



API Reference

# AWS AppSync



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# 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 July 2, 2024.

# Actions

The following actions are supported:

- [AssociateApi](#)
- [AssociateMergedGraphqlApi](#)
- [AssociateSourceGraphqlApi](#)
- [CreateApiCache](#)
- [CreateApiKey](#)
- [CreateDataSource](#)
- [CreateDomainName](#)
- [CreateFunction](#)
- [CreateGraphqlApi](#)
- [CreateResolver](#)
- [CreateType](#)
- [DeleteApiCache](#)
- [DeleteApiKey](#)
- [DeleteDataSource](#)
- [DeleteDomainName](#)
- [DeleteFunction](#)
- [DeleteGraphqlApi](#)
- [DeleteResolver](#)
- [DeleteType](#)
- [DisassociateApi](#)
- [DisassociateMergedGraphqlApi](#)
- [DisassociateSourceGraphqlApi](#)
- [EvaluateCode](#)
- [EvaluateMappingTemplate](#)
- [FlushApiCache](#)
- [GetApiAssociation](#)
- [GetApiCache](#)

- [GetDataSource](#)
- [GetDataSourceIntrospection](#)
- [GetDomainName](#)
- [GetFunction](#)
- [GetGraphqlApi](#)
- [GetGraphqlApiEnvironmentVariables](#)
- [GetIntrospectionSchema](#)
- [GetResolver](#)
- [GetSchemaCreationStatus](#)
- [GetSourceApiAssociation](#)
- [GetType](#)
- [ListApiKeys](#)
- [ListDataSources](#)
- [ListDomainNames](#)
- [ListFunctions](#)
- [ListGraphqlApis](#)
- [ListResolvers](#)
- [ListResolversByFunction](#)
- [ListSourceApiAssociations](#)
- [ListTagsForResource](#)
- [ListTypes](#)
- [ListTypesByAssociation](#)
- [PutGraphqlApiEnvironmentVariables](#)
- [StartDataSourceIntrospection](#)
- [StartSchemaCreation](#)
- [StartSchemaMerge](#)
- [TagResource](#)
- [UntagResource](#)
- [UpdateApiCache](#)
- [UpdateApiKey](#)



- [UpdateDataSource](#)
- [UpdateDomainName](#)
- [UpdateFunction](#)
- [UpdateGraphQLApi](#)
- [UpdateResolver](#)
- [UpdateSourceApiAssociation](#)
- [UpdateType](#)

# AssociateApi

Maps an endpoint to your custom domain.

## Request Syntax

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

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

## URI Request Parameters

The request uses the following URI parameters.

### domainName

The domain name.

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

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

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### apiId

The API ID. Private APIs can not be associated with custom domains.

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](#)

The `ApiAssociation` object.

Type: [ApiAssociation](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# AssociateMergedGraphQLApi

Creates an association between a Merged API and source API using the source API's identifier.

## Request Syntax

```
POST /sourceApis/sourceApiIdentifier/mergedApiAssociations HTTP/1.1
Content-type: application/json
```

```
{
  "description": "string",
  "mergedApiIdentifier": "string",
  "sourceApiAssociationConfig": {
    "mergeType": "string"
  }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### sourceApiIdentifier

The identifier of the AppSync Source API. This is generated by the AppSync service. In most cases, source APIs (especially in your account) only require the API ID value or ARN of the source API. However, source APIs from other accounts (cross-account use cases) strictly require the full resource ARN of the source API.

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### description

The description field.

Type: String

Required: No

### [mergedApiIdentifier](#)

The identifier of the AppSync Merged API. This is generated by the AppSync service. In most cases, Merged APIs (especially in your account) only require the API ID value or ARN of the merged API. However, Merged APIs in other accounts (cross-account use cases) strictly require the full resource ARN of the merged API.

Type: String

Required: Yes

### [sourceApiAssociationConfig](#)

The SourceApiAssociationConfig object data.

Type: [SourceApiAssociationConfig](#) object

Required: No

## Response Syntax

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

{
  "sourceApiAssociation": {
    "associationArn": "string",
    "associationId": "string",
    "description": "string",
    "lastSuccessfulMergeDate": number,
    "mergedApiArn": "string",
    "mergedApiId": "string",
    "sourceApiArn": "string",
    "sourceApiAssociationConfig": {
      "mergeType": "string"
    },
    "sourceApiAssociationStatus": "string",
    "sourceApiAssociationStatusDetail": "string",
    "sourceApiId": "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.

### sourceApiAssociation

The `SourceApiAssociation` object data.

Type: [SourceApiAssociation](#) object

## Errors

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

### **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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# AssociateSourceGraphQLApi

Creates an association between a Merged API and source API using the Merged API's identifier.

## Request Syntax

```
POST /mergedApis/mergedApiIdentifier/sourceApiAssociations HTTP/1.1
Content-type: application/json
```

```
{
  "description": "string",
  "sourceApiAssociationConfig": {
    "mergeType": "string"
  },
  "sourceApiIdentifier": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### mergedApiIdentifier

The identifier of the AppSync Merged API. This is generated by the AppSync service. In most cases, Merged APIs (especially in your account) only require the API ID value or ARN of the merged API. However, Merged APIs in other accounts (cross-account use cases) strictly require the full resource ARN of the merged API.

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### description

The description field.

Type: String

Required: No

### sourceApiAssociationConfig

The SourceApiAssociationConfig object data.

Type: [SourceApiAssociationConfig](#) object

Required: No

### sourceApiIdentifier

The identifier of the AppSync Source API. This is generated by the AppSync service. In most cases, source APIs (especially in your account) only require the API ID value or ARN of the source API. However, source APIs from other accounts (cross-account use cases) strictly require the full resource ARN of the source API.

Type: String

Required: Yes

## Response Syntax

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

{
  "sourceApiAssociation": {
    "associationArn": "string",
    "associationId": "string",
    "description": "string",
    "lastSuccessfulMergeDate": number,
    "mergedApiArn": "string",
    "mergedApiId": "string",
    "sourceApiArn": "string",
    "sourceApiAssociationConfig": {
      "mergeType": "string"
    },
    "sourceApiAssociationStatus": "string",
    "sourceApiAssociationStatusDetail": "string",
    "sourceApiId": "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.

### sourceApiAssociation

The `SourceApiAssociation` object data.

Type: [SourceApiAssociation](#) object

## Errors

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

### **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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [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 /apis/apiId/ApiCaches HTTP/1.1
Content-type: application/json

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The GraphQL API ID.

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### 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: Yes

### atRestEncryptionEnabled

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

Type: Boolean

Required: No

### healthMetricsConfig

Controls how cache health metrics will be emitted to CloudWatch. Cache health metrics include:

- **NetworkBandwidthOutAllowanceExceeded:** The network packets dropped because the throughput exceeded the aggregated bandwidth limit. This is useful for diagnosing bottlenecks in a cache configuration.
- **EngineCPUUtilization:** The CPU utilization (percentage) allocated to the Redis process. This is useful for diagnosing bottlenecks in a cache configuration.

Metrics will be recorded by API ID. You can set the value to ENABLED or DISABLED.

Type: String

Valid Values: ENABLED | DISABLED

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: Yes

## 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: Yes

## Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
  "apiCache": {
    "apiCachingBehavior": "string",
    "atRestEncryptionEnabled": boolean,
    "healthMetricsConfig": "string",
    "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](#)

The ApiCache object.

Type: [ApiCache](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [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 /apis/apiId/apikeys HTTP/1.1
Content-type: application/json

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

## URI Request Parameters

The request uses the following URI parameters.

### apild

The ID for your GraphQL API.

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### description

A description of the purpose of the API key.

Type: String

Required: No

### expires

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](#).

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](#)

The API key.

Type: [ApiKey](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateDataSource

Creates a DataSource object.

## Request Syntax

POST /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"
  },
  "eventBridgeConfig": {
    "eventBusArn": "string"
  },
  "httpConfig": {
    "authorizationConfig": {
      "authorizationType": "string",
      "awsIamConfig": {
        "signingRegion": "string",
        "signingServiceName": "string"
      }
    },
    "endpoint": "string"
  },
  "lambdaConfig": {
    "lambdaFunctionArn": "string"
  },
  "metricsConfig": "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.

### apild

The API ID for the GraphQL API for the DataSource.

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### description

A description of the DataSource.

Type: String

Required: No

### dynamodbConfig

Amazon DynamoDB settings.

Type: [DynamodbDataSourceConfig](#) object

Required: No

### [elasticsearchConfig](#)

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](#) to create an OpenSearch data source.

Type: [ElasticsearchDataSourceConfig](#) object

Required: No

### [eventBridgeConfig](#)

Amazon EventBridge settings.

Type: [EventBridgeDataSourceConfig](#) object

Required: No

### [httpConfig](#)

HTTP endpoint settings.

Type: [HttpDataSourceConfig](#) object

Required: No

### [lambdaConfig](#)

AWS Lambda settings.

Type: [LambdaDataSourceConfig](#) object

Required: No

### [metricsConfig](#)

Enables or disables enhanced data source metrics for specified data sources. Note that `metricsConfig` won't be used unless the `dataSourceLevelMetricsBehavior` value is set to `PER_DATA_SOURCE_METRICS`. If the `dataSourceLevelMetricsBehavior` is set to



FULL\_REQUEST\_DATA\_SOURCE\_METRICS instead, `metricsConfig` will be ignored. However, you can still set its value.

`metricsConfig` can be ENABLED or DISABLED.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

### name

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

Amazon OpenSearch Service settings.

Type: [OpenSearchServiceDataSourceConfig](#) object

Required: No

### relationalDatabaseConfig

Relational database settings.

Type: [RelationalDatabaseDataSourceConfig](#) 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 DataSource.

Type: String

Valid Values: AWS\_LAMBDA | AMAZON\_DYNAMODB | AMAZON\_ELASTICSEARCH | NONE | HTTP | RELATIONAL\_DATABASE | AMAZON\_OPENSEARCH\_SERVICE | AMAZON\_EVENTBRIDGE

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"
    },
    "eventBridgeConfig": {
      "eventBusArn": "string"
    },
    "httpConfig": {
      "authorizationConfig": {
```

```

    "authorizationType": "string",
    "awsIamConfig": {
      "signingRegion": "string",
      "signingServiceName": "string"
    }
  },
  "endpoint": "string"
},
"lambdaConfig": {
  "lambdaFunctionArn": "string"
},
"metricsConfig": "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

The DataSource object.

Type: [DataSource](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateDomainName

Creates a custom DomainName object.

