

**The Organization**

DePaul University  
1 E. Jackson Blvd.  
Chicago, IL 60604  
www.depaul.edu

**The Requirement**

Easy, secure and centrally-managed wireless student access to University resources.

**The SonicWALL Solution**

SonicWALL Aventail E-Class EX-2500 SSL VPN functioning as a central gateway for wireless access.

**The Results**

- Easier end-user experience.
- No WEP key or additional user set-up requirements to access the network.
- No additional demand on IT resources to individually install software on every end point.
- More student self-remediation and fewer support calls.
- Enhanced encryption for wireless use.
- Enhanced centralized end user security policy enforcement.
- Future implementation of Quarantine Zones for outdated OS remediation.

Founded in 1898, Chicago-based DePaul University has grown to become America's largest Catholic university, serving more than 23,000 students. While DePaul's students reflect a broad range of ethnic, religious, geographic, and economic backgrounds, they increasingly share a common demand for easy and secure wireless connectivity to University resources.

"More and more students are just expecting easy-to-use Wi-Fi," said Nicola Foggi, Network Engineer for DePaul University, "and more colleges are providing it."

The size of its student body, as well as the physical size of its extensive campus, necessitated that DePaul find a wireless security solution that would be easy for students to use, and make it easy for IT to centrally control all access to their University-wide wireless network.

**The Challenge: Easy, Secure Wireless Access to University Resources**

"DePaul used to distribute complex WEP keys to end users, which caused confusion, lost keys and lots of calls to the help desk," said Joe Salwach, Associate Vice President for Information Services at DePaul. As a security protocol for wireless networks, WEP solutions have also been prone to exposure to malicious threats due to inherent authentication vulnerabilities. "Improving ease-of-use and security were two key factors in our selection of SonicWALL Aventail E-Class."

DePaul's IT administrators needed a solution that could ensure that the network, data and the University applications would be secure. The solution had to easily and cost-effectively integrate into DePaul's existing complex network environment, so that it could be quickly deployed in time for the busy fall term. The solution also required transparent cross-platform support, so that DePaul IT would not have to support clients on multiple operating systems and unmanaged student end point devices.

It also needed to provide DePaul's students, administrators and staff with easy-to-use, secure access to any application. "Our single most important criterion was ease of student use," said Foggi. "We wanted a solution which provided self-remediation so that we wouldn't be bogged down with support calls."

**The Solution: An Aventail SSL VPN Delivering Wireless Network Access Control**

After ruling out an IPSec approach because it would require maintaining clients on unmanaged student machines, DePaul selected SonicWALL Aventail's award-winning E-Class SSL VPN solution over other solutions.

"After researching a number of wireless security solutions," said Foggi, "we chose SonicWALL Aventail E-Class SSL VPN, because it provided us with the best user experience and was easy to add to our existing complex network." Foggi also appreciated SonicWALL Aventail's focus on SSL VPN technology, as well as SonicWALL's responsiveness to DePaul's unique needs.

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– Nicola Foggi  
Network Engineer  
DePaul University

### SonicWALL Aventail Benefits

- **Detect:** SonicWALL Aventail End Point Control detects the identity and security state of the end device
- **Protect:** SonicWALL Aventail Unified Policy limits user access to authorized applications only
- **Connect:** SonicWALL Aventail Smart Access and Smart Tunneling ensure easy, secure access to all network resources

Foggi's team deployed two SonicWALL Aventail E-Class EX-2500 appliances running SonicWALL Aventail's enhanced SSL VPN platform. This functions as DePaul's Network Access Control (NAC) gateway to enable secure remote access for all users across the University's campus-wide wireless network.

DePaul's wireless network applies roughly 350 WiFi access points, including 180 wireless hubs located in student residence halls. To ensure security, all wireless users of these campus WiFi hotspots are initially connected to a segregated network with no access to any internal or external (public Internet) resources when they first connect to the Internet. To further reduce help-desk calls, the SonicWALL Aventail E-Class SSL VPN solution lets users connect seamlessly across IT-managed or unmanaged device platforms, whether they connect using Windows, Macintosh, Linux or Windows Mobile end point devices.

### The Results

Since implementing their SonicWALL Aventail E-Class SSL VPN solution, DePaul University's administrators, staff and more than 23,000 students can now securely and remotely access internal or external applications and files based on their login credentials, as well as the identity and integrity of their connecting desktop, laptop or wireless mobile device.

SonicWALL Aventail's Smart Tunneling™ technology allows students and staff to access University resources seamlessly from virtually any end point environment by applying Layer 3 network connectivity over SSL. SonicWALL Aventail E-Class SSL VPNs offer a closed tunnel by default, providing DePaul with far greater security than other solutions.

### The Future: Providing Quarantine Zones for Self-Remediation of Out-of-Date Operating Systems

Easy-to-configure SonicWALL Aventail End Point Control allows DePaul to granularly detect the identity and integrity of a wide range of end points. With plans for extending its SonicWALL Aventail E-Class SSL VPN appliance capacity, DePaul's is leveraging EPC and SonicWALL Aventail Unified Policy Zones to create Quarantine Zones that prevent user access from devices with out-of-date operating systems, while providing a method for self-remediation.

In this planned implementation, when users are within a campus WiFi hotspot area and launch a browser, they are immediately redirected to the SonicWALL Aventail E-Class SSL VPN login page for authentication. SonicWALL Aventail End Point Control agents then quickly do a background scan of users' end point devices to detect their identity and integrity, including whether Windows patches are up-to-date. If the device meets the scan criteria, the authorized users are presented with a SonicWALL Aventail portal through which they can access their network files, applications and directories based on their role and privileges. If the device fails to meet the scan criteria, the users enter a quarantined site which offers them self-remediation steps to update their software. This will ensure an increased level of security and control, while reducing user support demands on IT.

#### SonicWALL, Inc.

1143 Borregas Avenue  
Sunnyvale CA 94089-1306

T +1 408.745.9600  
F +1 408.745.9300

[www.sonicwall.com](http://www.sonicwall.com)

