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Afghan-Canadian school sets up virtual desktops
A project started by the Canadian Forces in Kandahar turns to NComputing to make the most of its PC
fleet. Plus: The promise of solar-powered IT
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ComputerWorld Canada   (18 Aug 2008)

A post-secondary school based in Kandahar, Afghanistan that was founded by the Canadian military is
using a combination of virtualization software and hardware add-ons to stretch the number of desktops it
can offer students and the power needed to run them.

The Afghan-Canadian Community Center (ACCC) has been operating since January of last year but has
been beset by PC costs and the energy requirements. Redwood City, Calif.-based NComputing Inc. said it
recently partnered with the school – which offers courses in IT, business management and health care to
some 700 students – to deploy its access devices and virtualization application.

According to Ryan Aldred, the part-time sergeant with the Canadian Forces who founded the ACCC and
serves as the project's Ottawa-based director, the plan is to stabilize growth while finding ways to make
operations more efficient.

"The power situation in Kandahar is very unreliable. We rely on our generator for a lot of the day," he explained, adding that the ACCC can spend up to $500
a month on fuel for the generator alone. "Right now we're the largest computer lab in the province with 50 terminals, so we're very happy with where it is."

NComputing takes a terminal services approach to desktop computing with one operating system shared by multiple users, each of whom get their own
session. Its terminals come bundled with a keyboard, mouse and monitor that can be hooked up to a PC, and the ACCC used second hand donated LCD
monitors for the displays.

Carsten Puls, vice-president of product marketing at NComputing, said its X Series access devices can be as small as a deck of cards and can work within a 30
feet radius of the PC. The result is about one watt of power consumed per user, compared with 115 watts per PC. So far the company has sold into a number
of educational organizations, some of which have legacy IT in place but others, like the ACCC, which are setting up desktops for the first time.

"In a business, you're already going to have a network, the infrastructure to power the PCs, the space, and so on," he said. "In situations like this one in
Kandahar, they don't have power, so you're faced with questions of, 'What size generator do I need?'"

The ACCC provides students with a range of programs including Microsoft Project and more sophisticated applications such as voice-over-IP. "There is a fairly
considerable drain on the system," Aldred said. "What we're hoping to do is to introduce solar power into the mix. Even if we can just reduce our reliance on
our generators, like only using one, that will make a big difference." He said the ACCC has invested in a number of uninterruptible power supplies which could
act as "batteries" for solar-powered systems.

Although there have been a few hiccups along the way, Aldred said the ACCC has turning to online support and remote desktop assistance. "If you've got
someone who is a relatively experienced system administrator, you're going to be okay," adding that getting the satellite connection was among the bigger
challenges. "This is one of the hardest regions because there isn't that knowledge of IT readily available."

Puls said NComputing has also been working to provide access and connectivity in remote villages of Bangladesh. "This is usable by someone with very basic
PC skills. We've tried to not overcomplicate things," he said. "The X Series kit takes about 10 minutes to set up."

Of course, the ACCC faces other issues not typical of a Canadian educational institution. Over the weekend, the Taliban issued a warning that it will target Canadians in the province unless troops pull out. Aldred said the project coordinators are taking it in stride.

"We've been dealing with threats even before the school was founded," he said. "It is concerning to us, but it's something that, unfortunately, working in Kandahar is the reality of the situation. We try to take the risk management approach by building a positive relationship with the community we operate in, make sure the local populace is supportive of our work, getting the support of local security operations such as NATO and the local police, and we maintain our own private security arrangements."