (p. 122)

The new Amazon DynamoDB configuration.

Type: [DynamodbDataSourceConfig \(p. 162\)](#) object

Required: No

elasticsearchConfig (p. 122)

The new OpenSearch configuration.

As of September 2021, Amazon Elasticsearch service is Amazon OpenSearch Service. This configuration is deprecated. Instead, use [UpdateDataSource:openSearchServiceConfig \(p. 124\)](#) to update an OpenSearch data source.

Type: [ElasticsearchDataSourceConfig \(p. 163\)](#) object

Required: No

httpConfig (p. 122)

The new HTTP endpoint configuration.

Type: [HttpDataSourceConfig \(p. 169\)](#) object

Required: No

lambdaConfig (p. 122)

The new AWS Lambda configuration.

Type: [LambdaDataSourceConfig \(p. 172\)](#) object

Required: No

openSearchServiceConfig (p. 122)

The new OpenSearch configuration.

Type: [OpenSearchServiceDataSourceConfig \(p. 175\)](#) object

Required: No

relationalDatabaseConfig (p. 122)

The new relational database configuration.

Type: [RelationalDatabaseDataSourceConfig \(p. 178\)](#) object

Required: No

serviceRoleArn (p. 122)

The new service role Amazon Resource Name (ARN) for the data source.

Type: String

Required: No

type (p. 122)

The new data source type.

Type: String

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

Required: Yes

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",
    "openSearchServiceConfig": {
      "awsRegion": "string",
      "endpoint": "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. 124)

The updated DataSource object.

Type: [DataSource](#) (p. 157) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 188).

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 aren't 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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdateDomainName

Updates a custom DomainName object.

Request Syntax

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

{
  "description": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

domainName (p. 127)

The domain name.

Length Constraints: Minimum length of 1. Maximum length of 253.

Pattern: `^(*[\\w\\d-]*\\.)?([\\w\\d-]+\\.)+[\\w\\d-]+$`

Required: Yes

Request Body

The request accepts the following data in JSON format.

description (p. 127)

A description of the DomainName.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 255.

Pattern: `^.*$`

Required: No

Response Syntax

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

{
  "domainNameConfig": {
    "appsyncDomainName": "string",
    "certificateArn": "string",
    "description": "string",
    "domainName": "string",
```

```
    "hostedZoneId": "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.

domainNameConfig (p. 127)

The configuration for the DomainName.

Type: [DomainNameConfig](#) (p. 160) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 188).

AccessDeniedException

You don't 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

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 V2](#)
- [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

