



SNOWFLAKE PLATFORM

Technical Deep Dive

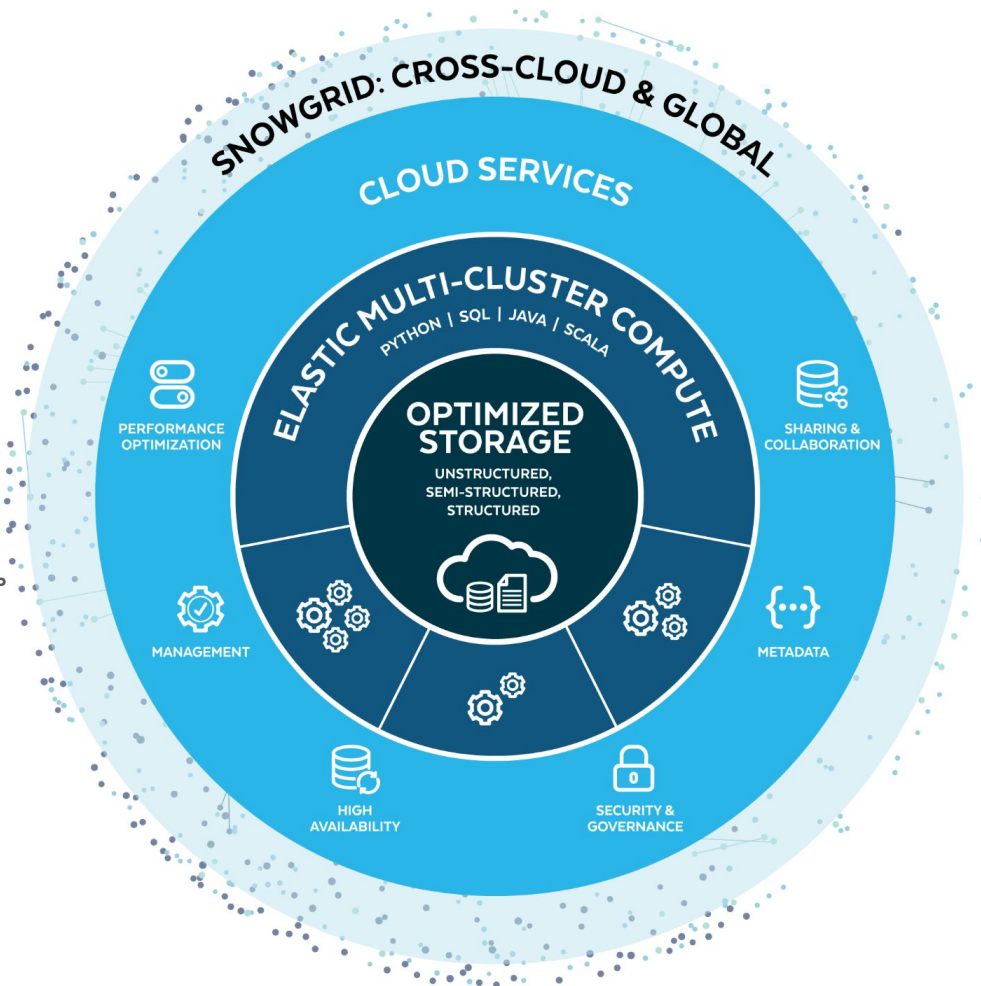
Jeremy Dodge | Senior Solutions Engineer

