



IBM System x3850 M2



Built on the next generation of IBM X-Architecture® servers, the IBM System x3850 M2 takes performance, efficiency and reliability to the next level. Featuring an unmatched combination of x86 performance and scalability with a balanced design, the x3850 M2 delivers unrivaled reliability, providing confidence in your IT solution deployments. An easy upgrade path provides the necessary flexibility to deliver an optimized solution for scale-up database, enterprise applications and server consolidation through virtualization services.

Highlights

- **Outstanding commercial application serving and database performance**
- **Balanced system design supports more applications and help clients manage expanding business needs**
- **Mission-critical availability to help prevent interruptions in day-to-day enterprise operations**
- **High-bandwidth, low-latency memory subsystem built on DDR II registered DIMM technology**
- **Go green and save through server memory technology using less power and new, high-efficiency power supplies**

ScaleXpander accommodates growth

The x3850 M2 is a traditional 4-socket server that provides organizations an uncomplicated, cost-effective option—yet easily accommodates growing businesses that require increased application performance. The ScaleXpander

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Option kit delivers the ability to scale from 4 sockets to 8 sockets and up to 16 sockets with the flexible XpandOnDemand design; it's a pay-as-you-grow offering that provides more flexibility than the previous x3850, so organizations have even more control over IT costs. And the system's balanced design enables organizations to operate efficiently and save money on initial server configurations without having to make up-front decisions about scalability and long-term protection of their IT investments. When clients add a second chassis, the x3850 M2 doubles the memory availability and I/O capability and nearly doubles processing power.

More power for additional applications

The enterprise server's balanced design offers more processing power with quad-core processors and double the

number of memory slots, allowing it to handle an increased number of applications. In addition to keeping the ratio of processor core to memory addressability balanced, the x3850 M2 offers flexibility to scale—providing access to more processors, memory or I/O necessary for workloads.

Consistent reliability

With the x3850 M2, organizations can consolidate an increased number of applications on one server with a higher threshold for protecting data. And with enhanced memory subsystems, it can help eliminate bottlenecks to operate quickly, efficiently and seamlessly.

Designed with mission-critical availability in mind, the x3850 M2 offers advanced Active Memory™ features, including:

- *Memory ProteXion™ to help prevent data loss. An advanced design provides a deeper level of diagnostics to help keep the memory up and running longer while enabling data integrity*
- *IBM Chipkill™ memory to help correct multiple, single-bit errors using off-the-shelf DIMMs*
- *Memory Mirroring with hot-swap support to help protect data through the ability to write simultaneously to independent redundant memory cards*
- *Advanced Buffer eXecution (ABX) Provides buffer on board technology to help resist chip failure to improve availability and reliability while delivering 37% less power consumption and up to 18% reduced latency*

Unparalleled efficiency

Today, organizations demand powerful IT architecture with attractive cost benefits. The x3850 M2 is not only efficient in terms of scalability and utilization, but it also leverages standard efficiency features with additional service enhancements.

Key advantages:

- *Unparalleled utilization—organizations can take advantage of virtually every aspect of their system while optimizing for a cost-effective solution*
- *Improved power management, operating at a lower wattage and delivering 37% less power consumption using DDR II memory*
- *Enhanced energy efficiency to help reduce both power and business costs; operations help you go green and save*

- *Advanced diagnostics with Dynamic System Analysis for ease of use, allowing clients to find and fix problems faster and more easily than previous IBM System x™ generations*

Additional features and enhancements:

- *IBM Systems Director Active Energy Manager™ helps monitor and cap power consumption to improve energy efficiency and lower costs*
- *Rear access power supply helps serviceability by allowing clients to replace the power supply without opening up the system*
- *Improved streamlined firmware makes the process of upgrading faster*

In addition, IBM plans to offer an embedded hypervisor feature that will help make virtualization easier than ever before. This dedicated enterprise-class flash device supports the embedding of third-party virtualization software, providing the ability to install a virtualization node quickly after booting. The IBM pre-built system is a turnkey solution for installing a virtualized environment to get a system up and running while maximizing your costs per virtual machine.

The right choice

For organizations facing growing business demands, requiring a more efficient enterprise server or wanting the ease and reliability of a balanced IT architecture, the x3850 M2 offers a comprehensive solution for data management.



IBM System x3850 M2 at a glance

Form factor/height	Rack/4U per chassis
Processor (max)	Intel® Xeon® Series 7400 up to 2.66 GHz (6 core)/1066 MHz front-side bus
Number of processors (std/max)	2/4 per chassis (optional 2, 3, 4 chassis support)
Cache (max)	Up to 16 MB
Memory ¹ (max)	4 GB or 8 GB/256 GB max PC2-5300 DDR II
Expansion slots	7 total PCI-Express half length, (2 hot-plug)
Disk bays (total/hot-swap)	4/4 2.5" Serial Attached SCSI (SAS)
Maximum internal storage ^{1,2}	587 GB SAS per chassis (supports 73.4 GB and 146.8 GB hard disk drives)
Network interface	Integrated dual Gigabit Ethernet w/TCP-IP off-load engine
Power supply (std/max)	1440W 220V 2/2
Hot-swap components	Power supplies, fans, memory, hard disk drives and PCI-Express adapters
RAID support	Integrated RAID-0, -1, optional RAID-5
Systems management	Alert on LAN@ 2, Automatic Server Restart, IBM Director, IBM ServerGuide™, Remote Supervisor Adapter II SlimLine, light path diagnostics (independently powered), Predictive Failure Analysis® on hard disk drives, processors, VRMs, fans and memory, Wake on LAN®, Dynamic System Analysis (DSA)
Operating systems supported	Microsoft® Windows Server® 2003 (Standard, Enterprise and Datacenter editions 32-bit and 64-bit), 32- and 64-bit Red Hat Enterprise Linux® and SUSE Enterprise Linux, (Server and Advanced Server), VMware ESX Server
Limited warranty ³	3-year customer replaceable unit and onsite limited warranty

World Wide Web

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¹ Maximum internal hard disk and memory capacities may require the replacement of any standard hard drives and/or memory and the population of all hard disk bays and memory slots with the largest capacity supported drives available. When referring to variable speed CD-ROMs, CD-Rs, CD-RWs and DVDs, actual playback speed will vary and is often less than the maximum possible.

² When referring to storage capacity, GB = 1,000,000,000 and TB = 1,000,000,000,000 bytes. Accessible capacity is less.

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IBM Systems and Technology Group
Route 100
Somers, New York 10589

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