## Request Syntax

```
POST /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

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

A description of the DomainName.

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: 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

The configuration for the DomainName.

Type: [DomainNameConfig](#) object

## Errors

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

### 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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [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 /apis/apiId/functions HTTP/1.1
Content-type: application/json

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The GraphQL API ID.

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### code

The function code that contains the request and response functions. When code is used, the runtime is required. The `runtime` value must be `APPSYNC_JS`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32768.

Required: No

### dataSourceName

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

The Function description.

Type: String

Required: No

### functionVersion

The version of the request mapping template. Currently, the supported value is `2018-05-29`. Note that when using VTL and mapping templates, the `functionVersion` is required.

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 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

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

## runtime

Describes a runtime used by an AWS AppSync pipeline resolver or AWS AppSync function. Specifies the name and version of the runtime to use. Note that if a runtime is specified, code must also be specified.

Type: [AppSyncRuntime](#) object

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](#) object

Required: No

## Response Syntax

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

{
  "functionConfiguration": {
    "code": "string",
    "dataSourceName": "string",
    "description": "string",
    "functionArn": "string",
    "functionId": "string",
    "functionVersion": "string",
    "maxBatchSize": number,
    "name": "string",
    "requestMappingTemplate": "string",
    "responseMappingTemplate": "string",
    "runtime": {
      "name": "string",
      "runtimeVersion": "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

The `Function` object.

Type: [FunctionConfiguration](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateGraphQLApi

Creates a GraphQLApi object.

## Request Syntax

```
POST /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"
      }
    }
  ],
  "apiType": "string",
  "authenticationType": "string",
  "enhancedMetricsConfig": {
    "dataSourceLevelMetricsBehavior": "string",
    "operationLevelMetricsConfig": "string",
    "resolverLevelMetricsBehavior": "string"
  },
  "introspectionConfig": "string",
  "lambdaAuthorizerConfig": {
    "authorizerResultTtlInSeconds": number,
    "authorizerUri": "string",
    "identityValidationExpression": "string"
  }
}
```



```
},
  "logConfig": {
    "cloudWatchLogsRoleArn": "string",
    "excludeVerboseContent": boolean,
    "fieldLogLevel": "string"
  },
  "mergedApiExecutionRoleArn": "string",
  "name": "string",
  "openIDConnectConfig": {
    "authTTL": number,
    "clientId": "string",
    "iatTTL": number,
    "issuer": "string"
  },
  "ownerContact": "string",
  "queryDepthLimit": number,
  "resolverCountLimit": number,
  "tags": {
    "string" : "string"
  },
  "userPoolConfig": {
    "appIdClientRegex": "string",
    "awsRegion": "string",
    "defaultAction": "string",
    "userPoolId": "string"
  },
  "visibility": "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

A list of additional authentication providers for the GraphQLApi API.

Type: Array of [AdditionalAuthenticationProvider](#) objects

Required: No

### apiType

The value that indicates whether the GraphQL API is a standard API (GRAPHQL) or merged API (MERGED).

Type: String

Valid Values: GRAPHQL | MERGED

Required: No

### 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: Yes

### enhancedMetricsConfig

The enhancedMetricsConfig object.

Type: [EnhancedMetricsConfig](#) object

Required: No

### introspectionConfig

Sets the value of the GraphQL API to enable (ENABLED) or disable (DISABLED) introspection. If no value is provided, the introspection configuration will be set to ENABLED by default. This field will produce an error if the operation attempts to use the introspection feature while this field is disabled.

For more information about introspection, see [GraphQL introspection](#).

Type: String

Valid Values: ENABLED | DISABLED

Required: No

## **lambdaAuthorizerConfig**

Configuration for AWS Lambda function authorization.

Type: [LambdaAuthorizerConfig](#) object

Required: No

## **logConfig**

The Amazon CloudWatch Logs configuration.

Type: [LogConfig](#) object

Required: No

## **mergedApiExecutionRoleArn**

The Identity and Access Management service role ARN for a merged API. The AppSync service assumes this role on behalf of the Merged API to validate access to source APIs at runtime and to prompt the AUTO\_MERGE to update the merged API endpoint with the source API changes automatically.

Type: String

Required: No

## **name**

A user-supplied name for the GraphQLApi.

Type: String

Required: Yes

## **openIDConnectConfig**

The OIDC configuration.

Type: [OpenIDConnectConfig](#) object

Required: No

## **ownerContact**

The owner contact information for an API resource.

This field accepts any string input with a length of 0 - 256 characters.

Type: String

Required: No

### queryDepthLimit

The maximum depth a query can have in a single request. Depth refers to the amount of nested levels allowed in the body of query. The default value is 0 (or unspecified), which indicates there's no depth limit. If you set a limit, it can be between 1 and 75 nested levels. This field will produce a limit error if the operation falls out of bounds.

Note that fields can still be set to nullable or non-nullable. If a non-nullable field produces an error, the error will be thrown upwards to the first nullable field available.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 75.

Required: No

### resolverCountLimit

The maximum number of resolvers that can be invoked in a single request. The default value is 0 (or unspecified), which will set the limit to 10000. When specified, the limit value can be between 1 and 10000. This field will produce a limit error if the operation falls out of bounds.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 10000.

Required: No

### tags

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

The Amazon Cognito user pool configuration.

Type: [UserPoolConfig](#) object

Required: No

### visibility

Sets the value of the GraphQL API to public (GLOBAL) or private (PRIVATE). If no value is provided, the visibility will be set to GLOBAL by default. This value cannot be changed once the API has been created.

Type: String

Valid Values: GLOBAL | PRIVATE

Required: No

### xrayEnabled

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",
"apiType": "string",
"arn": "string",
"authenticationType": "string",
"dns": {
  "string" : "string"
},
"enhancedMetricsConfig": {
  "dataSourceLevelMetricsBehavior": "string",
  "operationLevelMetricsConfig": "string",
  "resolverLevelMetricsBehavior": "string"
},
"introspectionConfig": "string",
"lambdaAuthorizerConfig": {
  "authorizerResultTtlInSeconds": number,
  "authorizerUri": "string",
  "identityValidationExpression": "string"
},
"logConfig": {
  "cloudWatchLogsRoleArn": "string",
  "excludeVerboseContent": boolean,
  "fieldLogLevel": "string"
},
"mergedApiExecutionRoleArn": "string",
"name": "string",
"openIDConnectConfig": {
  "authTTL": number,
  "clientId": "string",
  "iatTTL": number,
  "issuer": "string"
},
},
```

```
"owner": "string",
"ownerContact": "string",
"queryDepthLimit": number,
"resolverCountLimit": number,
"tags": {
  "string" : "string"
},
"uris": {
  "string" : "string"
},
"userPoolConfig": {
  "appIdClientRegex": "string",
  "awsRegion": "string",
  "defaultAction": "string",
  "userPoolId": "string"
},
"visibility": "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](#)

The GraphQLApi.

Type: [GraphQLApi](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)



- [AWS SDK for JavaScript V3](#)
- [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 /apis/apiId/types/typeName/resolvers HTTP/1.1
```

```
Content-type: application/json
```

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

## URI Request Parameters

The request uses the following URI parameters.

### [apId](#)

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

Required: Yes

### [typeName](#)

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.

### [cachingConfig](#)

The caching configuration for the resolver.

Type: [CachingConfig](#) object

Required: No

### [code](#)

The `resolver` code that contains the request and response functions. When `code` is used, the `runtime` is required. The `runtime` value must be `APPSYNC_JS`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32768.

Required: No

## dataSourceName

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

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

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

### metricsConfig

Enables or disables enhanced resolver metrics for specified resolvers. Note that `metricsConfig` won't be used unless the `resolverLevelMetricsBehavior` value is set to `PER_RESOLVER_METRICS`. If the `resolverLevelMetricsBehavior` is set to `FULL_REQUEST_RESOLVER_METRICS` instead, `metricsConfig` will be ignored. However, you can still set its value.

`metricsConfig` can be `ENABLED` or `DISABLED`.

Type: String

Valid Values: `ENABLED` | `DISABLED`

Required: No

### pipelineConfig

The `PipelineConfig`.

Type: [PipelineConfig](#) object

Required: No

### requestMappingTemplate

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](#)

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

### [runtime](#)

Describes a runtime used by an AWS AppSync pipeline resolver or AWS AppSync function. Specifies the name and version of the runtime to use. Note that if a runtime is specified, code must also be specified.

Type: [AppSyncRuntime](#) object

Required: No

### [syncConfig](#)

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

Type: [SyncConfig](#) object

Required: No

## Response Syntax

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

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

```

    "code": "string",
    "dataSourceName": "string",
    "fieldName": "string",
    "kind": "string",
    "maxBatchSize": number,
    "metricsConfig": "string",
    "pipelineConfig": {
      "functions": [ "string" ]
    },
    "requestMappingTemplate": "string",
    "resolverArn": "string",
    "responseMappingTemplate": "string",
    "runtime": {
      "name": "string",
      "runtimeVersion": "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](#)

The Resolver object.

Type: [Resolver](#) object

## Errors

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

## 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 v2](#)
- [AWS SDK for Java V2](#)



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

# 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 uses the following URI parameters.

### apiId

The API ID.

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### definition

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

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

Type: String

Required: Yes

### format

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

The Type object.

Type: [Type](#) object

## Errors

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

### 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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DeleteApiCache

Deletes an ApiCache object.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

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](#).

### 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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)





# DeleteApiKey

Deletes an API key.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The API ID.

Required: Yes

### id

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](#).

## 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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteDataSource

Deletes a DataSource object.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The API ID.

Required: Yes

### name

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](#).

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteDomainName

Deletes a custom DomainName object.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### domainName

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](#).

## 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 v2](#)
- [AWS SDK for Java V2](#)

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



# DeleteFunction

Deletes a Function.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The GraphQL API ID.

Required: Yes

### functionId

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](#).

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteGraphqlApi

Deletes a GraphqlApi object.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

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](#).

### 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 v2](#)
- [AWS SDK for Java V2](#)

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

# DeleteResolver

Deletes a Resolver object.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The API ID.

Required: Yes

### fieldName

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

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](#).

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteType

Deletes a Type object.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The API ID.

Required: Yes

### typeName

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](#).

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [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 /domainnames/domainName/apiassociation HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### domainName

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](#).

## 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 v2](#)
- [AWS SDK for Java V2](#)

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

# DisassociateMergedGraphQLApi

Deletes an association between a Merged API and source API using the source API's identifier and the association ID.

## Request Syntax

```
DELETE /sourceApis/sourceApiIdentifier/mergedApiAssociations/associationId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### associationId

The ID generated by the AppSync service for the source API association.

Required: Yes

### sourceApiIdentifier

The identifier of the AppSync Source API. This is generated by the AppSync service. In most cases, source APIs (especially in your account) only require the API ID value or ARN of the source API. However, source APIs from other accounts (cross-account use cases) strictly require the full resource ARN of the source API.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

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

{
  "sourceApiAssociationStatus": "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.

### sourceApiAssociationStatus

The state of the source API association.

Type: String

Valid Values: MERGE\_SCHEDULED | MERGE\_FAILED | MERGE\_SUCCESS |  
MERGE\_IN\_PROGRESS | AUTO\_MERGE\_SCHEDULE\_FAILED | DELETION\_SCHEDULED |  
DELETION\_IN\_PROGRESS | DELETION\_FAILED

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DisassociateSourceGraphQLApi

Deletes an association between a Merged API and source API using the Merged API's identifier and the association ID.

## Request Syntax

```
DELETE /mergedApis/mergedApiIdentifier/sourceApiAssociations/associationId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### associationId

The ID generated by the AppSync service for the source API association.

