NJVC Achieves "Unattainable" VDI Goal with Nutanix

Business Challenge

To stay at the forefront in their industry, NJVC, a leading technology services provider for government and commercial customers, has to be able to recognize and react swiftly to advances in the IT solutions field. And in order to demonstrate their capability to rapidly deploy VDI implementations for their customers, NJVC decided to begin migrating its corporate desktops to a VDI solution and to go live with the first phase within forty-five days. For Nicholas Perjak, the NJVC Senior Systems Engineer tasked with getting the job done, the target date initially seemed completely unrealistic. As he phrased it, "My first reaction was that this plan was over ambitious and it wasn't going to be easy. I didn't think it was possible." Rather than give in, though, Nick accepted the challenge and immediately started researching his options.

After making a list of all of the industry players who offered VDI solutions, Nick's team began ranking them based on key criteria, including system performance, scalability, complexity, cost, high-availability, storage features, and network stack features. Right away, the team realized that most vendors' offerings tended to excel in one criteria by compromising on another: those that could handle heavy IO for VDI desktops, for example, often did so by sacrificing high-availability or by eliminating a shared storage infrastructure. Of all of the companies on the list, only Nutanix offered each of the features and performance standards Nick's team wanted, and it did so at a lower cost and with less complexity than its competitors.

The Nutanix Solution

As Nick describes it, "The Nutanix Complete Block was the only product I could find that could really pull together all the pieces so quickly and efficiently that really allowed us to meet our seemingly unattainable goal." And because the client who stood to gain the most from the company-wide VDI implementation did not have a dedicated SAN architecture for VDI, the Nutanix Block's SAN-Free architecture proved to be an ideal solution.

On the team's recommendation, NJVC purchased a single 2U Nutanix Complete Block, comprising of four nodes, each containing dual Intel Xeon 5650 processors; 192GB RAM; a 320GB Fusion-io ioDrive PCI-e SSD card; 300GB of SATA SSD; 5x 1TB 7200rpm SATA HDDs; and 10GbE and 1GbE connectivity. In terms of software, each node came pre-installed with VMware ESXi, an industry-standard hypervisor; Nutanix Distributed File System (NDFS), which virtualizes local storage from all nodes into a unified pool; and Nutanix Heat-Optimized Tiering, which automatically tiers data between the Fusion-io ioDrive and the SATA drives.

WHAT WAS NEEDED

‣ A robust VDI solution capable of handling all of NJVC's corporate desktops.

‣ Go live with the first phase within 45 days.

WHAT WAS DEPLOYED

‣ Nutanix SAN-Free architecture built around the Nutanix Complete Block solution.

‣ All-in-one compute and storage technology with high IO, density, and performance numbers.

HOW NJVC BENEFITED

‣ A powerful VDI solution that requires little effort to upgrade and maintain.

‣ Immediate CAPEX reduction of 40-60% by eliminating the storage layer.

‣ Long-term OPEX reductions resulting from reduce data center footprint and fewer IT staff.

The support Nick and his team received from Nutanix during the implementation process was also a major factor in how he was able to get his VDI solution up and running before the deadline. With a dedicated representative on-call at all stages of the deployment process, long delays were avoided and the project was able to proceed at a rapid pace. As Nick said, "Nutanix's customer support is awesome—I start having trouble with something on my end and within a handful of minutes my rep's got an engineer on the phone diagnosing and resolving the problem with me." Using the intuitive, highly graphical Complete Block client interface and the simplified Nutanix deployment process, Nick and his team were able to provision and power on 85 VDI full clones in only twenty-five minutes and have them all accepting connections on the domain within forty-five minutes. The boot-storm test results he came up with also exceeded his expectations. When 70 VDI desktops were simultaneously boot stormed, it took only eight minutes for them all to get to the login screen and only fourteen minutes for all of them to start accepting client connections.

Business Impact

The short-term impact of NJVC's transition to the Nutanix Complete Block solution has been significant and overwhelmingly positive. By eliminating the need for a storage layer, the Nutanix solution has removed the monetary and time commitments associated with the design, implementation, and ongoing upgrades to a traditional SAN. Based on reports from other companies using the Nutanix Complete Block approach, Nutanix believes NJVC will experience an immediate CAPEX reduction of between 40-60%.

With a cost-per-user rate far lower than many of its competitors and the ability to handle heavy IO without compromising performance or storage versatility, the Nutanix solution makes far less of a demand on NJVC's human and material resources than a typical SAN-based solution. As a result, NJVC can expect to see steady OPEX savings, too, as more and more of the company makes the transition to the more efficient, less demanding, and more powerful Nutanix Complete Block solution for their VDI needs.

"Even before I knew about your product, I was looking for a SAN-Free, highly available, storage-optimized solution for VDI. When I discovered Nutanix, I knew it would be a game-changer."

Nicholas Perjak
Senior Systems Engineer
NJVC

About NJVC

Headquartered in Vienna, Virginia, NJVC regularly delivers innovative technology solutions across a wide range of rapidly evolving fields, including cloud services, cyber security, and data center services. NJVC has grown over the past eleven years from a small, niche company servicing a single client to a leading Department of Defense contractor working with intelligence, military, and federal agencies as well as commercial entities with highly-secure IT requirements. Of the 1,300 people now employed by NJVC, over 90% hold security clearances. As the company has matured, it has successfully leveraged its employees' knowledge and expertise in order to take on increasingly complex and technologically demanding jobs, while still retaining the agility and flexibility it had as a smaller organization. For more information please visit **www.njvc.com**.

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**.

Nutanix Inc.
1735 Technology Drive
Suite 575
San Jose, CA 95110

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

NUTANIX

www.**nutanix**.com