

DATASHEET

Modernize IT With Full-Stack Hyperconverged Infrastructure

Simplify your data center and accelerate hybrid cloud benefits with the Hitachi Unified Compute Platform HC family of all-NVMe, all-flash and hybrid solutions. Compute, storage, virtualization and high availability are combined into a simple, scalable and reliable enterprise-grade hyperconverged infrastructure.

Next-Generation Hyperconverged Solutions

Hitachi Unified Compute Platform HC (UCP HC) is a fully integrated, scalable, simple and reliable hyperconverged platform built to modernize data center and edge computing. The integrated UCP HC appliance meets the collective needs of business applications, databases, analytics, virtual desktops, remote and branch office (ROBO) and cloud hosting solutions.

Agile

- Accelerate time to production by up to 80% with automated provisioning.
- Automate operations with policies to accelerate service provisioning.
- Accelerate high-performance processing applications with a next-generation graphics processing unit (GPU).
- Start small and scale incrementally and non-disruptively with flexible platform options.

Resilient

- A robust foundation to run your important applications with aggressive recovery point and recovery time objective (RPO and RTO) requirements.
- Protect apps, especially in remote data centers, with rapid, snapshot-based recoverability.
- Minimize the impact of site failure with stretched cluster support and with five-minute RPO using vSphere host-based replication.

Cloud Efficient

- UCP HC leverages Intel Xeon Scalable processors and inexpensive storage, integrated with VMware vSphere and vSAN to reduce the total cost of ownership.

- Manage UCP HC and traditional external storage systems with a common management framework, protecting investments in SAN storage.
- High VM density supports a mix of applications, eliminating the need for storage sprawl.
- Advanced policy-based management engine ensures provisioning the right storage services on the fly, with accurate quality of service (QoS) per VM.

Key Capabilities

- Hypervisor-embedded, software-defined storage.
- Latest 4th generation Intel Xeon Scalable processors.
- Support for vSAN Express Storage Architecture (ESA) and Original Storage Architecture (OSA).
- Supports simultaneous VM and container-based workloads.
- Build hybrid cloud with VMware Cloud Foundation and VMware Tanzu.
- Interoperability with external storage.
- Unified management of hyperconverged infrastructure (HCI) and external SAN.
- Accelerated computing for Analytics and AI with Nvidia GPUs.
- Validated reference architecture for key use cases.

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The UCP HC appliance is managed using the Hitachi Unified Compute Platform Advisor providing automated Day-0 deployments, guided lifecycle management and firmware upgrades along with provisioning, management and monitoring of appliance resources.

Hitachi's reliable one-stop support for the entire UCP HC appliance provides a zero-worry experience to customers.

TABLE 1: HITACHI UNIFIED COMPUTE DS G2 PLATFORM HC FAMILY SPECIFICATIONS (vSAN OSA and ESA)

