

# Sun and VMware

## A Virtually Unbeatable Combination



The enterprise data center is a bastion of discipline and predictability—the source of dependable, secure IT services. Yet all too often, the data center is also a source of inefficiency. Server sprawl. Low utilization rates. Redundant management and administrative tasks. It can add up to excessive cost, complexity, and risk.

Virtualization technology provides a solution. The right virtual infrastructure software, running on the right servers and storage systems, can liberate you to use your existing resources more efficiently. It can open the door to strategic initiatives that dramatically reduce cost and complexity, such as server and storage consolidation, disaster recovery, and business continuity.

No two companies provide more complete, mature, and proven virtualization solutions than Sun and its strategic partner, VMware.

VMware Virtual Infrastructure software is used by thousands of enterprises worldwide to maximize the manageability, flexibility, and efficiency of data center infrastructure. And Sun's "Virtual Data Center" vision is redefining how IT services are designed, deployed, and managed in mission-critical environments. Together, Sun and VMware offer a virtual data center solution that works in the real world.

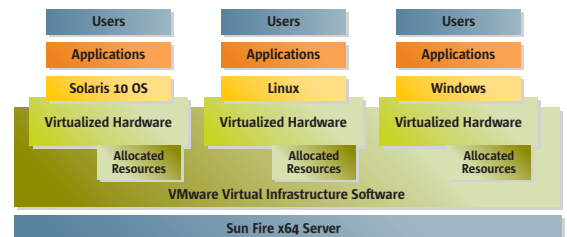
### Sun and VMware: Virtual Infrastructure for Real-World Data Center Challenges

VMware is one of the fastest-growing and most successful software businesses of the new millennium. VMware technology has been adopted by thousands of enterprises because it improves data center efficiency and IT service levels at the same time.

VMware transforms physical resources such as Sun Fire™ x64 servers into multiple virtual

operating system environments. VMware technology encapsulates operating systems and applications into virtual machines (VMs), providing a standard, hardware-independent environment that can be provisioned anywhere—so you can choose the right OS for each application, including the Solaris™ 10 Operating System, and multiple versions of Linux and Microsoft Windows.

Sun Fire x64 Servers deliver high compute density in a small footprint to ease data center space, power, and cooling constraints.



Powered by Single or Dual-Core AMD Opteron™ processors, Sun Fire x64 servers offer the benefits of enterprise-class reliability, scalability and availability in an industry-standard platform. And, to help simplify management of your IT infrastructure, Sun Fire x64 servers have features that enhance manageability, such as Integrated Lights Out Management.

Combining VMware products with Sun Fire x64 servers and popular enterprise storage solutions from Sun, you can leverage the virtualization capabilities of VMware with the proven availability, reliability, high performance, and rock-solid security of Sun servers and storage.



### Highlights

- **Challenge:** Improve the cost and efficiency of mission-critical data center infrastructure and enhance disaster-recovery capabilities.
- **Solution:** VMware Virtual Infrastructure, consisting of ESX Server and VirtualCenter, running on Sun Fire™ x64 servers and enterprise storage solutions from Sun.
- **Capabilities:** Treat your data center as a single pool of processing, storage, and network power. Dynamically map computing resources to your business needs; provision new services; re-allocate resources on the fly.
- **Benefits:** Reduced IT cost, risk, and complexity; higher utilization rates for critical systems; improved disaster-recovery capabilities; higher service levels delivered to end users; lower power and cooling costs.



VMware Virtual Infrastructure includes support for the Solaris 10 OS, allowing customers to take advantage of advanced features such as Dynamic Tracing (DTrace) and Solaris Containers. With special optimizations for Sun Fire x64 servers, the Solaris 10 OS powers enterprise applications at record speeds on supported Sun Fire x64 servers.

### Consolidate. Simplify. Save.

Many enterprises today still run one application per server, and often utilize only five to 15 percent of their server CPU capability. VMware on Sun provides a practical and cost-effective alternative to this inefficient model. When you consolidate servers or storage systems, you simplify the environment so you can cut administrative costs. You unlock surplus server and storage capacity. And you can boost the utilization rates of the systems you already have, so you can delay or eliminate the need to make additional hardware purchases.

With VMware, you can consolidate disparate systems, such as branch office and data center, mission-critical applications and infrastructure, onto fewer highly scalable, reliable enterprise-class servers from Sun. You can achieve solid bottom-line results in a surprisingly short timeframe.

### Better Disaster Recovery at Lower Cost

Every organization understands the importance of business continuity planning. Natural disasters, terrorist acts, administrative errors, and unplanned power outages can cause system failures, data loss, business disruption, and massive expense. At the same time, new government regulations have created more stringent requirements for disaster preparedness.

With VMware products, you can easily move virtual machine images to remote sites, where they are ready to take over your mission-critical activities on a moment's notice.

VMware can help cut disaster recovery costs because fewer servers are required for hot or warm standby. This reduces costs associated with hardware, hardware support, maintenance contracts, and environmental expenses associated with disaster recovery instances. Equally important, because there are fewer servers, there is also a reduction in the complexity and timeframes of failing over to the disaster recovery instances and failing back to production instances. Simply put, VMware improves your disaster recovery capabilities while allowing you to cut costs.

### Core Components: VMware Products Available on Sun

Sun is an authorized reseller of key VMware products and technologies, making it easier than ever to consolidate through virtualization. VMware Virtual Infrastructure consists of ESX Server and VirtualCenter; VMotion software eases virtual machine management even further:

#### ESX Server

- Host multiple virtual machines
- Easily provision new services
- Instantly deploy new virtual machines to any server as business requirements change
- Streamline data center operations and reduce hardware requirements
- Perform zero-downtime maintenance on live systems without interrupting service
- Load balance workloads across a farm of servers

#### VirtualCenter

- Provision and boot virtual machines hosted on ESX Server

- Monitor system availability and performance
- Automate notifications and e-mail alerts
- Integrate with existing management tools
- Secure the environment with robust access control

#### VMotion

- Move live, running virtual machines from one host to another
- Maintain continuous service availability
- Optimize continuously
- Reconfigure quickly
- Achieve zero-downtime maintenance

### Test Before You Invest

Use Sun's Try & Buy program and a VMware evaluation license to give virtualization and consolidation a test drive in your data center.

You can see a demonstration of VMware solutions at your nearest Sun Solution Center. At the worldwide Centers, Sun takes the guesswork and the risk out of implementing solutions. We give you access to the latest Sun servers, storage devices, and software, so you can try out a prototype, size your systems, and do your benchmarks on rock-solid platform technology. You go from the drawing board to production faster, cutting cost and risk while accelerating time-to-deployment.

### Learn More

Together, Sun and VMware can transform the potential of virtualized infrastructure into real-world results. Contact your local Sun or VMware representative today for complete information about our joint solutions, or visit [www.sun.com](http://www.sun.com) for additional details.



Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 USA Phone 1-650-960-1300 or 1-800-555-9SUN Web [sun.com](http://sun.com)

Copyright © 2005-2006 Sun Microsystems, Inc. All rights reserved. Sun, Sun Microsystems, the Sun logo, Sun, Solaris, and Sun Fire are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and other countries. AMD Opteron and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices, Inc.

