Choose Hitachi Content Platform (HCP) to:
- Employ a software-defined exabyte scale object storage solution.
- Digitally transform. Quickly bridge traditional and emerging technology.
- Centralize data management within and across clouds and storage tiers.
- Ensure security, compliance and content preservation.
- Gain insight from a best-in-class metadata architecture.

DATA SHEET

Hitachi Content Platform: Enterprise-Class, Backup-Free Cloud and Archive

Unstructured data growth and application proliferation continue to accelerate. These developments lead to increased server and storage sprawl, with numerous silos of infrastructure supporting traditional and new workloads.

Hitachi Content Platform (HCP) is an object storage software solution that connects data producers, users, applications and devices into a central cloud storage platform. It enables users to better understand, govern and control the degree of mobility of their data, as well as to identify insights and extract value for data-driven decisions and faster time to market.

HCP lets IT organizations and cloud service providers securely and cost-effectively store, share, protect, preserve and analyze data. Beyond its efficiency, ease of use and ability to store data at massive scale, HCP automates day-to-day IT operations like data governance and protection. This approach readily evolves to changes in scale, scope, regulatory compliance, applications, storage, server and cloud technologies over the life of data. HCP also automates the governance of data to ensure proper retention, access control, encryption and disposal of data, while simplifying e-discovery and search. In IT environments where data grows quickly or must live for years or even indefinitely, these capabilities are invaluable.

Hitachi Content Platform eliminates the need for a siloed approach to storing unstructured content. The platform provides massive scale, multiple storage tiers, powerful

security, Hitachi reliability, cloud capabilities, broad protocol support, multitenancy and configurable attributes for each tenant. It can support a wide range of applications on a single physical cluster and is backed by a thriving community of third-party software partners. With access to a robust ecosystem of cloud applications, Hitachi Content Platform can solve a wide range of current problems and adapt to meet future needs.

Flexible, Enterprise-Class Cloud

Hitachi Content Platform multitenancy divides the physical cluster into a variety of tenants. These tenants can be assigned to different IP networks and further subdivided into thousands of namespaces for additional organization of content, more refined policies, and robust access control. Openness is also a hallmark of HCP. It has powerful native REST and Amazon Simple Storage Service (S3) based interfaces, permitting seamless WAN or LAN access for new and existing Web 2.0 and mobile applications. Further, it supports the NFS, SMB, SMTP and WebDAV protocols, and offers dual-stack support for IPV4 and IPV6.

The platform can handle all kinds of data and almost any application. It offers high reliability, massive scale, seamless data mobility and storage across private clouds and public cloud services, encryption, access control, easy provisioning, charge-back measurement and more. The HCP G series access nodes allow organizations greater flexibility to support mixed workloads with varying performance and scale

requirements. These nodes virtualize capacity from Hitachi Content Platform S series nodes, local drives, Fibre Channel storage arrays, NFS shares and leading public cloud providers. HCP drastically reduces total cost of ownership and provides cost-effective storage with geographically dispersed erasure coding data protection for content that must remain behind the firewall. Such attributes enable IT to take advantage of cloud and deliver a whole new range of IT services, without compromising security and control of information.

Efficient, Backup-Free Archive

Hitachi Content Platform enables your IT organization to protect, preserve and retrieve data in a more efficient manner, without the need for tape-based backups. The high density of HCP storage is enhanced with built-in compression, single instancing and support for a variety of media to keep storage costs in control. With dynamic data protection, data integrity checks, data retention enforcement, erasure coding and many other technologies to preserve and protect content, HCP delivers compliance-quality data protection. It eliminates the need for tape-based backups.

Intelligent Structure for Unstructured File Data

Hitachi Content Platform enables trusted content mobility with full visibility of all the control points where data enters, exits and exists across a global IT landscape. It optimizes cost by providing

the flexibility to maintain your critical data securely, on-premises or in public clouds. It automatically moves content based on business value or your storage-related service level agreement to the most appropriate storage tier. For example, content can be moved to Hitachi Content Platform S series nodes or cloud storage services, including Amazon S3, Microsoft Azure, Google Cloud Storage or any other S3-enabled cloud.

As shown in Figure 1:

- HCP G series nodes are access nodes.
- HCP S series nodes are optional and provide massive scale.
- Fibre Channel storage and cloud are optional.

Performance and Scale To Power Next-Gen Hybrid Data Centers

HCP S Series Nodes

Hitachi Content Platform S series nodes provide economical deep data storage and protection in a small footprint. They seamlessly extend your private or hybrid cloud and offload infrequently accessed content from valuable primary storage. These nodes deliver the scale and economics of the public cloud locally with large capacity drives and always-on, self-optimization processes to maintain data integrity, availability and durability. They also provide erasure coding to deliver long-term compliance and protection at the lowest cost.

There's no need to learn any new data movement procedures or processes. Using the HCP interface, you can orchestrate seamless and policy-based data movement to the HCP S series nodes to optimize agility and efficiency.

