Schedule a Facebook Ads transfer

Preview

This feature is subject to the "Pre-GA Offerings Terms" in the General Service Terms section of the Service Specific Terms (/terms/service-terms#1). Pre-GA features are available "as is" and might have limited support. For more information, see the launch stage descriptions (/products#product-launch-stages).

Note: To get support or provide feedback for this feature, contact dts-preview-support@google.com (mailto:dts-preview-support@google.com).

The BigQuery Data Transfer Service for Facebook Ads connector lets you automatically schedule and manage recurring load jobs from Facebook Ads into BigQuery.

Limitations

Facebook Ads data transfers are subject to the following limitations:

- The minimum interval time between recurring Facebook Ads data transfers is 24 hours. The default interval for a recurring data transfer is 24 hours.

- The BigQuery Data Transfer Service for Facebook Ads only supports a fixed set of tables. Custom reports aren't supported.

- Facebook Ads data transfers have a maximum duration of six hours. A transfer fails if it takes longer than this maximum duration.

- Incremental transfers aren't supported for `AdInsights` and `AdInsightsActions` tables. When you create a data transfer that includes `AdInsights` and `AdInsightsActions` tables, and you specified a date in **Schedule options**, all data that is available for that date is transferred.

- The BigQuery Data Transfer Service supports a refresh window of one day to the `AdInsights` and `AdInsightsActions` tables. The refresh window refers to the number of days that a data transfer will retrieve source data from. When you run a data transfer for

the first time, the data transfer retrieves all source data available within the refresh window.

- The long-lived user access token that is required for Facebook Ads transfers expires after 60 days.

  If your long-lived user access token is expired, you can obtain the new one by navigating to your data transfer details and clicking **Edit**. In the edit transfer page, follow the same steps in Facebook Ads prerequisites (#fb_ads_prereqs) to generate a new long-lived user access token.

Data ingestion from Facebook Ads transfers

When you transfer data from Facebook Ads into BigQuery, the data is loaded into BigQuery tables that are partitioned by date. The table partition that the data is loaded into corresponds to the date from the data source. If you schedule multiple transfers for the same date, BigQuery Data Transfer Service overwrites the partition for that specific date with the latest data. Multiple transfers in the same day or running backfills don't result in duplicate data, and partitions for other dates are not affected.

For `AdInsights` and `AdInsightsAction` tables, the table partition that the data is loaded into corresponds to the date from the data source.

For `AdAccounts` tables, snapshots are taken once a day and stored in the partition of the last transfer run date. The refresh window does not apply to the `AdAccounts` table.

Before you begin

The following sections describe the steps that you need to take before you create a Facebook Ads data transfer.

Facebook Ads prerequisites

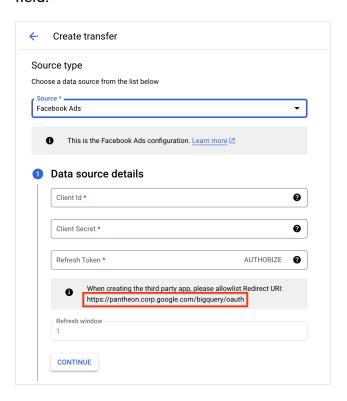Ensure that you have the following Facebook Ads information when creating a Facebook Ads data transfer.

Facebook Ads parameters	Description
`clientID`	The app ID name for the OAuth 2.0 client.
`clientSecret`	The app secret for the OAuth 2.0 client.
`refreshToken`	The long-lived user access token, also known as a *refresh* token.

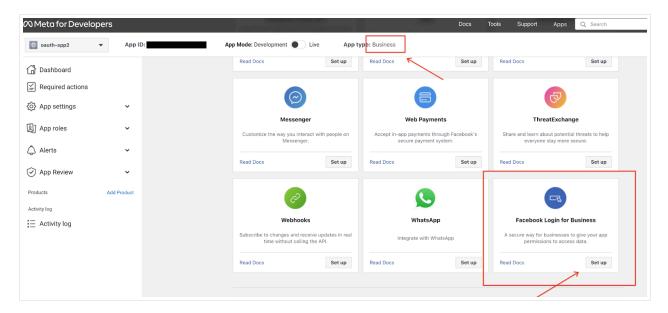To obtain a `clientID` and `clientSecret`, perform the following steps:

1. Create a Facebook developer app
   (https://developers.facebook.com/docs/development/create-an-app/other-app-types) with the app
   type `Business`.

