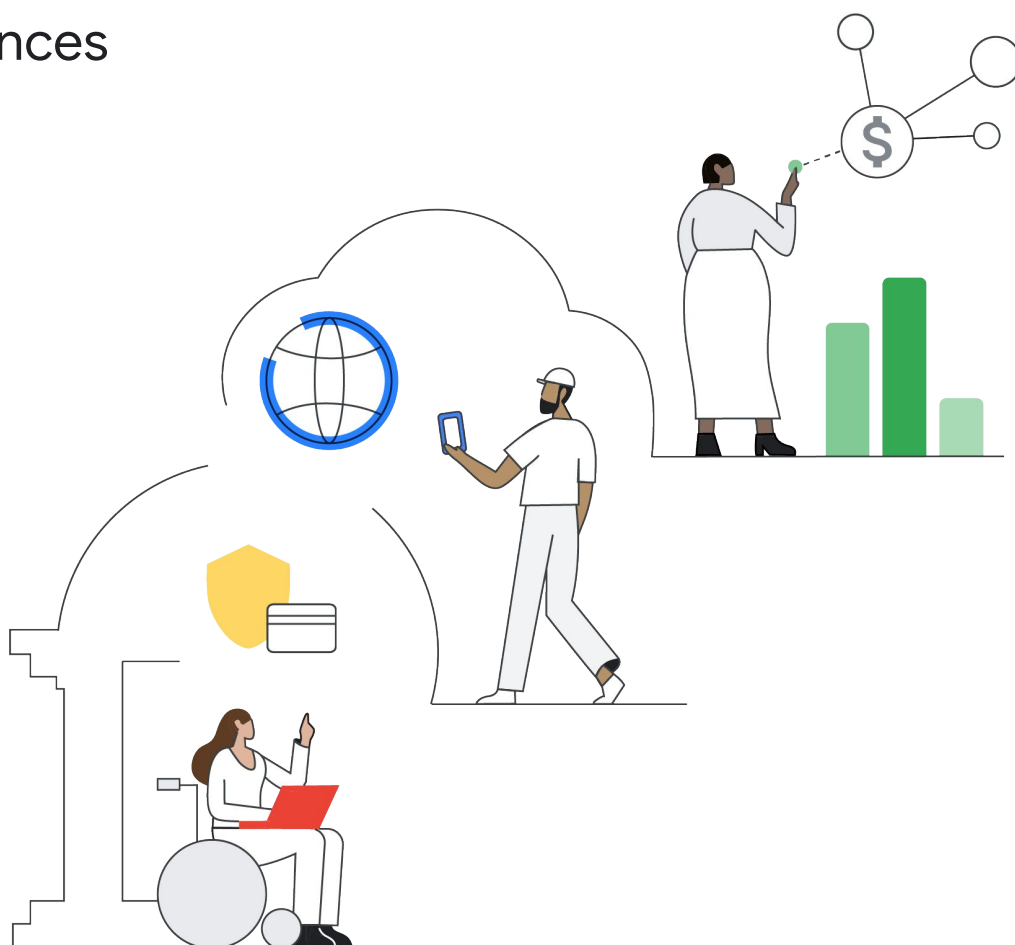


Transforming the financial services value chain with a data-first strategy

8 solutions to creating more delightful customer experiences



Leveraging data and the cloud to modernize, personalize, and grow

Customers expect a flexible and personalized financial services experience that provides digital, seamless, and autonomous interactions with their banks, wealth managers, payment platforms, and insurance companies.

To meet these evolving customer expectations, financial institutions need data and underlying technology tools to draw insights that enable them to create better customer experiences and uncover revenue opportunities.

But for many financial institutions, this is easier said than done. According to 2021 research by Boston Consulting Group (BCG) and Google Cloud, only 28% of financial services organizations are considered digital leaders and some 22% fall into the category of “digital laggards”.¹

The core of the problem is data. More than 70% of top global banking executives said they lack the resources to process and analyze data.²

Financial institutions can unlock the full value of customer data with modernized applications to provide to their employees, personalize the customer experience, and grow revenues.

