SAP relies on Lenovo to help deliver the next generation of cloud applications
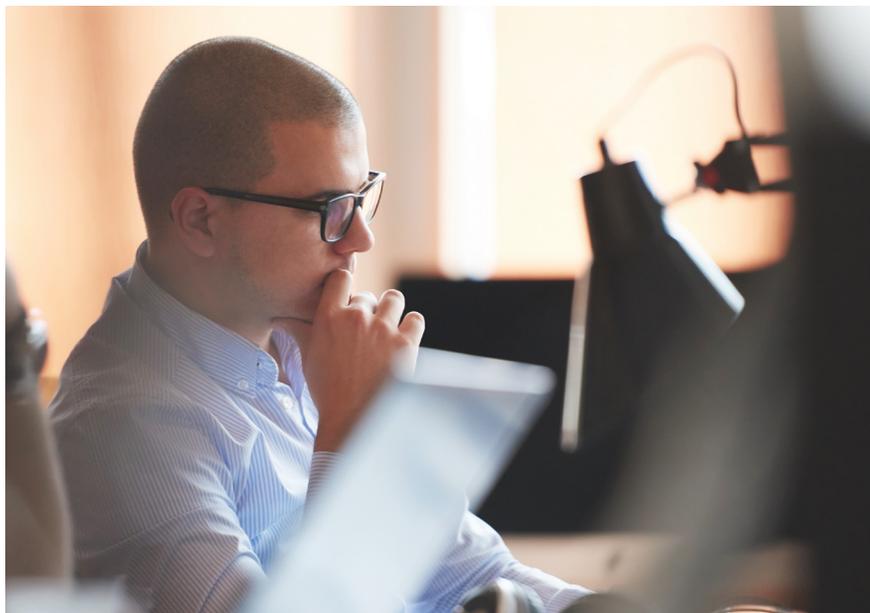
Overview

Thousands of enterprises are enjoying the benefits of new cloud-based software from SAP – which in turn challenges SAP to provide always-on, high-performance applications. SAP collaborates with Lenovo systems with Intel® Xeon® processor family technologies to keep its teams working productively to deliver the next generation of cloud applications for customers, worldwide.

Headquartered in Walldorf, Baden-Württemberg, Germany, and with offices in 130 countries, SAP SE creates world-renowned application software designed to help enterprises manage business operations and customer relations. Some 310,000 customers use SAP solutions to streamline processes, work more efficiently, and generate deep business insight.

Thomas Saueressig, Chief Information Officer at SAP SE, begins: "As more customers select our cloud-enabled SAP solutions, we must ensure that we provide always-on, high-performance service, which in turn places huge pressure on SAP's own infrastructure. To meet and exceed these demands SAP needs robust, scalable, high-capacity solutions – ultimately helping us to bring business-critical applications to our customers more efficiently and effectively."

Challenges of cloud and mobility

Traditional work patterns are vanishing. As the distinctions between home, office and business travel continue to blur, workers want to switch seamlessly between mobile devices, tablets, laptops and desktops. Users expect to be able to connect to corporate resources and tools, regardless of location, and need responsive, reliable tools wherever they may be.

"For SAP, Lenovo is a key partner at every point of the IT infrastructure, including beautiful devices and enterprise-class reliability."

—**Thomas Saueressig,**
Chief Information Officer,
SAP SE

Thomas Saueressig, Chief Information Officer at SAP, explains, "Our vision is to enable SAP to become a fully digital enterprise. This also applies to everything that touches an SAP employee, from the devices we use to the collaboration tools and networks.

"Any workflow interruption damages our performance. With some 100,000 mobile devices to manage, we need outstanding reliability, excellent performance and very fast response times. For example, if you are busy working and find yourself waiting for three or four seconds for data, not only have those seconds gone forever but also you will almost certainly have started thinking about something else. Recovering your lost focus and returning to productive work costs more than a few seconds. For an organization the size of SAP, even small changes can have a significant impact."

"Similarly, the user experience itself is critical. People no longer sit in fixed offices; they travel, attend workshops, create ad hoc meetings and more. The technology must fit their working lifestyle, by providing long battery life, offering excellent performance, and feeling good to hold and great to use."

Simultaneously, SAP's corporate customers are demanding new flexibility as they migrate from traditional on-premises solutions to cloud services. Enterprises relying on SAP cloud solutions expect robust, always-on, high-performance applications, with the capacity to scale to meet new demands at any time

Martin Heisig, Senior Vice President of SAP Cloud Infrastructure Services, explains, "The challenge is to deliver excellent service to internal users and external customers. Priority number one is to ensure that our internal on-premises solutions and cloud-based applications are always available, and to deliver a stable, reliable service even as SAP manages triple-digit growth in cloud customer numbers.

"In addition, the SAP IT organization must always deliver capacity and scalability within demanding total cost of ownership targets. In exactly the same way as our customers, SAP continuously examines how we can be more efficient and more effective, looking for ways to reduce operational costs while providing customers with the best possible service. TCO efficiency impacts our server platforms, operational administration and management, and every component of our IT infrastructure."

