

Bring your own device freedom | Solution Brief

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BYOD solutions for state and local government enterprises



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Introduction

Increasingly, state and local government IT is embracing consumerization with the understanding that device flexibility is key to employee productivity. More agencies over time have engaged with the Citrix core vision—the ability to work from anywhere, on any device—in order to successfully integrate BYOD programs into daily operations.

There is growing consensus that allowing state and local workers to use personal mobile devices to access agency resources translates to higher productivity and job satisfaction. At the same time, IT must guarantee that devices are configured and managed with information assurance controls to ensure ongoing data security regardless of where or how information is accessed.

As new generations of employees enter the workforce, the movement to work on the device of one's choice only becomes more pronounced. In order to empower these workers, Citrix offers a simple, secure solution to deliver self-service, on-demand data, apps and desktops to any device. That solution, along with our proven best practices, put the full power of BYOD strategies to work for any government agency.

In providing these solutions for BYOD programs, Citrix understands that:

- The crux of any BYOD initiative is to offer unlimited computing freedom. By embracing the trend of device consumerization, state and local government will meet the preferences of its employees, offering them newfound productivity, mobility, flexibility and an enhanced work-life balance.
- A sustainable BYOD program needs to also be cost-effective. As such, a cost-benefit analysis should be done that considers both potential increases in employee productivity and potential cost shifts.
- New initiatives for BYOD bring with them a wide range of security, policy and IT challenges that must be acknowledged and solved over time.
- Drivers for instituting a BYOD program include cutting expenses, raising productivity, accommodating new members of the workforce, and improved user experience.

Embracing consumerization and empowering agency workers

Consumerization is well established in the enterprise and will drive continued transformation of business and IT models in the coming years. By embracing this trend, state and local agencies can improve productivity, satisfaction, talent recruitment and employee retention. Through Citrix BYOD solutions, government can do so simply, securely and cost-effectively.

BYOD comes in many forms, from the ad-hoc use of personal devices to supplement agency endpoints to replacing government-owned devices entirely. Regardless of strategy used, a complete, well-architected approach is essential for embracing BYOD without increasing security and efficiency risks. The lack of a structured approach to BYOD leaves agencies exposed to security gaps, compliance issues and rising IT complexity. As a leader in flexible, mobile workstyle solutions, backed by real-world experience and proven best practices, Citrix can help implement a simple, secure BYOD solution that:

- Empowers workers to choose their own devices to improve productivity, collaboration and mobility
- Protects sensitive information from loss and theft while addressing privacy, compliance and risk management mandates
- Reduces costs and streamlines management through self-service provisioning and automated management and monitoring
- Simplifies IT by deploying apps once for use on any device

Citrix BYOD solutions, which use Citrix Receiver™, Citrix XenDesktop®, Citrix XenMobile™, ShareFile®, Podio® and GoToMeeting®, offer desktop and app virtualization, a unified enterprise app store, file sharing and collaboration to make BYOD simple and secure for any government agency.

BYOD: Any user on any device, without compromised security

Citrix solutions provide state and local agencies with a broad range of offerings for their BYOD programs:

Any device—personal or business People and departments gain the freedom to choose their own devices, including Windows and Mac® desktops and laptops, iOS, Android and Windows-based mobile products, Google Chromebooks and RIM® mobile devices. Seamless roaming and a high-definition experience across devices, locations and networks ensure optimal convenience and productivity.

Desktop and application virtualization IT can transform any application as well as complete desktops into an on-demand service available on any device. The solution lets government workers use any combination of desktop and application delivery approaches to support every type of user through a single point of control.

Self-service app store Staff can access any of their authorized apps—including Windows, web and SaaS apps—easily on any device through a secure, consistent app store with a convenient single sign-on experience.

Follow-me data Workers can securely share files with anyone inside or outside their agency and sync files across all of their devices. IT can deploy comprehensive usage policies and remotely wipe data from devices so that confidential business information is secured, even if a device is lost or stolen. Additionally, access control, auditing and reporting help to control unauthorized or inappropriate file access.

Collaborative work platform Get work done with co-workers and contractors on a social work platform that users can fashion to their own liking. Work with any group of people inside a workspace and connect the entire agency in an employee network. Social activity streams and hundreds of pre-built and custom apps enable you to create collaborative workspaces for managing projects, contractors, budgets, events, intranet and much more.

Easy online meetings State and local agency users can initiate or join meetings from any location in seconds, on any device, for robust collaboration and communication. High-definition video enables true face-to-face interaction.

Secure by design Because apps and data are managed within the datacenter, agency IT maintains centralized data protection, compliance, access control and user administration as easily on BYOD devices as on government-owned endpoints—within the same unified environment.

Considerations and best practices for state and local BYOD initiatives

While not every agency has a formal BYOD program in place, each one would be well advised to develop policies regarding the use of personal devices for work. Such policies should address factors such as:

Eligibility: Identify who can use personal devices for work and scenarios where it is inappropriate due to data security, worker type or other factors. In enterprises that allow a BYOD device to replace a government endpoint, this decision is typically optional for the worker and subject to managerial discretion.

Allowed devices: BYOD programs should allow staff to use the device that best meets their needs.

Service availability: Think about the services and apps to be made available on BYOD devices and whether they differ by work groups, user types, device types and network utilized.

Rollout: Provide guidance to help users decide whether to participate, choose the right device and understand the responsibilities that come with bringing their own device, including how data can be accessed, used and stored.

