



# **THE DATA CLOUD: MOBILIZE YOUR DATA IN THE SERVICE OF YOUR BUSINESS**

## DECISIONS WITHOUT DATA

Nearly 9 out of 10 IT leaders report that data silos are creating business challenges for their organization's digital transformation initiatives<sup>1</sup>. As a result, organizations of all sizes and across all industries make decisions with limited insights. As innovative as today's analytic solutions are, they all rely on data. Most of that data languishes in dozens or hundreds of silos across an organization. And it's just as difficult to obtain second- and third-party data, with the hope of enriching your existing data to acquire the deepest insights possible about your business, your customers, and your future.

This is a decades-old problem that began with on-premises computing and made its way to the cloud. Snowflake is breaking down these barriers of siloed data. Organizations can now unite their data, enhance it with a host of data services, securely share governed data across their businesses or globally with thousands of other organizations, and mobilize that data for many diverse analytic workloads. Welcome to Snowflake's Data Cloud.

## THE RISE OF THE DATA CLOUD

The Data Cloud consists of Snowflake's platform and a network of thousands of organizations and their data. A group of unique technologies enables Snowflake's platform:

- Near-unlimited scale and efficiency of a *multi-cluster shared data architecture*
- Seamless interoperability of working with data across *multiple public clouds* as if they were one
- A comprehensive list of the most *advanced data governance and security features* baked into the platform
- The ability to easily *extend Snowflake* to complementary solutions and other development environments, and use Snowflake as the runtime engine for advanced analytics.
- Snowflake's *Secure Data Sharing*, which allows any number of organizations to share and receive live data with each other near-instantly and without having to move or copy data.

Snowflake customers join the Data Cloud by using our platform to execute any number of data workloads in service of their businesses. The data they bring into the platform becomes part of the Data Cloud. It is governed and secure, and delivers more value when joined with our platform. In addition, our customers can collaborate on data, and access other data shared in the Data Cloud. By enriching their own data with other data made available to them, customers can obtain a depth and breadth of insights not possible before.

<sup>1</sup> Source: MuleSoft 2020 Connectivity benchmark report

## HOW TO COLLABORATE IN THE DATA CLOUD

### Data Sharing Across Your Ecosystem

For years, organizations have been using Snowflake to share data at scale. Many start with breaking down the data barriers across their businesses. They easily and seamlessly share and consume shared data locally and globally within departments, business units, and subsidiaries. Sales, marketing, finance, product, and many other categories of data can now be shared, integrated, and analyzed thanks to the Data Cloud. In addition, an organization can securely share governed data with supply chain partners and other business partners that need to provide and consume shared data. You can share data and receive shared data with a near-unlimited number of entities within your organization, across your business ecosystem, or with your customers to derive higher value from your data.

Sharing data in the Data Cloud can enable organizations to more easily streamline their business, better know and serve their customers, and more quickly and precisely deliver new products and services that will improve their bottom line. The business and technology barriers that prevent live, governed data sharing fade, so an organization can eliminate email, spreadsheets, shared network drives, APIs, and other methods for copying and moving limited amounts of stale data that provide outdated or incomplete insights.

This is all made possible by Snowflake's Secure Data Sharing, which replaces these traditional forms of data sharing that are costly, cumbersome, and risky. This advanced technology allows two or more organizations to safely share and consume live data in the Data Cloud. Specifically, they can share live, governed slices of data with each other. Instead of copying and moving stale data, any "data provider" can easily grant access to the data it wants to share with its intended "data consumers." The shared data generally remains in place and data consumers near-instantly and automatically receive the data provider's live updates to the shared data. For sharing data in any context, Snowflake provides a number of security and governance capabilities, so customers can choose to send only the data that data consumers and data service providers need to see, and to ensure

compliance with data privacy laws. Wherever data or users live, The Data Cloud delivers a single and seamless experience across multiple public clouds and regions.

### Sharing Data Across Your Ecosystem



Share live data in a secure and governed way across business units, and with suppliers and other business partners

### Snowflake Data Marketplace

In addition to gaining access to all your own data, you can use Snowflake Data Marketplace to discover and access third-party data and data services from more than 100 commercial providers in the Data Cloud. With our data marketplace, you gain the same type of access to shared data as you would inside your organization or across your business ecosystem: live governed data sets you don't have to copy and move, and updates to those data sets in near-real time. Our many commercial data providers include Factset, Starschema, Weather Source, S&P Global, Wunderman Thompson, Epsilon, Tapad, and Accuweather. You can enrich your existing data with data sets from these and many other data providers. You'll gain new insights but without the headache of copying and moving stale data associated with traditional data marketplaces. View the complete list of data sets on our marketplace [here](#). Snowflake Data Marketplace also allows any Snowflake customer to list their own governed data sets and monetize those data sets by sharing them.

## Accessing Data Services

You can also access data service providers in Snowflake Data Marketplace. These providers can offer essential services to Snowflake customers, such as integrating and analyzing their data sets and providing the finished product back to them. More advanced data services could include risk scoring a customer's data sets, enriching a customer's data for better targeted marketing purposes, detecting fraudulent transactions, and hunting for threats in a customer's security logs. These highly specialized services can help many organizations that may not

have these resources in-house and need a data services provider.

Before the Data Cloud, organizations had to engage data services providers by sending sensitive data through files or APIs. These practices can also be time-consuming, unsecure, and result in delays. They can also be less feasible as data privacy laws restrict how companies can share customer data. With our modern data sharing technology, Snowflake allows customers to share data with services partners, while maintaining possession and control of their data in their Snowflake accounts.

