
AWS AppSync
API Reference
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AWS AppSync: API Reference

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Table of Contents

Welcome	1
Actions	2
CreateApiKey	3
Request Syntax	3
URI Request Parameters	3
Request Body	3
Response Syntax	3
Response Elements	4
Errors	4
See Also	5
CreateDataSource	6
Request Syntax	6
URI Request Parameters	6
Request Body	6
Response Syntax	7
Response Elements	8
Errors	8
See Also	9
CreateGraphQLApi	10
Request Syntax	10
URI Request Parameters	10
Request Body	10
Response Syntax	11
Response Elements	11
Errors	12
See Also	12
CreateResolver	13
Request Syntax	13
URI Request Parameters	13
Request Body	13
Response Syntax	14
Response Elements	14
Errors	14
See Also	15
CreateType	16
Request Syntax	16
URI Request Parameters	16
Request Body	16
Response Syntax	16
Response Elements	17
Errors	17
See Also	17
DeleteApiKey	19
Request Syntax	19
URI Request Parameters	19
Request Body	19
Response Syntax	19
Response Elements	19
Errors	19
See Also	20
DeleteDataSource	21
Request Syntax	21
URI Request Parameters	21
Request Body	21

Response Syntax	21
Response Elements	21
Errors	21
See Also	22
DeleteGraphqlApi	23
Request Syntax	23
URI Request Parameters	23
Request Body	23
Response Syntax	23
Response Elements	23
Errors	23
See Also	24
DeleteResolver	25
Request Syntax	25
URI Request Parameters	25
Request Body	25
Response Syntax	25
Response Elements	25
Errors	25
See Also	26
DeleteType	27
Request Syntax	27
URI Request Parameters	27
Request Body	27
Response Syntax	27
Response Elements	27
Errors	27
See Also	28
GetDataSource	29
Request Syntax	29
URI Request Parameters	29
Request Body	29
Response Syntax	29
Response Elements	30
Errors	30
See Also	30
GetGraphqlApi	32
Request Syntax	32
URI Request Parameters	32
Request Body	32
Response Syntax	32
Response Elements	32
Errors	33
See Also	33
GetIntrospectionSchema	34
Request Syntax	34
URI Request Parameters	34
Request Body	34
Response Syntax	34
Response Elements	34
Errors	34
See Also	35
GetResolver	36
Request Syntax	36
URI Request Parameters	36
Request Body	36
Response Syntax	36

Response Elements	36
Errors	37
See Also	37
GetSchemaCreationStatus	38
Request Syntax	38
URI Request Parameters	38
Request Body	38
Response Syntax	38
Response Elements	38
Errors	38
See Also	39
GetType	40
Request Syntax	40
URI Request Parameters	40
Request Body	40
Response Syntax	40
Response Elements	40
Errors	41
See Also	41
ListApiKeys	42
Request Syntax	42
URI Request Parameters	42
Request Body	42
Response Syntax	42
Response Elements	42
Errors	43
See Also	43
ListDataSources	45
Request Syntax	45
URI Request Parameters	45
Request Body	45
Response Syntax	45
Response Elements	46
Errors	46
See Also	46
ListGraphQLApis	48
Request Syntax	48
URI Request Parameters	48
Request Body	48
Response Syntax	48
Response Elements	49
Errors	49
See Also	49
ListResolvers	51
Request Syntax	51
URI Request Parameters	51
Request Body	51
Response Syntax	51
Response Elements	52
Errors	52
See Also	52
ListTypes	54
Request Syntax	54
URI Request Parameters	54
Request Body	54
Response Syntax	54
Response Elements	55

Errors	55
See Also	55
StartSchemaCreation	57
Request Syntax	57
URI Request Parameters	57
Request Body	57
Response Syntax	57
Response Elements	57
Errors	58
See Also	58
UpdateApiKey	60
Request Syntax	60
URI Request Parameters	60
Request Body	60
Response Syntax	60
Response Elements	61
Errors	61
See Also	61
UpdateDataSource	63
Request Syntax	63
URI Request Parameters	63
Request Body	63
Response Syntax	64
Response Elements	65
Errors	65
See Also	66
UpdateGraphQLApi	67
Request Syntax	67
URI Request Parameters	67
Request Body	67
Response Syntax	68
Response Elements	68
Errors	69
See Also	69
UpdateResolver	71
Request Syntax	71
URI Request Parameters	71
Request Body	71
Response Syntax	72
Response Elements	72
Errors	72
See Also	73
UpdateType	74
Request Syntax	74
URI Request Parameters	74
Request Body	74
Response Syntax	74
Response Elements	75
Errors	75
See Also	75
Data Types	77
ApiKey	78
Contents	78
See Also	79
DataSource	80
Contents	80
See Also	81

DynamodbDataSourceConfig	82
Contents	82
See Also	82
ElasticsearchDataSourceConfig	83
Contents	83
See Also	83
GraphQLApi	84
Contents	84
See Also	85
HttpDataSourceConfig	86
Contents	86
See Also	86
LambdaDataSourceConfig	87
Contents	87
See Also	87
LogConfig	88
Contents	88
See Also	88
OpenIDConnectConfig	89
Contents	89
See Also	89
Resolver	90
Contents	90
See Also	91
Type	92
Contents	92
See Also	92
UserPoolConfig	93
Contents	93
See Also	93
Common Parameters	94
Common Errors	96

Welcome

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

This document was last published on November 15, 2018.

