





## Reaching for the Clouds

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Gartner research indicated 72% of organizations are planning to utilize cloud services for financial applications in the next three years.<sup>1</sup> Financial organizations of all sizes are opting for cloud-based solutions that streamline business analytics, transactional systems of record, and enterprise business applications. But “moving to the cloud” is no small task and comes with its own set of unique challenges and considerations.

As an industry, financial services has found balance by using a cloud strategy that blends both public and private cloud models. Hybrid cloud solutions have been hailed for optimizing efficiencies, cutting costs, and satisfying compliance and regulatory standards. Digital Transformation (DX) has been the driving force behind fast-paced changes in system infrastructure and processes, and financial services organizations have had to keep an open mind.

While the prospects sound promising, it’s important to note that hybrid cloud implementation is not without obstacles or risk. The intention of this eBook is to explore the opportunities around hybrid cloud computing along with the challenges. The eBook also shares relevant use cases in financial services and takes a broad look at future predictions for the industry.

<sup>1</sup> <https://www.gartner.com/smarterwithgartner/3-things-to-know-before-moving-financial-applications-to-the-cloud/>

# Hybrid Cloud's Impact on Financial Services

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In EY's 2018 Global Banking Outlook, 85% of banks cited the implementation of DX as a key priority.<sup>2</sup> Increasingly, CIOs are under pressure to shift their focus (and budget) toward digital transformation initiatives<sup>3</sup> that help organizations become more agile in the face of a steep technological learning curve. Hybrid cloud solutions have piqued the interest of stakeholders for this very reason, offering firms the flexibility required to adopt new ways of doing business. As a result, financial firms have been able to transform their customer experience, explore new revenue opportunities, and improve their bottom-line results.

Financial services organizations have big data to protect, along with the unique requirements inherent to the industry. This responsibility comes with heavy investment in private cloud infrastructure which is secure, yet expensive to operate and maintain. Financial services firms are vying for improved operational efficiency while simultaneously requiring easy access to data required to meet the needs of both internal and external stakeholders. Hybrid cloud computing presents an opportunity to balance these competing demands.

2 [https://www.ey.com/Publication/vwLUAssets/ey-global-banking-outlook-2018/\\$File/ey-global-banking-outlook-2018.pdf](https://www.ey.com/Publication/vwLUAssets/ey-global-banking-outlook-2018/$File/ey-global-banking-outlook-2018.pdf)

3 <https://www.zayo.com/ca/hybrid-clouds-transforming-financial-services-ready/>

# Performance Use Cases

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There are a number of ways organizations can use hybrid cloud models to optimize data processing and interconnectivity. The following use cases illustrate how financial services firms can potentially utilize hybrid cloud computing to solve performance-related business challenges.

**Processing Big Data:** Processing capacity and analytical requirements for financial services are hefty. The hybrid cloud model allows firms to use the public cloud for big data processing on an as-needed basis without expensive on-site infrastructure.

**Temporary Processing Capacity:** Public cloud resources can execute on temporary, short-term projects with ease and at a much lower capital expenditure (CAPEX) than private cloud solutions. There is an inherent risk that although some data may be regulated, it's not necessarily protected by the cloud provider

## Hybrid Cloud Considerations Checklist:

- Don't search for a one-size-fits-all strategy; it doesn't exist
- Identify your firm's priority business objectives
- Identify your firm's data use protocols & compliance requirements
- Discern between applications with predictable vs. unpredictable, elastic workloads (perhaps based on seasonality, etc).
- Consider placing unpredictable workloads in the cloud off-premises and keeping steady workloads on-prem
- Remember that not everything belongs in the cloud
- Work with your solutions architecture team to build a customized framework for your business goals



Support for Changing Workloads: 83% of enterprise workloads will be based in the cloud by 2020.<sup>4</sup> These workloads are in constant fluctuation and the hybrid model allows financial firms to synchronize their efforts with the fluctuations, saving on both time and money.

Data and Application Flexibility: Going strictly public or private for a cloud solution can limit an organization's flexibility in response to technological change. The hybrid cloud model allows financial firms to be agile, with the option to use public, private, or both.

Centralized Orchestration: Having one central place from which firms can manage all cloud deployments is an essential part of a successful hybrid cloud strategy. Ensuring that the connections between clouds, networks, and partners are seamless and centrally governed is viewed as a business requisite.

<sup>4</sup> <https://www.logicmonitor.com/resource/the-future-of-the-cloud-a-cloud-influencers-survey/>

# Security and Compliance Use Cases

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When it comes to big data, financial services have a reason to be squeamish. They are responsible for an unfathomable amount of sensitive data belonging to their customers. Below are use cases addressing common security and compliance considerations for financial services firms.