{
  "dataSourceName": "string",
  "description": "string",
  "functionVersion": "string",
  "maxBatchSize": number,
  "name": "string",
  "requestMappingTemplate": "string",
  "responseMappingTemplate": "string",
  "syncConfig": {
    "conflictDetection": "string",
    "conflictHandler": "string",
    "lambdaConflictHandlerConfig": {
      "lambdaConflictHandlerArn": "string"
    }
  }
}
```

URI Request Parameters

The request uses the following URI parameters.

apiId (p. 130)

The GraphQL API ID.

Required: Yes

functionId (p. 130)

The function ID.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

Request Body

The request accepts the following data in JSON format.

dataSourceName (p. 130)

The Function DataSource name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

description (p. 130)

The `Function` description.

Type: String

Required: No

functionVersion (p. 130)

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

Type: String

Required: Yes

maxBatchSize (p. 130)

The maximum batching size for a resolver.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 2000.

Required: No

name (p. 130)

The `Function` name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

requestMappingTemplate (p. 130)

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

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `^.*$`

Required: No

responseMappingTemplate (p. 130)

The `Function` request mapping template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `^.*$`

Required: No

[syncConfig \(p. 130\)](#)

Describes a Sync configuration for a resolver.

Specifies which Conflict Detection strategy and Resolution strategy to use when the resolver is invoked.

Type: [SyncConfig \(p. 182\)](#) object

Required: No

Response Syntax

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

{
  "functionConfiguration": {
    "dataSourceName": "string",
    "description": "string",
    "functionArn": "string",
    "functionId": "string",
    "functionVersion": "string",
    "maxBatchSize": number,
    "name": "string",
    "requestMappingTemplate": "string",
    "responseMappingTemplate": "string",
    "syncConfig": {
      "conflictDetection": "string",
      "conflictHandler": "string",
      "lambdaConflictHandlerConfig": {
        "lambdaConflictHandlerArn": "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 \(p. 132\)](#)

The Function object.

Type: [FunctionConfiguration \(p. 164\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [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",
      "lambdaAuthorizerConfig": {
        "authorizerResultTtlInSeconds": number,
        "authorizerUri": "string",
        "identityValidationExpression": "string"
      },
      "openIDConnectConfig": {
        "authTTL": number,
        "clientId": "string",
        "iatTTL": number,
        "issuer": "string"
      },
      "userPoolConfig": {
        "appIdClientRegex": "string",
        "awsRegion": "string",
        "userPoolId": "string"
      }
    }
  ],
  "authenticationType": "string",
  "lambdaAuthorizerConfig": {
    "authorizerResultTtlInSeconds": number,
    "authorizerUri": "string",
    "identityValidationExpression": "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 uses the following URI parameters.

apiId (p. 134)

The API ID.

Required: Yes

Request Body

The request accepts the following data in JSON format.

additionalAuthenticationProviders (p. 134)

A list of additional authentication providers for the `GraphQLApi` API.

Type: Array of [AdditionalAuthenticationProvider \(p. 147\)](#) objects

Required: No

authenticationType (p. 134)

The new authentication type for the `GraphQLApi` object.

Type: String

Valid Values: `API_KEY` | `AWS_IAM` | `AMAZON_COGNITO_USER_POOLS` | `OPENID_CONNECT` | `AWS_LAMBDA`

Required: No

lambdaAuthorizerConfig (p. 134)

Configuration for Lambda function authorization.

Type: [LambdaAuthorizerConfig \(p. 170\)](#) object

Required: No

logConfig (p. 134)

The Amazon CloudWatch Logs configuration for the `GraphQLApi` object.

Type: [LogConfig \(p. 173\)](#) object

Required: No

name (p. 134)

The new name for the `GraphQLApi` object.

Type: String

Required: Yes

openidConnectConfig (p. 134)

The OpenID Connect configuration for the `GraphQLApi` object.

Type: [OpenIDConnectConfig \(p. 174\)](#) object

Required: No

userPoolConfig (p. 134)

The new Amazon Cognito user pool configuration for the `~GraphQLApi` object.

Type: [UserPoolConfig](#) (p. 185) object

Required: No

[xrayEnabled](#) (p. 134)

A flag indicating whether to use AWS X-Ray tracing for the GraphQLApi.

Type: Boolean

Required: No

Response Syntax

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

{
  "graphqlApi": {
    "additionalAuthenticationProviders": [
      {
        "authenticationType": "string",
        "lambdaAuthorizerConfig": {
          "authorizerResultTtlInSeconds": number,
          "authorizerUri": "string",
          "identityValidationExpression": "string"
        },
        "openIDConnectConfig": {
          "authTTL": number,
          "clientId": "string",
          "iatTTL": number,
          "issuer": "string"
        },
        "userPoolConfig": {
          "appIdClientRegex": "string",
          "awsRegion": "string",
          "userPoolId": "string"
        }
      }
    ],
    "apiId": "string",
    "arn": "string",
    "authenticationType": "string",
    "lambdaAuthorizerConfig": {
      "authorizerResultTtlInSeconds": number,
      "authorizerUri": "string",
      "identityValidationExpression": "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"
},
"wafWebAclArn": "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 \(p. 136\)](#)

The updated `GraphQLApi` object.

Type: [GraphQLApi \(p. 166\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

AccessDeniedException

You don't 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 aren't 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 V2](#)
- [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",
  "maxBatchSize": number,
  "pipelineConfig": {
    "functions": [ "string" ]
  },
  "requestMappingTemplate": "string",
  "responseMappingTemplate": "string",
  "syncConfig": {
    "conflictDetection": "string",
    "conflictHandler": "string",
    "lambdaConflictHandlerConfig": {
      "lambdaConflictHandlerArn": "string"
    }
  }
}
```

URI Request Parameters

The request uses the following URI parameters.

apiId (p. 139)

The API ID.

