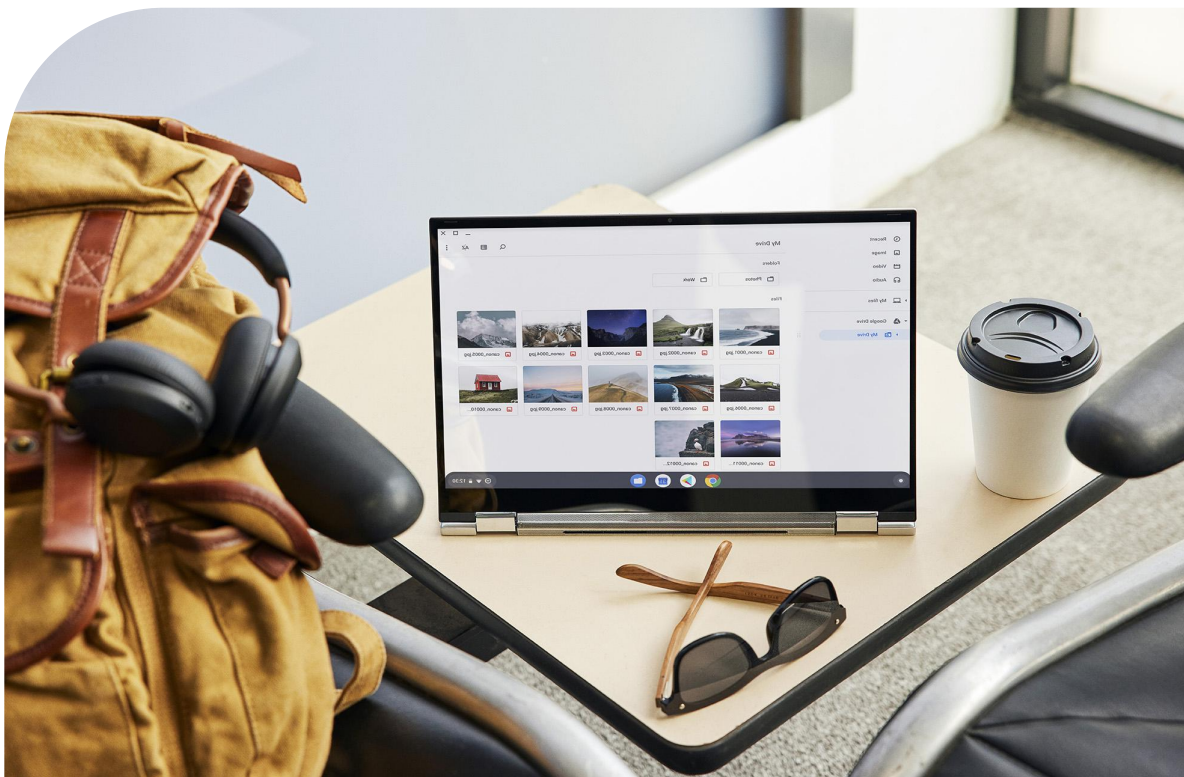
chrome enterprise

Integrate Google Cloud Pub/Sub with Chrome browser in Chrome Browser Cloud Management

June 2023

Table of Contents



Chrome browser events to Google Cloud Pub/Sub topic

The Reporting Connector publishes Chrome browser events to Google Cloud Pub/Sub topics. You must create or choose an existing topic and grant publishing access to the Cloud Pub/Sub Publisher service account of the Chrome Reporting project.

You need to create a Connector configuration in the Google Admin console for each Google Cloud Platform (GCP topic to which you want the reporting connector to publish events). Then, you can choose which Organizational Units should send events to which Connector configuration.

Optionally, you can also set up a Google Cloud Dataflow to redirect the published events to a BigQuery table.

What data gets sent to Google Cloud Pub/Sub from Chrome browser?

The following data is sent from Chrome browser to Google Cloud Pub/Sub once the integration is set up. The data is also logged in the Google Admin console under Reporting>Audit and investigation>Chrome log events. For more information, please review this Help Center article.