Product	UCP HC V124N G2	UCP HC V120F G2	UCP HC V224N G2	UCP HC V124N G2 ESA	UCP HC V224N G2 ESA
Configuration	All-NVMe flash SFF form factor, AF-4, AF-6, AF-8 OSA	SSD flash SFF form factor, AF-4, AF-6 OSA	All-NVMe Flash SFF Form Factor, AF-4, AF-6, AF-8 OSA	ESA-AF-2, ESA-AF-4, ESA-AF-6 ESA, Single storage tier (NVMe)	ESA-AF-2, EAS-AF-4, ESA-AF-6, ESA-AF-8, ESA-AF-HD ESA, Single storage tier (NVMe)
Form Factor	1U, 1 node	1U, 1 node	2U, 1 node	1U, 1 node	2U, 1 node
Processor	Intel Xeon Silver 4310 (12c, 2.1GHz, 120W)	Intel Xeon Silver 4310 (12c, 2.1GHz, 120W)	Intel Xeon Silver 4310 (12c, 2.1GHz, 120W)	Intel Xeon Gold 6342 (24C, 2.8GHz, 230W)	Intel Xeon Gold 6342 (24C, 2.8GHz, 230W)
	Intel Xeon Gold 4320 (26C, 2.2GHz, 185W)	Intel Xeon Gold 4320 (26C, 2.2GHz, 185W)	Intel Xeon Gold 4320 (26C, 2.2GHz, 185W)	Intel Xeon Gold 5320 (26C, 2.2GHz, 185W)	Intel Xeon Gold 5320 (26C, 2.2GHz, 185W)
	Intel Xeon Gold 6342 (24C, 2.8GHz, 230W)	Intel Xeon Gold 6342 (24C, 2.8GHz, 230W)	Intel Xeon Gold 6342 (24c, 2.8GHz, 230W)	Intel Xeon Gold 6348 (28C, 2.6GHz, 235W)	Intel Xeon Gold 6348 (28C, 2.6GHz, 235W)
	Intel Xeon Gold 6348 (28C, 2.6GHz, 235W)	Intel Xeon Gold 6348 (28C, 2.6GHz, 235W)	Intel Xeon Gold 6348 (28C, 2.6GHz, 235W)	Intel Xeon Gold 6338 (32C, 2.0GHz, 205W)	Intel Xeon Gold 6338 (32C, 2.0GHz, 205W)
	Intel Xeon Gold 6338 (32C, 2.0GHz, 205W)	Intel Xeon Gold 6338 (32C, 2.0GHz, 205W)	Intel Xeon Gold 6338 (32C, 2.0GHz, 205W)		
	Intel Xeon Platinum 6338 (38C, 2.4GHz, 270W)	Intel Xeon Platinum 6338 (38C, 2.4GHz, 270W)	Intel Xeon Platinum 6338 (38C, 2.4GHz, 270W)		
GPU	Nvidia T4, A2	Nvidia T4, A2	Nvidia T4, A2, A16, A30, A100	Nvidia T4, A2	Nvidia T4, A2, A16, A30, A100
Raw Storage, per Node	0.96TB - 76.8 TB	0.96TB - 76.8 TB	2TB - 120TB	Minimum: 16 TB; Maximum: 76.8 TB, Intel P5620 (1.6, 3.2 & 6.4 TB) Up to maximum of 12 drives	Minimum: 16 TB; Maximum: 153.6 TB, Intel P5620 (1.6, 3.2 & 6.4 TB) Up to maximum of 24 drives
Estimated Usable Capacity	2.52TB - 202TB	2.52TB - 202TB	5.26TB - 315.6TB	Varies based on RAID support	Varies based on RAID support
Memory (trad. DIMMS)	Up to 4.0 TB DDR4 per node	Up to 4.0 TB DDR4 per node	Up to 4.0 TB DDR4 per node	Up to 2TB DDR4 per node	Up to 2TB DDR4 per node
Memory (Intel Optane)	Up to 2TB (16 x 128G) DCPMM with up to 2TB (16 x 128G) DDR4 Cache	Up to 2TB (16 x 128G) DCPMM with up to 2TB (16 x 128G) DDR4 Cache	Up to 2TB (16 x 128G) DCPMM with up to 2TB (16 x 128G) DDR4 Cache	Not Available	Not Available
Cache Tier	Intel Optane SSD P4510 (8TB) or P5800 (800GB)	Intel Optane SSD P4510 (8TB) or P5800 (800GB)	Intel Optane SSD P4510 (8TB) or P5800 (800GB)	Not Applicable	Not Applicable

TABLE 1: Continued

Product	UCP HC V124N G2	UCP HC V120F G2	UCP HC V224N G2	UCP HC V124N G2 ESA	UCP HC V224N G2 ESA
Network	Up to 8x 10/25 GbE SFP+; or up to 8 x 10 GbE RJ45 or SFP+; or mix of 4x 10 and 4x 25GbE	Up to 8x 10/25 GbE SFP+; or up to 8 x 10 GbE RJ45 or SFP+; or mix of 4x 10 and 4x 25GbE	Up to 8x 10/25 GbE SFP+; or up to 8 x 10 GbE RJ45 or SFP+; or mix of 4x 10 and 4 x 25GbE	Up to 4x 10/25 GbE Ports Intel Ethernet Network Adapter E810	Up to 4x 10/25 GbE Ports Intel Ethernet Network Adapter E810
	2 x 100/50/40/25 GbE port Mellanox Connect X6 EN dual port	2 x 100/50/40/25 GbE port Mellanox Connect X6 EN dual port	2 x 100/50/40/25 GbE port Mellanox Connect X6 EN dual port	2x 100 GbE port Mellanox Connect X6 EN dual port	2x 100 GbE port Mellanox Connect X6 EN dual port
Mgmt Network	One 1Gb/s BMC port	One 1Gb/s BMC port	One 1Gb/s BMC port	One 1Gb/s BMC port	One 1Gb/s BMC port
Node Increment	1 Node	1 Node	1 Node	1 Node	1 Node

