

How to create a Google Service Account for Looker Studio Dashboard

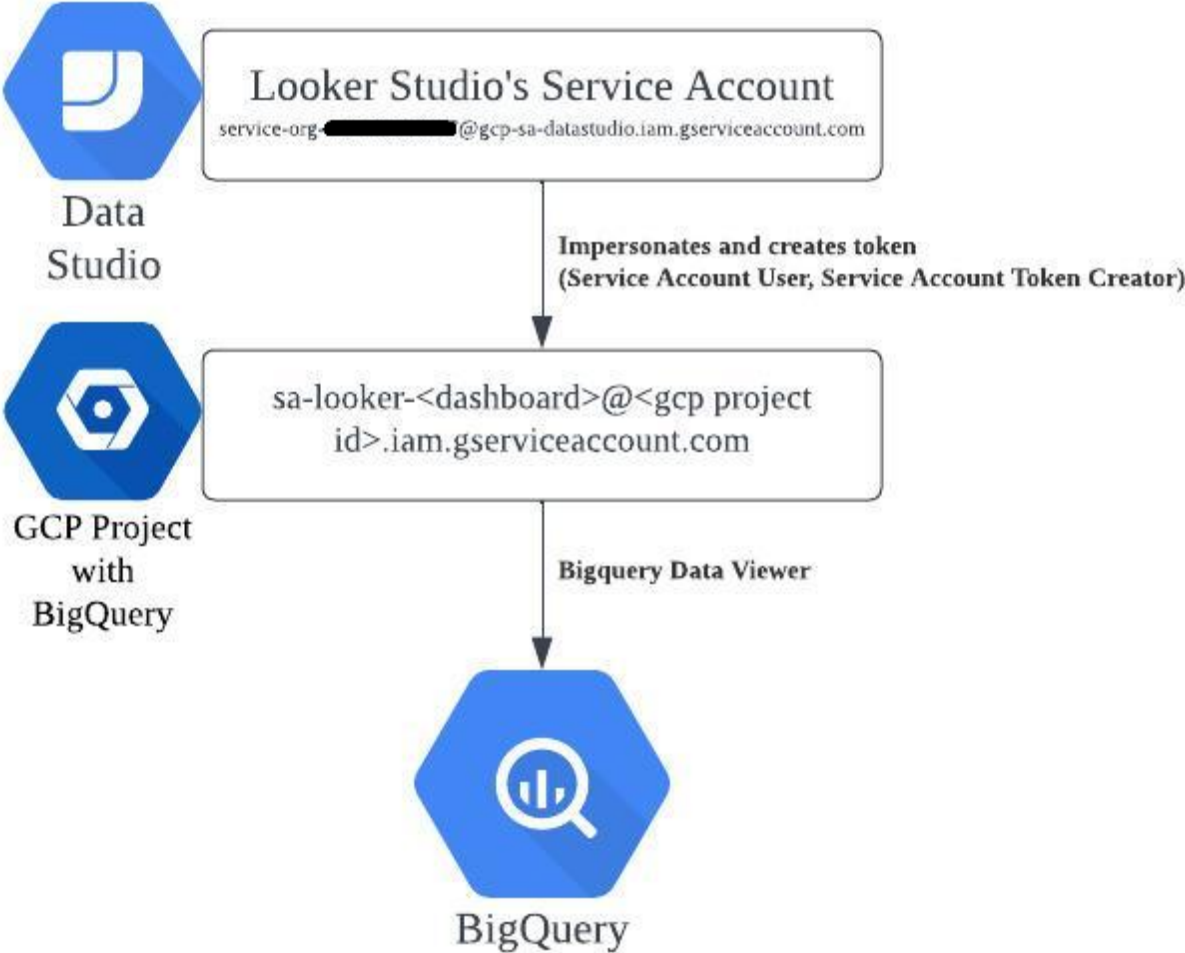
- [What is Google's Service Account \(GSA\) Key?](#)
- [Request for Google's Service Account to be used for the Looker Studio's Dashboard](#)
- [Changing existing BigQuery connection on Looker Studio](#)
- [Why I cannot see the "Service Account Credentials" when trying to create a new connection?](#)
- [How often do I need to rotate my service account key?](#)

What is Google's Service Account (GSA) Key?

Please refer to this [document](#) for the explanation on GSA.

Request for Google's Service Account to be used for the Looker Studio's Dashboard

The illustration below reflects on how Looker Studio connects to GCP BigQuery with the GSAs, without having to manually generates the service account key.



Before you change the BigQuery connection on the Looker Studio Dashboard, you will need to have a GSA created with the correct permission granted to access the data for the dashboard.