Here is a brief overview of just a few of the events captured:

Event value	Description
Malware transfer	The content uploaded or downloaded by the user is considered to be malicious, dangerous, or unwanted
Password changed	The user resets their password for the first-signed-in user account
Password reuse	The user has entered a password into a URL that's outside of the list of allowed enterprise login URLs
Unsafe site visit	The URL visited by the user is considered to be deceptive or malicious

For a complete list of all of the events that can be sent, please review this help center article.

Resources

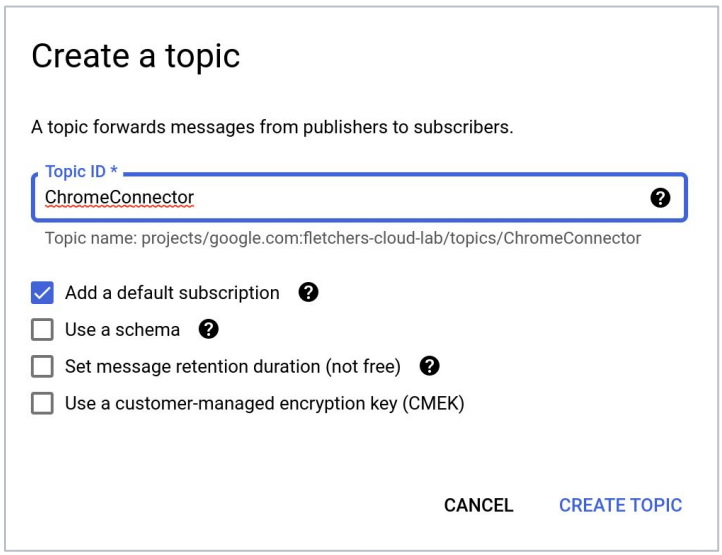
This document will guide you through the process of setting up the integration between Chrome Browser Cloud Management and Google Cloud Pub/Sub. Note that this feature requires devices to be enrolled into Chrome Browser Cloud Management in order for data to be sent.

Here are some useful links:

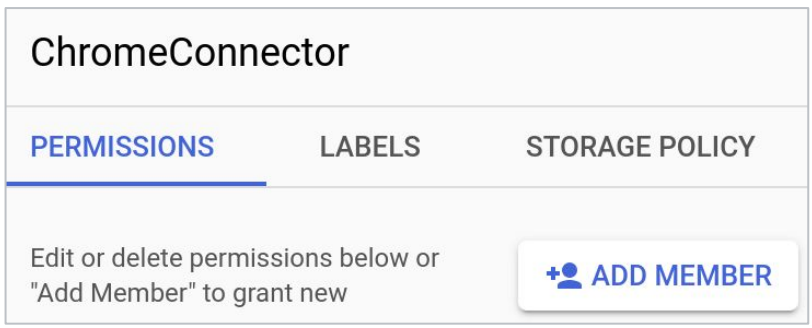
- Setting up Chrome Browser Cloud Management
- Help Center Article for Reporting Connectors
- Best practices for using Chrome Browser Cloud Management

Create or choose an existing topic in Google Cloud Pub/Sub

1. Log into the Google Cloud Platform at console.cloud.google.com.
2. Navigate to the Topics page of the Pub/Sub section.
3. Select an existing topic or click the Create Topic button, giving it a Topic ID, and hit Create Topic.