TABLE 2: HITACHI UNIFIED COMPUTE HA G2 PLATFORM HC FAMILY SPECIFICATIONS (vSAN OSA)

Product	UCP HC HA810 G2	UCP HC HA820 G2
Configuration	All-SAS (SAS/ SAS) AF-4, AF-6	All SAS (SAS/ SAS) AF-4, AF-6
Form Factor	1U, 1node	2U, 1 node
Processor	Intel Xeon Silver 4310 (12c, 2.1GHz, 120W)	Intel Xeon Silver 4310 (12c, 2.1GHz, 120W)
	Intel Xeon Silver 6326 (16c, 2.9GHz, 185W)	Intel Xeon Silver 6326 (16c, 2.9GHz, 185W)
	Intel Xeon Gold 6342 (24C, 2.8GHz, 230W)	Intel Xeon Gold 6342 (24C, 2.8GHz, 230W)
	Intel Xeon Gold 5320 (26C, 2.2GHz, 185W)	Intel Xeon Gold 5320 (26C, 2.2GHz, 185W)
	Intel Xeon Gold 6338 (32C, 2.0GHz, 205W)	Intel Xeon Gold 6338 (32C, 2.0GHz, 205W)
GPU	Nvidia T4	Nvidia T4, A16 and A40
Raw Storage, per Node	7.68-23TB	7.68-23TB
Memory (trad. DIMMS)	Up to 2TB DDR4 per node	Up to 2TB DDR4 per node
Cache Tier	1.6TB SAS SSD	1.6TB SAS SSD
Network	2x 10/25 GbE Ports	2x 10/25 GbE Ports
Mgmt Network	One 1Gb/s BMC port	One 1Gb/s BMC port
Node Increment	1 Node	1 Node

TABLE 3: HITACHI UNIFIED COMPUTE HA G3 PLATFORM FAMILY SPECIFICATIONS (vSAN OSA and vSAN ESA)

