Education Success Story: Toccoa Falls College

Toccoa Falls College

Organization Profile: Toccoa Falls College

Organization Type: Education

Location: Toccoa Falls, GA

Website: www.tfc.edu

Organization Size: 800 full-time students; 200 staff

Locations: 1 campus

IT Staff: 4

HC3® Solution: 4 node HC3x System 256GB RAM, 4 x Hex Core Intel CPUs, 8 x 1GbE NICs, 16 SAS drives)

Number of Servers in Environment: 27

Operating Systems: Windows 2003 R2, Windows 2008 R2, Windows 2012, Linux Variants

Applications:
- SQL
- DHCP
- Public Web Server
- Virtual Desktops
- NComputing

Situation: Virtual to Virtual (V2V) Replacing VMware with HC3, leveraging HC3 Move

Virtualization Requirements:

- ✓ Highly available VMs
- ✓ I/O performance for virtual desktop environment
- ✓ Simple-to-use system
- ✓ Affordability

"With Scale's HC3, we got the full virtualization platform for 2/3 the cost of getting our VMware servers and SAN upgraded."

- Brant Wells, Network Administrator

Toccoa Falls College

Introduction

Toccoa Falls College (TFC) is a Christian educational institution that prepares its 800+ students for vocational and professional occupations. TFC offers 28 majors and 38 minors within three schools that include both on-campus and online courses. With the 4th largest incoming class in the history of the college (276 incoming freshman and transfers), the college was in need of a refresh to their virtualization infrastructure to support the growth in students as well as a plan to double the number of virtualized desktops in the coming years.

The public web server along with approximately 20 other mostly Windows-based Virtual Machines (VMs) were running on three VMware hosts with an HP SAN acting as shared storage. The hosts were maxed out on compute and RAM capacity and would either need to be replaced or added to with an additional host. The SAN had long been an IO bottleneck in the infrastructure, and with a virtual desktop (desktop virtualization) initiative in pilot already, it was necessary to start refreshing their infrastructure.

Challenge:

AFFORDABILITY WHILE IMPLEMENTING NEW INITIATIVES

TFC's approach of combining VMware running on 3 host servers with a SAN was originally implemented for the high availability it provided their public web servers, admissions office virtual desktops and other VMs in the environment. Downtime of these critical VMs represented a loss in revenue to the college as admissions counselors relied on these for contacting prospective and existing students for enrollment. Also, because virtual desktops were a new initiative, TFC wanted to ensure not only high availability, but performance and scalability as well.

TFC's reliance on the ability to failover VMs had meant that the IT staff of 3 were forced to endure the complexity inherent in the hypervisor, SAN and networking administration required to keep this operational. With limited resources, the team looked for a solution that could be operated by any of the staff and not just those with specialized training in the hypervisor, shared storage or virtual desktops.

Despite this complexity, the college was tempted to continue down the path with its existing approach to virtualization and had begun the process of receiving quotes on the individual components. To replace the servers and SAN, TFC was faced with a price of $90,000, which was well over the budget that was planned for the project. Instead of replacing all of the existing equipment, adding a fourth host server to the environment seemed like the most logical solution, but required an upgrade to the licensing from VMware.

"The VMware licensing cost of adding a fourth host to our environment was just adding to an already outrageous price tag!" said Brant Wells, Network Administrator. **"We are a small college with a small budget."**

The realization that as their virtualized desktop initiative, as well as others, came to fruition, the cost would far exceed what the organization was prepared to spend.

Solution:

HYPER-CONVERGED PLATFORM THAT INTEGRATES RESOURCES FOR AUTOMATION AND SIMPLICITY

TFC then heard of Scale Computing's HC3 platform and decided to evaluate it. HC3 is a hyper-converged 'datacenter-in-a-box' that combines servers, storage, and virtualization into a single, highly available, easy-to-use and scalable platform that removes the complexity of a typical virtualization deployment.

AVAILABLE: Every virtual machine created on an HC3 system is automatically configured for high availability meaning that in the event of hardware failure, the VMs running on the failed node will failover to the remaining nodes in the cluster automatically. This would provide the same high availability TFC had grown accustomed to in its existing VMware environment, but without the associated complexity or cost.

"Scale's HC3 is on par with the features I had with VMware, but with Scale having the advantage of the converged storage so that you don't have to spend any money on a SAN," said Brant Wells, Network Administrator.

SIMPLE: TFC would now be able to manage their entire stack from a single user interface accessible through any standard browser that supports HTML 5. No longer is the college required to maintain an extra VM or physical machine to manage their environment as they did with VMware's vCenter. Having been created for organizations with limited IT budget and resources, simplicity is a core tenant of the HC3 design.

"HC3 has been excellent. Any one of the other two IT guys can now look at the screen and operate it," said Brant Wells commenting on the simplicity of the user interface.

AFFORDABLE: HC3 is an affordable end-to-end virtualization solution that eliminates the cost of expensive licenses and additional hardware. HC3 was designed for the organization that requires high availability and scalability, but does not have the resources of time or money to manage a complex virtualization environment. TFC purchased a 4-node HC3x system for substantially

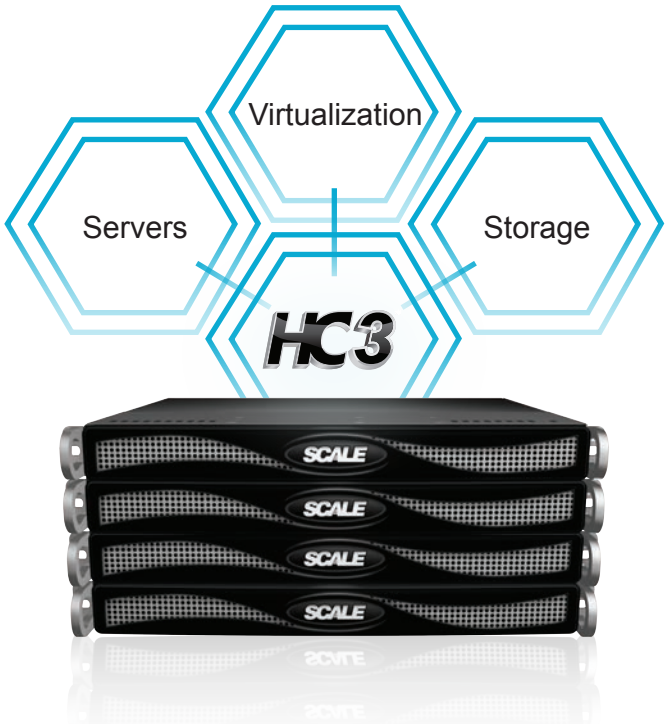
less than the other options under review, which kept the project within reach for the budget conscious college.

"With Scale's HC3, we got the full virtualization platform for 2/3 the cost of getting our VMware servers and SAN upgraded," said Brant Wells, Network Administrator.

After migrating their VMware Virtual Machines to HC3 using Scale's HC3 Move powered by Double-TakeTM V2V tool, the college noticed a dramatic boost in the performance in their environment.

"This thing is blazing compared to our VMware plus SAN setup!" said Brant Wells.

TFC is now running all 20 VMs on HC3 including their virtual desktops implemented with NComputing, which they plan to double in the coming years.



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