Required: Yes

### mergedApiIdentifier

The identifier of the AppSync Merged API. This is generated by the AppSync service. In most cases, Merged APIs (especially in your account) only require the API ID value or ARN of the merged API. However, Merged APIs in other accounts (cross-account use cases) strictly require the full resource ARN of the merged API.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

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

{
  "sourceApiAssociationStatus": "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.

### sourceApiAssociationStatus

The state of the source API association.

Type: String

Valid Values: MERGE\_SCHEDULED | MERGE\_FAILED | MERGE\_SUCCESS |  
MERGE\_IN\_PROGRESS | AUTO\_MERGE\_SCHEDULE\_FAILED | DELETION\_SCHEDULED |  
DELETION\_IN\_PROGRESS | DELETION\_FAILED

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# EvaluateCode

Evaluates the given code and returns the response. The code definition requirements depend on the specified runtime. For APPSYNC\_JS runtimes, the code defines the request and response functions. The request function takes the incoming request after a GraphQL operation is parsed and converts it into a request configuration for the selected data source operation. The response function interprets responses from the data source and maps it to the shape of the GraphQL field output type.

## Request Syntax

```
POST /dataplane-evaluatecode HTTP/1.1
Content-type: application/json
```

```
{
  "code": "string",
  "context": "string",
  "function": "string",
  "runtime": {
    "name": "string",
    "runtimeVersion": "string"
  }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### code

The code definition to be evaluated. Note that `code` and `runtime` are both required for this action. The `runtime` value must be APPSYNC\_JS.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32768.

Required: Yes

### context

The map that holds all of the contextual information for your resolver invocation. A context is required for this action.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 28000.

Pattern: `^[\s\S]*$`

Required: Yes

### function

The function within the code to be evaluated. If provided, the valid values are request and response.

Type: String

Required: No

### runtime

The runtime to be used when evaluating the code. Currently, only the APPSYNC\_JS runtime is supported.

Type: [AppSyncRuntime](#) object

Required: Yes

## Response Syntax

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

{
  "error": {
    "codeErrors": [
      {
        "errorType": "string",
        "location": {
          "column": number,
```

```
        "line": number,
        "span": number
    },
    "value": "string"
}
],
"message": "string"
},
"evaluationResult": "string",
"logs": [ "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.

### error

Contains the payload of the response error.

Type: [EvaluateCodeErrorDetail](#) object

### evaluationResult

The result of the evaluation operation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 65536.

Pattern: `^[\\s\\S]*$`

### logs

A list of logs that were generated by calls to `util.log.info` and `util.log.error` in the evaluated code.

Type: Array of strings

## Errors

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



## 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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# EvaluateMappingTemplate

Evaluates a given template and returns the response. The mapping template can be a request or response template.

Request templates take the incoming request after a GraphQL operation is parsed and convert it into a request configuration for the selected data source operation. Response templates interpret responses from the data source and map it to the shape of the GraphQL field output type.

Mapping templates are written in the Apache Velocity Template Language (VTL).

## Request Syntax

```
POST /dataplane-evaluatetemplate HTTP/1.1
Content-type: application/json

{
  "context": "string",
  "template": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### context

The map that holds all of the contextual information for your resolver invocation. A context is required for this action.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 28000.

Pattern: `^[\\s\\S]*$`

Required: Yes

## template

The mapping template; this can be a request or response template. A template is required for this action.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 65536.

Pattern: `^\s\S*$`

Required: Yes

## Response Syntax

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

{
  "error": {
    "message": "string"
  },
  "evaluationResult": "string",
  "logs": [ "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.

### error

The `ErrorDetail` object.

Type: [ErrorDetail](#) object

### evaluationResult

The mapping template; this can be a request or response template.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 65536.

Pattern: `^[\\s\\S]*$`

## logs

A list of logs that were generated by calls to `util.log.info` and `util.log.error` in the evaluated code.

Type: Array of strings

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# FlushApiCache

Flushes an ApiCache object.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

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](#).

### 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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)





# GetApiAssociation

Retrieves an ApiAssociation object.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### domainName

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](#)

The `ApiAssociation` object.

Type: [ApiAssociation](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetApiCache

Retrieves an ApiCache object.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

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,
    "healthMetricsConfig": "string",
    "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](#)

The ApiCache object.

Type: [ApiCache](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetDataSource

Retrieves a DataSource object.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The API ID.

Required: Yes

### name

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"
},
"eventBridgeConfig": {
  "eventBusArn": "string"
},
"httpConfig": {
  "authorizationConfig": {
    "authorizationType": "string",
    "awsIamConfig": {
      "signingRegion": "string",
      "signingServiceName": "string"
    }
  },
  "endpoint": "string"
},
"lambdaConfig": {
  "lambdaFunctionArn": "string"
},
"metricsConfig": "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

The DataSource object.

Type: [DataSource](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetDataSourceIntrospection

Retrieves the record of an existing introspection. If the retrieval is successful, the result of the introspection will also be returned. If the retrieval fails the operation, an error message will be returned instead.

## Request Syntax

```
GET /datasources/introspections/introspectionId?  
includeModelsSDL=includeModelsSDL&maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### includeModelsSDL

A boolean flag that determines whether SDL should be generated for introspected types or not. If set to `true`, each model will contain an `sdl` property that contains the SDL for that type. The SDL only contains the type data and no additional metadata or directives.

### introspectionId

The introspection ID. Each introspection contains a unique ID that can be used to reference the introspection record.

Required: Yes

### maxResults

The maximum number of introspected types that will be returned in a single response.

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

### nextToken

Determines the number of types to be returned in a single response before paginating. This value is typically taken from `nextToken` value from the previous response.

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
```

```
{
  "introspectionId": "string",
  "introspectionResult": {
    "models": [
      {
        "fields": [
          {
            "length": number,
            "name": "string",
            "type": {
              "kind": "string",
              "name": "string",
              "type": "DataSourceIntrospectionModelFieldType",
              "values": [ "string" ]
            }
          }
        ],
        "indexes": [
          {
            "fields": [ "string" ],
            "name": "string"
          }
        ],
        "name": "string",
        "primaryKey": {
          "fields": [ "string" ],
          "name": "string"
        },
        "sdl": "string"
      }
    ],
    "nextToken": "string"
  },
  "introspectionStatus": "string",
```

```
"introspectionStatusDetail": "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.

### introspectionId

The introspection ID. Each introspection contains a unique ID that can be used to reference the introspection record.

Type: String

### introspectionResult

The DataSourceIntrospectionResult object data.

Type: [DataSourceIntrospectionResult](#) object

### introspectionStatus

The status of the introspection during retrieval. By default, when a new introspection is being retrieved, the status will be set to PROCESSING. Once the operation has been completed, the status will change to SUCCESS or FAILED depending on how the data was parsed. A FAILED operation will return an error and its details as an introspectionStatusDetail.

Type: String

Valid Values: PROCESSING | FAILED | SUCCESS

### introspectionStatusDetail

The error detail field. When a FAILED introspectionStatus is returned, the introspectionStatusDetail will also return the exact error that was generated during the operation.

Type: String

## Errors

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

## 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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetDomainName

Retrieves a custom DomainName object.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### domainName

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

The configuration for the DomainName.

Type: [DomainNameConfig](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetFunction

Get a Function.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The GraphQL API ID.

Required: Yes

### functionId

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": {
    "code": "string",
    "dataSourceName": "string",
```

```
"description": "string",
"functionArn": "string",
"functionId": "string",
"functionVersion": "string",
"maxBatchSize": number,
"name": "string",
"requestMappingTemplate": "string",
"responseMappingTemplate": "string",
"runtime": {
  "name": "string",
  "runtimeVersion": "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

The `Function` object.

Type: [FunctionConfiguration](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetGraphQLApi

Retrieves a GraphQLApi object.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

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",
"apiType": "string",
"arn": "string",
"authenticationType": "string",
"dns": {
    "string": "string"
},
"enhancedMetricsConfig": {
    "dataSourceLevelMetricsBehavior": "string",
    "operationLevelMetricsConfig": "string",
    "resolverLevelMetricsBehavior": "string"
},
"introspectionConfig": "string",
"lambdaAuthorizerConfig": {
    "authorizerResultTtlInSeconds": number,
    "authorizerUri": "string",
    "identityValidationExpression": "string"
},
"logConfig": {
    "cloudWatchLogsRoleArn": "string",
    "excludeVerboseContent": boolean,
    "fieldLogLevel": "string"
},
"mergedApiExecutionRoleArn": "string",
"name": "string",
"openIDConnectConfig": {
    "authTTL": number,
    "clientId": "string",
    "iatTTL": number,
    "issuer": "string"
},
"owner": "string",
"ownerContact": "string",
"queryDepthLimit": number,
"resolverCountLimit": number,

```

```
  "tags": {
    "string" : "string"
  },
  "uris": {
    "string" : "string"
  },
  "userPoolConfig": {
    "appIdClientRegex": "string",
    "awsRegion": "string",
    "defaultAction": "string",
    "userPoolId": "string"
  },
  "visibility": "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](#)

The GraphQLApi object.

Type: [GraphQLApi](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# GetGraphQLApiEnvironmentVariables

Retrieves the list of environmental variable key-value pairs associated with an API by its ID value.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The ID of the API from which the environmental variable list will be retrieved.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

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

{
  "environmentVariables": {
    "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.

## environmentVariables

The payload containing each environmental variable in the "key" : "value" format.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 2. Maximum length of 64.

Key Pattern: `^[A-Za-z]+\w*$`

Value Length Constraints: Minimum length of 0. Maximum length of 512.

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [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 /apis/apiId/schema?format=format&includeDirectives=includeDirectives HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The API ID.

Required: Yes

### format

The schema format: SDL or JSON.

Valid Values: SDL | JSON

Required: Yes

### includeDirectives

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

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](#).

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetResolver

Retrieves a Resolver object.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The API ID.

Required: Yes

### fieldName

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

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
    },
    "code": "string",
    "dataSourceName": "string",
    "fieldName": "string",
    "kind": "string",
    "maxBatchSize": number,
    "metricsConfig": "string",
    "pipelineConfig": {
      "functions": [ "string" ]
    },
    "requestMappingTemplate": "string",
    "resolverArn": "string",
    "responseMappingTemplate": "string",
    "runtime": {
      "name": "string",
      "runtimeVersion": "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](#)

The Resolver object.

Type: [Resolver](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [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 /apis/apiId/schemacreation HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### [apiId](#)

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](#)

Detailed information about the status of the schema creation operation.

Type: String

### status

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](#).

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetSourceApiAssociation

Retrieves a SourceApiAssociation object.

## Request Syntax

```
GET /mergedApis/mergedApiIdentifier/sourceApiAssociations/associationId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### associationId

The ID generated by the AppSync service for the source API association.

