Deliver a seamless user experience for Windows apps on Chromebooks

Citrix XenApp® powers Chromebooks™ with business-critical apps to simplify your adoption of the Chrome OS™ computing platform.

CİTRİX®

Chromebooks allow IT to escape the high cost of traditional PC buying cycles by capitalizing on employee desire for simple application access from sleek form factors. The widespread adoption of Chromebooks for business use has brought key challenges to light, however. While the Chrome OS computing platform is ideal for accessing Google Apps™, SaaS and other cloud-based services, Microsoft® Windows® applications continue to play an essential role in most organizations. IT needs to give people a way to access these applications within the Chrome environment—without sacrificing its seamless simplicity.

Citrix and Google work together to help organizations simplify access to business-critical Windows applications on Chromebooks. With Citrix XenApp, the market-leading application virtualization solution, people can launch centrally hosted Windows applications alongside other cloud services within the same Chrome environment. In this way, they can enjoy all the benefits of a fast, lightweight, web-based notebook computer for personal use, and still have easy, secure access to business applications, desktops and data at any time.

These user benefits are complemented by increased simplicity for IT, which can leverage the cost and manageability benefits of Chromebooks without having to migrate business-critical applications to the cloud. This modern approach to app delivery enables people to be productive from anywhere, on any device.

The rise of a new business computing platform
Chromebook adoption has surged among organizations of all kinds. According to IDC, "By 2018, a quarter of all Fortune 500 companies will have IT-supported Chromebooks deployed within their organization."[1] The continued acceptance of Chrome devices has been driven by both IT and user considerations.

For IT, the traditional PC refresh cycle can be a constant source of pain. Replacing full-featured desktops and laptops every 3 – 5 years is a costly and labor-intensive project, diverting resources from more strategic work without delivering any real innovation to the user. By moving to the browser-based Chrome OS, organizations can modernize their approach to user computing while reducing costs by eliminating the need for frequent hardware refresh or operating system migrations.

[1] IDC FutureScape: Worldwide Phone, Tablet, PC, and Connected Client 2016 Predictions.

More broadly, the popularity of Chromebooks reflects a new way of thinking for IT, in which organizations look beyond traditional models and sources for service delivery to support productivity in the way that best fits peoples' needs. This can include choosing best-of-breed solutions of any type, whether on-premises, web or SaaS, as well as empowering people on a broader range of devices.

The needs and expectations of employees are evolving as well. People now want to be able to work from anywhere, using any device that suits their needs—especially with convenient, lightweight devices like Chromebooks and tablets. Mobility is often more important than access to a complete Windows desktop. What matters most to people is the ability to access the applications they need quickly, wherever they work, so they can become fully productive. To accommodate this desire for choice and flexibility, many organizations have introduced bring-your-own-device (BYOD) initiatives, allowing people to bring a variety of new platforms into the enterprise. This underscores the need for a new approach to providing users with the resources and services they need.

The move from a Windows-based computing environment to the Chrome OS platform offers transformative benefits for both IT and users—but it can also present a new challenge. Even with mobile, web and SaaS apps now in common use, the majority of business applications still run on Windows. IT needs a way to provide people with continued access to these applications from their new Chromebooks—without sacrificing the seamless simplicity and productivity of the Chrome OS platform.

Chrome and XenApp redefine Windows computing
Citrix and Google have been working together since the introduction of Chromebooks to more easily deliver business apps to the Chrome OS platform. XenApp enables customers to deliver all types of Windows apps to Chromebooks without first having to migrate them to the cloud, and without the need for users to launch a full Windows desktop. Windows applications appear in the same type of Chrome tab as any cloud-based service, such as Google Apps, SaaS or web apps, and can be accessed in a single step with a like-local user experience. With millions of Windows applications already hosted on XenApp, this capability further accelerates the adoption of Chromebooks for business.