Actions

The following actions are supported:

- [CreateApiKey](#) (p. 3)
- [CreateDataSource](#) (p. 6)
- [CreateGraphQLApi](#) (p. 10)
- [CreateResolver](#) (p. 13)
- [CreateType](#) (p. 16)
- [DeleteApiKey](#) (p. 19)
- [DeleteDataSource](#) (p. 21)
- [DeleteGraphQLApi](#) (p. 23)
- [DeleteResolver](#) (p. 25)
- [DeleteType](#) (p. 27)
- [GetDataSource](#) (p. 29)
- [GetGraphQLApi](#) (p. 32)
- [GetIntrospectionSchema](#) (p. 34)
- [GetResolver](#) (p. 36)
- [GetSchemaCreationStatus](#) (p. 38)
- [GetType](#) (p. 40)
- [ListApiKeys](#) (p. 42)
- [ListDataSources](#) (p. 45)
- [ListGraphQLApis](#) (p. 48)
- [ListResolvers](#) (p. 51)
- [ListTypes](#) (p. 54)
- [StartSchemaCreation](#) (p. 57)
- [UpdateApiKey](#) (p. 60)
- [UpdateDataSource](#) (p. 63)
- [UpdateGraphQLApi](#) (p. 67)
- [UpdateResolver](#) (p. 71)
- [UpdateType](#) (p. 74)

CreateApiKey

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

Request Syntax

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

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

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 3)

The ID for your GraphQL API.

Request Body

The request accepts the following data in JSON format.

description (p. 3)

A description of the purpose of the API key.

Type: String

Required: No

expires (p. 3)

The time from creation time after which the API key expires. The date is represented as seconds since the epoch, rounded down to the nearest hour. The default value for this parameter is 7 days from creation time. For more information, see [ApiKey](#) (p. 78).

Type: Long

Required: No

Response Syntax

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

{
  "apiKey": {
    "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. 3)

The API key.

Type: [ApiKey](#) (p. 78) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 96).

ApiKeyLimitExceededException

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

HTTP Status Code: 400

ApiKeyValidityOutOfBoundsException

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

HTTP Status Code: 400

BadRequestException

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

HTTP Status Code: 400

InternalFailureException

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

HTTP Status Code: 500

LimitExceededException

The request exceeded a limit. Try your request again.

HTTP Status Code: 429

LimitExceededException

The request exceeded a limit. Try your request again.

HTTP Status Code: 429

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

CreateDataSource

Creates a DataSource object.

