

**Higher learning through high technology:  
Colby Community College gets educated about layered security by Software  
Security Solutions  
By Monte Robertson, Software Security Solutions**

**OVERVIEW**

Colby Community College (CCC) is located in the northwest corner of Kansas, approximately 50 miles from the Colorado and Nebraska borders. The area is part of the High Plains, sweeping upward to the Rocky Mountains 250 miles to the west.

Unlike a typical community college where students commute to campus, about half of CCC's 2,000 students live on campus, and a new 160-bed dormitory is under construction.

Because of its rural location and agricultural focus, CCC "has been little slower making the transition to technology, but obviously we've reached that point where we have to," says Debbie Schwanke, the school's public information officer. Students demand it, she says. Connectivity "is not a fringe benefit. They expect to bring their computers and have wireless access everywhere."

**SECURITY BREAKDOWN**

Having technology necessitates protecting the data it holds and transmits. CCC found that out the hard way when a virus took down the entire 400-machine network that serves its students, along with 150 faculty and staff, for more than a week.

At the time the school had been relying on a well-known anti-virus package.

"That's when we found Software Security Solutions (SSS), who and put together an anti-spyware and anti-virus package for us," says Director of Information Technology Jess Randel.

**SOLUTION: LAYERED SECURITY**

The package includes ESET's NOD32 anti-virus program and Webroot's Spy Sweeper. Unlike anti-virus programs that create signatures whenever a new virus appears, NOD32 uses a technology that proactively protects against new and unknown viruses as well as those already in circulation. Spy Sweeper's technologies fight against existing spyware and adware as well as emerging threats, which haven't been researched yet.

SSS is a strong advocate of layered security and focuses on helping clients choose the best mix of solutions for their situation.

CCC has gone that route as well.

**The school installed a Juniper Networks firewall. Built into the firewall are additional security features including its own anti-virus protection and “deep inspection,” which inspects individual packets as they come into the network**

**“Everything is scanned when it comes through the firewall, then by the inside programs,” Randel explains. “That way we’re not relying on just one thing.”**

**Another layer Randel has implemented is dividing the network into different virtual local area networks (VLANs), “so if there’s a problem it won’t spread to the entire campus,” he says.**

**Students, faculty and staff are each on a separate VLAN. Students and faculty are migrating to wireless VLANs, and Randel has them architected so students can’t access the faculty VLAN and vice versa. Each VLAN uses a SSID (service set identifier); wireless devices on each VLAN must employ the same SSID, preventing communication between networks.**

**Another layer of security preventing students from accessing the faculty network is web-key authentication and allowing only devices with specific MAC addresses (media access control numbers) on it.**

**The VLANs are also rate-controlled through routing and switching, he says. “That way if someone gets on with a virus it will only give them so much bandwidth and won’t shut down the whole network.”**

**The staff VLAN remains wired and is off-limits to students, Randel says. Even if they were to use an Ethernet cable to plug a laptop into the network, “Students would have to have a user name and password and then, to get into the grade system, there’s a separate user name and password.”**

## **RESULTS**

**Randel is very happy he chose to work with SSS for his network security needs. The Lakewood, Colo.-based Security Value Added Reseller (SVAR) continually researches security solutions. The company tests all shortlisted products, and only recommends and sells best-in-class solutions including virus and spyware prevention, firewalls, anti-spam, security-as-a-service and safe-surfing tools.**

**SSS also has great customer service, Randel says. “They are real responsive. They do a good job with us.”**

**Although it’s difficult to calculate CCC’s return on its security investment, Randel says it’s vital to the school. “In an educational environment we’re not selling stuff, so when the network is down we’re not losing income. But if we have a network problem the students are frustrated and the faculty is frustrated. Students may go somewhere else. Payroll could be delayed. It’s something you have to have, and if we didn’t have it, it would definitely cause a lot of problems.”**

**About Software Security Solutions**

Software Security Solutions is a Colorado-based technology company founded in 2001. By focusing on computer security threats and continually researching and testing a wide range of offerings, the firm is able to provide guidance and insight to business operations that are unable to staff a security team on their own. SSS advocates a layered approach to security and offers a range of best-in-class solutions that can be integrated into a layered security framework. Find SSS at [www.SoftwareSecuritySolutions.com](http://www.SoftwareSecuritySolutions.com).