

# OmniStack Solution with Lenovo System x3650 M5



SimpliVity provides the most complete hyperconverged solution, powering the world’s most efficient and resilient data centers and delivering up to 49% cost savings versus public cloud alternatives. A market and customer satisfaction leader, SimpliVity dramatically simplifies IT by combining all infrastructure and advanced data services—including guaranteed data efficiency, built-in data protection, and VM-centric mobility—onto the customer’s choice of server.

Designed and optimized for modern virtual environments, SimpliVity OmniStack with Lenovo System x3650 M5 servers is a compact, scalable 2U rack-mounted building block that delivers server, storage, and storage networking services. It also delivers a complete set of advanced functionality that enables dramatic improvements to the efficiency, management, protection, and performance of virtualized workloads – all at a fraction of the cost and complexity of today’s traditional infrastructure stack.

## TCO Savings

By assimilating eight to twelve core data center functions, including the hypervisor, compute, storage, storage network switching, backup, replication, cloud gateway, caching, WAN optimization, real-time deduplication, and more, SimpliVity delivers the performance, reliability, availability, security, efficiency, backup, and disaster recovery that enterprises expect, in a fully integrated, easy-to-deploy system. Furthermore, OmniStack consolidates these capabilities into a single x86 building block that scales out with additional nodes, resulting in up to threefold TCO savings.

## Cloud Economics with Enterprise Capabilities


Enterprises today seek the agility, elasticity, and affordability promised by cloud computing. However, IT organizations also want the performance, reliability, and resiliency of on-premises infrastructure. SimpliVity delivers both. Independent studies show that running virtual machines on on-premises SimpliVity hyperconverged infrastructure is 22% to 49% less expensive than running them in a comparable Amazon Web Services environment, when considering total costs over a three-year period.

## Simplifying IT


Today’s infrastructure complexity problem is caused by antiquated data architectures not suited for modern virtualized and cloud-integrated applications. SimpliVity hyperconverged infrastructure is powered by the OmniStack Virtual Controller, and the OmniStack Accelerator Card. SimpliVity’s enabling technology, the OmniStack Data Virtualization Platform, delivers three breakthrough innovations:

1. **Guaranteed Data Efficiency:** Only SimpliVity hyperconverged infrastructure deduplicates, compresses, and optimizes all data globally, improving performance, guaranteeing 90% capacity savings across storage and backup.


## Features and Benefits

-  **Fully Integrated System:** Combines x86 resources, storage, and storage networking in a single hyperconverged system. Simplifies management, and delivers greater cost efficiency and agility with increased visibility and control.


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-  **Peak and Predictable Performance:** Provides predictable and linear performance at near-wire speeds with reduced latency. Hardware-assisted inline deduplication, compression, and optimization minimize IO and network traffic, improving performance while delivering greater storage and bandwidth efficiency.


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-  **Scale In and Scale Out:** Easily expand or shrink SimpliVity configurations as your needs change. Each node supports a large number of fully protected VMs, with the networked collection of nodes at both local and remote sites managed as a single entity.

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-  **VM-Centricity and Mobility:** Enables all actions, policies, and management at the VM level. Global unified management and integration with established administrative systems streamline operations and improve IT agility.

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-  **Dramatic TCO Reduction:** Eliminate the need to purchase multiple discrete components, optimize storage capacity with guaranteed 10:1 data efficiency, and prevent over-provisioning for performance and capacity with on-demand expansion.

- Built-in Resiliency and Data Protection:** Only SimpliVity delivers the most resilient hyperconverged infrastructure platform, including built-in backup and replication that eliminates the use of legacy solutions.
- Global VM-Centric Management and Mobility:** Only SimpliVity delivers policy-based, VM-centric management to simplify day-to-day operations and enable data mobility, increasing productivity.

### SimpliVity OmniStack Solution for Lenovo System x3650 M5 Servers Specifications

Model	CPU Configuration	Memory (Usable) <sup>1</sup>	Storage Configuration	Effective Storage Capacity <sup>2</sup>	RAID Configuration
<b>Hybrid HDD &amp; SSD</b>					
Remote Site	Single Intel E5-2640 v4 (Broadwell) 8 Cores	71–711 GB	2 x 480 GB SSD 4 x 1TB 7.2K RPM HDD	3 – 6 TB	SSD: RAID 1 HDD: RAID 5
Small Enterprise	Single or Dual Intel E5-2600 v4 (Broadwell) 8-44 Cores	71–711 GB Single CPU 199–1479 GB Dual CPU	2 x 480 GB SSD 8 x 1.2TB 10K RPM HDD	6 – 12 TB	SSD: RAID 1 HDD: RAID 6
Medium Enterprise	Single or Dual Intel E5-2600 v4 (Broadwell) 8-44 Cores	92–668 GB Single CPU 156–1436 GB Dual CPU	4 x 480 GB SSD 20 x 1TB 7.2K RPM HDD	18 – 36 TB	SSD: RAID 5 HDD: RAID 60
Large Enterprise	Single or Dual Intel E5-2600 v4 (Broadwell) 8-44 Cores	92–668 GB Single CPU 156–1436 GB Dual CPU	4 x 480 GB SSD 20 x 1.2TB 7.2K RPM HDD	20 – 40 TB	SSD: RAID 5 HDD: RAID 60
<b>All-Flash</b>					
Small Enterprise All-Flash	Single or Dual Intel E5-2600 v4 (Broadwell) 8-44 Cores	71–711 GB Single CPU 199–1479 GB Dual CPU	5 x 1.6 TB SSD	6 – 12 TB	SSD: RAID 5
Medium Enterprise All-Flash	Single or Dual Intel E5-2600 v4 (Broadwell) 8-44 Cores	92–668 GB Single CPU 156–1436 GB Dual CPU	10 x 1.6 TB SSD	12 – 25 TB	SSD: RAID 5
Large Enterprise All-Flash	Single or Dual Intel E5-2600 v4 (Broadwell) 8-44 Cores	92–668 GB Single CPU 156–1436 GB Dual CPU	14 x 1.6 TB SSD	20 – 40 TB	SSD: RAID 6

### Chassis Specifications

<b>Models</b>	Lenovo System x3650 M5 Remote Site, Small Enterprise
Network Connections	4 x 1GbE 2x10 GbE cards with SFP+
Power Supply	Dual Redundant 900W 100/240VAC @ 50/60Hz (auto-sensing)
Physical Dimensions	Height: 86.5 mm (3.4 in), width: 445.6 mm (17.5 in), depth: 800 mm (31.5 in)
Weight	30kg (65 lbs)
<b>Models</b>	Lenovo System x3650 M5 Medium Enterprise, Large Enterprise
Network Connections	4 x 1GbE 2x10 GbE cards with SFP+
Power Supply	Dual Redundant 900W 100/240VAC @ 50/60Hz (auto-sensing)
Physical Dimensions	3.44”H x 17.5”W x 29.75”D (31.5”with bezel)
Weight	34kg (75 lbs)

<sup>1</sup> Usable RAM represents estimated memory resources available to virtual applications.

<sup>2</sup> Effective capacity varies by environment, and is a function of 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.

For more information, visit: [www.simplivity.com](http://www.simplivity.com)

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