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# Controlling recommendations data processing

## Beta

This product or feature is in a pre-release state and might change or have limited support. For more information, see the [product launch stages](https://cloud.google.com/products/#product-launch-stages) (https://cloud.google.com/products/#product-launch-stages).

This topic describes how to control which [recommendations](https://cloud.google.com/recommender/docs) (https://cloud.google.com/recommender/docs) can process the data generated by your organization's usage of services in Google Cloud.

## Overview

Google Cloud collects data when customers use its services. Google Cloud uses this data to provide insights and recommendations via the Google Cloud Console and the [Recommender](https://cloud.google.com/recommender/docs) (https://cloud.google.com/recommender/docs) to help customers use Google Cloud services more securely and efficiently.

This data does not include customer data. Admins can stop the processing of this data for the purpose of providing these recommendations at any time and can view any personal data used to generate these recommendations.

## Opting in and out of recommendations data processing

By default, all organizations and projects receive recommendations when they are created in Google Cloud. To opt out of these recommendations for your organization, you must either be the **Owner** of the organization or project, or you must have been granted the *Data Processing Controls Resource Admin* role (`roles/dataprocessing.admin`) in Cloud Identity and Access Management (Cloud IAM).

To opt out of recommendations, follow the steps below:

1. Open the IAM page in the Cloud Console.

**OPEN THE IAM PAGE** ([HTTPS://CONSOLE.CLOUD.GOOGLE.COM/IAM-ADMIN/IAM](https://console.cloud.google.com/iam-admin/iam))

2. From the resource selector drop-down, ensure that you're in the organization for which you want to change recommendations data.

3. From the **IAM & admin** pane on the left, click **Privacy & Security**.

4. From the list of items, locate the **Recommendations** section.

5. Move the toggle to the **OFF** position for all the recommenders for which you want to stop data processing.

Starting or stopping recommendations for an organization can take up to 3 business days. After this time you will not receive any recommendations in the Cloud Console or Recommender API if recommendations were stopped.

## Exporting data used to generate recommendations

The Cloud IAM [role recommender](https://cloud.google.com/iam/docs/role-recommendations) (https://cloud.google.com/iam/docs/role-recommendations) uses personal metadata collected during the usage of services in Google Cloud to provide recommendations. This personal metadata can be exported to BigQuery for each project in an organization.

You can use the BigQuery Data Transfer Service for Recommender to export personal metadata used for recommendations by following the steps below.

### BigQuery Data Transfer Service configuration for Cloud IAM role recommender

| Configuration             | Description                      |
|---------------------------|----------------------------------|
| Schedule                  | Every 24 hours, non-configurable |
| Refresh window            | Last 2 days, non-configurable    |
| Maximum backfill duration | Last 60 days.                    |

### Before you begin

Before you create a Recommendations data transfer:

- Verify that you have completed all actions required to enable the [BigQuery Data Transfer Service](https://cloud.google.com/bigquery-transfer/docs/enable-transfer-service) (<https://cloud.google.com/bigquery-transfer/docs/enable-transfer-service>).
- You must allow the BigQuery Data Transfer Service permission to manage your transfer.

★ **Note:** If you are creating the transfer by using the classic BigQuery web UI, allow pop-ups in your browser from [bigquery.cloud.google.com](https://bigquery.cloud.google.com) so that you can view the permissions window.

- Create a [BigQuery dataset](https://cloud.google.com/bigquery/docs/datasets) (<https://cloud.google.com/bigquery/docs/datasets>) to store data.
  - Currently, only datasets in US and EU are supported.
  - The transfer you set up will use the same region as the dataset is created in, and it is immutable once the dataset and transfer are created.

## Required Permissions

The following BigQuery permissions are required to export data:

- `bigquery.transfers.update`: Allows creating the transfer
- `bigquery.datasets.update`: Allows update actions on the target dataset

Ensure that you grant either the *BigQuery Admin* role (`roles/bigquery.admin`), which contains both of these permissions, or create a [custom role](https://cloud.google.com/iam/docs/understanding-custom-roles) (<https://cloud.google.com/iam/docs/understanding-custom-roles>) that has these permissions.

The following Recommender permissions are required to export data:

- `dataProcessing.iamAccessHistory.exportData`: Allows exporting data

Ensure that you grant either the *Data Processing IAM Access History Exporter* role (`roles/dataprocessing.iamAccessHistoryExporter`), which contains this permission, or create a [custom role](https://cloud.google.com/iam/docs/understanding-custom-roles) (<https://cloud.google.com/iam/docs/understanding-custom-roles>) that has this permission.

## Creating a data transfer for personal metadata used for Recommendations

1. Open the Cloud Console.

[GO TO THE CLOUD CONSOLE \(HTTPS://CONSOLE.CLOUD.GOOGLE.COM/\)](https://console.cloud.google.com/)

2. First, enroll

(<https://console.cloud.google.com/marketplace/details/google-recommender-bqds/iam-recommender-aggregated-access>)

the IAM Recommender Aggregated Access datasource.

3. In the navigation pane, click **BigQuery**.

You can also open the BigQuery web UI directly by entering the following URL in your browser.

<https://console.cloud.google.com/bigquery>



Clicking the button below will open the BigQuery web UI directly using your most recently accessed project.

[GO TO THE BIGQUERY WEB UI \(HTTPS://CONSOLE.CLOUD.GOOGLE.COM/BIGQUERY\)](https://console.cloud.google.com/bigquery)

4. Click **Transfers**.
5. Click **Create Transfer**.
6. Click on the **Create Transfer** page.
7. In the **Source type** section, for **Source**, choose **IAM Recommender Aggregated Access**:

#### Source type

Choose a data source from the list below

[EXPLORE DATA SOURCES](#)

8. In the **Transfer config name** section, for **Display name**, enter a name for the transfer such as **My Transfer**. The transfer name can be any value that allows you to easily identify the transfer if you need to modify it later:

#### Transfer config name

Display name \*

My Transfer

9. In the **Schedule options** section, for **Schedule**, leave the default value (**Start now**) or click **Start at a set time**.

- For **Repeats**, choose an option for how often to run the transfer.
- If you choose an option other than Daily, additional options are available. For example, if you choose **Weekly**, an option appears for you to select the day of the week.
- For **Start date and run time**, enter the date and time to start the transfer. If you choose **Start now**, this option is disabled. There will be a 1 day delay before your newly created transfer starts if you choose **Start now** in the schedule.

**Schedule options**

Start now  Start at set time

Repeats \*  
Daily

Start date and run time  
3/12/19, 7:29 PM WET

**i** Every day at 7:29 PM Africa/Casablanca

10. In the **Destination settings** section, for **Destination dataset**, choose the dataset you created to store your data. The transfer will be run in the same region as the dataset. If after creating the transfer, you need to edit the dataset, the new dataset will also have to be setup in the same region.

**Destination settings**

Select the destination for the transfer data

Destination dataset \*  
MyDataset

11. In the **Data source details** section, for a **project number**, enter the appropriate project numbers comma separated. A maximum of 10 projects can be supported in one transfer.

**Edit Transfer**

**Source** V2 Daily aggregated IAM Access Log STAGING

**Display name** test ssmi export

**Schedule** every 24 hours

**Destination dataset** testexportsitel

**project\_numbers** 871427003205

Advanced

## Next steps

- Learn about the [Cloud IAM recommender](https://cloud.google.com/iam/docs/recommender-overview) (<https://cloud.google.com/iam/docs/recommender-overview>).
- Find out how to [review and apply recommendations](https://cloud.google.com/iam/docs/recommender-managing) (<https://cloud.google.com/iam/docs/recommender-managing>).

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