1. Submit a request for the creation of GSA (without key) on the required GCP Project that has the data with the following:
 - a. **Naming convention:** sa-looker-<dashboard's name>
 - b. In order for Looker Studio to manage the GSA key, permission to be granted on this service account (*permission **must** be granted on service account level*):
 - i. Allow this GSA service-org-346661825861@gcp-sa-datastudio.iam.gserviceaccount.com (Looker Studio's GSA on the organization level) with following permission:
 1. Service Account User
 2. Service Account Token Creator
 - c. Description of the GSA
"<url of the Looker Studio's dashboard->"
 - d. On the resources, grant the following permission (*recommended to grant only at the dataset's level*):
 - i. BigQuery Data Viewer
 - ii. BigQuery Job User (*Must be granted on Project IAM level*)
 - iii. BigQuery Read Session User (*Must be granted on Project IAM level*)
 - e. For the person who will be making the changes, that person will need to have the following permission to the sa-looker-<dashboard's name> GSA.
 - i. Service Account User (*permission **must** be granted on service account level*)
2. Once the GSA is created, you will need the email of the GSA the connection in the next step.

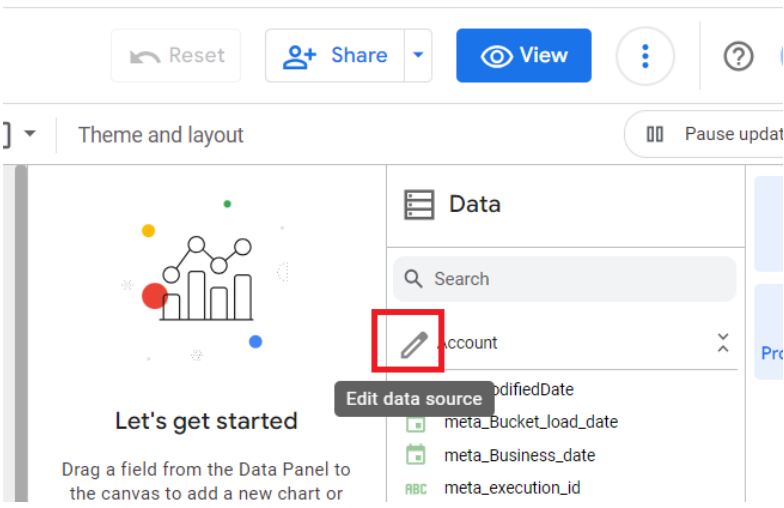
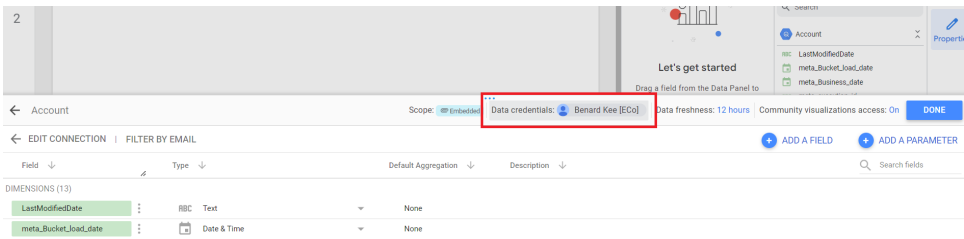
Looker Studio's Usage limitation

Looker Studio's BigQuery connection can only work with GCP and Looker Studio within the same organization.

The connection changes can only be made by that person granted with the "Service Account User" to that specific sa-looker GSA.

Changing existing BigQuery connection on Looker Studio

Looker Studio Users are advised to use Google Cloud Project Service account to bind with the Looker Studio Project as illustrated below:

#	Description	Remarks
1	<p>Edit the existing Data binding account.</p> <p>Go to Looker Studio Data Click Edit</p> <p>(as illustrated in the print screen on the right)</p>	
2	<p>Click on the "Data credentials"</p>	

Choose the "Service Account Credentials" and fill in with the target service account.

(Click Update button to update the config)

Update data credentials
✕

Credentials determine how this data source accesses the data ⓘ

Owner's Credentials
Allows this data source to connect to the underlying data set using the credentials owned by the person below

Credential owner: Benard Kee [ECo]

Service Account Credentials
Allows this data source to connect to the underlying data set using the service account selected below

Service account *

Viewer's Credentials
Requires anyone using this data source to have their own credentials to access the underlying data set.

⚠ Changing credentials may cause people to lose access to the data.
[Learn more](#)

Cancel
Update

Why I cannot see the "Service Account Credentials" when trying to create a new connection?

If you are not able to see the "Service Account Credentials", follow the following steps:

1. Add a Bigquery connection with your own account.
2. After added the connection, change the data connection as per the section on "Changing existing BigQuery connection on Looker Studio".
The "Service Account Credentials" will be shown.

Update data credentials
✕

Credentials determine how this data source accesses the data ⓘ

Owner's Credentials
Allows this data source to connect to the underlying data set using the credentials owned by the person below

Credential owner: Benard Kee [ECo]

Service Account Credentials
Allows this data source to connect to the underlying data set using the service account selected below

Service account *

Viewer's Credentials
Requires anyone using this data source to have their own credentials to access the underlying data set.

⚠ Changing credentials may cause people to lose access to the data.
[Learn more](#)

Cancel
Update

How often do I need to rotate my service account key?

The GSA used for Looker Studio will not require to create a user-managed service account key. Therefore, you do not need to rotate the GSA key.

References:

- <https://support.google.com/looker-studio/answer/10835295?hl=en#>