How to serve WordPress Media from Google Cloud Storage?

Tags: [GCP](#)

Upload WordPress media files to Google Cloud Storage (GCS) and let it handle the image file request delivery to the users, faster.

Google offers [storage in the cloud](#) which you can use to store and serve object data, [static host website](#), mount as a file system, etc. If you are having lots of images on your WP sites and would like to **optimize image files delivery**, then Google cloud storage may be helpful in many ways.

- Reduce bandwidth cost
- Serve content faster through Google low-latency network
- Reduce storage cost

The following, I will explain step-by-step how to **integrate WordPress with Google cloud storage**.

Note: You must [create an account](#) on the Google Cloud Platform to use their service.

Create a Service Account

First, let's get **service account** created which will be used to connect from WordPress.

- Go to Service Accounts under IAM & Admin ([direct link](#))
- Click create a service account
- Enter the **service account name** and description and click Create

Create service account

① Service account details — ② Grant this service account access to project (optional) — ③ Grant users access to this service account (optional)

Service account details

Service account name
geekflare-blog

Display name for this service account

Service account ID
geekflare-blog   @geek-flare—blog.iam.gserviceaccount.com ✕ C

Service account description
Used by Geekflare blog to offload WP Media files

Describe what this service account will do

CREATE   CANCEL

- It will take you to the next step where you need to assign a role as **Storage Admin.** Click Continue

✓ Service account details — ② Grant this service account access to project (optional) — ③ Grant users access to this service account (optional)

Service account permissions (optional)

Grant this service account access to Production - GF-SR so that it has permission to complete specific actions on the resources in your project. Learn more

Role
Storage Admin   ▼   🗑
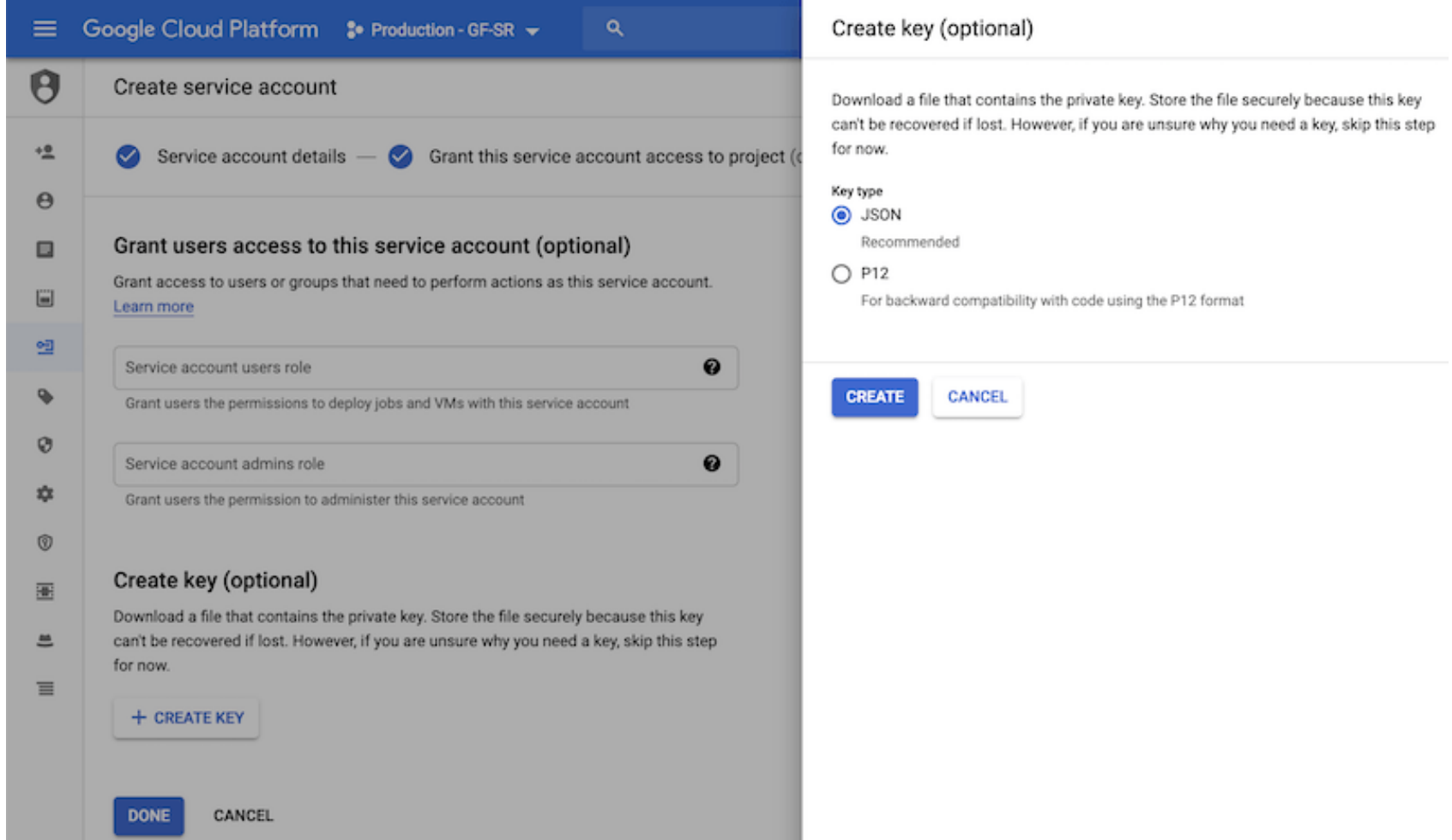
Full control of GCS resources.