2. In the Facebook App dashboard (https://developers.facebook.com/apps), click **App Settings** >
   Basic and find the app ID and app secret that correspond to the app.

To obtain a long-lived user access token, also known as a *refresh* token, perform the following
steps:

1. In the Google Cloud console, proceed with the steps to create a Facebook Ads transfer
   (#fb_ads_transfer_setup).

2. In the **Data Source Details** section, copy the redirect URI listed after the **Refresh Token**
   field.

3. Click the Facebook App dashboard (https://developers.facebook.com/apps), then click **Set up** in the **Facebook login for Business** section.

4. In the **Settings** page, enter the redirect URL in the **Valid OAuth Redirect URIs** field and click **Save**.

5. Return to the Google Cloud console. In the **Data Source Details** section, click **Authorize**. You will be redirected to a Facebook authentication page.

6. Select the Facebook developer app to authorize the account that connects with the BigQuery Data Transfer Service.

7. Once complete, click **Got it** to return to the Google Cloud console. The long-lived user access token is now populated in the transfer configuration.

Long-lived user access tokens expire after 60 days. For information on how to obtain a new long-lived user access token, see Limitations (#limitations).

Refresh token alternatives

Alternatively, you can provide a refresh token when you create a data transfer (#fb_ads_transfer_setup) if you have obtained one using one of the following methods:

- Generate a long-lived user access token using the Graph API (https://developers.facebook.com/docs/marketing-apis/overview/authentication/). The `ads_management`, `ads_read`, and `business_management` permissions are required for a valid token for the data transfer.

- Generate a system user token (https://www.facebook.com/business/help/503306463479099?id=2190812977867143). A system user token lets you manually add assets, such as ad accounts, to be included in the data transfer. If a system user token is expired, you must manually update the transfer configuration with new credentials. You also have the option to create a token that doesn't expire when you create a system user token. For more information, see Supported access tokens (https://developers.facebook.com/docs/facebook-login/facebook-login-for-business#supported-access-tokens) .

BigQuery prerequisites

- Verify that you have completed all actions required to enable the BigQuery Data Transfer Service (/bigquery/docs/enable-transfer-service).

- Create a BigQuery dataset (/bigquery/docs/datasets) to store your data.

- If you intend to set up transfer run notifications for Pub/Sub, ensure that you have the `pubsub.topics.setIamPolicy` Identity and Access Management (IAM) permission. If you only set up email notifications, Pub/Sub permissions aren't required. For more information, see BigQuery Data Transfer Service run notifications (/bigquery/docs/transfer-run-notifications).

Required BigQuery roles

To get the permissions that you need to create a transfer, ask your administrator to grant you the BigQuery Admin (https://cloud.google.com/iam/docs/understanding-roles#bigquery.admin) (`roles/bigquery.admin`) IAM role. For more information about granting roles, see Manage access (/iam/docs/granting-changing-revoking-access).

This predefined role contains the permissions required to create a transfer. To see the exact permissions that are required, expand the **Required permissions** section:

⊕ **Required permissions**

The following permissions are required to create a transfer:

- `bigquery.transfers.update` on the user

- `bigquery.datasets.get` on the target dataset

- `bigquery.datasets.update` on the target dataset

You might also be able to get these permissions with underline custom roles (/iam/docs/creating-custom-roles) or other predefined roles (/iam/docs/understanding-roles).

Create a Facebook Ads data transfer

Select one of the following options:

Consolebq (#bq)API (#api)
    (#console)

1. Go to the Data transfers page in the Google Cloud console.

   Go to Data transfers (https://console.cloud.google.com/bigquery/transfers)

2. Click **+ Create transfer**.

3. In the **Source type** section, for **Source**, select **Facebook Ads**.

4. In the **Data source details** section, do the following:

   - For **Client ID**, enter the app ID.

   - For **Client secret**, enter the app secret.

   - For **Refresh token**, enter the long-lived user access token ID by clicking **Authorize**. Alternatively, if you already have a refresh token or a system user token (#refresh_token_alternatives), you can enter the refresh token directly in this field.

For information about retrieving a long-lived user access token, see
Facebook Ads Prerequisites
(/bigquery/docs/facebook-ads-transfer#facebook_ads_prerequisites).

