



Success Story: St. Catherine's School

Low-cost computing for education

Challenge

Outdated desktops were slow, unreliable and bulky, and teachers were losing confidence in their ability to integrate them into the curriculum.

Solution

The school expanded its computer lab from 16 desktops to 32 workstations supported by three host computers.

Results

- Computer lab capacity was doubled to 32 workstations in just a few days.
- The school can now provide 1-to-1 computing for students, meaning students enjoy computer time every week instead of every other week.
- Future refreshes will cost less, as the school will need to upgrade only the host computers and peripherals.

Partner



Independent School Doubles Size of Computer Lab, Achieves 1-to-1 Computing

St. Catherine's is a small K-7 Catholic school in British Columbia. The school offers networked computing in some of its classrooms, but the primary site for computer-based learning is the school's library media center, where the computer lab is housed.



Small Lab, Big Headaches

Because the computer lab had only 16 desktops, classes of 30 students had to be divided, with only half attending computer class each week. The computers were aging and oversized, had limited memory, ran at a frustratingly slow pace, and generated so much heat that they made the lab almost unusable in late spring and early fall.

St. Catherine's didn't have the budget to purchase 32 new desktops, and the school lacked an IT department, so a parent and the computer teacher, Brad Robins, were constantly scrambling to keep the existing computers running.



"It became really onerous to keep up with the updates and any problems that came up on the 16 computers," Robins said. "We had fans go, we had motherboards go, we had hard drives go, we had to reformat on occasion — it was such a chore."

Deployment Architecture

Terminals:

NComputing L300s

Hosts:

- Dell Vostro 470
- Windows Server 2008R2
- Intel Core i7-3770 processor (3.40GHz, 8GB RAM)
- 1GB Radeon HD Video Card

OS Virtual Machines:

Windows

Monitors:

ASUS 17" Square with integrated speakers

Peripherals:

Microsoft Business USB Keyboard and Mouse, networked Dell and printers (Canon, Brother, HP)

Featured Programs:

Microsoft Office 2010, All the Right Type

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Brad Robins

NComputing Makes the Grade

After a multiyear search for a cost-effective, easy-to-maintain solution to the computer lab problem, St. Catherine's selected NComputing, which uses thin-client technology so a single computer can power multiple workstations.

St. Catherine's replaced the 16 desktops in the computer lab with 32 NComputing L300 virtual desktops, supported by just three host computers or servers. Installation was complete in just a few days, and because the older computers had been so bulky, even with twice as many new devices the lab now provides more workspace for students and teachers. The 16 desktops didn't go to waste, either; they were redistributed for use in classrooms across the school.

Deploying an L300 virtual client costs less than half as much as deploying a typical desktop PC, and each device features USB peripheral ports that enable the students at St. Catherine's to conveniently port schoolwork between home and school.

Students Welcome 1-to-1 Computing

Students who used to attend computer class only once every two weeks now have 1-to-1 computing time every week – and not just during their computer class. Teachers also bring students to the computer lab more often to conduct research and word processing.

The move to NComputing also gives Robins more time to focus on teaching, because the school and the school's NComputing Partner need to maintain only the three hosts and peripherals rather than 16 separate desktops. When it's time to refresh equipment, the cost of upgrading the three hosts will be far less than for replacing individual desktops.

In the meantime, students have access to twice as many computers, all of which are faster, have far more memory and use less power than their predecessors. This means both lower operating costs and a cooler, more comfortable environment for both students and teachers.

A Scalable Solution

The desktop virtualization model is very scalable and can be modified to accommodate future projects. CSG plans to replace most PC desktops throughout the school as they reach end of life with NComputing virtual desktops. In addition the NComputing and Microsoft partnership has provided CSG with access to affordable, security-enhanced, and easy to use technology. A huge bonus is that using a Gateway service through its existing Linux based firewall (running on an old PC) the school has provided secure access from home for all its staff to the school network from home Windows based PCs.

"The switch to NComputing will be more cost-efficient in the long run, and it's really maximizing our ability to teach technology," Robins said. "Students just love the new computers, so they're using them more often, and they're enjoying the experience far more. It's been a very positive experience for us."