

HITACHI VANTARA PERSPECTIVE

The Cloud for the Data-Driven Enterprise

Manage IT Service Levels, Not Infrastructure With Hitachi's Solutions for Hybrid IT and Cloud Management

In the past two years, we've seen tremendous strides by datadriven companies. Companies are using digital technologies to change the world and disrupt their industries with innovative data-driven business models, new ways of working, and flexible value chains. They are creating new digital experiences with anytime-anywhere access for customers, employees, and partners. To survive and thrive, every business today must modernize its digital core and use digital and data-driven strategies to create an incumbent advantage.

Central to modernization and digital transformation is cloud: cloud adoption, cloud technologies, and, most importantly, cloud operating models. The cloud can accelerate new application and service delivery, improve IT agility to meet workload demands, and shift your financial models to a consumption-based operating expense model. That's why business leaders are demanding IT modernize and shift its focus from managing infrastructure to delivering cloud IT services levels tied to business outcomes.

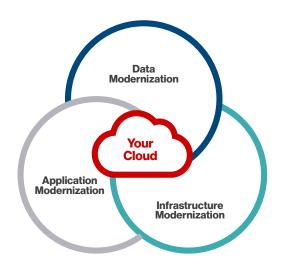


Figure 1. Modernize your digital core and build your cloud, your way.

Modernize Your Digital Core — A New Way

Modernizing your digital core means taking a holistic approach and modernizing infrastructure, applications and data together, to leverage cloud operating models and utilize cloud services to deliver business-relevant outcomes. Modernizing the digital core lays a foundation for a modern, data-driven business. It sets you on a digital journey and helps you build value with your technology, people, and process investments.

By 2022, more than 90% of enterprises will rely on a hybrid cloud environment to meet their infrastructure needs

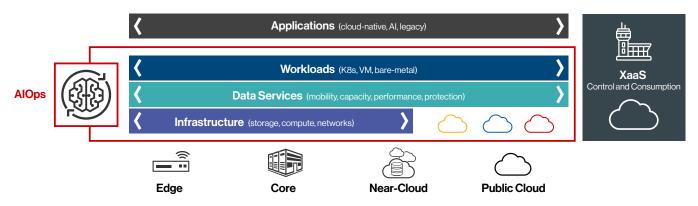


Figure 2. Modern hybrid IT and cloud operations provide seamless data services and workload management across edge, core, near cloud and the public cloud.

Hybrid IT and Cloud Management

While some companies still follow a "cloud-first" approach, forward-thinking CIOs have moved to a "cloud smart" strategy. Rather than lifting and shifting all their applications, data, and workloads to the cloud, they take a strategic approach to placement based on security, financial and operational considerations. IT leaders now overwhelmingly favor a hybrid IT and cloud management approach, with common workload management and data services across the core, cloud, and edge infrastructures.

There are five fundamental building blocks to hybrid IT and cloud management (see Figure 2):

- Workload management seamless management for cloud-native and other applications.
- 2. Data services a data plane that delivers suitable capacity, cost, performance, and protection.
- **3. Infrastructure** simplified, modular, highly resilient infrastructure to meet enterprise needs.
- **4. AIOps** an intelligent, automated control plane with observability across IT operations.
- 5. **XaaS** "everything as a service" consumption and cost models that align with business needs.

We Partner with the Cloud Hyperscalers

Hitachi has done more than 1,000 migrations, and the team holds more than 1,000 hyperscaler technology certifications.







"We've seen a ten-fold decrease in storage costs, despite storage growth across the organization."

Jim Livingston, CTO, University of Utah

Read the Case Study



University of Utah Health Reduces Costs and Maximizes Agility for Better Patient Care With Hybrid Cloud Data Center

Hybrid Cloud Is a Journey: The Challenges

While the cloud promises are real, so are the challenges of multicloud. The most common obstacles on the path to a hybrid IT and cloud management model are:

Skills gaps. The technical expertise required for implementing and managing public cloud infrastructure and services differs from the skills necessary for managing a private data center. Climbing a steep learning curve while trying to close those skills gaps can lead to human errors. There is also the risk of institutional knowledge walking out the door due to frequent employee turnover.

Cloud incompatibility. On-premises and multiple public cloud environments are not fully compatible and not easily synchronized. For example, a hybrid cloud application's backend data center component may not align or respond as quickly as the front-end public cloud component demands.

Security and compliance risks. Multicloud increases the attack surface, widening potential for ransomware attacks, and therefore increases the risks of loss of control and governance. While public clouds have good individual protection, IT teams are still accountable for data security and compliance mandates.

Cost surprises. The public cloud often comes with a hefty cost surprise. This is due to the unpredictability of egress charges and the ungoverned use of multicloud resources by increasingly large parts of the organization, from developers to business users.

Data governance. Exponential data growth, especially unstructured data, significantly increases the complexity of IT services, such as data storing, data protection, data continuity, and data protection. If left unchecked, multicloud can result in an increase of data copies and more ungoverned data silos.

"With UCP Advisor, we can reduce the time it takes to provision a new physical server down to just seven or eight minutes."

Colin Chatelier, Manager of Storage and Compute, Rabobank

Read the Case Study



"To successfully manage a hybrid cloud environment, organizations need a specially designed hybrid cloud management plan that includes the right tools and strategies."