HCP for Cloud Scale

Hitachi Content Platform for cloud scale is designed for applications requiring hyperscale, high-performance and comprehensive S3 API compliance. Its novel microservice design enables massive scalability to support hundreds of nodes and trillions of objects, and also features rich, policy-driven management and data enrichment tools. Its global namespace allows for unified management across multiple on-premises and cloud deployments. Offering broad flexibility, HCP for cloud scale's architecture is hardware agnostic. It can be deployed on "white box" servers, leading cloud platforms such as Amazon Elastic Compute Cloud (EC2), or Hitachi Unified Compute Platform using a variety of Linux distributions. HCP S series nodes provide ideal on-premises storage for HCP for cloud scale. HCP for cloud scale also supports any S3 storage endpoint, including Amazon ECS.

With HCP, you have access to metadata and content search tools that enable more elegant and automated queries for faster, more accurate results. Through these features you can gain a better understanding of the content of stored files, how content is used and how objects may be related to one another. This understanding can help you to enable more intelligent automation, along with big data analytics based on best-in-class metadata architecture.

Hitachi Content Platform provides more capabilities, flexibility, configurability and input options for you to take advantage of cloud in your own way. It simplifies management via automation to ensure efficiency, reliability, data mobility and accessibility of your organizations' data. With HCP you can not only address today's challenges around storing and protecting data, but also set yourself up for the next big thing.
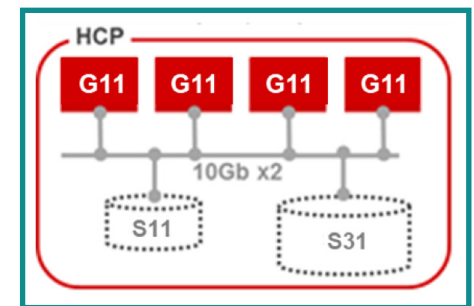

Figure 1. Flexibility of Hitachi Content Platform

TABLE 1. HITACHI CONTENT PLATFORM OFFERINGS

	HCP	HCP VM	HCP for Cloud Scale
Deployment	Physical appliance	Virtual appliance	Software-only
Platform	HCP G11, HCP G11 all-flash	VMware ESXi, KVM	Bare metal, hypervisors, Amazon
Data Protocols	REST, Amazon S3, SMB, NFS, WebDAV, SMTP		Amazon Simple Storage Service (S3)
Licensing	Capacity-based perpetual		Metered consumption
Minimum Cluster	4 x HCP G11	4 x VM	4 containers
Maximum (Max.) Cluster	80 x HCP G11	40 x VM	Unlimited
Max Capacity (cluster)	1.29EB	1.24EB	Unlimited
Max Capacity (multi-cluster topology)	7.74EB	7.46EB	Unlimited
Storage Options	HCP S series, G11 internal, SAN, NFS, cloud	HCP S series, ESXi datastore, SAN RDM, vSAN, NFS, cloud	HCP S series
HCP S Series Attached Max.	80 HCP S series nodes		Unlimited
SAN-Attached Max.	80 PB	37 PB	N/A
Cloud storage	Unlimited Amazon S3, Microsoft Azure, Google Cloud Platform, S3-compatible clouds		Amazon S3, S3-compatible

VM = virtual machine, RDM = remote device management, KVM = kernel-based virtual machine, EB = exabyte
All capacities raw. Usable capacity will vary based on data protection choices.

TABLE 2. HITACHI CONTENT PLATFORM HARDWARE

	HCP G11	HCP G11 All-Flash	HCP S11	HCP S31
Minimum	24TB	23TB	300TB	
Maximum (Max.) (per node)	48TB	46TB	3.2PB	15.1PB
Disk Max.	12		200	942
Disk Sizes	4TB HDD	1.9TB SSD, 3.8TB SSD	10TB HDD, 14TB HDD, 16TB HDD	
Data Protection	RAID-6		Erasure Coding	
Base Unit/Base Tray	2 RU		5 RU	
Expansion Tray	N/A		4 RU	
Max. Expansions	N/A		1	8
CPU[1]	2 x 10 cores		2 x 8 cores	4 x 8 cores
RAM	64 to 768GB	768GB	2 x 64GB	2 x 256GB
SSD	2 x 1.9TB (optional)	N/A	6 x 400GB	
Networking[1]	4 x 10GbE Base-T 4 x 10GbE SFP+		8 x 10GbE SFP+ or 8 x 10GbE Base-T 2 x 1GbE management port	

SSD = solid state disk, GbE = gigabit Ethernet, HDD = hard disk drive, RU = rack unit
All capacities raw. Usable capacity will vary based on data protection choices.
[1] Total for both controllers

HITACHI CONTENT PLATFORM IMPLEMENTATION SERVICE

Hitachi Vantara provides consulting, implementation, migration and replication services to help you bring the benefits of Hitachi content solutions to your business-driven IT environment. In this implementation service, we can help you address data growth challenges, manage unstructured data throughout its life cycle, enable mobility, cloud and converged infrastructure strategies, and harness the value of your data with sophisticated search and analytics. Complementary services include Hitachi Content Platform Replication Service and Hitachi Content Platform Migration Service.

Read ESG Lab's hands-on evaluation of the Hitachi Content Platform portfolio and its capabilities for secure object storage, governance and management.

We Are Hitachi Vantara

We guide our customers from what's now to what's next by solving their digital challenges. Working alongside each customer, we apply our unmatched industrial and digital capabilities to their data and applications to benefit both business and society.

Hitachi Vantara

DS-125-U BTD March 2020