The Technologies Behind the Continuous Cloud Infrastructure

By Hu Yoshida, Vice President and Chief Technology Officer, Hitachi Data Systems

Continuous Cloud Infrastructure, Powered by Hitachi

Hitachi Data Systems has been integrally involved in shaping how Business-Defined IT will empower organizations like yours to make smart choices to accelerate business. Built upon powerful, advanced and innovative Hitachi technologies and proactive services and support, the Continuous Cloud Infrastructure can help you embark upon new opportunities to drive your business forward.

The Continuous Cloud Infrastructure capitalizes on existing hardware resources and technologies, such as storage virtualization and unified computing solutions. It enables next-generation strategies like self-service customization and encourages business resiliency and improved total cost of ownership (TCO). The Continuous Cloud Infrastructure, powered by Hitachi, removes the typically heavy IT burdens to pave the way for greater productivity, market share and business value.

Technologies Behind Continuous Cloud Infrastructure

Let’s look at the technologies at the foundation of the Continuous Cloud Infrastructure, powered by Hitachi, that can make your business future ready.

Hitachi Virtual Storage Platform G1000

The next-generation of Hitachi superior storage architecture, Virtual Storage Platform (VSP) G1000 is software centric for native functionality. VSP G1000 is a scalable grid architecture that extends VSP virtualization across controllers for true active-active capability. It provides in-system scalability for seamless growth and unified storage for all your enterprise strategies. It also reduces the need to layer appliances and tools for simpler infrastructure. The platform is intended for enterprise-level, mission-critical applications and for environments required to dynamically scale and perform for the long haul.

Hitachi Storage Virtualization Operating System

Pervasive software intelligence allows Hitachi Storage Virtualization Operating System (SVOS) to deliver all the necessary functionality for hitting specific enterprise cost-performance targets. It supports 100% availability demands, virtualization of hardware...
assets, and automated performance management. The operating system virtualizes the hardware with software to provide hardware functions as a service to the Business-Defined IT infrastructure. It supports built-in active-active storage over multiple data centers without appliances, and the flexibility for choosing hardware technology. The operating system also supports integration with management software applications like SMI-S through SMI-S servers and hypervisors like VMware through APIs like VASA.

Hitachi Unified Compute Platform
Ideal for meeting new Business-Defined IT objectives, Unified Compute Platform brings together a unique blend of must-have technologies. These converged infrastructure solutions combine best-in-industry storage, server, networking and software management in fully integrated packages for accelerating applications and business value. Hitachi Unified Compute Platform Director and the open Hitachi approach to APIs and open source are integrated to provide higher performance scalability and availability. From greater virtual machine (VM) density, nondisruptive operations and error-free template provisioning to rapid deployment and ubiquitous automation, UCP solutions are validated and certified for application-optimized reference or turnkey operation.

Hitachi Command Suite
Capable of deep integration across the Hitachi portfolio, Command Suite increases operational efficiencies by simplifying management and correlating to your business requirements. Command Suite features automation designed to provide infrastructure as a service. It comprises a comprehensive suite of advanced tools that centralize, automate and expedite IT requirements.

Data Protection
Hitachi has a single cohesive strategy for combining advanced and unified data protection, and high-availability technologies that safeguard data and applications throughout the Continuous Cloud Infrastructure. The broad portfolio of Hitachi data protection technologies is proven to remove risk from expanding information stores and new application initiatives. Hitachi data protection meets requirements for active-active scale-out storage, high availability, zero recovery time and recovery point objectives (RPO/RTO) and changing user needs.

File and Content Solutions
Hitachi has designed its integrated file and content solutions portfolio to help enterprises better manage the burgeoning collection of unstructured data. With the Continuous Cloud Infrastructure, file and content solutions such as Hitachi Unified Storage, Hitachi NAS Platform, Hitachi Data Ingestor, and Hitachi Content Platform now have enhanced management with Hitachi Command Suite. In addition, Continuous Cloud Infrastructure provides file migration through Hitachi Universal Migrator, directory cloning, maximum scalable performance of up to 8 high-performance HNAS 4100 nodes, and tiering to private and public cloud.

Advantages of Continuous Cloud Infrastructure
As separate components, the Hitachi technologies within the Continuous Cloud Infrastructure deliver on many of your enterprise IT demands. Collectively, they unite as a cohesive framework for equipping your business to be future-ready and innovative. Continuous Cloud Infrastructure facilitates lower opex costs and better utilizes capex resources through tremendous performance and capacity scale. Capacity efficiency comes into play with the consolidation of multiple islands into Hitachi platforms within the Continuous Cloud Infrastructure.

Improved Productivity Across the Data Center
Improved productivity is critical in the information economy of the 21st century. To get there, you’ll want instant access to relevant data for highly accurate decision-making. Continuous Cloud Infrastructure can rapidly make that possible, helping to curate all the elements of efficient yield to boost productivity.
Faster Time to Market and Faster Deployments
The breadth of competition and the attention span of consumers are some of the reasons to get products and services to market earlier. To speed time to market, the Continuous Cloud Infrastructure allows you to swiftly deploy enabling technologies to improve business velocity.

Highest Quality of Service
Data is starting to live forever and the very existence of many businesses depends on 24/7 availability to that data. Providing guarantees on the ability to predictably and consistently deliver services is especially important for the new generation of Internet applications, such as video-on-demand, VoIP and other consumer services.

Industry-Leading Efficiency
Unprecedented increases in efficiency are now required to move past just keeping the lights on. Efficient solutions with increased automation mean more available investment in revenue-generating IT activities and lowering TCO.

Economically Superior Architectures for Lower TCO
Hitachi Data Systems identifies key ingredients of economically superior architecture: virtualization, dynamic thin provisioning, dynamic tiered storage, application-centric converged systems, 3-D scaling and common management, along with other advanced technologies.

Business-Defined I.T.
The Continuous Cloud Infrastructure will enable the data center to be less about the infrastructure and more about business requirements. Business leaders can look to the data center to be futureproof, reliable, adaptable and responsive to changes. Likewise, IT professionals will be able to support business needs with data center technologies that are software-defined, automated, high-performance, scalable, nondisruptive, extensible and virtualized.

Summary: Welcome Change With Continuous Cloud Infrastructure
The Continuous Cloud Infrastructure can help even the most dynamic enterprise overcome the challenges of change. The Continuous Cloud Infrastructure, powered by Hitachi, is designed to be always agile, available, automated and efficient. These tenets lay the foundation for your business acceleration and innovation. With the right technology in place, your future-ready business can quickly gain a foothold on solid economic ground.

We believe that the Continuous Cloud Infrastructure provides new ways to measure economic efficiency and support opportunities for future growth and success, regardless of the effects of change. With the Continuous Cloud Infrastructure, Hitachi can help you be prepared for the always-on world, no matter what change it brings.