



the **NEW** efficiency

Windows Licensing for VDI

QUICK REFERENCE GUIDE

Please contact your Microsoft Sales Specialist for more details or to discuss your company's specific scenarios and needs.

Because it's everybody's  business

The following licensing scenarios are provided to help you understand how best to license Windows for your Virtual Desktop Infrastructure (VDI) environment beyond July 1st, 2010.

SCENARIO 1: STANDARD USERS

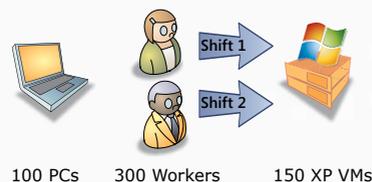
My company has 100 PCs and 100 users that access Windows® client Operating System (OS) ("Windows Client OS" implies one of the following operating systems: Windows XP, Windows Vista®, Windows 7) running on virtual machines (VMs) using VDI. However, only 50 VMs are running at any one time.



License: If the PCs are covered under Software Assurance (SA), then no additional licensing is required, as Software Assurance contains rights to Windows VDI desktops.

SCENARIO 2: SHIFT WORKERS

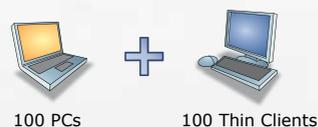
My company has 100 PCs with 300 workers accessing these PCs in shifts. At any time, 150 Windows client OS VMs are being accessed using VDI.



License: If the PCs are covered under Software Assurance, then no additional licensing is required, as Software Assurance contains rights to Windows VDI desktops.

SCENARIO 3: MIXED DESKTOP HARDWARE

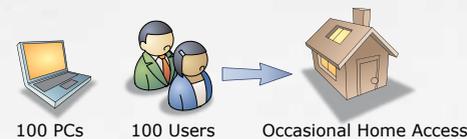
My company has 100 PCs under SA and 100 thin clients (running a minimal OS such as Windows FLP or Windows Embedded for purposes of accessing a VDI). We have 100 Windows client VMs.



License: For the 100 PCs covered under SA, no additional licensing is required. Each of the 100 thin clients would need a Windows Virtual Desktop Access (VDA) license, and hence a total of 100 Windows VDA licenses are required.

SCENARIO 4: STANDARD USERS – HOME USE

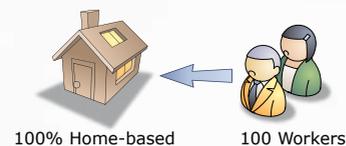
My company has 100 employees who are the primary users of 100 thin clients covered under Windows VDA. These employees occasionally work from home and access the corporate VMs via VDI.



License: Windows VDA licenses extend roaming rights for the primary ("named") user of a company-owned device covered under Windows VDA, and hence no additional licenses for home PCs are required in this scenario.

SCENARIO 5: 100% HOME USERS

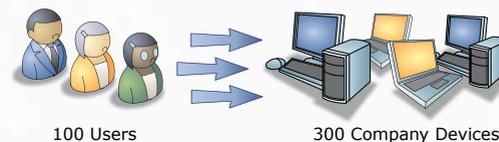
My company has 100 workers who work from home and access Windows client VMs via VDI from their home PCs.



License: The employee-owned PCs will have to be licensed with Windows VDA, and hence 100 Windows VDA licenses are required.

SCENARIO 6: ROAMING USERS

I have 300 thin clients throughout my company and only 100 users who roam from station to station.



License: Windows VDA is a device-based license so 300 thin clients must be licensed with Windows VDA. If the devices are PCs covered with SA, then no additional licensing is required.

SCENARIO 7: CONTRACTOR-OWNED PCS

My company has 100 contractors who are working for six months, and we will engage 100 different contractors the other six months of the year.



License: Assuming each contractor accesses the environment with one unique device, 100 Windows VDA licenses are required for the contractors to access the VDI environment. You can transfer the Windows VDA licenses to the second set of contractors after a period of 90 days of first assignment.

Windows VDA at a Glance

What is the license name?	Windows Virtual Desktop Access (Windows VDA)
What is the scenario?	Access to a virtual copy of Windows client OS (Windows 7, Windows Vista, Windows XP) in the datacenter
What devices can be covered?	Thin clients, non corporate PCs, devices that do not qualify for Windows Client SA
Is Microsoft Software Assurance a prerequisite?	No
What is the retail price?	\$100/year/device
Are there Software Assurance benefits?	Yes
What is the license type?	Annual subscription
What is the licensing unit?	Per accessing device

Additional License Information

Microsoft® Office Volume Licensing or Software Assurance is required for Microsoft Office use in the VDI scenario. Standard Windows Server® and Client Access Licenses (CAL) also apply. Check with your Microsoft Sales Specialist for more details.

