

Rethink the traditional PC refresh strategy

Repurpose your PC refresh budget to deliver desktop virtualization.

Now more than ever, tightening of corporate budgets is forcing IT to weigh the value of business-critical projects against the cost of routine operational activities such as the annual PC refresh process. The traditional approach of replacing an aging PC with a new physical device every three years is expensive and time-consuming, and calls for rethinking this strategy. Repurposing an aging PC as a locked-down thin client or simply replacing it with a new, low-cost thin-client device are proven approaches for reducing expenses and streamlining desktop management. When the cost and operational benefits of thin-client computing are paired with innovative desktop virtualization technology, organizations can deliver a desktop solution that modernizes the workforce and enhances user productivity.



A number of business drivers are reinvigorating the trend of virtualizing desktops with thin-client computing:

- Demand to redirect large PC refresh budgets to fund more-innovative IT initiatives
- Requirement to migrate off Windows XP before Microsoft ends support
- Desire to streamline and simplify device, desktop and app management
- Need to quickly accommodate for rapid workforce growth from acquisitions or mergers

KIBAG

KIBAG, a leading Swiss building materials and construction company, was looking to migrate from Windows XP to Windows 7 across 1,600 employees and wanted to streamline administrative efforts, expedite delivery and reduce costs. Instead of purchasing costly mobile devices running Windows 7, KIBAG selected NComputing N500 SoC devices and implemented XenDesktop to deliver Windows 7 virtual desktops to these endpoints, providing secure mobile access from anywhere while keeping critical data secured and centrally stored.

Rethinking the PC refresh budget – Almost every organization allocates a portion of its annual IT budget for the routine PC refresh process that replaces outdated PC hardware with a newer model. Given the average PC life expectancy of around three years, IT is repeatedly forced to spend a large amount of time and money on procuring, imaging and delivering new PCs to a portion of the workforce. Enterprises recognize that extending the life of older PCs beyond the recommended three years may result in short-term savings, but in the long term, the costs of supporting and managing older hardware significantly outweigh these savings.

Many CIOs consider using the PC refresh budget to deliver a desktop virtualization solution that improves operational efficiencies, streamlines app and desktop management and enables employees to securely access sensitive corporate resources on a virtual desktop from a variety of devices, including low-cost thin clients. By investing in desktop virtualization instead of perpetuating the PC refresh cycle, CIOs can reap cost savings for years to come.

Migrating the desktop operating system – The looming end of life for Windows XP has become an imminent obstacle for any enterprise. As CIOs and IT administrators evaluated their options for migrating their workforce off Windows XP, many forward-thinking leaders took this opportunity to evaluate their entire desktop and application delivery strategy. They quickly recognized that migrating to a virtual desktop solution would dramatically simplify their current and future desktop operating system migration efforts, while enabling their workforce to become more flexible.

Streamlining device, desktop and app management – By combining thin-client computing with desktop virtualization, IT administrators can dramatically simplify operational and management efforts. With desktop virtualization, a single desktop image can be rapidly deployed to hundreds of employees in a matter of minutes. Central image management and rapid provisioning functionality provided by app and desktop virtualization consolidate and streamline laborious tasks such as pushing app updates, patching operating systems and executing regression testing, making it easy to distribute updates to the entire workforce.

Repurposing PCs as thin clients or introducing new thin-client devices brings additional management benefits. Repurposing an aging PC as a thin client can extend the lifespan of the hardware investment without forcing IT to support an outdated operating system. Thin-client devices have fewer moving parts, making a failure less likely while increasing the lifespan of the device far beyond the typical three years of a PC. In addition, thin clients typically do not store any data locally, dramatically reducing the risk of viruses and simplifying corporate security processes. Most importantly, either of these options is a simple transition from managing distributed PCs.

Accommodating a growing workforce – As the number of employees grows, so do the associated costs and efforts to deliver devices, desktops and apps to each user. Combining the operational benefits of thin-client computing with the deployment benefits of an app and desktop virtualization solution eases the typical strains associated with supporting a larger user population. While there are various virtual desktop deployment options including VDI, selecting cost-effective, server-based desktop virtualization solutions can support up to 200 users per physical server, making it easy to rapidly expand to meet the demands of a new acquisition or merger.

Citrix desktop virtualization with thin-client computing

Citrix has partnered with strategic thin-client vendors to certify select high-performance thin clients as part of a complete and highly cost-effective Citrix XenDesktop desktop virtualization solution. Through the Citrix Ready program, Citrix works with device manufacturers to certify that their thin-client computing solutions are compatible with XenDesktop desktop and application virtualization technology by granting these devices the Citrix Ready certification. This process also ensures that Citrix Ready thin clients integrate with Citrix HDX technology to deliver a high-definition user experience.

In this solution based on XenDesktop, a PC repurposed as a thin client or an actual thin-client device is used as the endpoint for accessing either a server-based virtual desktop or a VDI desktop hosted in the datacenter. The virtual desktop can be accessed on a wide variety of thin-client devices as well as tablets and smartphones, making the solution even more versatile.

University of Texas Media Branch (UTMB)

As a regional healthcare provider whose patients include low-income and uninsured residents, UTMB must control expenses. The organization determined that replacing traditional, distributed PCs with a desktop virtualization solution comprised of XenDesktop and WYSE thin clients would dramatically cut costs. "We started looking at thin clients to lower support costs and hardware maintenance, as well as extend the useful life of the devices. PCs have more hardware and software issues than thin clients. Thin clients just work." said Landon Winburn, software systems specialist at UTMB.