Snowflake Platform

Under the hood



SNOWFLAKE PLATFORM ARCHITECTURE



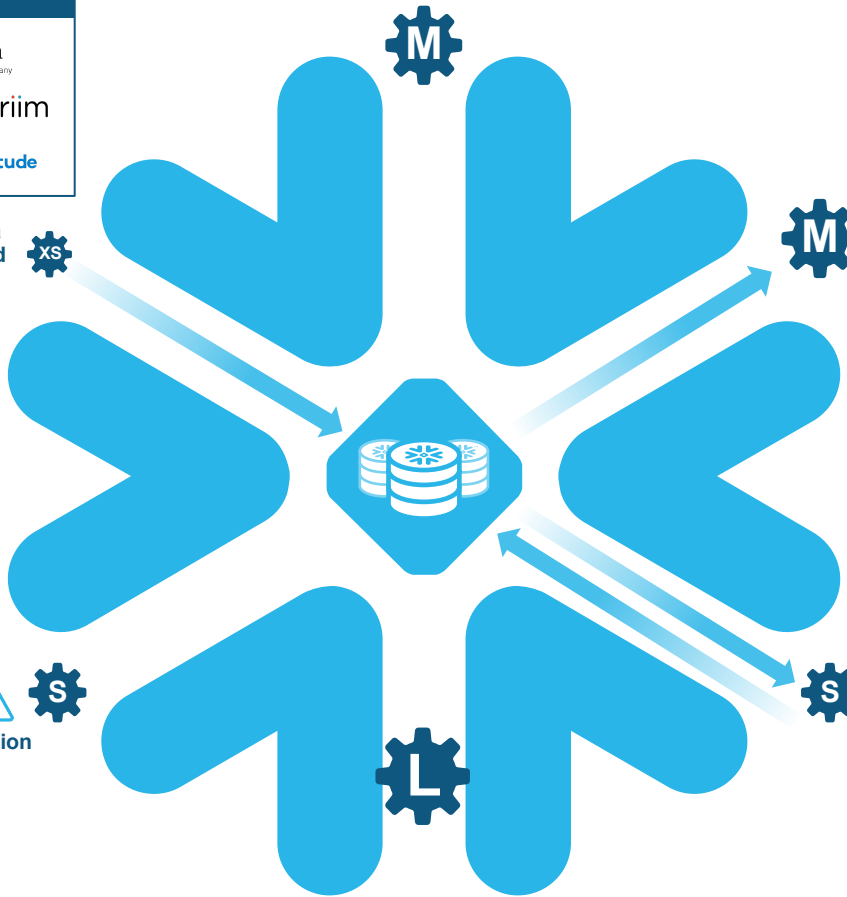
ETL/ELT



Structured
Semi-Structured
Unstructured



Data Load



Data Transformation



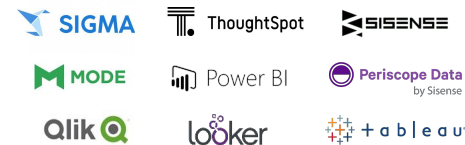
Intelligent Infrastructure:

- Logical Model
- Security
- Query Planning & Optimization
- Transactional Control



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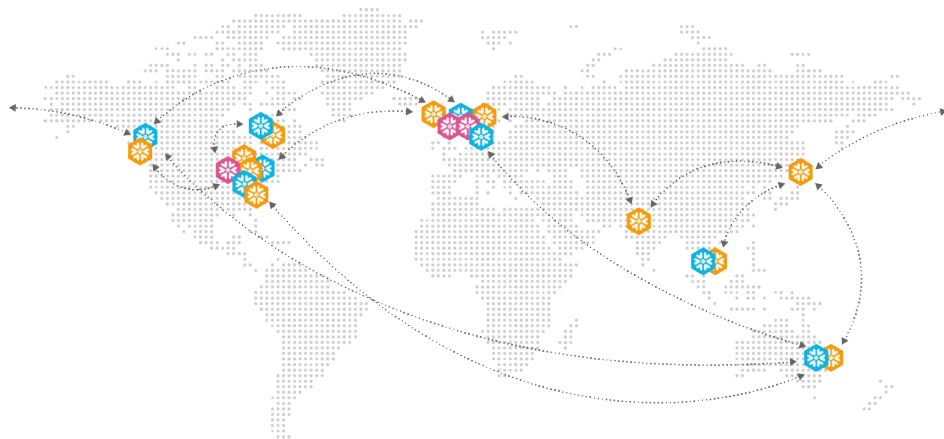
Marketing Analytics/Reporting/BI



Data Science



Snowgrid



Snowflake Regions



AWS



Azure



GCP

Maintain global business continuity

Eliminate disruptions, deliver better experiences, and comply with changing regulations through unique cross-cloud, cross-region connectivity.