¹“Financial services organizations understand how to build winning digital agendas,” Google Cloud

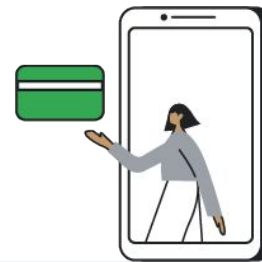
²“The World Retail Banking Report 2022,” Capgemini

Creating digital experiences customers demand

Customers' demand for digital experiences has grown even more rapidly since the beginning of COVID-19. According to Capgemini's 2020 World Retail Banking Report, 57% of customers preferred internet banking, compared to 49% prior.³ Today, 75% of customers said they are attracted to fintech competitors that offer fast and easy-to-use products and experiences that are available anytime and anywhere at a low cost.²

With the rise of cloud-based fintechs and challenger banks, customers have come to expect more from financial institutions, whether it's mobile self-service options, more personalization, or AI-based advice. Not doing so comes at a cost.

McKinsey research confirms that customers who receive personalized bank offers across multiple channels are more than 3x likely to accept, compared to those receiving offers via a single channel.⁴



Success story

Insurance sales grew at [Banco de Crédito del Perú](#) by 70% in the first two months of deploying its One-click cross-sell program.

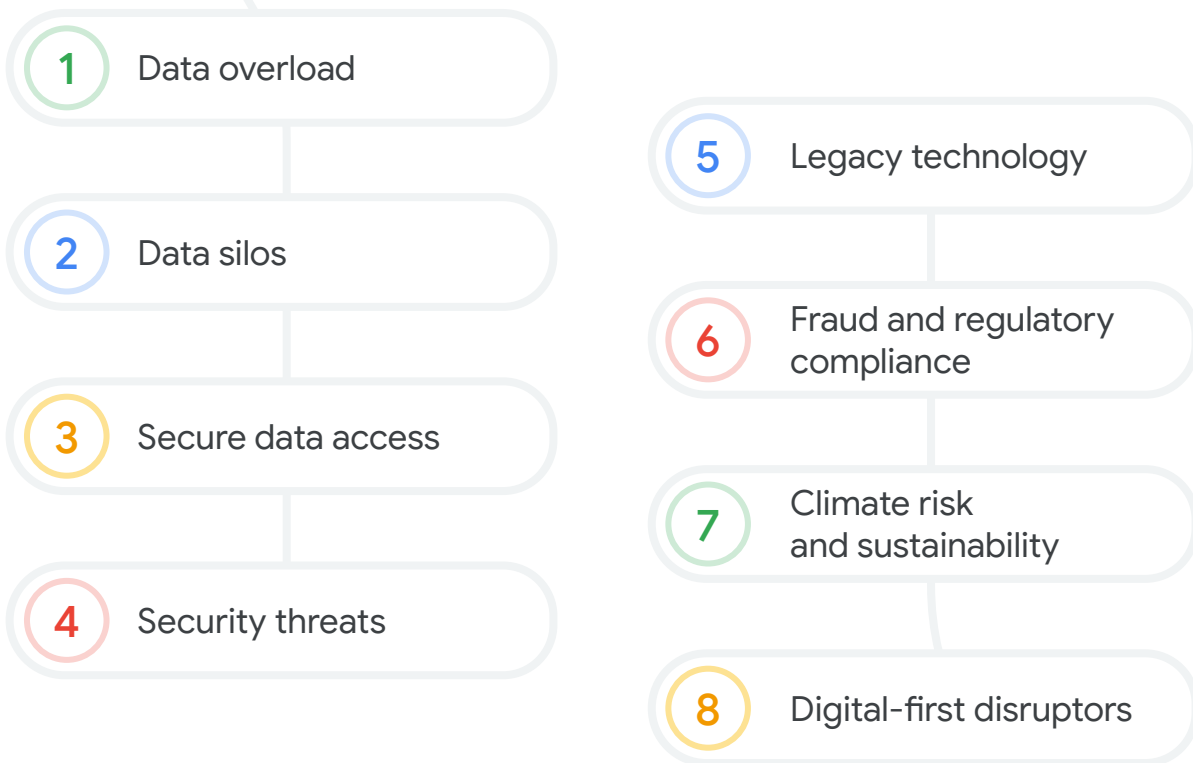
Fintechs have been appearing across the entire value chain, forcing incumbents to compete, collaborate, or lose out. But while they are embracing the cloud for scalability and growth, they face challenges around security, data, regulatory compliance, and growing competition.

