

# Nimble Storage VDI Solutions for K-12

Desktop virtualization is a powerful tool for K-12. It can serve as a solid platform for educators to not only deliver their education lesson plans, but also support Bring Your Own Device (BYOD) initiatives and testing and assessment systems, such as those aligned to the Common Core State Standards in English language, arts, and mathematics led by the Smarter Balanced Assessment Consortium.

Building a successful virtual desktop infrastructure (VDI) requires choosing a storage solution that can affordably meet performance and scalability needs. Nimble Storage delivers just that with the CS-Series. Built upon the efficient hybrid CASL™ architecture, Nimble Storage delivers the performance and capacity needed for VDI deployments.

## Reference Architecture

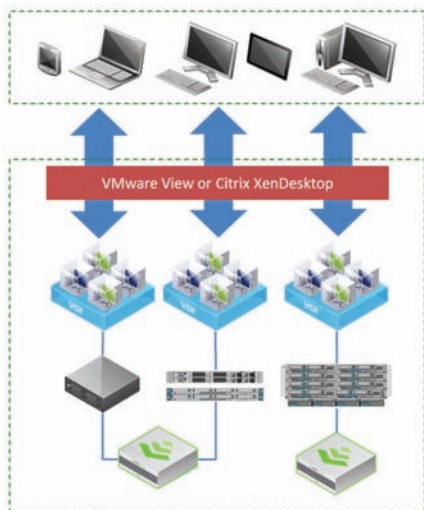
To accelerate and lower risks of VDI projects in K-12 environments, Nimble Storage has put together a pre-validated SmartStack for VDI reference architecture. This validated design supports storage for thousands of users and is comprised of:

1. Nimble Storage CS220G-X2
2. VMware View 5.1
3. VMware vSphere 5.0
4. Cisco Unified Computing System B-Series blade servers

## Greater Efficiency and Consolidation

Resource-lean environments benefit by consolidating more than VDI onto the same Nimble Storage CS-Series array—thanks to unmatched storage efficiency, flexibility, and scalability. So the same storage system that is serving virtual desktops can easily handle database workloads, email storage, and more.

Using Nimble’s inline compression, customers use 30 to 75 percent less storage space than traditional storage architectures, all with no impact to performance, further reducing the cost of deploying VDI. Performance and capacity can be independently and non-disruptively scaled without requiring expensive and disruptive forklift upgrades.



## Simple Deployment and Management

The 3U CS-Series is simple to deploy and set up. Using an intuitive web-based management interface and pre-defined application templates make provisioning new storage for VDI and other workloads fast and simple. Support tools monitor array health in near realtime, logging and alerting of any configuration errors or potentially abnormal operating conditions. Over 75 percent of the issues are automatically resolved, leaving administrators free to focus on more productive tasks.



## Solution Overview

Nimble Storage delivers an easy-to-manage and scalable network storage platform that can make VDI and initiatives such as BYOD and Common Core State Standards assessment a cost-effective reality.

### Key Benefits

- Lower the risk of VDI and simplify deployments
- Keep costs low with efficient storage
- Stay productive with push-button provisioning and proactive support
- Keep students, educators, and staff up and running without complex, disaster recovery solutions

**“Nimble Storage helped solve performance and management issues with our three-year-old SAN. We were able to increase capacity and improve performance in our VMware View-based virtual desktop infrastructure by replacing 22U of legacy spinning disks with a 3U Nimble array. It was easy to set up, is easy to manage, and provides the performance we need to get the VDI experience we want for our users.”**

Andrew Schwab  
 Director of MIS  
 Berryessa Union School District

## High Availability

With a published uptime of 99.997 percent and integrated data protection for affordable disaster recovery, Nimble Storage can help school districts ensure their environment is up and available. Using non-disruptive upgrades and proactive monitoring and reporting, IT staff can keep their storage and VDI environment running optimally, reducing disruptions in the classroom and minimizing helpdesk calls. For added protection against disasters and local outages, critical data can be efficiently and easily replicated over IP networks.

## Getting Started

Having a solid storage foundation for VDI is essential in order to improve the classroom experience, support the growing BYOD trend, and enable schools to meet requirements for assessment programs such as the Common Core State Standards. The Nimble Storage network of authorized value added resellers can help assess specific needs and help you develop a plan for deploying VDI.

**“Oaks Christian School was looking to deploy VDI to extend school resources off campus, move toward a BYOD model for students on campus, and serve our out-of-state online school students. After evaluating different options, we found the combination of Cisco, Citrix, and Nimble to best meet our needs around cost, efficiency, and scalability. We have already seen the benefits of desktop virtualization around faster logon times, remote access to network resources, simplified administration of software maintenance, and enhanced security using read-only student desktops.”**

Darrell Parker  
Director of Information Systems  
Oaks Christian School



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