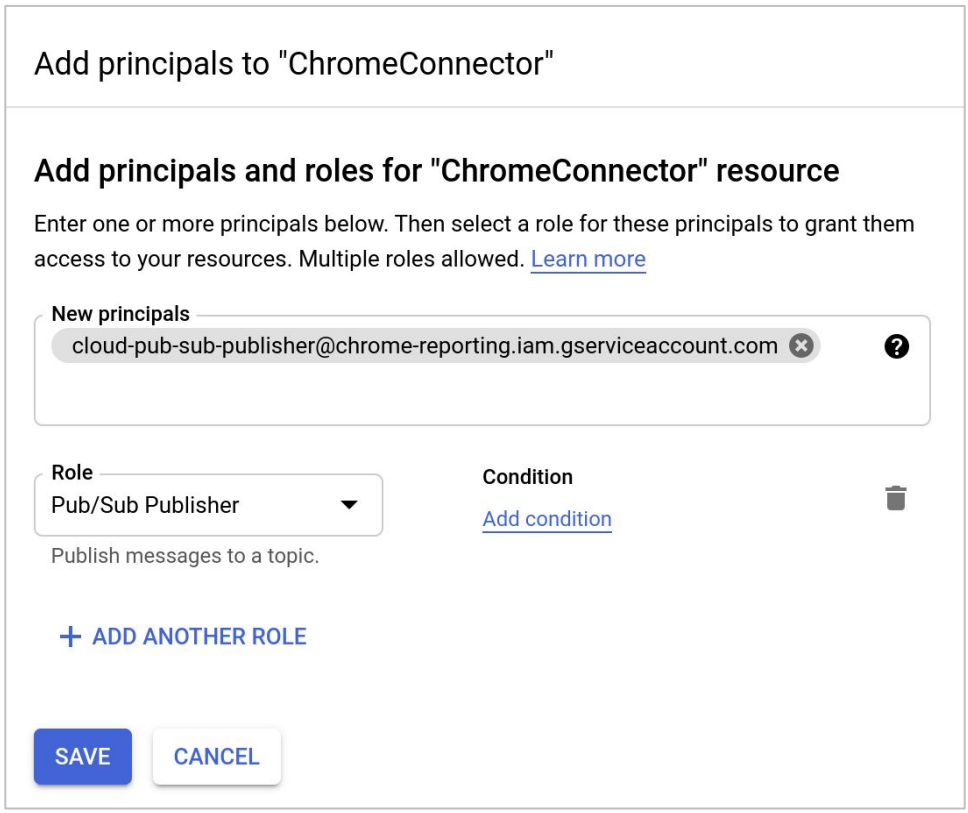


4. Select the topic to receive the events from Chrome and click the Add Member button under the Permissions tab.



Create or choose an existing topic in Google Cloud Pub/Sub

5. Enter the following under New Principals:
   a. cloud-pub-sub-publisher@chrome-reporting.iam.gserviceaccount.com
   This is the account that the Google server is using to make calls to the Publish API of the Pub/Sub Topic, so the topic must grant publishing access to this account.
6. Select the Role as Pub/Sub Publisher and hit save.
7. Copy your topic's full path and save it for the following steps in the Google Admin console.