Share data with no ETL or silos

Remove the barriers to data, regardless of cloud, region, workload, or organizational domains. Get instant access and distribution through a single copy of data.

Cross-cloud governance controls

Simplify governance at scale with flexible policies that follow the data for consistent enforcement across users and workloads.

Tap into the extended ecosystem

Enrich insights with a network of third-party data. Discover and run new functions for extended workflows.



PROTECTING YOUR DATA IN SNOWFLAKE

End-to-End Encryption

Always-encrypted client communications, plus integration with cloud provider private networking



Fully Encrypted Storage

Data at rest is always encrypted while handled by the Snowflake drivers and systems



Strong Authentication

Built in multi-factor, integration with your federated SSO, easy user management



Full Auditing

Track every login, every transaction, every data transfer, and export to your security tools



Role-Based Access Control

All objects, actions, and even compute usage can be controlled with roles



Recovery

We give you options to ensure your data can be recovered in case of an accident or worse



[Snowflake Security Product Documentation](#)



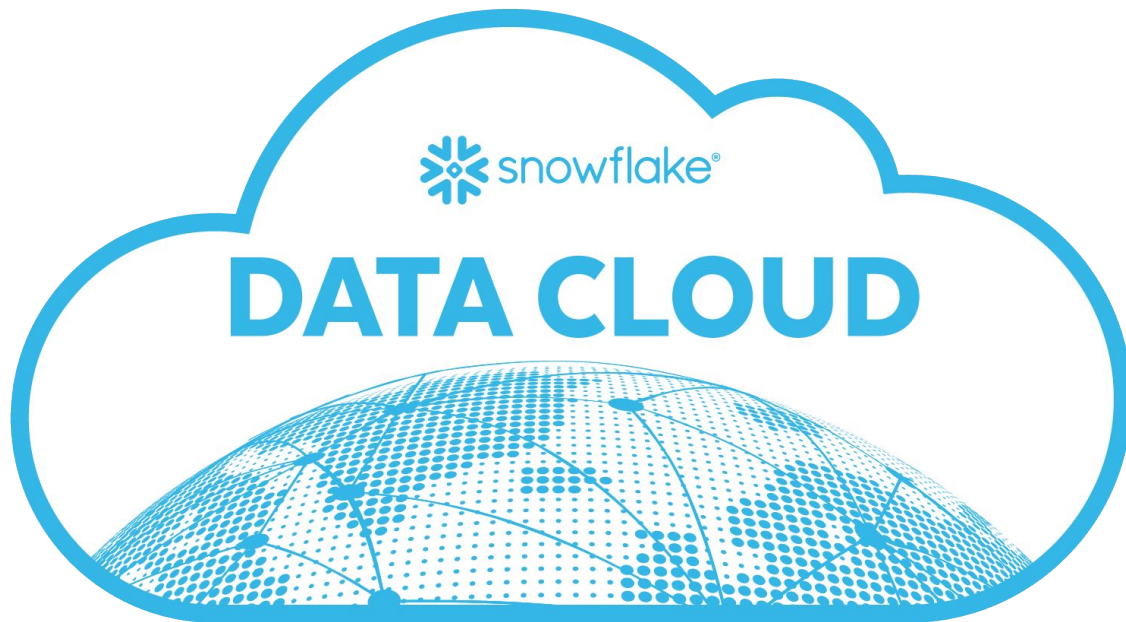
SNOWFLAKE ARCHITECTURE



The Data Cloud and SNOWGRID



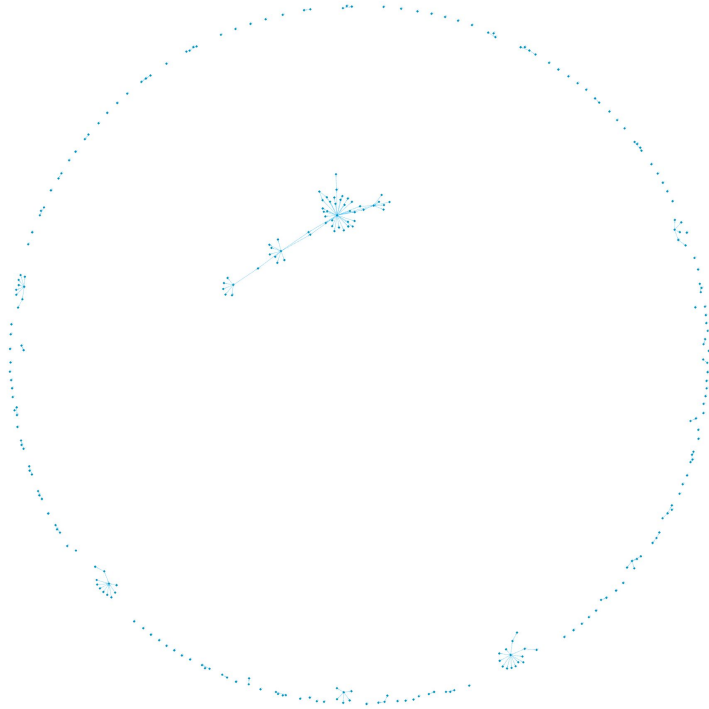
THE DATA CLOUD IS A GLOBAL NETWORK



One global, unified system connecting companies and data providers to the most relevant data for their business



