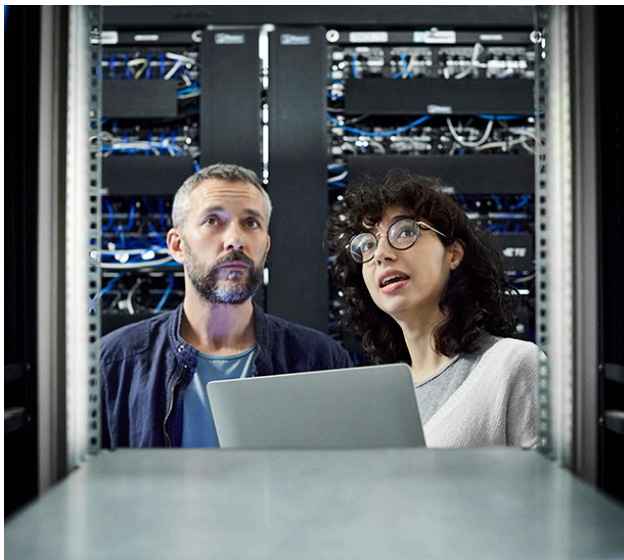


ARCHITECTURE GUIDE

Deploy a scalable distributed file system – rapidly, easily and affordably.



Harness today’s data-intensive AI, ML, and analytics with Hitachi Content Software for File.

Eliminate the complexity, cost and delays of configuring a distributed file system from multiple components and manufacturers. Hitachi Content Software for File lets you design and deploy a leading edge file system — now.

- Gain insights faster by simplifying the process of building and supporting an end-to-end solution with Hitachi
- Simplify the process of architecting and scaling a solution that is flexible enough to meet the wide range of business requirements
- Choose the components and support models that best fit your business requirements
- Deploy a system with infinite scalability that can adapt and expand as your needs evolve