Required: Yes

### mergedApiIdentifier

The identifier of the AppSync Merged API. This is generated by the AppSync service. In most cases, Merged APIs (especially in your account) only require the API ID value or ARN of the merged API. However, Merged APIs in other accounts (cross-account use cases) strictly require the full resource ARN of the merged API.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

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

{
  "sourceApiAssociation": {
    "associationArn": "string",
    "associationId": "string",
```

```
"description": "string",
"lastSuccessfulMergeDate": number,
"mergedApiArn": "string",
"mergedApiId": "string",
"sourceApiArn": "string",
"sourceApiAssociationConfig": {
  "mergeType": "string"
},
"sourceApiAssociationStatus": "string",
"sourceApiAssociationStatusDetail": "string",
"sourceApiId": "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.

### sourceApiAssociation

The SourceApiAssociation object data.

Type: [SourceApiAssociation](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# GetType

Retrieves a Type object.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The API ID.

Required: Yes

### format

The type format: SDL or JSON.

Valid Values: SDL | JSON

Required: Yes

### typeName

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

The Type object.

Type: [Type](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [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 /apis/apiId/apikeys?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The API ID.

Required: Yes

### maxResults

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

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

### nextToken

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

The ApiKey objects.

Type: Array of [ApiKey](#) objects

### nextToken

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](#).

### 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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [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 /apis/apiId/datasources?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The API ID.

Required: Yes

### maxResults

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

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

### nextToken

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"  
    },  
    "eventBridgeConfig": {  
      "eventBusArn": "string"  
    },  
    "httpConfig": {  
      "authorizationConfig": {  
        "authorizationType": "string",  
        "awsIamConfig": {  
          "signingRegion": "string",  
          "signingServiceName": "string"  
        }  
      },  
      "endpoint": "string"  
    },  
    "lambdaConfig": {  
      "lambdaFunctionArn": "string"  
    },  
    "metricsConfig": "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

The DataSource objects.

Type: Array of [DataSource](#) objects

### nextToken

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](#).

## 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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListDomainNames

Lists multiple custom domain names.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### [maxResults](#)

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

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

### [nextToken](#)

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

{
  "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

Lists configurations for multiple domain names.

Type: Array of [DomainNameConfig](#) objects

### nextToken

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](#).

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListFunctions

List multiple functions.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The GraphQL API ID.

Required: Yes

### maxResults

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

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

### nextToken

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": [  
  {  
    "code": "string",  
    "dataSourceName": "string",  
    "description": "string",  
    "functionArn": "string",  
    "functionId": "string",  
    "functionVersion": "string",  
    "maxBatchSize": number,  
    "name": "string",  
    "requestMappingTemplate": "string",  
    "responseMappingTemplate": "string",  
    "runtime": {  
      "name": "string",  
      "runtimeVersion": "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

A list of Function objects.

Type: Array of [FunctionConfiguration](#) objects

### nextToken

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](#).

### 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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListGraphqlApis

Lists your GraphQL APIs.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### apiType

The value that indicates whether the GraphQL API is a standard API (GRAPHQL) or merged API (MERGED).

Valid Values: GRAPHQL | MERGED

### maxResults

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

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

### nextToken

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]+

### owner

The account owner of the GraphQL API.

Valid Values: CURRENT\_ACCOUNT | OTHER\_ACCOUNTS

## 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",
      "apiType": "string",
      "arn": "string",
      "authenticationType": "string",
      "dns": {
        "string" : "string"
      },
      "enhancedMetricsConfig": {
        "dataSourceLevelMetricsBehavior": "string",
        "operationLevelMetricsConfig": "string",
        "resolverLevelMetricsBehavior": "string"
      },
      "introspectionConfig": "string",
      "lambdaAuthorizerConfig": {
```

```

    "authorizerResultTtlInSeconds": number,
    "authorizerUri": "string",
    "identityValidationExpression": "string"
  },
  "logConfig": {
    "cloudWatchLogsRoleArn": "string",
    "excludeVerboseContent": boolean,
    "fieldLogLevel": "string"
  },
  "mergedApiExecutionRoleArn": "string",
  "name": "string",
  "openIDConnectConfig": {
    "authTTL": number,
    "clientId": "string",
    "iatTTL": number,
    "issuer": "string"
  },
  "owner": "string",
  "ownerContact": "string",
  "queryDepthLimit": number,
  "resolverCountLimit": number,
  "tags": {
    "string" : "string"
  },
  "uris": {
    "string" : "string"
  },
  "userPoolConfig": {
    "appIdClientRegex": "string",
    "awsRegion": "string",
    "defaultAction": "string",
    "userPoolId": "string"
  },
  "visibility": "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](#)

The GraphQLApi objects.

Type: Array of [GraphQLApi](#) objects

### [nextToken](#)

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](#).

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [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 /apis/apiId/types/typeName/resolvers?maxResults=maxResults&nextToken=nextToken
HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The API ID.

Required: Yes

### maxResults

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

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

### nextToken

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

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
      },
      "code": "string",
      "dataSourceName": "string",
      "fieldName": "string",
      "kind": "string",
      "maxBatchSize": number,
      "metricsConfig": "string",
      "pipelineConfig": {
        "functions": [ "string" ]
      },
      "requestMappingTemplate": "string",
      "resolverArn": "string",
      "responseMappingTemplate": "string",
      "runtime": {
        "name": "string",
        "runtimeVersion": "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

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

The Resolver objects.

Type: Array of [Resolver](#) objects

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [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 /apis/apiId/functions/functionId/resolvers?  
maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The API ID.

Required: Yes

### functionId

The function ID.

Required: Yes

### maxResults

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

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

### nextToken

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
      },
      "code": "string",
      "dataSourceName": "string",
      "fieldName": "string",
      "kind": "string",
      "maxBatchSize": number,
      "metricsConfig": "string",
      "pipelineConfig": {
        "functions": [ "string" ]
      },
      "requestMappingTemplate": "string",
      "resolverArn": "string",
      "responseMappingTemplate": "string",
      "runtime": {
        "name": "string",
        "runtimeVersion": "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

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

The list of resolvers.

Type: Array of [Resolver](#) objects

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListSourceApiAssociations

Lists the SourceApiAssociationSummary data.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The API ID.

Required: Yes

### maxResults

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

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

### nextToken

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",
  "sourceApiAssociationSummaries": [
    {
      "associationArn": "string",
      "associationId": "string",
      "description": "string",
      "mergedApiArn": "string",
      "mergedApiId": "string",
      "sourceApiArn": "string",
      "sourceApiId": "string"
    }
  ]
}
```

## Response Elements

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

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

### nextToken

An 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]+

### sourceApiAssociationSummaries

The SourceApiAssociationSummary object data.

Type: Array of [SourceApiAssociationSummary](#) objects

## Errors

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

## 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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListTagsForResource

Lists the tags for a resource.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### resourceArn

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

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](#).

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [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 /apis/apiId/types?format=format&maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The API ID.

Required: Yes

### format

The type format: SDL or JSON.

Valid Values: SDL | JSON

Required: Yes

### maxResults

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

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

### nextToken

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

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

The Type objects.

Type: Array of [Type](#) objects

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListTypesByAssociation

Lists Type objects by the source API association ID.

## Request Syntax

```
GET /mergedApis/mergedApiIdentifier/sourceApiAssociations/associationId/types?  
format=format&maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### associationId

The ID generated by the AppSync service for the source API association.

Required: Yes

### format

The format type.

Valid Values: SDL | JSON

Required: Yes

### maxResults

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

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

### mergedApiIdentifier

The identifier of the AppSync Merged API. This is generated by the AppSync service. In most cases, Merged APIs (especially in your account) only require the API ID value or ARN of the merged API. However, Merged APIs in other accounts (cross-account use cases) strictly require the full resource ARN of the merged API.

Required: Yes

## nextToken

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

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]+

## types

The Type objects.

Type: Array of [Type](#) objects

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# PutGraphQLApiEnvironmentVariables

Creates a list of environmental variables in an API by its ID value.

When creating an environmental variable, it must follow the constraints below:

- Both JavaScript and VTL templates support environmental variables.
- Environmental variables are not evaluated before function invocation.
- Environmental variables only support string values.
- Any defined value in an environmental variable is considered a string literal and not expanded.
- Variable evaluations should ideally be performed in the function code.

When creating an environmental variable key-value pair, it must follow the additional constraints below:

- Keys must begin with a letter.
- Keys must be at least two characters long.
- Keys can only contain letters, numbers, and the underscore character (`_`).
- Values can be up to 512 characters long.
- You can configure up to 50 key-value pairs in a GraphQL API.

You can create a list of environmental variables by adding it to the `environmentVariables` payload as a list in the format `{"key1": "value1", "key2": "value2", ...}`. Note that each call of the `PutGraphQLApiEnvironmentVariables` action will result in the overwriting of the existing environmental variable list of that API. This means the existing environmental variables will be lost. To avoid this, you must include all existing and new environmental variables in the list each time you call this action.

## Request Syntax

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

{
  "environmentVariables": {
    "string" : "string"
  }
}
```

```
}  
}
```

## URI Request Parameters

The request uses the following URI parameters.

### [apId](#)

The ID of the API to which the environmental variable list will be written.

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### [environmentVariables](#)

The list of environmental variables to add to the API.

When creating an environmental variable key-value pair, it must follow the additional constraints below:

- Keys must begin with a letter.
- Keys must be at least two characters long.
- Keys can only contain letters, numbers, and the underscore character (`_`).
- Values can be up to 512 characters long.
- You can configure up to 50 key-value pairs in a GraphQL API.

You can create a list of environmental variables by adding it to the `environmentVariables` payload as a list in the format `{"key1": "value1", "key2": "value2", ...}`. Note that each call of the `PutGraphQLApiEnvironmentVariables` action will result in the overwriting of the existing environmental variable list of that API. This means the existing environmental variables will be lost. To avoid this, you must include all existing and new environmental variables in the list each time you call this action.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 2. Maximum length of 64.

Key Pattern: `^[A-Za-z]+\w*$`

Value Length Constraints: Minimum length of 0. Maximum length of 512.

Required: Yes

## Response Syntax

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

{
  "environmentVariables": {
    "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.

### environmentVariables

The payload containing each environmental variable in the "key" : "value" format.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 2. Maximum length of 64.

Key Pattern: `^[A-Za-z]+\w*$`

Value Length Constraints: Minimum length of 0. Maximum length of 512.

## Errors

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



## **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartDataSourceIntrospection

Creates a new introspection. Returns the `introspectionId` of the new introspection after its creation.

## Request Syntax

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

```
{
  "rdsDataApiConfig": {
    "databaseName": "string",
    "resourceArn": "string",
    "secretArn": "string"
  }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### [rdsDataApiConfig](#)

The `rdsDataApiConfig` object data.

