# Next generation VDI appliance Powered by EMC$^2$ ScaleIO

## VMware Horizon View 5.3

## INTRODUCTION

The manageability and security benefits of virtualized desktop environment are numerous. Deploying and supporting hundreds of desktops as VDI instances on a single server lets you centralize desktop management and security. Other advantages are patches, security updates, and hardware and software upgrades that reduce overhead. VDI also dramatically reduces the risk that desktop users will breach security by making it easier to prevent data from being copied onto portable media.

## VDI PERFORMANCE CHALLENGES

In enterprise-scale deployments, VDI performance can suffer when the IT administrator attempts to boot those desktops simultaneously on Monday morning or reboot after Patch Tuesday. What's more, VDI performance can drop significantly when users all login at the same time each day. In addition, virtualized environments sometimes are unfriendly to slews of users trying to access files simultaneously, making them wait because of the heavy traffic load. One bottleneck often is a legacy SAN-connected storage device since file access requests are queued through a single shared storage resource. VDI's are ripe for distributed storage and EMC$^2$ ScaleIO software is a compelling solution, incorporating an elastic storage infrastructure that scales both capacity and performance with changing business requirements. If desktops are moved between physical servers, or if a server fails, by utilizing an existing high-speed network EMC$^2$ ScaleIO simply moves data to the local storage of the new server.

## POWERHOUSE SOLUTION FOR VDI

VMware Horizon View simplifies and automates management of thousands of desktops through Desktop-as-a-Service. Horizon View provides levels of availability and reliability unmatched by traditional desktop PCs. To meet the challenges implementing VDI, VMware, SUPERMICRO, LSI, Mellanox and EMC$^2$ have partnered to offer VMware Horizon View with ScaleIO. EMC$^2$ ScaleIO provides affordable and flexible virtual storage that allows for the linear expansion of capacity and performance. Combining the compute platform with virtual pooled storage saves money, simplifies management and eliminates traditional storage arrays.



- EMC$^2$ ScaleIO - Provides affordable, flexible and elastic expansion of compute, capacity and performance. Thus eliminating the need for complicated SAN storage

- SUPERMICRO - A high-density appliance consisting of optimized servers engineered for EMC$^2$ ScaleIO clusters. The high performance cluster features Intel $^®$ E5-2600 Xeon processors, LSI$^®$ Nytro$^{TM}$ PCIe SSDs, Mellanox ConnectX-3$^®$ 40GE NICs and optional Mellanox SwitchX$^®$ 40GE switch

- VMware Horizon View 5.3 - Simplifies and automates management of thousands of desktops via desktop-as-a-service, which provides availability and reliability unmatched by traditional PCs

For more information, visit http://www.scaleio.com/

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EMC² ScaleIO and Horizon View, utilizing the SUPERMICRO SuperServer® SYS-2027R-72RFTP-ECS-M servers, deployed 1,000 virtual desktops in just 1 hour and 28 minutes*. Login VSI benchmarks show a record setting boot time of 1,000 virtual desktops at the windows login-in prompt: zero to 1,000 completed in only 12 minutes*.
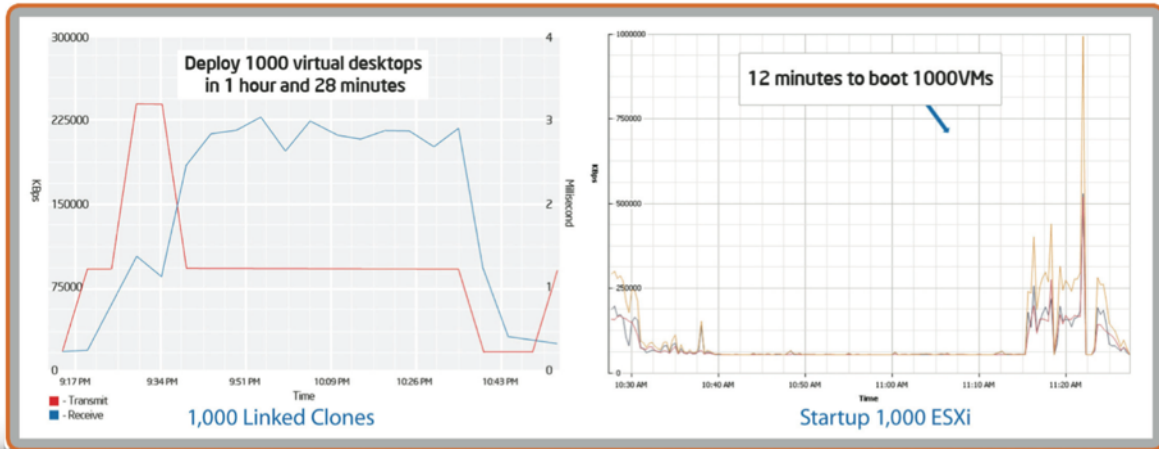