Required: Yes

fieldName (p. 139)

The new field name.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

typeName (p. 139)

The new type name.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

Request Body

The request accepts the following data in JSON format.

cachedConfig (p. 139)

The caching configuration for the resolver.

Type: [CachingConfig](#) (p. 155) object

Required: No

dataSourceName (p. 139)

The new data source name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: No

kind (p. 139)

The resolver type.

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

Type: String

Valid Values: `UNIT` | `PIPELINE`

Required: No

maxBatchSize (p. 139)

The maximum batching size for a resolver.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 2000.

Required: No

pipelineConfig (p. 139)

The `PipelineConfig`.

Type: [PipelineConfig](#) (p. 176) object

Required: No

requestMappingTemplate (p. 139)

The new request mapping template.

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).

VTL request mapping templates are optional when using an AWS Lambda data source. For all other data sources, VTL request and response mapping templates are required.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `^\.*$`

Required: No

responseMappingTemplate (p. 139)

The new response mapping template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `^\.*$`

Required: No

syncConfig (p. 139)

The SyncConfig for a resolver attached to a versioned data source.

Type: [SyncConfig \(p. 182\)](#) 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",
    "maxBatchSize": number,
    "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 \(p. 141\)](#)

The updated `Resolver` object.

Type: [Resolver \(p. 179\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 188\)](#).

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 aren't 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 V2](#)
- [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 uses the following URI parameters.

apiId (p. 143)

The API ID.

Required: Yes

typeName (p. 143)

The new type name.

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: Yes

Request Body

The request accepts the following data in JSON format.

definition (p. 143)

The new definition.

Type: String

Required: No

format (p. 143)

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

{
  "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.

type (p. 144)

The updated `Type` object.

Type: [Type](#) (p. 183) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 188).

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 aren't 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 V2](#)
- [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. 147)
- [ApiAssociation](#) (p. 148)
- [ApiCache](#) (p. 149)
- [ApiKey](#) (p. 151)
- [AuthorizationConfig](#) (p. 153)
- [AwsIamConfig](#) (p. 154)
- [CachingConfig](#) (p. 155)
- [CognitoUserPoolConfig](#) (p. 156)
- [DataSource](#) (p. 157)
- [DeltaSyncConfig](#) (p. 159)
- [DomainNameConfig](#) (p. 160)
- [DynamodbDataSourceConfig](#) (p. 162)
- [ElasticsearchDataSourceConfig](#) (p. 163)
- [FunctionConfiguration](#) (p. 164)
- [GraphQLApi](#) (p. 166)
- [HttpDataSourceConfig](#) (p. 169)
- [LambdaAuthorizerConfig](#) (p. 170)
- [LambdaConflictHandlerConfig](#) (p. 171)
- [LambdaDataSourceConfig](#) (p. 172)
- [LogConfig](#) (p. 173)
- [OpenIDConnectConfig](#) (p. 174)
- [OpenSearchServiceDataSourceConfig](#) (p. 175)
- [PipelineConfig](#) (p. 176)
- [RdsHttpEndpointConfig](#) (p. 177)
- [RelationalDatabaseDataSourceConfig](#) (p. 178)
- [Resolver](#) (p. 179)
- [SyncConfig](#) (p. 182)
- [Type](#) (p. 183)
- [UserPoolConfig](#) (p. 185)

AdditionalAuthenticationProvider

Describes an additional authentication provider.

Contents

authenticationType

The authentication type: API key, AWS Identity and Access Management (IAM), OpenID Connect (OIDC), Amazon Cognito user pools, or AWS Lambda.

Type: String

Valid Values: `API_KEY` | `AWS_IAM` | `AMAZON_COGNITO_USER_POOLS` | `OPENID_CONNECT` | `AWS_LAMBDA`

Required: No

lambdaAuthorizerConfig

Configuration for Lambda function authorization.

