

Nutanix Acropolis and Hypervisor Improves Performance, Saves Time, and Cuts Costs for Canadian School District

Calgary Catholic School District Learns to Rely on Nutanix



**CALGARY CATHOLIC
SCHOOL DISTRICT**

CHALLENGES

Calgary Catholic School District (CCSD) had been relying on HP blades for compute and NetApp FAS systems for storage. The environment had been virtualized using vSphere 5.5, with more than 270 virtual machines for the district's production, development, and test workloads.

Despite covering a widely dispersed geographical area, only two IT team members look after all data center operations at CCSD. "In 2010, the government of Alberta gave us a one-time cash infusion of \$5M," explained William La Hay, IT Team Lead for the CCSD. "We decided to use that extra budget to modernize our data center, and refresh the environment with blade architectures, SANs, and VMware. Little did we know that in a few years, we would need to catch up with the times and modernize our environment."

SOLUTION

CCSD purchased a Nutanix NX-3000 series system for an upcoming VDI implementation, but changed the project scope after revising departmental goals. Since the Nutanix system was not going to be used for VDI as initially planned, they decided to run a very short pilot project on the system for our server environment. The pilot was very successful, and CCSD's entire production environment has now been migrated over to Nutanix, including its MS Exchange, in-house developed applications, a student information system, accounting, finance, MS SQL Server, and Oracle databases. CCSD also purchased a second Nutanix system to accommodate growth.

RESULTS

Smaller Footprint

After a major flood compromised CCSD's IT facility, and with the rising costs of real-estate in Calgary, the district made the decision to move some of its infrastructure from its main data center to Data Hive, a Canadian colocation facility. Since colo space is quite expensive in Canada, the IT team had to find a way to reduce the physically large NetApp footprint down to one single rack to keep the colo costs down.

"We went from four full racks for just our blade servers and NetApp storage environment, to only half a rack of Nutanix," noted La Hay. "The first Nutanix system resides in our main data center, but our new system will be in the colo facility. The cost of renting all of those racks would have been staggering if we hadn't switched from our old NetApp infrastructure. We are now saving thousands of dollars every month in colo costs. Over the next year, we will move all workloads to the colo facility. From there, we will slowly move more existing applications to the cloud, with all of our new projects following a 'cloud first' approach."

"Virtualization shouldn't be something that you actively have to manage. With Nutanix AHV, virtualization is invisible for us now."

- William La Hay, IT Team Lead,
Calgary Catholic School District

NUTANIX[™]
Your Enterprise Cloud Platform

No Hypervisor Licensing Costs

CCSD also switched from VMware vSphere to Nutanix's built-in virtualization earlier this year. "The initial reason to switch to AHV was primarily financially driven," La Hay admitted. "We are saving \$100,000 (CAD) per year in licensing costs alone. The open source KVM hypervisor has been around for years. The problem with the adoption of KVM to date has been that there has never been an easy option for management and support. The skillset needed internally to support KVM is quite a bit different than the normal Microsoft or Windows shop would have on hand. With Nutanix, the hypervisor is built into the infrastructure stack and does not require any specialized skillset to manage, opening up a whole new world of opportunities for supportable and affordable virtualization."

Easier Management and One-Click Upgrades

"Before Nutanix, we had to perform a lot of manual migrations between tiers based on the workload types," La Hay said. "We also had to actively manage all of the alerts and errors in our NetApp environment. We needed one FTE just to manage the vSphere console, HP servers, and NetApp storage. With Nutanix, there really are no day-to-day operations that need to be done to keep the environment in top shape, enabling our IT admin to focus on more strategic tasks."

Better Performance

System performance has increased dramatically with the move to Nutanix. "Data is always accessed on the highest tier with Nutanix," noted La Hay. "The performance that Nutanix gives us is phenomenal—our overall latencies dropped from high double digits to single digits compared to the NetApp platform."

Reporting is also much faster on Nutanix. "Our HR department relies on a large PeopleSoft application," La Hay said. "They have a monthly report that used to take eight hours to run. It now finishes in just 45 minutes on Nutanix. They actually put a trouble-ticket into support because they thought that something was wrong since it ran too quickly!"

World-Class Nutanix Support

"Nutanix support is absolutely amazing," La Hay reported. "I have been in IT for 20 years and have never experienced support like this. With Nutanix, I'm not forced to go through multiple levels of support, starting with someone who can just answer a phone, to someone who may or may not know the product. If we ever have an issue on the Nutanix environment, they contact us before we are even aware of the issue."

Invisible Infrastructure

"Virtualization should be a feature of any modern infrastructure solution, rather than something that you have to buy and manage as a separate product," La Hay explained. "Nutanix provides full virtualization functionality with its AHV hypervisor, along with fast storage and all of the other layers. With Nutanix, virtualization is no longer a 'silo'd bubble'. Having virtualization as a feature eliminates the need for dedicated employees managing the environment. Virtualization shouldn't be something that you actively have to manage. With Nutanix AHV, virtualization is invisible for us now."



T. 855.NUTANIX (855.688.2649) | F. 408.916.4039
info@nutanix.com | www.nutanix.com | @nutanix

COMPANY

Calgary Catholic School District is the largest Catholic school district in Alberta, serving more than 52,000 students in 105 schools. Over 5,000 full and part time staff are involved in providing the best education for all of the communities they serve.

INDUSTRY

Educational Institution

BUSINESS NEEDS

Wanted to simplify server, storage and virtualization management and reduce licensing costs.

SOLUTION

Nutanix Enterprise Cloud Platform:

- › Nutanix NX-3000-series systems
- › Nutanix Acropolis Hypervisor (AHV)
- › Nutanix Prism management solution

BENEFITS

- › Saved over \$100K(CAD) per year in vSphere licensing costs
- › Eliminated the need for dedicated administrator for storage, server, and virtualization management
- › Reduced latencies by an order of magnitude
- › Cut reporting time from 8 hours to 45 minutes

Nutanix delivers invisible infrastructure for next-generation enterprise computing, elevating IT to focus on the applications and services that power their business. The company's software-driven Xtreme Computing Platform natively converges compute, virtualization and storage into a single solution to drive simplicity in the datacenter. Using Nutanix, customers benefit from predictable performance, linear scalability and cloud-like infrastructure consumption. Learn more at www.nutanix.com or follow us on [Twitter@nutanix](https://twitter.com/nutanix).

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