

# Sun™ Virtual Desktop Infrastructure Software 3.1

Open architecture for virtually limitless choice, flexibility, and access



With Sun™ Virtual Desktop Infrastructure (VDI) Software 3.1, organizations can simplify administration, reduce operating and lifecycle costs, and boost security as they move to a virtual desktop system. New features enable a broad selection of client devices, virtual desktop operating systems (OSs), and virtualization hosts, which increases flexibility, management efficiency, and IT utilization. And with improved multimedia playback and the ability for Sun Ray thin client users to deploy a multitude of USB devices directly from their client, it provides an improved experience for desktop users. What's more, integration of this open-architecture solution with ZFS™ and the breakthrough Sun Open Storage portfolio eliminates wasted disk space for identical virtual machine clones, addressing the largest issue facing all VDI deployments — mounting storage costs.

## Highlights

- Integrates with built-in Sun virtualization, Microsoft Hyper-V, or VMware vSphere
- Simple access to VDI desktops from PCs and Sun Ray™ thin clients
- Provides enhanced support for Adobe Flash content
- Maximizes IT infrastructure utilization
- Simplifies administration, lowers lifecycle costs, and reduces e-waste

## Choice of client device, OS, and virtualization platform

With Sun VDI Software 3.1, you now have the option to use the Microsoft Hyper-V to host virtual desktops — in addition to the continued support for Sun built-in virtualization and VMware vSphere. This enables you to use Sun VDI Software 3.1 in a wider variety of deployments and architectures. IT architects can even mix and match the different virtualization hosts in the same deployment for maximal flexibility. It also enables the use of the Remote Desktop Services feature of Microsoft Windows Server to generate user desktops. These server-based computing desktops are managed from the same interface as the VDI desktops, reducing complexity for administrators.

Users now have a choice of client devices when connecting to their Sun VDI Software 3.1 sessions. They can take advantage of the highly secure and energy-efficient Sun Ray thin client or install the new Sun™ Desktop Access Client and use an existing Windows PC. Sun VDI Software 3.1

provides seamless integration with Sun Ray thin client hardware and PCs, enabling end users to instantly move their live desktop session to and from any Sun Ray thin client and any supported Sun Desktop Access Client-enabled PC.

In addition to accommodating a large range of virtualization hosts and client devices, Sun VDI Software 3.1 supports a wide variety of virtual desktop OSs, including: Microsoft Windows 7, Vista, XP, and 2000; OpenSolaris™; SUSE Linux Enterprise Desktop; and Ubuntu.

## Reduce storage costs

With the integration of the new ZFS technology in the Sun Open Storage portfolio — which includes Sun™ Storage 7000 Unified Storage Systems — Sun VDI Software 3.1 provides exceptional data throughput and superior data integrity for business continuity. Instead of waiting for multigigabyte file copies, virtual machine clones are created instantly — and by using ZFS snapshots, they consume virtually no disk space.

### Unparalleled data availability and security

Sun VDI Software 3.1 has a multitiered architecture that can combine server virtualization with Sun's eco-friendly hardware. This robust and scalable solution encompasses:

- **Client tier** — the end-user devices, which include Sun Ray thin clients and nearly any modern desktop device, including Windows PCs and Macs
- **Access tier** — the infrastructure, either physical or virtual, that enables and brokers connections between the client tier and the virtual desktop tier — it is critical for overall security and scalability
- **Virtual desktop tier** — the hardware, virtualization software, and storage for all virtual desktop images, including Sun built-in virtualization, Microsoft Hyper-V, VMware vSphere, Sun Fire™ x64 servers, Sun StorageTek™ storage and software, and Sun Open Storage, as well as servers from other vendors

Sun VDI Software 3.1 is installed on the access tier on the Solaris™ Operating System (Solaris OS), which acts like a gateway and keeps the end user from ever making a direct connection to the corporate datacenter. And because no data is ever stored on the client device, business-critical company information is secure.

If you choose to step up to Sun Ray thin clients, you will experience an ideal device for displaying virtual desktops. Sun Ray thin clients offer both security and mobility, with no resident OS or applications, making them virtually immune to viruses and service attacks. All of the data and applications displayed onscreen disappear the instant that the client is turned off or the access card is removed. Sign on to another Sun Ray thin client — across the office, down the hall, in the conference room, or across the

country — and reconnect to your virtual desktop, resuming right where you left off. You can even access your virtual desktop session from an existing PC with the included Sun Desktop Access Client.