Request Syntax

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

```
{  
  "description": "string",  
  "dynamodbConfig": {  
    "awsRegion": "string",  
    "tableName": "string",  
    "useCallerCredentials": boolean  
  },  
  "elasticsearchConfig": {  
    "awsRegion": "string",  
    "endpoint": "string"  
  },  
  "httpConfig": {  
    "endpoint": "string"  
  },  
  "lambdaConfig": {  
    "lambdaFunctionArn": "string"  
  },  
  "name": "string",  
  "serviceRoleArn": "string",  
  "type": "string"  
}
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 6)

The API ID for the GraphQL API for the DataSource.

Request Body

The request accepts the following data in JSON format.

description (p. 6)

A description of the DataSource.

Type: String

Required: No

dynamodbConfig (p. 6)

Amazon DynamoDB settings.

Type: [DynamodbDataSourceConfig](#) (p. 82) object

Required: No

[elasticsearchConfig \(p. 6\)](#)

Amazon Elasticsearch settings.

Type: [ElasticsearchDataSourceConfig \(p. 83\)](#) object

Required: No

[httpConfig \(p. 6\)](#)

HTTP endpoint settings.

Type: [HttpDataSourceConfig \(p. 86\)](#) object

Required: No

[lambdaConfig \(p. 6\)](#)

AWS Lambda settings.

Type: [LambdaDataSourceConfig \(p. 87\)](#) object

Required: No

[name \(p. 6\)](#)

A user-supplied name for the `DataSource`.

Type: String

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

Required: Yes

[serviceRoleArn \(p. 6\)](#)

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

Type: String

Required: No

[type \(p. 6\)](#)

The type of the `DataSource`.

Type: String

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

Required: Yes

Response Syntax

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

{
  "dataSource": {
    "dataSourceArn": "string",
    "description": "string",
    "dynamodbConfig": {
```

```
    "awsRegion": "string",
    "tableName": "string",
    "useCallerCredentials": boolean
  },
  "elasticsearchConfig": {
    "awsRegion": "string",
    "endpoint": "string"
  },
  "httpConfig": {
    "endpoint": "string"
  },
  "lambdaConfig": {
    "lambdaFunctionArn": "string"
  },
  "name": "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 \(p. 7\)](#)

The `DataSource` object.

Type: [DataSource \(p. 80\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 96\)](#).

BadRequestException

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

HTTP Status Code: 400

ConcurrentModificationException

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

HTTP Status Code: 409

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

CreateGraphQLApi

Creates a GraphQLApi object.

Request Syntax

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

{
  "authenticationType": "string",
  "logConfig": {
    "cloudWatchLogsRoleArn": "string",
    "fieldLogLevel": "string"
  },
  "name": "string",
  "openIDConnectConfig": {
    "authTTL": number,
    "clientId": "string",
    "iatTTL": number,
    "issuer": "string"
  },
  "userPoolConfig": {
    "appIdClientRegex": "string",
    "awsRegion": "string",
    "defaultAction": "string",
    "userPoolId": "string"
  }
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

authenticationType (p. 10)

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

Type: String

Valid Values: API_KEY | AWS_IAM | AMAZON_COGNITO_USER_POOLS | OPENID_CONNECT

Required: Yes

logConfig (p. 10)

The Amazon CloudWatch Logs configuration.

Type: [LogConfig \(p. 88\)](#) object

Required: No

name (p. 10)

A user-supplied name for the GraphQLApi.

Type: String

Required: Yes

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

The OpenID Connect configuration.

Type: [OpenIDConnectConfig \(p. 89\)](#) object

Required: No

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

The Amazon Cognito user pool configuration.

Type: [UserPoolConfig \(p. 93\)](#) object

Required: No

Response Syntax

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

{
  "graphqlApi": {
    "apiId": "string",
    "arn": "string",
    "authenticationType": "string",
    "logConfig": {
      "cloudWatchLogsRoleArn": "string",
      "fieldLogLevel": "string"
    },
    "name": "string",
    "openIDConnectConfig": {
      "authTTL": number,
      "clientId": "string",
      "iatTTL": number,
      "issuer": "string"
    },
    "uris": {
      "string": "string"
    },
    "userPoolConfig": {
      "appIdClientRegex": "string",
      "awsRegion": "string",
      "defaultAction": "string",
      "userPoolId": "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.

[graphqlApi \(p. 11\)](#)

The GraphqlApi.

Type: [GraphQLApi \(p. 84\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 96\)](#).

ApiLimitExceededException

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

HTTP Status Code: 400

BadRequestException

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

HTTP Status Code: 400

ConcurrentModificationException

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

HTTP Status Code: 409

InternalFailureException

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

HTTP Status Code: 500

LimitExceededException

The request exceeded a limit. Try your request again.

HTTP Status Code: 429

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

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 /apis/apiId/types/typeName/resolvers HTTP/1.1
Content-type: application/json

{
  "dataSourceName": "string",
  "fieldName": "string",
  "requestMappingTemplate": "string",
  "responseMappingTemplate": "string"
}
```

URI Request Parameters

The request requires the following URI parameters.

`apiId` (p. 13)

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

`typeName` (p. 13)

The name of the `Type`.

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

Request Body

The request accepts the following data in JSON format.

`dataSourceName` (p. 13)

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

Type: String

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

Required: Yes

`fieldName` (p. 13)

The name of the field to attach the resolver to.

Type: String

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

Required: Yes

`requestMappingTemplate` (p. 13)

The mapping template to be used for requests.

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

Type: String

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

Required: Yes

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

The mapping template to be used for responses from the data source.

Type: String

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

Required: No

Response Syntax

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

{
  "resolver": {
    "dataSourceName": "string",
    "fieldName": "string",
    "requestMappingTemplate": "string",
    "resolverArn": "string",
    "responseMappingTemplate": "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 \(p. 14\)](#)

The `Resolver` object.

Type: [Resolver \(p. 90\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 96\)](#).

ConcurrentModificationException

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

HTTP Status Code: 409

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

CreateType

Creates a Type object.

Request Syntax

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

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

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 16)

The API ID.

Request Body

The request accepts the following data in JSON format.

definition (p. 16)

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

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

Type: String

Required: Yes

format (p. 16)

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 \(p. 16\)](#)

The `Type` object.

Type: [Type \(p. 92\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 96\)](#).

BadRequestException

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

HTTP Status Code: 400

ConcurrentModificationException

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

HTTP Status Code: 409

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

DeleteApiKey

Deletes an API key.

