Rethink the Traditional PC Refresh Strategy

Repurpose your PC refresh budget to deliver virtual apps and desktops
With challenging business priorities, corporate budget restructuring is forcing IT to weigh the value of business-critical projects against the cost of 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. Repurposing an existing PC as a hardened thin client or simply replacing it with a new, low-cost thin client-like 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 virtual apps and desktops technology from Citrix, organizations can deliver a desktop solution that modernizes the workforce and enhances user productivity.

Key business drivers are reinvigorating the trend of virtualizing applications and desktops with cost-effective computing:

- Demand to redirect large PC refresh budgets to fund more-innovative IT initiatives
- The move to the cloud has enabled organizations to give access to applications and desktops from less traditional devices
- Desire to streamline and simplify device, desktop and app management
- Need to quickly accommodate for rapid workforce growth from business continuity to acquisitions & mergers

Rethinking the PC refresh – Almost every organization allocates a portion of its annual technology budget for the routine PC refresh process that replaces outdated end user hardware with newer models. Given the average PC life expectancy of around three years, IT is stuck in a never-ending loop investing time, money, and resources on procuring, imaging and delivering new PCs to the workforce. At scale, this can become a near-continuous process, with the largest firms having entire departments dedicated to these efforts. Organizations that experiment with extend the life of PCs beyond a three to four year lifecycle may see short-
term savings, but the long-term costs of supporting and managing older hardware overshadow these benefits.

Forward thinking CIOs consider using their 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. These solutions can be accessed from a variety of devices, including low-cost thin clients or repurposed PC hardware. By investing in desktop virtualization instead of perpetuating the PC refresh cycle, organizations can repurpose those cost savings for years to come.

**Migrating the desktop operating system** – As CIOs and IT administrators evaluated their options for migrating their workforce off Windows 7, many forward-thinking leaders took this opportunity to evaluate their entire desktop and application delivery strategy. They quickly recognized that centralizing the management of user-facing apps, and migrating to a virtual apps and 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 incorporating new endpoint devices such as tablets, Chromebooks and thin clients with virtual apps and desktops, IT administrators can dramatically simplify operational and management efforts. With app and desktop virtualization, a single master image can be hosted in the datacenter or public cloud, 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 older PCs as endpoints or introducing new mobile and 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. Dedicated 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, these clients typically do not store any data locally, dramatically reducing the risk of data theft and enhancing corporate security. Most importantly, these options enable a simple transition from managing distributed PCs.

**Accommodating your changing workforce** – As your seasonal or temporary workforce grows to manage a busy season, so do the costs and efforts to deliver devices, desktops and apps to each user. Combining the operational benefits of cost-effective computing with the deployment benefits of app and desktop virtualization eases the typical strains associated with supporting a rapidly scaling user population. Incorporating public clouds into your app and desktop virtualization solution makes it easier to grow without the capital expense, making it cost effective and easy to rapidly expand to meet your business demands. Even mergers and acquisitions benefit, allowing IT to leapfrog traditional steps in joining two organizations together. Virtual app and desktop delivery can also help organizations adapt to any business continuity or disaster recovery situations such as a weather event, work from home...
mandates, or public emergencies. Virtualization enables your business to rapidly scale up as needed to meet the challenge, then scale down when the capacity isn’t needed, allowing IT to lead the business in managing uncertain situations.

**Thin client device and other endpoints**

Citrix has partnered with strategic endpoint device manufacturers to certify high-performance endpoint devices as part of a complete and highly cost-effective Citrix virtual app and desktop solution. Through a robust certification program, Citrix works with device manufacturers to ensure their computing solutions are compatible with Citrix virtual apps and desktops technology and grants these devices Citrix Ready certification. This process also ensures that Citrix Ready endpoints integrate with Citrix HDX technology to deliver a high-definition multimedia user experience, suitable for today’s most demanding unified communication or design and engineering applications.

In this solution based on Citrix Virtual Apps and Desktops, a PC repurposed as an endpoint or an actual thin client device is used to access a virtual app or desktop hosted in the datacenter or in the cloud. A wide variety of reduced-cost, reduced-maintenance endpoint devices are compatible, including thin clients as well as tablets and Chromebooks, making the solution even more versatile.

