For Ohio Army National Guard, Nutanix Converged Compute and Storage is Refreshingly Simple to Use

Company Background

The Ohio Army National Guard, headquartered at Beightler Armory in Columbus, Ohio, includes a variety of combat, combat support and combat service support units with a total of approximately 11,400 soliders. The Guard's IT department provides systems to support operations and troop mobilization.

Time for a Hardware Refresh

The Ohio Army National Guard's server and storage hardware had reached the end of its 5-year warranty, and it was time for a refresh. The hardware consisted of first-generation HP blade servers and iSCSI and Fibre Channel SANs. It had served them well but had become outdated, and performance was inadequate for the current application workloads. They wanted new infrastructure with sufficient performance to support existing applications as well as a new VDI initiative that had been in planning for a couple of years. The IT department wanted to transition to virtual desktops for streamlining desktop support, patching and provisioning and alleviating some of the administrative overhead.

Nutanix – A Simpler, Converged Solution

The IT staff evaluated new HP servers and SAN storage, Cisco UCS servers with a SAN, and the Nutanix Virtual Computing Platform, and decided to purchase Nutanix because of its simplicity and converged architecture, high performance, power efficiency and convenient VM-centric replication.

Nutanix offered numerous advantages over traditional servers and SAN storage. The Nutanix Virtual Computing Platform is SAN-free and provides a single point of management for server and storage resources, whereas the traditional systems are more complex to manage. "With multiple people involved in infrastructure deployment, and constant turnover in key positions, blade servers and Fibre Channel SANs add layers of complexity and a very long training time, whereas with Nutanix there isn't much training. That was a big selling point," said Shawn Stamper, Lead System Administrator for the Ohio Army National Guard.

The Nutanix system's integration of PCIe and SSD flash storage enables exceptionally low latency and high IOPS, which are essential for having a good user desktop experience with VDI.

Remote replication was another key feature. Nutanix one-to-many replication for individual VMs, as opposed to storage LUNs, simplifies setup and recovery for the IT staff.

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Business Needs

High-performance, easy-to-manage server and storage infrastructure to support existing software applications and a new VDI initiative. Must include replication for a remote site.

Solution

The Nutanix Virtual Computing Platform (NX-3000)

Benefits

• Ease of use with minimal training

• "Hands down" faster performance

• Avoided $80,000 UPS upgrade due to power efficiency

• Rack space utilization at the primary and remote sites cut down to half

• Easy expansion for future addition of more virtual desktops

www.nutanix.com

Faster All Around – Set up, Performance, Support

Nutanix was fast and easy to set up. After configuring the network, it took less than 2 hours to have the Nutanix system up and running. "It was a very straightforward process the whole way through," said Stamper.

Migration to the Nutanix system is underway. Microsoft SQL Server and System Center Configuration Manager (SCCM) and a 20-user pilot project for VMware Horizon View are currently running on Nutanix, with plans to add SharePoint and expand to 100 user desktops by the end of the calendar year 2013.

The team is extremely happy with the performance they are getting from the Nutanix platform and applications are faster and more responsive. "The new environment, compared to the old environment, is hands down faster," he added.

After replacing the old server and SAN storage with Nutanix at the remote site, the number of racks in the datacenter was consolidated from 2 full racks to 1 partial rack due to the extremely compact profile of the Nutanix system. Additionally, the rack space requirement at the primary site also went down to 1 partial rack from 3 full racks. The UPS utilization dropped from 80% to 50% because of Nutanix power efficiency. (In contrast, the Cisco UCS servers they evaluated consumed so much power that they would have required an $80,000 upgrade to the same UPS.)

When asked about his experience with the Nutanix support team, Stamper said, "I've been very satisfied with the support team. They are very helpful and knowledgeable. They normally get the issue resolved within the first phone call."

Ready for Future Expansion

Nutanix positions the Guard well for future expansion. "Down the road, if the other side of the office decides they want to implement VDI too, then we only have to buy an additional Nutanix Block to add more users, instead of buying all equipment upfront and piecemealing it out over the life of the project. So it is more cost-effective," he said.

Reflecting on the experience, Stamper added, "I really enjoy the Nutanix solution. The simplicity of the technology is great as it has made things easier. Everything is not complicated and convoluted anymore. The solution also makes a lot of sense for the organization I work for. Being military, it is a very mobile organization. So the small form factor is extremely beneficial if we have to move a datacenter. Its easier to get it back up and running just because you don't have to move a huge stand."

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Rack Space Utilization

50% Reduction

Traditional Server & Storage   Nutanix

About Ohio Army National Guard

The Ohio Army National Guard is part of the Ohio National Guard and the Army National Guard of the US Army. It is also a component of the organized militia of the state of Ohio, which also includes the Ohio Naval Militia, the Ohio Military Reserve and the Ohio Air National Guard.
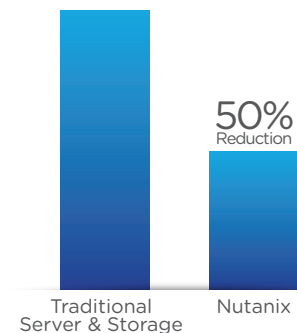
About Nutanix

Nutanix brings forth an exciting new SAN-Free virtualized datacenter platform, converging two tiers of infrastructure down to one. Through the use of innovative server-attached PCIe Flash and high capacity SATA drives, Nutanix' innovative distributed storage and compute cluster localizes the data-path for higher performance and reduced complexity. Inspired by SAN-Free distributed systems employed by Google, Amazon, Facebook, and Twitter, Nutanix is first to market with an enterprise-friendly, easy to deploy storage and compute cluster that dynamically grows to meet business demands. For more information please visit www.nutanix.com.

Tel 855.NUTANIX | (855.688.2649)
Fax 408.916.4039
Email info@Nutanix.com
 @nutanix

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www.nutanix.com