Type: [RdsDataApiConfig](#) object

Required: No

## Response Syntax

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

```
{
  "introspectionId": "string",
  "introspectionStatus": "string",
  "introspectionStatusDetail": "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.

### introspectionId

The introspection ID. Each introspection contains a unique ID that can be used to reference the introspection record.

Type: String

### introspectionStatus

The status of the introspection during creation. By default, when a new introspection has been created, the status will be set to PROCESSING. Once the operation has been completed, the status will change to SUCCESS or FAILED depending on how the data was parsed. A FAILED operation will return an error and its details as an introspectionStatusDetail.

Type: String

Valid Values: PROCESSING | FAILED | SUCCESS

### introspectionStatusDetail

The error detail field. When a FAILED introspectionStatus is returned, the introspectionStatusDetail will also return the exact error that was generated during the operation.

Type: String

## Errors

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

## 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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [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](#) 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 uses the following URI parameters.

### [apild](#)

The API ID.

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### [definition](#)

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

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](#).

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# StartSchemaMerge

Initiates a merge operation. Returns a status that shows the result of the merge operation.

## Request Syntax

```
POST /mergedApis/mergedApiIdentifier/sourceApiAssociations/associationId/merge HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### associationId

The ID generated by the AppSync service for the source API association.

Required: Yes

### mergedApiIdentifier

The identifier of the AppSync Merged API. This is generated by the AppSync service. In most cases, Merged APIs (especially in your account) only require the API ID value or ARN of the merged API. However, Merged APIs in other accounts (cross-account use cases) strictly require the full resource ARN of the merged API.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

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

{
  "sourceApiAssociationStatus": "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.

### sourceApiAssociationStatus

The state of the source API association.

Type: String

Valid Values: MERGE\_SCHEDULED | MERGE\_FAILED | MERGE\_SUCCESS | MERGE\_IN\_PROGRESS | AUTO\_MERGE\_SCHEDULE\_FAILED | DELETION\_SCHEDULED | DELETION\_IN\_PROGRESS | DELETION\_FAILED

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [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 /tags/resourceArn HTTP/1.1
Content-type: application/json
```

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

## URI Request Parameters

The request uses the following URI parameters.

### resourceArn

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

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](#).

### 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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UntagResource

Untags a resource.

## Request Syntax

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

## URI Request Parameters

The request uses the following URI parameters.

### resourceArn

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

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](#).

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [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 /apis/apiId/ApiCaches/update HTTP/1.1
Content-type: application/json
```

```
{
  "apiCachingBehavior": "string",
  "healthMetricsConfig": "string",
  "ttl": number,
  "type": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The GraphQL API ID.

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### 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: Yes

### healthMetricsConfig

Controls how cache health metrics will be emitted to CloudWatch. Cache health metrics include:

- **NetworkBandwidthOutAllowanceExceeded**: The network packets dropped because the throughput exceeded the aggregated bandwidth limit. This is useful for diagnosing bottlenecks in a cache configuration.
- **EngineCPUUtilization**: The CPU utilization (percentage) allocated to the Redis process. This is useful for diagnosing bottlenecks in a cache configuration.

Metrics will be recorded by API ID. You can set the value to ENABLED or DISABLED.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

### ttl

TTL in seconds for cache entries.

Valid values are 1–3,600 seconds.

Type: Long

Required: Yes

### 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: Yes

## Response Syntax

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

{
  "apiCache": {
    "apiCachingBehavior": "string",
    "atRestEncryptionEnabled": boolean,
    "healthMetricsConfig": "string",
    "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](#)

The ApiCache object.

Type: [ApiCache](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [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 /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

The ID for the GraphQL API.

Required: Yes

### id

The API key ID.

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### description

A description of the purpose of the API key.

Type: String

Required: No

## expires

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](#).

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

The API key.

Type: [ApiKey](#) object

## Errors

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



## **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateDataSource

Updates a DataSource object.

## Request Syntax

```
POST /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"
  },
  "eventBridgeConfig": {
    "eventBusArn": "string"
  },
  "httpConfig": {
    "authorizationConfig": {
      "authorizationType": "string",
      "awsIamConfig": {
        "signingRegion": "string",
        "signingServiceName": "string"
      }
    },
    "endpoint": "string"
  },
  "lambdaConfig": {
    "lambdaFunctionArn": "string"
  },
  "metricsConfig": "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.

### apild

The API ID.

Required: Yes

### name

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**

The new description for the data source.

Type: String

Required: No

## **dynamodbConfig**

The new Amazon DynamoDB configuration.

Type: [DynamodbDataSourceConfig](#) object

Required: No

## **elasticsearchConfig**

The new OpenSearch configuration.

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

Type: [ElasticsearchDataSourceConfig](#) object

Required: No

## **eventBridgeConfig**

The new Amazon EventBridge settings.

Type: [EventBridgeDataSourceConfig](#) object

Required: No

## **httpConfig**

The new HTTP endpoint configuration.

Type: [HttpDataSourceConfig](#) object

Required: No

## **lambdaConfig**

The new AWS Lambda configuration.

Type: [LambdaDataSourceConfig](#) object

Required: No

### [metricsConfig](#)

Enables or disables enhanced data source metrics for specified data sources. Note that `metricsConfig` won't be used unless the `dataSourceLevelMetricsBehavior` value is set to `PER_DATA_SOURCE_METRICS`. If the `dataSourceLevelMetricsBehavior` is set to `FULL_REQUEST_DATA_SOURCE_METRICS` instead, `metricsConfig` will be ignored. However, you can still set its value.

`metricsConfig` can be `ENABLED` or `DISABLED`.

Type: String

Valid Values: `ENABLED` | `DISABLED`

Required: No

### [openSearchServiceConfig](#)

The new OpenSearch configuration.

Type: [OpenSearchServiceDataSourceConfig](#) object

Required: No

### [relationalDatabaseConfig](#)

The new relational database configuration.

Type: [RelationalDatabaseDataSourceConfig](#) object

Required: No

### [serviceRoleArn](#)

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

Type: String

Required: No

### [type](#)

The new data source type.

Type: String

Valid Values: AWS\_LAMBDA | AMAZON\_DYNAMODB | AMAZON\_ELASTICSEARCH | NONE | HTTP | RELATIONAL\_DATABASE | AMAZON\_OPENSEARCH\_SERVICE | AMAZON\_EVENTBRIDGE

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"
    },
    "eventBridgeConfig": {
      "eventBusArn": "string"
    },
    "httpConfig": {
      "authorizationConfig": {
        "authorizationType": "string",
        "awsIamConfig": {
          "signingRegion": "string",
          "signingServiceName": "string"
        }
      }
    }
  }
}
```

```
    },
    "endpoint": "string"
  },
  "lambdaConfig": {
    "lambdaFunctionArn": "string"
  },
  "metricsConfig": "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

The updated DataSource object.

Type: [DataSource](#) object

## Errors

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



## 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 v2](#)
- [AWS SDK for Java V2](#)

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

# UpdateDomainName

Updates a custom DomainName object.

## Request Syntax

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

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

## URI Request Parameters

The request uses the following URI parameters.

### domainName

The domain name.

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

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

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### description

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

The configuration for the DomainName.

Type: [DomainNameConfig](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateFunction

Updates a Function object.

## Request Syntax

```
POST /apis/apiId/functions/functionId HTTP/1.1
```

```
Content-type: application/json
```

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

## URI Request Parameters

The request uses the following URI parameters.

### apiId

The GraphQL API ID.

Required: Yes

## functionId

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.

### code

The function code that contains the request and response functions. When code is used, the runtime is required. The `runtime` value must be `APPSYNC_JS`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32768.

Required: No

### dataSourceName

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

The Function description.

Type: String

Required: No

## functionVersion

The `version` of the request mapping template. Currently, the supported value is 2018-05-29. Note that when using VTL and mapping templates, the `functionVersion` is required.

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 `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

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` request mapping template.



Type: String

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

Pattern: `^.*$`

Required: No

### runtime

Describes a runtime used by an AWS AppSync pipeline resolver or AWS AppSync function. Specifies the name and version of the runtime to use. Note that if a runtime is specified, code must also be specified.

Type: [AppSyncRuntime](#) object

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](#) object

Required: No

## Response Syntax

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

{
  "functionConfiguration": {
    "code": "string",
    "dataSourceName": "string",
    "description": "string",
    "functionArn": "string",
    "functionId": "string",
    "functionVersion": "string",
    "maxBatchSize": number,
    "name": "string",
```

```
"requestMappingTemplate": "string",
"responseMappingTemplate": "string",
"runtime": {
  "name": "string",
  "runtimeVersion": "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

The Function object.

Type: [FunctionConfiguration](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateGraphQLApi

Updates a GraphQLApi object.

## Request Syntax

```
POST /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",
  "enhancedMetricsConfig": {
    "dataSourceLevelMetricsBehavior": "string",
    "operationLevelMetricsConfig": "string",
    "resolverLevelMetricsBehavior": "string"
  },
  "introspectionConfig": "string",
  "lambdaAuthorizerConfig": {
    "authorizerResultTtlInSeconds": number,
    "authorizerUri": "string",
    "identityValidationExpression": "string"
  },
}
```

```
"logConfig": {
  "cloudWatchLogsRoleArn": "string",
  "excludeVerboseContent": boolean,
  "fieldLogLevel": "string"
},
"mergedApiExecutionRoleArn": "string",
"name": "string",
"openIDConnectConfig": {
  "authTTL": number,
  "clientId": "string",
  "iatTTL": number,
  "issuer": "string"
},
"ownerContact": "string",
"queryDepthLimit": number,
"resolverCountLimit": number,
"userPoolConfig": {
  "appIdClientRegex": "string",
  "awsRegion": "string",
  "defaultAction": "string",
  "userPoolId": "string"
},
"xrayEnabled": boolean
}
```

## URI Request Parameters

The request uses the following URI parameters.

### apild

The API ID.

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### additionalAuthenticationProviders

A list of additional authentication providers for the GraphQLApi API.

Type: Array of [AdditionalAuthProvider](#) objects

Required: No

### [authenticationType](#)

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: Yes

### [enhancedMetricsConfig](#)

The enhancedMetricsConfig object.

Type: [EnhancedMetricsConfig](#) object

Required: No

### [introspectionConfig](#)

Sets the value of the GraphQL API to enable (ENABLED) or disable (DISABLED) introspection. If no value is provided, the introspection configuration will be set to ENABLED by default. This field will produce an error if the operation attempts to use the introspection feature while this field is disabled.

For more information about introspection, see [GraphQL introspection](#).

Type: String

Valid Values: ENABLED | DISABLED

Required: No

### [lambdaAuthorizerConfig](#)

Configuration for Lambda function authorization.

Type: [LambdaAuthorizerConfig](#) object

Required: No

## **logConfig**

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

Type: [LogConfig](#) object

Required: No

## **mergedApiExecutionRoleArn**

The Identity and Access Management service role ARN for a merged API. The AppSync service assumes this role on behalf of the Merged API to validate access to source APIs at runtime and to prompt the `AUTO_MERGE` to update the merged API endpoint with the source API changes automatically.

Type: String

Required: No

## **name**

The new name for the `GraphQLApi` object.

Type: String

Required: Yes

## **openIDConnectConfig**

The OpenID Connect configuration for the `GraphQLApi` object.

Type: [OpenIDConnectConfig](#) object

Required: No

## **ownerContact**

The owner contact information for an API resource.

This field accepts any string input with a length of 0 - 256 characters.