5. In the **Destination settings** section, for **Dataset**, select the dataset you created to store your data.

6. In the **Transfer config name** section, for **Display name**, enter a name for the data transfer.

7. In the **Schedule options** section, do the following:

   - In the **Repeat frequency** list, select an option to specify how often this data transfer runs. To specify a custom repeat frequency, select **Custom**. If you select **On-demand**, then this transfer runs when you manually trigger the transfer (/bigquery/docs/working-with-transfers#manually_trigger_a_transfer).

   - If applicable, select either **Start now** or **Start at set time** and provide a start date and run time.

8. Optional: In the **Service Account** menu, select a service account (/iam/docs/service-account-overview) from the service accounts associated with your Google Cloud project. The selected service account must have the required roles (#bq-roles) to run this data transfer.

   If you signed in with a federated identity (/iam/docs/workforce-identity-federation), then a service account is required to create a data transfer. If you signed in with a Google Account (/iam/docs/overview#google_account), then a service account for the data transfer is optional.

   For more information about using service accounts with data transfers, see Use service accounts (/bigquery/docs/use-service-accounts).

9. Optional: In the **Notification options** section, do the following:

   - To enable email notifications, click the **Email notification** toggle. When you enable this option, the transfer administrator receives an email notification when a transfer run fails.

   - To enable Pub/Sub transfer run notifications (/bigquery/docs/transfer-run-notifications) for this data transfer, click the **Pub/Sub notifications** toggle. You can select your topic

(/pubsub/docs/overview#types) name, or you can click **Create a topic** to create one.

10. Click **Save**.

When this data transfer runs, the BigQuery Data Transfer Service automatically populates the following tables.

Table Name	Description
AdAccounts	The ad accounts available for a user.
AdInsights	Ad insights report for all ad accounts.
AdInsightsActions	Ad insights actions report for all ad accounts.

Troubleshoot transfer configuration

If you are having issues setting up a Facebook Ads data transfer, try the following troubleshooting steps:

- Check if your user access token has expired using the Facebook Access Token Debugger (https://developers.facebook.com/tools/debug/accesstoken/). Long-lived user access tokens expire after 60 days. If your long-lived user access token has expired, navigate to your transfer details then click **Edit** to modify your transfer configuration. In the edit transfer page, follow the same steps in Facebook Ads prerequisites (#fb_ads_prereqs) to generate a new one.

- Check that the long-lived user access token is generated with the required permissions - `ads_management`, `ads_read`, and `business_management`. If not, follow the steps in Facebook Ads prerequisites (#fb_ads_prereqs) to generate a new long-lived user access token.

- Check the **Required Actions** tab on the Facebook App dashboard (https://developers.facebook.com/apps) for any items that require attention.

You might encounter the following error messages related to Meta API rate limit errors:

Error: `There have been too many calls from this ad-account. Wait a bit and try again.`

Resolution: Check that there are no parallel workflows using the same apps or credentials. If these errors persist, try upgrading your permissions to **Advanced Access** to get more rate limiting quota. For more information, see Marketing API Rate Limiting (https://developers.facebook.com/docs/marketing-apis/rate-limiting/).

Common monitoring metrics messages

You can also check the BigQuery Data Transfer Service monitoring metrics (/bigquery/docs/dts-monitor#monitor) to determine the cause of a data transfer failure. The following table lists some common `ERROR_CODE` messages for Facebook Ads data transfers.

Error	Description
`INVALID_ARGUMENT`	The supplied configuration is invalid
`PERMISSION_DENIED`	The credentials are invalid
`UNAUTHENTICATED`	Authentication is required
`SERVICE_UNAVAILABLE`	The service is temporarily unable to handle this data transfer
`DEADLINE_EXCEEDED`	The data transfer did not finish within the maximum duration of six hours
`NOT_FOUND`	A requested resource is not found
`INTERNAL`	Something else caused the connector to fail
`RESOURCE_EXHAUSTED`	A data source quota or limit was exhausted

Pricing

There is no cost to transfer Facebook Ads data into BigQuery while this feature is in Preview (https://cloud.google.com/products#product-launch-stages).

What's next

- Learn more about the BigQuery Data Transfer Service (/bigquery/docs/dts-introduction).

- Learn more about <u>working with transfers</u> (/bigquery/docs/working-with-transfers), such as viewing configurations and run history.

- Learn how to <u>load data with cross-cloud operations</u> (/bigquery/docs/load-data-using-cross-cloud-transfer).