Type: [LambdaAuthorizerConfig \(p. 170\)](#) object

Required: No

openIDConnectConfig

The OIDC configuration.

Type: [OpenIDConnectConfig \(p. 174\)](#) object

Required: No

userPoolConfig

The Amazon Cognito user pool configuration.

Type: [CognitoUserPoolConfig \(p. 156\)](#) 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 V2](#)
- [AWS SDK for Ruby V3](#)

ApiAssociation

Describes an `ApiAssociation` object.

Contents

apiId

The API ID.

Type: String

Required: No

associationStatus

Identifies the status of an association.

- **PROCESSING**: The API association is being created. You cannot modify association requests during processing.
- **SUCCESS**: The API association was successful. You can modify associations after success.
- **FAILED**: The API association has failed. You can modify associations after failure.

Type: String

Valid Values: `PROCESSING` | `FAILED` | `SUCCESS`

Required: No

deploymentDetail

Details about the last deployment status.

Type: String

Required: No

domainName

The domain name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 253.

Pattern: `^(*[\w\d-]*\.)?([\w\d-]+\.[\w\d-]+)$`

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 V2](#)
- [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. You cannot update this setting 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. You cannot update this setting after creation.

Type: Boolean

Required: No

ttl

TTL in seconds for cache entries.

Valid values are 1–3,600 seconds.

Type: Long

Required: No

type

The cache instance type. Valid values are

- `SMALL`
- `MEDIUM`
- `LARGE`
- `XLARGE`
- `LARGE_2X`
- `LARGE_4X`
- `LARGE_8X` (not available in all regions)
- `LARGE_12X`

Historically, instance types were identified by an EC2-style value. As of July 2020, this is deprecated, and the generic identifiers above should be used.

The following legacy instance types are available, but their use is discouraged:

- **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` | `SMALL` | `MEDIUM` | `LARGE` | `XLARGE` | `LARGE_2X` | `LARGE_4X` | `LARGE_8X` | `LARGE_12X`

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 V2](#)
- [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: We introduced this version at launch in November 2017. These keys always expire after 7 days. Amazon DynamoDB TTL manages key expiration. These keys ceased to be valid after February 21, 2018, and they should no longer be used.

- `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 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 deleted these keys from the table on February 21, 2018.

da2: We introduced this version in February 2018 when AWS AppSync added support to extend key expiration.

- `ListApiKeys` returns the expiration time and deletion time in seconds.
- `CreateApiKey` returns the expiration time and deletion time in seconds and accepts a user-provided expiration time in seconds.
- `UpdateApiKey` returns the expiration time and deletion time in seconds and accepts a user-provided expiration time in seconds. Expired API keys are kept for 60 days after the expiration time. You can update the key expiration time as long as the key isn't deleted.
- `DeleteApiKey` deletes the item from the table.
- Expiration is stored in DynamoDB as seconds. After the expiration time, using the key to authenticate will fail. However, you can reinstate the key before deletion.
- Deletion is stored in DynamoDB as seconds. The key is deleted after deletion time.

Contents

deletes

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

Type: Long

Required: No

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 V2](#)
- [AWS SDK for Ruby V3](#)

AuthorizationConfig

The authorization configuration in case the HTTP endpoint requires authorization.

Contents

authorizationType

The authorization type that the HTTP endpoint requires.

- **AWS_IAM**: The authorization type is Signature Version 4 (SigV4).

Type: String

Valid Values: `AWS_IAM`

Required: Yes

awsIamConfig

The AWS Identity and Access Management (IAM) settings.

Type: [AwsIamConfig](#) (p. 154) 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 V2](#)
- [AWS SDK for Ruby V3](#)

AwsIamConfig

The AWS Identity and Access Management (IAM) configuration.

Contents

signingRegion

The signing AWS Region for IAM authorization.

Type: String

Required: No

signingServiceName

The signing service name for 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 V2](#)
- [AWS SDK for Ruby V3](#)

CachingConfig

The caching configuration for a resolver that has caching activated.

Contents

cachingKeys

The caching keys for a resolver that has caching activated.