Set up the Google Cloud Pub/Sub configuration in the Admin Console

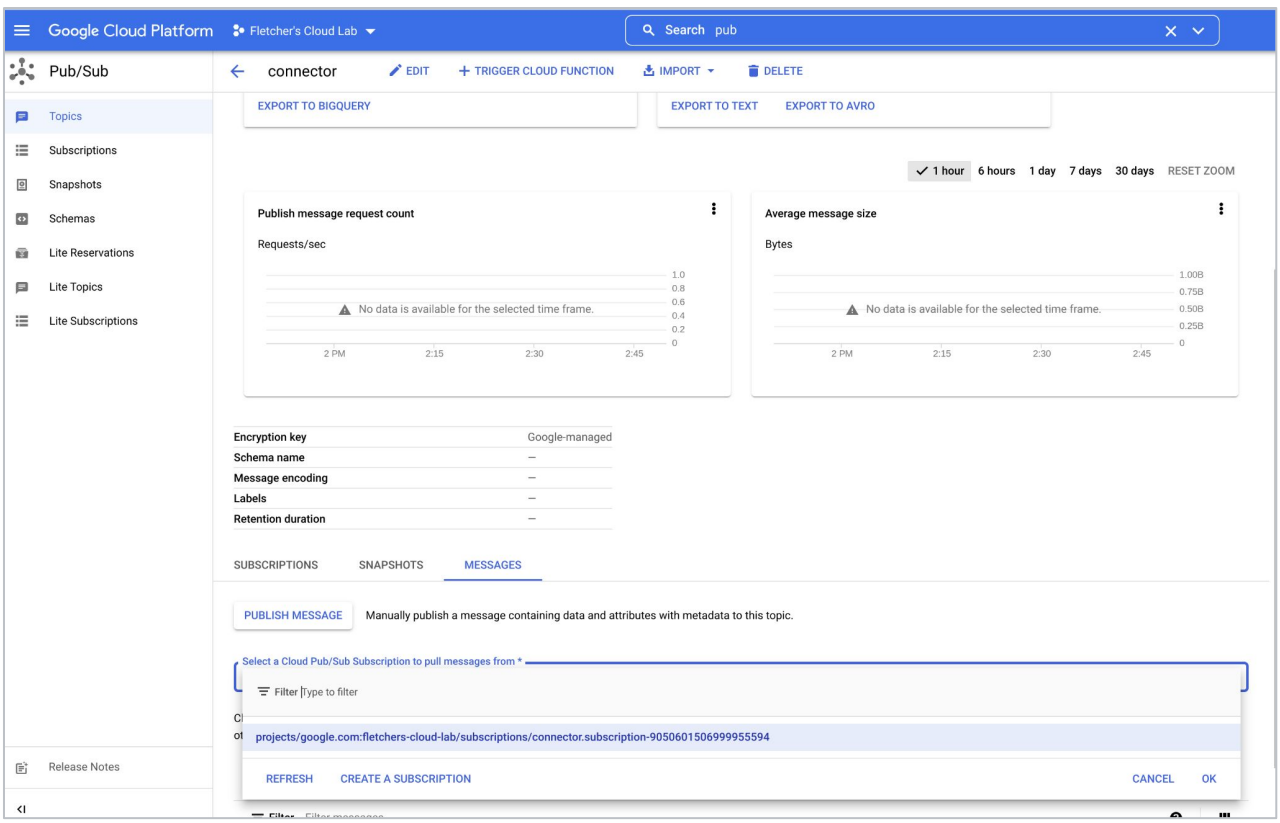
1. Copy your topic name from the Pub/Sub section in GCP and open up admin.google.com.
2. Navigate to Devices>Chrome>Users and browsers. Add a filter for “security events reporting”.
3. Under Security events reporting, select Allow selected events. Under the additional settings you can also specify which events you want to send to Google Cloud Pub/Sub.
4. Now that the events are turned on, click on the blue hyperlink to take you to the connector provider configurations, or it can found under Devices>Chrome>Connectors.
5. Click the New Provider Configuration button and select Google Cloud Pub/Sub as the provider.
6. Enter the configuration name that you want this connector to be displayed as in the Google Admin console.
7. Paste your topic path into the Topic full path field and hit Add Configuration to save.
8. Select the Organizational Unit that the reporting events are turned on in.
9. Select the Chrome Google Cloud Pub/Sub connector created in the previous step and hit Save.

Generate Safe Browsing events to send to Google Cloud Pub/Sub

Set up Safe Browsing events

1. Tests may be generated on your enrolled devices by using http://testsafebrowsing.appspot.com/ and running a few tests like webpage warnings and desktop download warnings.

2. Events generated can be viewed in the Google Cloud Platform console on the details page of the Pub/Sub topic you choose by clicking on the message tab in the middle of the page and selecting an existing subscription or creating a new one to pull the messages:



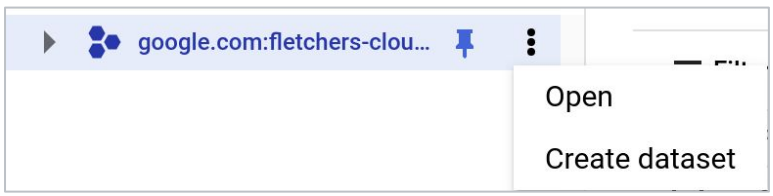
Export Data from Google Cloud Pub/Sub to BigQuery (Optional)

To access the reported events using BigQuery, you must create a table to store them, and then create a data flow to redirect and convert the published events to the BigQuery table.

