How four Citrix customers solved the enterprise mobility challenge

Managing mobile devices, data and all types of apps—Windows, datacenter, web and native mobile—through a single solution

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Enterprise mobility management (EMM), which encompasses mobile devices, apps and data, is a top priority for most organizations—and it's becoming more challenging than ever. To be productive, employees need on-the-go access to apps and data, even on their personal devices. Although today's mobile workers use native mobile apps, primarily email, they also rely on Windows desktops, SaaS and web apps. Enterprises need a way to deliver these other types of apps on mobile devices now—but IT rarely has either the time or budget to build mobile versions.

Another mobility challenge is the use of untrusted, employee-owned devices for app and data access, a practice that poses significant security and compliance risks. What IT needs is a simple, secure way to handle EMM throughout the enterprise while meeting people's expectations for a convenient, consumer-like experience on their mobile devices. This white paper discusses Citrix XenMobile, a complete solution for EMM. The experiences of four Citrix customers illustrate key use cases for XenMobile and the business value it delivers.

In the past, many IT organizations viewed mobile device management (MDM) as the key to enabling enterprise mobility. However, they are learning that the applications used on these devices are the true drivers of higher productivity. While mobile apps play a growing role in the enterprise, they're only part of the picture. People also want to use Windows desktop and other legacy apps on mobile devices—including their personal desktops, laptops, tablets and smartphones. As a result, IT needs to provide mobile versions of this broader set of applications. At a strategic level, IT must manage enterprise mobility to achieve data security and compliance while meeting people's expectations for a convenient, consumer-like experience on their mobile devices.

Today, what percentage of applications are of the types below?
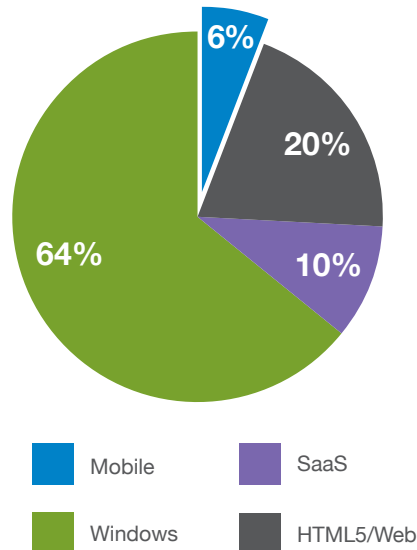(Average percentages)

Figure 1: While the use of BYO smartphones and tablets in the enterprise has increased, native mobile apps only account for 6% of all apps used.

The rise of the mobile enterprise—and its challenges

The rapid rise of mobility in the enterprise is being driven, in large part, by new user requirements. To be productive, people need to be able to work anywhere, on any device, with full access to the apps their work relies on. Mobile devices, especially, are proliferating as users continue to bring them into the enterprise. Email is currently the primary mobile app, followed closely by file sharing, but people also need business productivity apps such as Microsoft Office, line-of-business and industrial software, custom-developed systems and other tools to achieve full mobile productivity. In fact, while mobile apps play a growing role in the enterprise, based on a mobility survey of Citrix customers, they account for just 6 percent percent of all apps used (Figure 1).

The way these apps are presented is also a critical factor in mobility. Accustomed to a high-quality experience using consumer technology, people have come to expect similar convenience, simplicity and performance in their mobile work life, from self-provisioning to single sign-on. As bring-your-own-device (BYOD) continues to reshape modern workstyles, employees demand the flexibility to work anywhere, across any and all devices they choose. Fundamentally, people want the freedom that comes from a truly consumer-like experience.

For IT, meeting these expectations can be a complex and challenging proposition. Most companies start by delivering email to employees' personal devices, then proceed to a secure file-sharing solution, but this just scratches the surface. IT also needs to provide access to mobile and HTML5 apps as well as Windows, web, datacenter and other types of corporate apps on mobile devices. In the process, IT must come to terms with multiple mobile operating systems, multiple platforms and a broad new universe of applications.

