

THE GREAT "MIGRATION"

A Collaborative Journey from Data Center
to Cloud Services



FINANCIAL SERVICES FIRMS ARE FACED WITH A COMPLEX BUSINESS LANDSCAPE

Today's financial services firms operate in an era of disruption defined by a complex and ever-evolving business environment. Rapidly changing customer needs, mounting economic pressure, a rise in agile competition and growing regulation are just some of the key challenges to be tackled in order to thrive in this modern landscape.

However, financial institutions are heavily invested in existing legacy infrastructure. These legacy systems are not easily scalable or flexible and pose challenges in terms of time to market, cost of operations, security risk in terms of growing

financial/cyber-crime, and adapting to regulatory risk.

This necessitates the move to a digital hybrid future.

"Future is Digital and Hybrid"

83% of FS leaders relied on cloud technologies in some form

38% using hybrid cloud solutions

17% using multi-cloud solutions

Source: [Google Cloud study with the Harris Poll](#)

DRIVERS OF CHANGE

Value Chain Reinvention

The relationships between financial institutions and their customers are evolving. As the supplier ecosystem is growing, more companies are **embedding financial services** in their offerings. Competition and digital transformation propel them to reimagine their core processes to achieve customer differentiating capabilities through modern-day technologies such as ML and AI.

Risk and Resilience

The world gets simultaneously **less risky and more dangerous**.

The benefits of safer cars and workplaces are offset by new risks associated with climate change, cyber-crime, distributed supply chains, and the pandemic. For example, Know Your Customer's (KYC) process during the pandemic required a lot more effort from financial institutions, while the regulatory requirements remained the same.

Intensifying competition

Existing legacy providers must now compete with new-age players that have a cloud-native, agile and experience led approach.

Modernization and open ecosystem collaboration are essential to thrive in this new environment.

Economic Headwinds

Customers are moving to digital banking services for easy accessibility and multiple features on the go. This requires banks to become innovative and offer services at an affordable cost while maintaining operational efficiency.

Already faced with the current economic headwinds, there is a significant possibility of **increased revenue and cost pressures**.



SIX KEY THEMES FOR FINANCIAL INSTITUTIONS TO FOCUS ON

Selling Digitally

There is an ongoing shift from traditional channels to digital tools, or a mix of both, to enhance customer experience, customer prospects and customer delight. The new channel partnerships also help maximize their reach.

Future Sustainable Enterprise

An enterprise technology must continuously evolve at pace with the demand for efficiency, industry opportunities and risks to be sustainable in future.

Data Estate and Infrastructure Modernization

Financial institutes need to reinvigorate enterprise data assets for an "insights-driven" business culture, modernizing the mainframe and digitalizing the core.

