### **Hybrid Cloud** Buyer's Guide for **Banks and Financial** Services Firms

Strategies to optimize cloud and on-premises environments

hitachivantara.com

## **Executive Summary**

Banks and financial institutions are attracted to cloud-based services because of their economic and performance capabilities. Yet many must maintain some applications and data on-premises, which means operating a hybrid cloud environment.

Optimizing a hybrid cloud environment to prevent runaway public cloud costs while efficiently managing and seamlessly integrating onpremises infrastructure demands a comprehensive understanding of workloads, cloud functionalities, on-premises systems and regulatory mandates.

This guide explores banks' and financial institutions' challenges, examines why a hybrid cloud best suits them and explains how to achieve operational excellence with an intelligent cloud strategy.



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# The Cloud in the Financial Industry Today

While financial firms are embracing the migration of workloads to public cloud services, they face unique requirements. Banks, brokerage houses, mortgage companies and others must maintain certain processing functions on-premises to ensure security, achieve rapid response times or comply with regulatory standards.

However, running a hybrid environment presents significant complexities. Depending on cloud providers, managing the cost of cloud services demands expertise and experience.

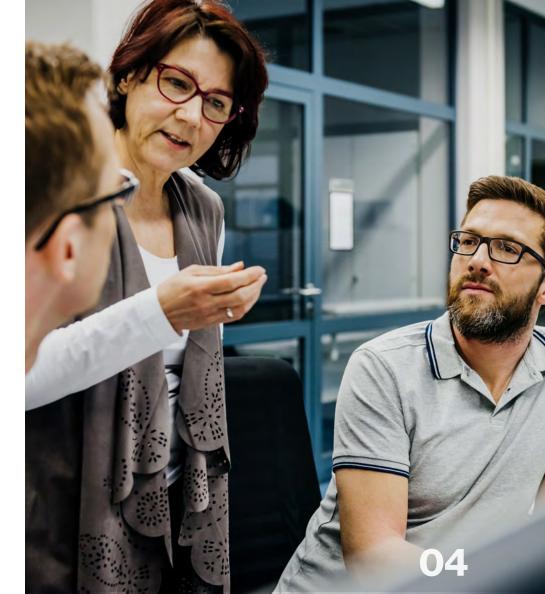
IT must also control on-premises infrastructure expenses. Real estate, electrical power, software licensing and staff payroll add up. The challenge is to optimize both cloud and on-premises infrastructure and manage both transparently, enabling data to travel between them as necessary.

#### Did you know?



60% to 70% of financial services firms have adopted hybrid cloud environments.

Source: Frost & Sullivan's Cloud Drives Digital Transformation in Financial Services, March 2021



## Moving to the Cloud: Challenges Abound

Moving applications and data to the cloud can be complex, costly and time-consuming. Not all workloads are suited to the cloud, and a lack of understanding of how applications use processor cycles and data storage can be pricey. For example, rapidly responding to customer balance queries requires expensive, high-cost, high-performing cloud-based processors and "hot" solid-state storage.

Financial firms must also comply with PCI DSS guidelines for safeguarding cardholder data. Protecting personally identifiable information (PII) requires knowledge of the data's content, the path it travels and its location. Under the European Union's General Data Protection Regulation, PII must be available and accessible upon request.

Uptime and resiliency are critical for financial institutions. Data must be stored securely and backed up regularly to be restored in case of a natural disaster or ransomware attack.



Build-in business continuity



Ensure availability



Safeguard data



Simplify complexities



Control cloud costs



Meet regulatory compliance



### Why Hybrid Cloud?

The cloud encompasses a range of options, and effectively leveraging cloud-based services requires familiarity with various alternatives. For instance, hyperscalers provide nearly limitless capacity, economies of scale and many services, whereas managed colocation services allow organizations to own and operate systems within the provider's facilities.

Workloads like credit card transaction processing, which require varying capacity during seasonal, quarterly, or monthly peaks, are often well-suited to public cloud services. Cloud-based services may also be ideal for application development and as a platform for running next-gen technology.

Traditionally, financial institutions run back-office applications onpremises and aren't interested in moving those workloads to the cloud. Data gravity dictates that these core functions stay in data centers, which can be tightly controlled and monitored.

In short, banks and financial firms have diverse needs that are best addressed by leveraging cloud and on-premises solutions.