Additionally, Sun VDI Software 3.1 can be deployed on multiple servers, linked together into a failover group, to help protect against outages. This ensures that your virtual desktop deployment is always available and ready to deliver optimal performance. For auditing or compliance, there are tools to track access and usage information.

### Improved desktop user experience

Sun VDI Software 3.1 provides superior multimedia playback for Adobe Flash content and Windows Media Player on both Sun Ray thin clients and Sun Desktop Access Client-enabled PCs, empowering users to watch multimedia just as they would on a local PC desktop. And users of Sun Ray thin clients with Sun VDI Software 3.1 can now connect USB devices and have those devices visible in their remote Windows XP virtual desktop environment. Printers, scanners, and external hard drives can be mounted easily and quickly, providing added flexibility while maintaining the security advantages of a virtual desktop architecture.

### Maximize IT utilization and simplify management

Once the complete Sun-based solution is deployed, all services are managed from within the datacenter — there's no configuration, OS, or data to manage on the client devices. For ongoing administration, updating the virtual desktop environment becomes a simple matter of modifying a few central servers, so upgrades and updates are done within minutes, not days or months, enabling administrators to manage 1,000 VDI

desktops almost as easily as one — saving resources and lowering TCO.

### Reduce carbon footprint, power usage, and e-waste

Because organizations can use their existing PCs as simple VDI client devices, the life spans of these devices can be extended, reducing refresh costs and limiting the impact on the environment.

If you choose to run your system with Sun Ray thin clients, the product lifecycles are 2–3x longer than with a PC, and you can significantly reduce power needs. Sun Ray thin clients consume a fraction of the power of standalone PCs — 4 W, compared to the 80–120 W consumed by most traditional desktops — instantly delivering reduced operational costs for your enterprise.

For hosting virtual desktops, the award-winning Sun Fire X4600 M2 server offers power and space efficiencies that are among the best for any rackmount server, enabling organizations to save significantly in management costs.

### Conclusion

In today's challenging business environment, IT needs to do more with less and to contribute strategically to the company's profitability and productivity. The open architecture of Sun VDI Software 3.1, and the fact that it can support multiple combinations of supported clients, OSs, and virtualization platforms, creates a new dimension of choice — to simplify management, increase flexibility, and maximize IT utilization while raising the bar for scalability, performance, and security. And because it can reduce your TCO, it gives your organization the tools it needs to grow intelligently, compete more effectively, and win.

## Sun VDI Software 3.1 System Requirements

### Sun VDI core

#### Memory

- 75 MB per user, 2 GB or more total

#### Disk space

- 1 GB

#### Operating system

- Solaris 10 OS 05/09

#### Processor

- 1 GHz or faster x64-based or SPARC processors — two or more CPUs recommended

### Sun VirtualBox for Sun VDI 3.1

#### Memory

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

#### Disk space

- 1 GB

#### Operating system

- Solaris 10 OS 5/09

#### Processor

- 1 GHz or faster x64-based processor — two or more CPUs recommended

### Virtualization platforms

- Sun VirtualBox™ for Sun VDI Software 3.1
- Microsoft Hyper-V Server 2008 R2
- Microsoft Windows Server 2003 and 2008 — Remote Desktop Services feature
- VMware ESX(i) Server 4, 3.5, and 3
- VMware vCenter Server 4 and 2.5

### Storage for Sun VirtualBox for Sun VDI Software 3.1 or Microsoft Hyper-V

#### Storage platform

- OpenSolaris 2009.06
- Solaris 10 OS 5/09
- Sun Storage 7000 Unified Storage Systems

### Storage for VMware

- Storage devices approved by VMware

### VDI operating systems

- Microsoft Windows XP SP2 and higher
- Microsoft Windows Vista Enterprise
- Microsoft Windows 7 (only on Sun VirtualBox for VDI)
- Microsoft Windows 2000 SP4 (only on Sun VirtualBox for VDI)
- OpenSolaris 2009.06 (only on Sun VirtualBox for VDI)
- Ubuntu 8.10/9.04 (only on Sun VirtualBox for VDI)
- SUSE Linux Enterprise Desktop 11 (only on Sun VirtualBox for VDI)

### Learn More

To learn more about Sun virtual desktop solutions, go to: [sun.com/vdi](http://sun.com/vdi).