Additional Resources

- For more information about Microsoft VDA, please visit: <http://www.microsoft.com/vdi>
- For more information about Microsoft Virtualization, please visit: <http://www.microsoft.com/virtualization>
- For more information about Microsoft System Center, please visit: <http://www.microsoft.com/systemcenter>
- For more information about Windows Server 2008 R2, please visit: <http://www.microsoft.com/windowsserver2008>
- For more information about Remote Desktop Services, please visit: <http://www.microsoft.com/rds>

Microsoft

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Desktop Virtualization from Microsoft

Desktop Virtualization is a set of technologies focused on optimizing desktop operations. It helps IT tune the desktop environment to better fit the different end users needs by separating desktop resources from each other.

Microsoft provides a comprehensive set of desktop virtualization solutions to help in optimizing the desktop infrastructure. Microsoft recommends that customers begin their desktop virtualization project by virtualizing applications and the user state. These technologies can help decrease the desktop TCO by reducing operational costs and standardizing the desktop environment. Once a strong foundation has been laid, Microsoft recommends that customers evaluate the desktop virtualization technologies at the OS layer. These technologies can help increase business flexibility by introducing new deployment options.

Virtual Desktop Infrastructure (VDI) enables organizations to deploy Windows-based desktops in the datacenter, and enables remote access to these desktops from any authorized device, including thin clients. Not only does this enable anywhere access to connected devices, but it also improves business continuity and centralizes management of desktops. VDI can also help customers improve their compliance to strict industry regulations by securing desktops behind the datacenter. Due to these benefits, VDI is an ideal solution for scenarios that place a premium on security and management, providing managed desktops to third party/contractor PCs or employee-owned PCs, or providing centralized desktops to remote offices/branch offices.

	Data & User Settings	Enable user's data to follow them across devices
	Applications	Deliver applications on demand to users
	Operating System	Deploy a single OS image across PCs, laptops, and VDI

The Microsoft VDI Suites

The Microsoft Virtual Desktop Infrastructure Suites (Microsoft VDI Suites) enable customers to centralize their desktops using comprehensive VDI infrastructure and management software from Microsoft. The new Microsoft VDI Suites simplify licensing, and provide better value than competing VDI technologies, making them an excellent value compared to competitive offerings. The VDI Suites are licensed per end point device, and hence are independent of the volume of server and management infrastructure.

End point devices that do not qualify for Software Assurance (such as thin clients) may also need additional Windows Virtual Desktop Access (VDA) licensing.

Together, the Microsoft VDI Suites and Windows VDA provide a simple, device-based licensing model for your VDI environment.

There are two suites on offer from Microsoft for VDI:

- Microsoft VDI Standard Suite includes technologies such as:
 - Microsoft Hyper-V™ Server 2008 R2: A reliable, scalable, and high performance hypervisor.
 - Microsoft System Center Virtual Machine Manager (SCVMM), System Center Operations Manager (SCOM), and System Center Configuration Manager (SCCM): Familiar Windows-based tools to streamline management of your VDI infrastructure.
 - Microsoft Desktop Optimization Pack (MDOP): Market-leading application virtualization technology to enable dynamic application delivery, along with other desktop virtualization and management technologies.
 - Windows Server Remote Desktop Services (RDS): Basic infrastructure and connection brokering capabilities to deliver static or pooled virtual desktops to users.
- Microsoft VDI Premium Suite includes all the technology within the Standard Suite, and additionally provides:
 - Full Remote Desktop Services functionality to enable both session-based and VM-based desktops through the same set of tools, thereby providing additional deployment flexibility.
 - Microsoft Application Virtualization for RDS: To help remove the silos around session-based application delivery.

