Taking Windows Mobile on Any Device
As the adoption of mobile devices continues to expand, IT organizations are challenged to keep up with the mobile demands of today’s fast-paced workforce and at the same time secure critical business data. The demand for mobile access is imperative for keeping the workforce productive and effective, but at the same time IT organizations are facing a somewhat complicated mobility conundrum. The ability to take Windows applications and desktops mobile has many advantages, but the variation in mobile device types, including form factor and platform, makes the process of identifying a single solution to address all the employees’ requirements complex.

For years Windows was the standard platform upon which all business apps were developed, tested and perfected. Today’s mobile device revolution has modified that standard with the uptake in mobile devices ranging in platform—Windows, Mac, Linux, iOS, and Android—and form factor size, including smaller smart phones to various sized tablets. IT has heavily invested in perfecting Windows business apps for today’s workforce, but the workforce is demanding access to those Windows apps and desktops from a variety of Windows and non-Windows devices. In addition, employees are also turning to native mobile, business applications.

Organizations are adopting different strategies to provide Windows desktops and apps to users. One strategy is to rewrite Windows apps to native mobile apps. Another strategy is to deliver SaaS or web apps.

Citrix is able to address all these different strategies to deliver Windows apps to mobile users through a secure digital workspace. This paper will discuss how the Citrix Workspace Solution is able to deliver Windows apps and desktops to mobile devices, in addition to SaaS, web and native mobile apps.

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There are several security, management and maintenance advantages to taking Windows mobile on any type of device with a Citrix Workspace Solution.

Applications must be consistent and highly available. If your business apps are mission critical and require access from any type of mobile device at any time, then application availability and consistency is a high priority. It becomes challenging to push updates, patches, and ensure every local instance is identical. With Citrix XenApp®, a component of the Citrix Workspace Solution, your apps can be centralized in the datacenter making it simple to update them once and deliver them instantly, consistently on-demand to thousands of users. Unlike mobile networks of the past, today’s high performance mobile networks offer accessibility from almost anywhere, making it easier than ever to provide employees with online access to business apps and desktops located in the datacenter. To ensure high availability to business resources over these high performance mobile networks, IT organizations can pair Citrix NetScaler®, another component of the Citrix Workspace Solution, with XenApp to create
an enterprise-class solution that promotes application availability by actively monitoring environment performance, proactively redirecting users in the event of a failure, and enhancing the end-to-end mobile user experience.

**Security must be strengthened.** When you mobilize your workforce, you have to weigh the benefits of increased user productivity against the security risks inherent to remote access. In an environment where apps are distributed locally to the mobile device, the security burden is placed more extensively on the employee. By centralizing critical apps and desktops in the datacenter with XenApp, you are opting for an architecture that is inherently secure-by-design, making it easy for an employee to access apps and data safely and securely. XenApp natively provides secure application access for mobile users given that data, and application software never leave the datacenter, only screenshots, keyboard strokes and mouse clicks traverse the network leaving no remnants of sensitive information behind on mobile devices. With Citrix HDX™ SmartAccess technology, security can be further enhanced by allowing IT organizations to have granular policy-based control over specific transactions, such as disabling the ability to take screenshots of sensitive data or print from a mobile device. Citrix XenMobile®, a key component of the Citrix Workspace Solution, provides additional security. For example, with XenMobile’s mobile device management, XenMobile identifies jailbroken or rooted devices. And with XenMobile’s Smart Access technology integration with XenApp, notification of any non-compliant device is flagged and can prevent users from accessing any virtualized app. In addition, XenMobile allows organizations to deliver, secure and manage native mobile apps as well. XenMobile provides secure containerization for native mobile apps which is critical for BYOD devices that require separation of personal and work applications and data. With XenMobile, users can now access any app on their mobile device through a single, unified app store on their mobile device.

