

NexentaConnect™ for XenDesktop

Liberating VDI Storage

DEPLOY VDI WITH INTEGRATED, HIGH-PERFORMANCE, ECONOMIC STORAGE

There are a number of technical challenges to consider when it comes to deploying Citrix XenDesktop and XenApp, from understanding application performance requirements to discovering network configuration issues. However, the single most difficult pain point when it comes to VDI is storage. And using a software-defined storage solution which liberates storage management from the underlying hardware doesn't mean giving up features, performance, or functionality; in fact, it can make administrator's life easier.

NexentaConnect for XenDesktop greatly simplifies the process of deploying a XenDesktop environment. This is accomplished by providing a wizard-like interface integrating desktop deployment, storage provisioning, and desktop performance metrics.

The NexentaConnect for XenDesktop Deployment Manager utilizes user defined desktop characteristics when provisioning the desktop pool. Auto discovery of internal storage on the vSphere hosts allows for the deployment of the Nexenta Virtual Storage Appliance (VSA), taking full advantage of internal SSD and memory for caching. Existing external file and block storage can also be utilized. NexentaConnect then coordinates the networking, storage, and desktop provisioning operations that must take place between VMware vCenter, vSphere, and the Citrix SDK. The result – fully provisioned XenDesktop Desktop Groups with purpose built and integrated storage.

Virtual desktop deployments are taken to the next level by utilizing the NexentaConnect for XenDesktop Performance Manager and built in host-client tools that provide real-time analytics on the virtual desktop environment through steady state and boot storm analysis of the existing desktop environment, eliminating the guessing game of industry default performance baselines. VDI environment expansion is simplified through the use of the integrated Configuration Manager, and when combining analytics from the Performance Manager, NexentaConnect for XenDesktop can recommend and configure storage to meet your changing VDI environment.

Highlights

- Flexible, scalable storage architecture utilizing internal host storage or external arrays
- Communicates with VMware vSphere and Citrix XenDesktop to deploy a customized storage platform with virtual desktops
- Integrated performance and benchmarking tools to assess steady state and boot storms
- Desktop acceleration via the virtual storage appliance model
- Lowers the overall costs of deploying and managing a virtual desktop deployment
- Implementation in hours with integrated tuning

RELIABLE, ROBUST VIRTUAL DESKTOP DEPLOYMENTS

NexentaConnect for XenDesktop is a software-only solution that provides advanced features and functionality suited to handle the demands of a virtual desktop environment. By combining storage and compute, NexentaConnect for XenDesktop enables a complete 'storage-in-a-box' solution for both persistent and stateless desktops with Machine Creation Services (MCS). If there is a need or desire to run Provisioning Services (PVS) or streaming desktops, NexentaStor could be used instead of NexentaConnect to adequately manage the storage backend.

NexentaConnect leverages SSDs and internal host memory and provides benefits such as separating the read and write cache for the VDI workload and making the entire cache completely transparent to the end user. To address data security concerns, it utilizes ZFS technology and guarantees end-to-end airtight data integrity.

This virtual storage appliance is installed on the same hardware where your VDI virtual machines reside. This dramatically improves storage performance for all VDI machines through minimized latency and enhanced caching. In addition, hardware-agnostic NexentaConnect helps leverage your existing investments in external storage hardware for dedicated desktops.

Desktops are deployed via simplified wizards with direct integration with Citrix XenDesktop, provisioning for the simplest desktop deployment mechanism. The results from the wizard determine the appropriate storage profile to be applied and provision performance driven, custom VDI storage accordingly.

Leveraging NexentaStor™

NexentaConnect leverages the cache capabilities of ZFS to place a "cache wedge" between the virtual machines and the storage. Since the VSA sits directly on the hypervisor and uses system RAM as its cache, not only are the blocks retrieved almost immediately, they do not leave the virtualization host as they are delivered to the virtual machine. This accelerates the VMs and offloads taxing I/O workload from the SAN.

More important, however, is the fact that the tightly integrated appliances are automatically optimized for VDI workloads and management. This also means that the full software stack can be deployed to existing servers and storage arrays.

Storage Profiles

This functionality provides NexentaStor storage that corresponds with the desktops that are being created. For instance, being able to design a dedicated architecture through the wizard optimizes both the storage and the virtual desktops. This integration has great value for users who want a simple way of obtaining advanced storage features and desktop designs without the need for a dedicated team.

Performance Validation

Performance Analyzer provides a series of tests to run on the desktop themselves as well as on the storage solution, outputting results for evaluation by an administrator in a simplified, easy to interpret interface. This results in real time analysis of your VDI systems and helps guarantee that Service Level Agreements (SLAs) are met.

Advanced Analytics

Performance testing provided through NexentaConnect allows administrators to meet a baseline level of acceptance for the deployed pool, while advanced analytics are available to closely monitor the deployment. These metrics provide valuable insight to the performance of storage, desktops, and hypervisors. Administrators can evaluate information presented by the performance metrics and leverage the "rebalancing" feature within the solution to tune the desktops pools for the best user experience.

Professional and Support Services

Partnering with Nexenta for professional and support services gives you confidence. From the first engagement to the final production test and hand-off, the Nexenta services team will ensure leading practices are used—from understanding your environment, solution design, on-site deployment, final test and performance sign-off, to ongoing support. Our 24/7 support team can respond quickly when problems arise and will work closely with you to ensure that all your business storage requirements are met.