+ ADD ANOTHER ROLE

CONTINUE   CANCEL

- On the next screen, click Create Key. It will prompt another wizard on the right side, where you choose JSON and create
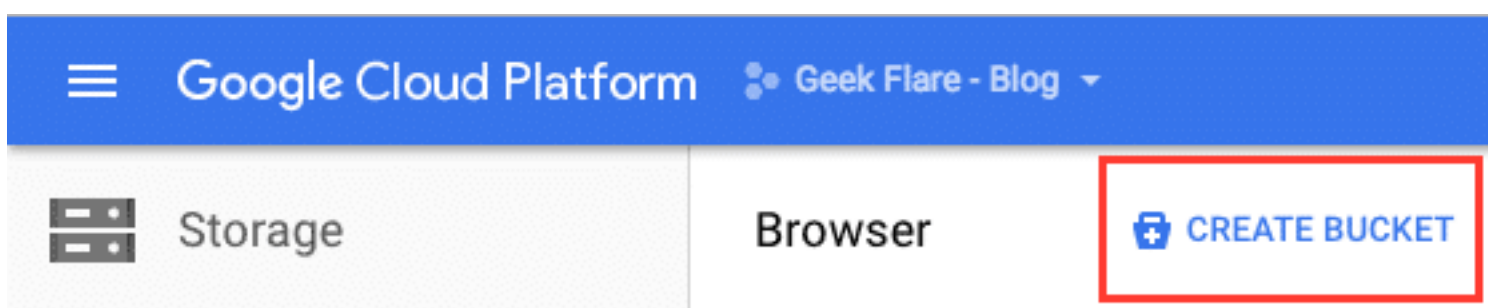
- It will take a few seconds and download the JSON file. Keep it in a secure place.
- Close the service account wizard by clicking DONE.

