Building on Sun’s vision that “The Network is the Computer™”, the open architecture of Sun Virtual Desktop Infrastructure (VDI) Software 3 enables organizations to leverage a broad selection of client devices, virtual desktop operating systems and virtualization hosts, which increases flexibility, management efficiency and IT utilization. What’s more, integration with Solaris ZFS and Sun’s breakthrough Open Storage portfolio eliminates wasted disk space for identical virtual machine clones, addressing the largest issue facing all VDI deployments — mounting storage costs.

With Sun VDI Software 3, customers now have the choice of using existing Windows PCs and Macs as client devices or energy efficient thin clients like Sun Ray® clients, without installing any software on the device. Customers opting for Sun Ray clients enjoy a high level of security, and benefit from the extended lifecycle and reduced power consumption of Sun Ray technology. Sun Ray clients produce no noise and generate minimal heat due to their incredibly low power consumption of only 4 watts as compared to the 80 to 120 watts consumed by a traditional PC. And users who choose to continue using traditional PCs and thin clients can extend the lifespans of those machines by doing all processing on the server, meaning fewer devices end up in landfills.

In addition to being well suited for a large range of client devices, Sun VDI Software 3 supports a wide variety of virtual desktop operating systems including: Windows XP, Windows Vista, Windows 2000, Solaris™ and Ubuntu. IT architects can also choose either VMware Infrastructure or Sun built-in virtualization to host the desktop environments, or a mixture of the two.

With the integration of the new Solaris ZFS technology in Sun’s Open Storage portfolio, which includes Sun 7000 Unified Storage Systems, Sun VDI Software 3 provides superior data integrity for business continuity and exceptional data throughput. Plus, instead of waiting for multi-gigabyte file copies, virtual machine clones are created instantly and consume virtually no disk space by using ZFS snapshots.

Leveraging Sun’s award winning open source technologies such as Open Storage, VirtualBox, Solaris, and MySQL™, Sun VDI Software 3 offers breakthrough performance, game changing economics and flexibility for the datacenter.

**Open architecture for choice and flexibility**

Sun VDI Software 3 is a multi-tiered architecture that can combine server virtualization with Sun’s eco-friendly hardware. This robust and scalable solution encompasses:

- **Client Tier** — the end user access points or devices. Includes Sun Ray thin clients or nearly any modern desktop device.

**Highlights**

- Significantly reduces VDI storage costs
- Provides choice of client device, desktop operating system and virtualized host
- Integrates with industry standards like VMware and Active Directory
- Maximizes IT infrastructure utilization
- Simplifies administration, lowers lifecycle costs and reduces ewaste
• Access Tier — the infrastructure (either physical or virtual) that enables and brokers connections between the client tier and the virtual desktop tier; critical for overall security and scalability. The core components of Sun VDI Software 3 install here on the Solaris Operating System.

• Virtual Desktop Tier — the hardware, virtualization software, and storage for all virtual desktop images. Includes VMware Infrastructure, Sun built-in virtualization, Sun Fire™ x64 servers, and Sun StorageTek™ storage and software, as well as servers from other vendors.

Unparalleled data availability and security
Sun VDI Software 3 is installed on the access tier, which acts like a gateway and keeps the end user from ever making a direct connection to the corporate datacenter. This means that business critical company data and information are secure — because no data is ever stored on the client device.

When virtual desktops are accessed through Sun VDI Software 3, organizations can control access to applications and data, yet keep sensitive data off vulnerable desktop and laptop systems. When applications are launched through Sun VDI Software 3, only the display is sent to the client device; sensitive data never leaves the corporate network.

If a customer chooses to step up to Sun Ray thin clients, they will experience an ideal device for displaying virtual desktops. Sun Ray thin clients offer both security and mobility with no resident operating system or applications.

This makes Sun Ray clients virtually immune to viruses and service attacks. All of the data and applications displayed onscreen disappear the instant the client is turned off or the access card is removed. Sign on to another Sun Ray client — across the office, down the hall, in the conference room, or across the country — and you reconnect to your virtual desktop, resuming right where you left off. To ensure even greater security, organizations can also leverage the built-in VPN client in Sun Ray thin clients or SSL encryption for other clients when accessing virtual desktops.

When away from the office, users can securely log in to their desktop from nearly any modern desktop device. Employees physically unable to be in the corporate office can access their desktop securely over the Internet. If the network connection goes down or the client device disconnects unexpectedly, Sun VDI Software 3 automatically suspends the user’s session until they reconnect, ensuring both disaster recovery and data protection. What’s more, users can have multiple virtual desktops and can choose between them when logging in, providing tremendous flexibility.

Additionally, Sun VDI Software 3 can be deployed on multiple servers, linked together into a failover group, to help protect outages. This ensures that your virtual desktop infrastructure is “always-on”, always available and ready to deliver optimal performance. For auditing or compliance, there are tools to track access and usage information.

Maximize IT infrastructure utilization
A virtual desktop infrastructure deployment can be very complex and difficult. Sun VDI Software 3 reduces this complexity with a single installer for the core components. With a complete Sun-based virtualization solution, all services are managed from within the datacenter — there’s no configuration, operating system, or data to manage on the client device. The solution’s centrally managed “pool” of resources — hardware, software, and tools — can be virtualized, which increases utilization of assets and enables easy sharing and reuse between projects or across locations.

