

System x3650 M5

Commanding performance and versatility with leadership reliability and security for enterprise solutions



With the powerful, versatile new 2U two-socket System x3650 M5 rack server, you can run even more workloads, 24/7, and gain faster business insights. Integrated with up to two Intel E5-2600 v3 series CPUs and industry-leading two-socket storage capacity, the x3650 M5 fast forwards your business. You can select from an impressive array of storage configurations (up to 26 drive bays) that optimize diverse workloads from Cloud to Big Data.

Leverage leading security and reliability

The x3650 M5 integrates leadership security and reliability. System x® Trusted Platform Assurance, an exclusive set of System x features and practices, establishes a foolproof security foundation for your workloads. You can also deploy self-encrypting drives (SEDs) using the optional IBM Security Key Lifecycle Manager (SKLM). System x servers achieved the highest reliability of any x86 server.¹ Diagnostic tools such as Predictive Failure Analysis and the new NextGen Diagnostic panel facilitate easy serviceability and reduced downtime and costs.

Innovative energy efficiency and performance

Built on an innovative architecture, the x3650 M5 incorporates energy-smart features for cost savings. Dual fan zones and extended operating temperature ranges maintain advanced cooling and efficiency. 80 PLUS® Titanium power supplies can deliver up to 96 percent efficiency. With twice the memory, up to 131 percent greater performance,² and 50 percent more cores and cache than the previous generation, the x3650 M5 lets your workloads fly. End-to-end 12 Gbps RAID support with up to four RAID adapters adds enhanced performance and data protection.

Select configurations of the x3650 M5 are part of the Express Portfolio™, designed to meet the needs of small and mid-sized businesses. Easy to manage, Express models vary by country.

For more information

To learn more about the System x3650 M5, contact your Lenovo Business Partner or visit lenovo.com/thinkserver



Specifications

Form factor/height	2U Rack
Processor (max)/Cache (max)	Up to two Intel Xeon E5-2600 v3 series processors with up to 18 cores each/Up to 45 MB per processor
Memory (max)	Up to 1.5 TB of memory with SK Hynix 64 GB* TruDDR4™ Memory LRDIMMs; System supports RDIMM/LRDIMM
Disk bays	Up to 24 front and 2 rear 2.5-inch HDDs/SSDs; or up to 12 3.5-inch and 2 rear 3.5-inch HDDs + 2 rear 2.5-inch HDDs/SSDs; or up to 8 3.5-inch HDDs and 2 rear 3.5-inch or 2.5-inch HDDs/SSDs (model dependent)
RAID support	12 Gbps dedicated slot for the first RAID; support for up to four RAID adapters
Power supply (std/max)	1/2 redundant 550 W AC, 750 W AC, 900 W AC 80 PLUS® Platinum, or 750 W AC 80 PLUS Titanium
Hot-swap components	Power supplies, fan modules and HDDs/SSDs
Network Interface	4 × 1 GbE (std.) and 1 x IMM; optional 10/40 GbE ML2 or PCIe adapter; Trusted Platform Module built-in
Expansion slots	1 – 8 PCIe 3.0 slots (supports up to 2 x 300 W GPUs and up to 1 x ML2) and 1 dedicated RAID slot
USB Ports/VGA Ports	Up to 3 front (1 x USB 3.0, 2 x USB 2.0) and 4 back (2 x USB 3.0, 2 x USB 2.0) and 1 internal (USB 3.0) for hypervisor/1 front and 1 back
Maximum internal storage	Up to 86.4 TB
Energy-efficiency compliance†	80 PLUS Platinum, 80 PLUS Titanium; ENERGY STAR® compliance (model dependent)
Systems management	IMM2.1; one IMM dedicated port and one shared; optional remote presence; Predictive Failure Analysis; LEDs; optional next-gen light path diagnostics panel
Operating systems (OS) supported	Microsoft Windows Server, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, VMware vSphere - (Optional USB Key or SD Media Adapter)‡
Limited warranty	3-year customer replaceable unit and onsite limited warranty, next business day 9x5; upgrades available

¹ ITIC 2014 Reliability Survey: IBM Servers Most Reliable for Sixth Straight Year at ibm.com/common/ssi/cgi-bin/ssialias?subtype=WH&infotype=SA&apname=STGE_XS_IN_USEN&htmlfid=XSL03126USEN&attachment=XSL03126USEN.PDF

² Up to 131 percent performance boost based on internal measurements as of June 2014 for representative Java-based workloads, Intel Xeon E5-2699 v3 (18C, 2.3 GHz, 145W) vs Intel Xeon E5-2697 v2 (12C, 2.7 GHz, 130W)

* 64 GB DIMMs available at a later date.

† Lenovo intends to qualify this product to the ENERGY STAR Computer Server requirements, but that will not be finalized until Lenovo submits the required information to the EPA and receives confirmation from the EPA that the product is qualified.

‡ Available in the first quarter of 2015.

Options

16 GB TruDDR4 Memory (2Rx4, 1.2V) PC4-17000 CL15 2133 MHz LP RDIMM 95Y4821 Add more TruDDR4 Memory to help improve the performance of your workloads	ServeRAID M5210 SAS/SATA Controller 46C9110 Superior performance RAID with upgradeable flash backed write cache, up to 4 GB	960 GB SATA 2.5" MLC G3SS Entry SSD 00FN475 High-performance, dense flash to accelerate applications
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Availability: Offers, prices, specifications and availability may change without notice. Lenovo is not responsible for photographic or typographic errors. **Warranty:** For a copy of applicable warranties, write to: Warranty Information, 500 Park Offices Drive, RTP, NC, 27709, Attn: Dept. ZPYA/B600. Lenovo makes no representation or warranty regarding third-party products or services. **Trademarks:** Lenovo, the Lenovo logo, System x, ThinkServer, TruDDR4 are trademarks or registered trademarks of Lenovo. Microsoft and Windows are registered trademarks of Microsoft Corporation. Intel, the Intel logo, Intel Core, Core Inside, Xeon and Xeon Inside are registered trademarks of Intel Corporation in the U.S. and other countries. Other company, product, and service names may be trademarks or service marks of others. Visit <http://www.lenovo.com/lenovo/us/en/safecomp.html> periodically for the latest information on safe and effective computing.

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