



WHITE PAPER | **VIRTUALIZATION**

## DESKTOP VIRTUALIZATION: **The key to embracing the consumerization of IT**

**Making the right moves to manage  
consumerization while empowering the worker**

Workers are actively seeking to leverage the rich features and flexibility of consumer-oriented communications and mobile computing devices, to manage both their business functions and personal data on a unified single device—and in many cases preferring to do so on their own personal laptops, tablets and smartphones.

Rather than attempting to hold the line against user demands, proactive organizations are learning how to leverage desktop virtualization to accommodate the consumerization of IT. In doing so, they are maximizing the productivity and personal time of workers who can thrive within the freedom of their own lifestyle, while alleviating the IT burden of managing many different device types and devices.



SPONSORED BY

**CITRIX**<sup>®</sup>

## What's Driving Consumerization of IT

After rising to the challenge of a series of transformations—PCs, SLAs, SOA/OOP, the Web, and the migration to cloud computing—IT organizations are now faced with yet another revolution: the consumerization of IT.

In particular, the variety, affordability and usability of a bewildering array of laptops, tablets and smartphones provides workers with virtually an unlimited choice of devices from which to conduct their personal computing and communications.

Equipped at home or on the go with the latest that technology has to offer, workers and managers want IT to accommodate flexible work styles—and the devices they're comfortable with—that can boost productivity, enhance worker satisfaction and boost business agility.

It grates on individual workers when they're provided with devices that seem lacking in features or are behind the curve. This leads to inevitable conflict, with IT confronted by insistent demands from workers to loosen up enterprise policies, and to deal with the issue of how to support a never-ending stream of devices with diverse operating systems, interfaces, communications protocols and security mechanisms.

IT has to balance these seemingly conflicting forces. "It's absolutely overwhelming IT," says Mark Bowker, senior analyst with Enterprise Strategy Group (ESG), which recently conducted a survey of consumerization and endpoint devices in midsize and large enterprises, and found 72 percent of all respondents cited end-user demand as the top factor in changing endpoint device usage. "This is really being driven by end users who want to bring these devices into a corporate environment and get that same user experience, that same accessibility they get from the consumer perspective."

Generally, the IT discipline has adhered to a tradition of locking down end points to ensure uniform standards and ease the burden of managing and securing the enterprise. But drawing this line in the sand risks alienating the user base—often including top executives. Furthermore, organizations may lose ground to more flexible competitors who are able to quickly deliver new or better services and products, or lure away some of your best workers. Inflexible IT policy can also cause workers to do or try to do an end run around enterprise policy, either furtively or in blissful ignorance.

## Irrepressible Forces in the Workplace

There's every indication that the consumerization of IT represents a fundamental disruption in technology usage. Research conducted independently in 2011 on behalf of Citrix found that among 700 IT decision-makers in seven countries, 92 percent say that some employees are already using non company-issued computing devices in the workplace.

While many attribute consumerization to the influence of millennials (those between their mid teens and late twenties) entering the workforce, Brad Peterson, technology strategist with Citrix, says that it's often more of a top-down impetus: "Often, it's the executives wandering around the Apple Store on the weekend and bringing their new iPads into the organization and telling IT, 'You've just got to make this work.' Workers want this level of support, but it's really top-down demand from the executives that is driving this today."

"People can go to an electronics store and buy any device they want, connect it and support it themselves," says Peterson. "Devices and operating systems are made so that anyone can pick up a device and figure out how to make it work, but it's up to IT to figure out how to fit these into their security framework."

Equipping workers with devices of their choice may be a key factor in recruiting and retaining top workers. While many first-time employees may well accept whatever the enterprise hands out, if they have a choice of devices it can make a difference when choosing or continuing with an organization.

Indeed the Citrix survey found increasing acceptance and adoption of bring your own (BYO) device models that empower workers to bring their preferred client devices—laptops, tablets, smartphones—into the enterprise domain for regular or occasional access. Many companies with large numbers of contract employees are finding BYO is a powerful cost-cutting initiative, as they no longer have to foot the bill for equipping nonpermanent workers.