Touchless Service

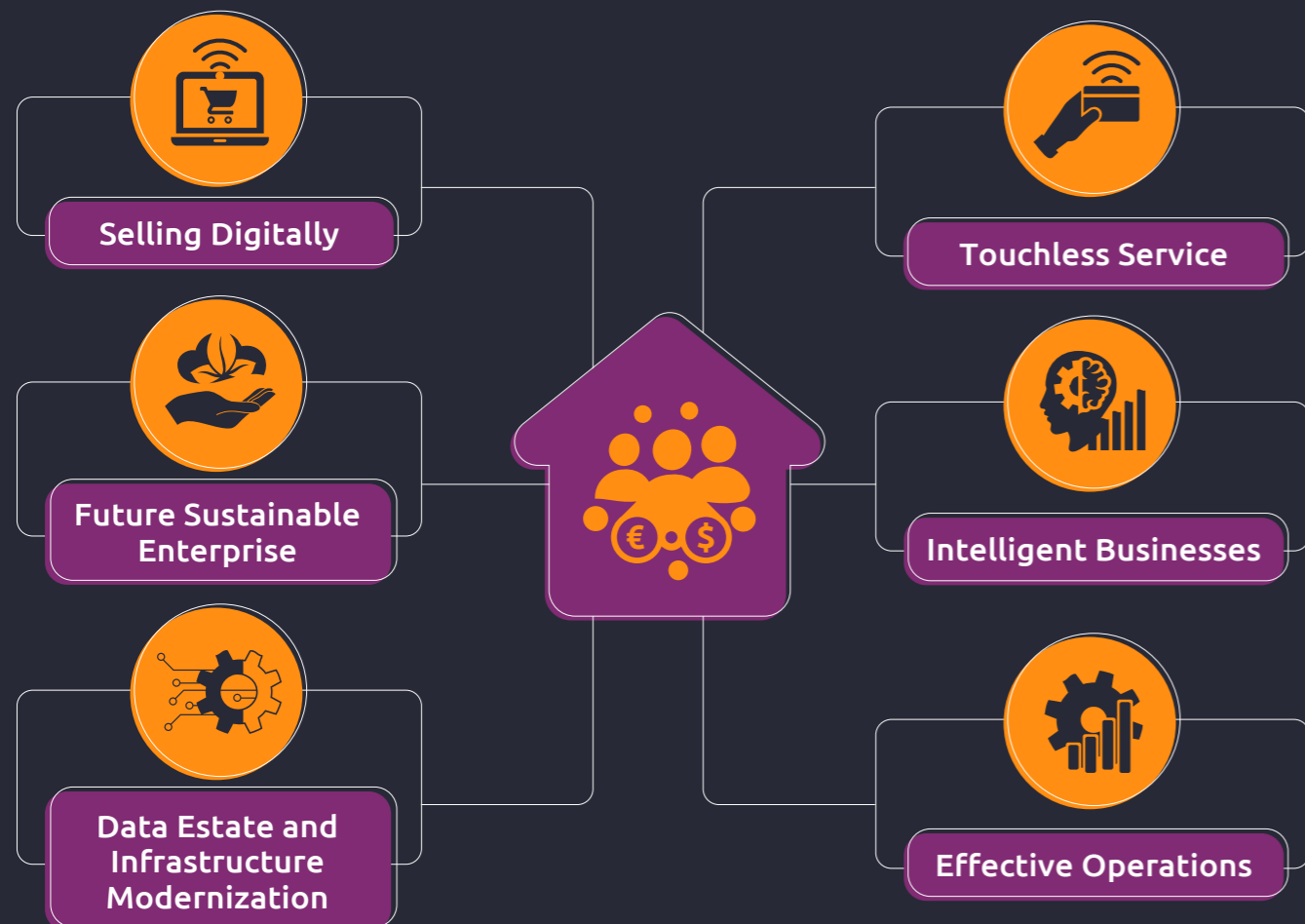
Banks need to have brand differentiation with minimal CX friction in omni-channel service, inducing new behaviors and digitalizing ops for STP.

Intelligent Businesses

It is essential to leverage data effectively for hyper-personalization and drive analytics/AI led innovation across the value chain.

Effective operations

Cost transformation, next generation operating models, process optimization and bringing in greater degrees of automation are non-negotiable.



TO THRIVE IN THIS EVER-EVOLVING ENVIRONMENT, A DIGITIZED INFRASTRUCTURE IS ESSENTIAL

“A move to the cloud can help FS firms deliver \$90 Bn of EBITDA impact in 2030.”

