

# VDI and beyond: addressing top IT challenges to drive agility and growth

Citrix XenDesktop delivers  
FlexCast services to power  
your entire workforce.



Desktop virtualization can be a powerful driver of business transformation, making it possible to deliver the apps and data people depend on whenever they need them, on whatever device best supports their productivity. But desktop virtualization is far from a one-size-fits-all solution—there are many ways to meet users' needs, each with its own costs and benefits. To realize the full value of desktop virtualization, you need the flexibility to deliver virtual apps and desktops using a variety of methods to balance user requirements, cost and manageability in the right way for each use case in your organization.

A comprehensive desktop virtualization solution, Citrix XenDesktop with FlexCast technology enables enterprise IT to deliver Windows-as-a-Service—always on, highly secure and seamlessly mobile. From simple VDI to advanced app delivery, XenDesktop provides IT with the flexibility to support today's complex workforce—easily and securely. XenDesktop flexes with your needs, whether your priority is to mobilize Windows apps, take a more strategic approach to desktop refresh, or enable self-service desktops and apps on BYO laptops and tablets. At the core of XenDesktop, FlexCast technology provides a rich set of capabilities across a broad range of use cases. These use cases, also called FlexCast services, are uniquely provided by XenDesktop. No other solution can precisely deliver the right experience while optimizing IT resources.

This paper explores a collection of compelling FlexCast services to highlight how XenDesktop can drive a modern, mobile workforce toward greater agility and productivity, one project at a time.

### **IT can deliver FlexCast services that empower the entire workforce**

Desktop virtualization allows IT to address a broad range of business priorities, from empowering workers across remote and branch locations to mobilizing Windows apps on any device. But just as there's more than one use case in the enterprise, there's more to desktop virtualization than VDI—it takes a broad, flexible desktop virtualization solution to solve each business challenge in the right way. XenDesktop uniquely combines a range of virtualization and management technologies at the touch of a button so you can address each scenario more cost-efficiently while meeting users' specific requirements for mobility, security, performance, flexibility and personalization.

Of course, business productivity doesn't end with Windows apps. Enterprise mobility management capabilities are equally fundamental for supporting an extended and mobile workforce. These include mobile device management (MDM), secure mobile email, secure file and data sharing, and mobile application management functionality that manages, secures and controls native mobile apps on tablets and smartphones—all with optimal network performance and scalability. IT decision makers understand the advantages of a complete solution that encompasses desktop and application virtualization, comprehensive enterprise mobility management and network optimization, especially when compared with a hard-to-manage multi-vendor array of point products that each address a subset of requirements.

Citrix XenMobile, a complete enterprise mobility management solution, complements and extends an investment in XenDesktop. Citrix ShareFile, an enterprise data sync and sharing service, meets the needs of a growing mobile workforce to securely collaborate and share data—across all of their devices—with colleagues, customers and third parties. From a network perspective, Citrix NetScaler and Citrix NetScaler Access Gateway optimize the delivery of all web applications, cloud-based services, virtual desktops, enterprise business apps and mobile services. NetScaler ensures performance, availability and security SLAs for any service to any user, regardless of location and access technology. Each of these award-winning solutions augments the role XenDesktop plays in the following usage scenarios. Collectively, the Citrix portfolio is unmatched for enabling the mobile enterprise.