**ScaleIO Dashboard: ScaleIO pool of elastic storage with Local LSI Nytro PCIe SSD running LoginVSI**
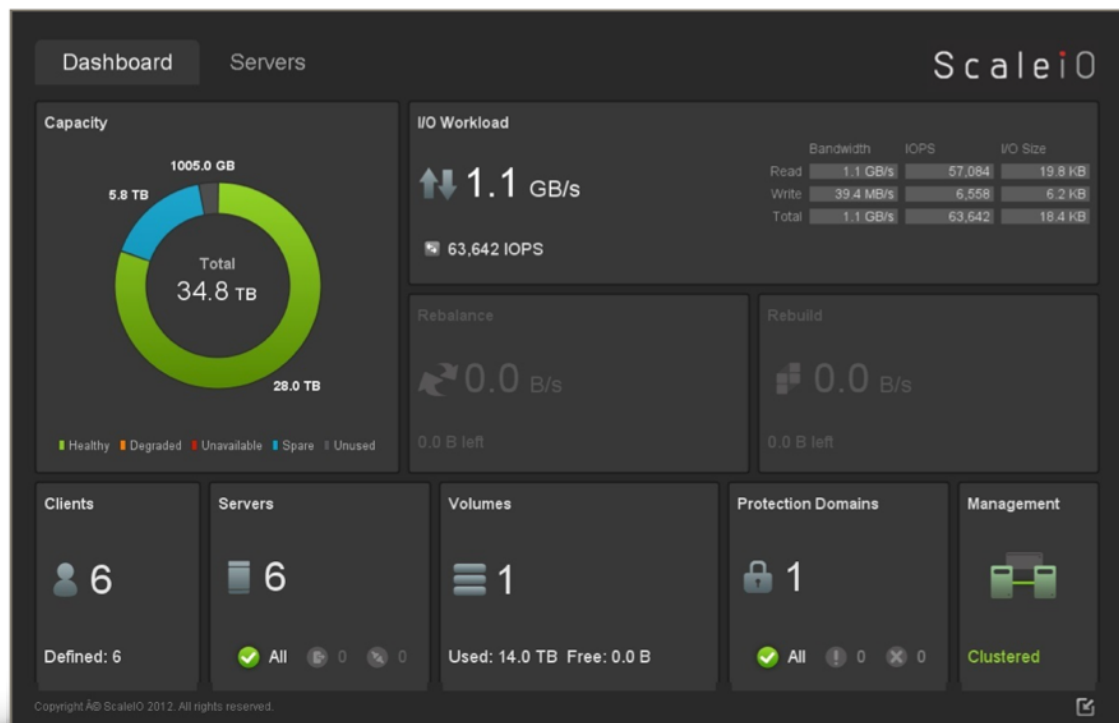


ScaleIO maintains exceptionally high throughput across the entire cluster while linearly scaling up to and beyond 1,000 virtual desktops.

*Testing configuration included one (1) SYS-2027R-72RFTP-ECS-M appliance and three (3) SUPERMICRO SuperServer® Servers, twelve (12) LSI 6301 PCIe flash cards, VMware Horizon View 5.3 1,000 user software, Windows 7/64bit with 2GB RAM, six (6) Mellanox ConnectX-3® 40GE NIC and Mellanox SwitchX® based 40GE switch.

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