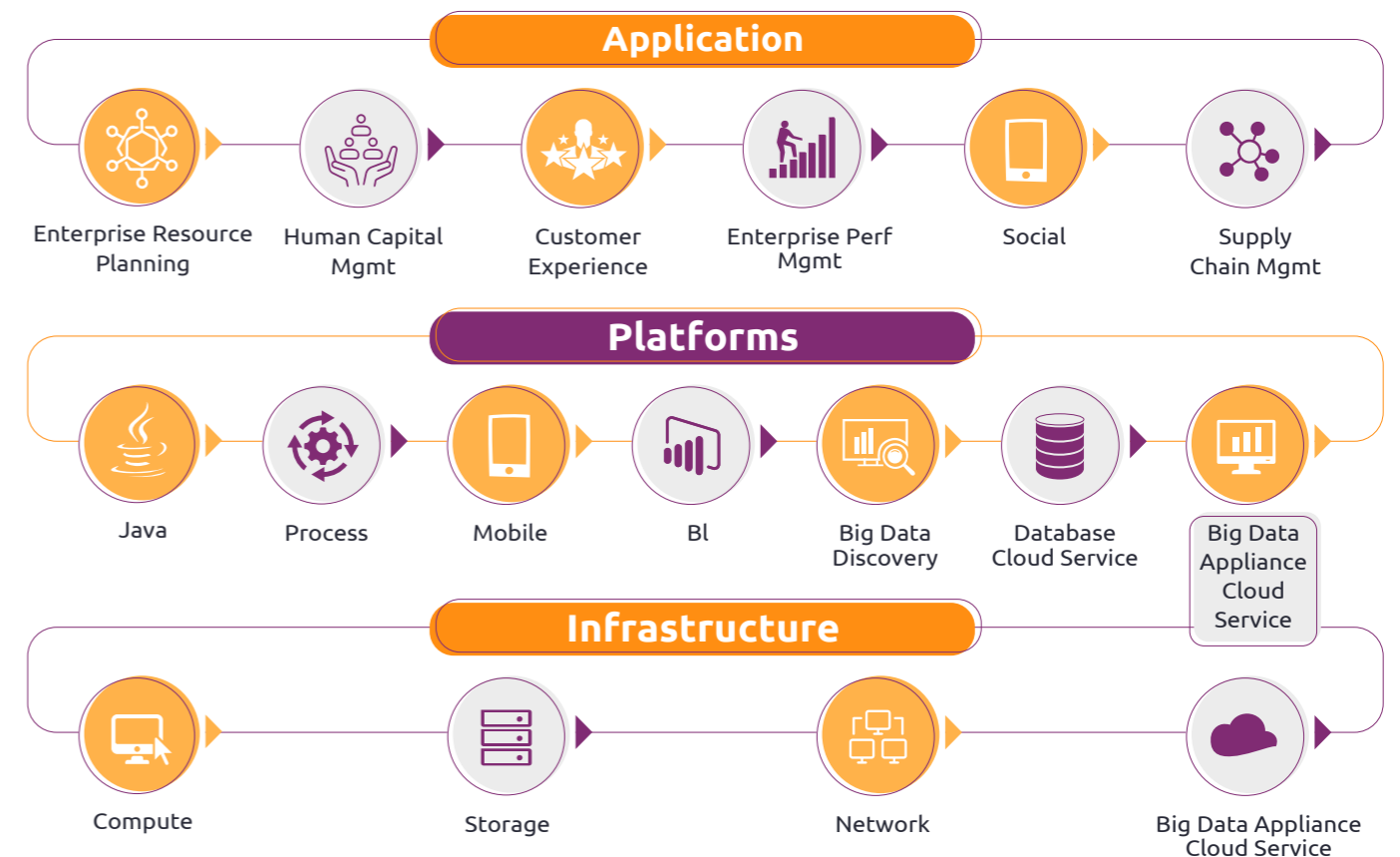
- Mckinsey and Co.

Many organizations are still at a very nascent stage of cloud adoption, such as migrating only the data and non-core services to cloud. The transition to a digitized hybrid setup **will help unleash their true business potential**. Firms need to rethink their cloud strategy around applications and platforms, as well as core infrastructure.

Cost Transformation

Financial institutions are under pressure to reduce overheads, improve efficiency and transform their cost base. In addition, large capital expenditures on infrastructure setup usually come with an opportunity cost. Hybrid cloud has the potential to replace such large capital expenditures with recurring monthly expenses (Capex to Opex). Hence, an optimized landscape with a hybrid, multi-cloud setup and rationalized data center estate is a model that is being adopted across the industry.

Data center transformation, coupled with a move to hybrid multi-cloud future, has the potential to drive down Total Cost of Operations for financial services firms by up to **40%**.



Digitalized operating environment underpinned by a hybrid infrastructure

Scalability and Flexibility

Customer demographics and their needs are continuously evolving at a rapid pace. Faster time to market, breakneck product cycles and personalization impose additional constraints on enterprise infrastructure. This necessitates a flexible and scalable setup that is purpose built for the future.

Cybersecurity

With rapid strides in technology, financial crimes are also becoming more sophisticated and difficult to prevent. We are witnessing cyberattacks across major enterprises, with sometimes alleged involvement of nation states. Such attacks target critical infrastructure within the economy, making FS firms a likely target. The long tail costs of such attacks can extend for months to years, including but not limited to, data loss, service disruption, revenue losses from downtime, notification costs, and reputation damage.

While the neo-banks and fintech startups are reaping the benefits of the cloud-first strategy, the legacy banks are a facing double-fold challenge: moving their decade-old systems to the cloud; and maintaining or improving their existing standards of security. Handling crucial operations, such as payments and storing sensitive data on legacy systems, exposes critical vulnerabilities. Thus, financial institutions need to adopt a hybrid cloud strategy. The hybrid approach allows banks to have security and control of the private cloud and the flexibility and scalability of the public cloud. When implemented properly and by skilled professionals, hybrid cloud environments offer more security when compared to those on-premise.