Type: String

Required: No

## queryDepthLimit

The maximum depth a query can have in a single request. Depth refers to the amount of nested levels allowed in the body of query. The default value is 0 (or unspecified), which indicates there's no depth limit. If you set a limit, it can be between 1 and 75 nested levels. This field will produce a limit error if the operation falls out of bounds.

Note that fields can still be set to nullable or non-nullable. If a non-nullable field produces an error, the error will be thrown upwards to the first nullable field available.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 75.

Required: No

## resolverCountLimit

The maximum number of resolvers that can be invoked in a single request. The default value is 0 (or unspecified), which will set the limit to 10000. When specified, the limit value can be between 1 and 10000. This field will produce a limit error if the operation falls out of bounds.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 10000.

Required: No

## userPoolConfig

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

Type: [UserPoolConfig](#) object

Required: No

## xrayEnabled

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",
    "apiType": "string",
    "arn": "string",
    "authenticationType": "string",
    "dns": {
      "string": "string"
    },
    "enhancedMetricsConfig": {
      "dataSourceLevelMetricsBehavior": "string",
      "operationLevelMetricsConfig": "string",
      "resolverLevelMetricsBehavior": "string"
    },
    "introspectionConfig": "string",
    "lambdaAuthorizerConfig": {
      "authorizerResultTtlInSeconds": number,
```

```

    "authorizerUri": "string",
    "identityValidationExpression": "string"
  },
  "logConfig": {
    "cloudWatchLogsRoleArn": "string",
    "excludeVerboseContent": boolean,
    "fieldLogLevel": "string"
  },
  "mergedApiExecutionRoleArn": "string",
  "name": "string",
  "openIDConnectConfig": {
    "authTTL": number,
    "clientId": "string",
    "iatTTL": number,
    "issuer": "string"
  },
  "owner": "string",
  "ownerContact": "string",
  "queryDepthLimit": number,
  "resolverCountLimit": number,
  "tags": {
    "string" : "string"
  },
  "uris": {
    "string" : "string"
  },
  "userPoolConfig": {
    "appIdClientRegex": "string",
    "awsRegion": "string",
    "defaultAction": "string",
    "userPoolId": "string"
  },
  "visibility": "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](#)

The updated `GraphQLApi` object.

Type: [GraphQLApi](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateResolver

Updates a Resolver object.

## Request Syntax

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

```
Content-type: application/json
```

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

## URI Request Parameters

The request uses the following URI parameters.

## apId

The API ID.

Required: Yes

## fieldName

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

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.

### cachingConfig

The caching configuration for the resolver.

Type: [CachingConfig](#) object

Required: No

### code

The `resolver` code that contains the request and response functions. When `code` is used, the `runtime` is required. The `runtime` value must be `APPSYNC_JS`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32768.

Required: No

### dataSourceName

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

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

### metricsConfig

Enables or disables enhanced resolver metrics for specified resolvers. Note that `metricsConfig` won't be used unless the `resolverLevelMetricsBehavior` value

is set to `PER_RESOLVER_METRICS`. If the `resolverLevelMetricsBehavior` is set to `FULL_REQUEST_RESOLVER_METRICS` instead, `metricsConfig` will be ignored. However, you can still set its value.

`metricsConfig` can be `ENABLED` or `DISABLED`.

Type: String

Valid Values: `ENABLED` | `DISABLED`

Required: No

### [pipelineConfig](#)

The `PipelineConfig`.

Type: [PipelineConfig](#) object

Required: No

### [requestMappingTemplate](#)

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](#)

The new response mapping template.

Type: String

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



Pattern: `^.*$`

Required: No

### runtime

Describes a runtime used by an AWS AppSync pipeline resolver or AWS AppSync function. Specifies the name and version of the runtime to use. Note that if a runtime is specified, code must also be specified.

Type: [AppSyncRuntime](#) object

Required: No

### syncConfig

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

Type: [SyncConfig](#) object

Required: No

## Response Syntax

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

{
  "resolver": {
    " cachingConfig": {
      " cachingKeys": [ "string" ],
      " ttl": number
    },
    " code": "string",
    " dataSourceName": "string",
    " fieldName": "string",
    " kind": "string",
    " maxBatchSize": number,
    " metricsConfig": "string",
    " pipelineConfig": {
      " functions": [ "string" ]
    },
    " requestMappingTemplate": "string",
    " resolverArn": "string",
```

```
"responseMappingTemplate": "string",
"runtime": {
  "name": "string",
  "runtimeVersion": "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

The updated Resolver object.

Type: [Resolver](#) object

## Errors

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

### **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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateSourceApiAssociation

Updates some of the configuration choices of a particular source API association.

## Request Syntax

```
POST /mergedApis/mergedApiIdentifier/sourceApiAssociations/associationId HTTP/1.1  
Content-type: application/json
```

```
{  
  "description": "string",  
  "sourceApiAssociationConfig": {  
    "mergeType": "string"  
  }  
}
```

## URI Request Parameters

The request uses the following URI parameters.

### associationId

The ID generated by the AppSync service for the source API association.

Required: Yes

### mergedApiIdentifier

The identifier of the AppSync Merged API. This is generated by the AppSync service. In most cases, Merged APIs (especially in your account) only require the API ID value or ARN of the merged API. However, Merged APIs in other accounts (cross-account use cases) strictly require the full resource ARN of the merged API.

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### description

The description field.

Type: String

Required: No

### [sourceApiAssociationConfig](#)

The SourceApiAssociationConfig object data.

Type: [SourceApiAssociationConfig](#) object

Required: No

## Response Syntax

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

{
  "sourceApiAssociation": {
    "associationArn": "string",
    "associationId": "string",
    "description": "string",
    "lastSuccessfulMergeDate": number,
    "mergedApiArn": "string",
    "mergedApiId": "string",
    "sourceApiArn": "string",
    "sourceApiAssociationConfig": {
      "mergeType": "string"
    },
    "sourceApiAssociationStatus": "string",
    "sourceApiAssociationStatusDetail": "string",
    "sourceApiId": "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.

## sourceApiAssociation

The SourceApiAssociation object data.

Type: [SourceApiAssociation](#) object

## Errors

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

### 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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# 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 uses the following URI parameters.

### apiId

The API ID.

Required: Yes

### typeName

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

The new definition.

Type: String



Required: No

### format

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

The updated Type object.

Type: [Type](#) object

## Errors

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

## 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 v2](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)
- [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](#)
- [ApiAssociation](#)
- [ApiCache](#)
- [ApiKey](#)
- [AppSyncRuntime](#)
- [AuthorizationConfig](#)
- [AwsIamConfig](#)
- [BadRequestDetail](#)
- [CachingConfig](#)
- [CodeError](#)
- [CodeErrorLocation](#)
- [CognitoUserPoolConfig](#)
- [DataSource](#)
- [DataSourceIntrospectionModel](#)
- [DataSourceIntrospectionModelField](#)
- [DataSourceIntrospectionModelFieldType](#)
- [DataSourceIntrospectionModelIndex](#)
- [DataSourceIntrospectionResult](#)
- [DeltaSyncConfig](#)
- [DomainNameConfig](#)

- [DynamodbDataSourceConfig](#)
- [ElasticsearchDataSourceConfig](#)
- [EnhancedMetricsConfig](#)
- [ErrorDetail](#)
- [EvaluateCodeErrorDetail](#)
- [EventBridgeDataSourceConfig](#)
- [FunctionConfiguration](#)
- [GraphQLApi](#)
- [HttpDataSourceConfig](#)
- [LambdaAuthorizerConfig](#)
- [LambdaConflictHandlerConfig](#)
- [LambdaDataSourceConfig](#)
- [LogConfig](#)
- [OpenIDConnectConfig](#)
- [OpenSearchServiceDataSourceConfig](#)
- [PipelineConfig](#)
- [RdsDataApiConfig](#)
- [RdsHttpEndpointConfig](#)
- [RelationalDatabaseDataSourceConfig](#)
- [Resolver](#)
- [SourceApiAssociation](#)
- [SourceApiAssociationConfig](#)
- [SourceApiAssociationSummary](#)
- [SyncConfig](#)
- [Type](#)
- [UserPoolConfig](#)

# 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](#) object

Required: No

### openIDConnectConfig

The OIDC configuration.

Type: [OpenIDConnectConfig](#) object

Required: No

### userPoolConfig

The Amazon Cognito user pool configuration.

Type: [CognitoUserPoolConfig](#) object

Required: No

## See Also

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

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

# ApiAssociation

Describes an `ApiAssociation` object.

## Contents

### `apId`

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 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

### healthMetricsConfig

Controls how cache health metrics will be emitted to CloudWatch. Cache health metrics include:

- **NetworkBandwidthOutAllowanceExceeded:** The network packets dropped because the throughput exceeded the aggregated bandwidth limit. This is useful for diagnosing bottlenecks in a cache configuration.
- **EngineCPUUtilization:** The CPU utilization (percentage) allocated to the Redis process. This is useful for diagnosing bottlenecks in a cache configuration.

Metrics will be recorded by API ID. You can set the value to ENABLED or DISABLED.

Type: String

Valid Values: ENABLED | DISABLED

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 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 Java V2](#)

- [AWS SDK for Ruby V3](#)

# AppSyncRuntime

Describes a runtime used by an AWS AppSync pipeline resolver or AWS AppSync function. Specifies the name and version of the runtime to use. Note that if a runtime is specified, code must also be specified.

## Contents

### name

The name of the runtime to use. Currently, the only allowed value is APPSYNC\_JS.

Type: String

Valid Values: APPSYNC\_JS

Required: Yes

### runtimeVersion

The version of the runtime to use. Currently, the only allowed version is 1.0.0.

Type: String

Required: Yes

## See Also

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

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



# 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

### awslamConfig

The AWS Identity and Access Management (IAM) settings.

Type: [AwsIamConfig](#) object

Required: No

## See Also

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

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

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

# BadRequestDetail

Provides further details for the reason behind the bad request. For reason type `CODE_ERROR`, the detail will contain a list of code errors.

## Contents

### `codeErrors`

Contains the list of errors in the request.

Type: Array of [CodeError](#) objects

Required: No

## See Also

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

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

# CachingConfig

The caching configuration for a resolver that has caching activated.

## Contents

### ttl

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

Valid values are 1–3,600 seconds.

Type: Long

Required: Yes

### 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

## See Also

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

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

# CodeError

Describes an AppSync error.

## Contents

### errorType

The type of code error.

Examples include, but aren't limited to: LINT\_ERROR, PARSER\_ERROR.

Type: String

Required: No

### location

The line, column, and span location of the error in the code.

Type: [CodeErrorLocation](#) object

Required: No

### value

A user presentable error.

Examples include, but aren't limited to: Parsing error: Unterminated string literal.

Type: String

Required: No

## See Also

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

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



# CodeErrorLocation

Describes the location of the error in a code sample.

## Contents

### column

The column number in the code. Defaults to 0 if unknown.

Type: Integer

Required: No

### line

The line number in the code. Defaults to 0 if unknown.

Type: Integer

Required: No

### span

The span/length of the error. Defaults to -1 if unknown.

