



Desktop and Application Virtualization for the 21st Century

IF THERE EVER WAS A TIME FOR SYSTEMS MANAGEMENT TRANSFORMATION, THAT TIME IS NOW. For more than 20 years, IT organizations have wrestled with the tightly coupled Windows operating system and its applications, having no choice but to deliver them as a whole or not at all. Managing the PC lifecycle requires expensive and difficult-to-use tools, and costly upgrades are required every few years, if only for Microsoft's continued support and to maintain compliance with licensing requirements.

Technology providers' initial attempt to improve systems management through application and desktop virtualization fell short. Cost, complexity and a less-than-optimal user experience hindered adoption. In the meantime, cloud, mobility and multiplatform environments have become the norm, rendering the traditional PC-centric approach to systems management unsustainable. Luckily, application and desktop virtualization solution providers have not been idle. New advances in VDI address the technologies' former challenges and stand to transform systems management for the 21st century.

Former Limitations of Application and Desktop Virtualization

By removing the desktop operating system and applications from the endpoint, disaggregating them and delivering them to the end user device from the data center, application and desktop virtualization offer the promise of improved security. But for early adopters, improved security came at a price—a steep price. The need for a complex, high-performance storage infrastructure and compute infrastructure drove up the cost of virtual desktop and application virtualization solutions. Only organizations that prioritized mobility or security over cost could justify paying a premium for virtual desktop infrastructure. Others would have to create sophisticated financial models to demonstrate how operational savings over a three-to-five-year period would offset costs. If they did get past the cost, there was then the issue of a poor user experience. In the end, the higher acquisition costs just didn't make sense for many organizations.





Today's VDI Solutions

Current VDI solutions directly overcome the cost, complexity and end user experience issues of virtual application and desktop virtualization technologies, driving many IT organizations to revisit them. Specifically, these solutions now

- ▶ Support not just task workers but knowledge and power users too. Good VDI solutions have support for rich multimedia graphics; support a wide range of clients, ranging from low-cost thin clients to Chromebooks, to iPads and tablets; and enable users to get a customized and highly personalized desktop experience across connections and locations.
- ▶ Leverage advancements in storage, ranging from all-flash storage to fully converged appliances to drive down the cost of supporting end users while ensuring that they have more input/output operations per second (IOPS) than they could ever possibly use.
- ▶ Include improved management and automation capabilities that enable IT to patch, update and manage images and applications more efficiently and with fewer resources.



Introduction to VMware® Horizon®

At VMware, we understand the need to better manage today's IT environments and the promise of application and desktop virtualization to be able to do that. But we also recognize that

the old solutions are ineffective if enterprises lack the resources to procure and operate them. VMware Horizon was designed to not only address the disadvantages of former application and desktop virtualization technologies but also transform systems management.

Horizon provides customers with a single platform to extend the power of virtualization from the data center to devices. VMware helps customers in the end user computing space looking to deliver virtual desktops and hosted apps drive down costs, streamline management and deliver a great user experience.

End users benefit from increased productivity and a seamless experience that eliminates the need to consider how an application launches—there's one unified workspace that offers access to all their apps.

Horizon tightly integrates with VMware Virtual SAN™ to enable customers to cluster low-cost local storage to improve performance and drive down costs. Tight integration with VMware vSphere® also enables Horizon customers to leverage the same management platform in the VMware vRealize™ Suite to manage pools of desktops and applications. This integration also enables

customers to enjoy great 3-D capabilities with NVIDIA GRID vGPU. Customers can cost-effectively leverage shared high-end graphics capabilities to deliver great performance to end users accessing video and creating content across their organizations.

VMware additionally provides end-to-end management to simplify and streamline how desktops and applications can be set up, delivered and managed on a day-to-day basis. With comprehensive application and image management capabilities, Horizon enables customers to easily isolate applications to avoid application compatibility issues; deliver these applications in seconds to end users as they log in; present these applications to users through a single unified workspace; monitor these applications and proactively remediate them in the event that they are running slowly; and patch, update and back up all the applications and images. Only VMware provides these end-to-end application and image management capabilities.

Horizon is also worth considering for IT organizations that are at a crossroads with their current solutions. Between the end of availability of Microsoft Server 2003 and the end of maintenance of Citrix XenApp¹ 5.0, enterprises running Citrix solutions have some decisions to make. With the most recent release of Horizon, which now includes support for not only virtual desktops but application publishing and shared desktops that integrate with Microsoft Remote Desktop Session Host (RDSH) technology, companies can now standardize with VMware on a single platform for desktops as well as apps. For many customers, the upgrade to the latest version of Citrix's technology may seem daunting, which makes this a perfect time to look at other options. Additionally, VMware's Safe Passage program includes tools and services that make the migration path from Citrix XenApp to VMware Horizon as easy as possible.

The consolidation of application and desktop delivery in VMware Horizon brings additional benefits. With both technologies tightly integrated into a single stack, enterprises see a noticeable cost savings and lower total cost of ownership. Part of that is due to the operational benefits of managing one solution rather than two.

Today's IT organizations simply cannot afford to continue to manage the end user environment with an out-of-date PC-centric approach to systems management. The cloud, mobility and multiplatform environments render that approach ineffective. It's time to take another look at virtual application and desktop virtualization technologies. It's time to look at VMware Horizon, the most complete solution for delivering, managing and protecting Windows desktops, applications and online services across devices, locations, media and connections, making it ideal for systems management transformation.

To learn more about VMware Horizon and the Safe Passage program, please visit www.vmware.com/desktop.

¹ XenApp is a registered trademark owned by Citrix Systems, Inc.