Product	UCP HC-HA810 G3, vSAN OSA	UCP HC-HA820 G3, vSAN OSA	UCP HC-HA810 G3, vSAN ESA	UCP HC-HA820 G3, vSAN ESA
Form Factor	1U, 1node	2U, 1node	1U, 1node	2U, 1node
Profile	AF-4, AF-6, AF-8	AF-4, AF-6, AF-8	ESA-AF-0, ESA-AF-2, ESA-AF-4, ESA-AF-6, ESA-AF-8	ESA-AF-2, ESA-AF-4, ESA-AF6, ESA-AF-8, ESA-AF-HD
Storage Config	SAS/SAS, SAS/SATA, SATA/SATA	SAS/SAS, SAS/SATA, SATA/SATA	Single Storage Tier (NVMe)	Single Storage Tier (NVMe)
Processor	<p>Intel Xeon Silver 4410Y CPU, 12C, 2.0GHz, 150W</p> <p>Intel Xeon Gold 5416S CPU, 16C, 2.0GHz, 150W</p> <p>Intel Xeon Gold 6430 CPU, 32C, 2.1 GHz, 270W</p> <p>Intel Xeon Gold 6414 CPU, 32C, 2.2 GHz, 250W</p> <p>Intel Xeon Gold 6454S CPU, 32C, 2.2 GHz, 270W</p> <p>Intel Xeon Gold 6426Y CPU, 16C, 2.5 GHz, 185W</p> <p>Intel Xeon-Gold 6442Y CPU, 24C, 2.6 GHz, 225W</p> <p>Intel Xeon-Gold 6448Y CPU, 32C, 2.1 GHz, 225W</p> <p>Intel Xeon-Gold 6444Y CPU, 16C, 3.6 GHz, 270W</p> <p>Intel Xeon-Silver 4416+ CPU, 20C, 2.0 GHz, 165W</p> <p>Intel Xeon-Gold 5418Y CPU, 24C, 2.0 GHz, 185W</p> <p>Intel Xeon-Gold 5420+ CPU, 28C, 2.0 GHz, 205W</p> <p>Intel Xeon-Gold 6438Y+ CPU, 32C, 2.0 GHz, 205W</p> <p>Intel Xeon-Gold 5412U CPU, 24C, 2.1GHz, 185W</p> <p>Intel Xeon-Gold 6438N CPU, 32C, 2.0 GHz, 205W</p> <p>Intel Xeon-Platinum 8460Y+ CPU, 40C, 2.0G, 300W</p> <p>Intel Xeon-Platinum 8452Y CPU, 36C, 2.0 G, 300W</p> <p>Intel Xeon-Platinum 8468 CPU, 48C, 2.1 GHz, 350W</p> <p>IntelT Xeon-Platinum 8470 CPU, 52C, 2.0 GHz, 350W</p> <p>Intel Xeon-Platinum 8480+ CPU, 56C, 2.0 GHz, 350W</p> <p>Intel Xeon-Platinum 8468V CPU, 48C, 2.4 GHz, 330W</p> <p>Intel Xeon-Platinum 8458P CPU, 44C, 2.7 GHz, 350W</p> <p>INT Xeon-Platinum 8470N CPU, 52C, 1.7 GHz, 300W</p>	<p>Intel Xeon Silver 4410Y CPU, 12C, 2.0GHz, 150W</p> <p>Intel Xeon Gold 5416S CPU, 16C, 2.0GHz, 150W</p> <p>Intel Xeon Gold 6430 CPU, 32C, 2.1 GHz, 270W</p> <p>Intel Xeon Gold 6414 CPU, 32C, 2.2 GHz, 250W</p> <p>Intel Xeon Gold 6454S CPU, 32C, 2.2 GHz, 270W</p> <p>Intel Xeon Gold 6426Y CPU, 16C, 2.5 GHz, 185W</p> <p>Intel Xeon-Gold 6442Y CPU, 24C, 2.6 GHz, 225W</p> <p>Intel Xeon-Gold 6448Y CPU, 32C, 2.1 GHz, 225W</p> <p>Intel Xeon-Gold 6444Y CPU, 16C, 3.6 GHz, 270W</p> <p>Intel Xeon-Silver 4416+ CPU, 20C, 2.0 GHz, 165W</p> <p>INT Xeon-Gold 5418Y CPU, 24C, 2.0 GHz, 185W</p> <p>Intel Xeon-Gold 5420+ CPU, 28C, 2.0 GHz, 205W</p> <p>Intel Xeon-Gold 6438Y+ CPU, 32C, 2.0 GHz, 205W</p> <p>Intel Xeon-Gold 5412U CPU, 24C, 2.1 GHz, 185W</p> <p>Intel Xeon-Gold 6438N CPU, 32C, 2.0 GHz, 205W</p> <p>Intel Xeon-Platinum 8460Y+ CPU, 40C, 2.0G, 300W</p> <p>Intel Xeon-Platinum 8452Y CPU, 36C, 2.0 G, 300W</p> <p>Intel Xeon-Platinum 8462Y+ CPU, 32C, 2.8 G, 300W</p> <p>Intel Xeon-Platinum 6458Q CPU, 32C, 3.1 G, 350W</p> <p>Intel Xeon-Platinum 8468 CPU, 