

Symbio Technologies™ | **CASE STUDY**  
Enterprise Thin Client Solutions

**North West Catholic School Division #16**

Symbio's Diskless Thin Clients Replace Sun Microsystems' Products in a Canadian School District  
**K-12 Education**  
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### North West Catholic School Division #16

Formed in 1997, The North West Catholic School Division #16 in North Battleford, Saskatchewan is a combination of four parochial school districts in Canada. The school division began as three school boards and has since grown to eight schools with more than 1,300 students in grades K to 12. The North West Catholic School Division is part of a larger school system in the Saskatchewan province that is responsible for educating more than 37,000 students.

### The Challenge

The North West Catholic School Division #16 in North Battleford, Saskatchewan, Canada found that their existing thin client and enterprise server systems were becoming too expensive to maintain. Their network was based largely on a proprietary thin client system provided by Sun Microsystems. This proprietary solution introduced many performance and software limitations as the schools requirements became more demanding. It was very important for the teaching staff to be able to provide their students with a variety of teaching tools, not all of which ran on the same operating system platform. Specifically, the school system wanted to expose their students to various Linux-based programs and at the same time have a solution that was commercially supported.

Tom Hawboldt, the district's technology coordinator, knew that he wanted to continue to leverage thin client technology. He also had to ensure that whatever solution he chose would last longer, provide a more robust and more flexible desktop user environment, and keep the upfront price within the District's existing budget. Tom found Symbio Technologies after a few short web searches and turned to us for guidance.

Hawboldt noted that while the previous system worked well, "The district was concerned that, as equipment aged and warranty periods expired, we would have to purchase high-priced replacement parts and software available only from Sun. We also wanted to use both Windows and Linux-based programs and open source educational software."

### The Solution

Roger Del Russo put Tom in touch with a Symbio Technologies' Value Added Reseller (VAR), Systems Aligned, a professional IT services firm based in Brampton, Ontario. Together they drafted a cost effective proposal for a diskless (stateless) thin client solution for the District. When the proposal was reviewed, the District was stunned to learn that the total cost was 50% less than the estimate for a Microsoft Windows desktop/server solution (based on a study conducted independently by the NWCS D #16). Operating and maintenance costs were also substantially less than for the Windows desktops.

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*- Tom Hawboldt – Technology Coordinator*

*"The bottom line is always the bottom line ... Today, the District has 90% thin clients. When we finish replacing the old Suns with true diskless thin clients, we'll be saving \$400 per workstation. Over time, that's a tremendous amount of money that the District will use to hire more teachers, not just buy more computers. Then we will have achieved the best of both worlds - more teachers and a great system that is super stable and saves a bunch of money."*

*- Tom Hawboldt - Technology Coordinator*

The initial deployment called for 122 diskless thin clients from Symbio Technologies (Model SYM1220). The diskless thin clients were deployed and connected to four Linux servers running Redhat Linux. The diskless thin client solution enabled the schools to utilize existing applications regardless of whether they were written for Linux or Windows platforms. Students could now also make use of the vast array of quality, open source educational software.

The solution, said Hawboldt, "eliminated the 'vendor lock-in' that the District previously faced, resulting in significant cost savings and lower maintenance with no decrease in performance." Working under a gradual replacement program, he said plans call for the district to build upon its Linux foundation by adding as many as 400 more diskless thin clients.

"Working with the Northwest Catholic School District No. 16 was a real team effort," said Brian Zammit, who, with partner Kanwar Sandhu, heads Systems Aligned. "Not only did the business lead come from Symbio Technologies, but we also received superior, hands-on support from Roger Del Russo and Gideon Romm, the co-founders of the company. This was our first installation of a diskless thin client solution, and Roger and Gideon were very quick to respond and were very supportive. Overall, I am very happy to report that 'the stuff just works, right out of the box'."

## Results

How happy is Northwest Catholic School District No. 16 and Hawboldt with the installation overall?

The North West Catholic School Division #16 was pleasantly surprised by the rapid deployment of the new diskless thin client system. The thin clients and servers were installed and running within two days. "We're delighted, by all measures," said Hawboldt. "The solution is excellent - quick and painless to install, easy to update, and it doesn't break. And we can use the remote administration features built into Symbio Technologies' products to check out hardware status and questions anywhere on the system."

"The bottom line is always the bottom line," Hawboldt said. "Today, the district has 90% thin clients. When we finish replacing the old Suns with true diskless thin clients, we'll be saving \$400 per workstation. Over time, that's a tremendous amount of money that the District will use to hire more teachers, not just buy more computers. Then we will have achieved the best of both worlds -- more teachers and a great system that is super stable and saves a bunch of money."



**October, 2006 Update:** Since the writing of this case study, The North West Catholic School Division #16 has purchased more than 200 additional diskless thin client devices. The original deployment of 122 units are still functioning perfectly today and have required no maintenance. The District has become a showcase for the power and flexibility of diskless thin client technology and is often used as a benchmark for other schools in the region when reviewing their own IT solutions.

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For more information about Symbio Technologies, our network of Value Added Resellers, and our industry-leading diskless thin client solutions, please visit: [www.symbio-technologies.com](http://www.symbio-technologies.com)

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**About Symbio Technologies**

Symbio Technologies develops enterprise-class networks with a single goal in mind: Simplicity. A simple network is a manageable one - and that translates into lower costs, increased reliability, tighter security - and peace of mind. Symbio helps organizations break free of the common limitations, costs and headaches of computer networks by simply eliminating the most troublesome part of the network – the personal computer.

Symbio takes PCs off the desktop and replaces them with diskless thin clients – small desktop devices with no moving parts, no internal storage, no embedded operating system and no software. Simply turn them on, connect to the network and your users can access to the most up to date operating systems, applications and data as needed.

Symbio Technologies designs and manufactures hardware, software and services that enable businesses to reduce the time, complexity, and costs associated with deploying and maintaining computer networks.

Symbio's flagship thin client solution consists of a network appliance called The Symbiont Boot Appliance, stateless desktop terminals (diskless thin clients), and value-add subscription services. Our solutions connect users to a variety of environments that utilize the most popular protocols and systems in the industry, including Microsoft Windows Terminal Services (RDP), Citrix (ICA), Linux/Unix (X), NX Server (NX), TN5250/AS400, IBM3270, and virtually any mainframe protocol.

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