

# OmniCube

## Globally-Federated, HyperConverged IT Infrastructure Platform



Today's data center infrastructure environment is a picture in complexity and clutter. It's inefficient, costly, and inhibits IT from delivering the services and support required for virtualized business applications. Simplification is not easy with legacy, siloed infrastructure. That's why a new approach is needed.

### OmniCube: Changing the Game

SimpliVity's OmniCube is the industry's first and only globally-federated and hyperconverged infrastructure solution. Designed and optimized for the virtual environment, OmniCube is a 2U rack-mounted building block that delivers server, storage, and networking services, as well as a complete set of advanced functionality that enables dramatic improvements to the management, protection, and performance of virtualized workloads—all at a fraction of the cost and extreme reduction in complexity compared to today's traditional infrastructure stack.

### CAPEX and OPEX Savings

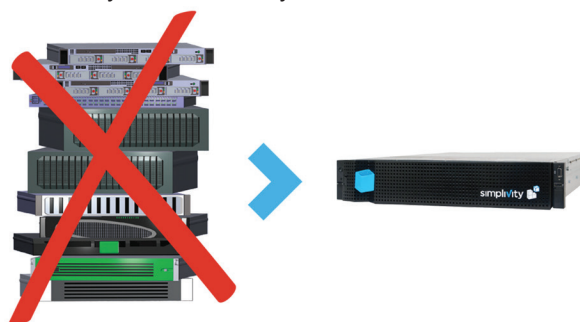
By replacing the cluttered infrastructure stack, OmniCube delivers an equivalent level of functionality and protection, while significantly improving performance and efficiency. With OmniCube you'll realize greater agility, easier management and more reliability—at up to 3X TCO savings.

### VM Centricity

OmniCube is designed with the VMs running your business applications as the focal point of the IT infrastructure, managing policy at the VM level and enabling VM mobility. This empowers a single VM administrator to manage the infrastructure entirely through a familiar console—VMware vCenter.

### Federation

Deploying two or more OmniCube systems creates an OmniCube global federation, a massively-scalable pool of shared resources that enables efficient data movement, extensive scalability, and enterprise-class system availability. OmniCube enables you to simultaneously improve operations, management, and data protection of your VM environment, while radically simplifying IT infrastructure.



### OmniCube Overview

**CORE INFRASTRUCTURE SERVICES:** High availability, performance, and serviceability.

**SIMPLIFIED, EXTENSIVE SCALE-OUT:** Scale to very large environments in small increments.

**INLINE EFFICIENCY:** All data is deduplicated, compressed and optimized before being written to disk—without impacting performance.

**BANDWIDTH EFFICIENT REPLICATION:** Efficient data transfer within and across OmniCube systems at local and remote sites—including the cloud.

**INTEGRATED DATA PROTECTION:** Easily and automatically back up and replicate VMs to deliver RPOs as frequent as every 10 minutes.

**VM-CENTRIC MANAGEMENT:** All actions, policies, and management are on a per VM basis.

**PUBLIC CLOUD INTEGRATION:** Data can be moved to/from the public cloud

**CACHE ACCELERATED PERFORMANCE:** Provides high-speed access to the hot data.

## The Technology: Attacking Complexity At The Source

At the root of today's infrastructure complexity problem is an antiquated data architecture that is not suited for today's virtualized and cloud-integrated applications. OmniCube, powered by OmniStack, solves the data problem with its Data Virtualization Platform.

### OmniStack incorporates three breakthrough innovations:

- 1. Hyperconvergence:** A single software stack that combines multiple traditional IT infrastructure functions in a single shared x86 resource pool.
- 2. Data Virtualization Platform:** The core technology that performs inline data deduplication, compression and optimization on all data at inception, enabling data granularity of just 4 KB to 8 KB blocks. The Data Virtualization Platform is powered by the OmniCube Accelerator, SimpliVity's PCIe card that offloads compute-intensive tasks to deliver enterprise-class performance.
- 3. Global Unified Management:** The collective OmniCube systems form an intelligent network of collaborative systems managing billions of fine-grained data elements. It enables data movement and sharing in multi-node and multi-site environments, as well as global VM-centric management. A single administrator manages the entire global infrastructure through a single pane of glass.

