



Solution Brief

Intel® Xeon® Processor
5500 Series

SAP Business All-in-One* Running on Intel® Xeon® Processor 5500 Series-based Servers

Greater Performance and Flexibility at a Lower Cost

Key Benefits

- Up to 2.25x the performance for enterprise computing in a similar power envelope¹ to speed business processes and deliver scalability
- Lower energy costs and reduced cooling requirements pay for the cost of new servers in about 8 months²
- Up to 2.1x enhanced virtualization performance³ for consolidating more SAP Business All-in-One instances and other business software on fewer chassis

To stay competitive, midsize enterprises require efficient, high-value business management solutions. SAP Business All-in-One* helps these enterprises increase efficiency and lower TCO with a business management solution that's highly configurable and has the flexibility to scale and adapt as the business grows.

The Intel® Xeon® processor 5500^A series, with a new generation of Intel® Microarchitecture, codenamed Nehalem, extends the benefits and value of SAP Business All-in-One by providing up to 2.25x¹ more performance over the previous-generation processor for exceptional business agility and scalability. In addition, automated energy-efficiency features help a business use less energy without compromising performance. The flexible virtualization option helps lower TCO through consolidation of numerous business applications.

The new Intel Xeon processor 5500 series is ideal for the medium-sized business looking for great performance, cost and energy efficiency, and plenty of room to grow and virtualize in the future. Compared to single-core servers, these new intelligent processors deliver up to 9x higher performance per server, enabling 9:1 server consolidation, up to 90% lower operating costs, and an estimated 8-month return on investment.²



SAP Business All-in-One for Multiple Business Needs

For midsize companies, SAP Business All-in-One delivers an integrated solution that can enhance business agility and strengthen customer relationships. With industry-specific functionalities for manufacturing, retail, and more, SAP Business All-in-One gives you what you need to run your business efficiently and competitively—without breaking the bank.

SAP Business All-in-One components include ERP, CRM, business analytics, SAP Best Practices, and the SAP NetWeaver* technology platform. The SAP Business All-in-One solution can be deployed quickly and cost-effectively on Intel Xeon processor 5500 series-based servers and blade offerings from major vendors.

Nearly 75 percent of new SAP installations are deployed on Intel-powered platforms. The close relationship between Intel and SAP helps provide superior compatibility and performance for SAP ERP systems and ensures the future value of IT investments with a strong, stable technology roadmap that delivers consistent innovation.

Intelligent Performance, Better Value with the Intel® Xeon® Processor 5500 Series

The intelligent performance of servers based on the Intel Xeon processor 5500 series enables SAP Business All-in-One to deliver answers faster and provides excellent investment protection with the scalability to handle additional business functions and users as business needs change.

With up to 2.25x the performance for enterprise computing in a similar power envelope,¹ the Intel Xeon processor 5500 series helps speed business processes and delivers scalability to support additional business functions, more users, or new reporting capabilities such as SAP BusinessObjects*—all within existing data center facilities.

Energy Efficiency, Lower TCO with the Intel® Xeon® Processor 5500 Series

For midsize companies with limited IT and financial resources, the Intel Xeon processor 5500 series offers automated energy-efficiency features that can dramatically lower overall IT costs. These features help save energy costs, and reduce cooling and power requirements in the server room or data center, paying for the cost of new servers in about eight months.²

Intel Microarchitecture Nehalem helps lower energy costs with automated energy-efficiency features that put processor power and memory into the lowest available states needed to support current workloads without compromising performance.

Intel® Intelligent Power Technology³ saves on rising energy costs with up to 50 percent lower server idle power consumption compared to the prior generation.⁴ It also makes power available for critical workloads while conserving power where there is less demand.

“The combination of IBM servers [with Intel Xeon processors] and the SAP [Business All-in-One] solution has delivered the reliability and scalability Seelen requires.”

— Ole Bundgaard,
CFO/CTO, Seelen

Seelen Cuts the Administrative Cost of Growth with Intel Xeon Processor-based IBM xSeries* Servers and SAP Business All-in-One

Company	Seelen
Industry	Fabrication and assembly
Business need	To expand globally, Seelen needed to standardize its business processes so that it could scale up to meet new business orders, and integrate financial and manufacturing data to enhance business control.
Solution	Working with IBM Business Partner EDB Gruppen, Seelen has created an IT infrastructure based on SAP software, IBM Servers, and Intel Xeon processors that can start small and grow fast.
Benefits	<ul style="list-style-type: none">▪ Only 20% increase in staff/no increase in administrative staff, although sales increased by around 50%▪ Integrated, automated workflows enable paperless working, thus improving commercial security and reducing costs

Greater Flexibility for Changing Businesses

Business needs change by the hour, so enterprises need the flexibility to use computing resources where they're needed most. The Intel Xeon processor 5500 series with flexible virtualization technology helps SAP Business All-in-One customers enhance business agility while reducing hardware costs.

Intel® Virtualization Technology® (Intel® VT) provides hardware assistance to virtualization, enhancing virtualization performance by up to 2.1x,³ so you can consolidate more SAP All-in-One instances and other business software on fewer chassis.

For maximum flexibility, SAP Business All-in-One instances and other business applications can easily be virtualized through VMware, Xen, or Microsoft Hyper-V* support.

Intel VT with Intel® Flex Migration and Intel® FlexPriority helps protect your hardware investment by enabling migration of virtualized workloads across the full range of 32-bit and 64-bit configurations. Now you can manage and allocate virtualized workloads across current and future Intel® processor-based servers.

