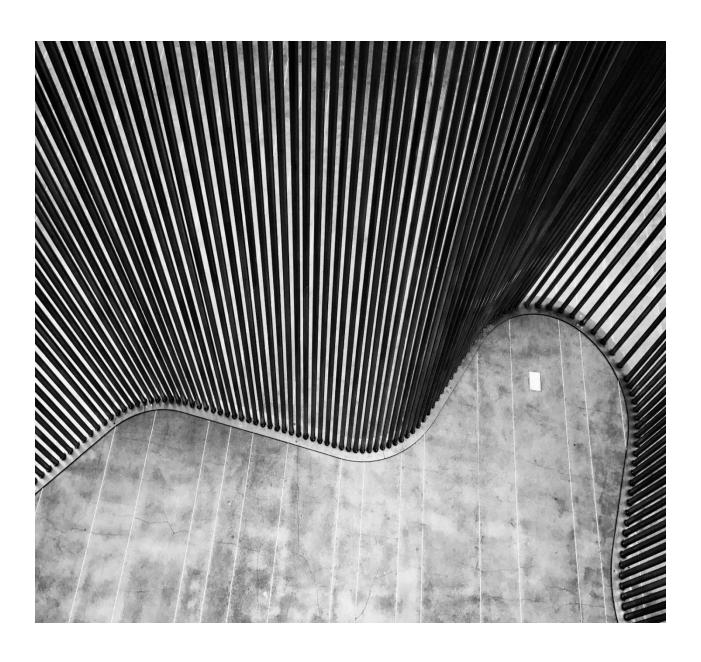
**S&P Global**Market Intelligence

# **Databricks Delta Sharing**

**Cloud-Hosted Data Solution** 



### **Client Support**

Email: support.datafeed.mi@spglobal.com File delivery support is available 24/7/365							
U.S. / Canada / South America	Sales & Support: 1.800.523.4534 or 1.303.721.4802	China	+86.10.6569.2985 8:00 a.m. – 5:00 p.m. local time Monday – Friday				
Mexico	303.721.4802	Japan	+81.3.4550.8350 8:00 a.m. – 5:00 p.m. local time Monday – Friday				
Europe	+44. 20.7176.8580	South Korea	+82.2.2022.2395 8:00 a.m. – 5:00 p.m. local time Monday – Friday				

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## **Document Overview**

#### What You Will Find in this User Guide

This document provides information to help you log into Databricks Delta Sharing, a secure protocol to access live data from S&P Global's lakehouse with your computing platform.

#### **Supporting Documentation**

*Xpressfeed File Delivery Schedule* – This spreadsheet provides expected full and change file delivery times as well as the length of time the files remain on the server.

If you are linking to other S&P Global Market Intelligence datasets, supporting documents are available at <a href="marketplace.spglobal.com">support.marketplace.spglobal.com</a>.

### Cloud-Hosted Data Solution

#### **Databricks Delta Sharing**

Databricks offers advanced and secure data sharing across organizations with direct connections to shared datasets in the cloud. This allows for seamless integration into your existing workflows without the need for time-consuming data ingestion.

As part of our Xpresscloud offering, the Delta Sharing open-source protocol makes data sharing simple regardless of your computing platform, supports a variety of data tools, and is capable of handling massive datasets, making it particularly beneficial for large-scale data analysis.

Databricks Delta Sharing enables:

- Secure sharing of live data without replication.
- Centralized governance through a single point of enforcement.
- Sharing of nontabular data and data derivatives.
- · Internal sharing across business units.
- Peer-to-peer sharing.
- Reduced time to value.

#### Usage

Xpresscloud is a multitenant application in which a single instance of software runs on a server and serves multiple tenants. Multitenancy allows multiple tenants to work in a software environment at the same time, each with their own separate user interface, resources, and services.

Xpresscloud can be accessed by several simultaneously connected users over the internet.

#### **Tracking Databricks Delta Sharing Account Usage**

We collect some metrics for usage, such as the number of records returned, query statements, query runtime, and query cost in terms of compute resource consumed.

#### **Databricks Delta Sharing Access**

S&P Global Market Intelligence shares its data by creating a "share" (a container for your dataset) featuring:

- a database
- a dataset containing objects
- specific objects, e.g., secure tables, and secure UDFs, in each shared dataset

S&P Global shares data through a *Databricks-to-Databricks* Delta Sharing model, which means you must have a Databricks account to subscribe to and access Shares from S&P Global.