Request Syntax

```
DELETE /apis/apiId/apikeys/id HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 19)

The API ID.

id (p. 19)

The ID for the API key.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 96\)](#).

BadRequestException

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

HTTP Status Code: 400

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

DeleteDataSource

Deletes a `DataSource` object.

Request Syntax

```
DELETE /apis/apiId/datasources/name HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

`apiId` (p. 21)

The API ID.

`name` (p. 21)

The name of the data source.

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

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 96\)](#).

BadRequestException

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

HTTP Status Code: 400

ConcurrentModificationException

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

HTTP Status Code: 409

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

DeleteGraphQLApi

Deletes a GraphQLApi object.

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 23)

The API ID.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 96\)](#).

BadRequestException

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

HTTP Status Code: 400

ConcurrentModificationException

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

HTTP Status Code: 409

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

DeleteResolver

Deletes a Resolver object.

Request Syntax

```
DELETE /apis/apiId/types/typeName/resolvers/fieldName HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 25)

The API ID.

fieldName (p. 25)

The resolver field name.

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

typeName (p. 25)

The name of the resolver type.

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

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 96\)](#).

ConcurrentModificationException

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

HTTP Status Code: 409

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

DeleteType

Deletes a Type object.

Request Syntax

```
DELETE /apis/apiId/types/typeName HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 27)

The API ID.

typeName (p. 27)

The type name.

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

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 96\)](#).

BadRequestException

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

HTTP Status Code: 400

ConcurrentModificationException

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

HTTP Status Code: 409

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

GetDataSource

Retrieves a DataSource object.

Request Syntax

```
GET /apis/apiId/datasources/name HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 29)

The API ID.

name (p. 29)

The name of the data source.

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

Request Body

The request does not have a request body.

Response Syntax

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

{
  "dataSource": {
    "dataSourceArn": "string",
    "description": "string",
    "dynamodbConfig": {
      "awsRegion": "string",
      "tableName": "string",
      "useCallerCredentials": boolean
    },
    "elasticsearchConfig": {
      "awsRegion": "string",
      "endpoint": "string"
    },
    "httpConfig": {
      "endpoint": "string"
    },
    "lambdaConfig": {
      "lambdaFunctionArn": "string"
    },
    "name": "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. 29)

The `DataSource` object.

Type: [DataSource](#) (p. 80) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 96).

BadRequestException

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

HTTP Status Code: 400

ConcurrentModificationException

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

HTTP Status Code: 409

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)

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

GetGraphQLApi

Retrieves a GraphQLApi object.

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 32)

The API ID for the GraphQL API.

Request Body

The request does not have a request body.

Response Syntax

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

{
  "graphqlApi": {
    "apiId": "string",
    "arn": "string",
    "authenticationType": "string",
    "logConfig": {
      "cloudWatchLogsRoleArn": "string",
      "fieldLogLevel": "string"
    },
    "name": "string",
    "openIDConnectConfig": {
      "authTTL": number,
      "clientId": "string",
      "iatTTL": number,
      "issuer": "string"
    },
    "uris": {
      "string": "string"
    },
    "userPoolConfig": {
      "appIdClientRegex": "string",
      "awsRegion": "string",
      "defaultAction": "string",
      "userPoolId": "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.

[graphqlApi \(p. 32\)](#)

The `GraphQLApi` object.

Type: [GraphQLApi \(p. 84\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 96\)](#).

BadRequestException

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

HTTP Status Code: 400

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

GetIntrospectionSchema

Retrieves the introspection schema for a GraphQL API.

Request Syntax

```
GET /apis/apiId/schema?format=format HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 34)

The API ID.

format (p. 34)

The schema format: SDL or JSON.

Valid Values: `SDL` | `JSON`

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. 34)

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 \(p. 96\)](#).

GraphQLSchemaException

The GraphQL schema is not valid.

HTTP Status Code: 400

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

GetResolver

Retrieves a Resolver object.

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 36)

The API ID.

fieldName (p. 36)

The resolver field name.

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

typeName (p. 36)

The resolver type name.

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

Request Body

The request does not have a request body.

Response Syntax

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

{
  "resolver": {
    "dataSourceName": "string",
    "fieldName": "string",
    "requestMappingTemplate": "string",
    "resolverArn": "string",
    "responseMappingTemplate": "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 \(p. 36\)](#)

The `Resolver` object.

Type: [Resolver \(p. 90\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 96\)](#).

ConcurrentModificationException

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

HTTP Status Code: 409

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

GetSchemaCreationStatus

Retrieves the current status of a schema creation operation.

Request Syntax

```
GET /apis/apiId/schemacreation HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

[apild \(p. 38\)](#)

The API ID.

Request Body

The request does not have a request body.

Response Syntax

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

{
  "details": "string",
  "status": "string"
}
```

Response Elements

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

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

[details \(p. 38\)](#)

Detailed information about the status of the schema creation operation.