SAP Best Practices on Intel-based Servers for Faster Time-to-Market and Lower TCO

SAP has worked with Intel, major platform vendors, and other successful partners and customers for many years to develop SAP Best Practices, a resource to help you cost-effectively implement SAP technology. SAP Best Practices can help you control costs, reduce risk, and get more value from your SAP solutions.

Aligning SAP Best Practices with Intel-based servers helps businesses quickly and easily deploy a solution that provides outstanding reliability and stability—at an overall lower cost. The collaboration among Intel, SAP, and Original Equipment Manufacturers brings you a smooth, integrated solution, ensuring that business requirements, the application environment, and supporting IT infrastructure all work together to meet your needs. You'll enjoy unified, up-to-the-minute business insight into critical areas such as sales, operations, and finance from your SAP applications.

SAP Best Practices on Intel-based platforms provides a scalable, high-performance foundation that grows as your business grows and changes as your business changes. Our customizable infrastructure and industry-specific business solutions offer unbeatable TCO and great time to value.

McGregor Industries Adopts a New Business Model with SAP Business All-in-One and Intel Xeon Processor-based IBM System x* servers

Company	McGregor Industries
Industry	Wholesale Distribution and Services
Business need	To maintain its ability to compete in an increasingly global business, McGregor needed to move out of the manufacturing business and focus on sourcing products from a range of off-shore contract suppliers. Its existing legacy ERP system was manufacturing-focused, so the company needed to rethink its IT infrastructure and realign its business processes.
Solution	<ul style="list-style-type: none">▪ IBM Express Wholesale Distribution* solution, a qualified SAP Business All-in-One partner solution▪ Three Intel Xeon processor-based IBM System x3650* servers▪ IBM DB2* database
Benefits	<ul style="list-style-type: none">▪ Rapid deployment with minimal customization using out-of-the-box functionalities▪ Improved visibility across the supply chain, helping ensure all customer orders can be met in a timely manner▪ Stable, high-performance, and easy-to-manage environment for SAP applications with IBM hardware and DB2 software

"The IBM System x server hardware [with Intel Xeon processors] has proven to be a good investment. Running Linux, it delivers all the performance we need at much lower cost than most comparable UNIX platforms, and the reliability has been consistently excellent."*

—Chris Gain, Vice President of Systems and Technology, McGregor Industries

Intel® Processors—Extending the Value of Your SAP Investment

Server platforms based on Intel processors add to the adaptability and scalability of your SAP Business All-in-One solution with innovative technologies that offer exceptional value. Intel processors deliver the performance, energy efficiency, and flexibility that lower your TCO with a platform that adapts to your current and future business needs.

Learn More

For more information on SAP Business All-in-One solutions, visit www.sap.com/solutions/sme/businessallinone/solutionoverview/index.epx.

For more information on the Intel® Xeon® processor 5500 series, visit www.intel.com/xeon.

For more information about Intel® Microarchitecture Nehalem, visit www.intel.com/technology/architecture-silicon/next-gen.

⁴Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See www.intel.com/products/processor_number for details.

⁵Intel® Intelligent Power Technology requires a computer system with an enabled Intel® processor, chipset, BIOS and for some features, an operating system enabled for it. Functionality or other benefits may vary depending on hardware implementation and may require a BIOS and/or operating system update. Please check with your system vendor for details.

⁶Intel® Virtualization Technology requires a computer system with an enabled Intel® processor, BIOS, virtual machine monitor (VMM) and, for some uses, certain platform software enabled for it. Functionality, performance or other benefits will vary depending on hardware and software configurations and may require a BIOS update. Software applications may not be compatible with all operating systems. Please check with your application vendor.

⁷Compared to 5400 series claim supported by multiple performance results including an OLTP database benchmark and a bandwidth intensive scientific computing benchmark (SPECfp_rate_base2006). Intel internal measurement (Feb 2009).

⁸Source: Intel, March 2009. Compares replacing nine four-year-old single-core Intel® Xeon® processor 3.8GHz with 2M cache-based servers with one new Intel Xeon processor X5570-based server. Results have been estimated based on internal Intel analysis and are provided for information purposes only.

⁹Performance results on VMmark benchmark. Xeon X5470 data based on published results. Xeon X5570 Intel internal measurement. (Feb 2009); HP ProLiant ML370 G5 server platform with Intel Xeon processors X5470 3.33GHz, 2x6MB L2 cache, 1333MHz FSB, 48GB memory, VMware ESX Server V3.5, Update 3 Published at 9.15@7 tiles vs Intel® Xeon® processor X5570, 2.93 GHz, 8MB L3 cache, 6.4QPI, 72GB memory (18x4GB DDR3-800), VMware ESX Server. Performance measured at 19.51@ 13 tiles.

¹⁰Intel internal measurements of 221W at idle with Supermicro 2xE5450 (3.0GHz 80W) processors, 8x2GB 667MHz FBDIMMs, 1x700W PSU, 1x320GB SATA hard drive vs. 111W at idle with Supermicro software development platform with 2xE5540 (2.53GHz Nehalem 80W) processors, 6x2GB DDR3-1066 RDIMMs, 1x800W PSU, 1x150GB 10k SATA hard drive. Both systems were running Windows 2008 with USB suspend select enabled and maximum power savings mode for PCIe link state power management. Measurements as of Feb 2009.

Performance tests and ratings are measured using specific computer systems and/or components and reflect the approximate performance of Intel products as measured by those tests. Any difference in system hardware or software design or configuration may affect actual performance. Buyers should consult other sources of information to evaluate the performance of systems or components they are considering purchasing. For more information on performance tests and on the performance of Intel products, visit Intel Performance Benchmark Limitations

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