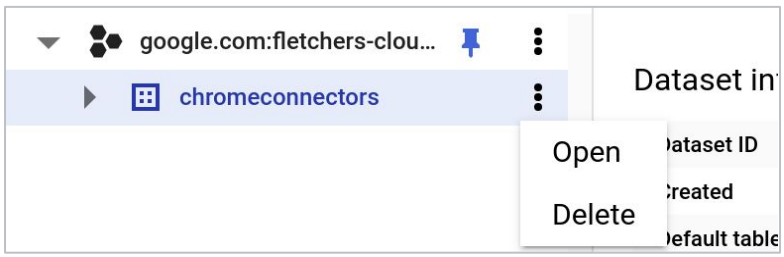
Creating a new table

1. Open Google Cloud Platform console and navigate to the Cloud Storage section.
2. Create a new storage bucket, select the configuration tab and save the GSutil URI for later.

3. Navigate to the BigQuery section and select your project, or create a new one, and hit the three dots and select Create dataset.
4. Give the dataset a name, leave the defaults and select Create dataset.



5. Select the dataset you created in the previous step, click the three dots, and select Open.

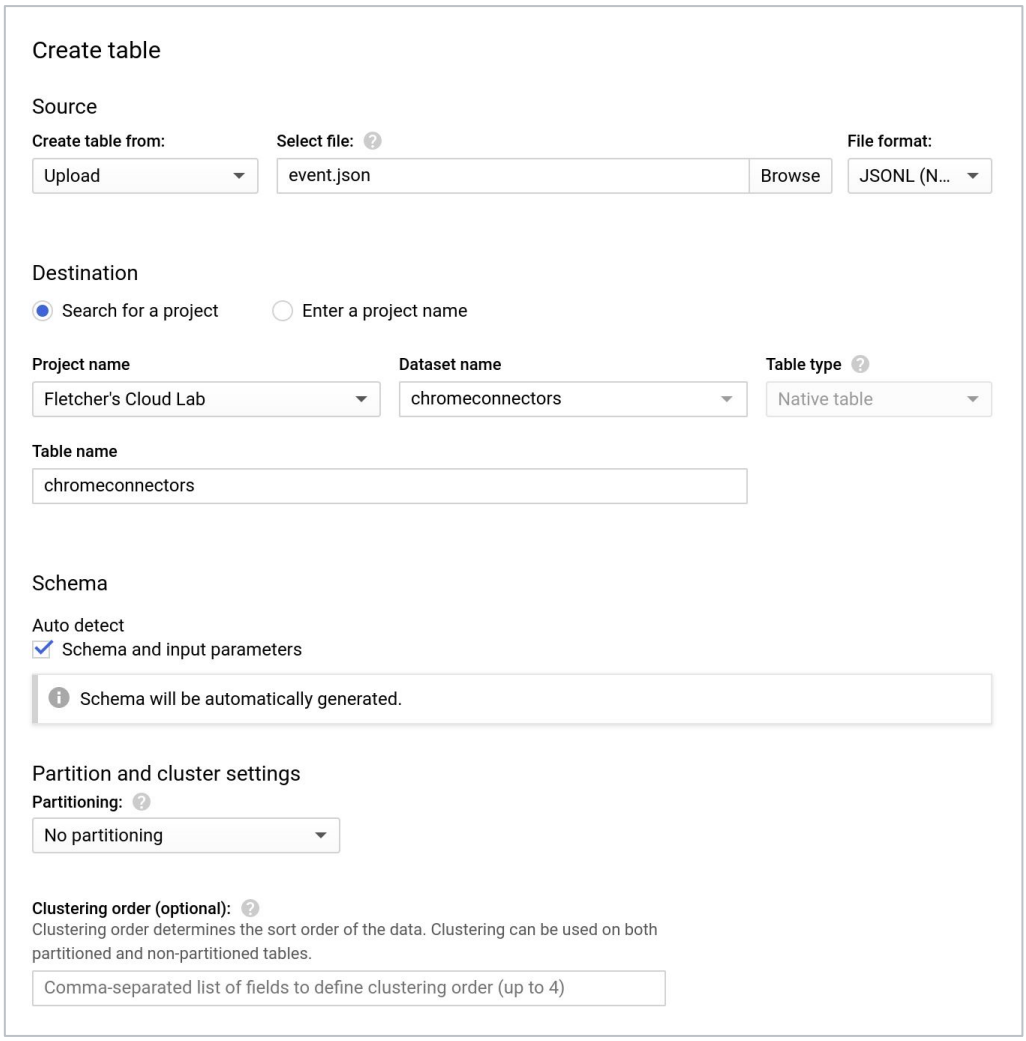


6. Copy your topic name from the Pub/Sub section in GCP and open up admin.google.com.

Export Data from Google Cloud Pub/Sub to BigQuery (Optional)