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

Type: Array of strings

Required: No

ttl

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

Valid values are 1–3,600 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 V2](#)
- [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 V2](#)
- [AWS SDK for Ruby V3](#)

DataSource

Describes a data source.

Contents

dataSourceArn

The data source Amazon Resource Name (ARN).

Type: String

Required: No

description

The description of the data source.

Type: String

Required: No

dynamodbConfig

DynamoDB settings.

Type: [DynamodbDataSourceConfig \(p. 162\)](#) object

Required: No

elasticsearchConfig

Amazon OpenSearch Service settings.

Type: [ElasticsearchDataSourceConfig \(p. 163\)](#) object

Required: No

httpConfig

HTTP endpoint settings.

Type: [HttpDataSourceConfig \(p. 169\)](#) object

Required: No

lambdaConfig

Lambda settings.

Type: [LambdaDataSourceConfig \(p. 172\)](#) object

Required: No

name

The name of the data source.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: No

openSearchServiceConfig

Amazon OpenSearch Service settings.

Type: [OpenSearchServiceDataSourceConfig \(p. 175\)](#) object

Required: No

relationalDatabaseConfig

Relational database settings.

Type: [RelationalDatabaseDataSourceConfig \(p. 178\)](#) object

Required: No

serviceRoleArn

The AWS Identity and Access Management (IAM) service role Amazon Resource Name (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.

- **AWS_LAMBDA**: The data source is an AWS Lambda function.
- **AMAZON_DYNAMODB**: The data source is an Amazon DynamoDB table.
- **AMAZON_ELASTICSEARCH**: The data source is an Amazon OpenSearch Service domain.
- **AMAZON_OPENSEARCH_SERVICE**: The data source is an Amazon OpenSearch Service domain.
- **NONE**: There is no data source. Use this type when you want to invoke a GraphQL operation without connecting to a data source, such as when you're performing data transformation with resolvers or invoking a subscription 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` | `AMAZON_OPENSEARCH_SERVICE`

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 V2](#)
- [AWS SDK for Ruby V3](#)

DeltaSyncConfig

Describes a Delta Sync configuration.

Contents

baseTableTTL

The number of minutes that an Item is stored in the data source.

Type: Long

Required: No

deltaSyncTableName

The Delta Sync table name.

Type: String

Required: No

deltaSyncTableTTL

The number of minutes that 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 V2](#)
- [AWS SDK for Ruby V3](#)

DomainNameConfig

Describes a configuration for a custom domain.

Contents

appsyncDomainName

The domain name that AWS AppSync provides.

Type: String

Required: No

certificateArn

The Amazon Resource Name (ARN) of the certificate. This can be an AWS Certificate Manager (ACM) certificate or an AWS Identity and Access Management (IAM) server certificate.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:[a-z-]*:(acm|iam):[a-z0-9-]*:\d{12}:(certificate|server-certificate)/[0-9A-Za-z_/-]*$`

Required: No

description

A description of the DomainName configuration.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 255.

Pattern: `^.*$`

Required: No

domainName

The domain name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 253.

Pattern: `^(*[w\d-]*\.)?([w\d-]+\.[w\d-]+)$`

Required: No

hostedZoneId

The ID of your Amazon Route 53 hosted zone.

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 V2](#)
- [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 data source.

Type: [DeltaSyncConfig \(p. 159\)](#) 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 V2](#)
- [AWS SDK for Ruby V3](#)

ElasticsearchDataSourceConfig

Describes an OpenSearch data source configuration.

As of September 2021, Amazon Elasticsearch service is Amazon OpenSearch Service. This configuration is deprecated. For new data sources, use [OpenSearchServiceDataSourceConfig \(p. 175\)](#) to specify an OpenSearch data source.

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 V2](#)
- [AWS SDK for Ruby V3](#)

FunctionConfiguration

A function is a reusable entity. You can use multiple functions to compose the resolver logic.

Contents

dataSourceName

The name of the `DataSource`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: No

description

The `Function` description.

Type: String

Required: No

functionArn

The Amazon Resource Name (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

maxBatchSize

The maximum batching size for a resolver.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 2000.

