

Authenticating to the Cloud Vision API

Using a service account

Using a service account to authenticate is the preferred method. To use a service account to authenticate to the Vision API:

1. Follow the instructions to [create a service account](#) (https://cloud.google.com/iam/docs/creating-managing-service-accounts#creating_a_service_account)
 - . Select **JSON** as your key type.

Once complete, your service account key is downloaded to your browser's default location.

Next, decide whether you'll provide your service account authentication as a **bearer token** or using **application default credentials**.

Bearer tokens

If you're calling the Vision API directly, such as by making an HTTP request with cURL, you'll pass your authentication as a bearer token in an **Authorization** header. To obtain a bearer token using your service account:

1. [Install the gcloud command line tool](#) (<https://cloud.google.com/sdk/downloads#interactive>).
2. Authenticate to your service account, replacing **KEY_FILE** below with the path to your service account key file:

```
gcloud auth activate-service-account --key-file KEY_FILE
```



3. Obtain an authorization token using your service account:

```
gcloud auth print-access-token
```



The command returns an access token value.

4. When calling the API, obtain an authorization token using your service account in an **Authorization** header:

```
curl -s -H "Authorization: Bearer $(gcloud auth application-default print-access-token)" \
-H "Content-Type: application/json" \
"https://vision.googleapis.com/v1/images:annotate" -d @request.json
```

Application default credentials

If you're using a client library to call the Vision API, use [Application Default Credentials](https://developers.google.com/identity/protocols/application-default-credentials) (ADC) (<https://developers.google.com/identity/protocols/application-default-credentials>). Services using ADC look for credentials within a `GOOGLE_APPLICATION_CREDENTIALS` environment variable. Unless you specifically wish to have ADC use other credentials (for example, user credentials), we recommend you set this environment variable to point to your service account key file.

```
export GOOGLE_APPLICATION_CREDENTIALS=PATH_TO_KEY_FILE
```

Replace `PATH_TO_KEY_FILE` with the path to your JSON service account file. `GOOGLE_APPLICATION_CREDENTIALS` should be written out as-is (it's not a placeholder in the example above).

Using an API key

You can use a Google Cloud Console API key to authenticate to the Vision API.

To do so:

1. Follow the instructions to [create an API key for your Google Cloud Console project](https://support.google.com/cloud/answer/6158862?hl=en) (<https://support.google.com/cloud/answer/6158862?hl=en>).
2. When making any Vision API request, pass your key as the value of a `key` parameter. For example:

```
POST https://vision.googleapis.com/v1/images:annotate?key=YOUR_API_KEY
```

Make sure to read [Best practices for securely using API keys](https://support.google.com/cloud/answer/6310037?hl=en&ref_topic=6262490) (https://support.google.com/cloud/answer/6310037?hl=en&ref_topic=6262490) to prevent unauthorized use of your API key.

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