

# Lenovo Flex System x240 M5 Compute Node

Cost-effective power, security and scalability



## Constant Challenges

As organizations face continued pressure to consolidate data center infrastructure, they also wrestle with the need to handle more compute-intensive workloads which are analyzing more data faster than ever before. With all these challenges to meet, more data centers are turning to Lenovo Flex System and the Flex System x240 M5 Compute Node.

## Security, Reliability

The x240 M5 is designed to help:

- Boost cloud performance with greater VM density and low latency flash storage
- Reduce unplanned downtime by delivering industry-leading RAS design
- Provide power savings using improved thermal and cooling design and more efficient components
- Safeguard enterprise data with built-in System x Trusted Platform Assurance to mitigate attacks against boot firmware and management controllers

## Versatile Power

The 2-processor Flex System x240 M5 Compute Node delivers major advances in performance, capacity, management simplicity, and networking flexibility to help you keep operating costs down without sacrificing efficiency, reliability or security. For workloads that require a balance of memory, processor and I/O bandwidth, the Flex System x240 M5 delivers the flexibility to optimize individual resources to adapt to meet your workload's needs.



## Next-Generation

Each Flex System x240 M5 supports up to two powerful Intel® Xeon® processors E5-2600 v4 series, available with as many as 22 cores, each running at up to 2400MHz. The x240 M5 was designed to deliver improved energy efficiency without sacrificing performance. The Intel® Xeon® E5-2600 V4 family of processors features up to 55MB L3 cache per processor, integrated PCIe 3.0, Intel Turbo Boost Technology 2.0, Hyper-Threading Technology and two QuickPath interconnects.

## Powerful Memory

Also, TruDDR4 Memory support requires only 1.2V of power each, compared to 1.35V and 1.5V for previous modules. In fact, each x240 M5 will be able to support up to 1.5TB\* of memory in 24 DIMM slots running at up to two DIMMs per Channel, 2DPC@2400MHz. The TruDDR4 Memory portfolio includes RDIMMs with advanced error correction for reliability, performance and maximum memory capacity. In addition, TruDDR4 Memory will support memory performance that exceeds industry standards. The x240 M5 also offers versatile high-performance storage options such as dual 2.5-inch NVMe PCIe SSD storage and mirrored SD card for hypervisor.

## Networking Flexibility

To deliver the maximum choice of networking options, the x240 M5 allows you to select and use the two included mezzanine card slots to meet your specific connectivity requirements. You can choose from optional Gigabit Ethernet (GbE), 10GbE, 40GbE, Fibre Channel over Ethernet or iSCSI cards to network your way.

## Systems Management

The Flex System x240 M5 Compute Node is supported by Lenovo XClarity, a centralized systems management solution that helps administrators deliver infrastructure faster and with less effort. Lenovo XClarity integrates easily with Flex System, providing automated discovery, monitoring, firmware updates, configuration management, and bare metal deployment of operating systems and hypervisors across multiple systems.

## Why Lenovo

Lenovo is the leading provider of x86 systems for the data center. The portfolio includes rack, tower, blade, dense and converged systems, and supports enterprise class performance, reliability and security. Lenovo also offers a full range of networking, storage, software and solutions, and comprehensive services supporting business needs throughout the IT lifecycle.



## Specifications

<b>Form Factor</b>	Lenovo Flex System standard node
<b>Processor</b>	Up to 2 Intel® Xeon® processors E5-2600 v4 series, up to 44 cores per node
<b>Cache Per Processor</b>	Up to 55MB, 2.5MB per core
<b>Memory</b>	24 DDR4 LP, 1.5TB maximum with 64GB* LRDIMM, all x4 DIMMs support 2DPC@2400MHz
<b>Internal Storage</b>	2 x hot-swap 2.5-inch (SAS/SATA/SSD/NVMe) or 4 x hot-swap 1.8-inch SSDs
<b>Internal RAID</b>	Standard LSI 3004, RAID 0/1, optional ServeRAID M5215 based on LSI 3108, RAID 0/1/5 with 2GB Flash Enablement
<b>Internal SD Flash/USB</b>	2 x dual-slotted SD card +1 x Front Access USB Key
<b>Network Connectivity</b>	<ul style="list-style-type: none"> <li>• 2 x 10GbE (standard on select models)</li> <li>• 4 x 1GbE adapter (optional)</li> <li>• 2-port, 4-port and 8-port x 10GbE adapters (optional)</li> <li>• 2-port x 40GbE adapter (optional)</li> <li>• 2-port and 4-port x 8/16Gb Fibre Channel adapters (optional)</li> <li>• 2-port x QDR/FDR InfiniBand adapter (optional)</li> </ul>
<b>Management</b>	Lenovo XClarity, IMM 2.1, RTMM KVM Dongle
<b>Operating Systems</b>	Microsoft Windows Server, SUSE, RedHat Enterprise Linux, VMware
<b>RAS Features</b>	Chassis redundant/hot-plug power and cooling Front panel and FRU/CRU LEDs
<b>Warranty</b>	3-year customer replaceable unit and onsite limited warranty, next business day 9x5, service upgrades available

\* Availability planned for second quarter 2016

## Options

<p><b>16GB TruDDR4 Memory (2Rx4, 1.2V) PC4-19200 CL17 2400MHz LP RDIMM</b></p> <p><b>46W0829</b></p> <p>Add more TruDDR4 Memory to help improve the performance of your workloads</p>	<p><b>P3700 2TB Enterprise Performance NVMe Flash Adapter</b></p> <p><b>00YA827</b></p> <p>Low latency, high-performance, dense flash to accelerate applications</p>	<p><b>1.6 TB SAS 2.5-inch MLC G3HS Enterprise SSD</b></p> <p><b>00AJ222</b></p> <p>High-performance, dense flash to accelerate applications</p>
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## For More Information

To learn more about the Flex System x240 M5 Compute Node, contact your Lenovo representative or Business Partner or visit [lenovo.com/systems/servers](http://lenovo.com/systems/servers) or read the Product Guide at <http://lenovopress.com/LP0076>

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