Data Cloud Growth



April 2020

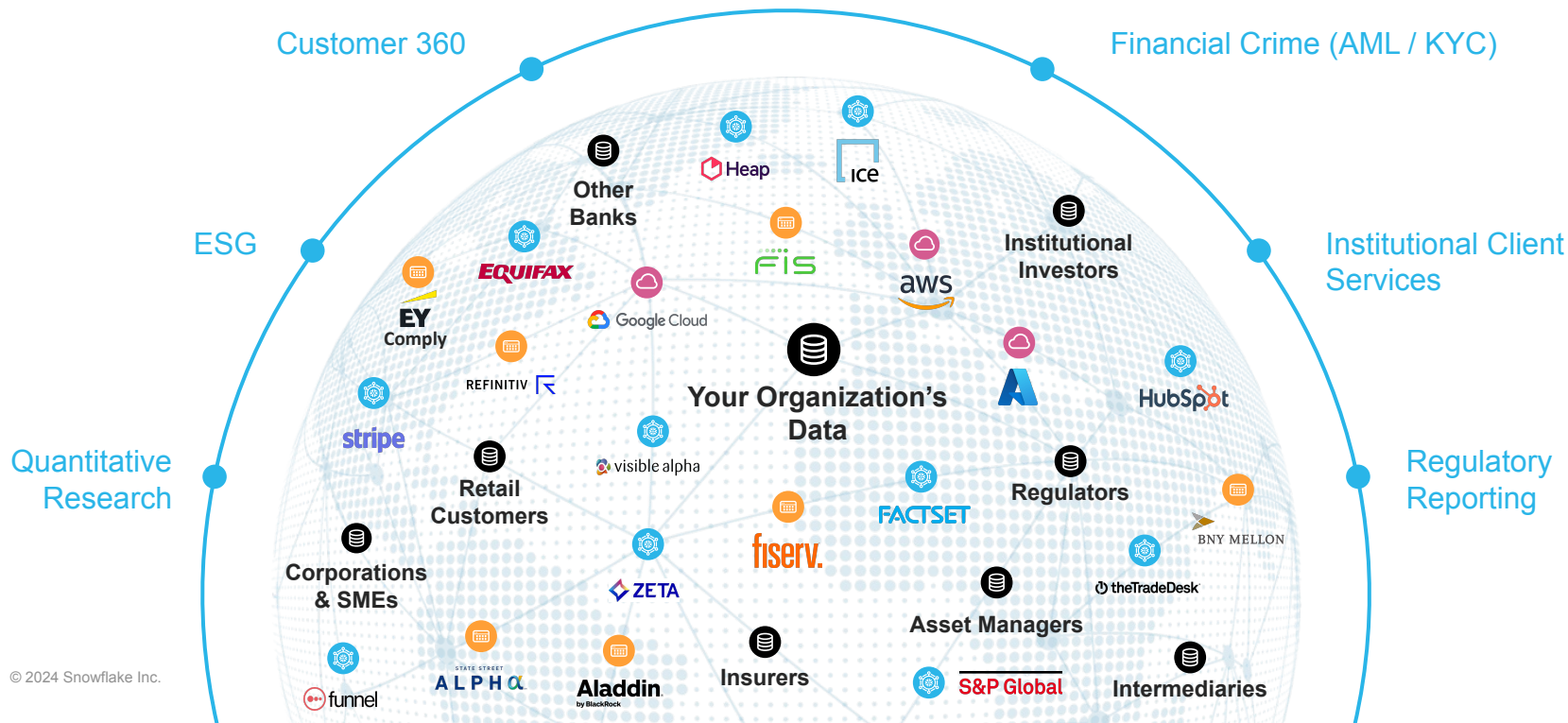


January 2024

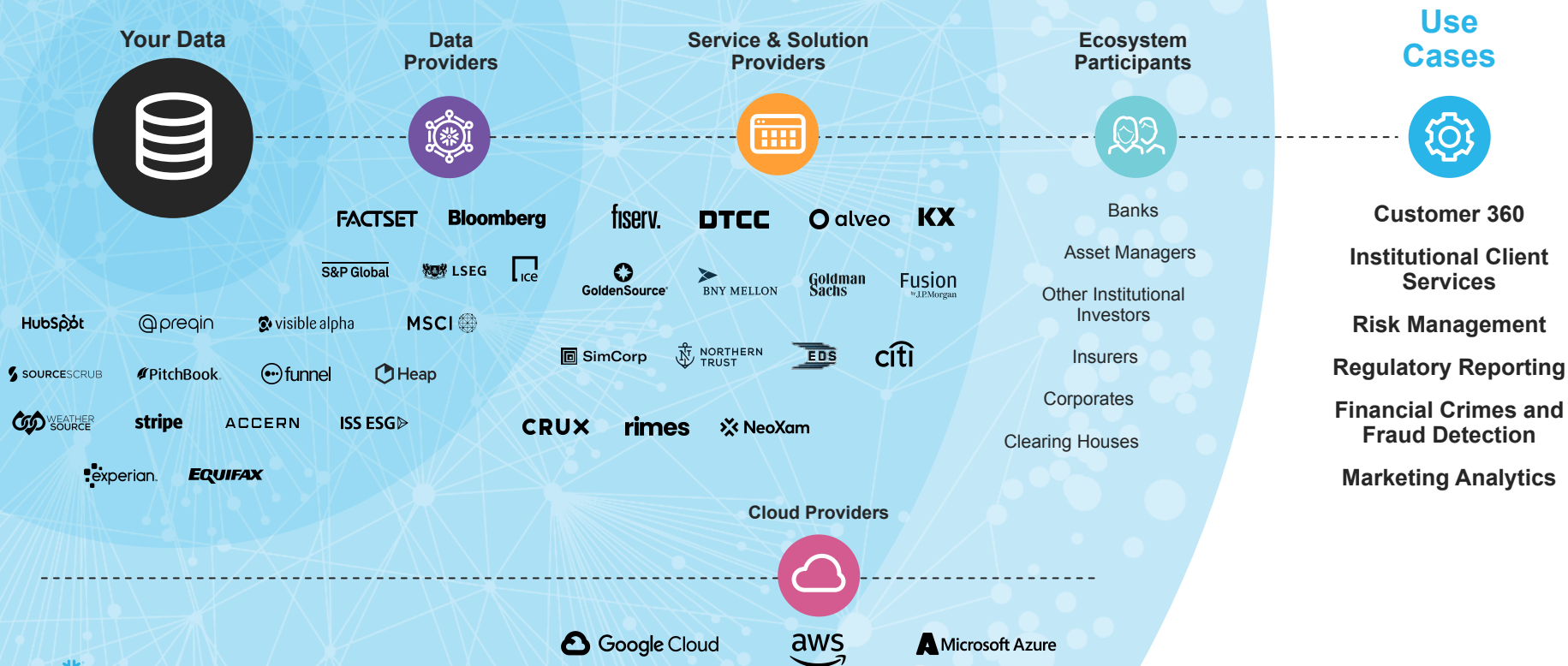


Financial Services Data Cloud for Banking

