

## CENTENNIAL COLLEGE

Centennial College has grown rapidly since its founding in 1966, transforming from a local community college to a global institution with a presence in several emerging markets, including China, India, South Korea, and Brazil. Centennial enrolls 20,000 full-time and 20,000 part-time students annually at its four campuses and five

satellite locations across the greater Toronto area. It recently opened Suzhou Centennial College near Shanghai, the only accredited Canadian college in China.

Centennial College is well known for its record of exemplary teaching, innovative programming, and extensive partnership building. It is also recognized as one of the most culturally diverse post-secondary institutions in Canada. The College's 7,000 international students represent almost 100 ethno-cultural groups, with more than eighty languages spoken on campus.

### The Challenge: Poor VDI Performance

René Chakraborty is the server and storage administrator at Centennial College. He is part of the three-person team responsible for managing all of the servers and storage used by Centennial College's faculty, staff, and students, with the exception of the college ERP system. "We manage all of the physical and virtual servers for our administrative and academic departments," Chakraborty reported. "If someone needs an application in a lab or a classroom, or additional infrastructure for a new HR service, we do all of that. We are essentially the jack-of-all-trades for our organization."

Centennial College recently launched a new virtual desktop service for its students and faculty members. "The VDI environment is still in its infancy, but it is growing rapidly," Chakraborty shared. "We now have 600 virtual desktops and expect that number to increase significantly in the near future. We are also in the process of putting the final touches on our 'bring your own device' (BYOD) system to provide our students and faculty with more flexibility in their choice of computing devices."

Centennial College made its first venture into the world of dedicated storage in 2003. "We were a customer for this legacy storage provider even before it was bought by one of the larger and more well-known companies in the computer industry," Chakraborty admitted. "At that time, it was pretty much the only game in town. We've made fairly heavy investments in that platform over the last decade, amounting to well over twelve shelves and hundreds of terabytes of storage."

Centennial College was getting ready for an infrastructure refresh. "These systems were adequate in the beginning, but the platform hadn't really evolved much beyond its initial design," Chakraborty said. "We started running into serious IOPS constraints a few years ago, particularly in our VDI environment, so we decided to look for a more powerful storage solution that could meet the demands of our virtual desktops."

### The Solution: Tintri VMstore

Centennial College's storage issues reached critical mass late last year, according to Chakraborty. "Our boss gave us approval to upgrade our storage for VDI. We brought in a number of vendors, including several of the 'next-generation' storage providers and all-flash solutions, as well as a couple of the 'older boys'."

The first time Chakraborty heard about Tintri VMstore was on an airplane. "My colleague and I were headed to VMworld 2014 and just happened to be seated next to a sales rep from Tintri," he recalled. "We told the rep that we worked in IT for a large school system, and he informed us that he worked for a storage vendor. When we realized that we were stuck sitting by a 'storage guy' for four hours, we made a deal with him. We told him he could make his pitch to us—but only until the wheels left the ground. But since we were so intrigued by what he had to say, the conversation lasted much longer. That informative discussion was followed up by a visit to the Tintri booth at VMworld."

### Challenges

- Legacy system had difficulty supporting IOPS needs of VDI

### Solution

- Tintri VMstore
- VMware vSphere
- VMware Horizon View

### Results

- Simplified storage management
- Cut deployment time in half
- 3x boost in performance for all VDI and server workloads
- Reduced data storage burden from 30TB to 1TB using deduplication
- Proactive technical support



After listening to the Tintri presentation and viewing the demos, Chakraborty invited Tintri and one of the all-flash storage vendors to participate in a 30-day PoC. "The VMstore deployment was completed within an hour," Chakraborty reported. "That really impressed us, since we couldn't install the all-flash solution ourselves for the PoC. That vendor had to fly someone in from New York to set it up because the solution was far too complicated to deploy by IT generalists."

Chakraborty also reported that the VMstore deployment went 'at least twice as fast' as it did on the older legacy platform. "We were a bit hesitant initially with VMstore, because we wanted to go all-flash and Tintri only offered a hybrid system at that time," he admitted. "But after testing VMstore for thirty days during the PoC, we discovered that the VMstore hybrid system was only slightly slower than the pricey all-flash alternative. Since the all-flash solution was 40% more expensive for just a quarter of the usable space, our decision to go with hybrid VMstore system was actually quite simple."

## The Results: Simpler Management and Better Analytics

Centennial College purchased its first Tintri VMstore system in 2015 for its campus-wide virtual desktop deployment. The difference between standard infrastructure and Intelligent Infrastructure was evident from the start. "We noticed immediate improvements when we moved VDI over to VMstore," Chakraborty reported. "Our end users saw a noticeable speed jump when loading their virtual desktops using the new platform."

After seeing the huge performance boost with the virtual desktops, Centennial College purchased an additional VMstore system for its virtual server environment. All mission-critical workloads are now running on VMstore, including the college's SQL databases, web servers, SharePoint instances, larger file servers, and all of the critical components of its internal YouTube system, called MediaSite.

"All of our virtual desktop and server workloads are running at least three times faster on VMstore," Chakraborty reported. "VMstore also cuts down on the amount of storage space we need. The older legacy systems don't have a deduplication process, so our VDI environment had grown to over 30TB. When we moved everything over to VMstore and ran the deduplication process, it came down to just under 1TB."

Storage management is much simpler with Tintri VMstore. "With the older legacy systems, we had to log on at least once or twice a week to make sure there were no spikes or other issues that could cause a problem," Chakraborty said. "With VMstore, we forget that we even have any storage systems since they require no management. We also we really like the analytics we get from VMstore. The level of information we have at our fingertips helps us fine-tune our environments much better than with our previous systems."

"We recently changed one of the cables on our smaller VMstore system," Chakraborty shared. "By unplugging the system, we created our own 'self-imposed' power outage on the network. I was sitting in front of the VMstore box, trying to recall the password since we rarely have to log in to monitor the environment. Just as I got up to call Tintri, my phone started ringing. It was Tintri Support, saying, 'We just noticed that your unit is down. Can we help?' They reached me before I could even dial their number!"

Centennial College is now in the process of deploying its new (BYOD) project, powered by the VMstore systems. "We will be using VMstore as our premium storage tier for all of our mission-critical applications," Chakraborty concluded. "Our backups, dev ops, and lower priority sandbox environments will all stay on the older platform for now. We intend to scale the older legacy environment down as those systems reach end of life, and grow the VMstore footprint as we need more capacity. The price, performance, and easy manageability of the VMstore systems makes them the ideal choice for all of our critical workloads."

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*René Chakraborty, Server and Storage Administrator, Centennial College*

Experience Different! For more information on how Tintri VMstore can turbo-charge your business success through a simple, Intelligent Infrastructure, visit [tintri.com/vmstore](http://tintri.com/vmstore).



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