**User experience must be smooth.** The overall objective and motivator behind taking Windows business apps and desktops mobile is that the effort will result in increased user productivity. From the employee perspective, mobile access to business apps and desktops will only enhance productivity if the user experience is smooth and flawless. Citrix has been committed to delivering an excellent mobile user experience from any device, over any network, as evidenced by Citrix HDX technology. HDX technology is not a single feature of XenApp, but rather a complete set of advanced features that dynamically assess the mobile device, network connection, and desired business application or desktop transaction to deliver a high-definition user experience at all times. HDX is able to take full advantage of each mobile device’s processing, graphics, and communications capabilities.

Citrix raises the bar for mobile device access to Windows business apps with HDX Mobile to deliver a touch-friendly Windows application experiences on mobile devices. HDX Mobile includes optimization policies that intelligently touch-enable Windows-based application controls, such as the drop-down box, with enlarged controls and automatic keyboard pop-ups when touching a text field. As a result, Windows applications are made more usable on mobile devices with touch displays, without any source code changes.

**User interface must be uniform and streamlined.** User experience is more than the individual application performance on a mobile device; the user experience is an end-to-end journey that also includes how the application was accessed. Therefore, every employee should have one single uniform process for accessing business apps from a mobile device, a home computer, or a corporate-issued laptop. The user interface used to access apps has to be simple, clean and streamlined for efficiency. As an integral part of the Citrix Workspace Solution, Citrix Receiver™ is just that. Any employee can download the easy-to-install Receiver client to their personal or corporate issued device including Windows PCs, Macs, smartphones and tablets to gain access to all their desktop business apps and data. Receiver works in conjunction with Citrix...
StoreFront to route all app access through a centralized app store enabling each employee to follow the same consistent process from any device, including mobile devices, to simplify the access process and enhance the user experience.

**Design must be able to scale for rapid adoption.** Once you deliver mobile access to business apps, you can expect the demand for access and the rate of adoption to escalate, making it imperative to have a solution that can quickly scale. With XenApp, business applications can be quickly replicated to more servers in the datacenter while NetScaler dynamically distributes the user load across all the additional application instances, making it simple and easy to add capacity. For native mobile apps, NetScaler also delivers Citrix’s microVPN technology which provides a secure, per app tunnel to access resources behind the firewall. This rapid deployment process can be used to both expand the number of employees accessing the environment, as well as increase the number of applications available to existing employees while also ensuring secure remote access.

**Cost and complexity must be contained.** Precious IT resources need to be focused on innovative projects that keep you ahead of the competition, so the costs and complexity of taking Windows applications mobile should not be extensive. Delivering mobile access to apps safely and securely centralized in the datacenter dramatically simplifies application architecture, configuration, and maintenance. The process of updating and patching apps from a consolidated location streamlines management efforts and simplifies troubleshooting. By selecting a datacenter hosted solution that is inherently secure-by-design, the untold costs of a security breach can be mitigated by using a hardened platform that minimizes the exposure to the corporate network and resources.

**Taking Windows Mobile with Citrix**
Taking Windows apps mobile with Citrix is a secure, robust and cost effective way to deliver the mobile access that your employees demand with the security and management efficiency your IT organization requires. The complete Citrix solution is comprised of the following components which collectively allow you to deliver a secure, digital workspace:

- **XenApp with HDX Mobile.** XenApp is a flexible, on-demand desktop and application delivery platform that can dynamically select the best method to deliver application access depending on the user, device, and network proximity. Based on the mobile delivery method, you can host applications centrally in the datacenter and deliver access via a high-speed protocol to any endpoint while also delivering a touch-friendly experience on mobile devices.

- **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 users need to access corporate applications from any device.

- **NetScaler Gateway.** NetScaler Gateway™ is a secure application and data access solution that affords administrators granular 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 the endpoint device while leveraging HDX SmartAccess technology to provide granular policy-based control. This results in better application security, data protection, and compliance management.

- **StoreFront.** StoreFront provides self-service subscription to desktop applications via an enterprise app store giving users convenient access to all the desktop applications they need while you remain in control.

- **XenMobile.** XenMobile delivers comprehensive Enterprise Mobility Management including mobile device and application management.
For more information about delivering secure mobile access to Windows Apps with the ability to also deliver native mobile, SaaS and web apps with XenApp, please visit the Citrix Workspace Suite page on Citrix.com.