

## ESG Lab Review Preview

### SimpliVity Hyperconverged Infrastructure for VDI Environments

#### Improved Performance, Density, and Sustainability in Demanding VDI Environments

This ESG Lab Preview presents results from the early analysis of Virtual Desktop Infrastructure (VDI) testing on SimpliVity OmniStack hyperconverged infrastructure, with a goal of highlighting high levels of performance and operational efficiency. Using Login VSI, testing included evaluating the process of rapidly provisioning up to 1,000 linked-clone VMs and simulating a login storm and node failure to measure virtual desktop performance and VM density potential.

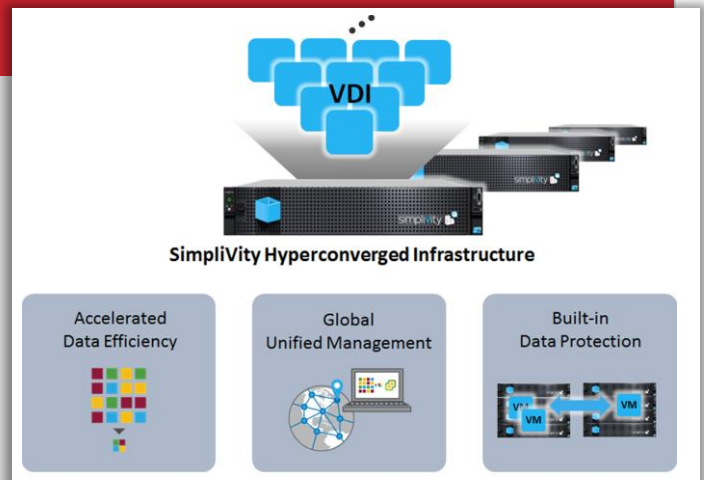
Look for the full report soon at  
<http://www.simplivity.com>

SimpliVity OmniStack is a proven hyperconverged infrastructure solution purpose-built from the ground up to meet the demanding needs of virtualized environments. Packaged in easy-to-deploy 2U building blocks, SimpliVity has combined enterprise functionality and capabilities with the operational and cost efficiency of the cloud to deliver improved VM density, performance, and scalability.

OmniStack incorporates three unique core innovations:

- **Accelerated Data Efficiency:** OmniStack Data Virtualization Platform, SimpliVity's data architecture, performs global deduplication, compression, and optimization of all data at inception, inline, with no impact to performance. This is done through the OmniStack Accelerator.
- **Global Unified Management:** An intelligent network of collaborative systems that provides massive scale-out capabilities as well as VM-centric policies that are abstracted from the infrastructure and managed through a single unified interface for the entire global infrastructure.
- **Built-in Data Protection:** Automated backup/restore, clone, and replication capabilities are built in and leverage always-on data efficiency, allowing for granular RTOs/RPOs with minimal overhead.

For VDI specifically, SimpliVity has made significant strides in enhancing the provisioning, deployment, and protection of dynamic VDI environments. With SimpliVity OmniStack, traditional VDI pain points related to deployment, management, performance, protection, and cost should now be considered a thing of the past. SimpliVity's industry-proven OmniStack technology puts a laser focus on the end-user experience in VDI environments by delivering up to 250 low-latency, highly-available virtual desktops on a single node. And it drastically simplifies the customer transition from pilot deployments to working production VDI environments by offering an easy-to-deploy, easy-to-scale VDI solution.



