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.
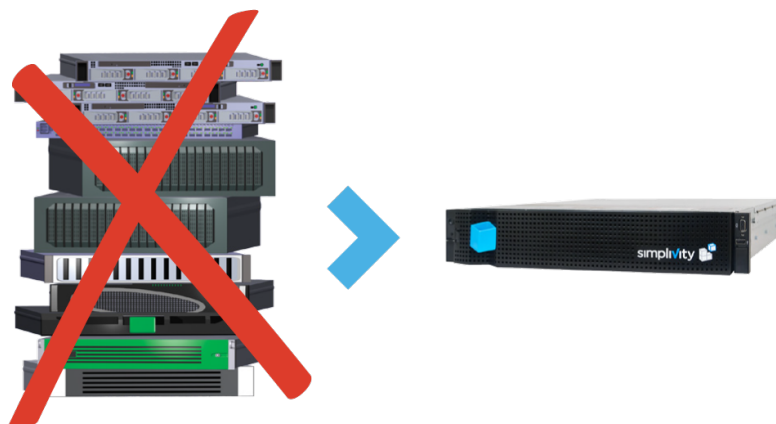
OmniCube: Changing the Game

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.

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.

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.

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-5000™
Targeted Use-Case	All workloads in small to medium environments, or remote offices.	Majority of workloads across a wide range of environments from smallest IT organizations to largest enterprises.	Ultra high-performance application workloads in the enterprise and cloud providers.
Capacity			
Raw Capacity	2 x 400 GB SSD	4 x 400 GB or 800 GB SSD	6 x 400 GB or 800 GB SSD
	8 x 1 TB HDD	8 x 3 TB HDD	18 x 1.2 TB HDD
Effective Capacity	5 - 10 TB*	20 - 40 TB*	15 - 30 TB*
CPU	8 - 24 cores	16 - 24 cores	24 cores
RAM Usable Capacity	71 - 455 GB**	128 - 412 GB**	267 - 651 GB**
Network Connections			
Standard Ports	2 x 10 GbE (SFP+) 2 x 1 GbE (RJ45)		
Optional Ports	2 x 10 GbE (SFP+) and/or 2 x 1 GbE (RJ45)***		
Physical Dimensions	Standard 2U Rack Mounted Chassis		
	3.43"H x 17.5"W x 28.5"D (30.5" with bezel)		
Weight	71.5 lbs	71.5 lbs	65 lbs
Power Supply	Power 8 - 16 Core Units: 2 x 750W	Supply Voltage 110/220VAC	Frequency: 50/60HZ
	Power 10, 12, 20, 24 Core Units: 2 x 1100W	Supply Voltage 110/220VAC	Frequency: 50/60HZ

* 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.

*** Optional networking ports available for systems with more than one CPU.

SimpliVity offers world-class support on a 24x7x365 basis. Contact **support@simplivity.com.**
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