## OmniCube Models

The flexible architecture of OmniStack allows SimpliVity The Data Virtualization Company to offer a range of OmniCube models that apply to a broad range of environments and use cases.

	CN-2200	CN-3000	CN-3400	CN-5000	CN-5400
Targeted Use Case	<b>All workloads in small to medium environments, remote office / branch office (ROBO)</b>	<b>Majority of workloads across a wide range of environments from smallest IT organizations to large Enterprise</b>	<b>Majority of workloads across a wide range of environments from smallest IT organizations to large Enterprise</b>	<b>Ultra high-performance application workloads for enterprises and cloud providers.</b>	<b>Ultra high-performance application workloads for enterprises and cloud providers.</b>
Storage Capacity					
Configuration <sup>1</sup>	2 x 400GB SSD 8 x 1 TB 7.2K RPM HDD	4 x 400GB SSD 8 x 3 TB 7.2K RPM HDD	4 x 400GB SSD 20 x 1 TB 7.2K RPM HDD	6 x 400GB SSD 18 x 1.2 TB 10K RPM HDD	4 x 400GB SSD 20 x 1.2 TB 10K RPM HDD
Effective Capacity <sup>2</sup>	5 – 10 TB	20 – 40 TB	18 – 36 TB	15 – 30 TB	24 – 48 TB
CPU	Single or Dual Intel E5-2600v2 8 – 24 Cores	Dual Intel E5-2600v2 16 – 24 Cores	Dual Intel E5-2600v3 16 – 28 Cores	Dual Intel E5-2600v2 24 Cores	Dual Intel E5-2600v3 16 – 28 Cores
RAM Usable Capacity <sup>3</sup>	71-199 GB Single CPU 71 - 455 GB Dual CPU	128 – 412 GB	156 – 1400 GB	267 – 651 GB	284 – 1400 GB
Network Connections <sup>4</sup>	2 x 10 GbE (SFP+), 2 x 1 GbE (RJ45) plus either 2 x 10GbE (SFP+) and/or 2 x 1GbE (RJ45)	2 x 10 GbE (SFP+), 2 x 1 GbE (RJ45) plus either 2 x 10GbE (SFP+) and/or 2 x 1GbE (RJ45)	2 x 10 GbE (SFP+) and 2 x 1 GbE (RJ45) plus either 2 x 10GbE (SFP+) and/or 2 x 1GbE (RJ45)	2 x 10 GbE (SFP+) 2 x 1 GbE (RJ45) plus either 2 x 10GbE (SFP+) and/or 2 x 1GbE (RJ45)	2 x 10 GbE (SFP+) and 2 x 1 GbE (RJ45) plus either 2 x 10GbE (SFP+) and/or 2 x 1GbE (RJ45)
Physical Dimensions	3.43"H x 17.5"W x 28.5"D (31.5" with bezel)	3.43"H x 17.5"W x 28.5"D (31.5" with bezel)	3.44"H x 17.5"W x 29.75"D (31.5" with bezel)	3.43"H x 17.5"W x 28.5"D (31.5" with bezel)	3.44"H x 17.5"W x 29.75"D (31.5" with bezel)
Weight	71.5 LBs	71.5 LBs	71.5 LBs	65 LBs	71.5 LBs
Power	8-core: Dual 750W 10 or 12-core: Dual 1100W 110/220VAC @ 50/60HZ (auto-sensing)	8-core: Dual 750W 10 or 12-core: Dual 1100W 110/220VAC @ 50/60HZ (auto-sensing)	Dual 1100W 100/240VAC @ 50/60HZ (auto-sensing)	8-core: Dual 750W 10 or 12-core: Dual 1100W 110/220VAC @ 50/60HZ (auto-sensing)	Dual 1100W 100/240VAC @ 50/60HZ (auto-sensing)

<sup>1</sup> 800GB SSD available on select models

<sup>2</sup> 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.

<sup>3</sup> RAM Usable capacity represents estimated memory resources available to virtual applications.

<sup>4</sup> Optional networking ports available for systems with more than one CPU.



SimpliVity offers world-class support on a 24x7x365 basis. Contact [support@simplivity.com](mailto:support@simplivity.com). Toll free in the US: **1-855-SVT-SERVICE** (855-788-7378) or International: **+1-508-536-4151**

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