

DoD Agency Builds Highly Scalable Desktop-as-a-Service on Nutanix

Background

The United States Department of Defense (DoD) coordinates and oversees all government agencies associated with national security and the United States Armed Forces.

Platform for Desktop-as-a-Service

As part of a VDI Desktop-as-a-Service implementation for the Pentagon and other facilities, the DoD agency in charge of IT services needed storage and server infrastructure to host VMware Horizon View. This new service would provide virtual desktops on two separate government networks and locate all user data securely in a datacenter.

The implementation was in a new datacenter with no existing servers or storage, so the DoD agency needed a complete and fully integrated platform. They wanted to deliver an exceptional desktop experience at an acceptable price point, and preferred to avoid the cost and complexity of traditional SAN storage. The platform also needed to be scalable from a pilot project with 100s of users to a large-enterprise deployment with 1,000s of users.

The Nutanix Virtual Computing Platform

The agency selected the Nutanix Virtual Computing Platform for its converged, scale-out architecture, ease of procurement, speed of delivery and high performance. The Nutanix platform integrates storage and compute in a single system and scales linearly by adding nodes to the cluster. It comes pre-loaded with a hypervisor, and supports a SAN-free infrastructure. Not only does this make Nutanix fast and easy to deploy, but this also streamlines the procurement process as the solution needs to be sourced from only one vendor.

Nutanix was able to meet delivery requirements for a tight project deadline. In fact, it went from procurement to production pilot in under a month - lightning-fast for the federal bureaucracy. Compared to other solutions proposed in response to the RFI, Nutanix also offered the best value for the dollar in terms of hardware performance.

“ You don't need to be an expert in SAN technology or storage to be able to implement this solution. One person can do it all. It is that simple. ”

- Alex Shiroma, Contractor Supporting DoD as a Senior Virtualization Engineer



Industry

Federal Government

Business Needs

A fully integrated and highly scalable server and storage platform to host virtual desktops as a service.

Solution

The Nutanix Virtual Computing Platform

Benefits

- Linear scalability by adding nodes
- Ease of procurement - single product from single source
- Procurement to production pilot in under one month
- Exceptional user desktop performance
- Easy management with single point of control - Does not require SAN and storage expertise
- Responsive and thorough technical support



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Successful Pilot Project

The DoD agency has deployed a pilot project based on Nutanix and Horizon View with 500 virtual desktops. “These are power users with heavy application workloads and its amazing to see that the user experience has been exceptional. In fact due to the success of this project, the agency has been approached by additional tenants to run similar projects.”

The agency estimates each Nutanix node will support 55 power users, compared to 100 per node for typical desktop users. The Nutanix Virtual Computing Platform supports 4 nodes or 220 power users in only 2U of rack space. Knowing this ratio simplifies expansion planning for the agency. “We can predict with good accuracy how many VMs will be supported and what our capacity is going to be. This linear scalability helps with the design and implementation moving forward,” said Alex Shiroma, a contractor supporting DoD as a Senior Virtualization Engineer.

The Nutanix converged, SAN-free architecture and the single point of management have reduced management overhead, especially compared to traditional servers and storage. “You don’t need to be an expert with SAN technology or storage to be able to implement this solution. One person can do it all, instead of having a SAN engineer and a server engineer and a network engineer,” he said.

Nutanix technical support has been very helpful. “They have been very, very, responsive and active in following up and making sure we have what we need,” added Shiroma.

Poised for Large-Scale Production

The DoD feels confident about building this new virtual desktop service on Nutanix. For the initial Pentagon client, the agency will provide 2,000 virtual desktops across two different networks, for a total of 4,000 desktops. As more tenants are added to the system, it could expand to over 20,000 virtual desktops. “It’s a great solution that meets our needs. Nutanix is easy to implement and scales linearly, so it makes expansion a lot more predictable, which are all good things for us,” said Shiroma.



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About Nutanix

Nutanix provides datacenter infrastructure solutions that are hyper-efficient, massively scalable and elegantly simple. The award-winning Nutanix Virtual Computing Platform has disrupted the market by seamlessly and natively converging compute and storage in a single appliance. Headquartered in San Jose, Calif. with offices and authorized solution providers throughout the world, Nutanix is privately held and backed by top-tier VC firms. For more information, visit www.nutanix.com.

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