Simplify device support
The Chromebook support model is highly appealing for IT. Compared with complex, full-featured desktop and laptop computers, the Chromebook is a simple device optimized to run the Chrome OS and access services remotely in a browser-like experience. With apps executed in the datacenter rather than locally, Chromebooks have fewer moving parts, fewer points of failure and much lower maintenance needs. IT can also choose to have the entire device lifecycle managed by Google as a service. Devices can be switched among users easily without the need to re-image desktops or transfer user preferences. The long life, obsolescence-proof architecture and low initial and ongoing management cost of Chromebooks fundamentally changes the economics of the endpoint environment. IT can provision, maintain and refresh a fleet of Chromebooks at a fraction of the cost of traditional computers.

XenApp virtual Windows application delivery

XenApp, the industry-leading solution for application virtualization, empowers new levels of mobility and productivity by providing a streamlined way to deliver Windows applications and data securely on any device, anywhere people work. A single, centrally managed image supports users in any location, increasing IT efficiency. XenApp also provides powerful performance benefits. Because applications run in the datacenter rather than on the device, XenApp cuts transaction times of client/server applications by as much as 300 percent for an optimized, local-like experience. At the same time, it aids security and compliance by making it possible to keep sensitive information protected within the datacenter rather than on endpoint devices. Seamless quarterly updates provided by Citrix in collaboration with Google keep the solution at the leading edge of mobility and remote access.

Citrix HDX technology ensures a rich, high-definition experience by intelligently analyzing the capabilities of servers, networks and Chromebooks to determine the optimal method for rendering and delivering apps and content. For organizations seeking to implement VDI on Chromebooks, Citrix XenDesktop™ offers the option of delivering a full, hosted Windows desktop to a Chromebook tab, or delivering both independent apps and desktops, through the same solution.

XenApp provides unique benefits for people accessing Windows apps on Chromebooks, including:

- **One-step app access** – As the types of business apps people use continue to diversify, XenApp eliminates the need to launch a virtual desktop wrapper, then navigate within it to their applications. Instead, they can just click on the app and get to work.

- **Seamless usability** – Files linked within a document in a XenApp tab will launch a session for the relevant app in a new Chrome tab. Users don't have to first save the file to a directory, launch the app separately and then navigate to its location.

- **Device optimization** – People can leverage the full capabilities of the devices they use, going beyond the native functionality of their Windows apps. The solution automatically detects the type of device being used and touch-enables Windows apps accessed on touch-screen Chromebooks for a fully mobilized experience.

A foundation for secure enterprise mobility

The benefits of using XenApp to deliver Windows apps to Chromebooks extend beyond this initial use case. While addressing an immediate user need for access to Windows apps on the Chrome OS platform, IT is also implementing a critical element of business mobility. Chromebooks aren't the only fast-growing device in the environment. As people and organizations make broader use of a variety of Android devices, iPads, smartphones, thin clients, PCs and Macs, XenApp powers centralized app delivery across the entire next-generation computing environment.

- **Security** – The inherently secure nature of the Chrome OS with Citrix solution, encompassing both the stateless Chromebook device and the centralization provided by XenApp helps organizations maintain security and compliance—especially those in highly regulated industries such as finance, healthcare and government. For Chromebooks and any other device used for

remote access, all company data remains in the datacenter, where it can be audited, controlled and secured more easily. Granular access control policies let you determine exactly how and where it can be used. Support for all popular security standards, including being FIPS compliant and Common Criteria certified, provides an additional layer of data protection.

- **Low TCO** – The low initial cost and much lower maintenance and replacement costs of Chromebooks compared to standard PCs offer immediate cost advantages. Centralized app delivery further reduces management costs by allowing IT to support a relatively small number of servers rather than thousands or tens of thousands of traditional endpoint devices.

- **Simple BYOD** – IT can use the same XenApp implementation to deliver Windows apps as a service that can be accessed even when people are away from their Chromebooks, on any laptop, tablet or other mobile device they choose.

- **A future-proof architecture** – Citrix application and desktop virtualization solutions provide an architecture that's ready for any new applications and services people may need. IT can consolidate and deliver Windows apps and desktops, web apps, SaaS solutions and other cloud services through a single solution, and make them easy for people to consume on Chromebooks or any other device.