³"The World Retail Banking Report 2020," Capgemini

⁴"Reshaping retail banking for the next normal," McKinsey & Company

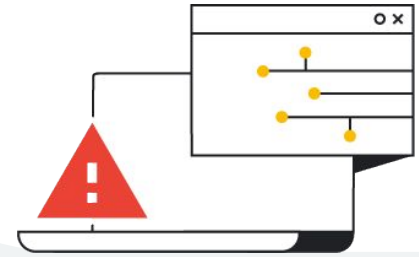
Top 8 challenges and solutions to creating data-driven customer experiences

Multiple data challenges, reliance on legacy systems, and other roadblocks limit financial institutions' efficiencies and ability to draw essential insights across their businesses. Eight main data and technology infrastructure challenges are keeping financial institutions from delivering personalized, data-driven customer experiences.



1 Data overload

IDC predicts the amount of data created in the world to grow to 221 zettabytes by 2026,⁵ up from 64.2 zettabytes of data created in 2020, and that the Global DataSphere will grow at a CAGR of 23%.⁶ Financial institutions need a way to process it all. IDC found that enterprises overall created, captured, or replicated 84 zettabytes of data in 2021, but just 10% of that data could have been used for analysis or AI and ML models.⁵ The average financial services company collects and analyzes only 24% of the operational data available to it, according to a global survey by Seagate and IDC in 2020.⁷



Then there’s the cost of acquiring and cleansing data. Capital markets firms spend \$8 on data cleansing for every \$1 spent on data acquisition, according to Refinitiv.⁸ In addition, fund managers invest nearly \$3 billion annually in alternative data sets, with yearly spend growing by 20–30%.⁹ From under \$500 million in 2018, the alt data market will hit \$100 billion by 2030.¹⁰

Success story

Versa uncovers insights from 140 GB+ of data in seconds as its data grows by a gigabyte per day.

Success story

Credit OK has sped up the data analysis process with a 10-fold increase in credit risk model deployment speed.

⁵ Worldwide IDC Global DataSphere Forecast, 2022–2026: Enterprise Organizations Driving Most of the Data Growth, Doc # US49018922, May 2022

⁶ IDC FutureScape: Worldwide IT Industry 2022 Predictions, Doc #US48312921, October 2021

⁷ “The big-data challenges facing financial services,” Raconteur

⁸ “Evolving Trading Workflows: Transforming backtesting data,” Refinitiv

⁹ “JP Morgan: Alternative Data Is Altering Investment Landscape,” Integrity Research Associates

¹⁰ Alternative Data Market Size, Share, & Trends Analysis Report By Data Type (Card Transactions, Mobile Application Usage, Social & Sentiment Data), By Industry, By Region, And Segment Forecasts, 2022 – 2030, Grand View Research

2 Data silos

Decades of poor IT integration due to merger and acquisition (M&A) activity have created data silos, sparking greater urgency for financial institutions to break them down as multiple challenges related to their existence become deeply rooted in operational infrastructures. M&As in the financial services industry have contributed significantly to the patchwork of IT systems while data remains trapped in analog documents.

When The Financial Brand asked financial institutions to prioritize their biggest challenges for data-driven marketing, 45% of respondents said that they had difficulty collecting and organizing data, while 22% indicated a challenge in locating the right data sources.¹¹

With an abundance of data locked up in documents and silos, financial institutions can suffer from the opportunity cost of not being able to access it.

Success story

CNA Insurance enabled faster decision making by consolidating global data and using automation to accelerate time to market for machine learning models.



¹¹ "Banking Needs To Prepare For Marketing's Data Arms Race," The Financial Brand

3 Secure data access

Using firewalls to enforce perimeter security is still a common approach to enterprise security.¹² However, this security model is problematic because, when that perimeter is breached, an attacker has relatively easy access to a company’s privileged intranet. At the same time, top-down, application-focused access and security controls may hinder employee productivity if they don’t have access to the right information – preventing financial institutions from innovating and growing as fast as they want.

By shifting access controls from the network perimeter to individual users using zero-trust capabilities, such as [BeyondCorp](#), financial institutions can more easily break down silos that used to exist when dealing with sensitive financial data – thereby enabling secure access to applications and cloud resources with integrated threat and data protection.