- Industry Participants
- Solutions Providers
- Data Providers
- Cloud Providers

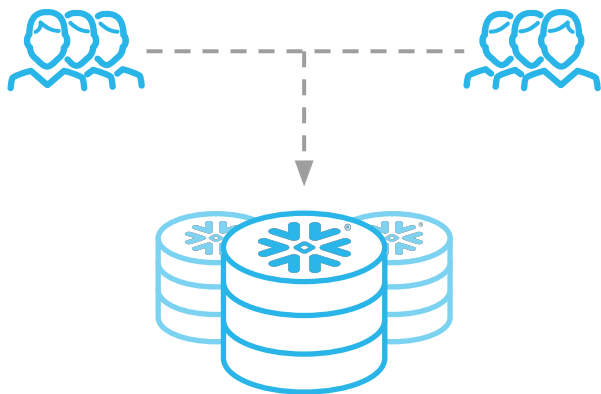


Financial Services Data Cloud For Banking



SNOWGRID UNLOCKS DATA SHARING

Secure Data Sharing



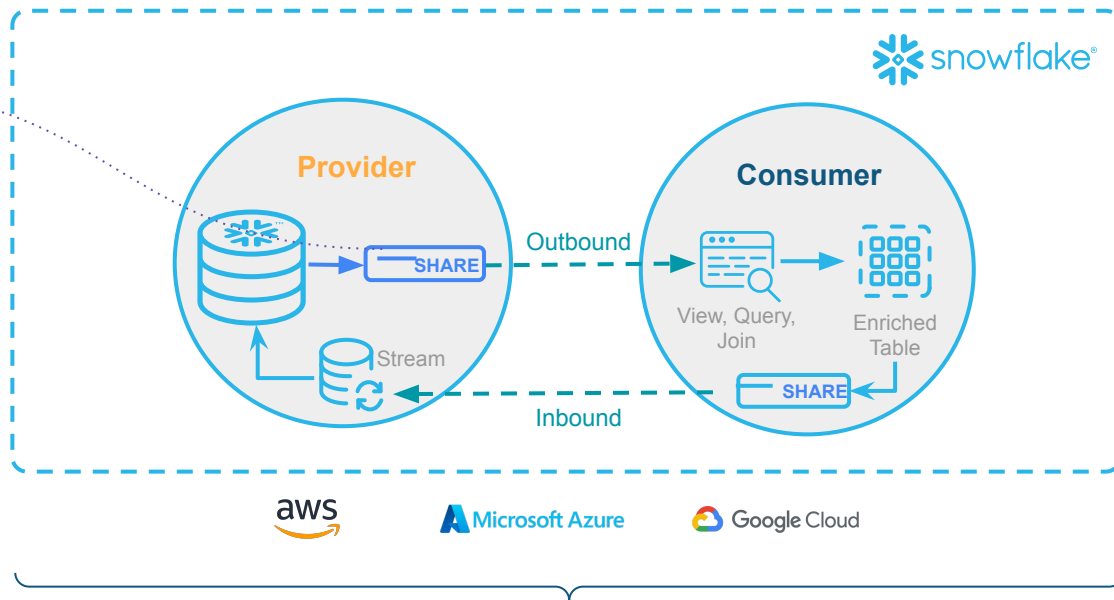
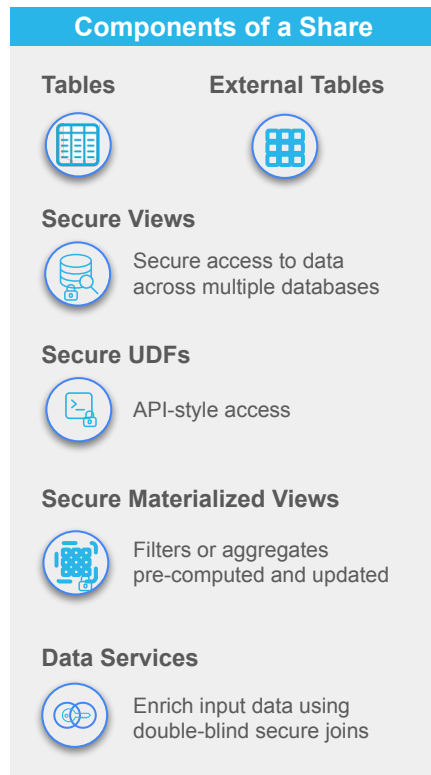
Live, ready-to-query data