Required: No

name

The name of the `Function` object.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `^\.*$`

Required: No

responseMappingTemplate

The `Function` response mapping template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `^\.*$`

Required: No

syncConfig

Describes a Sync configuration for a resolver.

Specifies which Conflict Detection strategy and Resolution strategy to use when the resolver is invoked.

Type: [SyncConfig](#) (p. 182) 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 V2](#)
- [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 \(p. 147\)](#) objects

Required: No

apiId

The API ID.

Type: String

Required: No

arn

The Amazon Resource Name (ARN).

Type: String

Required: No

authenticationType

The authentication type.

Type: String

Valid Values: `API_KEY` | `AWS_IAM` | `AMAZON_COGNITO_USER_POOLS` | `OPENID_CONNECT` | `AWS_LAMBDA`

Required: No

lambdaAuthorizerConfig

Configuration for Lambda function authorization.

Type: [LambdaAuthorizerConfig \(p. 170\)](#) object

Required: No

logConfig

The Amazon CloudWatch Logs configuration.

Type: [LogConfig \(p. 173\)](#) object

Required: No

name

The API name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: No

openIDConnectConfig

The OpenID Connect configuration.

Type: [OpenIDConnectConfig \(p. 174\)](#) object

Required: No

tags

The tags.

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Value Length Constraints: Maximum length of 256.

Value Pattern: `^[\\s\\w+-=\\.:/@]*$`

Required: No

uris

The URIs.

Type: String to string map

Required: No

userPoolConfig

The Amazon Cognito user pool configuration.

Type: [UserPoolConfig \(p. 185\)](#) object

Required: No

wafWebAclArn

The ARN of the AWS WAF access control list (ACL) associated with this `GraphQLApi`, if one exists.

Type: String

Required: No

xrayEnabled

A flag indicating whether to use AWS X-Ray tracing 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 V2](#)
- [AWS SDK for Ruby V3](#)

HttpDataSourceConfig

Describes an HTTP data source configuration.

Contents

authorizationConfig

The authorization configuration in case the HTTP endpoint requires authorization.

Type: [AuthorizationConfig \(p. 153\)](#) object

Required: No

endpoint

The HTTP URL endpoint. You can specify either the domain name or IP, and port combination, and the URL scheme must be HTTP or HTTPS. If you don't specify the port, 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 V2](#)
- [AWS SDK for Ruby V3](#)

LambdaAuthorizerConfig

A `LambdaAuthorizerConfig` specifies how to authorize AWS AppSync API access when using the `AWS_LAMBDA` authorizer mode. Be aware that an AWS AppSync API can have only one AWS Lambda authorizer configured at a time.

Contents

`authorizerResultTtlInSeconds`

The number of seconds a response should be cached for. The default is 5 minutes (300 seconds). The Lambda function can override this by returning a `ttlOverride` key in its response. A value of 0 disables caching of responses.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 3600.

Required: No

`authorizerUri`

The Amazon Resource Name (ARN) of the Lambda function to be called for authorization. This can be a standard Lambda ARN, a version ARN (`.../v3`), or an alias ARN.

Note: This Lambda function must have the following resource-based policy assigned to it. When configuring Lambda authorizers in the console, this is done for you. To use the AWS Command Line Interface (AWS CLI), run the following:

```
aws lambda add-permission --function-name "arn:aws:lambda:us-east-2:111122223333:function:my-function" --statement-id "appsync" --principal appsync.amazonaws.com --action lambda:InvokeFunction
```

Type: String

Required: Yes

`identityValidationExpression`

A regular expression for validation of tokens before the Lambda function is called.

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 V2](#)
- [AWS SDK for Ruby V3](#)

LambdaConflictHandlerConfig

The `LambdaConflictHandlerConfig` object when configuring `LAMBDA` as the Conflict Handler.

Contents

lambdaConflictHandlerArn

The Amazon Resource Name (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 V2](#)
- [AWS SDK for Ruby V3](#)

LambdaDataSourceConfig

Describes an AWS Lambda data source configuration.

Contents

lambdaFunctionArn

The Amazon Resource Name (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 V2](#)
- [AWS SDK for Ruby V3](#)

LogConfig

The Amazon CloudWatch Logs configuration.