7. Give the table a name and select Create Table from Upload and select the provided event.json file.

8. Check the box for Schema and input parameters and hit Create Table.

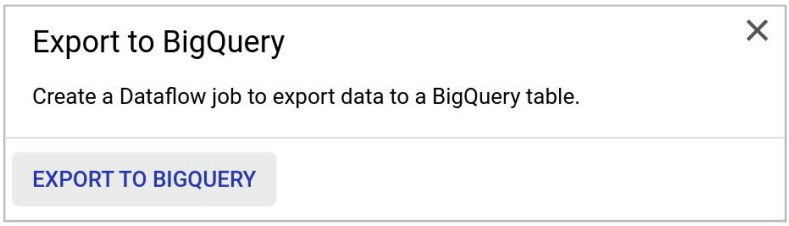


9. Select your new table >open>details and copy the Table ID field to your clipboard.

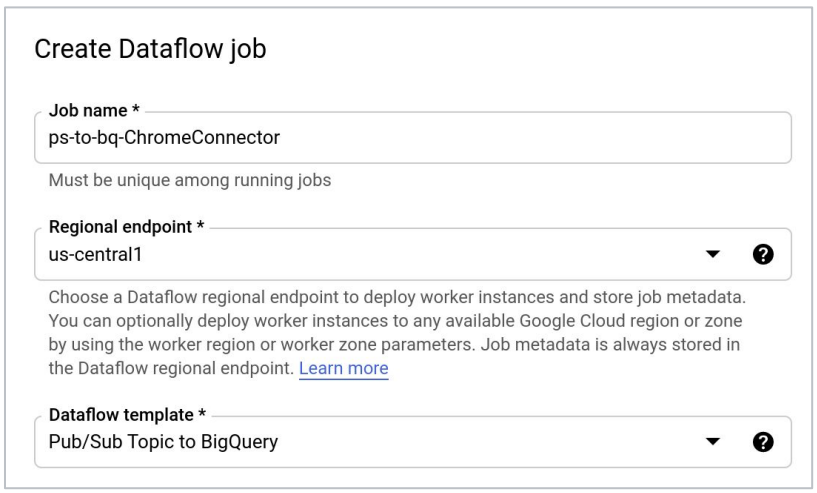
Export Data from Google Cloud Pub/Sub to BigQuery (Optional)

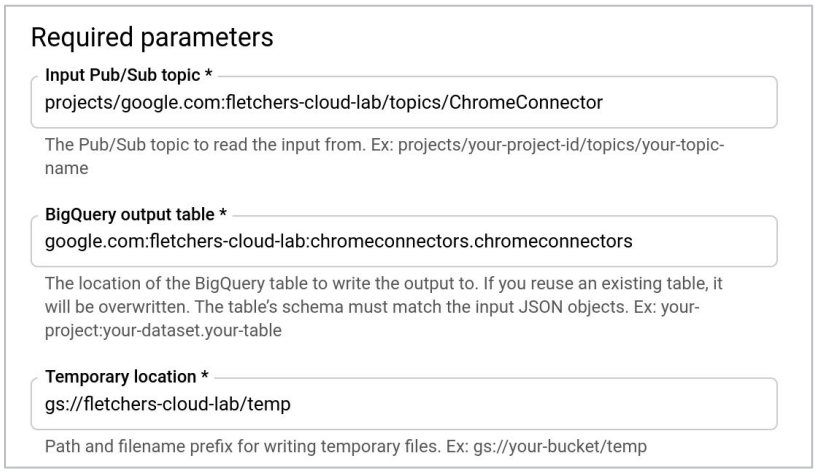
Create a data flow

1. In the Google Cloud Console under the Pub/Sub section, select your Topic created in the previous steps.
2. Hit the Export to BigQuery button.