A recent Citrix survey illustrates the diversity of mobile apps now required by the enterprise workforce.
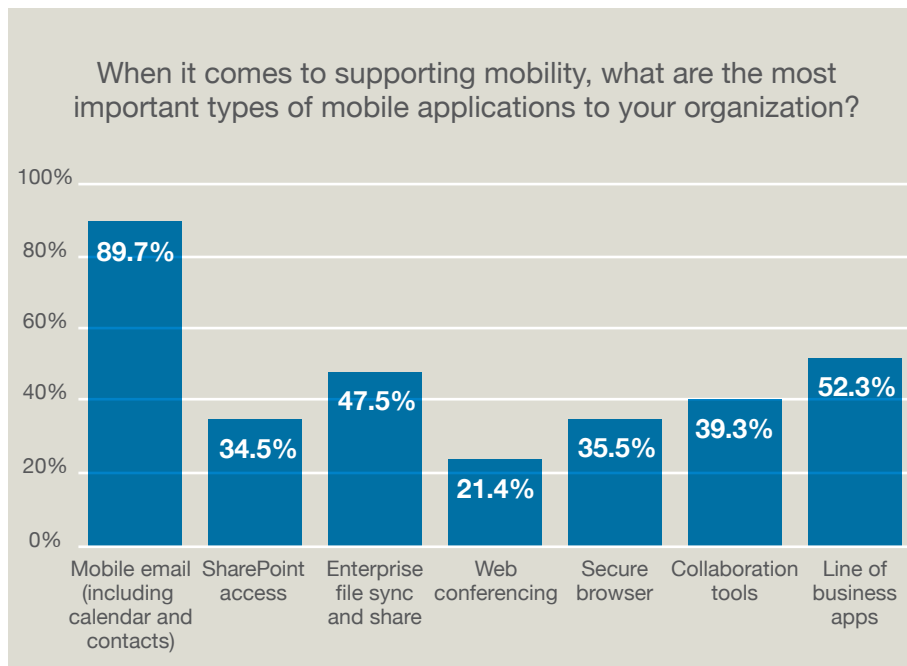
When it comes to supporting mobility, what are the most important types of mobile applications to your organization?

Mobile email (including calendar and contacts)	SharePoint access	Enterprise file sync and share	Web conferencing	Secure browser	Collaboration tools	Line of business apps
89.7%	34.5%	47.5%	21.4%	35.5%	39.3%	52.3%

Figure 2: Mobile email, enterprise file sync and share and line-of-business apps are the top priorities for organizations when deploying mobile apps.

Traditionally, there have been two equally unappealing options for delivering this broader set of apps: waiting for mobile versions of off-the-shelf Windows and legacy apps, or investing in stopgap mobile app development tools.

Beyond delivering apps, IT has to manage and gain visibility into corporate and employee-owned mobile devices. This includes security and compliance of corporate apps and data on any type of mobile device that people choose to use. To maintain compliance, IT must consider the device ownership and privacy laws in each country where employees work, not to mention additional regulatory requirements in vertical markets such as government, financial services and healthcare.

There is considerable urgency to find a comprehensive solution to the challenges of enterprise mobility. Otherwise, employees will seek their own, unsanctioned solutions, such as unmanaged apps and online services, noncompliant file-sharing tools and other methods outside IT visibility and control.

The Citrix EMM solution

As the leader in mobile workstyle solutions, Citrix has developed a new approach to empower people to choose their preferred mobile devices while enabling IT to maintain effective security and control over enterprise apps and data.

XenMobile is a comprehensive solution to manage mobile devices, apps and data. Users enjoy one-click access to all of their mobile, SaaS and Windows apps from a unified corporate app store, including seamlessly integrated email, browser, data-sharing and support apps. IT gains control over mobile devices with full configuration, security, provisioning and support capabilities. XenMobile also securely delivers Worx mobile apps, an ecosystem of Citrix and third-party mobile apps built for business using the Worx App SDK and found through the Worx App Gallery. With XenMobile, IT can meet compliance and control needs while people enjoy the freedom to experience work and life their way.

Key capabilities include:

- MDM to configure, secure, provision and support mobile devices. XenMobile delivers enterprise-grade MDM with role-based management, configuration, security and support for corporate and employee-owned devices. Users enroll their devices, enabling IT to: provision policies and apps to those devices automatically; blacklist or whitelist apps; detect and protect against jailbroken devices; troubleshoot device and app issues; and wipe or selectively wipe a device that is lost, stolen or out of compliance.

- Mobile app management with the largest ecosystem of apps built for business. XenMobile securely delivers Worx mobile apps, the industry's largest collection of apps built for business. Developers create these apps using the Worx App SDK, a simple and powerful SDK that enables critical enterprise features for any app. The SDK leverages Citrix MDX app container technology to add features such as data encryption, password authentication, secure lock and wipe, inter-app policies and micro VPNs to mobile apps. Developers can embed an integrated library into any app with a single line of code, and can also wrap their apps post-development without the need for additional coding. IT can find Worx-enabled apps in the Worx App Gallery and deliver them to devices via XenMobile.

- Sandboxed email, browser and document-sharing apps. With XenMobile, IT can deliver Citrix-developed apps that are built for business. These include WorxMail for secure email, calendar and contact access, WorxWeb for a secure Internet and intranet access and Citrix ShareFile for secure enterprise file sync and sharing. Integration among WorxMail, WorxWeb and ShareFile delivers a rich user experience with the management and control that IT requires. These apps take advantage of capabilities in the Worx App SDK such as an app-specific VPN for secure access and a common data platform that ensures corporate data is encrypted and always under IT control.