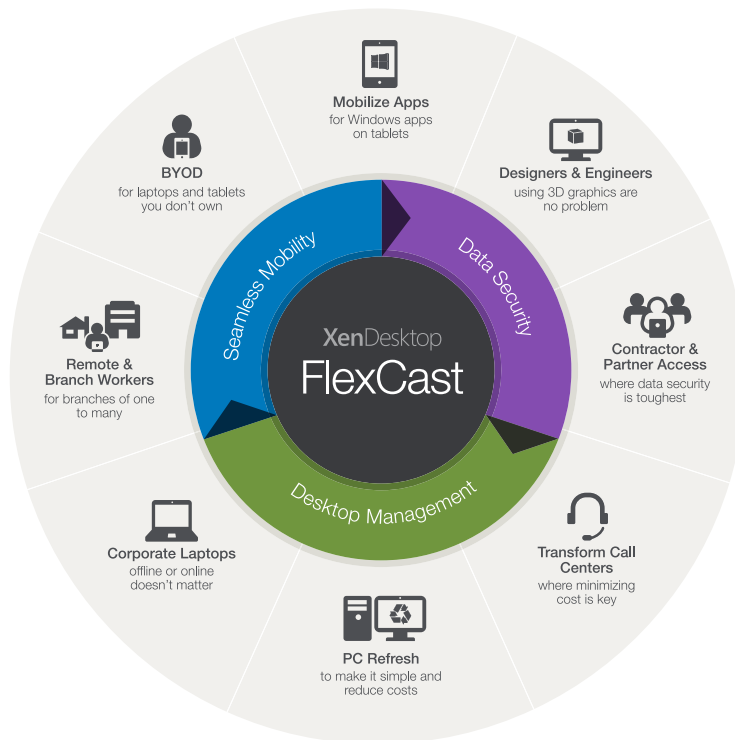


Figure 1. XenDesktop with FlexCast technology—top use cases for Windows-as-a-Service

The following examples explore key FlexCast services that can be delivered with XenDesktop.

### Transform call centers to minimize costs

Large-scale call centers can pose significant operational challenges: how do you maintain adequate staffing for peak periods without overstaffing—and overprovisioning PCs and office real estate—for the less busy times in between? Desktop virtualization offers a way to ensure adequate coverage throughout the day while minimizing costs. Instead of maintaining peak staffing on-site, organizations can enable dozens, hundreds or even thousands of part-time call center operators to work remotely on a schedule tailored to actual demand.

A common use case for desktop virtualization, XenDesktop transforms call centers into lean, decentralized organizations that are highly scalable and cost efficient. Operators can be provided with standard, locked-down virtual desktops that include only the two or three apps their work requires, computer telephony integration (CTI), VoIP and video for training. A range of more complex desktops can also be provided as needed, just as easily. Each app and desktop delivery method is available to meet business requirements, from locked-down hosted-shared desktops, to fully personalized and persistent VDI-based desktops, to a locally executed desktop with seamless, secure app delivery.

### Mobilize Windows apps on tablets

Tablets are rapidly gaining popularity in the enterprise, enabling convenient mobile productivity for all types of users, from engineers to doctors to salespeople. However, Windows-based apps are typically optimized for a full-size screen and rely on right-click inputs for full functionality. For tablets to fulfill their potential, they need to be able to provide the full functionality of these apps through touch-screen inputs that yield a satisfying user experience. With XenDesktop, it all works the way it should.

XenDesktop lets IT deliver seamless, secure access to desktops, apps and data on mobile devices anywhere, over any network connection. HDX Mobile optimizations transform Windows apps for use on tablets, translating multi-touch gestures, finger swipes and inertia into smooth navigation and scrolling commands. Users gain the ability to work with drop-down boxes, enlarged controls and automatic keyboard pop-up when touching a text field—without the need for source code changes.

For people on-the-go, access to the right app at the right moment—on the tablet in their hand, with no need to deliver a complete desktop to the tablet—can make all the difference. This scenario is best supported with Windows apps hosted on a Windows server in the datacenter and delivered to the tablet. With XenDesktop, IT can make that distinction and meet specific needs as a mobile user navigates through a variety of locations and uses multiple devices through the day.

### Provide contractor and partner access where data security is toughest

Contractors, partners and other third-party contingent workers need access to your apps and data to be productive—but you don't want to allow just anyone onto your network, and you'd like to avoid the expense of a large fleet of loaner laptops.

With XenDesktop, contingent workers can access virtual desktops and apps using thin clients or their own laptops, without having to join your network. Access can be granted in moments at the beginning of the project, then turned off and recycled just as quickly on its completion. Data remains within the datacenter and never resides on the thin client or personal laptop, helping the organization maintain strict data security and compliance.

### Simplify PC refresh and reduce costs

Traditional, costly PC refresh cycles are quickly becoming a thing of the past. Instead of having to replace computers every three years or so, IT can extend their useful lifetimes by using XenDesktop to shift processing to the datacenter. Existing PCs can also be replaced with inexpensive thin clients to reduce both capital and operating expenses. IT gains a simpler way to ensure an up-to-date computing experience for all users while leveraging the security benefits of a centralized desktop virtualization architecture.

PC refresh use cases can span many requirements. For some, a locked down desktop with personalization applied at login can be extremely cost effective with no need to persist the environment beyond a login. For other users, full personalization may be required including the ability to install their own apps that persist beyond a reboot. Even for the most compute hungry users, FlexCast technology allows administrators to deliver any type of desktop as a service.

### Allow BYOD for laptops and tablets

Personal devices are flowing into every organization as people seek the freedom to work their way. It's too late to bar executives, salespeople, doctors, knowledge workers and other high-value employees from using the devices of their choice, and it would be counterproductive to do so anyway. Instead, you need to find a way to deal with the ad hoc BYOD that already exists in your environment.