Agility and Time to Market

Financial services firms must differentiate themselves by innovating faster, reducing time to market, and evolving product mix to respond to changing dynamics. The expectations of customers of digital banking and fintech apps are ever-increasing, with a very limited window of opportunity for financial institutions to respond. In addition, even a single transaction failure or downtime can cause a

Cyber Attacks

62%

of respondents have encountered a zero-day exploit in the past 12 months, compared to 51 percent in 2021.

- Global Incident Response Threat Report, 2022

92%

of business respondents experienced or may have experienced a nation-state backed cyberattack in the last 18 months or expect to face one in the future.

- Trellix

\$5.86Mn

is the average cost per breach within financial services

- IBM Security, Cost of Data Breach Report, 2022

loss of customers. So, these firms need to become more agile and responsive.

Most cloud providers have service level agreements that guarantee 99% uptime and zero risk failure. The major cloud providers have a multi-regional presence with more than three availability zones in each region, which helps them maintain the uptime of systems and applications. They also replicate data across the availability zones, which reduces the risk of data loss.

Modernization

An evolving tech and infrastructure stack is essential to power innovation, deliver enhanced outcomes, integrate with ecosystem partners, and deliver progressive value benefits. A hybrid multi-cloud future can help establish this.

Shifting Preferences

By 2025, **51%** of IT Spending will have shifted from traditional solutions to the public cloud.

- Gartner, 2022

83% of the banks surveyed use public and private cloud platforms, as cloud continues to be a growing component of their digital infrastructure

- IDC Worldwide Industry CloudPath Survey, 2022

UNDERSTANDING THE BUSINESS CASE AND ASSOCIATED CHALLENGES

Cloud adoption is not a one-time investment/engagement. It is a multi-year commitment which will change the way firms do business forever. Thus, you must have a strong business case to justify the transition. Every organization has a diverse set of needs and complexities when planning to adopt a move to cloud services. The business needs should always be kept as a priority as all these changes within the organization will impact the business directly or indirectly. It is essential to evaluate and

understand the present customer problems which cannot be solved with their current IT strategy. It is also important to lay down the benefits anticipated or expected from cloud adoption.

Every migration project is driven by a motive to optimize key factors such as cost, performance, or security. Regardless of the motivation, there are certain common challenges faced, such as risk management and integration efficiency. Apart from these, some other major challenges include:



Legacy: 'If it ain't broke'

Complex legacy technology that is effective and stable necessitates a robust business case to justify major investment in migration



Business Case

The lack of a structured approach, governance and effective operating model leads to high Costs and Schedule Overruns



Security and Regulatory Compliance

Changing the geopolitical and regulatory landscape necessitates additional investment and efforts



Talent

Skilled talent is needed to help realize cloud ambitions, which can be a challenge in the face of a tight labor market

Some additional considerations that need to be explored with respect to hybrid cloud adoption include decisions regarding What, How and When to

move: Applications, Middleware, Platform/Database, Infrastructure and future state architecture: Public cloud vs Private cloud vs Hybrid.

HOW CAPGEMINI ENABLES FS FIRM'S DIGITAL HYBRID FUTURE

We follow a phased approach that helps the financial service firms mitigate these challenges.

