



Cloud data strategy and competitive advantage in the financial sector

Making data—of any type, from any source—
the heart of a transformative business strategy



Overview

Financial services firms face pressure to become more agile and adaptable in the face of an explosion in data, the digital journey, changing customer expectations, and competition from FinTech businesses. Data emerges at the heart of any viable strategic response.

Data is critical for building better customer loyalty and engagement. It enables dynamic partner relationships that drive competitive advantage. Applying the right analytical models to relevant data facilitates informed decision-making for financial firm executives.

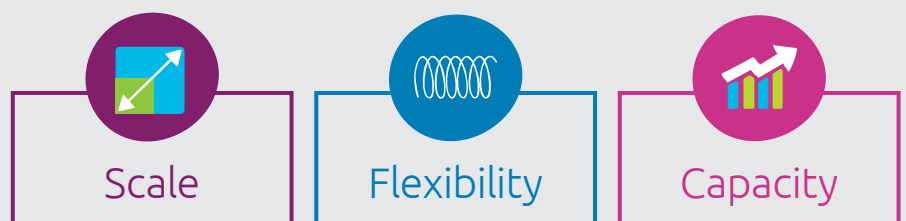
However, the key challenge facing today's enterprise is how to unlock value from the wealth of data. The cloud data strategy is a big part of the solution. Basing data transformation on cloud-native capabilities gives you the scale, flexibility, and capacity to put data to work in your financial business.

Realizing the cloud data strategy is not a simple matter, but Capgemini and Amazon Web Services (AWS) work together to help you address the inevitable challenges. We have the proven experience and tools to help you gain strategic value from your data. Our joint approach gives you a data-centric path to competitive differentiation on a new kind of cloud data platform.

What it takes to thrive in a rapidly evolving industry

The financial services industry, long known for healthy competition, has grown even more intensely focused on finding and retaining loyal customers. New competitors, like FinTech firms, are on the move, making enticing offers to your traditional bank customers.

However, it is possible to compete, and compete well. Reaching—and keeping—your customers has a lot to do with how well you know them and how effectively you can parlay that knowledge into meaningful services and rich engagement. That takes data. It takes a strategy for dealing with data.



Data strategy, limited by on-premises capabilities

Data strategy is about realizing the value from your enterprise's information wealth. It's a path to data-centric competitive differentiation. A sound data strategy translates into deeper, richer customer engagement, omnichannel customer experience, process automation, and a data-driven partner ecosystem. It generates cross-sell/upsell opportunities and sophisticated new propositions that keep customers loyal to your brand.

The data strategy needs to cater to growing customer expectations of time to market, while enabling valuable insights from its internal and external data. However, financial services companies' data centers tend to be difficult to change, constrained by tightly coupled legacy systems and strict compliance rules. Diversification of businesses over the years has affected every element of the data center. On-premises data management has become exponentially more complex in recent years with the evolution through systems, technologies, processes, and regulations.

Challenges affecting the realization of data strategy

Challenges abound when it comes to realizing a data strategy. These include extensive, multi-threaded regulations as well as integration with multiple systemic partners, such as exchanges. Then, there's the integration of emerging technologies with legacy systems and the need to adapt to proprietary integration methods. Simultaneously, data types and master data management issues are proliferating. Adoption of proprietary vendor products and application diversity is also increasing.

Add to these technical factors the need to support multiple lines of business (banking, lending, insurance, and investment) in multiple geographic territories, with varied regulatory requirements. You may be relying on third-party transaction partners for completing business processes such as stock trades. Some geographies have their own data sovereignty and privacy rules.



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Factors inhibiting data-strategy definition and implementation

A number of factors inhibit the realization of a data strategy in an on-premises environment. Technical stresses include issues like ensuring reliability, scalability, and availability, while maintaining flexibility of connections to different data sources. Legacy technologies, which are impossible to avoid in the financial sector, also create drag on data strategies. Administrative overhead is also a constant obstacle to changes in data practices. While these issues will exist, you will have to manage them if you want to use data in the cloud. Otherwise, you may face challenges related to compliance, customer privacy, fraud prevention, and legal liabilities.

The cloud data strategy as source of competitive differentiation

The cloud makes it possible to realize the benefits of the data strategy. Not that the cloud is a cure-all. It has its issues. Yet, having the right partner ensures your data strategy is comprehensive and forward-facing, catering to enterprise-wide needs. Capgemini data strategy is based on an enterprise cloud data platform. Such a platform can connect cloud and legacy systems in a hybrid, API-centric architecture. The API approach makes it possible to integrate partner data sources while securely exposing your data to selected partners. It spans a broad range of data types and sources.

The cloud data platform provides significant agility, scalability, access to advanced tools, and the ability to grow into new geographies without committing large IT investments. The cloud data platform contains capabilities to ingest and integrate data from various sources, components for core data management, data security, and information delivery based on roles and business rules. The platform further has capabilities to leverage artificial intelligence (AI) and machine learning (ML).

The cloud platform provides native capabilities to perform real-time analytics on streaming data. It provides capabilities to draw meaningful information by processing unstructured data like images, text-to-speech, and transcoding. The cloud data platform is compatible with DevOps for the faster rollout of new features and more responsive IT.