Cost sharing: Some state and local agencies might provide a subsidy for BYOD devices and other services, especially in cases where a government device is no longer provided.

Security: Confidential business information should reside on the endpoint only in isolated, encrypted form, and only when absolutely necessary. Multi-layered security should include granular policy-based user authentication with tracking and monitoring for compliance; control over print capabilities and client-side storage; and mandated antivirus/anti-malware software. State and local IT should consider remote-wipe mechanisms if business information is allowed on the device.

Support and maintenance: Spell out the type of incidents IT will support and the extent of this support. A loaner pool of devices allows uninterrupted productivity during service, especially when a BYOD device is used in place of an agency device. Consider providing key personnel with additional, concierge-style support.

Citrix alignment with state and local approaches to BYOD

Citrix solutions and products align well with state and local IT strategies, as explored in more detail below:

BYOD approach	Citrix solution
<p>Virtualization</p>	<p>Through Citrix virtualization, all data, applications and desktops are consolidated into the datacenter. Remote access to these resources is given with minimal client-side processing, leaving no data-at-rest on the endpoint. This “screen-scrape” virtualization solution allows users to interact remotely with a full Windows desktop or application. State and local agencies can put into place a virtualization solution using a XenDesktop-based desktop virtualization architecture.</p> <p>This not only allows IT to shift to a thin/zero-client based computing solution, but also to leverage the same environment to enable BYOD mobility using Citrix Receiver.</p>
<p>Walled garden</p>	<p>Using this approach, Citrix solutions allow agencies to isolate all enterprise data into a secure “container” on the endpoint, which can be managed by IT separately from the personal components on the BYOD device.</p> <p>Mobile Device Experience (MDX) enables the management, security and control over web and native mobile applications and data. With MDX, corporate apps and data reside in the MDX Vault, completely separated from personal apps and data on the user’s mobile device. In this vault, state and local IT can secure apps and data with comprehensive policy-based controls over the usage of corporate content, including mobile DLP and the ability to remote lock, wipe and encrypt apps and data.</p> <p>Citrix XenMobile is a comprehensive solution to manage mobile devices, apps, and data. Agency users have single-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.</p>

Case Study: Alcohol and Tobacco Tax and Trade Bureau (TTB)

The Alcohol and Tobacco Tax and Trade Bureau (TTB) developed an initiative to slash the expense, time and effort required to refresh desktop and laptop computers within the bureau. TTB has a dispersed workforce, with 80 percent of its staff regularly teleworking. The desktop and laptop refresh carried a price tag of about \$2 million every few years and disturbed both worker and IT business alike for months on end. Over time, the bureau opted to centralize all client computing power and applications, user data, and user settings and allow access to TTB resources via thin-client computing devices.

Addressing the need When TTB was originally established in 2003, all IT resources including capital assets, IT personnel and the funding to procure equipment and to develop core business applications remained with the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF). The bureau was funded at a level sufficient only to reimburse ATF for existing service. No funding was provided for the initial purchase or subsequent replacement of any of the equipment required to establish and operate TTB's IT systems. In FY 2005 TTB established an independent IT operation with no base funding to refresh infrastructure equipment.

The strategy In light of the limited funding for virtual desktop implementation, TTB examined its existing hardware, software and technical expertise to determine the path most likely to succeed and achieve the objectives of providing central access to all IT resources while realizing cost savings. With approximately 80 percent of the Windows servers and 20 percent of the Sun Solaris servers virtualized, the bureau was confident that a virtual desktop infrastructure could be built without the need for physical servers.

Due to TTB's extensive telework program, supporting remote workers with a robust remote access capability was of primary importance. The bureau further hoped to take advantage of its investment in Citrix licenses and the significant expertise that IT had gained with the Citrix product suite as they supported remote staff. Citrix Receiver, which turns almost any device into a thin device, was used by TTB; this solution was selected because Receiver allowed the bureau to create thin-client devices and power its BYOD computing initiatives.

The bottom line Savings from a virtual desktop approach paid for the bureau's virtual desktop implementation—which cost approximately \$800,000—and saved TTB \$1.2 million. Presently, about 70 percent of TTB's users access its resources through thin devices, provided by TTB as well as BYOD; any user configuration that works is allowed, giving staff unprecedented computing freedom.

The bureau's embracing of a virtual desktop strategy is especially timely considering the rate of change within the mobile device market. Because no data touches the user device during staff work, there is no need for a mobile device management (MDM) solution on a non-TTB device. When a device is made available to the public it can be used to access TTB applications and data.

From one state and local agency to another, BYOD implementation can take many forms. Citrix solutions provide a flexible yet controlled framework to design and implement the right approach for any government enterprise. For more information about Citrix solutions and best practices for state and local BYOD programs, please visit [**www.citrix.com/byod**](http://www.citrix.com/byod).



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About Citrix

Citrix Systems, Inc. (NASDAQ:CTXS) transforms how businesses and IT work and people collaborate in the cloud era. With market-leading mobility, cloud, collaboration, networking and virtualization technologies, Citrix powers mobile workstyles and cloud services, making complex enterprise IT simpler and more accessible for 260,000 organizations. Citrix products touch 75 percent of Internet users each day and it partners with more than 10,000 companies in 100 countries. Annual revenue in 2012 was \$2.59 billion. Learn more at www.citrix.com.

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