Read the MIT Report

IT Strategies for Hybrid Cloud



"All our applications touch something that is managed by EverFlex. It is truly the heartbeat of our IT operation."

VP, Global Logistics company

Read the Forrester Report

The Total Economic Impact™ of Managed Services From Hitachi Vantara for XaaS



Hybrid Cloud Is a Journey: The Solutions

While there is no "one size fits all" for the hybrid cloud journey, there are proven "fast-track" paths to success. Powerful instruments are available to IT leaders to master a secure and rapid path that is aligned with business needs and delivers quick returns on investments. Those instruments are:

Path O1

"Hybrid cloud in a box" simplicity through the use of converged and hyperconverged infrastructure:

Automation is critical for operational efficiencies. The proper infrastructure greatly simplifies the compute, network, and storage infrastructure management. And, just as important, it seamlessly integrates with modern container and VM management systems, such as VMware Tanzu and Red Hat OpenShift. Overall, it breaks down silos between DevSecOps teams and helps to innovate and deliver applications faster to the organization.

Path O2

Storage unification with software-defined storage architectures for block, file, and object storage: Storage portfolios now integrate into the major hybrid cloud stacks. AlOps provides central orchestration and assists with observability. And modern software-defined data services provide scale-up and scale-out capabilities for any workload, extending the data plane for cloud-native apps.

O3

Near-cloud placement of critical data infrastructure: A compelling alternative to an on-premises data center and public clouds is near cloud, with colocation providers. It provides a method to maintain complete control over mission-critical data while taking advantage of cloud-like management and high-speed connectivity to public cloud computing — while avoiding egress charges.

Path 04

Hybrid cloud data protection: Data backup, archive, and disaster recovery are the hybrid cloud's classic and most deployed paths. They provide for a multitude of flexible protection and recovery options. Also, there are "dual use" methods: for example, using cloud archives for compliance reporting.

Path O5

Al data and workload management: Artificial Intelligence (AI) data workloads are inherently different from traditional file-based applications. They require massive bandwidth for training, mixed read/write handling for data pipelines, and ultra-low latency for inference at the edge. Modern solutions are addressing this with distributed file management and edge-cloud data pipelines.

Whatever path you choose, you want a strong partner that provides XaaS (everything as a service) delivery models. XaaS models should include managed services, cloud consumption models, and professional services for design, build, and operations for hybrid IT and cloud solutions and applications.

FORRESTER[®]

"The migration, which could have taken almost a year, was completed in approximately four months. In total (it) could have taken four times longer (without Hitachi Vantara)."

Read the Report

The Total Economic Impact™ of Cloud and Application Modernization Services From Hitachi Vantara



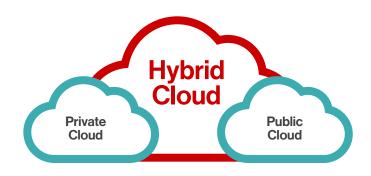
Hitachi Vantara Is Your Partner for the Hybrid Cloud

Hitachi's vision is to allow enterprise IT leaders to manage IT service levels, rather than infrastructure with a central operating model across data centers, edge, and public clouds. Hitachi provides the solutions, services, and technologies that deliver hybrid IT and cloud management. Hitachi provides a hybrid cloud approach that is:

Self-Driving. With Al-based solutions, technologies, and services for autonomous storage management and infrastructure orchestration, your systems become increasingly self-driving while still providing you the essential control and visibility you demand. Application reliability services [based on site reliability engineering principles (SRE)] provide life-cycle workload management services to ensure public cloud reliability and cost control.

Secure + Elastic. With flexible storage, infrastructure, and applications, customers can master any workload with a scale-out data fabric and protection services. Hitachi delivers enterprise reliability across the data center, public clouds, and the edge. And with its global partner ecosystem, Hitachi provides a wide variety of customized and prepackaged solutions to meet customers wherever they are on their cloud journey.

SaaS Simple. Hitachi provides cloud-like consumption with pay-per-use models and full-service management. EverFlex from Hitachi enables customers to deploy infrastructure and data protection as a service for complex workloads, on-premises, and within a fully managed pay-per-use model. This model ensures that businesses avoid upfront costs and frees up capital to invest in other business areas.



Get Started Now

Hitachi Vantara provides the digital infrastructure and data solutions for thousands of organizations, including 80% of the Fortune 100. We help our clients modernize their digital core — bringing computing power and data storage to their data wherever it is: in the data center, in the cloud or at the edge.

Learn More



Learn how our hybrid cloud solutions can advance your digital transformation.

HITACHI DELIVERS EXPERT GUIDANCE, EXPERT RESULTS.

Hitachi Vantara, a wholly-owned subsidiary of Hitachi, Ltd., guides our clients from what's now to what's next by solving their digital challenges—accelerating their cloud, applications, and data. Working alongside each client, we apply our unmatched industry and digital capabilities to their data and applications. More than 80% of the Fortune 100 trust Hitachi Vantara to help them develop new revenue streams, unlock competitive advantages, lower costs, enhance client experiences, and deliver social and environmental value. Visit us at www.hitachivantara.com.

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