48C, 2.1 GHz, 350W</p> <p>Intel Xeon-Platinum 8470 CPU, 52C, 2.0 GHz, 350W</p> <p>Intel Xeon-Platinum 8480+ CPU, 56C, 2.0 GHz, 350W</p> <p>Intel Xeon-Platinum 8468V CPU, 48C, 2.4 GHz, 330W</p> <p>Intel Xeon-Platinum 8458P CPU, 44C, 2.7 GHz, 350W</p> <p>Intel Xeon-Platinum 8470N CPU, 52C, 1.7 GHz, 300W</p>	<p>Intel Xeon Gold 5416S CPU, 16C, 2.0GHz, 150W</p> <p>Intel Xeon Gold 5418Y CPU, 24C, 1.8 GHz, 165W</p> <p>Intel Xeon-G 6442Y CPU (225W. 24C. 2.6GHz)</p> <p>Intel Xeon-G 5412U CPU (185W. 24C. 2.1GHz)</p> <p>Intel Xeon-Gold 5420+ CPU, 28C, 2.0 GHz, 205W</p> <p>Intel Xeon Gold 6430 CPU, 32C, 2.1GHz, 270W</p> <p>Intel Xeon Gold 6414U CPU, 32C, 2.2 GHz, 250W</p> <p>Intel Xeon Gold 6454S CPU, 32C, 2.1 GHz, 225W</p> <p>Intel Xeon-Gold 6448Y CPU, 32C, 2.1 GHz, 225W</p> <p>Intel Xeon-Gold 6438Y+ CPU, 32C, 2.0 GHz, 205W</p> <p>Intel Xeon-Platinum 8460Y+ CPU, 40C, 2.0G, 300W</p> <p>Intel Xeon-Platinum 8452Y CPU, 36C, 2.0 G, 300W</p> <p>Intel Xeon-P 8470 CPU (. 52C, 350W 2.0GHz)</p> <p>Intel Xeon-P 8480+ CPU (350W. 56C. 2.0GHz)</p> <p>Intel Xeon-P 8468V CPU, 48C, 2.4GHz, 330W</p> <p>Intel Xeon-P 8468 CPU, 48C, 2.1 GHz, 350W</p> <p>Intel Xeon-P 8458P CPU, 44C, 2.7GHz, 350W</p> <p>Intel Xeon-P 8470N CPU (300W. 52C. 1.7GHz)</p> <p>Intel Xeon-P 8462Y+ CPU (300W. 32C. 2.8GHz)</p> <p>Intel Xeon-Gold 6438N CPU, 32C, 2.0 GHz, 205W</p>	<p>Intel Xeon Gold 5416S CPU, 16C, 2.0 GHz, 150W</p> <p>Intel Xeon Gold 5418Y CPU, 24C, 1.8 GHz, 165W</p> <p>Intel Xeon G 6426Y CPU, 16C, 2.5 GHz, 185W</p> <p>Intel Xeon-G 6444Y CPU, 16C. 3.6 GHz, 270W</p> <p>Intel Xeon-S 4416+ CPU, 20C. 2.0 GHz, 165W</p> <p>Intel Xeon-G 6442Y CPU (24C, 2.6GHz, 225W)</p> <p>Intel Xeon-G 5412U CPU (24C. 2.1GHz, 185W)</p> <p>Intel Xeon-Gold 5420+ CPU, 28C, 2.0 GHz, 205W</p> <p>Intel Xeon Gold 6430 CPU, 32C, 2.1 GHz, 270W</p> <p>Intel Xeon Gold 6414 CPU, 32C, 2.2 GHz, 250W</p> <p>Intel Xeon Gold 6454S CPU, 32C, 2.2 GHz, 270W</p> <p>Intel Xeon-Gold 6448Y CPU, 32C, 2.1 GHz, 225W</p> <p>Intel Xeon Gold 6430 CPU, 32C, 2.1 GHz, 270W</p> <p>Intel Xeon Gold 6414 CPU, 32C, 2.2 GHz, 250W</p> <p>Intel Xeon Gold 6454S CPU, 32C, 2.2 GHz, 270W</p> <p>Intel Xeon-Gold 6448Y CPU, 32C, 2.0 GHz, 205W</p> <p>Intel Xeon-Gold 6438Y+ CPU, 32C, 2.0 GHz, 205W</p> <p>Intel Xeon-Platinum 8460Y+ CPU, 40C, 2.0G, 300W</p> <p>Intel Xeon-Platinum 8452Y CPU, 36C, 2.0 G, 300W</p> <p>Intel Xeon-P 8470 CPU (52C. 2.0GHz, 350W)</p> <p>Intel Xeon-P 8480+ CPU (56C. 2.0GHz, 350W)</p> <p>Intel Xeon-P 8468V CPU, 48C, 2.4GHz, 330W</p> <p>Intel Xeon-P 8458P CPU, 44C, 2.7GHz, 350W</p> <p>Intel Xeon-P 8470N CPU(52C. 1.7GHz, 300W)</p> <p>Intel Xeon-P 8462Y+ CPU (32C. 2.8GHz, 300W)</p> <p>Intel Xeon-Gold 6438N CPU, 32C, 2.0 GHz, 205W</p> <p>Intel Xeon-G 6458Q CPU (350W. 32C. 3.1GHz)</p>

