

Flex System x222 Compute Node

Maximize compute and VM density



Today, only 1 in 5 organizations spend more than half of their IT budget on new hardware. That is because management and administrative costs have escalated to almost 70 percent of the average organization's current IT budget.¹

Even with that shift, business requirements continue to multiply—more virtual desktop users along with increased demand for virtualized resources such as cloud and test environments. As a result, IT executives must find new ways to satisfy user demand.

Density optimized solution

Successfully meeting this challenge means you must increase data center capacity without growing operating costs. The Flex System™ x222 compute node has been designed to cost-effectively supply the compute and virtualized resources you need now, in a platform designed to support your future needs.

Each Flex System x222 compute node features two independent twin compute nodes, enabling the equivalent of up to 28 independent compute nodes in a 10U Flex System Enterprise Chassis. There is no need for additional switching hardware or connectivity options—simply enable additional ports to the existing networking hardware via Feature on Demand offerings. This helps reduce the cost of the overall solution. Finally, clients can still benefit from using the Flex System x222 along with other Flex System compute nodes and PureFlex System solutions to create a flexible and optimized chassis solution for their diverse workloads.

The Flex System x222 achieves these design goals by increasing your available compute capacity while retaining your current physical footprint and operational infrastructure. PureFlex System is an integrated infrastructure solution available with x86 compute nodes that can be further customized with additional options to meet your precise IT infrastructure needs.



Optimized for virtual desktop and virtualization density

Virtualization is quickly becoming the standard for IT projects and this creates increased compute demands that must be satisfied by hardware budgets that are declining as a percentage of overall IT spending.

The Flex System x222 is specifically intended to resolve these business challenges. By maximizing the number of virtualization or virtual desktop users at a chassis or at a rack-level, the Flex System x222 can fundamentally change IT economics in these workloads. Using two Intel Xeon processors and up to 384 GB of memory per twin compute node, the Flex System x222 can support up to 2x the number of processors compared to the traditional approach in the same rack space. This helps maximize the utilization for workloads such as virtual desktops and virtualization, allowing you to save cost of the solution.

Created for space-constrained environments

The Flex System x222 was created to meet the demand for more compute capability within your existing physical footprint. It does this by doubling the density of a standard Flex System node, providing two twin nodes per standard compute bay in the Flex System Enterprise Chassis for the equivalent of up to 28 nodes per chassis.

For clients looking to maximize their VM density, the Flex System x222, can meet increased compute needs using your existing IT footprint. In a real-world deployment example, the

Flex System x222 was able to reduce 56U of 2-socket rack servers into 10U of standard rack space required by just one Flex System Enterprise chassis. In addition to saving the physical space, the solution helped save costs on networking switches, power and cooling in the data center while also reducing the number of managed devices, enabling a significantly more efficient solution for a constrained environment.

Designed to reduce operational costs

Reducing the ongoing costs of operating and maintaining your infrastructure can positively impact your bottom line. The Flex System x222 double-dense compute node design allows you to reduce power and cooling costs by reducing number of chassis and networking components required for your workload. In addition, the Flex System Enterprise Chassis offers two power supply options so you can more closely align your power usage to only what you need.

For managing physical and virtual resources from a single interface, the Flex System x222 supports FlexSystem Manager™. And with swappable components and built-in redundancy, the Flex System x222 reduces downtime and minimizes administrative overhead.

The double-density of the Flex System x222 compute node allows you to reduce your power and cooling requirements and streamline your IT management. And the Flex System x222 provides this in a platform that is designed to fit within your existing storage and networking infrastructure while supporting your future needs.

Specifications

Processor/cores	Up to two, Intel Xeon E5-2400 Series Processor per twin node; 16 cores per twin node
Level 2 (L2) cache	256 KB per core
Level 3 (L3) cache	2C – 5 MB, 4C – 10 MB, 6C – 15 MB, 8C – 20 MB
Chipset	Intel C600
Form factor	Flex System standard node with two 2-socket twin nodes
Dimensions Inches/ Millimeters	Width: 8.6 in./217 mm, Height: 2.2 in./57 mm, Depth: 19.4 in./492 mm
Memory	12 DDR3/DDR3L LP, 384 GB max with 32 GB LRDIMMs per twin node
Internal Storage	1 x 2.5-inch (SATA/SSD), or 2 x hot-swap 1.8-inch SSD per twin node
Internal USB	2 x standard USB Flash Key +, 1 x front access USB Key per twin node
Ethernet	Virtual Fabric 2 x 10 GbE LOM per twin node
Chassis support	Flex System™ Enterprise Chassis
I/O expansion	1 x Mezzanine cards (2 ports 8 Gb/16 Gb Fibre Channel, or 1-port QDR/FDR InfiniBand) per twin node
Warranty	3-year customer replaceable unit and onsite limited warranty, next business day 9x5, service upgrades available
Management	IMM2, RTMM KVM Dongle
Operating systems	Microsoft Windows Server, SUSE, Red Hat Enterprise Linux, VMware

Options

800 GB SATA 2.5" MLC Enterprise Value SSD 00AJ430 High-performance, dense flash to accelerate applications	1TB 7.2K 6Gbps SATA 2.5" G2SS HDD 90Y8979 Optimize storage with high density and low cost per GB hard drives	16 GB (1x16 GB, 2Rx4, 1.5V) PC3-12800 CL11 ECC DDR3 1600MHz LP RDIMM 00D4968 Add more memory to help improve the performance of all your workloads
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Why System x

System x 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. System x also offers a full range of networking, storage, software and solutions, and comprehensive services supporting business needs throughout the IT lifecycle.

For more information

To learn more about how the Flex System x222 can help satisfy your needs visit: ibm.com/flex/ or contact your Lenovo representative or Business Partner.

¹ IDC, analyst Matt Eastwood, IDC Directions Presentation 2011

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