

Enterprise Cloud Systems  
Simplify Management, Boost  
Application Performance,  
and Provide 'Peace of Mind'  
for Busy IT Team



# Canadian Solar Solutions Inc. Envisions a Sunny Future with Nutanix

## CHALLENGE

Canadian Solar had been relying on four physical servers and several aging NetApp storage systems, running its MS Exchange, SQL, SharePoint, enterprise applications, and company intranet. The environment was already fully virtualized using VMware ESXi with over 100 VMs.

"Management was always a challenge with the NetApp infrastructure," noted Richard Briston, senior network and infrastructure specialist at Canadian Solar. "We had to know all of the 'ins and outs' of hardware from multiple vendors. Since there are only two of us on the IT team dealing specifically with this infrastructure hardware, we do not have enough time to become specialists on every piece. As a result, we had to outsource some IT tasks, including our annual NetApp upgrades. We knew we had to look at alternatives for the next refresh cycle."

## PREPARING FOR AN UPGRADE

Briston first heard about Nutanix while attending a Secure Sense Technology camp last year. "Secure Sense is a well-respected IT solutions provider specializing in network and security services and product implementation," he explained. "They offer a two-day camp each year, and invite some of the leading technology providers to demonstrate their solutions. I saw the Nutanix demo, and the technology was very interesting. That was the first time I had heard about Hyper Converged Infrastructure (HCI) environments, so I went back to my office and did some more research. It appeared that the Nutanix Enterprise Cloud systems would be the perfect fit for us."

After reviewing different options, Briston narrowed the list of contenders down to Simplivity, vSAN, and Nutanix, Briston reported. "Since we didn't need all-flash performance for all of our workloads, we decided to go with a hybrid flash array which was a more cost effective solution."

Briston also considered purchasing a vSAN solution. "The problem with vSAN is that you still have to manage multiple moving parts, versus just one moving part with Nutanix. We knew we wanted to implement a HCI environment and Nutanix had the better solution. With Nutanix, we would be able to get all of the performance we required, plus it's simple to use, simple to install, and simple to upgrade."

**"If you're looking for a simple,  
yet powerful storage and  
server solution — this is it."**

— Richard Briston,  
Senior Network & Infrastructure Specialist,  
Americas & EMEA; Canadian Solar



## **SOLUTION**

Canadian Solar purchased its first Nutanix NX-8035 array with four hosts for its primary data center in Guelph, Ontario, and three NX-1365 systems for the company's remote offices in California, Brazil, and, Italy. They are also planning to purchase additional Nutanix systems for other branch offices in the future.

## **RESULTS**

### **An Easy Deployment**

"Our first Nutanix installation was at our remote site in California," noted Briston. "It was a brand new office, so it wasn't connected to the Internet yet. Our Nutanix SE told me to call when we got the array powered up, and he would remotely log on to the system and do the installation for us. Since we had no Internet, I could only speak to him by phone. I told him exactly what I saw on each screen, and he walked me through every step. Within an hour and a half, we had installed VMware and the Nutanix array. This was amazing to me, since the NetApp systems used to take much longer in comparison. If you're looking for a simple, yet powerful storage and server solution that's easy to set up — this is it."

### **Simple and Safe Workload Migration**

Briston started the migration by moving just a few servers over to the Nutanix system. "We ran tests for a couple of weeks just to make sure everything was working well," said Briston. "We wanted to take it slow, since it was a new environment for us. Moving all of the VMs from NetApp to Nutanix was extremely simple. We just added Nutanix into our existing vCenter console and dragged the VMs from the old system to the new array. The entire migration of 100 VMs took just a few days."

### **Faster Performance**

Canadian Solar's end-users immediately saw a noticeable increase in performance when the workloads were moved from NetApp to Nutanix. "All of our workloads are running really fast on Nutanix. The user experience has improved compared to our old environment," Briston said.

### **Better Visibility and Less Time Spent on Management**

Canadian Solar is using Prism Central to manage all of its Nutanix systems. "We used to spend a lot of time managing the NetApp infrastructure, since we had to go through multiple different GUIs to upgrade or configure anything. Everything is much simpler with Prism Central. We can easily see the status of all of our VMs in one console, look at the CPUs, and monitor our hard drive space. As a result, we spend almost no time managing the Nutanix systems. We do look at Prism on a regular basis just to see if there are any updates, which we can do during the day. Prism Central is a massive improvement from our previous management interfaces."

### **No More Late Nights with Non-Disruptive Upgrades**

"Whenever we had to upgrade our NetApp environment, we had to shut down all of our servers and networks for the reboot," Briston shared. "It was a massive undertaking to upgrade that environment, and since we had to take everything offline, we could only perform maintenance at night. With Nutanix, we can easily upgrade our systems live during the day. What a difference!"

## Rack Space and Power Savings

By moving to Nutanix, Canadian Solar was able to save on both datacenter rack space and power. The previous infrastructure filled 14U in the main datacenter, which included 4U for the servers, with 10U of NetApp controllers, storage units, and expansion shelves. In contrast, the Nutanix systems fit in only 4U.

“Although we don’t specifically measure the power draw, we are saving on our electric bills as well,” noted Briston. “The Nutanix systems require only four power supplies, in contrast to the NetApp systems that required a total of 17 power supplies. I would estimate the reduction in power costs are directly proportional as well.”

## Excellent Nutanix Support

“The support people at Nutanix are great. They respond to our inquiries very quickly and the amount of follow-up is incredible,” Briston said. “We even got a call from the global head of Nutanix Support a few months ago, making sure all of our needs were met and asked if we had any suggestions that would make the support experience even better. We assured him that we were very happy with the level of support we were receiving.”

## Working with a Sales Team that Cares

“Another great thing about Nutanix is the great relationship we’ve established with our sales rep and SE over the last two years,” admitted Briston. “The thoroughness of their technical reviews during the initial sales cycle and their patience with all of our questions about the product have been nothing short of amazing. Even after the sale was complete, they still check in with us frequently to make sure everything is okay. It’s refreshing to work with a sales team that cares about our success with the product, even after the deal is done.”

## NEXT STEPS

“Nutanix makes our roles as IT specialists so much easier,” concluded Briston. “We have eliminated all of the complexity of our previous environment. As a result, we do not have to worry about different hardware providers any more. The peace-of-mind we get with Nutanix gives more time to allocate to other components of our job. That’s a big win for our IT group, as well as for Canadian Solar.”

## COMPANY

Canadian Solar Solutions Inc. (Canadian Solar) is a global energy provider with successful business subsidiaries in 20 countries on six continents. Since its founding in 2001, Canadian Solar has produced more than 70 million photovoltaic (PV) modules at its state-of-the-art manufacturing facilities in Canada, China, and Vietnam.

## INDUSTRY

Energy: Solar Power

## BUSINESS NEEDS

Aging IT infrastructure was due for a refresh. Existing servers and NetApp storage systems were difficult to manage.

## SOLUTION

- › Nutanix Enterprise Cloud platform
- › VMware ESXi virtualization
- › Nutanix Prism management solution

## BENEFITS

- › Lowered installation time from days to less than two hours
- › Simplified storage and server management
- › Increased application performance
- › Reduced Rackspace from 14U to 4U



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