

Google Cloud BigQuery Native Integration with Delta Lake

The Latest Announcement

Jean Ji, Head of Partner Engineering - Data Analytics
Google Cloud
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Enabling an interoperable data ecosystem



Lakehouse Platform

Mosaic AI | Delta Live Tables | Workflows | Databricks SQL

DatabricksIQ

Unity Catalog

Delta Lake UniForm

Integrated



Analytics Platform



Pub/Sub



BigQuery



Looker



Vertex AI



Open data lake with Databricks on Google Cloud



Google
Kubernetes Engine

The first fully container-based
Databricks runtime on any cloud



Identity & Access
Management

Secure access to systems, data,
and resources



Google Cloud
Marketplace

Simplified deployment and unified
billing

BigQuery adds native support for Delta Lake

Public Preview Features



- Query and Load Delta Lake tables
 - Reader version 3 with advanced feature support including deletion vectors, column mapping and merge on read
 - Pruning using partition columns and metadata stats
- Row and column level security
- Support for AWS Glue federated datasets
- Available on Google Cloud Storage, and Amazon S3 and Azure Storage

BigQuery operations with Delta Lake

- Create a table

```
Unset
CREATE EXTERNAL TABLE `PROJECT_ID.DATASET.DELTALAKE_TABLE_NAME`
WITH CONNECTION `PROJECT_ID.REGION.CONNECTION_ID`
OPTIONS (
  format = "DELTA_LAKE",
  uris=['DELTA_TABLE_GCS_BASE_PATH']);
```

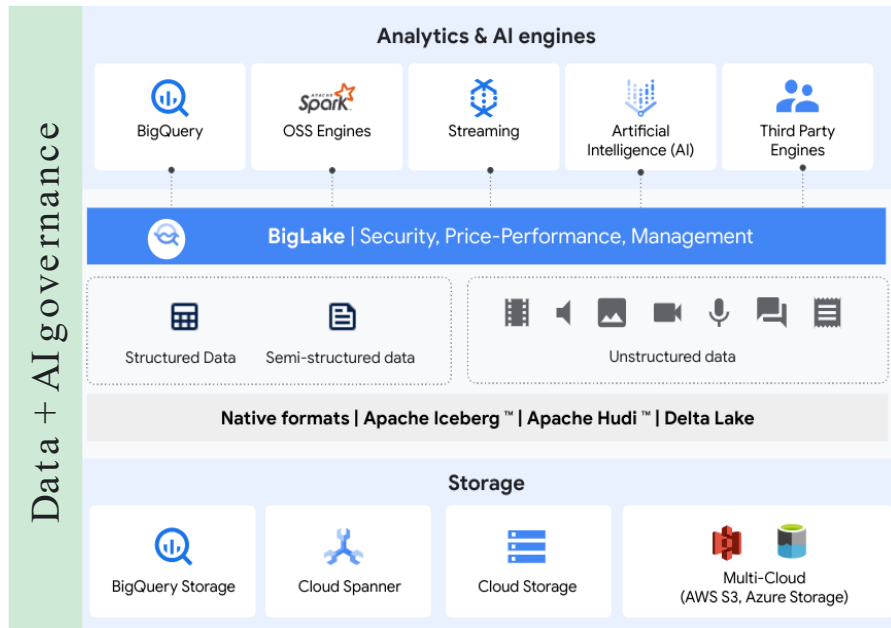
- Query a table

```
Unset
SELECT field1, field2 FROM mydataset.my_cloud_storage_table;
```

- Automatic schema management

```
Unset
bq update --autodetect_schema PROJECT_ID :DATASET.DELTALAKE_TABLE_NAME
```

Data interoperability enabling a unified AI-ready data platform



- **Secure & governed lakehouse:** Leverage BigLake's fine-grained security model to manage all data
- **Seamless data sharing across orgs:** Securely exchange multi-format data using [Analytics Hub](#)
- **Accelerated data insights:** Run advanced analytics and ML workloads using [BigQuery ML](#) or [Vertex AI](#), and deliver AI-powered BI experience through [Looker](#)

Resources

- BigQuery native support for Delta Lake announcements from:
 - [Google Cloud](#)
 - [Databricks](#)
 - [Delta.io](#)
 - [Linux Foundation](#)

- “How to” Guides
 - [Create Delta Lake BigLake tables](#)
 - [Create Cloud resource connection](#)
 - [Column-level security](#)
 - [Create machine learning model](#)

Q&A

Thank You!

