

SimpliVity OmniStack™ Integrated Solution with Cisco™ Unified Compute System



SimpliVity's mission is to simplify IT. The OmniStack Integrated Solution with Cisco UCS C240 M4 converges all IT infrastructure below the hypervisor into 2U building blocks on Cisco Unified Compute System servers. The solution assimilates eight to twelve core data center functions including the hypervisor, compute, storage, network switching, backup, replication, cloud gateway, caching, WAN optimization, real-time deduplication, and more.

The Cisco UCS C240 M4 Series rack-mount server combined with the OmniStack integrated solution is a powerful infrastructure designed for high availability with no single point of failure. The OmniStack solution is designed to handle diverse workloads and radically simplify the way servers and networks are deployed and managed today.

Cloud Economics with Enterprise Capabilities and TCO Savings

With 3x TCO savings, OmniStack with Cisco UCS delivers the best of both worlds - enterprise-class performance, protection and resiliency that enterprises require with cloud economics businesses demand - for single-site businesses to large-scale multi-site Global 2000 enterprises.

The Technology: Attacking Complexity at the Source

Today's infrastructure complexity problem is caused by an antiquated data architecture not suited for modern virtualized and cloud-integrated applications. SimpliVity's data architecture consists of the OmniStack Data Virtualization Platform and OmniStack Accelerator Card. SimpliVity's data architecture is a globally-aware file system with data optimization techniques that enables a single shared compute and storage resource pool across multiple sites, and provides highly-efficient data storage, management, and mobility. It abstracts data from its underlying hardware, shifting policies and management from infrastructure components to the application workload/virtual machine level. The OmniStack Accelerator Card is a purpose-built PCIe card that offloads global inline deduplication, compression, and optimization processes to ensure primary CPU resources are available to serve business applications.

Features and Benefits

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Fully Integrated System: Combines Cisco UCS C240 M4 servers with OmniStack to assimilate all IT infrastructure and services below the hypervisor.
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10GB Unified Network Fabric: Low-latency, lossless, wire-once deployment means fewer interface cards, cables, and ports to maintain.
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Intel Xeon x86 Processor Product Families: Powerful, dual CPU x86 configuration availability delivers an outstanding combination of performance, flexibility, and efficiency gains.
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TCO Reduction: Eliminate the need to purchase multiple discrete components, optimize storage capacity with 40:1 data efficiency, and prevent over-provisioning for performance and capacity with on-demand expansion.
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Efficiency and Agility: Streamline operations with VM-centric management and mobility, and speed time to deploy infrastructure for new workloads.
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Mitigate Risk: Significantly improve RPOs and RTOs, reduce storage and network requirements for data protection with VM-centric backup and WAN-optimized replication for DR.

OmniStack Data Virtualization Platform incorporates three breakthrough innovations:

- 1. Accelerated Data Efficiency:** On average, SimpliVity customers achieve 40:1 data efficiency while simultaneously increasing application performance. SimpliVity deduplicates, compresses, and optimizes all data inline, in real-time, at inception, once and forever across all stages of the data lifecycle, globally.
- 2. Built-in Data Protection:** With OmniStack, data protection is built in and ultra efficient. OmniStack natively includes policy-based VM-centric backup and WAN-optimized replication for disaster recovery, reducing backup and restore times from hours to minutes.

- 3. Global Unified Management:** OmniStack provides policy-based VM-centric management and mobility to improve IT agility for single and multi-site deployments of all sizes. Administrators are no longer required to manage LUNs and volumes; instead, they can manage all resources and workloads centrally, using familiar interfaces, such as Cisco UCS Director and Cisco UCS Manager.

OmniStack Integrated Solution with Cisco UCS C240 M4

The flexible architecture of OmniStack and Cisco allows a range of models for a variety of environments and use cases.

Specifications	SimpliVity OmniStack Solution for Cisco UCS C-Series Systems		
	Cisco UCS C240 M4SX Rack Server Small Enterprise	Cisco UCS C240 M4SX Rack Server Midsize Enterprise	Cisco UCS C240 M4SX Rack Server Large Enterprise
Targeted Use Case	All workloads in small to medium environments, remote office / branch office (ROBO)	Majority of workloads across a wide range of environments from smallest IT organizations to large enterprises	Ultra high-performance workloads in the enterprise and cloud providers
Configuration	2 x 400GB SSD 8 x 1TB 7.2K RPM HDD	4 x 400GB SSD 20 x 1TB 7.2K RPM HDD	4 x 400GB SSD 20 x 1.2TB 10K RPM HDD
Effective Capacity	5–10TB*	18–36TB*	20–40TB*
CPU	Single or Dual Intel E5-2600 v3 (Haswell) 8 – 28 Cores	Dual Intel E5-2600 v3 (Haswell) 16 – 28 Cores	Dual Intel E5-2600 v3 (Haswell) 16 – 28 Cores
RAM Usable Capacity	71GB-1479GB**	156GB-1436GB**	284GB-1436GB**
Network Connections	2 x 1GbE (RJ45) and 2 x 10GbE VIC (SFP+) plus either 2 x 10GbE Cisco VIC or Quad x 1GbE	2 x 1GbE (RJ45) and 2 x 10GbE VIC (SFP+) plus either 2 x 10GbE Cisco VIC or Quad x 1GbE	2 x 1GbE (RJ45) and 2 x 10GbE VIC (SFP+) plus either 2 x 10GbE Cisco VIC or Quad x 1GbE
Physical Dimensions	H: 3.43" (87.12 mm) x W: 17.65" (448.31 mm) x D: 29.0" (736.6 mm)	H: 3.43" (87.12 mm) x W: 17.65" (448.31 mm) x D: 29.0" (736.6 mm)	H: 3.43" (87.12 mm) x W: 17.65" (448.31 mm) x D: 29.0" (736.6 mm)
Weight	57 lbs (25.85 kg)	64.7 lbs (29.35 kg)	64.7 lbs (29.35 kg)
Power Supply	Dual Redundant 1200W @ 240VAC or 800W @ 120VAC	Dual Redundant 1400W @ 240VAC	Dual Redundant 1400W @ 240VAC

* Effective capacity varies by environment, and is a function of the realized deduplication and compression rates. The capacities mentioned above offer a conservative range based on compression and deduplication rates found in standard primary storage use cases.

** RAM usable capacity represents estimated memory resources available to virtual applications.

For more information, visit: www.simplivity.com

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