IBM System x3690 X5

Ground-breaking two-processor server delivers outstanding performance, memory and storage

Highlights

- Designed for virtualization, database and enterprise workloads

- Achieve four-processor performance at a two-processor investment

- Grow to meet changing workload demands with unmatched memory expansion

- Own and operate your systems with less complexity and cost

- Get peace of mind with enterprise-class reliability and availability

EXA performance, two-processor value

When it comes to business productivity, more is always better—especially if you can achieve it without using more money, space or energy. Innovative and cost-efficient, the IBM® System x3690 X5 delivers four-processor performance, memory capacity and reliability features in a slim, breakthrough two-processor system that incorporates Intel Xeon processors and fifth-generation IBM X-Architecture® (eX5) technology. By purchasing a system with two fewer processors, you can cut your licensing costs in half while using less energy for a lower total cost of ownership. And you won't have to trade performance for a denser form factor. The x3690 X5 offers leadership performance, including the ability to better handle database transactions than industry-standard two-processor servers.[1]

Unparalleled flexibility

The x3690 X5 features greater flexibility to help you meet changing workload demands as your business grows. With MAX5, you can double the memory capacity of your two-processor system to 64 DIMM slots. Increase utilization and optimize your investments by fitting 100 percent more virtual machines per system at half the cost per virtual machine with MAX5 memory expansion.[1] An easy upgrade path and customizable growth options offer freedom of choice. For example, you can add more memory without having to purchase unneeded processing capabilities.

The x3690 X5 can be tailored with a wide range of options to meet your needs.

Simplified systems and power management

Comprehensive systems and power management capabilities make the x3690 X5 easy to own and even easier to operate. Advanced light path diagnostics offer proactive problem solving and faster time to repair, and remote access capabilities enable you to manage, monitor and troubleshoot from virtually anywhere. IBM Systems Director provides easy-to-use tools that can simplify management of both physical and virtual resources. Equally important, an energy-smart design helps increase performance while reducing power consumption. Get as much as 45 percent more performance per watt in transactional database processing.[1] And IBM Systems Director Active Energy Manager™ can help you better monitor and measure power consumption to reduce wattage and costs.

Peace of mind

The x3690 X5 offers a level of reliability typically found only in four-processor systems. IBM OnForever™ reliability features like hot-swap, redundant power and cooling, Predictive Failure Analysis and QPI fail-down help you avoid interruptions and

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maximize uptime of your mission-critical workloads. In addition, features such as Memory ProteXion, Chipkill error correction, memory scrubbing, and memory mirroring can help prevent data loss for maximum memory integrity.

Select configurations of the x3690 X5 are part of the IBM Express Portfolio™ designed to meet the needs of small and midsized businesses. Easy to manage, Express models and configurations vary by country.

IBM System x3690 X5 at a glance

Form factor/height	Rack/2U per chassis
Processor (max)	Intel Xeon up to 2.4 GHz (10-core)/1066 MHz memory access
Number of processors (std/max)	1/2
Cache (max)	Up to 30 MB
Memory (std/max)	8 GB/1 TB PC3-10600 DDR3 or DDR3L, up to 2.0 TB with 32 GB DIMM and MAX5
Expansion slots	5 total PCIe Gen 2
Disk bays (total/hot swap)	16/16 2.5" Serial Attached SCSI (SAS) or 24/24 1.8" SAS SSD internal storage
Maximum internal storage	9.6 TB SAS per chassis (supports 73.4 GB, 146.8 GB, 300 GB, 500 GB and 600 GB hard disk drives, 50 GB and 200 GB SSD)
Network interface	Integrated dual Gigabit Ethernet with TCP-IP off-load engine, optional Emulex 10 GbE Virtual Fabric Adapter
Power supply (std/max)	675 W 220 V 1/4
Hot-swap components	Power supplies, fans, hard disk drives
RAID support	Integrated RAID-0, -1, optional RAID-5, -6
Systems management	Alert on LAN 2, automatic server restart, IBM Systems Director, IBM ServerGuide, IMM, light path diagnostics (independently powered), predictive failure analysis on hard disk drives, processors, VRMs, fans and memory, Wake on LAN, dynamic system analysis
Operating systems supported	Microsoft Windows Server 2008 (Standard, Enterprise and Datacenter editions 64-bit), 64-bit Red Hat Enterprise Linux and SUSE Enterprise Linux, VMware vSphere Hypervisor
Limited warranty	3-year customer replaceable unit and on-site limited warranty

For more information

World Wide Web

U.S. **ibm.com**/systems/x

Canada **ibm.com**/systems/ca/en/servers/x/index.html