ORACLE VIRTUAL DESKTOP INFRASTRUCTURE

Oracle Virtual Desktop Infrastructure offers a complete solution for managing and providing access to virtualized desktop environments hosted in the data center. Oracle Virtual Desktop Infrastructure enables organizations to dramatically improve security, implement Bring Your Own Device (BYOD), reduce operating costs, and increase the utilization and lifespan of existing IT assets by moving from a traditional desktop environment to a virtual desktop architecture. Oracle Virtual Desktop Infrastructure supports a broad variety of client devices, virtual desktop operating systems, and virtualization platforms to meet data security, user experience and TCO goals. Oracle offers the industry’s most comprehensive desktop-to-data center virtualization solutions portfolio that can manage your full hardware and software stack from applications to disk, including Sun Ray Clients, a virtual desktop broker and virtualization platform, operating systems, servers, storage and applications.

Complete, Open, Integrated
Oracle Virtual Desktop Infrastructure is a Complete, Open and Integrated solution for delivering server-hosted virtual desktops.

Complete
Oracle is unique in being able to provide the complete stack of technologies needed to deliver virtual desktops running in the data center. From the end-user device through the secure, high performance remote access protocol via the brokering technologies which are responsible for orchestrating the lifecycle and assignment of virtual desktops to users, to the virtualization and storage layers hosting the virtual desktops, Oracle is alone in being able to provide the complete software and hardware solution.

Open
While Oracle can provide the complete solution, customers can also choose to use other suppliers to provide alternative layers of the stack. Oracle Virtual Desktop Infrastructure can be used with 3rd party clients, servers and storage hardware, or use virtualization technologies from vendors such as Microsoft and VMware.

Integrated
Customers choosing the Oracle technology stack will benefit from the tight integration of software and hardware engineered to work together and the simplicity of dealing with a single supplier for support and maintenance.

From a Single Server to the Enterprise
Oracle Virtual Desktop Infrastructure can be configured to run on a single server providing an easy and cost-effective starting point for SMB or pilot deployments. From this simple start, organizations can then grow their deployment across the entire enterprise, across multiple data centers, enabling evolutionary growth and protected investment. Oracle Enterprise Manager Cloud Control 12c provides the Enterprise-scale health monitoring and alert system for even
the largest deployments.

**Consumer or IT-supplied Devices**

In the modern, multi-device world the corporate virtual desktop running in the data center needs to be accessed by both consumer-owned and IT-supplied devices. Users expect to be able to use their personal laptops or tablets, while IT departments are either looking for compatibility with the existing corporate desktop device, or to deliver the optimal company-supplied device which needs to be highly secure, low maintenance and energy-efficient.

Oracle Virtual Desktop Infrastructure satisfies both camps: users can install the Oracle Virtual Desktop Client on an existing Windows PC, Linux PC, Mac OS X computer, or Android or iPad tablet, while IT departments can offer this on the existing corporate standard issue device, or provide a Sun Ray Client as the end-point device.

If you choose to deploy Sun Ray Clients, you will experience an ideal device for displaying virtual desktops. Sun Ray Clients offer both security and mobility, with no resident operating system or applications, making them virtually immune to viruses and service attacks. All the data and applications displayed onscreen disappear the instant the client is turned off or the smart card is removed. Sign on to another Sun Ray Client—within the building, across the country or globally—and reconnect via the ‘hot-desking’ capability to your virtual desktop, resuming right where you left off.

**Broad Choice of Virtual Desktop Platforms**

With Oracle Virtual Desktop Infrastructure, organizations have the flexibility to choose any combination of Oracle VM VirtualBox (included with Oracle Virtual Desktop Infrastructure), Microsoft Hyper-V, or VMware vSphere virtualization hosts to host their virtual desktop VMs. Oracle Virtual Desktop Infrastructure also enables the use of the Remote Desktop Services feature of Microsoft Windows Server to provide Windows Server hosted desktops. These server-based computing desktops are centrally managed from the same interface as the virtual desktops, reducing complexity for administrators.

Oracle Virtual Desktop Infrastructure also supports a wide choice of virtual desktop operating systems, including Microsoft Windows 8, Windows 7, Windows XP, Oracle Linux, Oracle Solaris, SUSE Linux Enterprise Desktop, and Ubuntu.

**Maximized IT Utilization and Simplified Management**

With Oracle Virtual Desktop Infrastructure, desktop services are centrally managed from within the data center. This enables the IT department to focus on providing a single corporate desktop standard, populated with the corporate application set, without worrying about the platform of the end-point device.

