



# VDI Made Simple

Manage Desktops NOT Storage

Industry-proven Solutions for VDI with Tintri and Citrix



The decision to virtualize desktops can get stuck when the storage underneath can't keep pace with the demands. Managing a virtual desktop infrastructure (VDI) can be complex and costly due to the large number of components involved. You need industry-proven solutions such as Tintri VMstore and Citrix XenDesktop to help you guarantee performance and flip storage from anchor to enabler.

### Challenges of VDI Deployments

The promise of VDI is clear. Virtualizing and centralizing desktops offers a more secure and manageable end-user computing model. However, managing an increasing number of users while maintaining user experience remains very challenging for IT organizations.

Organizations that have decided to enable VDI often accept that it's supposed to be complex, and that storage in particular will be a source of pain. Tintri challenges those assumptions.

Common barriers to realizing the full potential of VDI include:

- **Poor Performance:** Performance can be impacted by: boot storms, virus scans, latency spikes and even unpredictable user workloads. The performance shortfalls can inhibit user acceptance and diminish productivity.
- **Lack of Visibility:** LUNs, volumes, RAID groups, and other components of conventional storage systems render it virtually impossible to have visibility. Problem outliers and one-off performance issues that degrade system reliability and usability can remain hidden behind a veil of complexity.
- **Management Complexity:** Most VDI administrators are not storage experts. Yet conventional storage systems require expert-level knowledge just to troubleshoot. That complexity can hinder the rapid resolution that is sometimes essential to properly managing VDI.

### Combining the Power of Citrix and Tintri

With industry-proven Tintri VMstore and Citrix XenDesktop solutions:

- Your VDI team shouldn't require a storage PhD to deliver great performance. Keep Citrix XenDesktop deployments and management both simple and scalable – as many as 5,000 desktops in a single logical datastore on one Tintri VMstore.
- Each desktop VM, whether it's a task worker or power user, has its own "lane". Tintri quality of service (QoS) guarantees performance. Desktop and server workloads can coexist on the same VMstore without creating contention.
- No more overprovisioning – Tintri provides higher VM density than other storage providers—up to 5,000 desktop VMs in two rack units—and simply scales as you grow.

### Tintri Unique Features for VDI

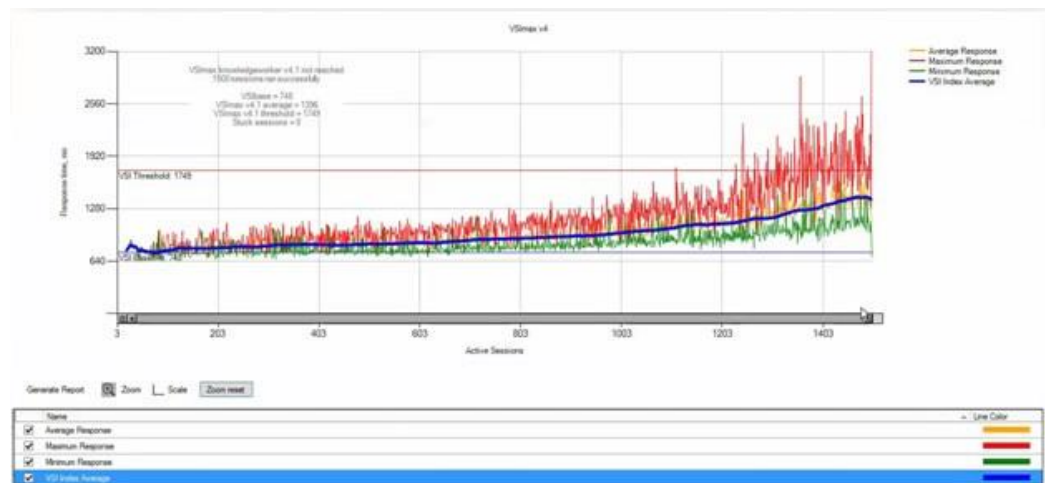
- Predictable performance with sub-millisecond latencies can be achieved in a fraction of the footprint of conventional storage. The Tintri VMstore keeps users productive, effectively handling boot and login storms, desktop updates, and performance-hungry applications.
- Tintri VM-aware storage (VAS) lets you focus on VMs and applications, not LUNS and volumes, consistently providing the best performance without requiring manual tuning or storage management. This is possible through Tintri VM-level QoS and the ability to eliminate “noisy neighbor” effect between end-user and server VMs.
- A single pane of glass interface provides end-to-end, VM-level visibility into performance latency across compute, networking, and storage, enabling IT to proactively solve end-user experience issues quickly and efficiently.
- Direct provisioning of user desktops includes support for Citrix Provisioning Services (PVS), Citrix Machine Creation Services (MCS), and Tintri Native Clones. Tintri’s vStorage API for Array Integration (VAAI) seamlessly enhances all supported provisioning methods.

### Citrix Ready VDI Capacity Program Phase II

Under this program, Tintri VMstore™ storage system supported a realistic Citrix XenDesktop workload leveraging Citrix Provisioning Services in a simulated 1,500-user environment.

Login Virtual Session Index (Login VSI) is the industry-standard tool used for this performance and capacity testing. A total of 1,500 virtual desktop sessions were successfully launched and stress tested, running in benchmark mode as required by the Citrix Ready® program. The latency limit of VSI max was not reached at any point of the test. The VSI max average response time threshold was 1,717 milliseconds. The VSI max baseline average response time was 716 milliseconds. VSI response time threshold headroom was 1,857 milliseconds.

As conclusively shown by the results of the Citrix VDI Capacity Program benchmark test, Tintri VMstore serves as a perfect symbiotic partner for Citrix XenDesktop, handily meeting or exceeding all the requirements of the Citrix Ready® Program.



## Choosing the Right VDI Software

The key to success of any VDI initiative is choosing the right desktop virtualization broker. Citrix XenDesktop delivers virtual apps and desktops as mobile services for multiple use cases. It enables increased employee productivity with anywhere access, simplifies support of BYOD (bring-your-own-device) and conventional VDI endpoints, provides desktop security to protect sensitive information, and reduces cost and complexity. Citrix XenDesktop helps solve top IT and business challenges

## Get Started

If VDI is on your list of priorities or you are looking to expand your current environment, Tintri can help you successfully and cost effectively deploy desktop virtualization. Tintri has developed extensive guides to deploying Tintri VMstore with Citrix XenDesktop, and deep dives on Tintri with XenDesktop PVS, XenDesktop MCS, and XenDesktop with Tintri Native Clones.

[VDI Capacity Program Tintri Report](#)

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### About Citrix Ready

Citrix Ready identifies recommended solutions that are trusted to enhance the Citrix Delivery Center infrastructure. All products featured in Citrix Ready have completed verification testing, thereby providing confidence in joint solution compatibility. Leveraging its industry leading alliances and partner eco-system, Citrix Ready showcases select trusted solutions designed to meet a variety of business needs. Through the online catalog and Citrix Ready branding program, you can easily find and build a trusted infrastructure. Citrix Ready not only demonstrates current mutual product compatibility, but through continued industry relationships also ensures future interoperability. Learn more at [www.citrix.com/ready](http://www.citrix.com/ready).

### About Tintri

Tintri VM-aware storage is the simplest for virtualized applications and cloud. Organizations including Toyota, United Healthcare, NASA and 7 of the Fortune 15 have said "No to LUNs." With Tintri they manage only virtual machines, in a fraction of the footprint and at far lower cost than conventional storage. For more information, visit [www.tintri.com](http://www.tintri.com) and follow us on Twitter: @tintri

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