#### Did you know?

Hitachi Vantara's hybrid cloud solution offers:



Zero cloud lock-in



80%

faster time to production

Source: Hatachi Vantara



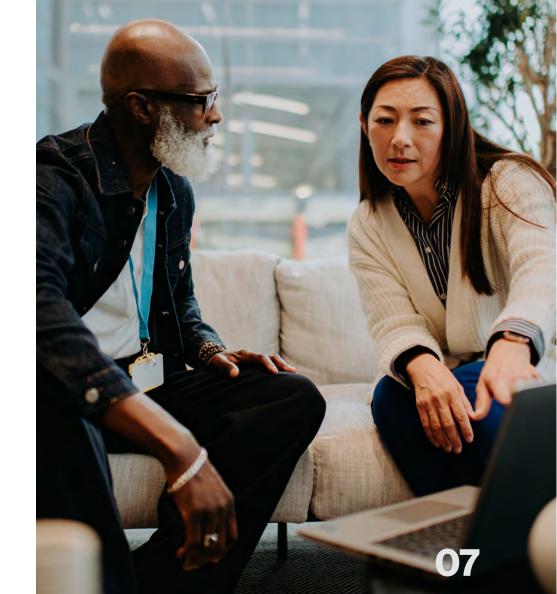
# Operational Excellence with Hybrid Cloud

Given the myriad of choices, banks and financial institutions face a formidable challenge in pinpointing the ideal hybrid cloud configuration.

Many organizations that have simultaneously migrated all operations to a cloud-based service have yet to achieve optimal outcomes. A more effective approach involves examining telemetry data to understand application types, interdependencies and infrastructure consumption. With this knowledge, workloads and data can be mapped to specific cloud services or designated for the data center.

When on-premises, applications and data could run on hyperconverged infrastructure (HCI). HCI streamlines hardware requirements and cuts costs by integrating processing, networking and storage functions into a single appliance.

Automated tools that accurately gauge application performance and resource use provide managers with insights for optimizing and configuring hybrid clouds and facilitating seamless application migration. Sometimes, containerizing applications enables simplified deployment and mobility, resulting in a well-balanced, intelligent cloud environment.



## **Strategy:** A Path Forward

In an optimized hybrid cloud environment, applications run where they deliver the best performance and economics while meeting compliance requirements. Automated tools determine the best application location and then analyze and rebalance workloads. The entire hybrid cloud is managed and monitored as a single environment with AI.

Optimizing a hybrid cloud requires expertise, but keeping skilled staff is challenging. Many customers need a partner with subject matter expertise, service practices and an ecosystem to ensure a successful transformation to the hybrid cloud.

Hitachi Vantara has the expertise to analyze requirements and make cloud-agnostic and vendor-agnostic recommendations. This includes rightsizing workloads across public and private clouds and moving applications to the cloud or back on-premises as warranted.

Hitachi Vantara can deploy various applications, oversee multiple cloud providers, manage on-premises data centers and efficiently balance workloads. As a result, financial institutions gain a precisely tailored, intelligent hybrid cloud environment that fosters operational excellence. Hitachi Vantara has the subject matter expertise, global reach of services and support and the market leading partner ecosystem to be the choice for the hybrid cloud journey.



#### **Checklist:**

- Embrace the Power of Innovative Cloud Technologies Harness Hitachi's innovative technologies as the cornerstone of your future success.
- Achieve Operational Excellence
  To put it simply—it just works. 100% data availability. Get highly resilient, always-on performance that is unmatched in the industry.
- Ensure Resiliency and Regulatory Protection
  Keep your data, apps and business online and compliant
  across the hybrid cloud, no matter what threat comes your way.
- Engineer Data-Driven Experiences
  Drive new "real-time" experiences and business models for generative AI and analytics, enabling confident, data-driven decisions.

Hybrid Cloud Buyer's Guide

#### **Innovate**

#### **Proven Hybrid Cloud** Infrastructure

Trusted by thousands of customers globally, Hitachi converged, hyperconverged, storage, and Cloud Connect solutions provide a powerful. scalable, and available platform for hybrid cloud deployments.

Learn More 7



#### **Bi-Directional Cloud Migration**

Trusted experts and time-tested processes to assess, identify, and plan for cloud migration while minimizing the business risk. Seamless workload mobility for day-2 across clouds to meet dynamic workload needs.

Learn More

#### **Consolidate**

#### Virtualized and Modern **Cloud-Native Services**

Help customers runtraditional. virtualized and modern container apps consistently together with comprehensive data services across the infrastructure platforms and hyperscalers to accelerate application deployment.

Learn More 7



#### **Single-Vendor Simplicity**

Avoid vendor finger-pointing with a single business partner for the end-to-end hybrid cloud transformation. Gold standard in customer service and support resulting in customer delight.

Learn More



#### **Automate**

#### **Data Services**

Automation for virtualization and containerized environments to deliver comprehensive data services including block, file, object, high-performance file, database services. plug-ins across multiple ecosystems.

Learn More 7



#### **Collaborate**

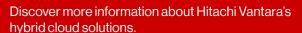
#### **Managed Services**

Worldwide team of cloud experts to guide your cloud modernization and run day-to-day operation so that you can focus on your customers.

Learn More



### **Learn More**



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#### **HITACHI VANTARA AT A GLANCE**

Hitachi Vantara, a wholly-owned subsidiary of Hitachi Ltd., delivers the intelligent data platforms, infrastructure systems and digital expertise that supports more than 80% of the Fortune 100. To learn how Hitachi Vantara turns businesses from data-rich to data-driven through agile digital processes, products, and experiences, visit www.hitachivantara.com.

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