Maintain Performance SLAs with Less Hardware Using VMware® Infrastructure

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Virtualization allows multiple applications and operating systems to run independently on a server. Administrators can quickly move workloads from one virtual workspace to another, prioritizing business needs and server resources.

By creating a virtual pool of computing resources, users achieve enhanced flexibility in the allocation of computing capacity and can consolidate applications and servers. This eases IT management challenges and can help to control computing and datacenter costs while maintaining the same or enhanced levels of performance for end users.

Traditional SAP deployments can lead to server sprawl by provisioning separate systems for development, quality assurance/test, and production systems. Each solution usually has its own system landscape with at least these three environments. SAP enterprise environments may include multiple application-architecture layers, including database, application, and Web server layers. Typically, each layer is hosted on dedicated physical systems.

VMware Infrastructure contains server sprawl by running application layers on virtual machines consolidated onto fewer enterprise-class servers. Almost 66% of SAP implementations run on Microsoft Windows, averaging a CPU utilization of 15% to 20%. It's critical to evaluate SAP solutions at peak load to understand the CPU, memory, and I/O requirements, to determine what can run together. For example, database servers may have higher loads at various times and may need dedicated resources.

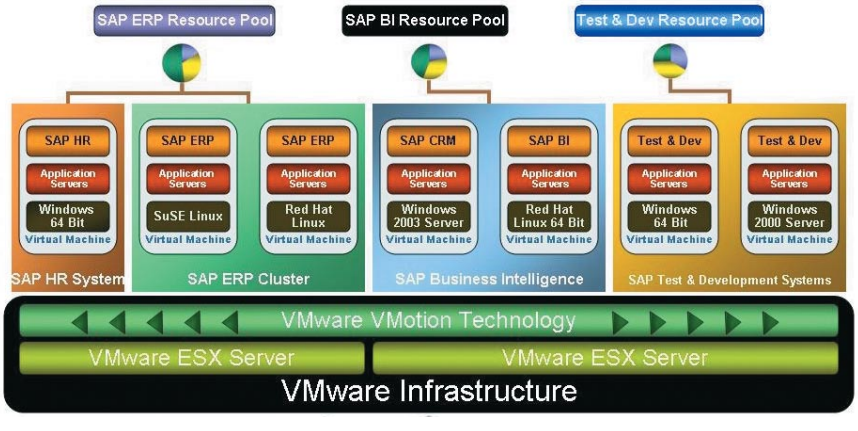
Customer successes include a large hosting company that deployed SAP on VMware Infrastructure and gained a 25% to 30% price advantage over its competitors; other customers have saved $1 million over three years after consolidating servers with VMware Infrastructure. Using multiple virtual machines per physical processor has greatly increased server utilization and contained server sprawl.

Datacenter Optimization: Distributed Resource Management

VMware Infrastructure offers additional management capabilities that help optimize application use of infrastructure resources. SAP provides distributed transaction processing, automated load-balancing, and a replicated service framework that offer high levels of scalability and resource optimization. These solutions address resource management across the entire datacenter infrastructure and across multiple distributed SAP application servers.

VMware® Distributed Resource Scheduler (DRS) dynamically allocates and balances computing capacity across hardware resources in logical resource pools. VMware DRS monitors resource-pool use and allocates available resources among virtual machines based on predefined rules. When a virtual machine running SAP experiences an increased load, VMware DRS automatically redistributes the virtual machines across the physical servers. It aligns resources with business goals and ensures flexibility and the efficient use of hardware resources.

Deploying applications from SAP on VMware Infrastructure creates tangible benefits from development to production and maintenance, while datacenter optimization enables efficient resource-pooling and maximization of system resources. See **www.vmware.com/products/vi/**. ■



A sample architecture in which virtual machines that contain the SAP application components run on two physical servers.