Management of the virtual desktop images becomes a simple matter of modifying a few central servers, so upgrades and updates are done within minutes, not days or months. It enables administrators to manage a thousand virtual desktops virtually as easily as one—saving resources and lowering the total cost of ownership (TCO).

Oracle Virtual Desktop Infrastructure provides enhanced management and administration including policy-based memory sharing between desktops, tools to backup and restore the VDI systems, and fast system preparation that reduces the creation time of new Windows desktop clones dramatically. And with role-based administration, management tasks can be devolved to multiple administrators whilst retaining overall control and security levels of a deployment.

For larger virtual desktop environments with multiple user domains, where each domain may represent a single company, computing resources can be shared between multiple clients, thus enabling a Desktop-as-a-Service infrastructure deployment.
Storage Optimization

Oracle Virtual Desktop Infrastructure provides a wide range of storage choices from fast, cost-effective local storage, to support for 3rd party shared storage and iSCSI devices, through to the exceptional data throughput and superior data integrity delivered by Oracle’s Sun ZFS Appliances.

Superior Desktop User Experience

By leveraging Oracle VM VirtualBox to accelerate multimedia content on guest operating systems, Oracle Virtual Desktop Infrastructure provides superior multimedia capabilities with support for upstream audio, and playback for Adobe Flash content and Windows Media Player on Sun Ray Clients as well as most PCs. Users can view multimedia content as they would on a local PC desktop. In addition, Sun Ray Clients with Oracle Virtual Desktop Infrastructure support smart cards and many USB devices, ready for use in remote Windows virtual desktops. 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.

Reduced Carbon Footprint, Power Usage, and e-Waste

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

With Sun Ray Clients, the product lifecycles can be up to 7 times longer than a typical PC, based on a 3 year PC life expectancy. Sun Ray Clients consume only a fraction of the power of standalone PCs (less than 6 W for a Sun Ray Client, compared to the 80 W to 120 W consumed by many traditional PCs), reducing the capital and operational costs for your enterprise.

The Industry’s Most Complete Virtualization Portfolio

Backed by Oracle’s world-class support organization, customers now have a comprehensive, enterprise-class portfolio of virtualization solutions across the stack, including Oracle Sun Ray Clients, Oracle’s Sun hardware, Oracle Solaris, Oracle Linux, Oracle Database, Oracle Fusion Middleware, and Oracle Applications.
## Oracle Virtual Desktop Infrastructure 3.4 Specifications

### Oracle Virtual Desktop Infrastructure Core
- **Operating system**: Oracle Solaris 10 release 8/11 (update 10), Oracle Solaris 11.1, Oracle Linux 5.8, 6.3
- **Processor**: Quad core x86-64 (64-bit) central processing unit (CPU), with virtualization support (Intel VT-x or AMD-V)
- **Memory**: At least 4 gigabytes (GB) of random-access memory (RAM)

### Oracle VM VirtualBox (included with Oracle Virtual Desktop Infrastructure)
- **Operating system**: Oracle Solaris 10 release 8/11 (update 10), Oracle Solaris 11.1, Oracle Linux 5.8, 6.3
- **Processor**: 2 GHz or faster x64/x86-based processor

### Virtualization Platforms
- Oracle VM VirtualBox 4.2
- Microsoft Hyper-V Server 2008 R2
- Microsoft Windows Server 2008 R2—Remote Desktop Services feature
- VMware vCenter server 4.1, 5.0, 5.1

### Storage Platforms

<table>
<thead>
<tr>
<th>Storage Type</th>
<th>VirtualBox (Linux)</th>
<th>VirtualBox (Solaris)</th>
<th>Microsoft Hyper-V</th>
</tr>
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<tbody>
<tr>
<td>Local Storage</td>
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<tr>
<td>Network File System</td>
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<td>iSCSI</td>
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<td>Sun ZFS</td>
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* VMware vCenter – see VMware documentation for supported storage types.

### Virtual Desktop Operating Systems
- Microsoft Windows 8
- Microsoft Windows 7
- Microsoft Windows XP SP3
- Oracle Linux 6.3 (only on Oracle VM VirtualBox)
- Oracle Solaris 10 10/09 or later (only on Oracle VM VirtualBox)
- Oracle Solaris 11.1 (only on Oracle VM VirtualBox)
- Ubuntu 10.04, 12.04 (only on Oracle VM VirtualBox)
- SUSE Linux Enterprise Desktop 11
Contact Us
For more information about Oracle Virtual Desktop Infrastructure, visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.