Virtualize Your SAP® Environment

A Joint Solution Offering from SAP and VMware to Increase IT Agility and Minimize Virtualization Risk

Overview

Are you looking to reap the benefits of virtualization and private cloud computing for your SAP® environment? If so, look no further. SAP and VMware have joined forces to offer you a proven solution that has already helped SAP customers all over the world transform the way they manage their SAP landscapes.

If yours is like most IT organizations today, you're under constant pressure to do more with less – even as demand for your services continues to increase. You're expected to drive down costs and operate at peak efficiency. You're also expected to do this while enabling business innovation and supporting a global user base in a secure manner where people want to access enterprise resources on whatever device they choose.

Adding physical server space to meet this demand is no longer an option. This only increases hardware, operations, and maintenance costs – and the resulting complexity often impedes productivity and adversely impacts availability. This is why leading IT organizations and the businesses they serve are moving to virtualization technology to establish secure private cloud infrastructures.

By now the benefits of virtualization are well known. Virtualization allows you to mask physical server resources and abstract them into instances that can be pooled and automatically provisioned on demand. This enables you to maximize data center capacity and ensure the highest levels of availability. And with the right virtualization tools, you can dramatically increase transparency in your IT landscape and simplify IT administration on a "single pane of glass."

This virtualization technology is at the heart of the move toward private cloud environments where companies design their own IT landscapes to work like Internet-based service providers that serve their own user base exclusively. The result is greater business agility, improved scalability, and faster time-to-market advantages without the risk of turning over critical corporate data and security responsibilities to a third party.

Going Virtual with Your SAP Landscape

As an SAP customer, you may be wondering how to realize these benefits for your production SAP environment. Fortunately, SAP and VMware – the leader in virtualization and cloud infrastructure solutions – have teamed up to offer a joint solution that helps speed your path to virtualization while minimizing business risks.

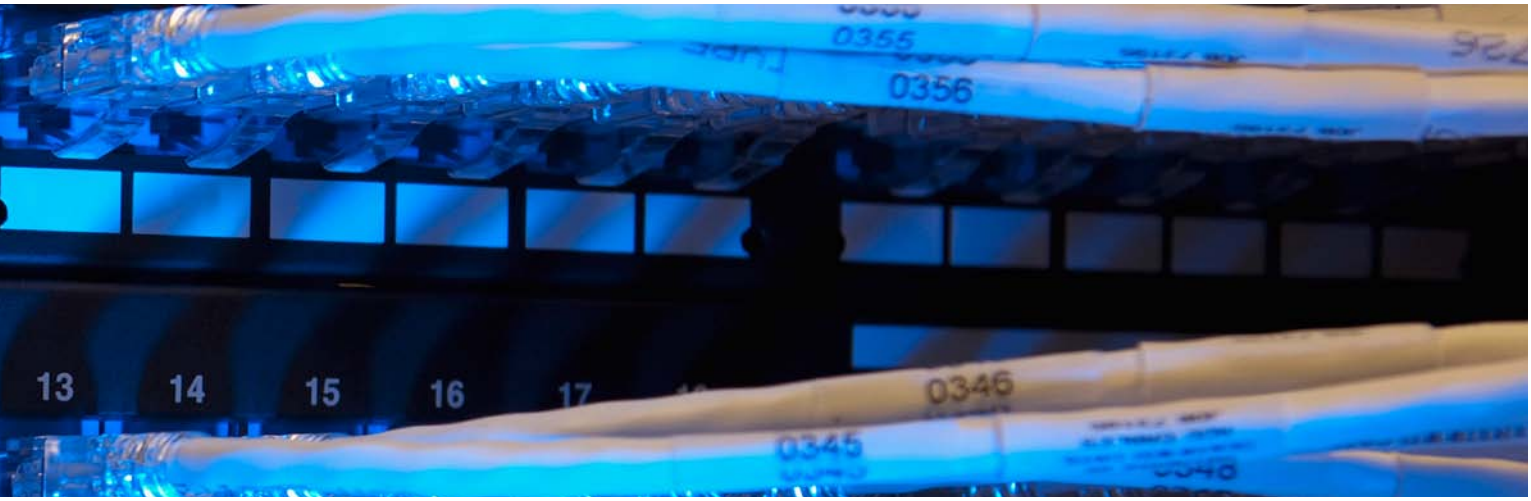
Centralized Virtualization Management with SAP Software

Virtualization doesn't mean an end to IT management tasks. Far from it. A virtualized environment involves the constant provisioning and deprovisioning of new virtualized servers as capacity demand ebbs and flows. To maintain control over your SAP environment, your IT group needs to monitor all this activity in real time.

SAP NetWeaver® Landscape Virtualization Management software gives you this control – providing a single console to manage both your SAP software and the infrastructure on which it runs. By automating and simplifying common administrative tasks, the software helps reduce the time, effort, and cost of operating your SAP systems while improving IT agility. For example, you can use automated workflow to ease the burden of cloning, copying, and refreshing systems. And with automatic capacity management, the software can add or remove application servers from systems as needed according to application response times that you specify based on service-level agreements.

SAP NetWeaver Landscape Virtualization Management also supports centralized visualization and monitoring, dependency analysis, and automated management reporting. Data about infrastructure and applications is collected in real time and then analyzed and published through a "single pane of glass." You can use it to know exactly what's happening with both the managed systems and their associated infrastructure.

