

Creating an API

 cloud.google.com/api-gateway/docs/creating-api

Prerequisites

Before you can create an API on API Gateway, ensure that you have:

Prepared your development environment as described in [Configuring your development environment](#).

API ID requirements

Many of the `gcloud` commands shown below require you to specify the ID of the API, in the form: `API_ID`. API Gateway enforces the following requirements for the API ID:

- Must have a maximum length of 63 characters.
- Must contain only lowercase letters, numbers, or dashes.
- Must not start with a dash.
- Must not contain an underscore.

To create an API:

1. Validate the project ID returned from the following command to make sure that the service isn't created in the wrong project.

```
gcloud config list project
```

If you need to change the default project, run the following command and replace `PROJECT_ID` with the Google Cloud project ID in which you want to create the service::

```
gcloud config set project PROJECT_ID
```

If your project ID contains a colon (`:`), see [Domain-scoped projects](#) for additional details about creating an API in your project.

2. View help for the `apis create` command:

```
gcloud api-gateway apis create --help
```

3. Run the following command to create the API:

```
gcloud api-gateway apis create API_ID --project=PROJECT_ID
```

where:

- *API_ID* specifies the ID of the new API. See [API ID requirements](#) for API naming guidelines.
- *PROJECT_ID* specifies the Google Cloud project ID.

As it is creating the API, API Gateway outputs information to the terminal.

4. On successful completion, you can use the following command to view details about the new API:

```
gcloud api-gateway apis describe API_ID --project=PROJECT_ID
```

This command returns the following:

```
createTime: '2020-02-29T21:52:20.297426875Z'
displayName: API_ID
managedService: API_ID.apigateway.PROJECT_ID.cloud.goog
name: projects/PROJECT_ID/locations/global/apis/API_ID
state: ACTIVE
updateTime: '2020-02-29T21:52:20.647923711Z'
```

gcloud options

The `gcloud` command-line tool takes many options, including those described in the [gcloud Reference](#). In addition, for API Gateway, you can set the following options when creating an API:

- `--async` : Return control to the terminal immediately, without waiting for the operation to complete.
- `--display-name=NAME` : Specifies the display name of the API, meaning the name shown in the UI. Do not use spaces in the name. Use hyphens and underscores instead. The default value is *API_ID*.
- `--labels=KEY1=VALUE1,KEY2=VALUE2,...` : Specifies labels associated with the API config.
- `--managed-service` : Specifies a pre-existing managed service (for example, an existing Endpoints service) for the API.

Domain-scoped projects

If your project is scoped to your domain, the project ID includes the name of the domain followed by a colon (:), for example, `example.com:my-project`. You must provide a valid managed service when creating an API in a domain-scoped project.

If using `gcloud`, provide the managed service name using the `--managed-service` flag, as described in [gcloud options](#).

Note: Scoping projects to a domain is a legacy feature. You cannot create new domain-scoped projects.

Listing APIs

To list all APIs in a project:

```
gcloud api-gateway apis list --project=PROJECT_ID
```

This command returns output in the form:

NAME	STATE	DISPLAY_NAME	MANAGED_SERVICE
projects/PROJECT_ID/locations/global/apis/API_ID	API_ID		
API_ID.apigateway.PROJECT_ID.cloud.goog	ACTIVE		

Use the project ID and API ID to obtain detailed information about the API:

```
gcloud api-gateway apis describe API_ID --project=PROJECT_ID
```

Updating an API

After creation, you can update the labels and display name of an existing API. Use the following `gcloud` options to update an existing API:

- `--display-name`
- `--update-labels`
- `--clear-labels`
- `--remove-labels`

For example:

```
gcloud api-gateway apis update API_ID --project=PROJECT_ID \
  --update-labels=a=1,b=2
```

Use the following command to view all update options:

```
gcloud api-gateway apis update --help
```

Deleting an API

To delete an API you must:

- Delete the API configs associated with the API.
- Delete the API.

Note: If you deployed an API config to a gateway, then deleting the API causes the gateway to stop serving traffic. However, you are not required to delete the gateway. Instead, you can deploy an API config from a different API to the gateway.

To delete an API:

1. Determine the list of API configs associated with the API:

```
gcloud api-gateway api-configs list --api=API_ID --project=PROJECT_ID
```

2. Delete each API config associated with the API:

```
gcloud api-gateway api-configs delete CONFIG_ID --api=API_ID --project=PROJECT_ID
```

3. Delete the API:

```
gcloud api-gateway apis delete API_ID --project=PROJECT_ID
```

What's next

[Creating an API config](#)

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