Citrix Ready Chromebooks for business

Chromebooks are fast, secure and affordable devices optimized to run today's business apps. Chromebooks from trusted hardware vendors including Dell, Samsung, HP, LG, Acer, Lenovo and Asus are already certified as Citrix Ready®, demonstrating their compatibility with XenApp.

Chrome and XenApp at work

Randstad is one of the world's leading recruitment and human resources (HR) services companies, with over 600,000 employees placed on any given day. Kevin O'Neill, Randstad CIO for the AsiaPac region, is constantly pushing for more innovation, agility and mobility for Randstad's employees in the region—which is why O'Neill initiated Randstad's transition to Chrome devices with Windows apps powered by XenApp. O'Neill reports fantastic results ranging from trusted security, increased processing speeds, low maintenance requirements, happier helpdesk staff, a paperless office, more collaboration and improved productivity—all for a lower TCO. "Our employees saw this solution as very innovative but still familiar, so they picked it up quickly. They really wanted to be part of a more collaborative, productive, mobile workforce," said Kevin O'Neill, AsiaPac Region CIO, Randstad.

Shelton Public Schools faced an enormous feat: Level the educational playing field for students of diverse socioeconomic backgrounds while moving toward an environment where web-based and Windows-friendly applications can work together. Rather than continue to invest thousands of dollars in high-priced laptops, the school district needed a cost-effective alternative that would provide teachers and students with access to Google Apps for Education, a free online suite of productivity tools for classroom collaboration, as well as support differentiated learning in the classroom. At the same time, the solution needed to offer the familiarity of a Windows-based operating system and remote access to applications such as Microsoft Word and PowerPoint. Shelton was able to completely transform what it was able to offer

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Kevin O'Neill
AsiaPac Region CIO, Randstad

teachers and students on a limited budget. "Although teachers and students were adapting to the Google Chrome operating system, they still missed the familiarity of a Windows-based operating system," says Daniel DiVito, director of technology at Shelton Public Schools. "That's where XenApp comes into play. By partnering up with both Chrome and XenApp, teachers and students can toggle back and forth." Plus, Shelton is avoiding $150,000 in laptop expenses and expects to continue to save $120,000 per year in capital investments.

"It's now affordable for us to put five lab computers in the back of every classroom, when we could've only afforded two in the past. For a class with 20 students, that means one-quarter of them can receive differentiated instruction at any given time."

Tina Henckel
Assistant director of STEM and data management,
Shelton Public Schools

Conclusion

Competitive pressure, security and budget considerations are driving many organizations to adopt a new strategy for delivering access to business-critical apps and data. Organizations need to escape the high costs of the traditional desktop refresh cycles and endpoint operating system migrations, while gaining greater flexibility to adapt to new services and solutions. People expect to be able to work from anywhere, and increase their mobility and productivity by using a broad range of devices such as Chromebooks, as well as their own personal tablets, laptops and smartphones. Chrome OS with Citrix solutions provide a flexible, cost-effective environment to let people access any kind of app—including mission critical and legacy Windows apps and cloud services. Secure, virtual Windows app delivery enabled by Citrix XenApp meets these needs while providing a foundation for business mobility. With access to any app on any device, Citrix provides a simple way to adopt new best-of-breed solutions and services of any type, whether they originate in the datacenter, cloud or web.

Additional Resources

Empower a Mobile Workforce with Secure App Delivery

Secure App and Data Delivery—across devices, networks and locations

For more information, visit www.citrix.com/google

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 leading the transition to software-defining the workplace, uniting virtualization, mobility management, networking and SaaS solutions to enable new ways for businesses and people to work better. Citrix solutions power business mobility through secure, mobile workspaces that provide people with instant access to apps, desktops, data and communications on any device, over any network and cloud. With annual revenue in 2015 of $3.28 billion, Citrix solutions are in use at more than 400,000 organizations and by over 100 million users globally. Learn more at www.citrix.com.

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