



Giving teachers better tools, training students for success

La Cité, the college of applied arts and technology of Ontario, implements virtualized desktop solution to increase teaching time, ease IT management and give students more flexibility



Customer profile

LA CITÉ

LE COLLÈGE D'ARTS APPLIQUÉS
ET DE TECHNOLOGIE

Company La Cité
Industry Education
Country Canada
Employees 1,000
Website collegelacite.ca/en

Business need

La Cité wanted to ease desktop PC management and give students and teachers more flexibility.

Solution

The college installed a virtualized desktop infrastructure featuring Dell PowerEdge servers, Dell Networking switches, Dell storage arrays and Dell Wyse P25 zero clients.

Benefits

- Virtual desktop images are deployed in days instead of weeks
- IT staff spends less time on maintenance and more time finding new solutions
- College can be more competitive
- Instructors have up to 15 minutes of additional classroom time
- Students can work on CAD projects remotely
- College saves money and power

Solutions at a glance

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Luc Lacasse, Systems Administrator
La Cité

At La Cité in Ottawa, Ontario, students taking computer-aided design (CAD) classes are doing more than just learning—they're training for careers as engineers and architects. That's why they need the best possible software to power their 3-D graphical renderings.

But supporting those students was far from easy for the school's small IT staff, which supports the technology needs of 5,000 full-time students and 1,000 faculty and administrative employees. For one thing, there were only seven on-campus labs containing desktop PCs powerful enough to run CAD software. "Scheduling classes each year was challenging, because of the small number of labs," explains Luc Lacasse, a systems administrator at the college. "We didn't have enough space for all the students we wanted to support." Another issue was that students wanted the flexibility to work on CAD projects outside the lab environment. "There were a few machines with CAD software in the library, but that was it," says Yves Bourgeois, a systems administrator at La Cité. "They were bound to the labs if they wanted to work on their projects."

And the school's teachers had their own challenges. "Teachers were using CAD software on PCs in their offices to prepare for class, and if they wanted to show students a project, it took too much time," says Bourgeois. "The teachers would have to go to class, boot up the classroom PC, log in and start the application. By that time, they had lost 15 minutes of teaching time."

The college's desktop PC environment was also difficult to manage. "If we wanted to change the image on a computer, that meant reimaging up to 30 machines in each lab," Lacasse says. "And we had to test the PC and make sure it was running okay. The whole

process took more than a week for each workstation."

To address these issues, the college began to consider a virtualized desktop infrastructure (VDI). "We were at a crossroads, where we were either going to invest a lot of money in better workstations or put the money into a VDI solution," Lacasse says.

La Cité deploys VDI, storage, and firewall solution

La Cité considered technologies from a range of companies, including HP, IBM and Dell. "We already had IBM servers, but when we saw the capabilities of the Dell PowerEdge R720 rack servers, we realized they were a much better fit for

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Luc Lacasse, Systems Administrator, La Cité

Products & Services

Hardware

Dell Compellent SC8000 storage arrays

Dell Networking S4810 switches

Dell PowerEdge R720 rack servers

Dell SonicWALL SuperMassive E10000 Series firewalls

Dell Wyse P25 zero clients

Software

Dell DR4100 Disk Backup Appliances

VMWare® Horizon View™



the VDI environment we wanted to put in place, in terms of their specifications,” says Lacasse.

The college implemented a new VDI solution including more than 400 Dell Wyse P25 zero clients and 16 PowerEdge R720 servers, with Dell Compellent SC8000 storage arrays. The IT team also deployed new Dell Networking S4810 switches in its data center. “We were able to get 10-gigabit Ethernet with the Dell Networking solution, which we needed for throughput with all the 3-D graphics we’re running on the CAD applications,” says Lacasse.

La Cité also implemented two Dell SonicWALL SuperMassive E10000 Series firewalls to handle security in the new VDI environment. “We didn’t have the time to keep up with all the security updates we needed to do, and we didn’t have an intrusion detection system in the firewall,” Bourgeois says. “The SonicWALL firewalls have intrusion detection built in, and they take care of security updates for us.”

In addition, the school installed two Dell DR4100 Disk Backup Appliances for backup and recovery. The appliances are integrated with Dell NetVault Backup software to provide cross-platform backup and recovery of the school’s physical and virtual environments. The school also supports its existing VMware® Horizon View™ virtualization environment with Dell PowerEdge M620 blade servers and another Dell Compellent SC8000 array.

With the new Dell VDI solution, La Cité can support its CAD software in 70 labs on campus.

Images are deployed in days instead of weeks

IT employees at La Cité can now deploy virtual desktop images on classroom

zero clients quickly, whenever updates are needed. “Instead of a few weeks to tweak an image, it only takes us a few days now with the Dell VDI solution,” says Lacasse. “All we have to do is go into the VMware interface and build the image, and it gets deployed. We can customize a Dell Wyse client much faster than we could with a desktop PC. This means all students are guaranteed access to a computer in each lab, where before they might have had to share if a PC was down.”

More proactive IT staff helps college stay competitive

Because the La Cité IT team can more easily deploy images and manage the VDI environment, it can focus on helping the college stay competitive. “Instead of putting out fires all the time and worrying about machines, we have more time on our hands with the Dell VDI solution, and we can be proactive about finding new technology solutions for the college,” says Lacasse. “That’s important, because we compete with many other colleges in our area for students. The more state-of-the-art services we can provide, the more students we can attract. And our new IT infrastructure, with the Dell PowerEdge servers and Dell Networking switches, gives us the performance we need to ensure that we’ll be able to easily support any solution we implement.”

Teachers have more time in the classroom

Instructors at the college now have extra time for teaching, because they can easily connect to the VDI environment in the classroom, picking up where they left off in their offices. “Teachers can connect to CAD applications on the Dell Wyse clients in under 20 seconds once they’re in class, and they can start teaching right away,” says Bourgeois. “Previously, it would have taken at least 15 minutes for them to connect.”

Students can work from locations outside the lab environment. Students now have the flexibility to work on class projects from a range of locations. “Before the Dell VDI solution, students could do their work only in one of seven labs,” says Lacasse. “Now, those students can take their laptops into the cafeteria, connect virtually and work on a CAD project, rather than trying to find an available workstation in a lab.”

In addition, teachers have more labs to choose from when scheduling classes. “Instead of seven dedicated CAD labs, we now have close to 65 equipped with Dell Wyse clients,” Bourgeois says. “It really opens up the teaching environment, and teachers aren’t constrained like they were before.” The college also has the ability to operate a stable bring your own device (BYOD) environment for students. “There are some pilot BYOD programs the school wants to put in place, and we can support those programs now with the Dell VDI solution,” says Lacasse. “Students will be able to bring a tablet or laptop to class, and we can support that device through this infrastructure.”

School cuts costs and saves power

La Cité is also saving money by using the Dell VDI solution. “We used to change desktop PCs every three years or so, but we will be able to keep the Wyse clients for much longer than that, which saves us money from not having to refresh the hardware as frequently,” says Lacasse. The college will also reduce its power consumption. “We will definitely use less power with the Wyse clients,” Lacasse says. “The power and cost savings, along with the other great benefits for students and teachers, make this solution perfect for the school.”

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