

SAP ERP software on IBM System x3950 M2 and System x3850 M2 servers



With the right combination of computer hardware and ERP software, businesses can streamline processes, optimize enterprise resources and enhance customer satisfaction. By running SAP ERP and key database workloads on an Intel Xeon processor-based IBM System x server, companies can achieve outstanding application performance to address current needs while gaining the scalability needed to accommodate growth.

Highlights

- *Run SAP ERP software on IBM® System x™ 3950 M2 or IBM System x3850 M2 servers with the Intel® Xeon® processors to achieve outstanding enterprise resource planning (ERP) application performance*
- *Prepare for growth with a server that scales up to 96 cores and 1 TB of memory while maintaining balanced system performance*
- *Create a virtualized server environment for SAP ERP with the IBM System x3950/3850 M2 servers and virtualization software to reduce costs, decrease downtime and enhance flexibility and manageability*

Exceptional performance for ERP

IBM System x3950 M2 and System x3850 M2 servers can help enterprises make the most out of SAP ERP. Designed to deliver outstanding performance, these servers scale from two to sixteen processor sockets and are equipped with multi-core Intel Xeon processors 7400 series. Based on the new 45-nm Intel Core™ microarchitecture, the Intel Xeon



processor 7400 series helps System x3950/3850 M2 servers achieve better overall server performance than the previous generation—within the same power envelope.

Multi-core Intel Xeon processors have also helped the IBM System x3950 M2 server establish performance leadership running the SAP Sales and Distribution two-tier Standard Application Benchmark. With eight Intel Xeon 7460 processors, the x3950 M2 achieved 9,200 users (46,170 SAP Application Performance Standard units [SAPS]).¹ Specifically built for data-demanding enterprise applications, Intel Xeon processor 7400 series-based servers feature six cores per processor and large 16 MB L3 cache to enable more transactions per server than ever before.

IBM System x3950/3850 M2 servers can deliver that performance while keeping power utilization in check. These servers operate at a lower wattage than competitive systems. The DDR II memory employed by these servers uses up to 37 percent less power than the Fully Buffered DIMMs



IBM System x3950

found in other systems. In addition, IBM Systems Director Active Energy Manager™ helps monitor and cap power consumption to enhance energy efficiency.

The right platform for virtualization

Running SAP ERP software in a virtualized server environment can help businesses reduce costs by consolidating workloads on fewer physical servers or enabling growth without additional hardware. Intel Xeon-based IBM System x3950/3850 M2 servers provide a strong foundation for creating a virtualized environment with capabilities like Intel VT FlexMigration, which enables businesses to easily move workloads across multiple generations

of Intel Xeon-based platforms without disrupting services—key for dynamic load balancing and disaster recovery.

Multi-core Intel Xeon processors and 32 memory slots equip IBM System x3950/3850 M2 servers to handle the demanding requirements of multiple virtualized applications running on the same machine. Integrated virtualization allows virtual machines to be deployed and managed quickly and easily with pre-tested configurations of VMware ESXi 3.5, helping to simplify virtual server deployments. IBM System x3950/3850 M2 servers running VMware virtualization software have already seen impressive results. The x3850 M2 achieved 545 SAP SD Benchmark users (2,730 SAPS) in one virtual machine using two processors²

The right platform to support ERP database performance

Database performance is a critical part of a successful ERP implementation. System x3950/3850 M2 servers can handle demanding database workloads from IBM, Microsoft®, Oracle and SAP, including the SAP MaxDB database, while easily adapting to growth and change.

Built for easy scalability

The IBM System x3950/3850 M2 servers also offer easy scalability to enhance performance to support additional industry-specific SAP applications, upgrade to SAP ERP from another SAP application or accommodate business growth. With the System x3950/3850 M2 servers, customers can scale up to 64 cores while maintaining balanced performance between processors, memory and I/O.

The System x3950 M2 can be connected with up to three additional x3950 M2 systems to form a single-image four-node complex. Companies using the System x3850 M2 can use the ScaleXpander Option kit to scale up

to System x3950 M2 and take advantage of the multi-node configuration. This scalability is critical in SAP ERP environments where performance counts. Using the SAP SD two-tier benchmark and quad-core Intel Xeon Processor X7350 processors, IBM System x3850 M2 and x3950 M2 servers have been proven to scale from the 4-socket x3850 M2 at 3,780 SD users (18,920 SAPS), 8-socket x3950 M2 at 6,615 SD users (33,100 SAPS), and 16-socket x3950 M2 at 10,600 SD users (53,980 SAPS).³ You have the flexibility to start small and grow your server infrastructure as your SAP application workload grows or start off with a 16-socket implementation to tackle your largest SAP workloads.

Storage infrastructure for storing SAP ERP information

Coupled with System x3950/3850 M2 server solutions, IBM System Storage™ helps you address your SAP ERP needs, enabling you to create a resilient, cost-effective and flexible infrastructure for securely storing information. Mission-critical operations can utilize the highly available and reliable System Storage DS8000™. Enterprises

requiring lower total cost of ownership, high performance, robust functionality and unparalleled ease of use can depend on the System Storage DS4000™ or DS5000™ mid-range storage systems, Tivoli® Storage Manager for backup and restore, and IBM SAN Volume Controller (SVC) virtualization solutions. IBM System Storage network-attached storage (NAS) N series products, including N5000, N6000, and N7000 series, are designed to deliver high-end enterprise storage and data management value with midrange affordability.

SAP and IBM: Achieving business goals through collaboration

For more than 30 years, IBM and SAP have worked together to create powerful business solutions. By running SAP ERP on an IBM System x3950 M2 or System x3850 M2 server with Intel Xeon processors, enterprises can tap the power of that collaboration and access outstanding application performance and easy scalability to help achieve their business goals.



For more information

To learn more, please contact your IBM marketing representative or IBM Business Partner, or visit:

ibm.com/systems/x/solutions/infrastructure/erpccrm/sap.html

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¹ Results referenced are current as of August 19, 2008. For full system configuration information and the latest SAP benchmark results, visit www.sap.com/benchmark.

² Results referenced are current as of August 1, 2008. For full system configuration information and the latest SAP benchmark results, visit www.sap.com/benchmark.

³ Results referenced are current as of August 19, 2008. For full system configuration information and the latest SAP benchmark results, visit www.sap.com/benchmark.



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