Nearly every company (94 percent) in the survey expects to have a BYO policy by mid-2013, and 44 percent have already implemented one. In California for example, the Kaweah Delta Health Care District delivers a full range of clinical applications and data to any Internet-connected device doctors choose to use, in any location.

**Workers and managers want IT to accommodate flexible work styles—and the devices they're comfortable with—that can boost productivity, enhance worker satisfaction and boost business agility.**

SPONSORED BY

**CITRIX®**

"Doctors can use an iPad or any other device to receive the same virtual desktop they use in their office," says CIO Dave Gravender. "They can get the information they need more quickly and easily to make decisions in real-time, even if they're far from the hospital itself, and that improves the care we can provide to the patient."

As Kaweah Delta demonstrates, BYO represents more than a worker preference: It can be an advantage for employers by improving customer service and increasing worker productivity. Such a strategy presents a solution to the consumerization of IT challenge specifically, and to the IT issues of managing and securing end points generally.

## Meet the Device Challenge

Like other organizations, Kaweah Delta Health Care provides flexibility through adoption of desktop virtualization solutions from Citrix, in this case using a lightweight software client—Citrix Receiver™—that makes on-demand delivery of desktops and applications to any device as easy as turning on a TV.

A longtime believer in virtual computing, the hospital district had already virtualized its applications to improve usability, consistency and manageability throughout its organization and uses Citrix XenDesktop™ with Citrix Receiver to provide secure, instant access to health records.

XenDesktop is a desktop virtualization solution that transforms Windows desktops and applications into an on-demand service available to any user, anywhere, on any device. With XenDesktop, IT can securely deliver individual Windows, web and SaaS applications, or full virtual desktops, to PCs, Macs, tablets, smartphones, laptops and thin clients—all with a high-definition user experience.

Workers at Kaweah Delta have a standardized virtualized Windows 7 desktop that is centrally maintained and updated, while the data they access remains safe in the data center. The introduction of the iPad presented Kaweah Delta with the opportunity to reach new levels of mobility and convenience. "We received our iPad tablets on a Saturday, downloaded Citrix Receiver from the App Store and started running a virtual desktop on them in about twenty minutes," says Gravender.

Business and IT decision-makers seeking to leverage the flexibility of BYO devices are utilizing desktop virtualization to ensure workers can easily and securely access enterprise desktops, apps and data from any device. It also alleviates IT of the burden of porting applications to many devices with different operating systems and user interfaces.

"Virtualization has multiple tiers that assist IT in regaining control while still giving users the flexibility that they need," says Sumit Dhawan, Citrix group VP and general manager, Receiver and Gateways business unit. "IT can separate the OS from devices so that workers can access their apps, desktops and data from any device."

With Citrix Receiver, says Dhawan, IT doesn't have to bet on which devices will be winners in the enterprise environment and does not have to bolt down each individual device. "IT still has control over the policies to ensure applications and data are not accessed inappropriately," he says. "Receiver, as part of the Citrix desktop virtualization solution, provides virtualization at the device level so IT is able to give workers flexibility to choose any device and assure they can get access to their apps and data."

## Simplify the IT Infrastructure

Flexibility and security may seem like incompatible concepts in many IT departments, particularly those focused on managing risk, protecting sensitive data, and maintaining compliance and data privacy. But by implementing desktop virtualization as a secure-by-design layer to strengthen information security, IT can help the enterprise manage risk more effectively while providing optimal flexibility and secure information access. This allows the business to do what it needs to do, the way it needs to do it.

For many organizations, desktop virtualization has become an essential foundation for a layered information security strategy where enterprise applications, data and intellectual property are managed, secured and tracked in the datacenter, rather than residing on the endpoint devices of every worker in the extended enterprise, greatly reducing business risk.

