

Nimble Storage for VMware View 5, 1,000 Desktop Solution

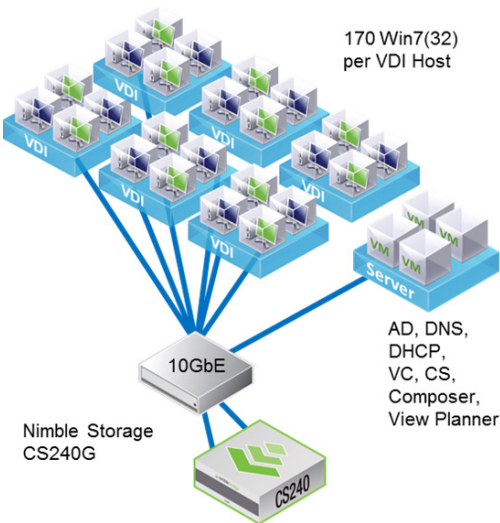
The Solution

Using a configuration of seven (7) ESXi5 servers, we were able to construct a complete View 5.1 infrastructure (Virtual Center, View Composer, View Connections Server, Microsoft Windows AD/DNS/DHCP, and the View Planner appliance) and six (6) dedicated desktop virtualization hosts.



Each desktop ESXi host was configured with 20 CPU cores and 256GB of RAM and supported 170 Windows7 (x86) desktop VMs. The diagram below is a high level view of this preliminary benchmark solution.

The Nimble CS240G provides an excellent platform for the high random read and write performance needed to support the VDI workload. For this case, we used a stateless Linked Clone configuration and enabled VMware View 5.1 View Storage Accelerator (VSA) on each of the View Pools and ESXi hosts.



The VMware View Planner tool provided the framework for actually exercising the desktop VMs with a sample workload of several typical knowledge worker applications and measuring response times. The sample workload that is run on the desktop's VMs includes Microsoft Office (Word, Excel, PowerPoint), Outlook, Internet Explorer, Mozilla Firefox, Adobe Reader and 7-Zip tasks.

Through the View Planner workload testing definitions we were able to simulate about 10-12 IOPS per user at the desktop level. Nimble Storage combined with View 5.1 VSA provides an efficient caching solution at both the ESXi host and storage layers. The resulting workload on the storage is reduced in total IOPS required but has a higher than normal random write/read profile of about (90/10).

This level of desktop density and performance on a single storage appliance further demonstrates the benefits of the Nimble Storage architecture.

Overview

Nimble Storage has recently demonstrated the ability to run over 1,000 virtual desktops on a single 3U flash enabled storage array—the CS240G. This solution was accomplished with VMware View 5.1 and tested with the VMware View Planner automation tool.