Five Reasons Why VMware® Horizon View™ 5.3 Is a Better Choice Than Citrix XenDesktop 7

Ease of Use and Total Cost of Ownership Comparative Report

WHITE PAPER
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Introduction

Virtual desktop infrastructure (VDI) technologies are becoming increasingly important for organizations for several reasons including the demand for greater security and compliance, workforce mobility, business agility, mobile and Bring Your Own Device initiatives, and operational savings. Total cost of ownership (TCO) advantages continue to drive VDI adoption and companies continue to look for ways to better manage costs associated with software licenses and IT deployments as well as ongoing usage, maintenance, and technical support costs.

Independent research and commentary from industry analysts, implementation partners, customers, and lab reviews document the advantages of VMware® Horizon View™ over Citrix's XenDesktop solution in the areas of initial and ongoing expenses, the total cost of ownership, and ease of use.

Compared to similar offerings from Citrix, Horizon View stands out in the minds of these experts as superior in several key decision criteria:

1. The cost- and time-saving integration of Horizon View with VMware vSphere® is second to none in the industry. Savvy organizations have been benefiting from this synergy for years. It’s time you did too!

2. Even with all the features and cost-saving advantages Horizon View has over Citrix XenDesktop, you may be surprised to learn that Horizon View costs remarkably less to purchase and to deploy. All things considered, Horizon View has a lower total cost of ownership. You get more for less.

3. Users appreciate the management consistency and simplicity of Horizon View and VMware vSphere. In the majority of cases, most users are already familiar with vSphere. This makes the transition to VDI by implementing Horizon View smooth and painless. We've heard it too many times not to tell you about it—Horizon View just works.

4. Managing ongoing VDI deployments can be more than a full-time job—unless you have VMware vCenter™ Operations Manager for Horizon View™. Once the system is deployed, it’s all about the management. vCenter Operations Manager for Horizon View makes managing your VDI environment a breeze, providing the operations information needed to make your job that much easier, and surpassing the management capabilities of any other vendor.

5. With the introduction of Unity Touch earlier this year, VMware broke away from the pack by providing what some say is a “better than native” user experience, making it easier to run Windows applications on your iPhone, iPad, or Android device.

The more money we can save on the IT side, the more money goes into educating these kids. That’s why we’re here. VMware datacenter and desktop virtualization solutions enable us to slash costs, accommodate district growth, and deliver outstanding customer service to students, faculty, and administrators—all without increasing the size of our IT staff.”

– Brooks Moore, DCS Technology Help Desk Manager, Aledo Independent School District (ISD)

Key Takeaway

VMware Horizon View is the clear choice for organizations concerned with end-user satisfaction at a reasonable price. Horizon View is typically half the licensing cost of Citrix XenDesktop with equal or greater functionality.
Why Horizon View Is the Better Choice

VMware Horizon View is the most trusted, functional, and highly performing VDI solution available, providing superior hypervisor integration, greater ease of use, lower cost with comparable functionality, and a better user experience. Industry analysts and independent reviewers agree that Horizon View is the better choice.

1. Superior Hypervisor Integration

The hypervisor (a program that allows multiple operating systems to share a single hardware host) is a crucial component for the success of a VDI implementation and it also has a direct impact on TCO. The VMware vSphere hypervisor solution provides a highly scalable and manageable solution to support the VDI environment that is recognized by industry analyst Gartner as the clear market leader with a 76 percent market share, dramatically surpassing its closest competitor, Microsoft. Additionally, studies have shown that vSphere has the lowest TCO with a 91 percent lower post-acquisition cost compared to Microsoft over a two-year period.¹

“We've already saved $2.1 million since moving to VMware vSphere, and expect to see these savings grow over the next few years. We've consolidated our servers at a 20:1 ratio, significantly reducing hardware costs. We've saved energy and space. We've even saved time because VMware technology has eliminated the extra time, steps, and costs of procuring and provisioning physical servers. From an operational and capital expense standpoint, going with VMware vSphere made a lot more sense.” ²