### Why This Matters

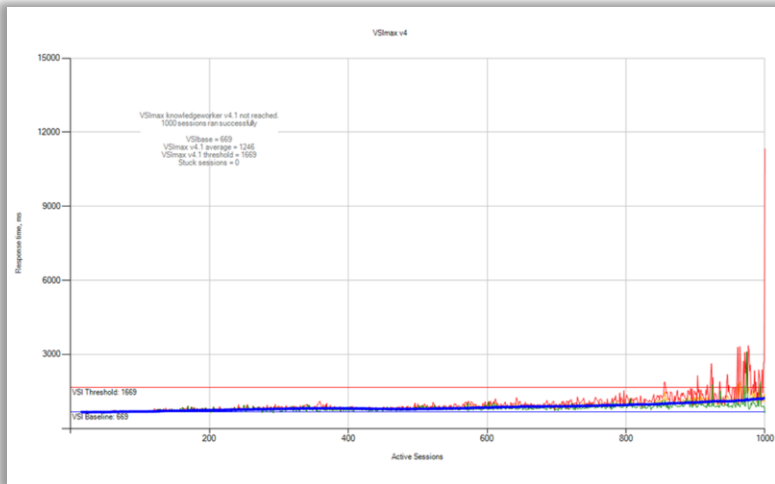
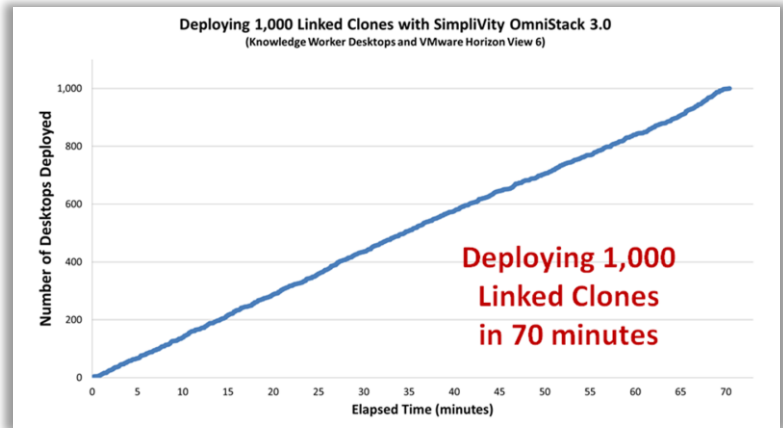
Performance is a top concern when it comes to virtual desktop infrastructures and past ESG research shows that IT managers view performance as a top challenge when it comes to implementing desktop virtualization. Predictable performance scalability is a critical concern when multiple users are running diverse applications on a shared VDI infrastructure. A burst of I/O activity from one desktop (e.g., a user logging on) can lead to poor response times and lost productivity for other users. To get the most of their VDI investments, IT managers are looking for a scalable VDI solution that's easy to deploy and manage as it cost-effectively scales to meet the performance needs of thousands of VDI users without impacting the end-user experience.

ESG Lab has validated that SimpliVity OmniStack easily supported the demanding requirements of a VDI environment by delivering predictable, scalable performance for a 1,000 virtual desktop deployment. Provisioning times and login storms both yielded impressive results, while a node failure had no impact on the end-user experience.

## ESG Lab Validation Highlights

ESG Lab is auditing results of tests run at SimpliVity’s headquarters in Westborough, Massachusetts. The following is a preview of the results:

- A SimpliVity cluster made up of four nodes was used to test the performance and efficiency of a 1,000 linked-clone VDI environment.
- The industry-standard Login VSI VDI benchmarking tool was used to validate the application performance and response times for various predefined VDI workloads.
- High levels of VM density were achieved by consolidating 250 virtual desktops per node in a four-node environment (total of 1,000 virtual desktops) without impacting performance or the end-user experience.
- More impressively, after power was cut to one of the nodes, all 1,000 desktops were sustained on the surviving three nodes with minimal performance degradation and no perceptible impact on end-user experience.
- Provisioning and deploying the 1,000 virtual desktop environment to a login-ready state with VMware Horizon View 6 was impressively quick, completing in just 70 minutes (upper-right graphic).



- Login VSI was used to emulate a login storm, which occurs when a large number of end-users attempt to log in to their virtual systems within a short period of time. This serves as a way to identify the maximum number of hosted virtual desktops that can be powered on before experiencing degradation of service from the saturation of network and storage resources.
- ESG Lab witnessed the four-node SimpliVity cluster support 1,000 logins in 1,000 seconds—an impressive feat of being 3x faster than Login VSI’s standard benchmarking threshold (lower-left graphic).

## The Bigger Truth

While the benefits of server virtualization are widely known, the benefits of desktop virtualization can have an equal or greater impact in today’s business environment. Unfortunately, the increased number of client device types, the mobilization of the workforce, and a continued desire to increase operational efficiency all combine to make current desktop virtualization and management a daunting task. IT is expected to provide a high-performing, predictable, and productive computing environment, while controlling operational costs and hardware expenses without impacting the end-user experience.

SimpliVity OmniStack’s data architecture, the Data Virtualization Platform, enables organizations to cost-effectively simplify the deployment and management of virtualized environments. SimpliVity’s core data efficiency, global unified management, and built-in data protection capabilities facilitate this. Extending these technologies and benefits to a purpose-built solution for VDI environments and workloads, organizations not only gain improved VM density, operational efficiency, and predictably high levels of performance, but they also gain confidence knowing that the end-user experience and infrastructure resilience should no longer be a concern.

Learn more at  
<http://www.simplivity.com>