XenDesktop provides a simple way to support BYOD without adding complexity or sacrificing security. People can access their desktops, apps and data on any device they choose without having to join the corporate network. Citrix DesktopPlayer for Mac lets users run Windows desktops on a MacBook laptop—even while offline. IT gains a single point to manage access control and limit actions based on both user identity and the endpoint device, providing better application security, data protection and compliance management.

Core to delivering Windows-as-a-Service for BYOD is a seamless login process enabled by NetScaler Gateway where dual factor authentication leads the user to an enterprise StoreFront, where users select the apps or desktop they want to use, leaving them one touch away from launching apps as simply as they do any native app on iOS, Android, Blackberry, Mac, Linux or Windows.

## Empower mobile and branch workers

To support mobile employees and those working in branch locations, you need a way to provide access to desktops, apps and data without opening risky holes in your corporate network. With XenDesktop and NetScaler Gateway, IT can provide these users with seamless, secure access to their virtual desktops, apps and data—even on their own BYO devices—without having to join your corporate network. NetScaler allows any network connection to be used, including a local Internet provider, eliminating the need for costly leased lines. IT can easily provision, maintain and support virtual desktops and apps from a single, central point, while capturing large savings in networking fees.

XenDesktop integrates with CloudBridge, a Citrix networking technology that optimizes web traffic for Citrix ICA connections, caches video traffic, and prioritizes remote traffic to ensure a high performance experience. As a result, branch offices can support many more workers on whatever connections they have. Many organizations deploying to branch offices skip private connections altogether. They simply leverage local internet service providers and route all remote traffic through NetScaler load balancers and the NetScaler gateway ICA proxy for ultimate security.

## Support corporate laptops—both online and offline

Corporate laptops pose significant challenges for IT. As people move on and off the corporate network at will, how do you ensure that all updates and patches are applied, and that data is being backed up? How do you support and service these devices as they travel far and wide?

XenDesktop provides a complete, effective solution for corporate laptops. IT can deliver images even while users are offline, using centralized management to apply patches and updates in the background. A failed or lost device can easily be replaced—the user simply moves to another laptop or any other device for instant access to hosted desktops, apps and data. Meanwhile, full encryption on the endpoint ensures that even a lost laptop won't compromise security. As a result, people using corporate laptops can achieve full, unrestricted productivity wherever they work—even offline.

## Deliver virtual 3D graphics apps for designers and engineers

To keep pace with fast-moving competition, design firms and manufacturing companies need to accelerate time to market by enabling global collaboration. Sharing large design files via FTP, email and similar ad hoc methods has become impractical and risky and fails to reflect changes in real-time; in industries like these, yesterday's data is simply too old.

With XenDesktop, designers and engineers can access centralized 3D graphics workstations, apps and design data from anywhere in the world, in real-time, on any device they choose—and even use tablets to take designs right to the manufacturing floor. Data remains in the datacenter at all times, helping IT maintain security and control over intellectual property even as their workforce and computing environment become more mobile, distributed and diverse.

## Desktop virtualization solution checklist

As you evaluate desktop virtualization solutions, make sure the one you choose provides the full set of capabilities required to support every use case in your organization—now and in the future—for long-term business value.

- Deliver apps or complete desktops in the most cost-efficient way possible for each use case
- Provide highly secure, seamless remote access to apps and desktops
- Optimize Windows apps for tablets and other mobile devices
- Deliver the full power of seamless, personalized virtual desktops—even offline
- Leverage the low-cost scale of Windows Server to deliver the lowest cost virtual desktops
- Provide integrated capabilities for MDM, file sync and sharing, and mobile app delivery so you have a seamless path to support increasing enterprise mobility

## Conclusion

Providing the flexibility to address any desktop virtualization use case in the right way, XenDesktop with FlexCast technology simplifies adoption by allowing you to set your own priorities and agenda. Instead of segmenting users or seeking use cases that fit vendor-driven criteria, you can choose the project with the greatest immediate need and get started easily. The solution's versatility enables you to meet current needs while future-proofing your desktop virtualization strategy. As you gain experience and confidence with desktop virtualization, you can extend the same XenDesktop infrastructure to address additional challenges and use cases, each with its own optimal delivery method, cost model and user experience.

## Additional Resources

- [XenDesktop with FlexCast technology](#)
- [Citrix XenDesktop](#)



**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 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](http://www.citrix.com).

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