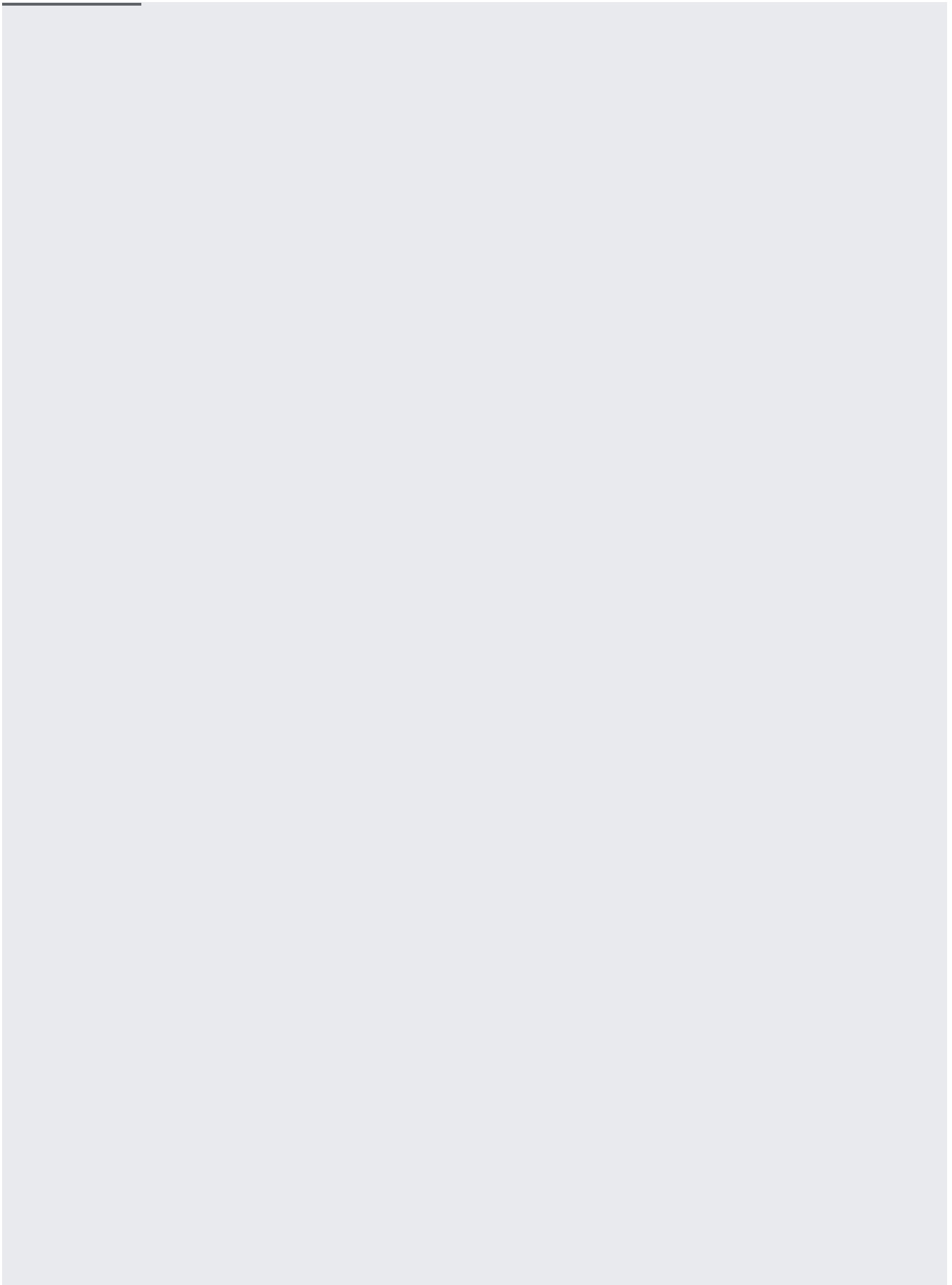This page explains the different request endpoints (URIs) you can use to access Cloud Storage.

