



5 WAYS DATA IS REDEFINING FINANCIAL SERVICES

Investing in a profitable, secure, and connected future
with Snowflake's Data Cloud



CHAMPION
GUIDES

EBOOK

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INTRODUCTION

Data is the fuel of the financial services industry, powering everything from retail banking transactions to insurance claims to online payments. As a result, the financial services industry is one of the sectors most heavily invested in technologies related to data management. Big data investments in financial services were nearly \$9 billion in 2018, and are projected to grow to \$14 billion by the end of 2021, according to a study.¹

Despite the importance of data and the significant investments made in data management, financial institutions are challenged with leveraging the massive volumes of information at their disposal to glean insights and improve decision-making. Data silos, caused by disparate legacy systems and strict data privacy regulations, prevent quick access to high-quality information.

Deloitte defines technical debt, which is widespread, particularly within the banking industry, as a lack of legacy system modernization.² Often, financial institutions modernize individual parts of their data

infrastructure without strategically changing their data management approach, sustaining technical debt. According to Gartner, “Almost half of global financial services organizations are still in a very early or even immature stage of their digital transformation journey.”³

With increasingly fragmented global regulatory standards and the competition of born-in-the-cloud financial technology (FinTech) organizations unhindered by technical debt, financial institutions must embark on strategic digital transformation and migrate to the cloud. By utilizing Snowflake’s Data Cloud, financial sector companies can gain the performance, simplicity, flexibility, and concurrency needed to leverage and monetize vast amounts of valuable, untapped data.

Read on to discover five ways Snowflake’s modern data approach is helping financial services companies better serve customers, decrease risks, and increase profits.

USE CASE #1: DELIVERING SUPERIOR EXPERIENCES THROUGH CUSTOMER 360

MEETING MODERN CUSTOMER EXPECTATIONS

Today's consumers expect a customer experience that is unique and customized. According to Accenture, of the customers who abandoned a business relationship, 33% did so because personalization was missing.⁴ Financial services companies have the opportunity to deliver this experience by leveraging the massive volume of consumer data available from online digital interactions. As digitally native players, FinTech companies have been able to utilize data easily to better serve customers. Banks have found this more challenging because their organizations are often siloed and their disparate legacy systems cannot easily capture or analyze data. Regardless of the company type, all financial services leaders must prioritize data privacy in their quest to leverage customer data.

USING DATA TO BECOME CUSTOMER-CENTRIC

With Snowflake, companies can dive deeper into customer data, regardless of its format or type, while still protecting consumers' privacy. The Snowflake Data Cloud offers a single governed location for virtually all types of data (for example, clickstream, transactional, and third-party). It also can ingest data from new sources such as the Internet of Things. This enables organizations to gain a 360-degree view of customer behaviors and preferences from multiple inputs, and deliver exceptional experiences across every touchpoint, whether it's a seamless digital transaction or a simple problem solved by customer service. For retail and commercial banks, asset managers, insurance companies, and other consumer financial institutions, a full customer view is fundamental for a successful personalization strategy. It enables them to pinpoint high-value customers and deliver high-quality experiences, ensuring that they become loyal, lifelong customers. Additionally, with a 360-degree customer view powered by Snowflake, marketers and product leaders are able to better target consumers through data science and bring new products and services to market.

CAPITAL ONE: USING DATA TO DELIVER UNIQUE CUSTOMER EXPERIENCES

Capital One specializes in credit cards, auto loans, and banking and savings products. A few years ago, the company migrated its data systems to the cloud to deliver a better customer experience. Today, using Snowflake's Data Cloud, Capital One delivers personalized customer experiences by acquiring a holistic view of customers' data. The dashboard enables customer data transparency within the organization, allowing the different lines of business running applications to understand the data flows and detect any problems. Snowflake also helps Capital One send alerts about suspicious activity to customers, helping to detect fraud as it happens—or even beforehand. Empowered with a modern platform, Capital One is able to exceed the expectations of today's customers and gain a competitive edge.

USE CASE #2: BUILDING A STRATEGIC APPROACH TO DATA GOVERNANCE AND REGULATORY COMPLIANCE

BETTER DATA MANAGEMENT

Snowflake can provide the simplified data management and automation needed to aggregate and analyze data quickly and frequently in order to meet rigorous reporting requirements. Snowflake's Data Cloud enables financial organizations to inexpensively store virtually all of their data in a single globally available, strongly governed platform and share data across numerous subsidiaries, business partners, and data partners. Snowflake delivers the instant scalability and concurrency needed to handle the demands of global business. In addition, Snowflake's portfolio of [security and compliance reports and certifications](#) demonstrates its commitment to enforcing the highest global security standards.