- Unified corporate app store. XenMobile includes a unified corporate app store that provides a single place for users to access all of their apps—Windows, datacenter, web and native mobile—on any device. Users can easily choose the apps they need for their job and have them instantly available on their devices. As they move among devices, their chosen apps follow them to ensure full productivity in any scenario.

- Multi-factor single sign-on. XenMobile makes it easy for IT to manage user access while radically simplifying the user experience. Through the unified corporate app store, users are given secure multi-factor single sign-on access across their Windows, datacenter, web and native mobile apps, eliminating the need to create and manage an endless set of app-specific passwords.

As a comprehensive EMM solution, XenMobile provides considerable benefits for users, IT and the business:

- People gain freedom of choice in the devices and apps they use, while IT can still ensure corporate and regulatory compliance

- Mobile productivity apps delight users while meeting IT standards and remaining under IT control

- Simple, scalable access to apps from anywhere helps increase business productivity and agility

- Advanced apps and data controls keep users happy while assuring content security for IT

The following section further illustrates the business value of XenMobile in the enterprise.

Four customers address EMM use cases with XenMobile

Customer 1

Use case: protecting corporate resources from BYOD users accessing company email and confidential files

Most users prefer to use a device's native email client to access corporate email. Without an MDM solution, however, there's a higher likelihood of a security breach through this app.

One Citrix customer, the owner and operator of a portfolio of restaurant concepts, needed to find a secure solution for employees who wanted to stop using corporate-issued BlackBerry devices and instead use their own devices to access work email. Employees had discovered that they could easily access company email from their own devices once they knew the name of the company's Microsoft Exchange server. Multiple managers could connect to the Exchange server using the same generic email address; as a result, IT had no idea who was actually accessing the company network each time.

Without an MDM solution, the company's corporate network resources were exposed. For example, an unsuspecting employee could inadvertently download malware onto a BYO device enabling a hacker to easily access the company's confidential data.

The company now uses XenMobile MDM to manage BYO devices and allow employees to use their native email client to access company email while minimizing security risks. They chose XenMobile MDM because it enables BYOD users to share files via ShareFile, which is integrated with their native email client, Microsoft Outlook, thus reducing the risk of data leakage.

The solution addresses the company's three key requirements:

• Reduce security risks by preventing unauthorized BYOD users from accessing the corporate network

• Enable BYOD users to access corporate email using their device's native email client

• Enable BYOD users to share files via ShareFile while reducing the risk of data leakage

The need	The solution
Provide secure, sanctioned access to corporate email on employees' BYO devices	XenMobile MDM ShareFile

Customer 2

Use case: keeping sensitive client data secure on BYO devices

Once people start using company email on their own mobile devices, they soon discover that they also want to view, edit, store and collaborate on the files attached to their email. Doing so, however, introduces risk. For example:

• An employee could be using a third-party app for document viewing and editing that has been infected by malware

• An employee could store a copy of a document on the mobile device or in the cloud, leaving IT with no way to wipe or delete it should the employee lose the device or leave the company

• The document could be stored in an unencrypted format on the mobile device

• If the document is stored in the cloud, the third-party file storage service may not provide the file-level encryption needed to prevent exposure of company files in the event the cloud provider's servers are hacked

The IT team at a large law firm discovered that many of its attorneys were using their personal mobile devices to email confidential client files via Outlook. These files were then copied onto the devices or opened in third-party editing apps. At times, file attachments were too large to be sent via email, so attorneys used a public cloud service such as Dropbox to store their files—a highly insecure practice, as all too many public cloud services fall far short of the enterprise security standard.

The firm now uses XenMobile and ShareFile to reduce security risks while enabling attorneys to be productive using their own mobile devices. They chose Citrix because no other MDM vendor could meet their need for secure file sharing as well as document tracking to support e-discovery. Attorneys can access large client files securely from anywhere using ShareFile, solving the Dropbox data leakage problem, and can share them via Outlook simply by embedding a link to the files in an Outlook email. BYOD users can use Outlook securely on their own devices, and can securely edit documents on their mobile devices.

The Citrix solution addresses key security concerns for the firm:

• Confidential client information is never stored in a public cloud and can be shared securely via ShareFile, reducing data leakage

• Any file stored on an attorney's device is encrypted and managed by IT, and can be wiped by IT without affecting the attorney's personal data on the device

• The synchronization feature of ShareFile makes it much easier to support e-discovery requirements, as tracking files is easier and there are fewer versions of the same file

The law firm is now evaluating WorxMail as a way to sandbox and containerize any company data on mobile devices, including email.