– Tom Hines, Chief Information Officer, Trilliant

¹ Principled Technologies, Inc. Total Cost Comparison: VMware vSphere vs. Microsoft Hyper-V. April 2012.
²Why Choose VMware for Server Virtualization? A Comparative Analysis for New Virtualization Customers
Five Reasons Why VMware Horizon View 5.3 Is a Better Choice Than Citrix XenDesktop 7

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Figure 1: VMware Horizon View Architecture
Leveraging a combined VMware VDI and hypervisor solution also reduces capital and operating expenses and the robust and unique integration between vSphere and Horizon View provides many benefits including:

- **License cost savings.** Horizon View license costs are 50 percent less than XenDesktop. Since the Horizon View license includes vSphere, each license saves an organization $65 in initial license costs and $16 annually in Support and Subscription Services (SNS).

- **Storage and OpEx reduction.** Horizon View provisioning capabilities significantly reduce operational expenditure, mainly by trimming storage requirements for VDI desktops (up to 90 percent) and eliminating many hardware workarounds.

- **Endpoint protection.** VMware vShield Endpoint™, included with vSphere, is a built-in endpoint security solution that strengthens security in a virtual environment through antivirus processing protection supplied by VMware partners.

- **Consistency in management design and usability.** Horizon View and vSphere management interfaces are based on the same transferable design and administrative skill sets, resulting in lower operating expenses.

Not stopping here, VMware is already taking the next steps on the integration journey, exploiting our advances in the software-defined datacenter (SDDC) to embrace storage and network virtualization. VMware has established leadership in the datacenter, and is on a path of ongoing advances that no one can match.

**Key Takeaway**

As the dominant hypervisor solution provider, it is not surprising that over 80 percent of Citrix XenDesktop implementations run on VMware hypervisors. But these customers are experiencing higher costs than a Horizon View and vSphere implementation because the Citrix solution cannot take advantage of the unique and tight integration between Horizon View and vSphere. The combined solution provides the lowest-cost and highest-performing solution available from the trusted datacenter solution provider.

### 2. Lower Cost with Comparable Functionality

Citrix commonly promotes performance advantages of their video optimization technology called HDX over similar functionality from VMware known as PCoIP. This performance claim is often used to justify their significant cost differential. Yet in May 2013, when VMware commissioned independent lab Principled Technologies to take an in-depth look at Horizon View versus Citrix XenDesktop, the tests concluded that while both products performed similarly, the Citrix XenDesktop solution costs were nearly double with identical hardware. The Citrix cost differential was completely due to their extremely high license costs.³

<table>
<thead>
<tr>
<th>HORIZON VIEW</th>
<th>CITRIX XENDESKTOP</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of users supported</td>
<td>174</td>
<td>175</td>
</tr>
<tr>
<td>Total licensing cost</td>
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<td>$131,667.36</td>
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<tr>
<td>Hardware cost</td>
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<tr>
<td>Total cost</td>
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<td>$143,512.36</td>
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<tr>
<td>Cost per user</td>
<td>$483</td>
<td>$820</td>
</tr>
</tbody>
</table>

*Table 1: Horizon View vs. Citrix XenDesktop Cost Comparison*

³. Ibid.
“Hosted on the same physical hardware resources and using similar image rendering settings, we conducted scale testing with the Login VSI medium workload. We found that VMware Horizon View 5.2 supported 174 Microsoft Windows 7 virtual desktop sessions at a cost per user of $483.

“Density-wise Citrix XenDesktop 5.6 was comparable supporting 175 sessions; however, the cost per user was $820 versus [a Horizon] View cost of $483 per user! These findings show that VMware Horizon View 5.2 delivered comparable density [to Citrix XenDesktop] at a 41.1 percent lower cost per user, making it an excellent choice for a company that wants to deliver a high-quality experience to users at an excellent price.”

– A Principled Technologies Test Report

Additionally, Citrix technical support is $35 annually per CCU where VMware technical support and maintenance are included in the overall costs, making Horizon an even more competitive solution.

