

# NexentaVSA for View: Turnkey VDI Deployment Solution



## NexentaVSA at a Glance

### Flexible, Scalable Storage Architecture

- Using commodity x86 hardware or virtualization, NexentaVSA can be deployed anywhere.

### Orchestrated Storage Deployment

- NexentaVSA communicates with VMware vSphere and View to deploy a customized storage platform with the virtual desktops based entirely on user input.

### Deployment Options

- Storage is deployed as a virtual storage appliance or to physical hardware, applying specific Storage Profiles to meet desktop needs.

### Performance Validation

- Integrated performance testing validates the solution post-deployment.

### Cost / Time Savings

- NexentaVSA lowers the overall cost of deploying and managing a desktop.
- Implementation in hours, not days or weeks.

## VDI Should Be Easy

Desktop management shouldn't be difficult. Virtual Desktop Infrastructure (VDI) is the concept of centralizing a corporation's desktops using technologies such as virtualization. Typical VDI deployments include complex, multi-team involvements that can total more than 150 individual steps to create a full-fledged environment. The NexentaVSA™ for View solution greatly simplifies that process with a few simple inputs, creating a synergy between the desktop, hypervisor, and storage never before achieved. Think of it as VMware View in-a-box.

## What is NexentaVSA

NexentaVSA is a new approach to simplifying and automating virtual desktop infrastructure deployments, management, and calibration using virtual storage and VMware View 5.0.

The NexentaVSA solution addresses the key challenges of VDI deployment through a single dashboard with real-time analytics. It offers rapid deployment of NexentaStor, running as a virtual storage appliance (VSA), across the vSphere cluster based on simple user inputs.

NexentaVSA integrates the complexities of storage and desktop deployment for VDI into one console, greatly simplifying the process.

## How it Works

A virtual Storage appliance is installed on the same hardware where the VDI virtual machines are installed. This eliminates the need for network connectivity and external storage systems altogether.

To deploy a pool of desktops, questions are presented as to which desktop template to use, how many desktops are desired for the pool, and which storage profile should be applied. It's as simple as that. There are a variety of features that are presented through the wizard interface.

### Dedicating and Floating

Preset values for a tuned desktop environment initially are based on the Dedicated or Floating settings. Dedicated desktops provide a 1:1 continuous relationship between a user and the virtual desktop. Each time the user logs in, they get mapped to the identical virtual machine. Floating desktops are built on-the-fly, based on a user's attributes.

### Leveraging VSA

NexentaVSA can be implemented into an environment with great flexibility between deployment architectures of locally hosted storage (NexentaStor VSA), a physical NexentaStor appliance, or even a third-party storage device. Through a wizard-based system, storage is chosen and deployed automatically.

The VSA leverages the cache capabilities of ZFS to place a “cache wedge” between the virtual machines and the storage. As 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 system as they are delivered to the virtual machine. This acts as an accelerator for the VMs and an offload of a taxing I/O workload from the SAN.

### Storage Profiles

This functionality provides the configuration of the NexentaStor storage to correspond with the desktops that are being created.

For instance, being able to design a stateless architecture through the wizard optimizes both the storage and the virtual desktops for this purpose. This integration is a tremendous value proposition for users that want a simple way of obtaining advanced storage features and desktop designs without the need for a dedicated team.

### Performance Validation

Following the deployment through the Performance Analyzer, a series of performance-driven tests are available to run on the desktops themselves, outputting the results for evaluation by the administrator. This guarantees Service Level Agreements (SLAs) are met.

### Rebalancing

Since deployment characteristics are all captured by the tool, it has intimate knowledge of the relation between the hypervisor, VSA, and where the desktops are located in relation to one another.

Tracking this topology can be complex.

However, with NexentaVSA, one can “rebalance” VMs that no longer are in proximity to their VSA. This provides a quick mechanism for ensuring the best possible performance of each individual desktop.

During initial deployment, NexentaVSA provides inputs for the VMware vCenter host, Active Directory, and the VMware View broker.

Powerful options, such as storage selection, storage profile creation, and persistent or stateless choices, are available for further tweaking if needed or desired.

## Advanced Analytics

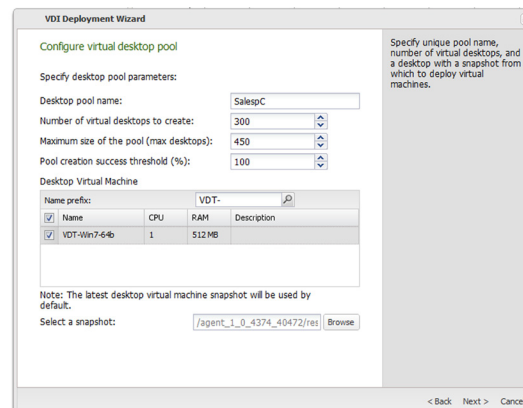
Performance testing, provided through NexentaVSA, allows administrators to meet a baseline level of acceptance for the deployed pool. Advanced analytics closely monitor the deployment.

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.

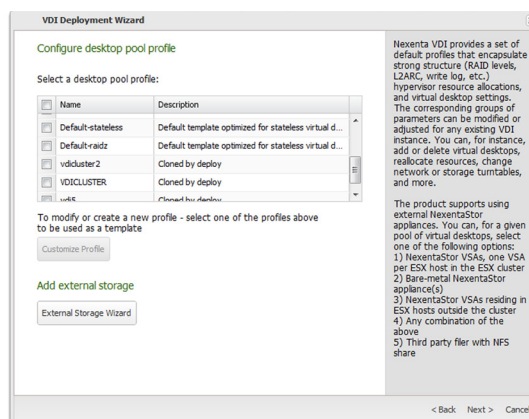
## Simple, Not Complex

NexentaVSA provides an easy to use, easy to implement installation wizard for VDI deployments. By addressing the VDI stack from the bottom-up, new possibilities are recognized for the solution.

Through the power of the NexentaStor™ software, VMware View technology, and a simplified interface, Nexenta® solves the VDI deployment puzzle while meeting tough performance requirements.



## NexentaVSA— Wizard-based Deployment Walkthrough



## Powerful Storage Profile Options



Nexenta Systems is the leading supplier of enterprise-class OpenStorage solutions. Its flagship software-only platform, NexentaStor, delivers high-performance, ultra-scalable, cloud- and virtualization-optimized storage solutions.

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