The next step in the journey involves the modernization of your enterprise data solutions.

AWS and Capgemini work with you for the next-gen data platform

AWS and Capgemini can work with you to plan, build, and operate the next-gen cloud data platform for your financial services business. Moving to the cloud is a journey. We develop a cloud adoption roadmap based on your long-term vision, business drivers, market trends, your current state, and investments.

The roadmap comprises a multistep approach. It starts with setting up a foundation layer with cloud infrastructure and platform services and then moves on to setting up core data management practices such as data security, data quality, metadata management, and lineage.

The next step in the journey involves the modernization of your enterprise data solutions. This involves re-architecting/migrating on-premises databases, data warehouses, and data lakes to the cloud leveraging AWS Platform-as-a-Service (PaaS) capabilities. The process allows you to take advantage of data archival capabilities and integrate streaming data into your data lakes.

Having the core platform in place allows for a major transformation through streaming data analytics along with integrating third-party data providers into your data platform. The final step is to improve your AI and ML capabilities by taking advantage of container-based data science and analytics workbench provisioning, natural language processing (NLP), AI, ML, and deep learning (DL) models.



Our approach is comprehensive, fast, and technology-agnostic.

We manage all phases of delivery, from devising your data strategy to planning its execution and implementation. The process encompasses business case and business benefit tracking along with selecting tools and technologies. The build process starts with setting up the cloud infrastructure on AWS. When we reach that stage, we proceed with the following collaborative steps:

- **Establish security controls**
 - **Build the data ingestion layer, processing layers, and capabilities for analytics, reporting, and visualization**
 - **Develop data provisioning for authorized consumers**
 - **Develop/change the data schema**
 - **Build data pipelines for ongoing data ingestion**
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Accelerate your cloud innovation with a trusted partner

Wherever you are in your quest to achieve next-generation, cloud-based data capabilities, we recommend you look at Capgemini's cloud data transformation services. We combine a proven methodology, leading-edge tools, and project accelerators to work with you in building your cloud data platform. Working with us, your data strategy is realized by the platform, which is delivered by transformation experts who work with you to achieve your business objectives.

Defining your cloud data architecture is a further significant step in the process of realizing your data strategy through the cloud data platform. Doing it right usually requires building a cloud reference architecture, along with key platform capabilities, patterns, and reusable components.

Capgemini can provide full-scale services for the end-to-end transformation journey. Our approach is comprehensive, fast, and technology-agnostic. It's non-disruptive and customized to your requirements.

The Capgemini–AWS relationship

The Capgemini–AWS global relationship brings an impressive complement of capabilities, proven successes, and accolades to the work of realizing your data strategy. Capgemini became an AWS Premier Consulting Partner in 2012 and was certified as an AWS Managed Services Provider in 2016. Capgemini's multiple AWS competencies include financial services, migrations and SAP.

We've done this before with great results. We built a data science lab on AWS for a large, US-based financial services company that reduced infrastructure and license costs by 60%. In another case, we built a Business-Data-Lake-as-a-Service (BDLaaS) for a financial services firm that serves over 47 million customers. Originally, this customer wanted to transform a mainframe-based global general ledger and reporting system. The resulting solution cut latency by 32%, operating costs by 27%, and migration costs by 40%.

Named a “Visionary” in the Gartner Magic Quadrant for Public Cloud Infrastructure Managed Service Providers, March 2018.

Capgemini and AWS are continually developing financial services sector-specific solutions. Connected banking, PSD2/Open Banking and dev/test migrations are a few examples of this productive relationship. Capgemini has an AWS Migration Center of Excellence in India. Overall, Capgemini has 2500 employees trained in various AWS offerings, with more than 700 people certified on AWS.

Conclusion

The financial services industry is undergoing a major competitive realignment. On-premises solutions have become less able to deliver competitive differentiation, especially in the area of data management. With Capgemini and AWS, you can move to a data strategy based on the cloud data platform. Benefits include access to real-time information; broad, rich analytics; and flexible data connectivity that facilitate better customer experiences. We have proven experience working with financial institutions in the development of data strategies. Together, we work with you to realize your data strategy on the proven cloud data platform.

For more information on our services, please contact us at ***financialservices@capgemini.com***.

Visit us at ***capgemini.com/bcm*** or ***capgemini.com/insurance***.



The Nelson Hall Vendor Evaluation and Assessment Tool (NEAT) report designated Capgemini a Leader in big data and analytics for 2017 and 2018.



About Capgemini

A global leader in consulting, technology services, and digital transformation, Capgemini is at the forefront of innovation to address the entire breadth of clients' opportunities in the evolving world of cloud, digital, and platforms. Building on its strong 50-year heritage and deep industry-specific expertise, Capgemini enables organizations to realize their business ambitions through an array of services from strategy to operations. Capgemini is driven by the conviction that the business value of technology comes from and through people. It is a multicultural company of over 200,000 team members in more than 40 countries. The Group reported 2018 global revenues of EUR 13.2 billion.

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