## Access Data and Services in the Snowflake Data Marketplace

The screenshot displays the Snowflake Data Marketplace interface. On the left is a navigation sidebar with options like Worksheets, Dashboards, Data, Discover (highlighted), Manage, Databases, Admin, and Classic Console. The main area is titled 'Discover Snowflake Data Marketplace' and includes a search bar. It features several sections: 'FEATURED PROVIDERS' with S&P Global Market Intelligence, FactSet, and Sonra; 'MOST RECENT' with Private Equity, Industry Sector Cross Reference Service (ISCRS), and Company Intelligence; 'FINANCIAL' with Womply, SNL U.S. Insurance Statutory, and EDI Foreign Exchange Rates; and 'BUSINESS' with Gotransverse, BuildFax Permit Data, and Transactions. Each service card provides a brief description and a 'Personalized' link.

## WHAT UNDERPINS THE DATA CLOUD

### Snowflake Platform

As mentioned earlier, the Data Cloud consists of data and the Snowflake platform. Our platform enables organizations to easily unify, integrate, analyze, and share their data within the Data Cloud. Our customers use Snowflake to execute a number of critical workloads, including data engineering, data lakes, data warehousing, data science, building and operating data applications, and data sharing. Snowflake's platform scales instantly and near-indefinitely. It enables organizations to operate across different public clouds and regions as a single cloud, while helping satisfy industry and regional data privacy requirements. It is a single, near-zero maintenance platform, as a service.



### Key Characteristics of the Snowflake Platform

**Multi-cluster shared data architecture**—Snowflake's architecture includes three layers that are logically integrated yet scale independently from one another.

- **Storage:** A single place for all structured, semi-structured, and unstructured data.
- **Compute:** Independent cloud computing resources dedicated to each individual data workload to eliminate contention.
- **Services:** A common services layer that handles infrastructure, security, metadata, query optimization, and other essential services.

**A single, near-zero maintenance platform, creating a single cloud**—Snowflake requires little to no maintenance compared to other solutions. Legacy database tasks such as tuning for performance, and building, indexing, and managing partitioning schemes become a thing of the past. Product updates happen automatically without disrupting your data workloads. And scaling up and down for varying sized workloads and performance happens automatically or on the fly. Snowflake is available on Google Cloud Platform, Amazon Web Services, and Microsoft Azure. More importantly, Snowflake includes a cloud abstraction layer that enables customers to operate seamlessly across these clouds and their geographic regions where Snowflake is available. This means Snowflake customers can store, access, integrate, analyze, and share data where it is located across the public clouds they use and with an experience as if they were using a single cloud.

**Baked in data governance and security**—Snowflake is a single platform and a single location for all your data, providing the fundamentals for modern data governance. With Snowflake, data silos disappear because data warehouses, data lakes, and data marts that store varying types of data all live on a single platform. In addition, Snowflake provides the essentials of cloud data security: access control, authentication, authorization and encryption. Some of our many features include always-on, enterprise-grade data encryption in transit and at rest. Snowflake also provides annual rekeying of all encrypted data, federated authentication, dynamic data masking, and external data tokenization. Snowflake complies with industry-standard technology certifications such as ISO/IEC 27001 and SOC 1/SOC 2 Type II, with government and industry regulations such as PCI, HIPAA and HITRUST, and with region-specific data privacy regulations such as the General Data Protection Regulation (GDPR) in Europe, and the California Consumer Privacy Act (CCPA) in the United States. Snowflake is also FedRAMP authorized.

**Highly extensible to other technologies**—Snowflake's cloud-built architecture delivers the openness and extensibility that enables our ecosystem of technology partners to easily connect to our platform. Data moves freely and securely to and from our platform to partner technologies, including data integration and ETL/ELT; business intelligence and data visualization; advanced analytics, including data science; and security, governance, and cybersecurity solutions. Snowflake is also a complete SQL platform but enables data engineers, data scientists, and developers to write code directly to Snowflake in their familiar languages, such as Java and Scala, for specific data workloads. This simplifies an organization's IT architecture by bringing data workloads into a single system. By doing so, data professionals seamlessly leverage the scalability, performance, security, and near-zero maintenance benefits of Snowflake's platform.

## **Snowflake's Partner Ecosystem**

Our partners are part of what makes the Data Cloud such a powerful network. They add value by helping Snowflake customers mobilize their data by getting their data into the Data Cloud, and helping them govern, understand and activate that data. For example, our ELT/ETL technology providers help accelerate access to the Data Cloud by making it easier and faster to get data into the Data Cloud. Our data science and analytics partners can enable customers to analyze and derive value from much larger amounts of data available in the Data Cloud. Our systems integrators can help customers' migrate to Snowflake, and therefore take advantage of the Data Cloud while finding new opportunities to share and monetize data.

## **WHY NOW, WHY SNOWFLAKE?**

The opportunity is huge but so are the barriers. The speed at which data is generated continues to increase but organizations can access only a small proportion of data inside or outside their businesses. Whatever data you can access must be governed and protected to meet the ever-increasing and far-reaching industry and regional data privacy regulations across the EU, US, and other parts of the world. The Data Cloud brings together technology and data so a network of thousands of organizations can mobilize data in service of their businesses.

# ABOUT SNOWFLAKE

The Data Cloud is a global network where thousands of organizations mobilize data with near-unlimited scale, concurrency, and performance. Inside the Data Cloud, these organizations unite their siloed data, easily discover and securely share governed data, and execute diverse analytic workloads. Wherever data or users live, Snowflake delivers a single and seamless experience across multiple public clouds. Snowflake's platform is the engine that powers and provides access to the Data Cloud, creating a solution for data warehousing, data lakes, data engineering, data science, data application development, and data sharing. Join Snowflake customers, partners, and data providers already taking their businesses to new frontiers in the Data Cloud. [snowflake.com](https://www.snowflake.com)