Key benefits

- XenDesktop can scale to support a large number of users on a single physical server, making it an easy-to-manage, cost-effective desktop virtualization solution.
- The [Citrix Ready program pre-certifies a list of devices](#) to make it quick and easy to find solutions recommended by Citrix and are trusted to enhance the overall XenDesktop solution.
- Repurposed PCs and thin clients can deliver the same high-performance user experience of devices costing much more.
- The complete solution that includes XenDesktop and thin clients can reduce power consumption and simplify desktop management, freeing up budget and time for other IT initiatives.
- The XenDesktop app and desktop virtualization solution can enable secure access to mission-critical resources on a range of devices including thin clients, smartphones and tablets.

The Citrix solution

The Citrix solution for delivering a low-cost, high-performance virtual desktop experience is built on XenDesktop and other Citrix technologies: Citrix Receiver, Citrix NetScaler Gateway and Citrix StoreFront.

XenDesktop

XenDesktop is an industry-proven, flexible application and desktop virtualization platform that delivers the best possible user experience for any type of device, even in the most challenging network conditions. Based on cloud-ready architecture, XenDesktop delivers any Microsoft Windows application or desktop running in a private or public datacenter for on-demand access. Desktop virtualization with XenDesktop can leverage Remote Desktop Shared Hosted (RDSH) technology to enable multiple users to connect to a single server with access to an isolated instance of a Windows Server desktop, as well as a full range of VDI virtual desktop options that are enhanced for centralized desktop image management while providing a highly personalized user experience.

Citrix Receiver

Citrix Receiver is an universal thin client that runs on virtually any device operating platform, including Windows, Mac, Linux, iOS and Android. This is the one client you need to access the Windows virtual desktop from any device, whether you are looking for a method of supporting thin clients and mobile devices or deploying a flexible workstyle initiative. The Citrix Receiver client can be downloaded and installed easily by the user. After that, it manages itself, downloading any additional components it needs based on the services offered to the user.

Avianca

To maintain business growth, lower the costs of maintaining 1,200 full-powered PCs, extend the useful life of the hardware and centralize application administration, Avianca, the top airline of South America, took a strategic approach. The company consolidated desktops and servers using XenDesktop virtualization technology and implemented HP thin clients. As a result, the monthly maintenance cost for a PC dropped from \$20 to \$6.

NetScaler Gateway

NetScaler Gateway is a secure application, desktop and data access solution that gives administrators granular application-, desktop- and data-level control while empowering users with remote access from anywhere. IT administrators gain a single point of management for controlling access and limiting actions within sessions based on user identity and endpoint device. The results are better application security, data protection and compliance management.

StoreFront

StoreFront provides self-service subscription to applications and desktops via an enterprise application store, giving employees convenient access to all the applications they need. Also, these applications follow them on all the devices they use for a consistent interface and enhanced experience.

HDX technology

Citrix has been perfecting HDX high-definition user experience technologies over the last 15 years to provide a like-local-PC experience whether users are plugging in a USB device, printing off the network or rendering video.

- Multiple WAN optimization technologies improve user density over the network, increase server scalability in the datacenter and lower bandwidth requirements for rich video, real-time audio and graphics-intensive applications.
- Multiple compression technologies optimize application performance.
- Quality of service (QoS) controls enable IT to fine-tune traffic types and priority levels over dedicated virtual channels for smooth application delivery.

Citrix is the recognized leader in desktop virtualization

Both Gartner and IDC have named Citrix a leader in app and desktop virtualization based on their findings that Citrix is the only vendor with an array of technologies focused on solving the broadest range of use cases, rather than simply providing a one-size-fits-all product.

Conclusion

Dramatic advances in Citrix technology are making virtual desktops easier to deploy, simpler to manage and, in many cases, more cost-effective than distributed PCs. Citrix app and desktop virtualization paired with thin-client computing is a proven solution for reducing IT costs and enabling IT to respond more nimbly to the increasing pressures of a growing workforce. The Citrix solution is mature and recognized industry wide by analysts, thin-client vendors and, most importantly, businesses as the most robust and cost-effective option for delivering app and desktop virtualization by repurposing the PC refresh budget.

For more technical information, please reference the Key Project Design Guide for Hosted-Shared Desktops¹ and Key Project Design Guide for Pooled VDI with Personal vDisk.²

Notes

¹ Key Project Design Guide for Hosted-Shared Desktops available end of October 2013.

² Key Project Design Guide for Pooled VDI with Personal vDisk available end of October 2013.

Citrix Partner

Virtuelle Group Pty Ltd
<http://www.virtuellegroup.com.au>
neljiz@virtuellegroup.com.au
61280903626



Corporate Headquarters
Fort Lauderdale, FL, USA

Silicon Valley Headquarters
Santa Clara, CA, USA

EMEA Headquarters
Schaffhausen, Switzerland

India Development Center
Bangalore, India

Online Division Headquarters
Santa Barbara, CA, USA

Pacific Headquarters
Hong Kong, China

Latin America Headquarters
Coral Gables, FL, USA

UK Development Center
Chalfont, United Kingdom

About Citrix

Citrix (NASDAQ:CTXS) is the cloud company that enables mobile workstyles—empowering people to work and collaborate from anywhere, easily and securely. With market-leading solutions for mobility, desktop virtualization, cloud networking, cloud platforms, collaboration and data sharing, Citrix helps organizations achieve the speed and agility necessary to succeed in a mobile and dynamic world. Citrix products are in use at more than 260,000 organizations and by over 100 million users globally. Annual revenue in 2012 was \$2.59 billion. Learn more at www.citrix.com.

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