



Citrix XenDesktop 4: The clear choice for desktop virtualization

Citrix pioneered desktop and application delivery over 20 years ago, and in recent years, we have been rapidly innovating with our industry leading XenDesktop product line. Since the initial launch of XenDesktop in 2008, Citrix has delivered three major product releases, offering unmatched capabilities, such as HDX and FlexCast delivery technology. In contrast, competitive products such as VMware View have remained relatively static in terms of innovation and new functionality. Only Citrix XenDesktop 4 delivers:

- The best type of virtual desktop for every user in your enterprise
- A high definition user experience, assuring performance over LAN and WAN connections
- Instant and secure access to desktops from any device, anytime, anywhere without any compromises
- The ability to manage fewer desktop images and reduce management costs with on-demand apps by XenApp
- The best data security and access control with rich set of policies
- An open architecture, ensuring support for any hypervisor, storage or network devices

XenDesktop 4 delivers the best type of virtual desktop for every user in your enterprise

Different types of workers across the enterprise need different types of desktops. Some require simplicity and standardization, while others need performance and personalization. Only XenDesktop can meet all these requirements in a single solution. With our unique Citrix FlexCast™ delivery technology, each user gets exactly the performance, security and flexibility he or she needs.

Look at all the flexibility that FlexCast offers:

- **Hosted Shared Desktops** - locked down, streamlined and standardized environment with a core set of applications, ideally suited for task workers where personalization is not needed – or allowed.
- **Hosted VM-based VDI Desktops** - personalized Windows desktop experience, typically needed by office workers, which can be securely delivered over any network to any device.
- **Hosted Blade PC Desktops** – hosted blade workstation which enable technical workers and power users to run professional graphics applications.
- **Local Streamed Desktops** - leverages existing investment in recently purchased PCs and offers a smooth IT and budgetary transition to a hosted virtual desktop solution.
- **Virtual Apps to Installed Desktops** - virtual apps run on the local devices which are managed centrally. Virtual apps can work offline which makes this a popular choice for mobile users.
- **Local VM-based Desktops** - extends the benefits of centralized, single-instance management to mobile workers that need to use their laptops offline. Changes to the OS, apps and user data are automatically synchronized with the datacenter when connected to a suitable network. Currently under development.

XenDesktop with FlexCast gives IT the ability to deliver any type of virtual desktop, to any user, on any device – and to change this mix at any time.



VMware View 4 only really supports one type of desktop virtualization - VDI

VMware View 4 lacks the capability to deliver all types of virtual desktops that an organization will need to serve all of their employees in the most cost effective way. VMware offers VDI desktops and recommends them for all users. Although VMware claims to support hosted blade PC desktops and hosted shared desktops delivery models in View 4, the reality is that they are considered secondary by VMware - and software PCoIP does not work with these models.

XenDesktop 4 delivers a high-def user experience over LAN or WAN

Citrix HDX technology, built on the industry-standard ICA protocol, leverages the entire delivery infrastructure from the datacenter to the device to deliver a high definition experience to users. Citrix HDX technology adapts to changes in the entire infrastructure and applies the best optimization technology for each unique user scenario. As a result, users get a high definition experience from any location, while using up to 90% less bandwidth than other solutions, including View.

VMware View 4 with PCoIP is unproven and does not scale for enterprise use

View 4 relies upon PCoIP, an unproven third party display protocol that does not scale to handle different networks and applications. PCoIP consumes large amounts of bandwidth which impacts user experience and reduces the scalability of the network. PCoIP will not work for all situations. It does not support Smart Cards, WAN optimization, printing enhancements, or its own View Connection Server for external users. In these cases VMware recommends deploying an older version of the RDP protocol however this creates additional problems. This option also consumes large amounts of bandwidth, resulting in unacceptable performance over networks with 100 ms or more of latency (e.g., branch offices, remote users and offshore workers). On the LAN, it consumes nearly 4X the bandwidth of XenDesktop just running basic office applications. The difference becomes greater when handling rich content such as multimedia: View 4 takes up to 10X more bandwidth than XenDesktop regardless of the protocol.

Furthermore, PCoIP is resource-intensive – it requires significant amounts of CPU cycles, and therefore impacts the scalability of the server. As a result, View 4 will likely require network infrastructure upgrades, more servers to deliver an acceptable user experience, and more complexity to manage as it does not have a single protocol solution that works for all users.

XenDesktop 4 delivers to any device

Citrix XenDesktop delivers the **best user experience on all endpoint platforms** including Windows, Linux and Mac platforms, and devices such as the iPhone and Windows Mobile. This ensures that organizations will be able to purchase any endpoint device and enables corporate initiatives such as a work-from-home or BYOC programs. Also, contract and temporary employees are able to securely access the corporate desktop, no matter what device they are using.

VMware View 4 limits endpoint choices

VMware View 4's PCoIP protocol is only available for Windows based end point devices and proprietary third party devices, giving customers limited flexibility and choice. For several scenarios, example Smart Card authentication or repurposed old PCs with 1 GHz or less processor, View 4 requires use of RDP, which increases overall complexity of the



environment. VMware may claim to support other endpoints but these will revert to basic RDP functionality, losing support for most of their extensions such as USB connected devices, local printing and any local graphics acceleration.