![Principled Technologies Cost Analysis Including Citrix Support](image)

Figure 2: Principled Technologies Cost Analysis Including Citrix Support

“Ultimately, on fast links, HDX was felt to be as good as the PCoIP protocol that VMware uses—although over slower links or those with unpredictable latency, we preferred PCoIP.”

– Tom Henderson and Lars Johnson, Network World, July 17, 2013

The findings from a July 2013 Network World report are strikingly similar to the findings from Principled Technologies regarding performance and specifically video performance. Although over twice the price of VMware Horizon View, XenDesktop did not deliver a more powerful solution.

**Key Takeaway**

Independent reviewers agree—Horizon View delivers equivalent product performance for less than half the cost of XenDesktop. Organizations concerned with TCO as well as performance would be well served by implementing Horizon View.

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3. Greater Ease of Use

Vendors regularly claim that their product is easier to use than their competitors’ products and the VDI space is very representative of that. Independent surveys, however, such as 2013 the Reader’s Choice Awards by Virtualization Review, provide an independent view of the vendors’ claims.

For the third year in a row, VMware Horizon View was named the favorite VDI product, winning the Reader’s Choice Award from the 20,000 fully vetted voters that Virtualization Review solicited.

Practitioners routinely cite ease of use, including the provisioning functionality, as an important feature of Horizon View.

VMware View Composer™ provides customers key benefits such as storage reduction, better OS management, and rapid deployment capabilities.

“With View Composer, we can create new desktops on the fly. If we have a Wyse terminal ready to go, it takes us about 15 minutes to create a new desktop, whereas before, it was taking us two to three hours to load a desktop image. That makes IT much more responsive to the overall needs of the organization.”

– John Meharg, Director of Health Information Technology, Norman Regional Health System, Oklahoma

Conversely, Citrix provisioning functionality is one of the most common complaints with implementation partners, reviewers, and customers.

Citrix has multiple overly complex methods or features for image provisioning that also increase the total cost of ownership of XenDesktop. Even Citrix partners such as Unidesk agree that XenDesktop is complicated and utilizes redundant provisioning technologies. Their comments are consistent with the majority of the Citrix community, including implementation partners.

Scaling XenDesktop starts off easily by adding a new host, but the simplicity ends there. The next set of steps depends on your desktop-provisioning method (i.e., pooled or dedicated through Machine Creation Services (MCS), physically assigned or streamed).

Whether you’re using MCS or Provisioning Server (PVS), XenDesktop manages images using different versions. Using PVS requires additional steps, however, because the VDI software needs to prepare each image for provisioning.

Citrix XenDesktop is perceived as too complex for all but the largest of enterprises. Both PVS and MCS are too hard for most lean IT staffs to use, and many XenDesktop deployments get stalled by image management complexity.

Adding to the complexity and TCO, Citrix also requires customers who use Microsoft Server 2012 to license additional technology from Microsoft with the release of XenDesktop 7, launched in May 2013. XenDesktop typically requires expensive third-party services to maintain any hidden costs from additional Microsoft product licensing to make the product fully functional.
“Moving current implementations of Citrix Application Streaming to Microsoft App-V sounds easy on paper. In reality, it isn’t that easy, and overall, it will be resource-consuming without big benefits for end users.”

– A chief technology officer at an IT infrastructure services firm based in the Netherlands

**Key Takeaway**

Practitioners love Horizon View having voted it the Virtualization Review Reader’s Choice Award for 2013 and the two prior years. Horizon View has been thoughtfully designed to simplify VDI implementation with easier provisioning and integrated operations management. Plus, Horizon View comes with the leading application virtualization product, VMware ThinApp®, eliminating the need for third-party application virtualization components.

### 4. Exceptional Operations Management

Managing system performance and configurations is a necessary part of a production VDI implementation. VMware provides an integrated management solution, known as VMware vCenter Operations Manager for Horizon View, providing end-to-end visibility into the health and performance of the Horizon View environment.