**Separating Sensitive Workloads:** The hybrid cloud model provides firms with some choice in where they process their data. Some may opt to run analytics on sensitive data in the private cloud but use public cloud resources for other, less-sensitive types of data.

**Strategy and Policies for Data Migration:** Enterprises must take responsibility for managing application and data migration between private and public clouds. Cybersecurity gaps and regulatory risks have the potential to pose serious threats and must be addressed through data migration policies.





**Regulatory and Compliance Management:** Financial services firms are governed by a wide range of regulatory constraints. Enforcing compliance can prove challenging with siloed tracking and reporting across different cloud deployments. Firms need to have the right tools in place to centralize data tracking in preparation for auditing.

**Cybersecurity Risk and Management:** Unified security architectures that support integration and automation will alleviate the pressure for IT departments as they tackle the complex web of native security tools, manual logs, and information reconciliation.

**Facilitating Late Cloud Adoption:** Not everyone has jumped on the cloud at the same pace. The hybrid cloud model is ideal for late adopters who need to optimize their costs by using public cloud resources but still want to protect their confidential and proprietary data with private cloud infrastructure.



## Future-Proofing Your Hybrid Architecture

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With big data adoption in full swing, the operational complexity around managing and scaling this data has proven to be an ongoing challenge for financial services firms. According to an IBM Institute for Business Value study, 50% of banking executives believe the hybrid cloud will reduce the cost of IT ownership.<sup>5</sup> The cloud provides a viable way to deploy without the headache of messy, open source technology and a costly bill.

Sensitive data will always be part of how financial services operates, requiring organizations to have secure private data centers for processing on-site. Outside of confidential data, financial firms are opting to move other workloads to the cloud to offset costs and resources.

<sup>5</sup> <https://www.ibm.com/downloads/cas/74KLA06J>

We believe the future of hybrid means an omni-cloud ecosystem that seamlessly integrates and connects across a range of platforms. Big data will be hosted in flexible cloud environments like AWS, Azure and Google Cloud that have the capability to speak to not only one another, but to private, on-site data centers.<sup>6</sup> It is likely that organizations will use not one but multiple public cloud solutions to accommodate their diverse needs.

As an ever-greater number of applications are migrated to the cloud, a plan for sustainable maintenance will need to be put in place to accommodate changing workload profiles, new services, and operational requirements. The successful implementation of a hybrid cloud model is largely dependent on a firm's capacity to manage, adapt, and automate the end-to-end process.

<sup>6</sup> <https://www.forbes.com/sites/forbestechcouncil/2019/01/17/the-future-of-big-data-is-in-the-hybrid-cloud-part-2/#166820c451ac>

# Financial Use Cases

Hybrid cloud models have been recognized for their ability to deliver the “best of both worlds”: security where necessary and cost savings whenever possible.

**Optimizing Data Storage Costs:** Retrieving data costs money. Firms will incur egress fees when data is transferred to and from public cloud platforms. Data that’s rarely accessed, such as disaster recovery or data for regulatory compliance, is ideal for the public cloud and can be stored at a relatively low cost.

**Optimizing DevOps for Cost and Efficiencies:** DevOps requires a converged cloud infrastructure using computing, storage, network, and virtualization resources. In this case, a converged hybrid cloud model is a better fit—the customized combination of public and private storage enables the user to take advantage of each option’s strengths while conserving resources.



# The Potential of the Hybrid Cloud Model

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According to a report by the IBM Institute for Business Value, top-performing banks are 88% more likely to implement a hybrid cloud model than their peers.<sup>7</sup> Gartner predicts that by 2020, it will be hard to find any organization at all that abides by a “no-cloud” policy.<sup>8</sup> The cloud, it would seem, is not only here to stay, but to create a new generation of strategies for financial institutions.

Not every workload will be moved to the cloud, however—and that’s a good thing. Given the sheer volume of sensitive data financial institutions are responsible for, threats such as ransomware, business email compromise, and data breaches pose serious risks. Adequate governance and encryption policies must be enforced and taken seriously to ensure the integrity of the data.

Think of it this way: one wouldn’t visit the dentist expecting clean teeth if they themselves had never brushed them before. There is a shared responsibility between the cloud provider and the institution to secure and manage the data compliantly, in the interest of long-term health and security.

<sup>7</sup> <https://www-01.ibm.com/common/ssi/cgi-bin/ssialias?htmlfid=GBE03825USE&>

<sup>8</sup> <https://www.gartner.com/smarterwithgartner/cloud-computing-predicts/>

## About

Interxion: A Digital Realty Company, is a leading provider of carrier- and cloud-neutral data centre services across EMEA. With more than 700 connectivity providers in over 100 data centres across 13 European countries, Interxion provides communities of connectivity, cloud and content hubs. As part of Digital Realty, customers now have access to 49 metros across six continents. For more information, please visit [interxion.com](http://interxion.com) or follow us on

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