Datasheet

# **Hitachi Unified Compute Platform Cl**

Intelligent Converged Infrastructure for Core and Cloud

# Flexibility to Support Any Application at Any Scale

Organizations today face challenges from rapidly changing markets, new technologies and the need to exploit and safeguard ever-increasing amounts of data. IT departments must now deal with new data types from many sources and meet stringent new rules of oversight and compliance.

Hitachi Unified Compute Platform CI (UCP CI), the foundation for a modern IT infrastructure, meets these challenges. It allows you to simply build a data-driven IT infrastructure that can host any application, at any scale, and at any location.

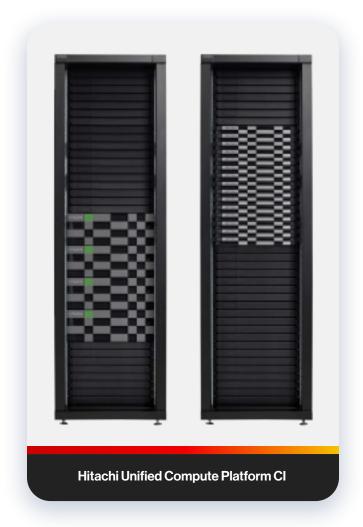
The management software, Hitachi Virtual Storage Platform 360 (VSP 360) [formerly Hitachi Unified Compute Platform Advisor (UCP Advisor)] software provides intelligent unified automation of the management of your server, storage and networking components. As a result, you can monitor and allocate both physical and virtual resources rapidly and efficiently.

With UCP CI, you can scale compute, storage and network capacity independently. With VSP 360, you can manage unified business resource pools across a single or multiple data centers from a single user interface. UCP CI with VSP 360 supports multitenancy, with each of your users having dedicated carved-out resources.

### **UCP CI Capabilities**

# Flexible, Highly Configurable and Available Converged Infrastructure

Today's digital business must be always available, and organizations must rapidly deploy new business applications despite flat or shrinking budgets. With its prevalidated building blocks of compute, storage and networking guaranteed to work together the first time and deliver predictable performance, UCP CI addresses these needs. It offers a low-risk path to hybrid cloud that provides a solution that can be operational, fast.



# **Hitachi Unified Compute Platform CI**

# **Key Platform Features**

- The highly configurable infrastructure of UCP CI allows server, network and storage to be scaled independently, to optimize performance and eliminate overprovisioning costs.
- UCP CI provides a flexible infrastructure for running bare metal, virtualized or containerized environments. This intelligent converged infrastructure for core and cloud customers can increase application density and run multiple workloads on the same system. UCP CI systems are prevalidated for various virtualization options with VMware ESXi, Red Hat OpenShift Virtualization and Microsoft Hyper-V.
- Data resilience and scalability are achieved using a choice of storage options, including industry-leading Hitachi Virtual Storage Platform (VSP)

- arrays and VMware vSAN HCI storage. This approach gives your UCP CI administrators access to a wide range of sophisticated data services, including data protection and disaster recovery options. Optionally, you can leverage existing storage products.
- Performance and scalability are provided by the Hitachi Advanced Server family. DS120 G2, DS220 G2, HA810 G2, HA820 G2, HA810 G3, HA820 G3, HA805 G3, HA815 G3, HA825 G3 and HA840 G3 rack-optimized models deliver scale-out capability and simplify growth. A wide range of GPU options are available on these computer nodes.
- Networking is provided by Cisco for a choice of top-of-rack switches, Arista for IP switching with either 25G or 100G host connectivity, and Broadcom for Fibre Channel (FC) needs. For IP leaf switches, both 24-port and 48-port

- switches are available. The platform offers wide range of storage connectivity options like FC, FC-NVMe, iSCSI and NVMe over TCP. UCP CI supports leaf-spine topology and is ready for software-defined networking (SDN) solutions, such as Cisco Application Centric Infrastructure (ACI).
- VSP 360 provides a single management interface to administer a complete stack for various operations, such as configure, monitor, automate, orchestrate and remediate. Integrating VSP 360 with VMware vSphere Lifecycle Management (vLCM) makes lifecycle operations much smoother. VSP 360 manages both physical hosts and virtual machines, reducing both deployment and operational costs. The user interface includes native integration with VMware vCenter to simplify operations and speed time to operation.