TABLE 3: Continued

Product	UCP HC-HA810 G3, vSAN OSA	UCP HC-HA820 G3, vSAN OSA	UCP HC-HA810 G3, vSAN ESA	UCP HC-HA820 G3, vSAN ESA
GPU	Nvidia A2, L4	Nvidia A16, A100, L4, L40, H100	Nvidia A2, L4	Nvidia A16, A100, L4, L40, H100
Raw Storage, per Node	Maximum:69.1 TB	Maximum:176.6 TB	Maximum:64 TB	Maximum:153.6 TB
Cache Tier	800 GB SAS SSD 1.6 TB SAS SSD 1.92TB SATA SSD 800 GB Optane SS D	800 GB SAS SSD 1.6 TB SAS SSD 1.92TB SATA SSD 800 GB Optane SS D	Not Applicable	Not Applicable
Capacity Tier	960GB/ 1.92TB/ 3.84TB/ 7.68 TB SAS SSD 1.92TB/ 3.84TB/ 7.68TB SATA SSD 1.92TB/ 3.84TB/ 7.68TB NVMe SSD	960GB/ 1.92TB/ 3.84TB/ 7.68 TB SAS SSD 1.92TB/ 3.84TB/ 7.68TB SATA SSD 1.92TB/ 3.84TB/ 7.68TB NVMe SSD	1.6TB/ 3.2TB/ 6.4TB NVMe SSD	1.6TB/ 3.2TB/ 6.4TB NVMe SSD
Memory (trad. DIMMs)	Up to 4TB DDR5 per node	Up to 4TB DDR5 per node	Up to 4TB DDR5 per node	Up to 4TB DDR5 per node
Network	BCM 57412 10GbE 2p SFP+ OCP3 Adptr INT E810 10/25GbE 2p SFP28 OCP3 Adptr MLX MCX6314 10/25GbE 2p SFP28 OCP3 Adpt	BCM 57412 10GbE 2p SFP+ OCP3 Adptr INT E810 10/25GbE 2p SFP28 OCP3 Adptr MLX MCX6314 10/25GbE 2p SFP28 OCP3 Adpt	BCM 57412 10GbE 2p SFP+ OCP3 Adptr INT E810 10/25GbE 2p SFP28 OCP3 Adptr MLX MCX6314 10/25GbE 2p SFP28 OCP3 Adpt Mellanox MCX623106AS- CDAT Ethernet 100GbE 2-port QSFP56 Adapter for AF-8 profile	BCM 57412 10GbE 2p SFP+ OCP3 Adptr INT E810 10/25GbE 2p SFP28 OCP3 Adptr MLX MCX6314 10/25GbE 2p SFP28 OCP3 Adpt Mellanox MCX623106AS-CDAT Ethernet 100GbE 2-port QSFP56 Adapter for AF-8 profile
Mgmt Network	One 1Gb/s BMC port	One 1Gb/s BMC port	One 1Gb/s BMC port	One 1Gb/s BMC port
Node Increment	1Node	1Node	1Node	1Node

Note: Hitachi Vantara UCP HC solution can be purchased with a minimum of 2 nodes to up to maximum of 64 nodes per vSAN cluster. Customers can use network switches such as Cisco Nexus or any other switch that meets vSAN requirements.

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.

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