Type: String

[status \(p. 38\)](#)

The current state of the schema (PROCESSING, ACTIVE, or DELETING). Once the schema is in the ACTIVE state, you can add data.

Type: String

Valid Values: PROCESSING | ACTIVE | DELETING

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 96\)](#).

BadRequestException

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

HTTP Status Code: 400

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

GetType

Retrieves a `Type` object.

Request Syntax

```
GET /apis/apiId/types/typeName?format=format HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

`apiId` (p. 40)

The API ID.

`format` (p. 40)

The type format: SDL or JSON.

Valid Values: `SDL` | `JSON`

`typeName` (p. 40)

The type name.

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

Request Body

The request does not have a request body.

Response Syntax

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

{
  "type": {
    "arn": "string",
    "definition": "string",
    "description": "string",
    "format": "string",
    "name": "string"
  }
}
```

Response Elements

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

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

`type` (p. 40)

The `Type` object.

Type: [Type \(p. 92\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 96\)](#).

BadRequestException

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

HTTP Status Code: 400

ConcurrentModificationException

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

HTTP Status Code: 409

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

ListApiKeys

Lists the API keys for a given API.

Note

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

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

`apiId` (p. 42)

The API ID.

`maxResults` (p. 42)

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

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

`nextToken` (p. 42)

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

Pattern: `[\\S]+`

Request Body

The request does not have a request body.

Response Syntax

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

{
  "apiKeys": [
    {
      "description": "string",
      "expires": number,
      "id": "string"
    }
  ],
  "nextToken": "string"
}
```

Response Elements

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

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

apiKeys (p. 42)

The `ApiKey` objects.

Type: Array of [ApiKey \(p. 78\)](#) objects

nextToken (p. 42)

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

Type: String

Pattern: [\\S]+

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 96\)](#).

BadRequestException

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

HTTP Status Code: 400

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V2](#)

ListDataSources

Lists the data sources for a given API.

Request Syntax

```
GET /apis/apiId/datasources?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 45)

The API ID.

maxResults (p. 45)

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

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

nextToken (p. 45)

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

Pattern: [\\S]+

Request Body

The request does not have a request body.

Response Syntax

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

{
  "dataSources": [
    {
      "dataSourceArn": "string",
      "description": "string",
      "dynamodbConfig": {
        "awsRegion": "string",
        "tableName": "string",
        "useCallerCredentials": boolean
      },
      "elasticsearchConfig": {
        "awsRegion": "string",
        "endpoint": "string"
      },
      "httpConfig": {
        "endpoint": "string"
      },
      "lambdaConfig": {
        "lambdaFunctionArn": "string"
      }
    }
  ]
}
```

```
    "name": "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. 45)

The DataSource objects.

Type: Array of [DataSource](#) (p. 80) objects

nextToken (p. 45)

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

Type: String

Pattern: [\\S]+

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 96).

BadRequestException

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

HTTP Status Code: 400

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

ListGraphQLApis

Lists your GraphQL APIs.

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

maxResults (p. 48)

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

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

nextToken (p. 48)

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

Pattern: [\\S]+

Request Body

The request does not have a request body.

Response Syntax

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

{
  "graphqlApis": [
    {
      "apiId": "string",
      "arn": "string",
      "authenticationType": "string",
      "logConfig": {
        "cloudWatchLogsRoleArn": "string",
        "fieldLogLevel": "string"
      },
      "name": "string",
      "openIDConnectConfig": {
        "authTTL": number,
        "clientId": "string",
        "iatTTL": number,
        "issuer": "string"
      },
      "uris": {
        "string": "string"
      },
      "userPoolConfig": {
        "appIdClientRegex": "string",
```

```
        "awsRegion": "string",
        "defaultAction": "string",
        "userPoolId": "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.

graphqlApis (p. 48)

The `GraphQLApi` objects.

Type: Array of [GraphQLApi](#) (p. 84) objects

nextToken (p. 48)

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

Type: String

Pattern: `[\\S]+`

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 96).

BadRequestException

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

HTTP Status Code: 400

InternalFailureException

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

HTTP Status Code: 500

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

ListResolvers

Lists the resolvers for a given API and type.

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 51)

The API ID.

maxResults (p. 51)

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

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

nextToken (p. 51)

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

Pattern: [\\S]+

typeName (p. 51)

The type name.

Request Body

The request does not have a request body.

Response Syntax

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

{
  "nextToken": "string",
  "resolvers": [
    {
      "dataSourceName": "string",
      "fieldName": "string",
      "requestMappingTemplate": "string",
      "resolverArn": "string",
      "responseMappingTemplate": "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. 51)

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

Type: String

Pattern: [\\S]+

resolvers (p. 51)

The `Resolver` objects.

Type: Array of [Resolver](#) (p. 90) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 96).

BadRequestException

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

HTTP Status Code: 400

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)

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

ListTypes

Lists the types for a given API.