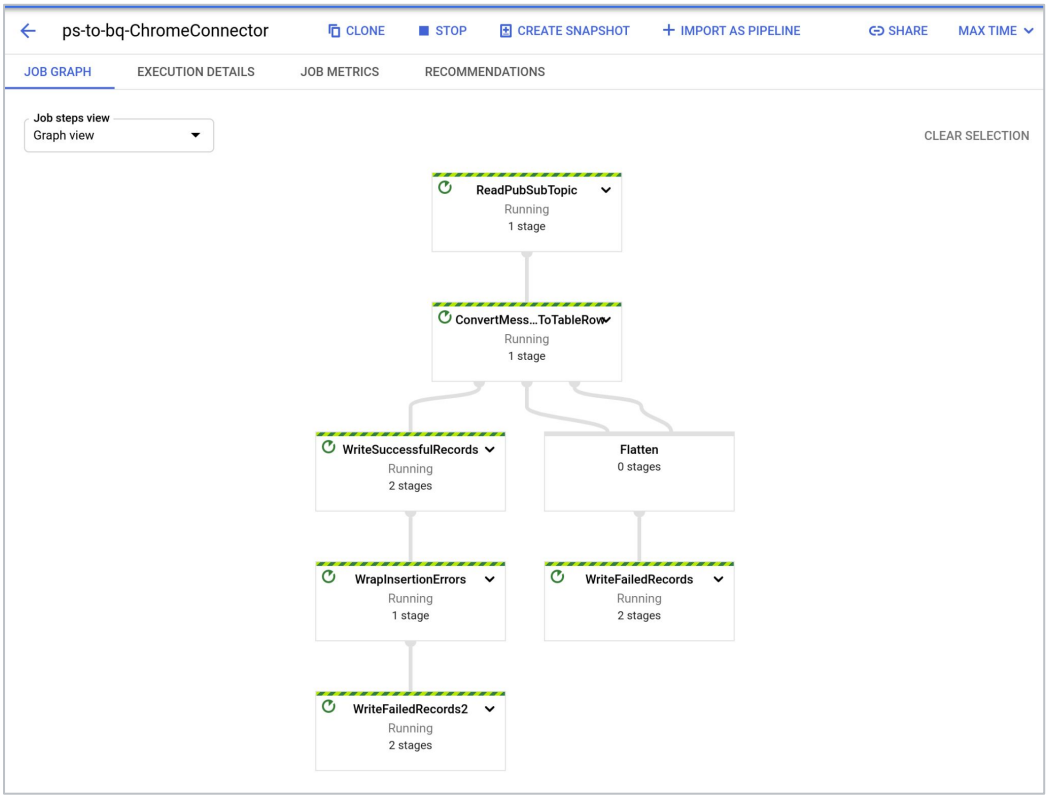
3. Create a new name or use the default Job name.
4. Enter in your topic location (located in the Topic main page) under the Input Pub/Sub topic field.
5. Enter in your storage bucket GSutil URI from step one under BigQuery output table field adding /temp to the end of the string and hit Run Job.



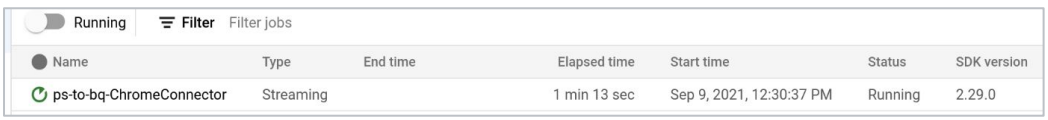


Export Data from Google Cloud Pub/Sub to BigQuery (Optional)

6 Details of the job can be viewed by hitting the view details on the toast popup. The job should have a green color like the following example.



7 Hitting the back button should also show a green circle next to the job if it is running correctly.



8 Events can then be viewed under the BigQuery section by selecting the table that you created previously and hitting the Preview button to view the events. You can also write queries to look for specific events.