Create Storage Bucket

Second, It's time to **create the bucket** which will be used to store the WP media files

- Login to Google cloud and go to storage >> browser ([direct link](#))
- Click **Create Bucket**

- Enter the **bucket name** (must be unique)
- Select **storage class** (let it be multi-regional for better performance)
- Select **a multi-regional location** (choose where your users are)
- Choose **set object level bucket permissions** and click Create

← **Create a bucket**

Name ⍰
Must be unique across Cloud Storage. If you're serving website content, enter the website domain as the name.

geekflare-blog

Default storage class
Objects added to this bucket are assigned the selected storage class by default. An object's storage class and bucket location affect its geo-redundancy, availability, and costs. You can set storage classes for individual objects in gsutil. Learn more

ⓘ Nearline and Coldline data in multi-regional locations is now stored geo-redundantly. New locations nam4 and eur4 (available in beta) enable co-location of compute and storage for high performance with geo-redundancy. Learn more   **Dismiss**

⦿ Multi-Regional
◯ Regional
◯ Nearline
◯ Coldline

Location

United States   ▼

Compare storage classes

Storage cost	Retrieval cost	Class A operations ⍰	Class B operations ⍰
$0.026 per GB-month	Free	$0.005 per 1,000 ops	$0.0004 per 1,000 ops

Access control model
Choose how you'll control access to this bucket's objects. Learn more

◯ Set permissions uniformly at bucket-level (Bucket Policy Only)
Enforces the bucket's IAM policy without object ACLs. May help prevent unintended access. If selected, this option becomes permanent after 90 days.

⦿ Set object-level and bucket-level permissions
Enforces the IAM policy and object ACLs for more granular control of object access.

⌄ Show advanced settings

Create Cancel

- It will take a few seconds, and you will see the newly created bucket on the list.

Let's make the **bucket object readable** by default to all the users so the

site visitors can view the media files.

- Click on a newly created bucket on the list
- Go to the permissions tab and click Add members
- Enter **allUsers** in members field and select Storage Object Viewer as a role and click Add

Note: be careful in assigning a role to `AllUsers`. Giving admin or owner permission will cause anyone to take control of it. So ensure, only viewer role is granted.

Well done! Storage bucket is ready to use. Let's connect with WordPress.

Integrate WP with GCS

There are two easy ways to get this done.

First, by using the [WP-Stateless plugin](#) (it is FREE). Usability Dynamics develop this plugin. It lets you quickly configure and upload images to GCS bucket whenever you uploaded to WP media library and served directly when requested.

The plugin gives you an option to store the files locally on the server as well which I would recommend so in future if you don't want to use GCS, you can deactivate the plugin and don't have to copy images back.

Sounds good?

- Login to WP Admin and install >> activate the plugin

WP-Stateless – Google Cloud Storage

Upload and serve your WordPress media files from Google Cloud Storage.

By *Usability Dynamics, Inc.*

Install Now

More Details

★★★★½ (22)

3,000+ Active Installations

Last Updated: 6 days ago

✓ **Compatible** with your version of WordPress

- It will take you the wizard, don't do anything here. Instead, go to the stateless settings under Media

WP-Stateless ☁

Upload and serve your WordPress media files from Google Cloud Storage.

Begin Setup Assistant

or read manual setup instructions.

Media Uploaded to Google Cloud   Google Cloud Serves Media   Managed by WP-Stateless

Let's go through some of the settings to understand the configuration.

- Mode – choose CDN, so files are copied to GCS and serve directly from Google

- Bucket – enter the bucket name which you created
- Paste the content of downloaded JSON file into **service account JSON** field
- Enable delete GCS files so when you delete files from your WP; it will be removed from GCS as well
- Click save changes

Settings	Sync	Compatibility	Support

General

Mode

○ Disabled   Disable Stateless Media.

○ Backup   Upload media files to Google Storage and serve local file urls.

◉ CDN   Copy media files to Google Storage and serve them directly from there.

○ Stateless   Store and serve media files with Google Cloud Storage only. Media files are not stored locally.

File URL Replacement

Disable ◆

Scans post content and meta during presentation and replaces local media file urls with GCS urls. When selecting meta or true a

Google Cloud Storage (GCS)

Bucket

geekflare-blog

The name of the GCS bucket.

Bucket Folder

If you would like files to be uploaded into a particular folder within the bucket, define that path here.