STRICTER REGULATIONS REQUIRE DATA SIMPLIFICATION

Over the past decade, regulators have increased the reporting requirements of financial institutions to validate compliance with risk standards, including capital, stress testing, and liquidity. But financial services firms often struggle with decades old legacy technology that creates data silos and manual processes. As a result, risk teams have to spend excess time combining sources, working with stale data, and manually creating reports and metrics to share with executives and regulators.

Meeting these compliance and regulatory requirements in a timely manner and showing proper governance standards requires technology that can handle modern data volumes and sources. Snowflake's ability to handle virtually all types of data enables risk processes to be dramatically simplified by querying a single copy of data. Furthermore, thanks to Snowflake's multi-cloud data sharing capabilities, teams no longer have to wait for overnight reconciliation reports; they can instead seamlessly query their assets and liabilities across firms to assess exposure in real time.

ENSURING GOVERNANCE WHILE DRIVING MODERNIZATION

The payments industry has transformed based on the changing needs of consumers, providing faster, more seamless shopping and checkout experiences. Financial institutions have had to modernize their payment systems and augment their solutions to remain competitive, especially as consumers become more comfortable with conducting financial transactions with nonbanking companies. At the same time, regulatory policies require organizations to be able to trace their data from source to retirement, identify who has access to it, and know how and where it is used. With Snowflake, financial institutions can modernize their payment systems while developing strong governance measures and controls to ensure they are compliant, resilient, and secure.



USE CASE #3: ENABLING FRICTIONLESS DATA SHARING WITH SNOWFLAKE DATA MARKETPLACE

A ROADBLOCK TO SHARING

Access to new and alternative data sets can be a strategic differentiator for financial institutions. Hedge funds and asset managers rely on real-time access to time series data in order to find investment opportunities. Insurance companies leverage third-party IoT data such as weather conditions and driving patterns to assess risk and provide pricing. Financial data providers can sell data about customers to companies in other industries that are looking to personalize their marketing efforts and customer experience. All of these value-generating initiatives require frictionless data sharing. However, companies with legacy systems are held back by limited data sharing options. FTP lacks security and controls, while using APIs is complex, costly, and inefficient. Legacy systems and cloud platforms that fail to communicate with one another become barriers to sharing data easily and seamlessly. In addition, maintaining data privacy must be top of mind for financial services leaders. Complying with data privacy regulations can be costly and time-consuming, potentially erasing the gains from data sharing.

SECURE, SEAMLESS DATA EXCHANGE

Snowflake reduces the complexity, cost, and risks associated with sharing data by providing a single data repository and enabling secure sharing that does not require any preparation or copying of data. Equipped with Snowflake's data sharing capabilities, financial institutions can securely exchange data both directly and indirectly, supported by end-to-end encryption and revocable, auditable access and permissions. Snowflake Data Marketplace helps financial institutions better leverage current data sets and access new sources of data to enrich analytics and reach deeper insights. In addition, financial institutions can control, monitor, and increase the security of their data analytics via their own private exchange to ensure compliance with data regulations. As a result, data consumers and providers have instant, frictionless access to data in its native format, with the ability to securely share live and always up-to-date data with a near-unlimited number of concurrent data consumers.

FACTSET AND CAUSEWAY CAPITAL MANAGEMENT: SHARING DATA EFFICIENTLY

Financial data and software company FactSet found a new source of revenue by deploying its proprietary data sets, both structured and unstructured, on the Snowflake Data Cloud, providing investment professionals with immediate and scalable access to content. Clients such as Causeway Capital Management are now able to integrate FactSet's data sets into their investment and financial processes seamlessly and efficiently, with immediate and secure access to data for evaluation and testing, eliminating the need for the extract, transform, and load (ETL) process. At the same time, they can be ensured of consistent and transparent data integrity without having to manually update or upload content. In addition, Snowflake's architecture separates data computation from storage, giving users the ability to quickly and easily scale their resources for a near-unlimited number of concurrent users. The platform delivers governed access to all content across three major cloud providers and serves as an integrated environment where clients can build data applications in a cost- and time-efficient way.