![Figure 3: vCenter Operations Manager for Horizon View Management Console Windows](image)

While performance issues and provisioning complexities are often unseen or hidden during product evaluations, multiple sources confirm these are common and expensive issues with XenDesktop deployments. A recent survey on VDI revealed that 71 percent of Citrix customers surveyed experienced issues with maintaining their XenDesktop implementation. Of special note:

- **Performance issues affect nearly half of all XenDesktop customers.** It has been well documented that Citrix provides a weak performance-management solution (EdgeSight) that limits ease of use and increases mean time to remediation.

- **Managing configurations is an issue for a significant number of customers.** Unless the customer can afford expensive third-party professional services to maintain images, provisioning features are difficult to manage. Even with third-party services to manage the image-provisioning process, an alarming 50 percent of Citrix customers report performance issues.
As VMware customers embrace ongoing advances in infrastructure virtualization and management delivered by SDDC, the integrated management capabilities we deliver with Horizon View will become even more comprehensive. This is an area in which the gap between Horizon View and Citrix XenDesktop will continue to grow.

**Key Takeaway**
VMware provides integrated operations management functionality with vCenter Operations Manager for Horizon View that extends beyond the VDI system and into the hypervisor.

### 5. Better End-User Experience

A groundbreaking approach to using Windows applications, Unity Touch from VMware provides a “better than native” experience on mobile devices. Unity Touch makes it easier to run Windows applications on your iPhone, iPad, or Android device.

With Unity Touch, users can easily browse, search, and open Windows applications and files; choose favorite applications and files; and switch between running applications—all without using the Windows Start menu or task bar. 11 Citrix has no similar capability and instead is promoting their own application store and SDKs to require users to recreate custom SDKs that will soon become legacy applications and lock organizations into an outdated infrastructure.

**Key Takeaway**
Horizon View with its Unity Touch capability helps organizations future-proof their environment. VMware Unity Touch provides a better than native experience for Windows applications on mobile devices—without requiring any custom work to be done on legacy and proprietary SDKs. It just works!

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Industry Analyst and Other Independent Reviews

Referring again to the *Network World* review in 2013, the authors found VMware Horizon View an extremely viable solution and mentioned the simplicity of the Horizon View provisioning capability (View Composer).

“Horizon View had stellar customization possibilities (more so with optional View Composer) and a very good client experience that was consistent on any of the devices we tried, and many are supported. We believe it could grow well for organizations needing a large VDI infrastructure.... Horizon View works—it’s very lovely and rich and extensible.”

Respected technology customer experience analyst Temkin Group reported in the 2013 Tech Vendor NPS Benchmark that VMware led the industry in customer loyalty beating out Microsoft, SAP, and IBM.

In addition, 62 percent of IT decision makers who had interacted with VMware are willing to try a new VMware offering right away and 56 percent of VMware customers planned on additional purchases—while only 26 percent of Citrix customers intended to add more Citrix products in 2013.

**Key Takeaway**

Independent reviews confirm that VMware provides a highly functional and trusted solution.

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Conclusion

Practitioners, industry analysts, and independent reviewers agree that VMware Horizon View is the leader in VDI solutions. Reasons cited for the leadership position always include functionality, ease of use, integration with the hypervisor of choice (VMware vSphere), and TCO.

XenDesktop is a highly functional product that has enjoyed some market success from Citrix’s 20-year legacy of Windows application streaming solution that is now known as XenApp. But unlike Windows application streaming, XenDesktop frustrates practitioners with its complicated and over-engineered functionality that is still largely present with the latest XenDesktop 7.0 release. High license costs and TCO have prompted many organizations to look for VDI alternatives even if they are large users of Citrix Windows application streaming solutions.

VMware provides the most trusted, functional, and highly performing VDI solution available with the combination of the industry-leading vSphere hypervisor and Horizon View. With the highest performance and significantly lower TCO, VMware is the clear choice for VDI.