

Datasheet

Hitachi Unified Compute Platform RS Accelerates Innovation With Simple, Scalable SDDC Hybrid-Cloud Infrastructure

Achieve business agility and simplicity with your hybrid cloud: Choose the rack-scale Hitachi Unified Compute Platform RS, a value-added OEM engineered offering with VMware Cloud Foundation, to deliver your software-defined data

Hybrid Cloud, Simplified

To simplify your hybrid cloud journey, Hitachi Unified Compute Platform RS (UCP RS) series provides a turnkey solution that reduces total cost of ownership (TCO) and improves security. The SDDC solution accelerates the time to market with a natively integrated cloud infrastructure stack that comes prepackaged with management software, to provide auto-mated, policy-based IT operations (see Figure 1).

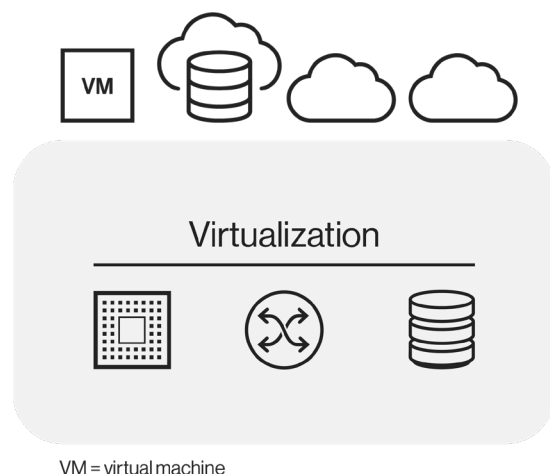


Fig. 1 UCP RS automates operations

Key Benefits

Faster Time to Production

- Turnkey delivery of pre-integrated, prevalidated SDDC.
- Automation that deploys an entire cloud infrastructure in hours, not weeks or months.
- Rapid, repeatable application deployment.
- Cluster Management: Efficient management of vSphere and Kubernetes clusters for extensive virtual machine and container workloads.

UCP RS Features

- Lifecycle Automation: UCP Advisor and SDDC Manager automate software and hardware infrastructure across diverse components.
- Data Availability: Hitachi guarantees 100% data availability with advanced multi-datacenter configurations.
- One Support: Comprehensive software and hardware support provided globally.
- Rack-scale hyperconverged infrastructure.
- Turnkey delivery of SDDC.
- Flexible policy-based management capabilities with external storage.
- Natively integrated SDDC components, cloud management and automation software.
- Easy scalability up to 256 nodes across eight racks.
- Enterprise security with NSX microsegmentation.
- Multitenancy-enabled via workload domains.
- Automated life-cycle management of entire cloud infrastructure.
- Run apps anywhere, at any scale.
- Workload mobility across private and public cloud.

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Flexibility and Scale

- Connect external storage systems with optional Fibre Channel host bus adapter (HBA) support on per-node basis.
- Move your workload across data centers to meet changing business needs.
- Manage your applications across private and public cloud from a common toolset.
- Scale without increasing IT head count.
- Employ heterogeneous server configurations in a rack with variable processor, memory, storage capacity and storage type.

Intelligent Operations

- Do more with fewer resources.
- Automate your data center with policies.
- Optimize resource use with rich analytics
- Streamlined storage operations for VMs and containers with intelligent automation of workflows for VMs and containers offering versatile SLAs and cost-effective data access to block, file and S3 storage.

Secure Cloud Platform

- Hypervisor-embedded firewall for enhanced security.
- Granular security to prevent east-west breach.
- Security policies that align with work- load, regardless of physical location.
- Integrated data protection with SDDC manager.
- Critical Workload Reliability: Hitachi's compute nodes with vSAN and external storage to ensure reliable performance for essential workloads.
- Data and ransomware recovery with optional Ops Center managed replication and 3rd party backup to S3 cloud

Software Requirements

VMWare	VMware Cloud Foundation 5.1, Includes: vSphere 8.0 U2, vSAN 8.0 U2, SDDC Manager 5.1, NSX 4.1.2.1, VMware Aria Suite 8.14
Hitachi	Unified Compute Platform Advisor v4.5 or higher

Configurations

Modes (Min., Max.)	4,256
Rack-Scale	1-8 racks
Node-Scale Increment	1
Management Nodes	4 to 8 nodes: DS 120 G2, HA810 G3, HA805 G3 & HA815 G3
Workload Node	UCP HC V120F G2 (1U), UCP HC V220F G2 (2U), UCP HC HA810 G3 (1U), UCP HC HA820 G3 (2U), UCP HC HA805 G3 (1U/1S), UCP HC HA815 G3 (1U/2S), UCP HC HA825 G3 (2U/2S)
Network	Cisco Ethernet networking switches Arista Ethernet networking switches Broadcom Fiber Channel SAN switches
Management Software	VMware SDDC Manager, Hitachi UCP Advisor
Server Virtualization	VMware vSphere
Network Virtualization	VMware NSX (SDN)
Storage Options	VMware vSAN (OSA & ESA), Hitachi VSP Storage including new VSP One (Block 24, 26 & 28)