USE CASE #4: STRENGTHENING BUSINESS CONTINUITY WITH A MULTI-CLOUD STRATEGY

THE EFFECTS OF DOWNTIME

Network and systems outages can occur for a number of reasons: natural or man-made catastrophes, faulty hardware or software, security flaws or cybercrime, or just plain human error. In the financial sector, where companies can handle millions of transactions per minute, the results can be costly. According to a 2017 survey, for large enterprises in finance, the average cost of an hour of network downtime is more than \$5 million due to lost revenue and lost end-user productivity. For banks and stock exchanges whose businesses are based on high-level data transactions, the losses could run into millions of dollars per minute.⁵ A multi-cloud strategy provides a higher level of resilience. If one cloud provider suffers an outage, the IT team can instantly shift the load or only the impacted services to other cloud environments. If the primary cloud has any issues processing a requested service, the secondary cloud can seamlessly serve as the failover solution. However, syncing data between clouds can be a complex, costly task.

ENSURING AVAILABILITY AND DURABILITY

Snowflake helps finance organizations mitigate high costs by enabling them to replicate databases and keep them synchronized across different regions and clouds. With Snowflake Database Failover and Failback, businesses can operate without disruption and recover multiple databases in a secondary cloud or region after a failure in the primary cloud or region that results in full or partial loss of Snowflake service availability. In the event of a massive outage that disrupts cloud services, initiating a failover involves promoting a secondary database in an available region to serve as the primary database. When promoted, the now-primary database becomes writeable. As technology architectures become increasingly complex, the risk of downtime increases. With Snowflake Database Replication and Snowflake Database Failover and Failback, organizations can take protective measures to ensure data availability and durability. They can also continue to seamlessly share data with other Snowflake customers who are in different regions or using different cloud providers.

CAPITAL ONE: ACHIEVING RESILIENCE WITH MONTHLY FAILOVER

Capital One's old on-premises system did not provide enough resilience. Capital One wanted to fail over its system once a month, not just when a disaster occurred, to ensure customers could always have access to their assets, no matter what the natural or man-made disaster. The company set up systems on Snowflake so it could fail over from the east to the west, giving customers extra protection and confidence in the security of their accounts.



USE CASE #5: PROTECTING AGAINST FRAUD AND CYBERSECURITY RISKS

THE RISK OF BEING UNPREPARED

Financial services organizations are under constant attack from cyberthreats and fraudsters. A 2019 Accenture report shows security breaches increased by 11% from the year prior.⁶ According to a 2019 LexisNexis survey, for every dollar of fraud lost in the pre-COVID period, U.S. financial services and lending companies now incur an average of \$3.78 in costs, up from \$3.35 since 2019.⁷ A modern data platform that can ingest and analyze various data types can form the front line of defense against these dangers. In-depth data analytics combined with high-volume data storage can help detect risks quickly, often in real time. But high storage costs can restrict companies to storing only a fraction of their data for a limited time, curbing their capability to defend against data breaches.

HARDENED DATA SECURITY

Snowflake enables financial institutions to index all of their cybersecurity, anti-fraud, and machine- and customer-generated data. Snowflake offers automatic and infinite scalability, per-second compute pricing, and low storage costs. This enables companies to affordably store petabytes of historical data. They can then use advanced analytics, detection rules, and enhanced visualizations to analyze that data and be more prepared for future threats. The result is higher data security, cost-effective investigations, and earlier detection. These benefits translate to higher consumer confidence and loyalty and lower costs for fraud and cybersecurity mitigation.

COMBATING MONEY LAUNDERING FRAUD

Money laundering fraud costs banks billions of dollars a year. Combating the transfer of illegally obtained money—as well as paying the resulting fines—can be difficult and resource-consuming. Financial institutions are turning to AI and machine learning to detect anomalous transfers more quickly and efficiently. Snowflake's Data Cloud stores in one place high volumes of data involving customers, transactions, and banking partners. With valuable historical data at their fingertips, banks can build AI and machine learning models on top of that data, identifying behavior that alerts them to investigate. With a simpler data ingestion pipeline, these alerts can sound early, giving banks more time to react appropriately and mitigate risk and fines.

CONCLUSION

With the right data infrastructure and tools, financial services companies can gain higher profitability and stronger security, and they can deliver unique, personalized customer experiences through 360-degree customer views. They can also build a strategic approach to data governance and regulatory compliance, leading to better compliance and lower costs. In addition, they can frictionlessly send and

receive valuable data by breaking through data-sharing barriers, strengthen business continuity by employing a multi-cloud strategy, and better protect against fraud and cybersecurity risks. Snowflake's Data Cloud enables hundreds of financial services organizations, including banks, brokerages, insurers, and FinTech startups, to achieve these capabilities and become truly data-driven.





ABOUT SNOWFLAKE

Snowflake delivers the Data Cloud—a global network where thousands of organizations mobilize data with near-unlimited scale, concurrency, and performance. Inside the Data Cloud, 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)



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CITATIONS

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