



DeVry Secures 50+ Campus Locations with Firewall Product Support and Intrusion Monitoring from Fujitsu

Network security is very much on the minds of executives in most businesses today. For educational institutions, the concerns encompass protecting financial, administrative, and student data and safeguarding networks from malicious hacking and abuse of policies. In a period of rapid expansion, DeVry, Inc. foresaw the need to create and implement a standard for network security in 1998. Subsequent research and a request for proposal process led the company and its many campuses across the United States and Canada to the FireWall-1® solution from Check Point Software on a Nokia IP Security Solutions platform. Looking for a system integrator and service provider to install and configure the firewalls and then provide ongoing network monitoring and support services, DeVry was referred by Check Point Software to its premier partner Fujitsu and its Advanced Networking Solutions group.

Planning Ahead to Address Security Issues

With 14 campus locations in 1998, the DeVry Institutes had evolved as a decentralized computing environment, with each school connected through an IBM AS400 server to a central wide area network through Frame Relay circuits. A decision to centralize operations in the corporate headquarters in Oakbrook Terrace, Illinois, and the increasing desire among students and faculty for Internet access from the DeVry network, led information technology staff to pursue an organization-wide standard for network security.

A committee studied several firewall products and decided on the industry-leading firewall application, FireWall-1 from Check



Point Software Technologies. DeVry was then referred to Check Point partners for the implementation of the product and Fujitsu was among those responding to a request for proposal. "We went with Fujitsu for several reasons," says Rich Lerner, Director of Information Technology at DeVry. "The technology was complex, so we needed their expertise. And we didn't want to be burdened with large up-front costs, so Fujitsu brought in a leasing partner that arranged a monthly lease for the equipment."

DeVry could then isolate the services they needed from Fujitsu and negotiate a monthly support contract.

Initially, 14 firewalls were configured for the 14 DeVry undergraduate campus sites. These have grown to over 50 firewalls by 2001 including campuses, adult learning centers

and Becker Convener CPA Review offices.

Engineers from Fujitsu perform all of the firewall installations and upgrade the Check Point application when necessary. As of December 2001, this included 58 firewalls. Additionally, Fujitsu is responsible for monitoring all of DeVry's network clients 24 hours a day, seven days a week from the Fujitsu network operations center (NOC). Fujitsu also provides an onsite engineer full-time, based at DeVry's corporate data center in Oakbrook Terrace.

Network Monitoring Services

"Since beginning our relationship with Fujitsu, we've learned more about the Check Point application, so now we develop and implement our own security rules," says Lerner. "In addition to the installations and upgrades, we use Fujitsu to monitor our 60+ node Frame Relay network from their network operations center. Their help desk troubleshoots problems and tells us when our data lines go down. Then, Fujitsu either dispatches someone to fix the problem or calls the provider of our Frame Relay cloud."

DeVry has a link to the Fujitsu NOC from every campus location. Aside from monitoring network circuits, the Fujitsu help desk personnel check on "logging accountability" determining if external, unauthorized users are trying to break into the network—and monitor the health of each hardware and software firewall configuration. If there is a problem with any of the Nokia hardware appliances or Check Point software that cannot be fixed over the phone, a Fujitsu support engineer is on site to fix or replace the problem components within four hours.



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Should a circuit go down, an alarm is generated at the Fujitsu NOC. A trouble ticket is immediately opened, the school is notified of the problem, and Fujitsu help desk engineers work with the Frame Relay Provider, the local IT staff, or central engineering group personnel at DeVry to get the problem fixed. An estimated time-to-repair is generated and the problem receives priority treatment.

Challenges in the Academic Environment

"When we first launched the group that was responsible for this project, concerns were raised about academic freedom and the use of firewalls," says Lerner. "But we were able to show those who had concerns that we could protect corporate resources on the inside without restricting access to information by authorized users."

Today, the entire DeVry network is secured behind firewalls. All data traffic is encrypted and authenticated. Users have joined in a partnership with IT and the firewalls now have secure network practices.

All of the IBM AS400 servers that were at separate locations have been consolidated at the DeVry corporate data center in Oakbrook Terrace. Network security is more crucial than ever as DeVry migrates to a new student registration system that lets students communicate with back office applications over the Web.

As DeVry, Inc. enters its fourth year of support from Fujitsu, the relationship continues to be strong. "We've been very happy with the arrangement," says Lerner. "There have been no intrusions from outside of our network and our administrative applications are accessible to only those users with the appropriate need and authorization."

Meanwhile, secure virtual private network connections to the Check Point firewalls have allowed IT personnel from DeVry and Fujitsu engineers to keep the systems running effectively. The firewalls are equipped to identify and flag the latest hacking and spamming techniques while running authentication routines and encrypting communications to safeguard the financial, student, personnel, and other data that must remain accessible to some but safely inaccessible to all others.

SUMMARY

DeVry, Inc., based in Oakbrook Terrace, Illinois, is one of the largest publicly held international higher education companies in North America. It is the holding company for DeVry University and Becker Conviser Professional Review. DeVry University offers bachelor and master's degree programs in business, technology and management. More than 56,000 students in 18 states and two Canadian provinces are enrolled at its 25 undergraduate campuses and 35 adult learning centers as well as online. Becker Conviser Professional Review is a leading provider of preparatory coursework for professional certification exams. All of the DeVry operations provide rigorous academic preparation for careers in technology, business, and management and deliver undergraduate, graduate, and lifelong learning programs that combine proven educational technologies with employer input and work place applications.

Challenge

Seeking to protect data resources over its network during a period of rapid expansion, DeVry created a taskforce to study firewall solutions. Aside from a hardware platform and security software, DeVry needed a vendor to install, upgrade and maintain the firewalls in locations throughout the U.S. and in three cities in Canada.

Solution

DeVry chose the FireWall-1® solution from Check Point Software on a Nokia IP Security Solutions platform. Check Point Software referred DeVry to Fujitsu's Advanced Networking Solutions group, specializing in firewall installation, ongoing network monitoring and support. The relationship began in 1998 and by early 2001 had evolved to include the installation of firewalls at more than 50 locations, a full-time Fujitsu engineer at the corporate data center, and an ongoing contract for firewall upgrades, support, and network health monitoring from the Fujitsu network operations center.



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