Contents

cloudWatchLogsRoleArn

The service role that AWS AppSync assumes to publish to CloudWatch logs in your account.

Type: String

Required: Yes

excludeVerboseContent

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 V2](#)
- [AWS SDK for Ruby V3](#)

OpenIDConnectConfig

Describes an OpenID Connect (OIDC) configuration.

Contents

authTTL

The number of milliseconds that 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 that AWS AppSync can validate against multiple client identifiers at a time.

Type: String

Required: No

iatTTL

The number of milliseconds that a token is valid after it's issued to a user.

Type: Long

Required: No

issuer

The issuer for the OIDC 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 V2](#)
- [AWS SDK for Ruby V3](#)

OpenSearchServiceDataSourceConfig

Describes an OpenSearch 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 V2](#)
- [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 V2](#)
- [AWS SDK for Ruby V3](#)

RdsHttpEndpointConfig

The Amazon Relational Database Service (Amazon RDS) HTTP endpoint configuration.

Contents

awsRegion

AWS Region for Amazon RDS HTTP endpoint.

Type: String

Required: No

awsSecretStoreArn

AWS secret store Amazon Resource Name (ARN) for database credentials.

Type: String

Required: No

databaseName

Logical database name.

Type: String

Required: No

dbClusterIdentifier

Amazon RDS cluster Amazon Resource Name (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 V2](#)
- [AWS SDK for Ruby V3](#)

RelationalDatabaseDataSourceConfig

Describes a relational database data source configuration.

Contents

rdsHttpEndpointConfig

Amazon RDS HTTP endpoint settings.

Type: [RdsHttpEndpointConfig](#) (p. 177) object

Required: No

relationalDatabaseSourceType

Source type for the relational database.

- **RDS_HTTP_ENDPOINT:** The relational database source type is an Amazon Relational Database Service (Amazon RDS) HTTP endpoint.

Type: 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 V2](#)
- [AWS SDK for Ruby V3](#)

Resolver

Describes a resolver.

Contents

cachedConfig

The caching configuration for the resolver.

Type: [CachingConfig](#) (p. 155) object

Required: No

dataSourceName

The resolver data source name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

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

Required: No

fieldName

The resolver field name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

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. You can use a UNIT resolver to run a GraphQL query against a single data source.
- **PIPELINE:** A PIPELINE resolver type. You can use a PIPELINE resolver to invoke a series of `Function` objects in a serial manner. You can use a pipeline resolver to run a GraphQL query against multiple data sources.

Type: String

Valid Values: `UNIT` | `PIPELINE`

Required: No

maxBatchSize

The maximum batching size for a resolver.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 2000.

Required: No

pipelineConfig

The `PipelineConfig`.

Type: [PipelineConfig \(p. 176\)](#) object

Required: No

requestMappingTemplate

The request mapping template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `^.*$`

Required: No

resolverArn

The resolver Amazon Resource Name (ARN).

Type: String

Required: No

responseMappingTemplate

The response mapping template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `^.*$`

Required: No

syncConfig

The `SyncConfig` for a resolver attached to a versioned data source.

Type: [SyncConfig \(p. 182\)](#) object

Required: No

typeName

The resolver type name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

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 V2](#)
- [AWS SDK for Ruby V3](#)

SyncConfig

Describes a Sync configuration for a resolver.

Specifies which Conflict Detection strategy and Resolution strategy to use 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 invoking 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 don't match the latest version at the server.
- **AUTOMERGE**: Resolve conflicts with the Automerge conflict resolution strategy.
- **LAMBDA**: Resolve conflicts with an AWS 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 \(p. 171\)](#) 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 V2](#)
- [AWS SDK for Ruby V3](#)

Type

Describes a type.

Contents

arn

The type Amazon Resource Name (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

Length Constraints: Minimum length of 1. Maximum length of 65536.

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 V2](#)
- [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 V2](#)
- [AWS SDK for Ruby V3](#)

Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see [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'THHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: `20120325T120000Z`.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is

not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see [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

NotAuthorized

You do not have permission to perform this action.

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