Compute	For virtualized environments
	<ul> <li>Up to 128 Hitachi Advanced Server HA810 G2 and other high-density rack- optimized servers, DS120 G2, DS220 G2, HA810 G2, HA820 G2, HA810 G3, HA820 G3, HA840 G3, HA805 G3, HA815 G3 and HA825 G3 (up to 16 HA810 G2 or G3 servers in a single rack configuration)</li> </ul>
Storage Options	<ul> <li>Hitachi Virtual Storage Platform (VSP)</li> <li>VSP One Block 24, VSP One Block 26, VSP One Block 28</li> <li>VSP 5000 Series: 5100, 5200, 5500, 5600</li> <li>VSP E Series arrays: E590, E790 and E1090</li> <li>VSP F Series all-flash arrays: F1500, F900, F800, F700, F600, F400, F370, F350</li> <li>VSP G Series hybrid-flash arrays: G1500, G1000, G900, G800, G700, G600, G400, G370, G350</li> <li>Local node storage, including VMware vSAN</li> <li>Other vendor storage virtualized through VSP family</li> </ul>
Software	<ul> <li>Hitachi Virtual Storage Platform 360 (VSP 360)</li> <li>For VMware vSphere</li> <li>VMware vCenter</li> <li>Hitachi Storage Plug-in for Containers</li> <li>Hitachi Replication Plug-in for Containers</li> </ul>
Network	<ul> <li>Cisco Ethernet networking switches</li> <li>Arista Ethernet networking switches</li> <li>Broadcom Fibre Channel SAN switches</li> </ul>

Table 1. UCP CI: Infrastructure Overview<sup>1</sup> Partial list of components

# **Hitachi Unified Compute Platform CI**

#### **Solution Architecture**

UCP CI architecture consists of modular building blocks. Components scale independently and provide you with greater configurability, flexibility and agility.

Systems can be configured with a wide range of server options (both Intel and AMD) from the Hitachi Advanced Server family. Choose from our rackmount systems, such as DS120, which are optimized for scale-out cloud-native architectures. Or, select the enterprise-class DS7000 series systems to provide high performance for business-critical applications and high capacity for in-memory databases, such as SAP HANA.

UCP CI supports our VSP arrays, including VSP One Block 20 Series, VSP 5000 Series and VSP E Series, as well as all-flash VSP F Series and hybrid-flash VSP G Series. These systems provide industry-leading performance and reliability, including our 100% Data Availability Guarantee and eight 9s of uptime. They support Hitachi value-added software for Al operations and data services, such as data protection, disaster recovery and bottomless backup for applications and virtual machines.

The UCP CI solution architecture enables a highly available network, which ensures that applications have uninterrupted communication with clients as well as Hitachi storage. UCP CI provides data protection across data centers through globalactive device and Hitachi Universal Replicator (HUR).

Flexible network infrastructure options from Cisco. Arista and Broadcom ensure Ethernet and Fibre Channel networking is tightly integrated and managed, and they offer the same high availability as the other elements of the stack. Available tools include VSP 360 from Hitachi, which manages and monitors the IT infrastructure to confirm that services maintain compliance with service level agreements (SLAs).

UCP CI solutions are offered in flexible models with limited footprint (single rack) as well as well-scaled models (multitrack).

#### Hitachi Virtual Storage Platform 360

UCP CI systems are managed by VSP 360 automated management software, which provides complete, secure, end-to-end management and automation for all Hitachi platforms. VSP 360 enables lifecycle management and

application policies for infrastructure across multiple workloads (virtualized, bare metal, containers, mission-critical applications and big data) for faster and easier deployment and streamlined IT modernization. With VSP 360, you can:

- Accelerate and simplify deployments of converged infrastructure.
- Automate provisioning, service catalog, custom workflows and API integration for a modern data strategy with ubiquitous data services.
- Reduce risk and increase effectiveness with predefined server provisioning.
- Use policy-based automation to enable the development and execution of policies, practices and procedures.

## Summary

UCP CI allows you to rapidly deploy IT infrastructure for a modern data center that is fully tested and validated. It delivers the enterprise scale, flexibility, performance and resiliency required for varied workloads, from modern cloud-native applications to legacy mission-critical databases.

You gain the foundation you need to manage the increased volume, complexity and regulatory compliance requirements of data that business requires today. This is a foundation that can support the tools you need to extract insights, uncover new efficiencies and exploit new revenue opportunities.

With UCP CI, you'll employ a streamlined, integrated and automated platform for your enterprise data center/s and hybrid cloud deployment/s. The platform improves your time to production, make your enterprise-class applications more agile and resilient, and have the flexibility to grow as your business needs demand. Plus, it provides a single source of legendary service.

Purchase your entire stack (compute, network, storage) from Hitachi Vantara. We provide white glove installation and any support you need for your full stack. Get started with Hitachi Vantara today!

Modernize your data center

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