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Node Specification (with DS G2 Compute Options)

Product	UCP HC V120F G2	UCP HC V220F G2
Configuration	All-Flash	All-Flash
Form Factor	1U, 1Node	2U, 1Node
Processor	2x Intel Xeon Silver 4310 (12c, 21GHz, 120W) Intel Xeon Gold 5320 (26C, 2.2GHz, 185W) Intel Xeon Gold 6342 (24C, 2.8GHz, 230W) Intel Xeon Gold 6348 (28C, 2.6GHz, 235W) Intel Xeon Gold 6338 (32C, 2.0GHz, 205W)	2x Intel Xeon Silver 4310 (12c, 21GHz, 120W) Intel Xeon Gold 5320 (26C, 2.2GHz, 185W) Intel Xeon Gold 6342 (24C, 2.8GHz, 230W) Intel Xeon Gold 6348 (28C, 2.6GHz, 235W) Intel Xeon Gold 6338 (32C, 2.0GHz, 205W)
Nvidia GPU	A2	A2, A16, A30
Raw Storage (per node)	Up to 72TB	Up to 128TB
Estimated Usable Capacity	6-100TB	204-328TB
Memory	Up to 2TB per node Optional Optane Memory	Up to 2TB per node Optional Optane Memory
Cache	1.6-6.4TB NVMe SSD 960 GB SSD Optane P5800x (400GB/800GB)	1.6-6.4TB NVMe SSD 960 GB SSD Optane P5800x (400GB/800GB)
Capacity	Intel P4510, 8TB Hybrid 7.2K 8TB	Intel P4510 (2-8TB) S4510, 1.92TB 960 GB SSD PM893, 1.92TB SSD Hybrid 10K (1.8TB & 1.2TB)

Node Specification with HA G3 Compute Options (Intel)

Product	UCP HC HA810 G3 OSA	UCP HC HA810 G3 ESA	UCP HC HA820 G3 OSA	UCP HC HA820 G3 ESA
Storage Configuration	SAS/SAS, SAS/SATA, SATA/ SATA	Single Storage Tier (NVMe)	SAS/SAS, SAS/SATA, SATA/ SATA	Single Storage Tier (NVMe)
Form Factor	1U	1U	2U	2U
Processor	2x Intel Xeon 4th Generation CPU: Sapphire Rapids and Emerald Rapids 8 to 64 Cores	1x or 2x Intel Xeon 4th Generation CPU: Sapphire Rapids and Emerald Rapids 8 to 64 Cores	2x Intel Xeon 4th Generation CPU: Sapphire Rapids and Emerald Rapids 8 to 64 Cores	2x Intel Xeon 4th Generation CPU: Sapphire Rapids and Emerald Rapids 8 to 64 Cores

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Nvidia GPU	A2, L4	A2, L4	A16, L4, L40, H100 NVL, L40S	A16, L4, L40, H100 NVL, L40S
Raw Storage (per node)	Maximum:69.1 TB	Maximum:64 TB	Maximum:176.6 TB	Maximum:153.6 TB
Memory	Up to 4TB DDR5 per node	Up to 4TB DDR5 per node	Up to 4TB DDR5 per node	Up to 4TB DDR5 per node
Cache	800 GB SAS SSD 1.6 TB SAS SSD 1.92TB SATA SSD	Not Applicable	800 GB SAS SSD 1.6 TB SAS SSD 1.92TB SATA SSD	Not Applicable
Capacity	960GB/ 1.92TB/ 3.84TB/ 7.68 TB SAS SSD 1.92TB/ 3.84TB/ 7.68TB SATA SSD	1.6TB/ 3.2TB/ 6.4TB NVMe MU SSD 1.92TB/ 3.84TB/ 7.68TB /15.26TB NVMe RI SSD	960GB/ 1.92TB/ 3.84TB/ 7.68 TB SAS SSD 1.92TB/ 3.84TB/ 7.68TB SATA SSD	1.6TB/ 3.2TB/ 6.4TB NVMe SSD
Network	BCM 57412 10/25GbE 2p SFP+ OCP3 Adptr MLX MCX631102 10/25GbE 2p INT E810 10/25GbE 2p SFP28 OCP3 Adptr MLX MCX6314 10/25GbE 2p SFP28 OCP3 Adptr BCM 57414 10/25GbE 2p SFP28 OCP3 Adptr	BCM 57412 10/25GbE 2p SFP+ OCP3 Adptr MLX MCX631102 10/25GbE 2p INT E810 10/25GbE 2p SFP28 OCP3 Adptr MLX MCX6314 10/25GbE 2p SFP28 OCP3 Adptr BCM 57414 10/25GbE 2p SFP28 OCP3 Adptr	BCM 57412 10/25GbE 2p SFP+ OCP3 Adptr MLX MCX631102 10/25GbE 2p INT E810 10/25GbE 2p SFP28 OCP3 Adptr MLX MCX6314 10/25GbE 2p SFP28 OCP3 Adptr BCM 57414 10/25GbE 2p SFP28 OCP3 Adptr Mellanox MCX623106AS- CDAT Ethernet 100GbE 2-port QSFP56	BCM 57412 10/25GbE 2p SFP+ OCP3 Adptr MLX MCX631102 10/25GbE 2p INT E810 10/25GbE 2p SFP28 OCP3 Adptr MLX MCX6314 10/25GbE 2p SFP28 OCP3 Adptr BCM 57414 10/25GbE 2p SFP28 OCP3 Adptr Mellanox MCX623106AS-CDAT Ethernet 100GbE 2-port QSFP56
Management Network	1Gb/s BMC port	1 Gb/s BMC port	1 Gb/s BMC port	1 Gb/s BMC port