Key benefits:

- Citrix Virtual Apps and Desktops can scale to support many 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 access and enhance the Citrix Virtual Apps and Desktops solution.
- Repurposed PCs and thin clients accessing Citrix Virtual Apps and Desktops can deliver the same high-performance user experience your workforce demands.
- The complete solution that includes Citrix Virtual Apps and Desktops and thin clients can reduce power consumption, slash maintenance costs, and dramatically simplify desktop management, freeing up budget and time for other IT initiatives.
- The Citrix Virtual Apps and Desktops solution can enable secure access to mission-critical resources on a range of devices including thin clients, Chromebooks and tablets.

**Choosing Citrix**

The Citrix solution for delivering a low-cost, high-performance virtual desktop experience is built around Citrix Virtual Apps and Desktops HDX technology, providing an interactive, high definition user experience regardless of endpoint. Citrix offers several key technologies to provide a great solution. Let’s take a closer look at the components that makes Citrix the best solution for your organization:
Citrix Virtual Apps and Desktops

Citrix Virtual Apps and Desktops is an industry-proven, flexible application and desktop virtualization platform that delivers the best user experience for any type of device, even in the most challenging network conditions. Based on a hybrid, cloud ready architecture, Citrix Virtual Apps and Desktops manages the delivery of any virtual application or desktop running in a public cloud or on-prem datacenter from one management console. Citrix Virtual Apps and Desktops can leverage Remote Desktop Shared Hosted (RDSH) technology as well as the Microsoft Windows Virtual Desktop platform in Azure to enable multiple users to connect to a single server with access to an isolated instance of a Windows desktop, as well as a full range of VDI virtual desktop and application options including Linux while providing a highly personalized user experience. Robust management tools for IT allow a handful of master images to support hundreds or even tens-of-thousands of users.

Citrix Workspace App

Citrix Workspace app (formerly Citrix Receiver) gives users instant access to their SaaS and web apps, their files and mobile apps, and their virtual apps and desktops from an easy-to-use, interface. Compatible with Windows, iOS, Chrome, Linux, html browser and many other platforms, Citrix Workspace app is a single point of entry to all your business needs. Users get seamless and secure access to all the apps and data they need to stay productive, with features such as embedded browsing and single sign-on. Flexible policy control gives IT full management of corporate data, with dynamic control over user capabilities. Citrix Workspace app is also enhanced to deliver additional capabilities regarding data loss prevention, secure access to SaaS apps, secure internet browsing capabilities, advanced search, and more.

Citrix Gateway

Citrix Gateway (formerly 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.

Workspace

Citrix Workspace (formerly StoreFront) is the starting point for user access, providing authentication services and managing stores of desktops and applications that users connect to. It can host your enterprise application store, which gives users self-service access to the desktops and applications provided by IT. It also keeps track of users’ application subscriptions, shortcut names, and other data. This helps ensure that users have a consistent experience across multiple devices.
**HDX technology**

Citrix HDX delivers a high-definition experience to users of centralized applications and desktops, on any device and over any network giving your users a rich experience equal to or in some cases better than their traditional desktop or laptop performance. HDX is designed around leveraging the device, network and data center in order to deliver the best experience for the user:

**At the device** - HDX uses the computing capacity of user devices to enhance and optimize the user experience. HDX technology ensures that users receive a smooth, seamless experience with multimedia content in their virtual desktops or applications. Workspace control enables users to pause virtual desktops and applications and resume working from a different device at the point where they left off.

**On the network** - HDX incorporates advanced optimization and acceleration capabilities to deliver the best performance over any network, including low-bandwidth and high-latency WAN connections. HDX features adapt to changes in the environment. The features balance performance and bandwidth. They apply the best technologies for each user scenario, whether the desktop or application is accessed locally on the corporate network or remotely from outside the corporate firewall.

**In the data center** - HDX uses the processing power and scalability of servers to deliver advanced graphical performance, regardless of the client device capabilities. HDX channel monitoring provided by Citrix Director (part of the management console) displays the status of connected HDX channels on user devices.

**Conclusion**

Advances in Citrix technology are making virtual apps and desktops easier to deploy, simpler to manage and, in many cases, more cost-effective than distributed PCs. Citrix Virtual Apps and Desktops paired with thin-client style computing is a proven solution for reducing IT costs and enabling IT to respond more nimbly to the increasing pressures of a growing workforce. For more information on Citrix Virtual Apps and Desktops solutions, visit our website at [Citrix.com](http://Citrix.com).

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