Integrated Disk-Based Tiering

Tiering to S3 object storage provides unlimited, affordable scaling



Leading-Edge Performance

High speed file system – 3x faster than local NVMe flash drives



Exascale Capacity

Easily scales to exabytes of object storage and petabytes of NVMe storage



Unified Access

Multi-protocol POSIX, NFS, SMB, and S3 file systems



Hybrid Cloud Integration

Enables advanced distributed data security, backup and disaster recovery

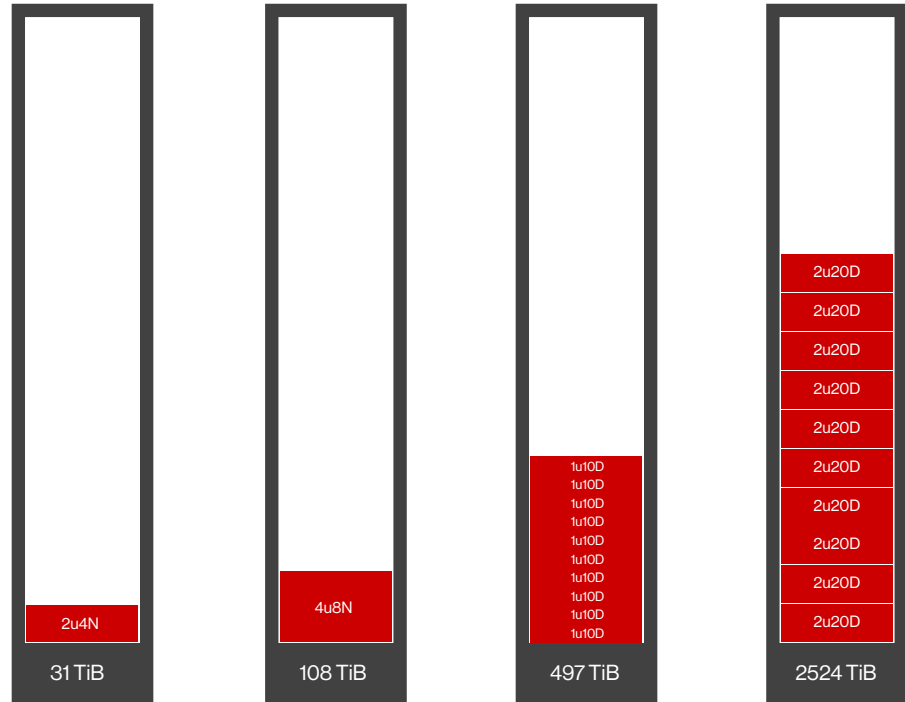
Model Specifications



	Entry	General Purpose	Performance
Appliance	HCSF10448	HCSF20220	HCSF30110
CPU	Milan 7413P - 24 Core	Milan 7713P UP - 64 Core	Milan 7543 UP - 32 Core
DIMM Memory	256GB	512GB	512GB
Drives per Node	6x NVMe 3.8TB, 7.6TB, 15.3TB, 30TB	20x NVMe 3.8TB, 7.6TB, 15.3TB, 30TB	10x NVMe 3.8TB, 7.6TB, 15.3TB, 30TB
Total Drives	48	20	10
Network 1	2p/25GbE + 2p/10GbE	On-board 2p/25GbE + 2p/10GbE	2p/25GbE + 2p/10GbE
Network 2	"Mellanox CX6-ECAT 2p/100GbE Mellanox CX6-HDAT 2p/200GbE/IB"	"Mellanox CX6-ECAT 2p/100GbE Mellanox CX6-HDAT 2p/200GbE/IB"	"Mellanox CX6-ECAT 2p/100GbE Mellanox CX6-HDAT 2p/200GbE/IB"
Network 3	-	"Mellanox CX6-ECAT 2p/100GbE Mellanox CX6-HDAT 2p/200GbE/IB"	"Mellanox CX6-ECAT 2p/100GbE Mellanox CX6-HDAT 2p/200GbE/IB"
Cluster Size / Nodes	8 - 24	6+	6+
Rack Units	4	2	1

Reference Architecture

- Highest performance
- Lowest latency
- Massively scalable
- Space and energy efficient
- Fully preconfigured



	IOT	SMALL	MEDIUM	LARGE
Total Nodes	4	8	10	12
Useable TiB	31	108	497	2542
Latency	< 1µsec	< 1µsec	< 1µsec	< 1µsec
R/W IO (M)	4.7 1.9	11.2 4.2	12.4 6	14.6 7.1
R/W Throughput (Gb/s)	66.5 8.5	133.9 16.2	198 72	265.5 137.2

Object Storage Economics for a Parallel File System

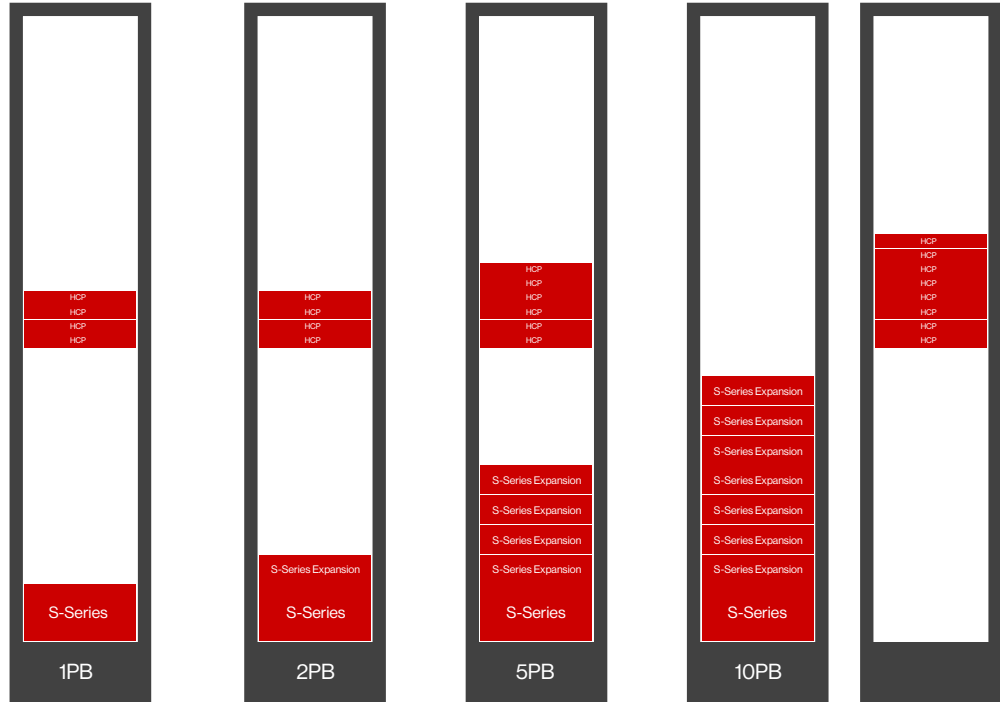
HCSF makes it easier and more affordable for clients to leverage the economics and scalability of object storage. By integrating with HCP object storage, this powerful solution removes the complexity and expense of having to scale with expensive NVMe or manage complex data silos.

Integration with HCP

1. Data written to nvme flash
2. Hot data tracked with metadata
3. Active hot data remains in flash
4. Idle data moved to object storage
5. Data recalled to flash as necessary

Bonus: Capacity safety net ensures nvme is not exhausted

Object Storage Examples



	1PB	2PB	5PB	10PB
HCP	4x nodes	4x nodes	6x nodes	8x nodes
HCP Sx1	1x S11	1x S31 / 1x Expansion	1x S31 / 4x Expansion	1x S31 / 7x Expansion
Usable	1300TB	2300TB	5200TB	10100TB

ABOUT HITACHI VANTARA

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 hitachivantara.com.

Learn More →

For more information on the Hitachi Content Software for File, visit our website today.



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