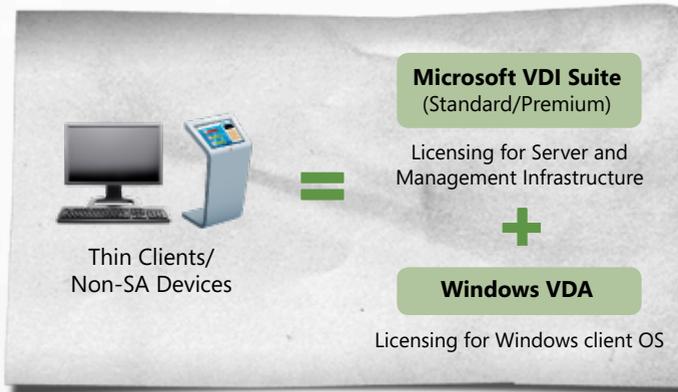
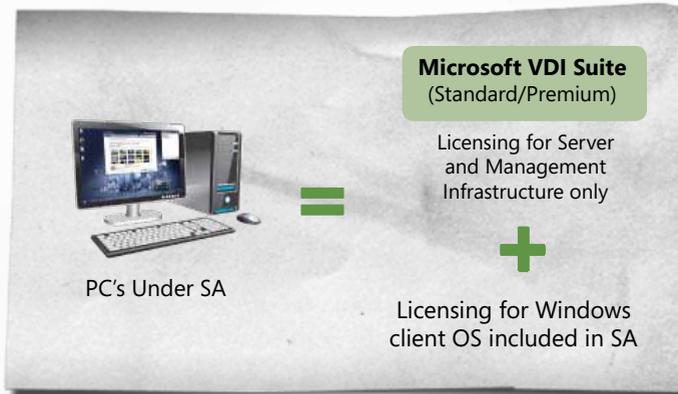
In addition to our VDI technology, Microsoft has extended its partnerships with ISVs such as Citrix® to enable enterprise grade performance and scalability for Microsoft VDI environments. For example, Citrix XenDesktop adds value to the Microsoft platform by providing single image management, storage optimization, and a rich remote user experience across multiple types of network and device configurations.

Licensing Windows for VDI

Microsoft has announced changes to its licensing model for Windows-based desktops in a VDI environment, which will come into effect on July 1st, 2010. The older Windows VECD and Windows VECD for SA licenses will be discontinued, and will no longer be available on the pricelist. Please contact your local Microsoft representative to understand details around how this impacts your current agreement with Microsoft.

Customers that intend to use Windows PCs already covered under Software Assurance as the access device to their VDI environment can now do so at no additional cost. Windows Client SA now allows organizations the right to deploy Windows in the datacenter, thereby increasing the value of their SA subscription.

Customers that intend to use devices that do not qualify for SA (such as thin clients or third party devices) will need to license those devices with Windows Virtual Desktop Access.



Windows VDA is a device-based subscription that currently retails for \$100/device/year. Since Windows VDA is licensed per accessing device, it is independent of number of desktop VMs in the datacenter, allowing access to up to 4 VMs concurrently. Each Windows VDA license also includes extended roaming rights, which allow the primary user of a Windows VDA device at work to access their personal VDI desktop from any device not owned or controlled by their corporation, thereby allowing them to roam between devices outside of the corporate firewall.

NOTE: Windows VDA is required for ALL VDI implementations that use a non-SA device to access a Windows VDI desktop, irrespective of the VDI infrastructure vendor.

The Value of Windows VDA and Software Assurance Virtual Desktop Rights

Licensing Windows through SA or Windows VDA provides inherent benefits over traditional Windows licenses such as OEM and FPP, since they were not designed for the VDI scenario. These subscriptions have been designed to provide the licensing flexibility you need for your VDI environment, and include the following features:

Right / Feature	Details	Windows VDA	OEM / FPP Licenses
Access a Windows Client OS running in the datacenter	Install Windows on any combination of server hardware and storage	✓	✗
Business Continuity	Unlimited motion between server hardware and storage	✓	✗
Access multiple VMs from a single device	Up to four running VM instances per device	✓	✗
Extended roaming rights	Primary user of a VDA or SA device can access VDI desktop from any device outside the corporate firewall	✓	✗
Use any version of Windows	Upgrade/downgrade rights for Windows included	✓	✗
Access to MDOP for < \$10/yr per desktop	MDOP helps reduce desktop TCO and streamlines management	✓	✗
Easy license management	Use KMS / MAK keys to dynamically activate your Windows VMs	✓	✗
Access to Windows 7 Enterprise	Improved user experience and enterprise features	✓	✗
Comprehensive Maintenance Program	24x7 support, downgrade to XP, Win2K, extended hotfix, etc, training	✓	✗
Unlimited backup	Unlimited, not running instances	✓	✗

How to Get Windows VDA Benefits Today?

Contact your local Microsoft representative to learn how to avail of Windows VDA and Windows Client software Assurance benefits today.