5 WAYS DATA IS REDEFINING
FINANCIAL SERVICES

Investing in a profitable, secure, and connected future

CHAMPION
GUIDES

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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, it is one of the sectors most heavily invested in technologies related to data management. A 2018 study predicted big data investments in financial services would grow from $9 billion to a whopping $14 billion in just three years.[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 cloud-native financial technology (fintech) companies at their heels, financial institutions must embark on strategic digital transformation and migrate to the cloud. By implementing a cloud data platform such as Snowflake Cloud Data Platform, financial sector companies will 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.

[1] "Big Data in the Financial Services Industry 2018-2030 - Profiles & Strategies of Over 270 Leading & Emerging Big Data Ecosystem Players." businesswire.com/news/home/20180703005618/en/Big-Data-Financial-Services-Industry-2018-2030
[2] "2020 banking and capital markets outlook." deloitte.com/us/en/insights/industry/financial-services/financial-services-industry-outlooks/banking-industry-outlook.html
[3] "Financial services firms take different routes and approaches to create value from digital business." gartner.com/smarterwithgartner/the-5-digital-transformation-identities-of-financial-services-organizations/

USE CASE #1: DELIVERING SUPERIOR EXPERIENCES THROUGH 360-DEGREE CUSTOMER VIEWS

MEETING MODERN CUSTOMER EXPECTATIONS

Today's consumers expect a customer experience that is unique and customized. 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. Snowflake Cloud Data Platform offers a single governed location for all types of data (for example, clickstream, transactional, third-party), and 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. A full customer view is fundamental for a successful personalization strategy, because it enables organizations to pinpoint high-value customers and ensure they have a good experience

at every touchpoint. Unless there is visibility into how and where those customers interact with the company—as the interactions occur—that isn't possible. Snowflake's Customer 360 view also supports marketing efforts, provides insight into customer churn and retention, and informs future product development.

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. In order to enable customer transparency, Capital One developed an internal dashboard to allow 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 cloud data platform, Capital One is able to exceed the expectations of today's customers and gain a competitive edge.

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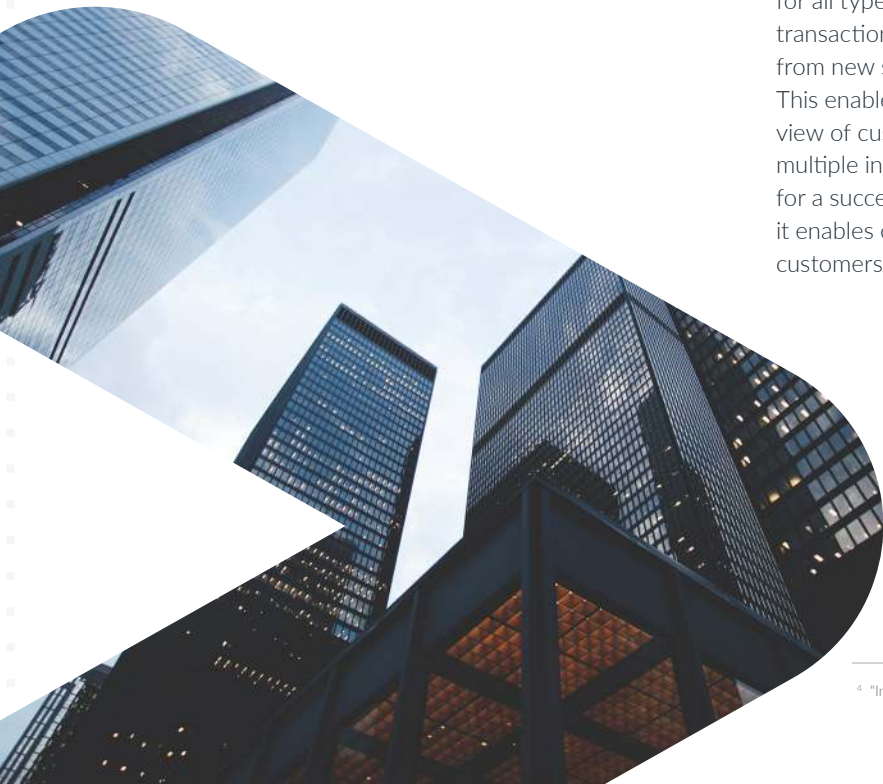
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USE CASE #2: BUILDING A STRATEGIC APPROACH TO DATA GOVERNANCE AND REGULATORY COMPLIANCE

MORE REGULATIONS, MORE PROBLEMS

In the process of core modernization, financial institutions are centralizing consumer data that used to be stored in legacy systems, presenting heightened data security risks. As a result, today's financial services organizations must comply with numerous data security regulations based on geography as well as industry. For example, Europe's Global Data Protection Regulation mandates that organizations can store consumer data and personally identifiable information only when it has a direct use. Meanwhile, financial organizations globally must adhere to the Payment Card Industry Data Security Standard, which sets the requirements for organizations and sellers to securely accept, store, process, and transmit cardholder data during credit card transactions. Many of these regulations are intended to help financial institutions mitigate the risk of data compromise, but they also create complexity in developing data management infrastructures that are compatible with the requirements.

A CORNERSTONE FOR COMPLIANCE

A cloud data platform such as Snowflake provides data security at every level of its design, offering financial institutions the ability to encrypt data that's in transit as well as in storage. Snowflake Cloud Data Platform serves as the foundation of a future-proof data governance strategy—one that helps financial institutions maintain regulatory compliance and prioritize data privacy and security. Snowflake's portfolio of security and compliance reports and certifications demonstrates its commitment to enforcing the highest global security standards. Snowflake also provides continuous data protection with Time Travel and Fail-Safe. These unique features eliminate traditional data problems such as costly backups and time-consuming rollbacks and enable teams to use data with confidence.