Success story

Blockchain.com streamlines its infrastructure and makes security priority number one.

Success story

Pioneering fintech **eToroX** achieves a balance of security, stability, and development speed.

4 Security threats

As the financial sector’s information ecosystems – internal systems, platforms, and vendor and partner system integrations – grow more complex and new security threats emerge daily, financial institutions’ job of keeping that information secure is increasingly difficult. According to IBM, 23% of all cyberattacks are directed at financial institutions, while the total cost of a single data breach is the second largest among all industries, costing financial organizations \$5.72 million on average.¹³

In the face of these challenges, many financial institutions are looking to the cloud and ML for security. Cloud service providers can invest more in people and processes to deliver secure infrastructure and applications, help them streamline and modernize their security approaches, and help keep information more secure.¹⁴

¹² “BeyondCorp: A New Approach to Enterprise Security,” Google Cloud

¹³ “Financial institutions are prime targets for cybercriminals and future attacks are ‘inevitable,’” Institutionalassetmanager.co.uk

¹⁴ “CISO’s Guide to Cloud Security Transformation,” Google Cloud

5 Legacy technology

Many financial institutions are using mainframes that are built on legacy technology and subsequently have multiple IT systems. But inflexible legacy infrastructure prevents agility.

In the Capgemini 2022 World Retail Banking Report, 95% of top global banking executives said outdated legacy systems and core banking platforms inhibit efforts to optimize data and customer-centric growth strategies.² In addition, Forrester Analytics data revealed that 25% of services decision-makers at banks say that their company's technology strategy is among the biggest challenges to executing digital transformation.¹⁵

Firms need to quickly understand the needs of customers and deliver services in real time. By migrating and modernizing their infrastructures, they can create unified data layers and benefit from flexible compute capabilities to pull new and valuable insights from data. Automating application validation and processing can help streamline compliance workflows, reduce guesswork, and keep data accurate and compliant.

Success story

Commerzbank modernizes its legacy infrastructure and leverages data analytics and machine learning tools.



¹⁵ The State Of Digital Banking, 2022, Forrester Research, Inc., February 9th, 2022

6 Fraud and regulatory compliance

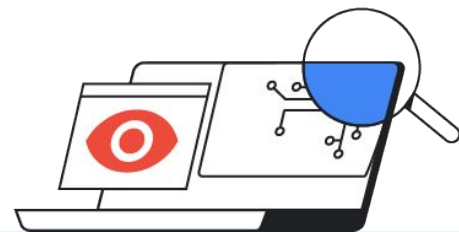
Fraud is on the rise and becoming increasingly sophisticated, calling for financial institutions to better manage their compliance, fraud, and security efforts.

American consumers reported losing more than \$5.8 billion to fraud last year, up from \$3.4 billion in 2020 – an increase of more than 70% – and investment fraud cost \$3,000 per victim in 2021.¹⁶ In addition, 47% of global companies had suffered at least one form of fraud in the prior 24 months – averaging six per company.¹⁷

Yet many financial institutions are still using static fraud models. At the same time, volatility in both the financial markets and the regulatory landscape has strained their ability to maintain compliance and stay secure. As a result, market, risk, and compliance systems are stretched to their limits as well.

Only 20% of firms state that they utilize risk modeling, according to AON.¹⁸ From a regulatory perspective, the cloud could also soon make oversight easier by enabling regulators to pull data on demand from regulated financial institutions with cloud-enabled APIs rather than waiting for them to periodically push data to them via manual and labor-intensive processes.

In addition, finding cyber talent in the industry makes it difficult for financial services companies to keep pace with ever-evolving threats, with 66% of Chief Information Security Officers (CISOs) saying they are struggling to recruit senior talent, according to Marlin Hawk.¹⁹



Success story

GoCardless supports a recurring payments platform that prioritizes user safety.

Success story

PayGreen scales to a rapidly growing client base, simplifies compliance management, and enhances security.