The Cloud Storage URIs described on this page are subject to change.

When making requests directly to one of the Cloud Storage APIs, use the following URIs:

For connections through a proxy, see the Troubleshooting topic (/storage/docs/troubleshooting#proxy-server) for recommended practices.

In addition to general bucket and object naming considerations (/storage/docs/naming), to ensure compatibility across Cloud Storage tools, you should encode the following characters when they appear in either the object name or query string of a request URI:

!, #, $, &, ', (,), *, +, ,, /, :, ;, =, ?, @, [,], and space characters.

For example, if you send a JSON API GET request (/storage/docs/json_api/v1/objects/get) for the object named `foo??bar` in the bucket `example-bucket`, then your request URI should be:

Note that not all of the listed characters must be encoded in every scenario: for example, the /
character *must* be encoded only when rewriting or copying
 (/storage/docs/renaming-copying-moving-objects) with the JSON API and only for the source object in
such a rewrite/copy.

For more information about using percent-encoded for URIs, see Section 3.3 Path
 (https://tools.ietf.org/html/rfc3986#section-3.3) in RFC 3986. Note that encoding is typically handled for
you by client libraries, such as the Cloud Storage Client Libraries (/storage/docs/reference/libraries), so
you can pass the raw object name to them.

A `CNAME` redirect is a special DNS record that lets you use URIs from your own domain to access
resources in Cloud Storage through the XML API without revealing the actual XML API URIs. To do
this, the following URI must be added to the host name portion of your `CNAME` record:

For example, say your domain is `example.com`, and you want to make travel maps available to your
customers. You can create a bucket in Cloud Storage called `travel-maps.example.com`, and then
create a `CNAME` record in DNS that redirects requests from `travel-maps.example.com` to the Cloud
Storage URI. To do this, you publish the following `CNAME` record in DNS:

By doing this, your customers can use the following URL to access a map of Paris:

Your domain registration service should have a way for you to administer your domain, including
adding a `CNAME` resource record. For example, if you use Google Domains, instructions for adding a
resource record can be found on the Google Domains Help page
 (https://support.google.com/domains/answer/3290350), in the **Resource records** drop-down section.

You can use a `CNAME` redirect only with HTTP, not with HTTPS. To serve your content through a custom domain over
n set up a load balancer
pute/docs/load-balancing/http/adding-a-backend-bucket-to-content-based-load-balancing).

When creating a bucket to serve resources for redirect requests, the bucket name must conform to standard DNS na
ntions. See Bucket Name Requirements (/storage/docs/bucket-naming#requirements) for more information.

Authenticated browser downloads use cookie-based authentication. Cookie-based authentication
asks users to sign in to their Google account to establish their identity. The specified Google account
must have appropriate permission to access the resource, granted though IAM policies or Access
Control Lists (/storage/docs/access-control/), in order to perform the browser download.

To download an object using cookie-based authentication, use the following URL, replacing
`[VALUES_IN_BRACKETS]` with the appropriate values:

For example, if you shared an image `london.jpg` from your bucket `example-maps`, the URL would be:

Using HTTPS is required when performing authenticated browser downloads; attempts to use HTTP
redirect to HTTPS. For more information about authenticated browser downloads, see Cookie-based
Authentication (/storage/docs/access-control/cookie-based-authentication).

tant: If you have enabled Cloud Audit Logs Data Access logs (/logging/docs/audit/configure-data-access) on your b
cannot use authenticated browser downloads to access objects in the bucket.

All requests to the `storage.cloud.google.com` URI require authentication. This applies even when `allUsers` have permission to access an object. If you want users to download anonymously accessible objects without authenticating, use the `storage.googleapis.com` URI documented in Direct API requests (#typical). For details and examples, see Accessing Public Data (/storage/docs/access-public-data).

- Upload a file to Cloud Storage (/storage/docs/uploading-objects).

- Download a file from Cloud Storage (/storage/docs/downloading-objects).

- Host a static website (/storage/docs/hosting-static-website).