Type: Integer

Required: No

## See Also

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

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

# CognitoUserPoolConfig

Describes an Amazon Cognito user pool configuration.

## Contents

### **awsRegion**

The AWS Region in which the user pool was created.

Type: String

Required: Yes

### **userPoolId**

The user pool ID.

Type: String

Required: Yes

### **appIdClientRegex**

A regular expression for validating the incoming Amazon Cognito user pool app client ID. If this value isn't set, no filtering is applied.

Type: String

Required: No

## See Also

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

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



# 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](#) object

Required: No

### **elasticsearchConfig**

Amazon OpenSearch Service settings.

Type: [ElasticsearchDataSourceConfig](#) object

Required: No

### **eventBridgeConfig**

Amazon EventBridge settings.

Type: [EventBridgeDataSourceConfig](#) object

Required: No

## httpConfig

HTTP endpoint settings.

Type: [HttpDataSourceConfig](#) object

Required: No

## lambdaConfig

Lambda settings.

Type: [LambdaDataSourceConfig](#) object

Required: No

## metricsConfig

Enables or disables enhanced data source metrics for specified data sources. Note that `metricsConfig` won't be used unless the `dataSourceLevelMetricsBehavior` value is set to `PER_DATA_SOURCE_METRICS`. If the `dataSourceLevelMetricsBehavior` is set to `FULL_REQUEST_DATA_SOURCE_METRICS` instead, `metricsConfig` will be ignored. However, you can still set its value.

`metricsConfig` can be `ENABLED` or `DISABLED`.

Type: String

Valid Values: `ENABLED` | `DISABLED`

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](#) object

Required: No

### **relationalDatabaseConfig**

Relational database settings.

Type: [RelationalDatabaseDataSourceConfig](#) 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.
- **AMAZON\_EVENTBRIDGE**: The data source is an Amazon EventBridge configuration.
- **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` | `AMAZON_EVENTBRIDGE`

Required: No

## See Also

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

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

# DataSourceIntrospectionModel

Contains the introspected data that was retrieved from the data source.

## Contents

### fields

The DataSourceIntrospectionModelField object data.

Type: Array of [DataSourceIntrospectionModelField](#) objects

Required: No

### indexes

The array of DataSourceIntrospectionModelIndex objects.

Type: Array of [DataSourceIntrospectionModelIndex](#) objects

Required: No

### name

The name of the model. For example, this could be the name of a single table in a database.

Type: String

Required: No

### primaryKey

The primary key stored as a DataSourceIntrospectionModelIndex object.

Type: [DataSourceIntrospectionModelIndex](#) object

Required: No

### sdl

Contains the output of the SDL that was generated from the introspected types. This is controlled by the `includeModelsSDL` parameter of the `GetDataSourceIntrospection` operation.

Type: String

Required: No

## See Also

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

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

# DataSourceIntrospectionModelField

Represents the fields that were retrieved from the introspected data.

## Contents

### length

The length value of the introspected field.

Type: Long

Required: No

### name

The name of the field that was retrieved from the introspected data.

Type: String

Required: No

### type

The DataSourceIntrospectionModelFieldType object data.

Type: [DataSourceIntrospectionModelFieldType](#) object

Required: No

## See Also

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

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

# DataSourceIntrospectionModelFieldType

Represents the type data for each field retrieved from the introspection.

## Contents

### kind

Specifies the classification of data. For example, this could be set to values like `Scalar` or `NonNull` to indicate a fundamental property of the field.

Valid values include:

- `Scalar`: Indicates the value is a primitive type (scalar).
- `NonNull`: Indicates the field cannot be null.
- `List`: Indicates the field contains a list.

Type: String

Required: No

### name

The name of the data type that represents the field. For example, `String` is a valid name value.

Type: String

Required: No

### type

The `DataSourceIntrospectionModelFieldType` object data. The type is only present if `DataSourceIntrospectionModelFieldType.kind` is set to `NonNull` or `List`.

The type typically contains its own `kind` and `name` fields to represent the actual type data. For instance, type could contain a `kind` value of `Scalar` with a `name` value of `String`. The values `Scalar` and `String` will be collectively stored in the `values` field.

Type: [DataSourceIntrospectionModelFieldType](#) object

Required: No



## values

The values of the `type` field. This field represents the AppSync data type equivalent of the introspected field.

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

# DataSourceIntrospectionModelIndex

The index that was retrieved from the introspected data.

## Contents

### fields

The fields of the index.

Type: Array of strings

Required: No

### name

The name of the index.

Type: String

Required: No

## See Also

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

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

# DataSourceIntrospectionResult

Represents the output of a `DataSourceIntrospectionResult`. This is the populated result of a `GetDataSourceIntrospection` operation.

## Contents

### models

The array of `DataSourceIntrospectionModel` objects.

Type: Array of [DataSourceIntrospectionModel](#) objects

Required: No

### nextToken

Determines the number of types to be returned in a single response before paginating. This value is typically taken from `nextToken` value from the previous response.

Type: String

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

Pattern: `[\\S]+`

Required: No

## See Also

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

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

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

# 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

### deltaSyncConfig

The `DeltaSyncConfig` for a versioned data source.

Type: [DeltaSyncConfig](#) object

Required: No

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

# EnhancedMetricsConfig

Enables and controls the enhanced metrics feature. Enhanced metrics emit granular data on API usage and performance such as AppSync request and error counts, latency, and cache hits/misses. All enhanced metric data is sent to your CloudWatch account, and you can configure the types of data that will be sent.

Enhanced metrics can be configured at the resolver, data source, and operation levels.

EnhancedMetricsConfig contains three required parameters, each controlling one of these categories:

1. `resolverLevelMetricsBehavior`: Controls how resolver metrics will be emitted to CloudWatch. Resolver metrics include:

- GraphQL errors: The number of GraphQL errors that occurred.
- Requests: The number of invocations that occurred during a request.
- Latency: The time to complete a resolver invocation.
- Cache hits: The number of cache hits during a request.
- Cache misses: The number of cache misses during a request.

These metrics can be emitted to CloudWatch per resolver or for all resolvers in the request. Metrics will be recorded by API ID and resolver name. `resolverLevelMetricsBehavior` accepts one of these values at a time:

- `FULL_REQUEST_RESOLVER_METRICS`: Records and emits metric data for all resolvers in the request.
- `PER_RESOLVER_METRICS`: Records and emits metric data for resolvers that have the `metricsConfig` value set to `ENABLED`.

2. `dataSourceLevelMetricsBehavior`: Controls how data source metrics will be emitted to CloudWatch. Data source metrics include:

- Requests: The number of invocations that occurred during a request.
- Latency: The time to complete a data source invocation.
- Errors: The number of errors that occurred during a data source invocation.

These metrics can be emitted to CloudWatch per data source or for all data sources in the request. Metrics will be recorded by API ID and data source name. `dataSourceLevelMetricsBehavior` accepts one of these values at a time:

- `FULL_REQUEST_DATA_SOURCE_METRICS`: Records and emits metric data for all data sources in the request.
  - `PER_DATA_SOURCE_METRICS`: Records and emits metric data for data sources that have the `metricsConfig` value set to `ENABLED`.
3. `operationLevelMetricsConfig`: Controls how operation metrics will be emitted to CloudWatch. Operation metrics include:
- **Requests**: The number of times a specified GraphQL operation was called.
  - **GraphQL errors**: The number of GraphQL errors that occurred during a specified GraphQL operation.

Metrics will be recorded by API ID and operation name. You can set the value to `ENABLED` or `DISABLED`.

## Contents

### `dataSourceLevelMetricsBehavior`

Controls how data source metrics will be emitted to CloudWatch. Data source metrics include:

- **Requests**: The number of invocations that occurred during a request.
- **Latency**: The time to complete a data source invocation.
- **Errors**: The number of errors that occurred during a data source invocation.

These metrics can be emitted to CloudWatch per data source or for all data sources in the request. Metrics will be recorded by API ID and data source name.

`dataSourceLevelMetricsBehavior` accepts one of these values at a time:

- `FULL_REQUEST_DATA_SOURCE_METRICS`: Records and emits metric data for all data sources in the request.
- `PER_DATA_SOURCE_METRICS`: Records and emits metric data for data sources that have the `metricsConfig` value set to `ENABLED`.

Type: String

Valid Values: `FULL_REQUEST_DATA_SOURCE_METRICS` | `PER_DATA_SOURCE_METRICS`

Required: Yes

## **operationLevelMetricsConfig**

Controls how operation metrics will be emitted to CloudWatch. Operation metrics include:

- **Requests:** The number of times a specified GraphQL operation was called.
- **GraphQL errors:** The number of GraphQL errors that occurred during a specified GraphQL operation.

Metrics will be recorded by API ID and operation name. You can set the value to `ENABLED` or `DISABLED`.

Type: String

Valid Values: `ENABLED` | `DISABLED`

Required: Yes

## **resolverLevelMetricsBehavior**

Controls how resolver metrics will be emitted to CloudWatch. Resolver metrics include:

- **GraphQL errors:** The number of GraphQL errors that occurred.
- **Requests:** The number of invocations that occurred during a request.
- **Latency:** The time to complete a resolver invocation.
- **Cache hits:** The number of cache hits during a request.
- **Cache misses:** The number of cache misses during a request.

These metrics can be emitted to CloudWatch per resolver or for all resolvers in the request. Metrics will be recorded by API ID and resolver name. `resolverLevelMetricsBehavior` accepts one of these values at a time:

- `FULL_REQUEST_RESOLVER_METRICS`: Records and emits metric data for all resolvers in the request.
- `PER_RESOLVER_METRICS`: Records and emits metric data for resolvers that have the `metricsConfig` value set to `ENABLED`.

Type: String

Valid Values: `FULL_REQUEST_RESOLVER_METRICS` | `PER_RESOLVER_METRICS`

Required: Yes

## See Also

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

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

# ErrorDetail

Contains the list of errors generated. When using JavaScript, this will apply to the request or response function evaluation.

## Contents

### message

The error payload.

Type: String

Required: No

## See Also

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

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

# EvaluateCodeErrorDetail

Contains the list of errors from a code evaluation response.

## Contents

### `codeErrors`

Contains the list of `CodeError` objects.

Type: Array of [CodeError](#) objects

Required: No

### `message`

The error payload.

Type: String

Required: No

## See Also

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

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

# EventBridgeDataSourceConfig

Describes an Amazon EventBridge bus data source configuration.

## Contents

### eventBusArn

The ARN of the event bus. For more information about event buses, see [Amazon EventBridge event buses](#).

Type: String

Required: Yes

## See Also

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

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



# FunctionConfiguration

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

## Contents

### code

The `function` code that contains the request and response functions. When `code` is used, the runtime is required. The `runtime` value must be `APPSYNC_JS`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32768.

Required: No

### 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

### **runtime**

Describes a runtime used by an AWS AppSync pipeline resolver or AWS AppSync function. Specifies the name and version of the runtime to use. Note that if a runtime is specified, code must also be specified.