XenDesktop 4 offers includes complete application delivery

XenDesktop includes all the capabilities of the proven XenApp application virtualization platform, giving IT unparalleled control over applications and unmatched enterprise application virtualization capabilities.

- **Online and offline application delivery** - Applications can be hosted centrally and delivered for use while online, or streamed directly to the endpoint and run in an isolated environment for use when offline.
- **Zero application conflicts** - Application isolation eliminates conflicts and simplifies compatibility testing.
- **Rapid application updates** - Applications centralized in the datacenter need to be updated only once; the updates are then applied to user desktops at logon.
- **Simple, self service provisioning** - Citrix Dazzle acts as a storefront to desktops and applications. IT can instantly and easily advertise the existing offline and online Windows and Web applications.
- **Proven application compatibility** - Whether you are delivering multi-tier line-of-business applications, common office productivity applications or professional 3D graphics software, XenDesktop offers a delivery solution.
- **Trusted application delivery platform** - Over 230,000 customers with over 100 million end users.

The flexibility of application virtualization options cuts down overall server utilization, placing the least possible load on the virtualization infrastructure resulting in lower hardware acquisition and support costs. In addition, XenDesktop is fully interoperable with Microsoft App-V application virtualization technology.

VMware View 4 does not have enterprise class application delivery options.

View 4 Premier is packaged with ThinApp technology, which is an application packaging utility without role-based app delivery capabilities. ThinApp lacks a strong management system, resulting in a very complex environment to manage, especially for enterprise scale deployments. This lack of management capability requires administrators to deal with numerous text files and custom scripts in order to give users their applications. Changes and updates to the applications require further manual work. As more users need access to more applications the lack of management becomes a heavy burden. Users that need self service provisioning are out of luck as View has no capability to allow self-service.

XenDesktop offers comprehensive policies to control access

XenDesktop offers **granular, scenario-based access control** which ensures that only authorized users can connect and access specific resources if their role, location, network and device allow. A secure ticketing authority verifies that the user is allowed to login. Once they connect, IT can control the flow of data so that only screen updates, mouse clicks and keystrokes—not data—traverse the network. Smart cards are fully supported in XenDesktop, with seamless authentication into applications and device-to-device roaming capabilities.

While users are connected XenDesktop creates **secure and searchable visual records** of user activity in critical applications. This information can be used for regulatory compliance and litigation support.



VMware View 4 does not have detailed security and control

PCoIP does not support the basic SSL tunneling in the View Connection Server, requiring a 3rd party VPN that can support PCoIP. In addition, PCoIP does not support smart cards, limiting the products use in high security environments.

View 4 also lacks access policies, making it unable to respond to different roles, locations, networks and devices. Further, ThinApp requires manual updating of text files and scripts to apply rudimentary security and can't audit user activity.

XenDesktop 4 supports any virtualization infrastructure

Whether you use XenServer, Microsoft Hyper-V or VMware ESX or vSphere, XenDesktop supports them all and simplifies management of networked storage using StorageLink™ technology. XenDesktop also integrates with Microsoft App-V and System Center for application management.

VMware View 4 locks you into the VMware platform

VMware View 4 only works with VMware's own hypervisor.

Setting the Record Straight

In a competitive marketplace, others may try to downplay XenDesktop's strengths or confuse the issues around desktop virtualization. To assist our customers in making an informed decision we'd like to address some common misconceptions here. For example, our competitors may try to:

- Downplay the flexibility and power of FlexCast delivery technology as "complex," and distract you from the reality that FlexCast offers unmatched ability to ensure that each user gets the right type of desktop delivery model, at the lowest cost to the organization.
- Obscure the true complexity of management associated with their own solutions. To match the capabilities of XenDesktop, they need to rely on 3rd party products with additional management overhead and consoles.
- Claim that they support features that match the Citrix ICA protocol and HDX technologies, when the fact is that they are relying on a mash up of multiple protocols and extensions, some of which are incompatible with each other, and still come up short when it comes to user experience, network efficiency and CPU utilization.
- Claim inflated market share numbers without solid references to back them up. Citrix has customer references with thousands of users in production environments. Our competitors have only been dealing with virtual desktops for a short period of time whereas Citrix has been the industry standard for delivering virtual desktops and applications for over 20 years.

Of course, the only way to make the right decision is to evaluate the solutions for yourself, and talk to a Citrix representative to help set up the truest criteria for your environment that spans all the appropriate use cases, network requirements, endpoint devices, applications and multimedia and more. To get started, you can download a simple, free 10-user environment from www.citrix.com/tryxendesktop and see for yourself.



Benefit Summary	XenDesktop	View
Multiple desktop & application delivery models	YES	VDI only
Scalable high definition user experience on any network	YES	NO
Office applications on the LAN	YES	YES
Best user experience on all endpoint platforms	YES	NO
Delivers apps based on user roles	YES	NO
Granular, policy-based application access control	YES	NO
Fully integrated smart card support	YES	NO
Self-service application provisioning	YES	NO
Service level monitoring & reporting	YES	NO
Manages physical and virtual desktops with a single image	YES	NO
Built-in profile management	YES	NO
Flexibility and choice of VM infrastructure	YES	NO