¹⁶ “Consumers lost \$5.8 billion to fraud last year — up 70% over 2020,” CNBC

¹⁷ “Global Economic Crime and Fraud Survey 2022,” PwC

¹⁸ Global Risk Management Survey, 2019, AON

¹⁹ Global Snapshot: The CISO in 2020, Marlin Hawk

7 Climate risk and sustainability

Leading financial institutions are preparing for climate-related risks to financial stability and the pivotal role financing will play to ensure a climate-resilient economy. Climate disruptions are increasingly discussed in the boardroom, integrated into financial policies and frameworks, and important to investors and regulators.

The European Central Bank's launch of economy-wide climate stress testing showed the need for banks to strengthen assessments of their exposure to both climate transition risks and physical risks to proactively manage them.²⁰

In the U.S., the Federal Reserve weighed the implications of climate-related risks for financial institutions and the financial system and has called scenario analysis "a potential key analytical tool for that purpose."²¹ The Office of Financial Research (OFR) then launched its Climate Data and Analytics Hub pilot, a new tool to help financial regulators assess risks to financial stability stemming from climate change.²²

Success story

HSBC uses cloud to open possibilities in evolving risk areas including ESG and climate-change risk.

Using AI technology, financial institutions can also prepare for future climate challenges by assessing climate risk, which would better protect their business and customers, as well as pinpoint ESG opportunities to fund, invest, and adopt sustainable business models. For example, HSBC's market risk digital development team launched a [Risk Advisory tool](#) to include the impact of climate risk on the trading book, taking into account rating agencies' ESG scores to assess where trading portfolios may be more vulnerable to climate change risk.

Success story

NatWest Markets aims to become "Climate Positive" by 2025.

²⁰ "Southern European banks most at risk from 'potentially severe' climate impact," S&P Global Market Intelligence

²¹ Speech: Building Climate Scenario Analysis on the Foundations of Economic Research, Board of Governors of the Federal Reserve System

²² Press Release: Office of Financial Research Pilots Cutting-edge Data Hub to Assist with Climate-risk Assessments, U.S. Department of the Treasury

8 Digital-first disruptors

Digital-first financial services companies are disrupting the status quo and challenging leading financial institutions to rethink their approaches to technology and digital engagement. By 2024, net-new production-grade cloud-native apps will increase to 70% of all apps,⁶ and 25% of tier 1 banks globally will deploy their data warehouses and analytics operations in the cloud by 2025,²³ according to IDC.

In fact, 75% of digital-first financial services companies said they are now prioritizing digitized customer experiences, according to a Broadridge survey.²⁴ Their top three digital priorities in the next two years include customer interaction (77%), operations (69%), and sales and marketing (68%).²⁴

The flexibility and scalability of cloud services are suited to help these companies. But every successful startup will face a moment where they need to scale quickly. For digital-first companies, this is happening much faster since they already have the foundations of a scalable system in place, allowing them to reach and serve higher numbers of customers faster.

At some point, firms will view their ability to scale as either an immediate challenge or a huge opportunity.

The key is to be able to move fast – overnight, if needed – to meet that moment. In addition, startups can quickly deliver new collaboration tools for new hires, scale services up or down depending on their day-to-day needs, manage costs to keep investors happy, and launch new products on a global scale, quickly.

AI, ML, and analytics are just as foundational for startups today as cloud storage was fifteen years ago. Digital-first financial institutions have the immediate capabilities to process and analyze data, build next-gen tools using AI/ML, and scale their services quickly and seamlessly.

Success story

Brazil's **Bit Capital** rolls out open banking while meeting the high demand of Pix.

Success story

Digital-first insurtech, **Lemonade**, leverages data and cloud technology to streamline the process of buying and using insurance.

²³ IDC FutureScape: Worldwide Financial Services and Payments 2022 Predictions, Doc #US48299721, Oct 2021

²⁴ The 2022 Broadridge Digital Transformation and Next-Gen Technology Survey

[→ Summary](#)

Optimizing customer data in the cloud

Embracing data-driven transformation can be an important element in business success. By reducing risk and managing costs through platform modernization, financial institutions can drive organizational intelligence and agility. By gaining insight from their data and applying AI and ML to business problems, companies can create compelling experiences for a new generation of users and customers.

It's a unique opportunity to take the first step to becoming a data-driven, digital-first organization and uncover useful data insights, optimize technology investments, and grow the business.

To learn more or explore how Google Cloud fits into your data technology strategy, please:

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