Type: [AppSyncRuntime](#) object

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](#) object

Required: No

## **See Also**

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

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

# GraphQLApi

Describes a GraphQL API.

## Contents

### **additionalAuthenticationProviders**

A list of additional authentication providers for the GraphQLApi API.

Type: Array of [AdditionalAuthenticationProvider](#) objects

Required: No

### **apiId**

The API ID.

Type: String

Required: No

### **apiType**

The value that indicates whether the GraphQL API is a standard API (GRAPHQL) or merged API (MERGED).

Type: String

Valid Values: GRAPHQL | MERGED

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

## **dns**

The DNS records for the API.

Type: String to string map

Required: No

## **enhancedMetricsConfig**

The `enhancedMetricsConfig` object.

Type: [EnhancedMetricsConfig](#) object

Required: No

## **introspectionConfig**

Sets the value of the GraphQL API to enable (ENABLED) or disable (DISABLED) introspection. If no value is provided, the introspection configuration will be set to ENABLED by default. This field will produce an error if the operation attempts to use the introspection feature while this field is disabled.

For more information about introspection, see [GraphQL introspection](#).

Type: String

Valid Values: ENABLED | DISABLED

Required: No

## **lambdaAuthorizerConfig**

Configuration for Lambda function authorization.

Type: [LambdaAuthorizerConfig](#) object

Required: No

## logConfig

The Amazon CloudWatch Logs configuration.

Type: [LogConfig](#) object

Required: No

## mergedApiExecutionRoleArn

The Identity and Access Management service role ARN for a merged API. The AppSync service assumes this role on behalf of the Merged API to validate access to source APIs at runtime and to prompt the AUTO\_MERGE to update the merged API endpoint with the source API changes automatically.

Type: String

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](#) object

Required: No

## owner

The account owner of the GraphQL API.

Type: String

Required: No

## **ownerContact**

The owner contact information for an API resource.

This field accepts any string input with a length of 0 - 256 characters.

Type: String

Required: No

## **queryDepthLimit**

The maximum depth a query can have in a single request. Depth refers to the amount of nested levels allowed in the body of query. The default value is 0 (or unspecified), which indicates there's no depth limit. If you set a limit, it can be between 1 and 75 nested levels. This field will produce a limit error if the operation falls out of bounds.

Note that fields can still be set to nullable or non-nullable. If a non-nullable field produces an error, the error will be thrown upwards to the first nullable field available.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 75.

Required: No

## **resolverCountLimit**

The maximum number of resolvers that can be invoked in a single request. The default value is 0 (or unspecified), which will set the limit to 10000. When specified, the limit value can be between 1 and 10000. This field will produce a limit error if the operation falls out of bounds.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 10000.

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](#) object

Required: No

## **visibility**

Sets the value of the GraphQL API to public (GLOBAL) or private (PRIVATE). If no value is provided, the visibility will be set to GLOBAL by default. This value cannot be changed once the API has been created.

Type: String

Valid Values: GLOBAL | PRIVATE

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 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](#) 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 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

### `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

### `authorizerResultTtlInSeconds`

The number of seconds a response should be cached for. The default is 0 seconds, which disables caching. If you don't specify a value for `authorizerResultTtlInSeconds`, the default value is used. The maximum value is one hour (3600 seconds). The Lambda function can override this by returning a `ttlOverride` key in its response.

Type: Integer

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

Required: No

### `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 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 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 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

### 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

### 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



## See Also

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

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

# OpenIDConnectConfig

Describes an OpenID Connect (OIDC) configuration.

## Contents

### 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

### 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

## See Also

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

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

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

# RdsDataApiConfig

Contains the metadata required to introspect the RDS cluster.

## Contents

### databaseName

The name of the database in the cluster.

Type: String

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

Required: Yes

### resourceArn

The resource ARN of the RDS cluster.

Type: String

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

Pattern: `^arn:[a-z-]*:rds:[a-z0-9-]*:\d{12}:cluster:[0-9A-Za-z_/-]*$`

Required: Yes

### secretArn

The secret's ARN that was obtained from Secrets Manager. A secret consists of secret information, the secret value, plus metadata about the secret. A secret value can be a string or binary. It typically includes the ARN, secret name and description, policies, tags, encryption key from the Key Management Service, and key rotation data.

Type: String

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

Pattern: `^arn:[a-z-]*:secretsmanager:[a-z0-9-]*:\d{12}:secret:[0-9A-Za-z_/\+=.@!-]*$`

Required: Yes

## See Also

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

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

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

# RelationalDatabaseDataSourceConfig

Describes a relational database data source configuration.

## Contents

### rdsHttpEndpointConfig

Amazon RDS HTTP endpoint settings.

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

# Resolver

Describes a resolver.

## Contents

### cachingConfig

The caching configuration for the resolver.

Type: [CachingConfig](#) object

Required: No

### code

The `resolver` code that contains the request and response functions. When `code` is used, the `runtime` is required. The `runtime` value must be `APPSYNC_JS`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32768.

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

### **metricsConfig**

Enables or disables enhanced resolver metrics for specified resolvers. Note that `metricsConfig` won't be used unless the `resolverLevelMetricsBehavior` value is set to `PER_RESOLVER_METRICS`. If the `resolverLevelMetricsBehavior` is set to `FULL_REQUEST_RESOLVER_METRICS` instead, `metricsConfig` will be ignored. However, you can still set its value.

`metricsConfig` can be `ENABLED` or `DISABLED`.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

## **pipelineConfig**

The PipelineConfig.

Type: [PipelineConfig](#) 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

## **runtime**

Describes a runtime used by an AWS AppSync pipeline resolver or AWS AppSync function. Specifies the name and version of the runtime to use. Note that if a runtime is specified, code must also be specified.

Type: [AppSyncRuntime](#) object

Required: No

### **syncConfig**

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

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

# SourceApiAssociation

Describes the configuration of a source API. A source API is a GraphQL API that is linked to a merged API. There can be multiple source APIs attached to each merged API. When linked to a merged API, the source API's schema, data sources, and resolvers will be combined with other linked source API data to form a new, singular API.

Source APIs can originate from your account or from other accounts via AWS Resource Access Manager. For more information about sharing resources from other accounts, see [What is AWS Resource Access Manager?](#) in the *AWS Resource Access Manager* guide.

## Contents

### **associationArn**

The Amazon Resource Name (ARN) of the source API association.

Type: String

Required: No

### **associationId**

The ID generated by the AppSync service for the source API association.

Type: String

Required: No

### **description**

The description field.

Type: String

Required: No

### **lastSuccessfulMergeDate**

The datetime value of the last successful merge of the source API association. The result will be in UTC format and your local time zone.

Type: Timestamp

Required: No

### **mergedApiArn**

The Amazon Resource Name (ARN) of the AppSync Merged API.

Type: String

Required: No

### **mergedApiId**

The ID of the AppSync Merged API.

Type: String

Required: No

### **sourceApiArn**

The Amazon Resource Name (ARN) of the AppSync source API.

Type: String

Required: No

### **sourceApiAssociationConfig**

The SourceApiAssociationConfig object data.

Type: [SourceApiAssociationConfig](#) object

Required: No

### **sourceApiAssociationStatus**

The state of the source API association.

Type: String

Valid Values: MERGE\_SCHEDULED | MERGE\_FAILED | MERGE\_SUCCESS | MERGE\_IN\_PROGRESS | AUTO\_MERGE\_SCHEDULE\_FAILED | DELETION\_SCHEDULED | DELETION\_IN\_PROGRESS | DELETION\_FAILED

Required: No



## **sourceApiAssociationStatusDetail**

The detailed message related to the current state of the source API association.

Type: String

Required: No

## **sourceApiId**

The ID of the AppSync source API.

Type: String

Required: No

## **See Also**

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

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

# SourceApiAssociationConfig

Describes properties used to specify configurations related to a source API.

## Contents

### mergeType

The property that indicates which merging option is enabled in the source API association.

Valid merge types are `MANUAL_MERGE` (default) and `AUTO_MERGE`. Manual merges are the default behavior and require the user to trigger any changes from the source APIs to the merged API manually. Auto merges subscribe the merged API to the changes performed on the source APIs so that any change in the source APIs are also made to the merged API. Auto merges use `MergedApiExecutionRoleArn` to perform merge operations.

Type: String

Valid Values: `MANUAL_MERGE` | `AUTO_MERGE`

Required: No

## See Also

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

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

# SourceApiAssociationSummary

Describes the ARNs and IDs of associations, Merged APIs, and source APIs.

## Contents

### **associationArn**

The Amazon Resource Name (ARN) of the source API association.

Type: String

Required: No

### **associationId**

The ID generated by the AppSync service for the source API association.

Type: String

Required: No

### **description**

The description field.

Type: String

Required: No

### **mergedApiArn**

The Amazon Resource Name (ARN) of the AppSync Merged API.

Type: String

Required: No

### **mergedApiId**

The ID of the AppSync Merged API.

Type: String

Required: No

**sourceApiArn**

The Amazon Resource Name (ARN) of the AppSync Source API.

Type: String

Required: No

**sourceApiId**

The ID of the AppSync source API.

Type: String

Required: No

**See Also**

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

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

# 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](#) object

Required: No

## See Also

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

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

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



# UserPoolConfig

Describes an Amazon Cognito user pool configuration.

## Contents

### **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

### **appIdClientRegex**

A regular expression for validating the incoming Amazon Cognito user pool app client ID. If this value isn't set, no filtering is applied.

Type: String

Required: No

## See Also

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

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

# Common Parameters

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

## 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 [Create a signed AWS API request](#) in the *IAM User Guide*.

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

Type: string

Required: Conditional

### **X-Amz-Date**

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

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

Type: string

Required: Conditional

### **X-Amz-Security-Token**

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

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

Type: string

Required: Conditional

### **X-Amz-Signature**

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

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

Type: string

Required: Conditional

### **X-Amz-SignedHeaders**

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

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

Type: string

Required: Conditional

# Common 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: 403

## **ExpiredTokenException**

The security token included in the request is expired

HTTP Status Code: 403

## **IncompleteSignature**

The request signature does not conform to AWS standards.

HTTP Status Code: 403

## **InternalFailure**

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

HTTP Status Code: 500

## **MalformedHttpRequestException**

Problems with the request at the HTTP level, e.g. we can't decompress the body according to the decompression algorithm specified by the content-encoding.

HTTP Status Code: 400

## **NotAuthorized**

You do not have permission to perform this action.

HTTP Status Code: 401

## **OptInRequired**

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

HTTP Status Code: 403

### **RequestAbortedException**

Convenient exception that can be used when a request is aborted before a reply is sent back (e.g. client closed connection).

HTTP Status Code: 400

### **RequestEntityTooLargeException**

Problems with the request at the HTTP level. The request entity is too large.

HTTP Status Code: 413

### **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

### **RequestTimeoutException**

Problems with the request at the HTTP level. Reading the Request timed out.

HTTP Status Code: 408

### **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

### **UnrecognizedClientException**

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

HTTP Status Code: 403

## **UnknownOperationException**

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

HTTP Status Code: 404

## **ValidationError**

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

HTTP Status Code: 400