Service Account JSON

IgxODEWS\ng2VEONYqNYDS4yEiesI7OpMJYWOITXDUS4sIKWUSUOSUaNJUWXILIUUJWIUIUKUU\IIUCUU
YqV1AgMBAAECggEACR3Dr89sMp8+LCblq/22aYbwu0CHoX6JnYsJEeEfdfWM\nutLbBmBwRkA26iGu
pOeBk/vPxW1ewL+QfDX2pDoA3B6kJPcnrTtKTR5b4v+hIUZv\nRE7asLupWKistOJE7OYedIhBhPA2vJj
A+MBfaYrCcCL0b48nNXg0SADoM7JIsgYi\nMT/S5oliZyQk9wicfolBtalD2PBCighQwwQsXS4ptLT7hm
wrZYCfSdsN0n4OKcQJ\nE0R880ND0haPJUbJSxoZnBmtf99xgK7O0t+2CzsODi5IEner18TdTY6c2nS+
OhNo\nBddvzHhtKIPNShma6NiqDRG4Z4tK8taGx0pQprZpEQKBgQDSi+b67iUaMq7pc7bo\ngYgZVAm
KefUwDVugo+xv2JbcOg4Ovm3/OOOzKSrEPIqigV/sH8txDPDpzG/n4cg5\nsVwAao8Gveas/ztBk7W1U
ee7hL9cW8e0LIBjhT+G8pLHX1vKB4xbDB3I6nCEA6L2\nE0YvefSdZsgDFXaPqbw38WZPPQKBgQC48
ekBNtc7+3H7bxNEdcshm9+dRI7SpfkT\nsAutJy7RR7MMvo/0n9I+CXti181nrXhOoGDa0KsyIW5oZK/W
VWad+7WN7j/3ABSP\nR0sYpWnsX36BKOFVbOZTzXtivzBu9DsmeEbBdLXL5IvmxELOTfPKPTqj5ajHo
MUjo\nI/GjFwcSmQKBgHE+0qQRR1+J906V8MGqOjv1WZRj+J858Bi9UsTt6GbXywvfHWbz\ngHWzJM
+cCK1TjPaCO3i5DzORxHcimAGABg4rQnbL2bEfLw4cltXKEixoQE07CHU+\nomflGcBJ5Ozbu5E08ideo
w4xRQectSBKSavrmsi2qcoO11B6aURI0TO5AoGBALL9\nIRcSv14S7W59QrV4Fz8Qv2tShbOC5DvUno
hXKq1q6fPEnkgPQYe+34Z6+xWDQrM9\n7I73oyiSjMdF4xPZITYC/OQ/F/LyRfOg+SICPTCB/0n7iZGGkq
e6b9bS2IoZnwGN\nWFU0ohmRuIB/o3RM50vs1Er5Is8JXqb53ueLitHJAoGBAKz9Haj4ZVxwMe3InphY/

Private key in JSON format for the service account WP-Stateless will use to connect to your Google Cloud project and bucket.

Cache-Control

public, max-age=36000, must-revalidate

Override the default cache control assigned by GCS.

Delete GCS File

Enable ◆

Delete the GCS file when the file is deleted from WordPress.

File URL

Preview

https://storage.googleapis.com/geekflare-blog/2019/03/jt2rqjk2-your-image-name.jpeg

An example file url utilizing all configured settings.

Going forward, whenever you upload new media files, it will be uploaded to GCS bucket and will be served directly from there.

Let's quickly verify it.

I uploaded one png file manually through Media Library and as you can see below the URL address is from Google storage.

If you would like to upload existing images to GCS, then you got to go Sync tab and run. Sync may take some time but once done; you should be able to see all images are getting loaded from Google cloud storage.

Second, you can use a premium plugin called [WP Offload Media](#).

Conclusion

I hope this guide helps you to offload WP media files to Google Cloud and, you see the performance improvement. For caching and other

benefits, you may also consider [WP Rocket](#).