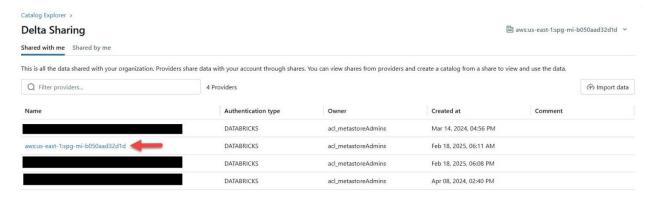
S&P Global will provide a seamless share of licensed data to your account. You must provide the Databricks Metastore ID through which you want to receive S&P Global data, after which you will receive usage privileges to the share in your account.

Follow this <u>link</u> on the Databricks website for more information on how to access and read data via Databricks Delta Sharing.

#### **Creating a Catalog for your Shared Data**

To make shared data from S&P Global accessible to your team, you must create a Catalog from the share.

In your Databricks workspace, click **Catalog** and click on 'Delta Sharing' on your interface. Under the 'Shared with me' tab, you can find the org name (also known as a sharing identifier) associated with S&P Global data, which is **aws:us-east-1:spg-mi-b050aad32d1d**.

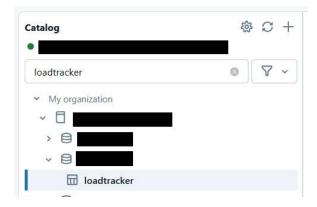


Clicking on this org name will display all the shares you subscribe to from S&P Global.

Follow this <u>link</u> on the Databricks website more information on how to create a catalog for data shared with you, including alternate methods using SQL or the Databricks Unity Catalog CLI.

#### **Tracking Table Load Times**

After creating a Catalog for your shared data, you will be able to access a table called 'loadtracker' associated with the data. You can find this table by using the search bar in the Catalog interface, or by navigating to it in the interface.



The 'loadtracker' table records the loading status of various tables in your data. It includes details such as the last table update time, the last loaded file, and the sequence of loading files. This table can be used to monitor the progress of loaded files and track the frequency of loaded files.

Data in this table is presented as follows:

**PACKAGENAME** (string): The name of the package impacted by the update.

**TABLENAME** (string): The name of the table impacted by the update.

**LASTTABLEUPDATETIME** (timestamp\_ntz): The date and time of the update for the impacted table.

**LASTLOADEDFILE** (string): The name of the .zip file containing the update associated with the LASTTABLEUPDATIME. The filename is a concatenation as follows: (PACKAGENAME)(LASTLOADEDFILETIME)-(LASTLOADEDFILESEQUENCE).zip.

**LASTLOADEDFILETIME** (timestamp\_ntz): The date and time the change file for the update was uploaded to Databricks.

**LASTLOADEDFILESEQUENCE** (decimal(4,0)): A number indicating the recency of the loaded file among all other updates for the impacted table in a given day. For example, a LASTLOADEDFILESEQUENCE of 4 would indicate the file is the 4<sup>th</sup> load of the day. The highest number returned by this field is therefore the latest loaded file.

**Note:** Data with the timestamp\_ntz data type are in the UTC time zone, down to 3 digits of fractional seconds. Follow this <u>link</u> from Databricks for more details on the timestamp\_ntz data type.

## **Advanced Topics**

#### **Change Data Feeds (CDF)**

S&P Global data on Databricks allows you to track change records per table for each package specified, in what are referred to as Change Data Feeds.

Any S&P Global dataset you subscribe to will be accompanied by a corresponding dataset with the same name but appended with \_cdf. This is the Change Data Feed. You can view this to see changes made at specified times to each table in your dataset. Historical records in the Change Data Feeds are restricted to a 60-day period.

Data returned by a Change Data Feed includes the columns from the original dataset, as well as the following notable columns:

**\_change\_type** (string): The nature of the change for a given column in a table. Data returned in this column will be one of the following:

- insert addition of the data for the relevant column
- **update** revision/update of the data for the relevant column you can filter on update preimage or update postimage to identify the updates for a given table
- **delete** removal of the data for the relevant column

**\_commit\_version** (bigint): A Databricks internal version identifier for the published change in data.

**\_commit\_timestamp** (timestamp): The point in time when the data changes were published.

Below is an example of some data from a Change Data Feed.

.00 companyld	ABc _change_type	1 <sup>2</sup> 3 _commit_version	commit_timestamp
24616	insert	216	2025-05-14T03:03:18.000+00:00
26156	insert	216	2025-05-14T03:03:18.000+00:00
27892	insert	216	2025-05-14T03:03:18.000+00:00
20405	turner.	246	2025 05 44702-02-40-000-00-00

In row 1 of this example, there was a new data item '24616' added to the companyld column of the impacted dataset, as indicated by the 'insert' in the corresponding \_change\_type column.

# **Revision History**

Version	Date	Changes
V1.0	05/28/2025	Initial version

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