Node Specification with HA G3 Compute Options (AMD)

Product	UCP HC HA805 G3 OSA	UCP HC HA805 G3 ESA	UCP HC HA815 G3 ESA	UCP HC HA825 G3 ESA
Storage Configuration	SAS/SAS, SAS/SATA, SATA/ SATA	Single Storage Tier (NVMe)	Single Storage Tier (NVMe)	Single Storage Tier (NVMe)
Form Factor	1U, 1Node	1U, 1Node	2U, 1Node	2U, 1Node
Processor	1x AMD Genoa and Bergamo CPUs 16 to 128 cores	1x AMD Genoa and Bergamo CPUs 16 to 128 cores	2x AMD Genoa and Bergamo CPUs 16 to 128 cores	2x AMD Genoa and Bergamo CPUs 16 to 128 cores
Nvidia GPU	A2	A2	None	None

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Raw Storage (per node)	Maximum:53.76 TB	Maximum:122.88 TB	Maximum:122.88 TB	Maximum:368.64 TB
Memory	Up to 3TB DDR5 per node	Up to 3TB DDR5 per node	Up to 6TB DDR5 per node	Up to 6TB DDR5 per node
Cache	1.6 TB/3.2 TB/ 6.4 TB MU SAS SSD 1.92TB MU SATA SSD	Not Applicable	Not Applicable	Not Applicable
Capacity	1.92TB/ 3.84TB/7.68 TB SAS RI SSD 1.92TB/ 3.84TB SATA RI SSD	1.92TB/ 3.84TB/ 7.68TB/ 15.36TB NVMe RI SSD 1.6TB/ 3.2TB/ 6.4TB NVMe MU SSD	1.92TB/ 3.84TB/ 7.68TB/ 15.36TB NVMe RI SSD 1.6TB/ 3.2TB/ 6.4TB NVMe MU SSD	1.92TB/ 3.84TB/ 7.68TB/ 15.36TB NVMe RI SSD 1.6TB/ 3.2TB/ 6.4TB NVMe MU SSD
Network	BCM 57412 10/25GbE 2p SFP+ OCP3 Adptr MLX MCX631102 10/25GbE 2p INT E810 10/25GbE 2p SFP28 OCP3 Adptr MLX MCX6314 10/25GbE 2p SFP28 OCP3 Adptr BCM 57414 10/25GbE 2p SFP28 OCP3 Adptr	BCM 57412 10/25GbE 2p SFP+ OCP3 Adptr MLX MCX631102 10/25GbE 2p INT E810 10/25GbE 2p SFP28 OCP3 Adptr MLX MCX6314 10/25GbE 2p SFP28 OCP3 Adptr BCM 57414 10/25GbE 2p SFP28 OCP3 Adptr	BCM 57412 10/25GbE 2p SFP+ OCP3 Adptr MLX MCX631102 10/25GbE 2p INT E810 10/25GbE 2p SFP28 OCP3 Adptr MLX MCX6314 10/25GbE 2p SFP28 OCP3 Adptr BCM 57414 10/25GbE 2p SFP28 OCP3 Adptr Mellanox MCX623106AS- CDAT Ethernet 100GbE 2-port QSFP56	BCM 57412 10/25GbE 2p SFP+ OCP3 Adptr MLX MCX631102 10/25GbE 2p INT E810 10/25GbE 2p SFP28 OCP3 Adptr MLX MCX6314 10/25GbE 2p SFP28 OCP3 Adptr BCM 57414 10/25GbE 2p SFP28 OCP3 Adptr Mellanox MCX623106AS-CDAT Ethernet 100GbE 2-port QSFP56
Management Network	1 Gb/s BMC port	1 Gb/s BMC port	1 Gb/s BMC port	1 Gb/s BMC port

About Hitachi Vantara

Hitachi Vantara is transforming the way data fuels innovation. A wholly owned subsidiary of Hitachi, Ltd., we're the data foundation the world's leading innovators rely on. Through data storage, infrastructure systems, cloud management and digital expertise, we build the foundation for sustainable business growth.



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