Differentiators

- ✓ Live, ready-to-query data
- ✓ No ETL
- ✓ Share personalized data
- ✓ Share business logic
- ✓ Cross-cloud and cross-region
- ✓ Governed, revocable access



Secure Data Sharing



NO data movement, NO data latency within same cloud region

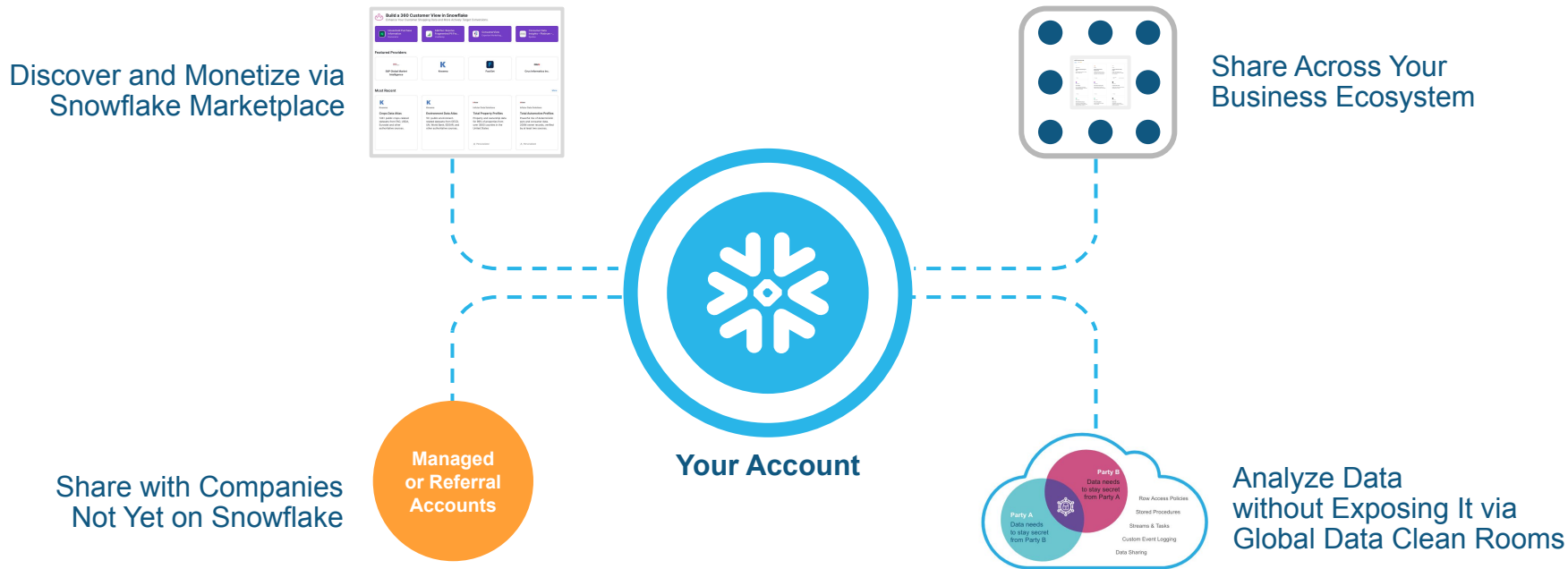
Provider can instantly revoke object access or drop share

