

9 Ways to Minimize Risk When Working with SAP Solutions on Linux Servers

You've read the headlines. You've done your research. Now you're ready to deploy at least one new SAP module on Linux. So the remaining question is: How can you minimize risk to your new or existing SAP operations while integrating Linux-based applications with your Windows- or UNIX-based systems?

REDUCE RISK.



A few words about risk.

There are associated risks whenever you customize your SAP applications or introduce a new operating environment, such as Linux. For example, the performance of your SAP applications may degrade. Availability may be affected if your operating system and servers haven't been adjusted for the workload. However, all of these risks can be mitigated by leveraging the knowledge and expertise of trained SAP technical experts in the process.

Here are some suggestions, garnered from our experience working with customers all over the world, as to how you can smoothly introduce Linux-based technology into your existing SAP environment.

1. Seek Performance and Analysis Tuning for Customized SAP Environments.

Every SAP installation is unique. Each SAP landscape has different workloads and user group sizes, and most environments are customized to accommodate specific business needs. With so many variables in the mix, keeping the performance levels of your SAP solutions as high as possible while integrating Linux-based solutions into your system environment can be challenging.

When it comes to SAP applications, tuning the hardware platform that supports your SAP solutions can make a significant difference in maintaining performance levels, especially for customized SAP environments. Nearly 95 percent of all SAP users customize their SAP solutions, which can affect the

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efficiency of the applications and lead to increased system workload demands. To process high transaction volumes and avoid application bottlenecks, you need to make sure the servers, network devices, and storage solutions that will support your Linux-based SAP applications have been tuned and optimized.

Unisys, an SAP Technology Platform and Services Partner, offers *Performance Analysis and Tuning Services* specifically for SAP users who want to minimize the risk of introducing Linux in their enterprise and maximize the efficiency of their IT infrastructures.

2. Measure Your Workload Mix.

Most SAP environments contain multiple types of data, including customer information, historical sales data, partner and supplier records, and financial reports. This is especially true for analytical applications such as SAP Business Information Warehouse (SAP BW). SAP NetWeaver, which integrates multiple SAP modules, can also add another layer of complexity when it comes to troubleshooting performance issues.



In many of our service engagements, our SAP-certified experts measure the performance levels of a customer's existing SAP environment – before the transition to Linux-based technology – using standard SAP transaction measurement tools. These non-invasive analysis tools run while a customer's production environment is live, so they can conduct business as usual during our service. The measurement tools capture data for a two-week time period to collect all critical performance information, including important statistics at peak times of the month. Then we analyze and evaluate the collected data using Unisys-developed tools and best practices.

3. Consider What Your SAP Data May Be Telling You.

Our technical services experts use proprietary analytical tools for SAP that can precisely analyze the results from a customer's SAP performance data. Our proprietary tools give customers an accurate view of their SAP system's performance.

Based on our findings, we can tell customers exactly where any performance hang-ups may be occurring in their IT landscape – anywhere from a user's customized code or network devices to their SAP applications or servers. A good data analysis can reveal critical details that can help you alleviate stubborn response time issues before you deploy SAP modules on Linux.

4. Check if Your System Is Correctly Sized.

The Unisys *Sizing and Configuration Service* ensures that our customers receive servers that will accurately and predictably support their SAP environments, including any Linux-based applications. That's because buying an oversized server is typically a waste of money.

On the flip side, an undersized server can also cause detrimental processing bottlenecks. That's why we closely evaluate and measure the performance needs of every SAP environment we work in. This allows us to size and architect complete solutions that are optimally configured to deliver predictable levels of availability and performance. Our engineers follow documented best practices to optimize and tune our customers' servers, which typically yield performance improvements of up to three times that of untuned systems.

5. Work with a Partner Who Will Work with You.

This tip sounds obvious, but don't underestimate the long-term value of working with a partner who is truly focused on helping you achieve your Linux integration goals. Before we begin to build a solution, our SAP-certified Unisys consultants sit down and review each customer's current and future requirements for SAP. This customer-centric approach helps us understand our customers' business requirements down to the user level.

Since different levels of user demand require specific sizing and configuring, we begin by defining your specific user base. Based on a customer's SAP workload, we can use our SAP sizing tools to measure and precisely calculate your processing needs.

6. Have Your New System "Hot Staged."

One of the most beneficial services Unisys offers is our *Hot Staging Service*. This popular service involves installing and configuring all hardware and software components for a customer's SAP environment on ES7000 servers before they are delivered.

A service like this will give you confidence that your Linux-based infrastructure has been specially configured for your SAP environment. The Hot Stage process subjects your systems to hundreds of tests and customized tuning steps, and is similar to having your servers tweaked by a professional racecar mechanic for maximum performance. In most cases, these Hot Staged Linux servers are ready to go into production the day they arrive at your facility.

7. Test, Test Again, Then Test One More Time.

Never cut corners when it comes to your SAP operations. After all, SAP is usually one of the most important applications – if not *the* most important – in your data center. If the system is down or not performing, it could affect your revenue.

Be sure your new Linux-based servers are thoroughly tested for reliability with network redundancy testing, including cluster testing for disaster recovery and log shipping, which provides server redundancy (at a remote location) to protect against file corruption while maintaining excellent response time.



8. Thou Shalt Protect with Backup Software.

Backing up your data is essential. That's why our technical service experts help customers choose the best backup software to yield the best performance and management capabilities for their Linux-based (and Windows- and UNIX-based) applications. All backup software we install as part of our *Business Continuance Services for SAP* goes through a series of tests, including tests for reliability, performance, and features and capabilities. Based on our evaluation and successful customer installations, we've found that Arcserve, Brightstor, Veritas, and Legato all provide quality products that work well when appropriately matched with a customer's SAP backup requirements.

9. Work with a Leader in the Linux Arena.

Leveraging our leadership in the Intel-based server market for SAP, Unisys is bringing the same enterprise-class qualities of scalability, reliability, and manageability to Linux. This gives SAP users two open, Intel-based, scale-up platform alternatives: Microsoft Windows and Linux. In addition to being an active member of Open Source Development Lab's Linux working groups, Unisys is also a member of the SAP Linux Lab in Walldorf, Germany, where we provide testing, benchmarking, and professional services surrounding our ES7000 enterprise servers. Unisys has also achieved full certification for running SAP on SUSE LINUX Enterprise Server 9 (SLES) and Red Hat Enterprise Linux 4.



For more information on Linux-based solutions for SAP applications from Unisys, please call 1-800-874-8647, ext 732.

Or, visit: www.unisys.com/es7/sap/info.

Visit SAP on the Web at: www.sap.com

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