The need	The solution
Enables secure access, sharing and editing for large client files on BYO mobile devices while maintaining client security and confidentiality	XenMobile ShareFile

Customer 3

Use case: providing secure mobile access to both native mobile apps and Windows apps

While BlackBerry devices have long been favored by the U.S. federal government due to their high level of security, a large federal agency faced rising demand among employees to switch from agency-issued BlackBerry devices to their personal iPhones and Android devices.

To meet this demand, the agency needed to provide workers with access to email on their own devices. Due to the nature of the agency's work, this access had to be highly secure. Employees also needed access to Windows desktop apps, including an internally developed logistics planning app; SaaS apps to manage their health benefits; and native mobile apps to edit documents on their BYO devices.

The apps delivered to users' mobile devices posed a particular challenge. Ordinarily, the agency would have had to use plug-in solutions to mobile-enable desktop apps, a time-consuming and costly approach requiring IT to stand up a separate development environment, deploy experts for implementation and integration, and provide a high level of user training and support. The agency also faced the likelihood of discarding this development work away once upgrades to the mobile capabilities of the apps eliminated the need for a plug-in approach.

The agency now uses a Citrix EMM solution comprising:

• XenMobile MDM for device management

• WorxMail for secure mail and integration with ShareFile for secure file share and sync

• WorxHome for unified and secure access to SaaS apps, including the agency's human resources app, and a Worx-enabled, third-party mobile editing app

The agency also uses Citrix XenDesktop, Citrix XenApp and Citrix Receiver to provide mobile access to Windows desktop apps, including the logistics planning app.

The agency chose Citrix because of its support for secure file sharing. The Citrix solution also eliminated the need for stopgap measures to mobile-enable corporate apps; instead, IT can deliver apps on any platform via XenDesktop and XenApp.

The need	The solution
Securely deliver a diverse range of SaaS, Windows and mobile apps securely on BYO devices without high development costs and timelines	XenMobile WorxMail WorxHome XenDesktop XenApp Citrix Receiver

Customer 4

Use case: mobilizing work while maintaining data security and compliance

A major hospital with 13,000 employees and a nationally ranked research and academic medical center needed to deliver legacy apps to the tablets and other personal mobile devices its clinicians had begun to use. Mobile devices are currently at the forefront of the reinvention of healthcare, enabling practitioners

to access patient data, medical information and clinical systems from anywhere to speed time-to-care and optimize outcomes. As part of this transformation, healthcare IT organizations must find new ways to ensure compliance with HIPAA and other regulations governing privacy and security.

The hospital implemented a Citrix solution, which provides convenient access to legacy clinical apps on the devices clinicians choose while maintaining security and control. The solution includes:

• XenMobile MDM to secure clinicians' mobile devices

• WorxMail for sandboxed email to ensure regulatory compliance

• XenApp to deliver legacy apps to tablets, including the electronic medical records managed in its Epic system

With the solution, the hospital's IT group can deliver all its Windows and SaaS apps to mobile devices through a single point of access and management. Patient medical records can be shared securely, and IT can manage, control and wipe healthcare apps and data from devices as necessary. The outcome: clinicians are now more mobile and can provide higher-quality care to patients, wherever they may be.

The need	The solution
Deliver legacy apps and email securely on BYO tablets to enable mobility while maintaining compliance	XenMobile XenApp WorxMail

Conclusion

As companies adapt to the rapid rise of enterprise mobility and BYOD, they need to empower employees with the anywhere, any-device access their work requires while maintaining security and minimizing risk. Citrix XenMobile powers a complete solution to enable enterprise mobility management, which features MDM capabilities to ensure compliance of corporate assets and secure corporate content on any device people use. Complementary solution elements include Citrix ShareFile for secure file sync and sharing, the Citrix Worx ecosystem of mobile apps and development tools and a unified app store delivering a simple, consumer-like user experience. The value of the Citrix solution is being proven every day across diverse industries, from professional services and government to healthcare and retail.

Meeting today's requirements for enterprise mobility

With the Citrix EMM solution, IT can:
Mobilize all types of apps—Windows desktop, SaaS and web—without high development costs
Provide a single app store for all types of apps, including native mobile apps, with strong security and single sign-on
Preserve the full user experience for mobile-enabled apps
Reduce TCO through a single-vendor solution

Additional resources:

www.citrix.com/xenmobile

XenMobile Technical Overview

http://www.citrix.com/content/dam/citrix/en_us/documents/products-solutions/citrix-xenmobile-technology-overview.pdf

Citrix Customer Case Studies

http://www.citrix.com/customers/

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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.