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 brands. 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 Cloud Data Platform, 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: BREAKING THROUGH DATA SHARING BARRIERS WITH SNOWFLAKE DATA EXCHANGE

A ROADBLOCK TO SHARING

Data sharing presents a vital opportunity for financial institutions to make better decisions with the help of third-party data, which can lead to higher revenues and more efficient operations. Data sharing also enables companies to enhance consumer experiences, because customers who share data with financial institutions can receive benefits such as more-personalized and relevant products and services. But 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 leaders looking to monetize data for financial gain. Complying with data privacy regulations can be costly and time-consuming, potentially erasing the gains from data sharing.

SECURE, SEAMLESS DATA EXCHANGE

Snowflake Cloud Data Platform 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. The Snowflake Data Exchange helps financial institutions leverage public data sets to enrich analytics and reach deeper insights. In addition, with the Snowflake Private Data Exchange, 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 access to data in its native format, with the ability to securely share live and always up-to-date data with an unlimited number of concurrent data consumers.

NEW SOURCES OF REVENUE

With Snowflake Data Sharing, companies can quickly add new business lines of data products. Offering a standalone data product to data consumers can lead to substantial revenue. For example, financial services companies that collect tick-by-tick stock market data can use Snowflake to sell it as a data project to hedge funds. Snowflake can reduce the manual effort and copying necessary with traditional data sharing tools. Instead of physically transferring their data to external data consumers, companies can provide read-only access to a segment of their information to any number of data consumers via SQL. By breaking through barriers between disparate data systems, Snowflake empowers companies to find new sources of revenue and opportunity.
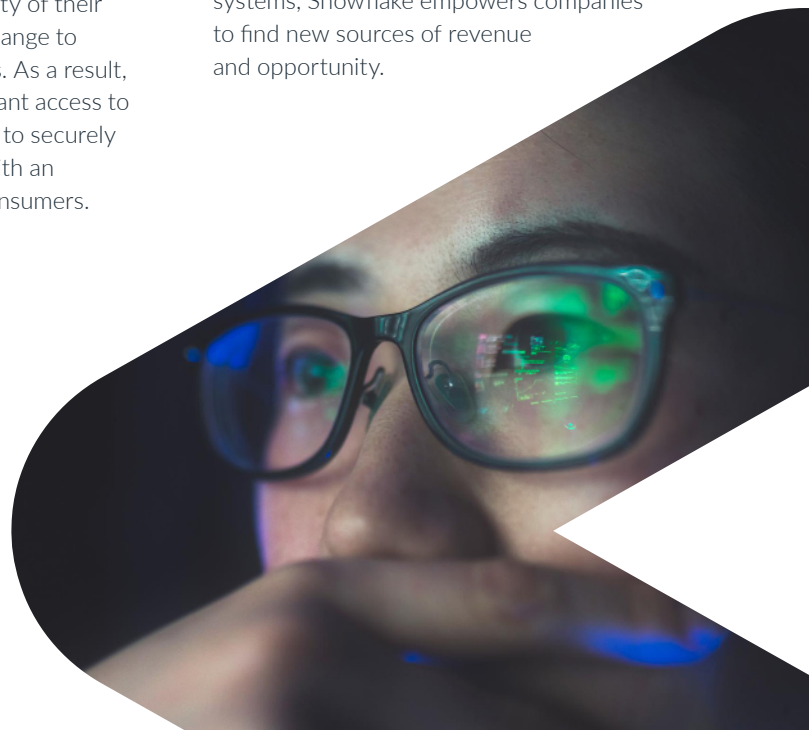
USE CASE #4: STRENGTHENING BUSINESS CONTINUITY WITH A MULTI-CLOUD STRATEGY

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 for Global Data Sharing 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 consumers who are in different regions or using different cloud providers.

CAPITAL ONE ACHIEVES 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 they could fail over from the East to the West, giving customers extra protection and confidence in the security of their accounts.

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[5] "Hourly Downtime Tops $300K for 81% of Firms; 33% of Enterprises Say Downtime Costs >$1M." itic-corp.com/blog/2017/05/hourly-downtime-tops-300k-for-81-of-firms-33-of-enterprises-say-downtime-costs-1m/

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. Security breaches increased by 11% in 2019 alone.[6] According to a LexisNexis survey last year, a $1 fraudulent transaction represents $3.25 in true costs for financial services firms overall, and the cost of fraud for financial services firms equals about 1.78% of revenue.[7] A cloud 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 and 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 Cloud Data Platform 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 Cloud Data Platform 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.

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[6] "Ninth Annual Cost of Cybercrime Study." accenture.com/us-en/insights/security/cost-cybercrime-study
[7] "2019 True Cost of Fraud™ Study: Financial Services and Lending," risk.lexisnexis.com/insights-resources/research/true-cost-of-fraud-study-financial-services-and-lending-edition

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 more easily 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, the leading cloud data platform, enables hundreds of financial services organizations, including banks, brokerages, insurers, and fintech startups, to achieve these capabilities and become truly data-driven.

ABOUT SNOWFLAKE

The Snowflake Cloud Data Platform shatters the barriers that prevent organizations from unleashing the true value from their data. Thousands of customers deploy Snowflake to advance their businesses beyond what was once possible by deriving all the insights from all their data by all their business users. Snowflake equips organizations with a single, integrated platform that offers the only data warehouse built for any cloud; instant, secure, and governed access to their entire network of data; and a core architecture to enable many other types of data workloads, including a single platform for developing modern data applications. Snowflake: Data without limits. Find out more at **snowflake.com**.