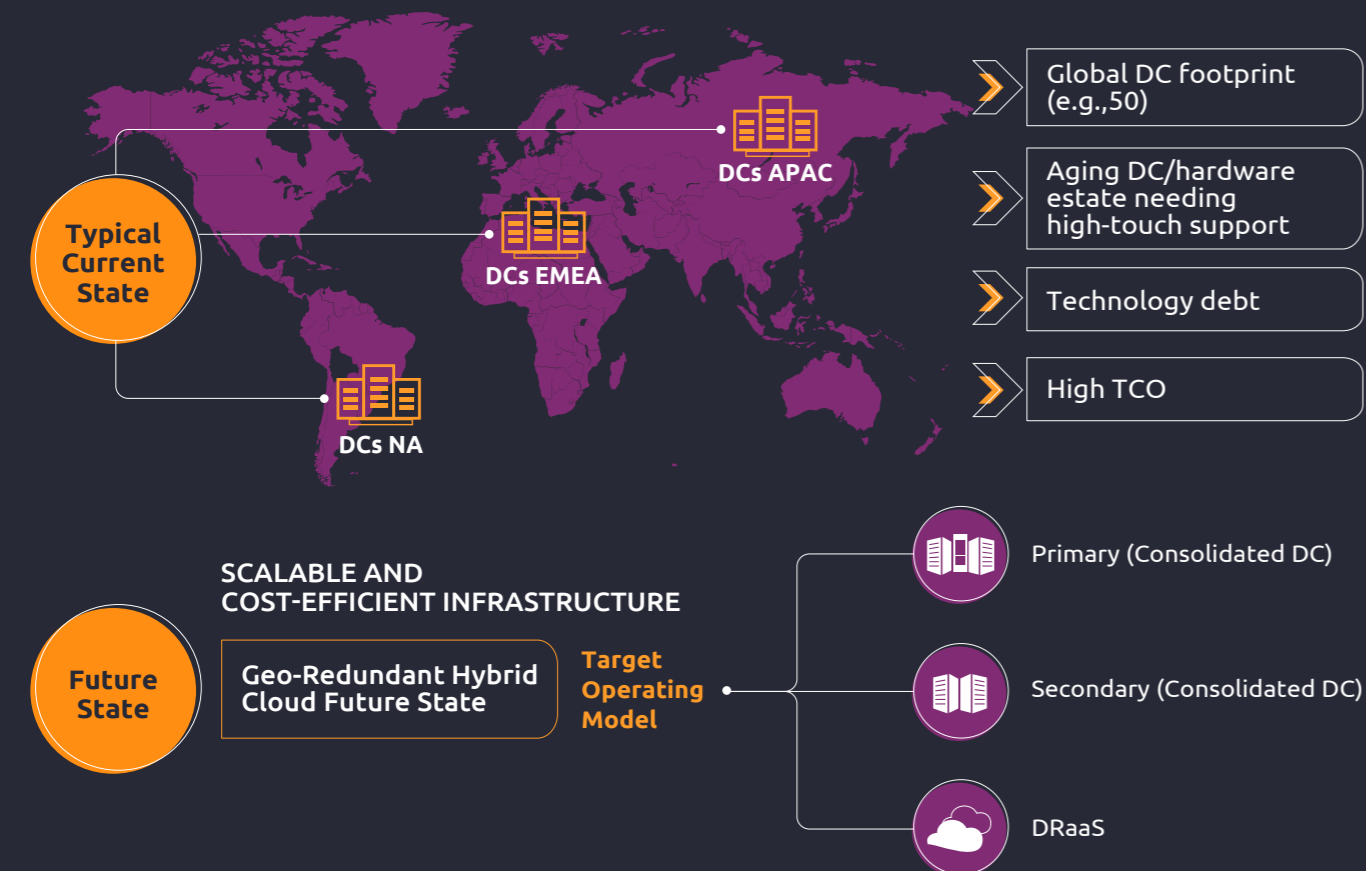


Phase 1: Proof of Value through ACCELERATE®

We start by understanding the company's needs. This is done through our ACCELERATE® framework to define and validate the goals, vision, and objectives. We conduct Proof of Value workshops with the

stakeholders to achieve a common understanding of the current state and the conceptual design of the desired future state.

Then, we undertake intensive co-designing with our partners, get their feedback to refine the commercial proposition, and finalize the agreement and schedules.



Global Cloud footprint with extension to regionally consolidated data centers (DCs)

Phase 2: Design Target State and Execute MVP

A joint team of SMEs is set up to exchange data and information and conduct proper due diligence to

determine the significant drivers for your business. An exemplary (not exhaustive) checklist for the diligence is provided below:

<h3>Goals</h3>	<ul style="list-style-type: none"> • What business results do you want to achieve? • How does your business measure ROI? • What problems are you trying to solve with the cloud migration strategy?
<h3>Business model</h3>	<ul style="list-style-type: none"> • What is the current state? What is your expected future state? • What are your core products and user needs? How are they impacted by where and how data is stored? • What are your development and deployment needs/issues/constraints? • What are your cost drivers? • Can you afford downtime? • Disaster recovery and business continuity needs
<h3>Security needs</h3>	<ul style="list-style-type: none"> • What are your requirements regarding data privacy, confidentiality, encryption, identity and access management, and regulatory compliance?
<h3>Scaling needs</h3>	<ul style="list-style-type: none"> • What are your growth plans? • Does your storage needs fluctuate often and significantly?
<h3>Technical expertise</h3>	<ul style="list-style-type: none"> • What is your existing in-house expertise? • What additional existence is needed to run and innovate your core business?
<h3>Timeline</h3>	<ul style="list-style-type: none"> • What business needs constrain your timelines? • What core business activities must remain uninterrupted?