By accommodating worker desires for personalization, flexibility and instant gratification, IT can also free up resources that formerly would be required to evaluate, provision and support new devices, and instead focus on developing best practices for desktop and application service delivery—SLAs, security

**Kaweah Delta Health Care provides flexibility through adoption of desktop virtualization solutions from Citrix, in this case using a lightweight software client—Citrix Receiver™.**

SPONSORED BY

**CITRIX®**

and compliance, backup and recovery, etc. Desktop virtualization also equips IT to provide secure delivery of desktops and applications to any supported device, whether enterprise- or worker-owned.

Hamilton Health Sciences, an Ontario, Canada-based family of six hospitals and a cancer center with a total of 1,200 beds, relies on Citrix XenDesktop as the primary solution to deliver virtual desktops and virtual applications to more than 9,000 staff and 1,500 physicians. With Citrix Receiver, Hamilton now offers self-service access to over 60 office and medical applications, helping IT get out of the business of managing apps on each individual endpoint.

Physicians are able to gain access to the Citrix environment from whatever device they choose to bring in. "In the past, with security and privacy concerns, we basically would have just said, 'You can't use that device,'" says CIO Mark Farrow. "In this case we had physicians buying iPads, and saying, 'I am going to use this device, what are you going to do about it?' We are able to say 'yes' to these devices, because you are on a secure piece of software. We know what you are accessing and that you are following our rules."

## Empower the Worker—Empower the Organization

Consumerization can aid IT organizations in their efforts to break away from old approaches. "IT just cannot scale their support, provisioning, maintenance, updates, and upgrades for all of the devices and scenarios that workers are demanding," Dhawan observes.

SNR Denton, an expanding international legal practice that serves clients from nearly 50 locations and over 30 countries, chose to enhance its Citrix XenDesktop environment by implementing Citrix Receiver so attorneys and staff can access business data and applications, including the document management system and the corporate intranet, from anywhere using any device of their choice.

"Our attorneys can purchase a personal device that has a core set of security features and requirements, bring it in and we will configure the Receiver installation as well as their Microsoft Outlook information. Then they are set with easy and secure access to all the information they need," says Michael Barnas, director of application services for the firm.

## Desktop Virtualization Addresses the Challenge

Citrix addresses the end-to-end IT challenge that the consumerization of IT trend creates: Information security and access control over applications and data while providing freedom and flexibility for a more productive worker and therefore a more productive business.

Citrix Receiver works in conjunction with XenDesktop to ensure that users can get access to their desktop and applications from almost any client, including Windows, Linux and Mac PCs and laptops, thin clients, iOS and Android smartphones and tablets, RIM Blackberry smartphones and Chrome OS notebooks.

XenDesktop with Citrix FlexCast delivery technology enables IT to provide every type of virtual desktop—each specifically tailored to meet the performance, security and flexibility requirements of each individual user. Another product in the Citrix virtualization portfolio is a cloud gateway that equips IT to granularly control authorization and access for any service and provide a single point of control to deliver any private or public cloud application to any Receiver-equipped device.

Citrix XenDesktop and Citrix Receiver provide an easy-to-install and manage solution for the IT organization. Receiver is an integral component and is included free with Citrix XenDesktop and Citrix XenApp™.

## Embracing Consumerization

As the workplace landscape across the globe changes, IT must address worker demand for even more flexibility and the desire and need to access enterprise applications and data from any location, on any device, at any time, securely.

Desktop virtualization enables IT to fundamentally rethink the way user hardware is provisioned and to manage effective BYO strategies. Adopting a BYO device strategy is one way to proactively embrace the consumerization of IT in a manner that extracts maximum organizational benefit of worker effectiveness and productivity and ensures compliance with acceptable use policies. The end result is a safe and managed way to deliver enterprise applications and data to personal devices—whether owned individually or by the organization. ■

For more information on how to meet the challenge of the consumerization of IT, please visit [www.citrix.com/byo](http://www.citrix.com/byo).

SPONSORED BY

**CITRIX**®