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 54)

The API ID.

format (p. 54)

The type format: SDL or JSON.

Valid Values: `SDL` | `JSON`

maxResults (p. 54)

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

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

nextToken (p. 54)

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

Pattern: `[\\S]+`

Request Body

The request does not have a request body.

Response Syntax

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

{
  "nextToken": "string",
  "types": [
    {
      "arn": "string",
      "definition": "string",
      "description": "string",
      "format": "string",
      "name": "string"
    }
  ]
}
```

Response Elements

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

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

nextToken (p. 54)

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

Type: String

Pattern: [\\S]+

types (p. 54)

The Type objects.

Type: Array of [Type](#) (p. 92) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 96).

BadRequestException

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

HTTP Status Code: 400

ConcurrentModificationException

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

HTTP Status Code: 409

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

StartSchemaCreation

Adds a new schema to your GraphQL API.

This operation is asynchronous. Use [GetSchemaCreationStatus \(p. 38\)](#) to determine when it has completed.

Request Syntax

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

{
  "definition": blob
}
```

URI Request Parameters

The request requires the following URI parameters.

[apiId \(p. 57\)](#)

The API ID.

Request Body

The request accepts the following data in JSON format.

[definition \(p. 57\)](#)

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 \(p. 57\)](#)

The current state of the schema (PROCESSING, ACTIVE, or DELETING). Once the schema is in the ACTIVE state, you can add data.

Type: String

Valid Values: PROCESSING | ACTIVE | DELETING

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 96\)](#).

BadRequestException

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

HTTP Status Code: 400

ConcurrentModificationException

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

HTTP Status Code: 409

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

UpdateApiKey

Updates an API key.

Request Syntax

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

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

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 60)

The ID for the GraphQL API

id (p. 60)

The API key ID.

Request Body

The request accepts the following data in JSON format.

description (p. 60)

A description of the purpose of the API key.

Type: String

Required: No

expires (p. 60)

The time from update time after which the API key expires. The date is represented as seconds since the epoch. For more information, see [ApiKey](#) (p. 78).

Type: Long

Required: No

Response Syntax

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

{
  "apiKey": {
    "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. 60)

The API key.

Type: [ApiKey](#) (p. 78) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 96).

ApiKeyValidityOutOfBoundsException

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

HTTP Status Code: 400

BadRequestException

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

HTTP Status Code: 400

InternalFailureException

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

HTTP Status Code: 500

LimitExceededException

The request exceeded a limit. Try your request again.

HTTP Status Code: 429

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

UpdateDataSource

Updates a DataSource object.

Request Syntax

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

{
  "description": "string",
  "dynamodbConfig": {
    "awsRegion": "string",
    "tableName": "string",
    "useCallerCredentials": boolean
  },
  "elasticsearchConfig": {
    "awsRegion": "string",
    "endpoint": "string"
  },
  "httpConfig": {
    "endpoint": "string"
  },
  "lambdaConfig": {
    "lambdaFunctionArn": "string"
  },
  "serviceRoleArn": "string",
  "type": "string"
}
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 63)

The API ID.

name (p. 63)

The new name for the data source.

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

Request Body

The request accepts the following data in JSON format.

description (p. 63)

The new description for the data source.

Type: String

Required: No

dynamodbConfig (p. 63)

The new Amazon DynamoDB configuration.

Type: [DynamodbDataSourceConfig \(p. 82\)](#) object

Required: No

[elasticsearchConfig \(p. 63\)](#)

The new Elasticsearch configuration.

Type: [ElasticsearchDataSourceConfig \(p. 83\)](#) object

Required: No

[httpConfig \(p. 63\)](#)

The new HTTP endpoint configuration

Type: [HttpDataSourceConfig \(p. 86\)](#) object

Required: No

[lambdaConfig \(p. 63\)](#)

The new AWS Lambda configuration.

Type: [LambdaDataSourceConfig \(p. 87\)](#) object

Required: No

[serviceRoleArn \(p. 63\)](#)

The new service role ARN for the data source.

Type: String

Required: No

[type \(p. 63\)](#)

The new data source type.

