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Used with Hitachi Content Platform, Hitachi Data Ingestor provides distributed consumers of IT, such as remote and branch offices (ROBOs) or cloud storage users, with a seamlessly scalable, backup-free storage solution.

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Hitachi Data Ingestor: Elastic, Backup-Free, Cloud On-Ramp Delivers File Services to the Edge

Reduce Complexity and Cost at Edge, Simplify Cloud Deployments

Deployed as a minimal-footprint or virtual appliance, Hitachi Data Ingestor (HDI) copies data from the edge to a core, object storage-based infrastructure. To do so, it employs advanced storage and data management capabilities. With this solution, organizations can greatly reduce the cost and complexity of providing IT services to geographically dispersed locations or cloud consumers.

Elastic and Backup Free

Hitachi Data Ingestor provides a standard connection, or on-ramp, into the core data center without requiring application recoding and without changing the way individuals interact with storage today. Because HDI acts as a caching device, it provides users and applications with seemingly endless storage and a host of newly available capabilities. These abilities include roaming home directories, encryption of data at rest and in transit, and easy migration of data from existing storage to HDI.

All files are automatically replicated to the core infrastructure in your data center. HDI appears as a standard storage device to users and applications. However, for IT departments it drastically simplifies the deployment, provisioning, management and protection of data at remote sites, branch offices and/or cloud service customer sites. HDI automatically copies content out of its internal cache and into the core object storage cloud. This action ensures robust data protection with easy recovery and provides ever-expanding storage capacity for new content. These capabilities reduce management time and cost by eliminating the need to constantly manage capacity, utilization, protection, recovery and performance of the system. Once a file is copied into the core infrastructure, it stays in the HDI file system until HDI detects that free space has reached a predetermined ceiling. At that time, HDI reduces the least active files to pointers, effectively creating more local capacity and keeping the most important and frequently used files in local storage. Because HDI retains the pointers to relocated files, they can always be accessed via the cloud.

HDI supports corporate governance and compliance requirements through its built-in, file-level “write once, read many” (WORM) functionality option. And, independent software vendor applications can adopt HDI with minimal certification.

Deployment Options

Hitachi Data Ingestor is offered in multiple deployment options. The HDI node or nodes are deployed within the HCP rack as an integrated package, or separately. HDI offers a high availability (HA) dual-node cluster with external storage, a single node with internal storage, a software-only configuration running on VMware vSphere Hypervisor. The software-only configuration also supports HA architectures and a minimal footprint, hands-free configuration that can be remotely provisioned and managed, and installed by nontechnical personnel. In all configurations, HDI acts as a tiering solution, copying its resident files to HCP, and maintaining access to those files for on-demand recall.

Features

Hitachi Data Ingestor presents a standards-based file system interface that is tightly integrated with Hitachi Content Platform

to provide seamless access and a wide range of advanced storage features. HDI uses HTTP/HTTPS to securely move data over a local or wide area network and into HCP. HDI features include:

- Provides local and remote access to HCP for clients over Server Message Block (SMB) and Network File System (NFS) protocols.
- Delivers elastic storage capacity, back-ended by HCP.
- Physically migrates content to a central HCP and maintains a local link to the migrated content.
- Provides file restore: retrieves previous versions of a file or even deleted files; maintains file and directory access control within "history."
- Allows content sharing between HDI systems.
  - Single HCP tenant is used for multiple HDI systems, for simplicity.
  - Multiple HDIs can read from a single HCP namespace.
  - One HDI has write capability, others have read capability.
- Allows NAS migration (SMB or NFS) to HDI file system using GUI or CLI: Automatically migrate file data from NAS systems to HDI.
- Supports roaming users by synchronizing content in SMB protocol home directories across a network of HDI systems.
- Provides optional AES 256-bit encryption of content for each HDI file system.
- Provides a management API that enables integration with the HCP management user interface and 3rd-party or homegrown management user interfaces.
- Supports Microsoft® Active Directory® and LDAP authentication for HDI clients.
- Supports HCP tenant and namespace features over SMB and NFS.

HITACHI DATA INGESTOR TECHNICAL SPECIFICATIONS

Cluster [Hitachi Data Ingestor (HDI) integrated appliance]	▪ Server model: CR210H. ▪ CPU: 1x E5-2603 (1.80GHz, 4 core). ▪ Memory: 16GB. ▪ I/O: 1GbE and 10GbE (gigabit Ethernet). ▪ Storage: HUS 110 (8TB usable). ▪ Footprint: 5U.
Cluster (Diskless)	▪ Server model: CR210H. ▪ CPU: 1x E5-2603 (1.80GHz, 4 core). ▪ Memory: 16GB. ▪ I/O: 1GbE and 10GbE. ▪ Storage: Any Hitachi Storage (any supported capacity). ▪ Footprint: 3U.
Single node (DAS)	▪ Server model: CR220S. ▪ CPU: 1x E5-2420 (1.9GHz, 6 core). ▪ Memory: 12GB. ▪ I/O: 1GbE and 10GbE. ▪ Storage: Internal HDDs (4TB, 8TB or 12TB usable). ▪ Footprint: 2U.

Virtual Machine Appliance	▪ vSphere Hypervisor (ESXi): 4.1 or later.
	▪ Hardware requirements defined by VMware.
	▪ Hardware reference configuration:
	  ▪ CPU: 2x E5620 (2.40GHz, 4 core).
	  ▪ Memory: 4GB.
	  ▪ Storage: up to 13 2TB LUNs.

HDI Remote Server	▪ ITX Mini Tower.
	  ▪ CPU: 1 x G540 DUAL 2.5GHz.
	  ▪ Memory: 4GB.
	  ▪ Storage: Internal HDDs (1TB – 3TB usable).

- Scales to 400 million files per HDI system.
- Employs intelligent local cache to speed access to HCP content over SMB and NFS.
- Speeds cloud adoption; no need to rewrite applications or change user behavior.

Summary

IT organizations serving distributed consumers benefit from the cloud on-ramp powered by Hitachi Data Ingestor. HDI coupled with Hitachi Content Platform creates an edge-to-core storage solution to support unstructured data in distributed IT models, such as ROBOs and cloud service providers.

With HDI at the edge sending data to the core infrastructure in the data center, distributed IT environments can reduce their dependence on local storage at the edge.

At core IT data centers, HCP ensures protection, security, reliable access, preservation, compliance and adherence to policies.

Combined, Hitachi Data Ingestor and Hitachi Content Platform propel object storage forward, help rein in the cost of distributed IT, and bring cloud within reach.

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