Nutanix Enterprise Cloud Platform Enables Wharton to Deliver World-class Infrastructure.

# The Wharton School Chooses Nutanix on Dell EMC XC Series



#### **CHALLENGE**

"There are 110 full-time IT staff in Wharton Computing," explained Matt Frew, IT Director of Wharton Computing Enterprise Services and Solutions. "Our team of ten system administrators is responsible for most of the central infrastructure and services that support the day-to-day business for the school—including our email servers, VMware environment, Active Directory, storage systems, networking, and the data centers themselves."

Prior to Nutanix on Dell XC, the Wharton School of the University of Pennsylvania was using traditional 3-tier infrastructure with Dell storage systems. "We had to manage three different layers of infrastructure in our legacy environment," Frew said. "As a result of the complexity, we always struggled with driver firmware and hypervisor compatibility. Whenever we'd upgrade to the latest version of VMware, three months later we'd have an outage. After much trouble shooting, we would discover, a compatibility issue between the storage firmware, or network firmware, or some driver that was missing on a blade. That caused a lot of angst for everyone on our team."



# Time for an Upgrade

Wharton's IT team began the search for new infrastructure options when the existing legacy storage systems were reaching end of life. "We were going to be making large investments in new infrastructure; so, it was a good opportunity to take a step back and make sure we were doing everything right," Frew explained. "I had just returned from a VMworld recap session with our local user group, where they talked about the new hyperconverged models on the market. I told our Dell rep that instead of upgrading our traditional systems, we wanted to look at the hyperconverged Dell XC models. Dell brought in Nutanix, and I was sold almost immediately. It solved all of the issues we were running into with our legacy platform day in and day out."

"When all of our time was spent performing mundane operational tasks with our legacy storage systems, we weren't able to tackle new projects. Now instead of saying no when our distinguished faculty members request new applications or services, we can say, 'how can we help?"

- Matt Frew; IT Director, Wharton Computing Enterprise Services and Solutions; Wharton School at the University of Pennsylvania

# SOLUTION

After seeing the Nutanix demo, Wharton Computing made the decision to purchase seven Dell XC730xd-12 appliances. Wharton's IT team is now migrating all virtual applications and environments over to the new systems, including all production MS Exchange, SharePoint, Active Directory, Java, and Python applications.

Before choosing Nutanix, Wharton also looked briefly at two competitive offerings. "The other providers were claiming to have 'hyperconverged systems', but they were selling just 'more of the same in one box'—we would still be managing three different layers of components and worrying about compatibility," explained Frew.



## Why Nutanix?

"The Nutanix systems solved all of the issues we were experiencing with our legacy environment," Frew admitted. "The ability to manage servers, storage, and our virtual environment in one pane of glass with Nutanix Prism makes it so much simpler. The hyperconverged approach removes the concerns about interoperability between all of the different pieces of the puzzle, because it's just one component."

## An Easy Deployment

Setting up the environment was also very simple, according to Frew. "Dell came in to help us with the installation," he explained. "The day that the Nutanix systems arrived, we were in the middle of an Office 365 migration, so they sat in boxes for a while. Once we got the environment up and worked our way through some of the common tasks of updating hosts, checking firmware levels, making sure our day-to-day working process were in good order, we quickly began migrating workloads. Today we have over 100 VMs on Nutanix and will be migrating more over in the next few days."

## **RESULTS**

# **Higher Reliability**

"We had of a lot of issues with drive failures in our previous environment," Frew shared. "We haven't had any outages on the Nutanix systems since we migrated over. The Nutanix architecture prevents any specific storage, network, or host failure from causing an outage."

## CapEx and OpEx Savings

The Wharton School obtained significant OpEx savings by eliminating the need to perform SAN firmware updates. "The rolling updates for our storage environment used to take 2 to 3 weeks, and we would do those about twice a year," Frew explained. "During those cycles, our admins spent a lot of hours watching the systems to make sure everything worked as planned. With Nutanix, all of that administrative overhead was gone. We don't have to do separate SAN firmware updates anymore, we can do them right in line with our hypervisor updates. As a result, we've been able to eliminate nearly eighty admin hours per year and a lot of headaches for all of our admins performing those routine tasks."

Wharton also obtained savings on datacenter space by moving to Nutanix. "We went from 1¼ racks down to a quarter of a rack with the Dell XC with Nutanix systems," Frew said. "That equates to 5:1 reduction in datacenter footprint—saving us even more on datacenter space and power costs."

# **Excellent Support from both Dell and Nutanix**

"We purchased our solution through Dell, so they're our first stop for support," Frew said. "From my perspective, that's an extremely appealing model of support. If there ever is a hardware problem, we can call Dell and they will quickly solve it. They can also troubleshoot the software and bring in Nutanix experts only when needed. This model offers a much more collaborative approach to solving customer problems."

## **Using Prism for Capacity Planning**

"The ability to easily see performance and disk usage metrics is one of the things that was very intriguing to us when we originally looked at Nutanix," Frew admitted. "Capacity planning and growth projections have been historically very hard to get with our legacy systems. We'd routinely run into issues when our colleagues used all of the capacity available to them. They'd come scrambling back to us for more disk space, and we weren't always able to quickly allocate more storage for them. Having accurate capacity projections right at our fingertips with Prism is a huge advantage for us and our end users."

#### **NEXT STEPS**

## Adding One More Nutanix System for High Availability

"I would love to purchase additional Nutanix nodes for high-availability in the near future," Frew stated. "Right now we can lose one host before we have a failure, but it would be even better if we could lose two without causing an outage. The Nutanix systems are so reliable that it's unlikely that we would ever need that level of protection, but it's always better to be safe than sorry."

#### **Providing Better Service to Wharton End Users**

"Our IT Strategic Partnership group works with our brilliant faculty to determine what new services they'll need to maintain Wharton's reputation as the best business school in the world," Frew explained. "When all of our time was spent performing mundane operational tasks with our legacy storage systems, we weren't able to tackle new projects. Now, instead of staying no when faculty members request new applications or services, we can say, 'how can we help?' For example, we just completed a campus-wide Dropbox Enterprise deployment. Instead of having 30 faculty doing it on their own, we were able to launch it centrally because we had the cycles. All of these special projects and services are now possible since we moved to Nutanix."



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Nutanix makes infrastructure invisible, elevating IT to focus on the applications and services that power their business. The Nutanix enterprise cloud platform leverages web-scale engineering and consumergrade design to natively converge compute, virtualization and storage into a resilient, software-defined solution with rich machine intelligence. The result is predictable performance, cloud-like infrastructure consumption, robust security, and seamless application mobility for a broad range of enterprise applications.

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#### **COMPANY**

Founded in 1881 as the first collegiate business school, the Wharton School of the University of Pennsylvania is recognized globally for intellectual leadership and ongoing innovation across every major discipline of business education.

#### **INDUSTRY**

Higher Education

#### **BUSINESS NEEDS**

Existing storage systems were due for an upgrade. Wharton Computing wanted to move from traditional SAN blade infrastructure to a hyperconverged solution to simplify management.

#### SOLUTION

- > Nutanix Enterprise Cloud Platform
- > Dell XC730xd-12 appliances
- Nutanix Prism management solution

#### **BENEFITS**

- Eliminated hundreds of hours per year on SAN management and upgrades
- Increased visibility and reliability with one system to manage
- Reduced datacenter footprint by 5:1
- Gained the ability to do accurate capacity planning using Nutanix Prism metrics