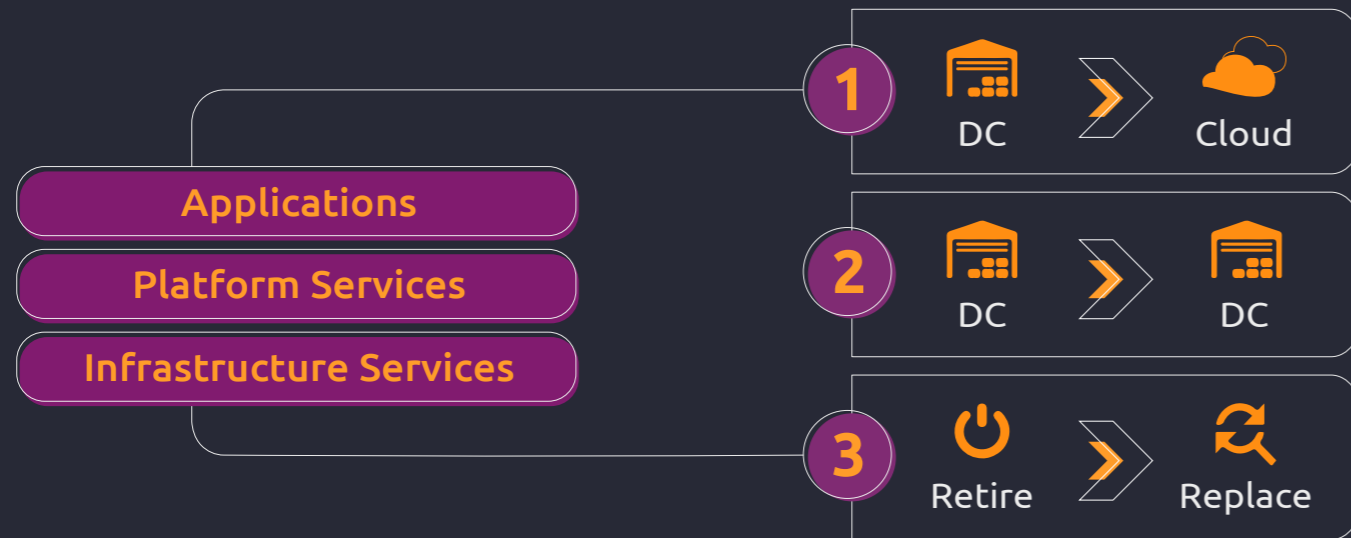
In this phase, the environmental footprint is gathered, and locations, architecture, and multiple initial hypotheses are built and

validated through workshops to jointly refine the solution requirements.

Phase 3: Transition, Migration and Rationalization

We perform transition readiness checks and pilot runs. Once the processes are validated and benchmarked, we move ahead with Data Center Transformation.

Workload is rationalized and transformed at a scale by leveraging a digital hybrid transformation approach. This is followed by DC rationalization, hybrid cloud enablement and integration with networking and security guardrails, and finally the rehosting of workloads to IaaS.



Phase 4: Operation and Continuous Transformation in Cloud

The last leg of the transformation is a multi-vision focus on enabling engineers for success and supporting operation. Various facets are considered

to enable this, including a platform focus for improved velocity while maintaining quality and reliability of services, enhanced data security and business aligned observability and KPIs. Special focus is put on continuous innovation by enhancing visibility into the operations and security blind spots.

HARNESS THE POWER OF THE CLOUD WITH US

Capgemini helps make digital business a reality. We work with you to discover your company's unique business drivers and migration needs. We identify your smartest investment opportunities and best business case and combine our end-to-end cloud services with sector-specific expertise, advanced cloud technologies and global resources to guide your cloud journey every step of the way. Our strong partnerships with the world's

leading hyper-scalers mean we can harness their innovations to accelerate yours.

Seamlessly integrate your legacy IT with the cloud and provision services across both public and private clouds using our secure hybrid and multi-cloud service, a completely new way to manage your cloud estate.





About Capgemini

Capgemini is a global leader in partnering with companies to transform and manage their business by harnessing the power of technology. The Group is guided everyday by its purpose of unleashing human energy through technology for an inclusive and sustainable future. It is a responsible and diverse organization of 360,000 team members in more than 50 countries. With its strong 55-year heritage and deep industry expertise, Capgemini is trusted by its clients to address the entire breadth of their business needs, from strategy and design to operations, fuelled by the fast evolving and innovative world of cloud, data, AI, connectivity, software, digital engineering and platforms. The Group reported in 2022 global revenues of €22 billion.

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