Solution components

SAP internal business systems, application development, and cloud services employ:

Lenovo System x3550 M5, x3650 M5, x3850 X6, and x3950 X6; Lenovo Flex System; Lenovo Solution for SAP HANA®; with Intel® Xeon® E5 and E7 processor families

Lenovo XClarity

Lenovo Networking

Lenovo Storage

Lenovo Professional Services

SAP corporate clients, personal systems, and mobility devices include:

Lenovo ThinkPad T440p, T540p, T450, T550, W541, X1 Carbon, Yoga, Helix, ThinkCenter, ThinkStation; with Intel Xeon E5 and Intel Core™ processor families

From laptops to servers, an end-to-end solution

Faced with this potent mix of demands, SAP relies on Lenovo systems and technologies throughout its IT infrastructure. On-premises and cloud-based SAP applications are hosted on Lenovo servers, which are powered by Intel® Xeon® E5 and E7 processor families. Employees are equipped with Lenovo desktops, laptops and tablets boasting the latest Intel Xeon E5 and Intel Core™ processor families.

SAP has deployed Lenovo System x3550 M5, x3650 M5, x3850 X6, and x3950 X6 servers, providing a range of capacity, suitable for general office productivity right through to enterprise-scale, high-performance platforms. Additionally, SAP operates Lenovo Flex System, which provides a portfolio of integrated compute, storage networking and management solutions. Combined with Lenovo Solutions for SAP HANA®, SAP relies on Lenovo servers throughout the business.

Thomas Saueressig reports, "We have a highly mobile workforce, and our worst decision would be to buy cheap, slow hardware that could not cope with our demands – or even with the weather as people run from one building to another.

"The laptop is our standard tool for the job, so investing in quality is essential. The look and feel are so much more important nowadays, and make a huge difference to user acceptance, satisfaction and productivity. Lenovo provides the build quality, reliability and performance that we need to serve our customers efficiently and effectively – and to keep our employees satisfied and productive."

For thousands of SAP cloud customers, Lenovo servers equipped with Intel technologies provide robust, scalable, high-capacity hosting services. Customers enjoy the benefits of the cloud subscription model, while the SAP team focuses on managing the underlying applications and infrastructure. With cloud service provisioning, SAP takes on the responsibility for application availability, reliability and performance, which places a premium on selecting the best possible infrastructure platform.

Martin Heisig elaborates, "We see very large companies shifting a major portion of their SAP landscape into the cloud, and we run mission-critical applications and solutions for them. If a customer's SAP solution is not available, their business is immediately disrupted. For example, an application outage for an automotive manufacturer is a potential disaster, given the upstream and downstream disruption to what is likely to be a fine-tuned, just-in-time process with multiple supply-chain partners. This is how we always try to look at our service, through our customers' eyes.

"Lenovo is the platform of choice for us to run our internal ERP system, because it is very reliable and it's very stable."

—**Martin Heisig,**
Senior Vice President of SAP Cloud Infrastructure Services,
SAP SE

"Outages cost more than money: they impact trust, service and confidence. Lenovo servers are very stable and very reliable, which is super-important for me, as you can imagine. They also provide a flexible, scalable architecture that helps us manage our ongoing rapid growth in cloud services.

"Lenovo is our platform of choice to run our internal SAP S/4HANA® system, because it's so reliable and stable. Additionally, when it comes to TCO, Lenovo leads the way in terms of price-performance and reduced operational costs. Lenovo servers provide advanced management tools to help us orchestrate, optimize and manage the server estate, keeping administration easy and cost-efficient."

Delivering services in real-time

In addition to the need for more SAP cloud-based solutions, the rapid uptake of SAP HANA is placing further demands on the SAP infrastructure. SAP HANA delivers advanced analytics in near-real time, using in-memory database technology that would usually place unique demands on the supporting servers. By working together, Lenovo, SAP, and Intel have addressed these issues with a powerful combination of technologies. For example, Lenovo X6 mission-critical servers are powered by the Intel® Xeon E7 processor family, which deliver high performance by leveraging Intel Hyper-Threading Technology as well as Intel Transactional Synchronization Extensions. Also, advanced X6 RAS features, such as predictive failure analysis, light path diagnostics, and hot swap components, provide high availability and maximum up-time for business-critical SAP HANA applications.

Martin Heisig notes: "When transitioning to new Intel processor families, Lenovo provides excellent feedback and collaboration, and proactively manages issues in advance. The way the Lenovo servers are designed and architected really helps us to maximize uptime in all of our environments."

SAP continues to develop its relationship with Lenovo, in support of customer-facing services and driving business efficiency, for mission-critical server-side solutions and personal productivity applications.

Thomas Saueressig comments, "For example, SAP is evaluating the Lenovo ThinkPad X1 Yoga. Our colleagues are constantly on the road, visiting customers. Providing such a light, lean, mobile-oriented device would be an excellent fit with their work patterns. At the same time, finance people might prefer fixed desktops with much larger screens, or perhaps laptops with docking stations, so we provide a catalog for people to choose the Lenovo solution that fits their exact needs."

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Senior Vice President of SAP Cloud Infrastructure Services,
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Thomas Saueressig concludes, "SAP has a very strong Lenovo footprint, which is part of our strategy. In multiple areas, from servers to laptops, Lenovo helps SAP to ensure a consistently great experience and meet customer's SLAs.

"The Lenovo servers and systems help SAP to enable new business models and optimize processes, and at the same time provide a modern workplace for our employees. For SAP, Lenovo is a key partner at every point of the IT infrastructure, including beautiful devices and enterprise-class reliability. That's the key message for a great partnership."

For more information
To learn more about Lenovo Data Center Systems solutions, contact your Lenovo Sales Representative or Lenovo Business Partner, or visit: lenovo.com/systems

For more information about SAP, visit: www.sap.com or connect with @SAP

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