[Shared Table/View Stream](#) for change capture, historical snapshots



Collaboration in the Data Cloud

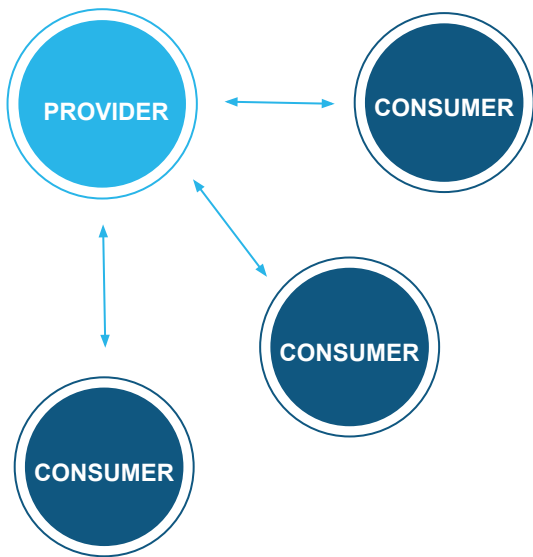
Governed, privacy-preserving collaboration for every scenario



Live, ready-to-query data, services and apps cross-cloud and cross-region. No ETL.

DIRECT SHARE

SHARE DATA WITH OTHER SNOWFLAKE ACCOUNTS



Provide access to the most current data available and make real time updates automatically



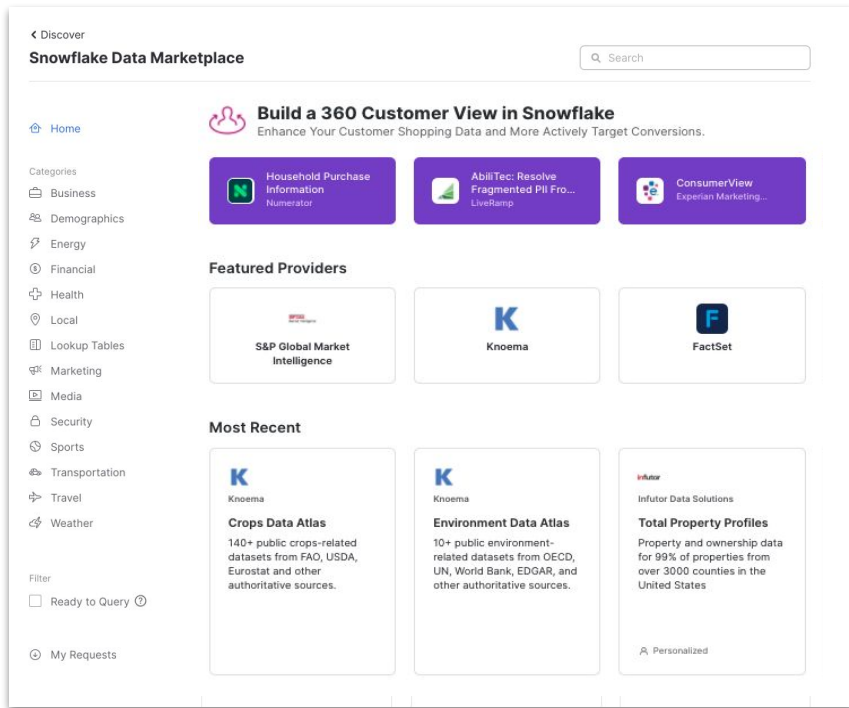
Reduce data integration costs with direct access to live, ready-to-query data; No ETL



Share revocable access to live data with Snowflake accounts

SNOWFLAKE DATA MARKETPLACE

DISCOVER AND BE DISCOVERED IN THE DATA CLOUD



Discover data and services from 150+ providers across 16+ categories



Access the most current data available and receive real time updates automatically



Reduce data integration costs with direct access to live, ready-to-query data; No ETL



Market and deliver your data and services to customers

Powered by Secure Data Sharing: Live, ready-to-query data, cross-cloud and cross-region. No ETL.

ADMINISTER GROUP SHARING AND DATA DISCOVERY ACROSS BUSINESS UNITS



Reduce data integration costs with direct access to live, ready-to-query data; No ETL

Powered by Secure Data Sharing: Live, ready-to-query data, cross-cloud and cross-region. No ETL.