

# case study

## Southwestern University

Southwestern is a selective, four-year, independent, undergraduate national liberal arts college. Based in Georgetown, Texas, Southwestern has been consistently ranked academically among the leading private, 4-year colleges in the nation. Approximately 1,100 students live on campus in the residence halls. Southwestern is a member of the Associated Colleges of the South and the Annapolis Group, a consortium of the nation's leading liberal arts institutions.



### The Increasing Challenge: Entertainment vs. Academics

When Southwestern first deployed and began maintaining its ResNet infrastructure in the mid-1990s, the university's ITS (Information Technology Services) department allowed reasonable access to academic resources, both on its own network and on the Internet. Students were able to access email services and surf the then limited, information-based Internet. As additional online content became available, Southwestern students found new uses for the Internet and their computers, such as downloading rich media (audio, and now video) and exchanging large files (pictures, digital home video, etc.).

Increasingly, ResNet became heavily used as a conduit for entertainment, rather than as the academic tool it was originally designed to be. The University estimated that prior to outsourcing 90 percent of its network traffic was entertainment related. Like many other institutions experiencing this problem, Southwestern turned to packet shaping hardware to limit the P2P (peer-to-peer) applications that were overrunning its network. Initially, this approach yielded positive results, while still allowing web surfing and email to continue unimpeded.

However, as peer-to-peer applications continued to evolve, and student use of the Internet for entertainment increased, Southwestern, like many schools, was forced to extend restrictions on services and applications. By the Spring of 2002, students' activities on the ResNet had been reduced to restricted web surfing and email access. "We spent a significant amount of time identifying and monitoring an ever-changing number of P2P applications -- a process which felt like chasing our own tails," said Todd Watson, the Associate Director of Systems and Networking.

The impact on bandwidth availability, and the constant administrative pressure to stay ahead of the newest programs and services drew significant time from ITS staff, and diverted staff and funds from support services and application development. Bob Paver, Chief Information Officer of Southwestern University notes, "The natural question is, are we [Southwestern ITS] focusing on our strategic mission to the university of supporting academics and research, or simply being an Internet access provider for entertainment to students?"

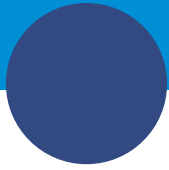
### The Solution: Re-evaluating Priorities

Southwestern decided outsourcing its ResNet would best solve the increasing issues. Ultimately, the University selected Apogee based upon the company's focus and experience in higher education, and its willingness to craft a solution that would adapt to the University's specific needs.

Apogee's initial steps were to (1) implement important network hardware upgrades to ResNet and (2) facilitate additional bandwidth. The original ResNet network was completely replaced by Apogee at no cost to the University or ITS. The upgrade included the installation of new Cisco core routing and switching equipment. Additionally, hubs in the dormitories were replaced with new 10/100 switches, while building links were upgraded from 10 Mbps to 1000Mbps.

A full DS3 Internet connection was utilized to replace Southwestern's 3 megabits of Internet bandwidth for the entire campus. The DS3 delivers 10 megabits dedicated to the administrative network, and 35 megabits available for ResNet. This implementation gave the University a 12-fold increase in bandwidth.

In addition, Apogee provided move-in and setup assistance both on campus and by toll-free phone at the Apogee call center. This assistance acted as the first line of support for network issues and student questions, dramatically reducing the number of calls to the Southwestern Help Desk for the past three years - both during and after move-in.



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### The Results: Meeting Student Demand While Controlling Cost

#### The students who experienced Apogee's upgraded services are pleased.

"Dealing with Apogee was quick and painless and is ridiculously faster than it was before," Breisen Miller, a Southwestern Junior majoring in English and History, told the Southwestern student newspaper, The Megaphone.

#### The network group is refocused on its core mission of supporting academic and enterprise needs.

Todd Watson, Senior Network Administrator said: "I haven't had to look at the bandwidth and data traffic flows since the project came online. I've already had enough time to implement a long awaited systems project that normally would have been delayed with the start of the semesters and the related student network issues. And no network reconfiguration was required when the students returned from the summer break, which was a first since the release of Napster in 1999."

#### Support calls have trickled to a fraction of their previous volume.

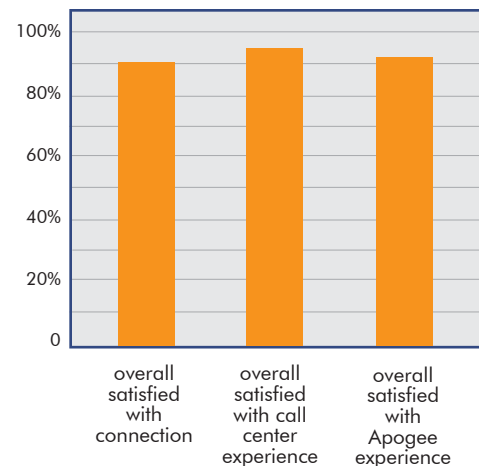
Student problem calls have been drastically reduced. Virus infections still occur, but are confined by network design. Student computers are being isolated, cleaned, and returned to the network in an orderly and expeditious manner.

#### Southwestern is positioned to expand into new horizons for the upcoming Fall.

The 2006 ITS budget is now only required to cover one-third of the ports it did in 2002. As a result, three times the money is available this year to devote to the administrative network. These "found funds" will allow ITS to upgrade the administrative network. Wireless support for the network has already been added. Video-over- IP pilots were completed in 2005 as part of an effort to deliver streaming services (lectures and other rich media applications). In the past, such projects required budgetary sacrifices that slowed expansion of student services. No-cost upgrades are facilitated by Apogee on an continuing basis.

The following Customer Survey Results highlight the student's satisfaction with Apogee

Southwestern Student Survey - Dec. 2005



"My only complaint is that it didn't happen sooner."

Sean O'Neil, Junior  
Southwestern University

#### Unexpected Benefits

The 2003 Blaster virus that brought many campus networks around the country to a crawl were effectively handled by both the new administration system and the additional phone and technical support provided by Apogee. "I think that was the big silent story here this year. Blaster and other viruses were here, but the network operated normally. We were fortunate to have weathered the virus storm so well," Paver said. The most important benefit appears to be the fact that ITS is currently enjoying additional manpower availability without hiring. The additional time has been used to implement new and innovative services and applications to support both academics and research at Southwestern University.

Apogee is a network service provider that specializes in developing and operating customized data networks for college student populations. Specifically, the company deploys and manages both a high speed broadband wired and wireless networks for college campuses and off-campus college properties. For more information send an email to [sales@apogeenet.net](mailto:sales@apogeenet.net) or visit us at [www.apogeenet.net](http://www.apogeenet.net).



715 W. 23rd St., Austin, TX 78757  
P 512.478.8858 F 512.478.8873  
[sales@apogeenet.net](mailto:sales@apogeenet.net)