For example, the software provides a real-time, hierarchical, and graphical view of all your SAP systems and the architecture of the infrastructure they run on. At any time, you can drill down and see the



resources and networks they are running on. You can also see the dependencies between systems, so you know exactly what will be impacted if you start or stop a particular application. Prebuilt dashboards and classic management reporting, meanwhile, help you stay on top of the health of your end-to-end environment. These monitoring features provide critical insight into key performance indicators such as response times, CPU usage, users per application, peak load usage, and the number of systems copied or refreshed.

The Power of VMware vSphere®

SAP NetWeaver Landscape Virtualization Management interfaces with VMware vSphere® to provide a complete virtualization solution. Recognized as the industry-leading platform for building cloud infrastructures, vSphere enables you to run your SAP environment confidently and securely, thus meeting your most demanding service-level agreements at the lowest total cost of ownership. vSphere enables you to virtualize x86 server resources and aggregate them into logical pools that can be allocated to multiple workloads. All virtual machine configuration information, state information, and data are encapsulated in a set of discrete files stored on a data store. This encapsulation makes virtual machines portable, easily backed up, or cloned.

vSphere also provides network services optimized for the virtual environment and storage services that mask the complexity of back-end storage systems and enable the most efficient utilization of storage in virtual environments.

A Strong Partnership

With more than 480,000 customers, VMware is an outstanding virtualization partner to work with SAP to help you transform your business. Our relationship is based on a mutual commitment to help you completely virtualize your SAP environment – from core SAP Business Suite software to new technologies such as enterprise mobility, real-time business analytics, and in-memory computing using the SAP HANA® platform. Customers everywhere are recognizing the benefits. This is why, compared to other enterprise software, SAP software is the fastest-growing workload on VMware today.

Speaking from Experience: How SAP Has Benefited from Virtualization and VMware

When we tout the benefits of virtualizing your SAP® environment with SAP NetWeaver® Landscape Virtualization Management software and VMware vSphere®, we know what we're talking about – because we've been there. Today, 80% of SAP's global infrastructure is virtualized. SAP runs more than 25,000 virtual machines in a private cloud that houses all critical application servers for our entire training business and development systems. This has helped SAP reduce storage by 62% and total cost of ownership by 50%. In 2010 alone, virtualization helped SAP save €10 million in operating costs and more than 75 kilowatt hours of power consumption.

Good for Hardware Refreshes Too

While virtualization dramatically minimizes the number of physical servers your IT group needs to maintain, it doesn't eliminate the need for IT hardware entirely. This is why, when migrating to a virtualized landscape, many organizations take the opportunity to conduct a hardware refresh.

The benefits can be tremendous. By modernizing your IT landscape to Linux /x86, you can drive down original hardware acquisition costs as well as long-term support and maintenance costs. The result is a more modern, flexible, reliable, and cost-effective environment – one that you can trust to continue delivering value over the long term.

For more information on how SAP and VMware can help you plan and execute such a hardware refresh project in your organization, contact your SAP or VMware representative.

Experts at Your Service

Beyond providing software that's proven to work together, SAP and VMware offer a convenient service to assess the benefits of running your SAP solutions on VMware as part of a cloud and virtualization initiative: the advisory workshop for SAP solutions. Provided on the VMware platform, this is an engineered service of fixed price, duration, and scope. It is designed as a two-day workshop that is conducted on-site and targeted to your IT engineers and project managers alike. Focusing on your unique needs and challenges, we'll outline how to accelerate your organization's transition to a virtualized environment using VMware solutions that abstract complexity and create an elastic pool of computing, storage, and networking resources. By giving you access to the deepest software knowledge, virtualization know-how, best practices, and real-world experience, this service dramatically minimizes your risk as you seek to transform your business and IT environment to take advantage of the cloud revolution.

Virtual Environment, Real Business Benefits

When you virtualize your SAP environment with SAP NetWeaver Landscape Virtualization Management and vSphere, you stand to gain quite a bit. With a virtualized environment, you can dramatically reduce hardware expenditures and infrastructure maintenance costs. You can also consolidate your data center on far fewer servers – simplifying IT administration and rationalizing your global IT infrastructure. And with fewer servers running, you'll substantially reduce cooling costs, thus minimizing environmental impact in accordance with corporate sustainability initiatives.

In addition, you'll experience much smoother upgrade and implementation projects, leading to a faster overall time to service that stems from reduced landscape complexity. As you transition to a more open and flexible private cloud platform based on virtualization technology, you'll also increase IT flexibility and

business agility. The result: a higher level of availability for critical systems and processes, the ability to quickly scale up and down as required, and reliable disaster recovery. And while vastly improving uptime and performance, you can meet service-level requirements while optimizing operational costs and keeping capital expenses to a bare minimum. In the end, you'll dramatically reduce your total cost of ownership for running your SAP landscape, freeing up IT resources for more innovative initiatives that can help you further your overall competitive advantage.

Find Out More

To learn more about how your organization can realize the benefits of virtualization with SAP NetWeaver Landscape Virtualization Management and vSphere from VMware, contact your SAP or VMware representative today or visit us online at **www.sap.com** or **www.vmware.com**.

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