Type: String

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

Required: Yes

Response Syntax

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

```
{  
  "dataSource": {  
    "dataSourceArn": "string",  
    "description": "string",  
    "dynamodbConfig": {  
      "awsRegion": "string",  
      "tableName": "string",  
      "useCallerCredentials": boolean  
    },  
    "elasticsearchConfig": {  
      "awsRegion": "string",
```

```
    "endpoint": "string"
  },
  "httpConfig": {
    "endpoint": "string"
  },
  "lambdaConfig": {
    "lambdaFunctionArn": "string"
  },
  "name": "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. 64)

The updated DataSource object.

Type: [DataSource](#) (p. 80) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 96).

BadRequestException

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

HTTP Status Code: 400

ConcurrentModificationException

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

HTTP Status Code: 409

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

UpdateGraphQLApi

Updates a GraphQLApi object.

Request Syntax

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

{
  "authenticationType": "string",
  "logConfig": {
    "cloudWatchLogsRoleArn": "string",
    "fieldLogLevel": "string"
  },
  "name": "string",
  "openIDConnectConfig": {
    "authTTL": number,
    "clientId": "string",
    "iatTTL": number,
    "issuer": "string"
  },
  "userPoolConfig": {
    "appIdClientRegex": "string",
    "awsRegion": "string",
    "defaultAction": "string",
    "userPoolId": "string"
  }
}
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 67)

The API ID.

Request Body

The request accepts the following data in JSON format.

authenticationType (p. 67)

The new authentication type for the GraphQLApi object.

Type: String

Valid Values: API_KEY | AWS_IAM | AMAZON_COGNITO_USER_POOLS | OPENID_CONNECT

Required: No

logConfig (p. 67)

The Amazon CloudWatch Logs configuration for the GraphQLApi object.

Type: [LogConfig](#) (p. 88) object

Required: No

name (p. 67)

The new name for the GraphQLApi object.

Type: String

Required: Yes

openIDConnectConfig (p. 67)

The OpenID Connect configuration for the GraphQLApi object.

Type: [OpenIDConnectConfig \(p. 89\)](#) object

Required: No

userPoolConfig (p. 67)

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

Type: [UserPoolConfig \(p. 93\)](#) object

Required: No

Response Syntax

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

{
  "graphqlApi": {
    "apiId": "string",
    "arn": "string",
    "authenticationType": "string",
    "logConfig": {
      "cloudWatchLogsRoleArn": "string",
      "fieldLogLevel": "string"
    },
    "name": "string",
    "openIDConnectConfig": {
      "authTTL": number,
      "clientId": "string",
      "iatTTL": number,
      "issuer": "string"
    },
    "uris": {
      "string": "string"
    },
    "userPoolConfig": {
      "appIdClientRegex": "string",
      "awsRegion": "string",
      "defaultAction": "string",
      "userPoolId": "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.

[graphqlApi \(p. 68\)](#)

The updated `GraphQLApi` object.

Type: [GraphQLApi \(p. 84\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 96\)](#).

BadRequestException

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

HTTP Status Code: 400

ConcurrentModificationException

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

HTTP Status Code: 409

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

UpdateResolver

Updates a Resolver object.

Request Syntax

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

{
  "dataSourceName": "string",
  "requestMappingTemplate": "string",
  "responseMappingTemplate": "string"
}
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 71)

The API ID.

fieldName (p. 71)

The new field name.

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

typeName (p. 71)

The new type name.

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

Request Body

The request accepts the following data in JSON format.

dataSourceName (p. 71)

The new data source name.

Type: String

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

Required: Yes

requestMappingTemplate (p. 71)

The new request mapping template.

Type: String

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

Required: Yes

[responseMappingTemplate \(p. 71\)](#)

The new response mapping template.

Type: String

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

Required: No

Response Syntax

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

{
  "resolver": {
    "dataSourceName": "string",
    "fieldName": "string",
    "requestMappingTemplate": "string",
    "resolverArn": "string",
    "responseMappingTemplate": "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 \(p. 72\)](#)

The updated Resolver object.

Type: [Resolver \(p. 90\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 96\)](#).

ConcurrentModificationException

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

HTTP Status Code: 409

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

UpdateType

Updates a Type object.

Request Syntax

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

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

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 74)

The API ID.

typeName (p. 74)

The new type name.

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

Request Body

The request accepts the following data in JSON format.

definition (p. 74)

The new definition.

Type: String

Required: No

format (p. 74)

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. 74)

The updated `Type` object.

Type: [Type \(p. 92\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 96\)](#).

BadRequestException

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

HTTP Status Code: 400

ConcurrentModificationException

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

HTTP Status Code: 409

InternalFailureException

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

HTTP Status Code: 500

NotFoundException

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

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

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:

- [ApiKey](#) (p. 78)
- [DataSource](#) (p. 80)
- [DynamodbDataSourceConfig](#) (p. 82)
- [ElasticsearchDataSourceConfig](#) (p. 83)
- [GraphQLApi](#) (p. 84)
- [HttpDataSourceConfig](#) (p. 86)
- [LambdaDataSourceConfig](#) (p. 87)
- [LogConfig](#) (p. 88)
- [OpenIDConnectConfig](#) (p. 89)
- [Resolver](#) (p. 90)
- [Type](#) (p. 92)
- [UserPoolConfig](#) (p. 93)

ApiKey

Describes an API key.

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

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

- `ListApiKeys` returns the expiration time in milliseconds.