For ongoing administration, updating the virtual desktop environment becomes a simple matter of modifying a few central servers. All clients can instantly utilize the updated virtual desktop environment and upgrades and updates are done within minutes, not days or months. Because of this centralized architecture, Sun VDI Software 3 can also extend the desktop refresh cycle and enable an organization to manage thousands of desktops with fewer administrators.

At one government agency, labor costs have been cut significantly because virtualization and the use of Sun Ray thin clients makes it possible for the IT staff to reimage all virtual machines in a matter of minutes rather than spending several days manually wiping and reconfiguring computers. As a result, just two people, rather than the agency’s 40 person IT staff, can manage the entire solution. Classrooms are better utilized and easier to schedule because more classrooms are available more of the time.
Reduce carbon footprint, power usage and ewaste

Unlike other solutions, organizations can use the Windows PCs, Macs or thin clients they already have, avoiding the cost of purchasing additional clients, as well as limiting the amount of ewaste in landfills. If you choose to run your environment with Sun Ray clients, the product life cycles are 2-3 times longer than a PC.

Additionally, with thin clients like the Sun Ray client, administrators manage the server instead of each individual desktop. An administrator can manage 1,000 Sun Ray clients almost as easily as one — saving personnel resources and lowering TCO.

For virtualizing desktops, the award winning Sun Fire x4600 offers among the best power and space efficiency for any rack-mount server enabling organizations to gain significant savings in server management costs.

As a result of its Sun virtualization solution and by using the Sun Ray thin client, a large university has reduced its energy requirements: a PC that is always on costs $70 annually; a Sun Ray thin client device costs $3.50 annually. A PC has a total carbon footprint of 1,720 metric tons; a thin client’s footprint is 86 metric tons.

Superior management efficiency

A centralized desktop deployment that can be easily installed, where users share a limited number of master image files, reduces complexity, inconvenience and lost productivity. Since this solution can efficiently support multiple combinations of supported clients, OS and virtualization platforms, Sun VDI Software 3 raises the bar for scalability, performance and availability, while simplifying infrastructure expansion. And, with support for multiple vCenter Servers, organizations can efficiently and rapidly scale large VMware deployments.

Conclusion

In today’s challenging business environment, IT needs to do more with less, and contribute strategically to the company’s profitability and productivity. The open architecture of Sun VDI Software 3 creates a new dimension of choice to simplify management, increase flexibility and maximize IT utilization. Sun VDI Software 3 delivers a flexible user experience, integrates seamlessly into existing IT environments, simplifies administration, and can significantly lower TCO.

About Sun

A singular vision, The Network is the Computer, drives Sun in delivering industry-leading technologies that focus on the whole system — where hardware, software, and services combine. With a proven history of sharing, building communities, and innovation, Sun creates opportunities, both social and economic, around the world. You can learn more about Sun at sun.com.

For more information

Visit us on the web http://www.sun.com/vdi
• Download the software today at www.sun.com/software/vdi/get.jsp
• Deploy Sun VDI Software as low as $40/seat http://www.sun.com/software/vdi/get.jsp
• Trade in existing Sun Ray thin clients and get a discount on new Sun Ray 2 family of thin clients http://www.sun.com/tradeins/offerings/workstations.jsp
Sun™ Virtual Desktop Infrastructure Software 3

System Requirements

Sun VDI Core

Memory
• 75 MB per user, 2 GB or more total

Disk Space
• 1 GB

Operating System
• Solaris 10 10/08

Processor
• 1 GHz or faster x64 or SPARC based processors, 2 or more CPUs recommended

Sun xVM VirtualBox for Sun VDI 3.0

Memory
• 2 GB or more total (depends on number of virtual machines in use)

Disk Space
• 1 GB

Operating System
• Solaris 10 10/08

Processor
• 1 GHz or faster x64 based processor, 2 or more CPUs recommended

Virtual Desktop Operating Systems

Operating Systems
• Microsoft Windows XP SP2 and higher
• Microsoft Windows Vista Enterprise
• Microsoft Windows 2000 (only on Sun xVM VirtualBox)
• Ubuntu 8.10 (only on Sun xVM VirtualBox)
• OpenSolaris™ 2008.11 (only on Sun xVM VirtualBox™)

Storage for VMware

Storage Platform
• All hardware supported by VMware

Storage for Sun xVM VirtualBox for VDI

Storage Platform
• OpenSolaris 2008.11
• Storage devices based on Open Storage, such as:
  • Sun Storage 7110 Unified Storage System
  • Sun Storage 7210 Unified Storage System
  • Sun Storage 7410 Unified Storage System

Supported VMware Components

VMware ESX
• VMware ESX server 3.5 (including Update 1, 2)

VMware VirtualCenter
• VMware VirtualCenter 2.5 (including Update 1, 2, 3)

Learn More
You can learn more about Sun virtual desktop solutions by visiting our Web site at sun.com/datacenter/consolidation/virtualization/desktop/index.jsp.