

## Why SimpliVity OmniCube for Microsoft Exchange

### Solution Brief

SimpliVity's OmniCube is the market-leading hyperconverged infrastructure platform, delivering the best of both worlds: x86 cloud economics and enterprise capabilities. OmniCube was designed from the ground up for the most demanding enterprise applications. With 76% share of a market growing to 140 billion messages sent and received every day by 2018, Microsoft Exchange is the definition of mission-critical.

SimpliVity built a reference architecture for the real-world Exchange workloads in midsize-to-large enterprises. In its benchmark, SimpliVity tested and validated single copy and Database Availability Group (DAG) configurations, reaching 16,000 mailboxes on commonly deployed configurations of OmniCube Federations. The architecture demonstrated OmniCube's ability to manage real-world Exchange workloads and highlighted its data protection capabilities including the successful restore of a 2TB Exchange database in 10 seconds.

### Common Challenges with Microsoft Exchange:

Virtualizing Microsoft Exchange helps to solve common challenges with hardware use, high availability, data protection, and test and development environments. Nonetheless, the benefits of Exchange put high demands on the underlying infrastructure, making the choice of supporting hardware and software critical to any decision, especially in a virtualized environment. Exchange presents IT with significant challenges, including:

- a. Traditional server-storage infrastructure brings a host of management challenges, carries high acquisition cost and total cost of ownership (TCO), and offers limited, complex data protection functionality that relies on multiple disparate products.
- b. Seeking economic infrastructure solutions has historically come with significant risks. Selecting an infrastructure solution that cannot meet the high demands for critical enterprise capabilities like performance, efficiency, protection and global unified management undermines the value that companies seek when investing in Exchange

Microsoft 2013 has brought with it many new features, including

- Simplified architecture
- Increased integration with SharePoint and Lync
- Improved availability with DAGs
- Enhanced eDiscovery search and Data Loss Prevention
- Revamped mobile access
- Additional enhancements like: increased mailbox size and a web-based GUI, the Exchange Administration Center (EAC)

Despite the many benefits of Exchange 2013, administrators are still faced with common challenges:

According to the VMware Best Practices Guide for Microsoft Exchange 2013 on VMware, "Even with the improvements, Exchange 2013 it is still susceptible to the shortcomings inherent in most



applications running directly on physical hardware, such as hardware platform dependence, underutilization of server computing resources, lack of flexibility to respond to changing workloads, and heavy costs associated with maintaining disaster recovery, test, and development environments. The architectural improvements in Exchange Server 2013 cannot fully address these limitations.”

## Microsoft Exchange Testing on SimpliVity OmniCube

SimpliVity simplifies IT, creating the ideal platform for Microsoft Exchange, by offering the best of both worlds – x86 cloud economics and enterprise capabilities like performance, data protection, data efficiency and global unified management. To fully address the increasing challenges organizations are experiencing with Microsoft Exchange 2013 and the growing Data Problem, SimpliVity built a reference architecture demonstrating cloud economics and enterprise capabilities with the following benefits:

The testing configuration began with two local CN-3000 OmniCubes and two remote OmniCubes in a four-OmniCube configuration. This deployment allowed for high availability and data protection local to each data center in addition to remote backups and Disaster Recovery (DR) to the second site. Once the initial 2+2 testing was completed, the environment scaled by adding two additional OmniCubes to each site, yielding a 4+4 configuration. All tests were then repeated and results were captured.

Through the rigorous testing across a range of scenarios, SimpliVity has demonstrated that OmniCube is the ultimate infrastructure solution for Microsoft Exchange, combining the best of both worlds: x86 cloud economics and enterprise capabilities..

## Why OmniCube for Microsoft Exchange?

SimpliVity’s OmniCube delivers three fundamental innovations critical to the success of a Microsoft Exchange environment in a virtualized world:

### 1. Hyperconvergence

OmniCube provides a single shared resource pool abstracting applications and VMs from the underlying hardware across not just server, storage, network, but also backup, disaster recovery, WAN optimization and cloud enablement.

**Benefit to Microsoft Exchange:** Simplifies operations and integrates data protection; dramatically saves on Total Cost of Ownership (TCO) across CAPEX and OPEX.

### 2. Data Virtualization Platform

OmniCube deduplicates, compresses, and optimizes ALL data inline at inception, once and forever, across all stages of the data lifecycle.

**Benefit to Microsoft Exchange:** Significantly increases data efficiency with elimination of redundant data; increases performance by maximizing utilization of available CPU, memory, and IOPS for application instead of wasting them on storage processes and backup.

### 3. Global Unified Management

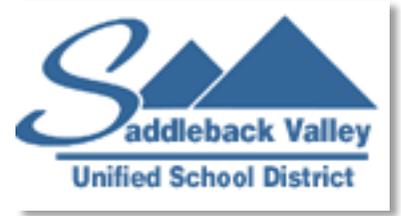
Manage all resources globally from a single pane of glass, providing VM-centricity and mobility to backup, restore, move virtual resources—and their associated data—with a click of a button without manual efforts of the past in regards to LUNs, shares, volumes, disk groups, masking, mapping, etc.

**Benefit to Microsoft Exchange:** Ties Exchange data to the Exchange application instead of to the legacy storage infrastructure; quickly spins up and spins down test and development environments; simplifies management with single pane of glass



## SimpliVity Customers using Microsoft Exchange:

The fourth largest school district in the United States, Saddleback Valley Unified School District (SVUSD), leverages SimpliVity's Data Virtualization Platform to support over 3,000 Microsoft Exchange mailboxes. After moving to the OmniCube, SVUSD has reduced the amount of hardware in the data center by a factor of over 6x and dramatically reduced expenses and ensure future scalability.



Central One Federal Credit Union, also running Microsoft Exchange as one of their mission critical applications, realized a capacity savings of greater than 300:1 after moving to SimpliVity OmniCube.



To read more please view our case studies at:  
[www.SimpliVity.com/resources/product-information/](http://www.SimpliVity.com/resources/product-information/)

SimpliVity is the ideal platform for Microsoft Exchange. The OmniCube adapts easily to changing workloads, can accommodate the changing demands of an organization's IT infrastructure, remains reliable and resilient despite system outages, and improves effectiveness of both the staff and infrastructure. SimpliVity brings together the best of both worlds with x86 Cloud Economics and Enterprise Capabilities – the perfect foundation for Microsoft Exchange.

To view the detailed reference architecture, including the scale to 20,000 mailboxes and the restore of a 2TB database in 10 seconds, please find the SimpliVity Reference Architecture for Microsoft Exchange at: <http://www.simpliVity.com/resources/product-information/>