- `CreateApiKey` returns the expiration time in milliseconds.
- `UpdateApiKey` is not available for this key version.
- `DeleteApiKey` deletes the item from the table.
- Expiration is stored in Amazon DynamoDB as milliseconds. This results in a bug where keys are not automatically deleted because DynamoDB expects the TTL to be stored in seconds. As a one-time action, we will delete these keys from the table after Feb 21, 2018.

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

- `ListApiKeys` returns the expiration time in seconds.
- `CreateApiKey` returns the expiration time in seconds and accepts a user-provided expiration time in seconds.
- `UpdateApiKey` returns the expiration time in seconds and accepts a user-provided expiration time in seconds. Key expiration can only be updated while the key has not expired.
- `DeleteApiKey` deletes the item from the table.
- Expiration is stored in Amazon DynamoDB as seconds.

Contents

description

A description of the purpose of the API key.

Type: String

Required: No

expires

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

Type: Long

Required: No

id

The API key ID.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

DataSource

Describes a data source.

Contents

dataSourceArn

The data source ARN.

Type: String

Required: No

description

The description of the data source.

Type: String

Required: No

dynamodbConfig

Amazon DynamoDB settings.

Type: [DynamodbDataSourceConfig \(p. 82\)](#) object

Required: No

elasticsearchConfig

Amazon Elasticsearch settings.

Type: [ElasticsearchDataSourceConfig \(p. 83\)](#) object

Required: No

httpConfig

HTTP endpoint settings.

Type: [HttpDataSourceConfig \(p. 86\)](#) object

Required: No

lambdaConfig

AWS Lambda settings.

Type: [LambdaDataSourceConfig \(p. 87\)](#) object

Required: No

name

The name of the data source.

Type: String

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

Required: No

serviceRoleArn

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

Type: String

Required: No

type

The type of the data source.

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

Type: String

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

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

DynamodbDataSourceConfig

Describes an Amazon DynamoDB data source configuration.

Contents

awsRegion

The AWS Region.

Type: String

Required: Yes

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

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

ElasticsearchDataSourceConfig

Describes an Elasticsearch data source configuration.

Contents

awsRegion

The AWS Region.

Type: String

Required: Yes

endpoint

The endpoint.

Type: String

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

GraphQLApi

Describes a GraphQL API.

Contents

apiId

The API ID.

Type: String

Required: No

arn

The ARN.

Type: String

Required: No

authenticationType

The authentication type.

Type: String

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

Required: No

logConfig

The Amazon CloudWatch Logs configuration.

Type: [LogConfig \(p. 88\)](#) object

Required: No

name

The API name.

Type: String

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

Required: No

openIDConnectConfig

The OpenID Connect configuration.

Type: [OpenIDConnectConfig \(p. 89\)](#) object

Required: No

uris

The URIs.

Type: String to string map

Required: No

userPoolConfig

The Amazon Cognito user pool configuration.

Type: [UserPoolConfig \(p. 93\)](#) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

HttpDataSourceConfig

Describes an HTTP data source configuration.

Contents

endpoint

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

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

LambdaDataSourceConfig

Describes an AWS Lambda data source configuration.

Contents

lambdaFunctionArn

The ARN for the Lambda function.

Type: String

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

LogConfig

The CloudWatch Logs configuration.

Contents

cloudWatchLogsRoleArn

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

Type: String

Required: Yes

fieldLogLevel

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

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

Type: String

Valid Values: NONE | ERROR | ALL

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

OpenIDConnectConfig

Describes an OpenID Connect configuration.

Contents

authTTL

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

Type: Long

Required: No

clientId

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

Type: String

Required: No

iatTTL

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

Type: Long

Required: No

issuer

The issuer for the OpenID Connect configuration. The issuer returned by discovery **MUST** exactly match the value of iss in the ID Token.

Type: String

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

Resolver

Describes a resolver.

Contents

dataSourceName

The resolver data source name.

Type: String

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

Required: No

fieldName

The resolver field name.

Type: String

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

Required: No

requestMappingTemplate

The request mapping template.

Type: String

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

Required: No

resolverArn

The resolver ARN.

Type: String

Required: No

responseMappingTemplate

The response mapping template.

Type: String

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

Required: No

typeName

The resolver type name.

Type: String

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

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

Type

Describes a type.

Contents

arn

The type ARN.

Type: String

Required: No

definition

The type definition.

Type: String

Required: No

description

The type description.

Type: String

Required: No

format

The type format: SDL or JSON.

Type: String

Valid Values: `SDL` | `JSON`

Required: No

name

The type name.

Type: String

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

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

UserPoolConfig

Describes an Amazon Cognito user pool configuration.

Contents

appIdClientRegex

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

Type: String

Required: No

awsRegion

The AWS Region in which the user pool was created.

Type: String

Required: Yes

defaultAction

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

Type: String

Valid Values: `ALLOW` | `DENY`

Required: Yes

userPoolId

The user pool ID.

Type: String

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

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

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