"In Fortinet we have found a partner with the foresight to help us forge the next generation of cybersecurity professionals."

*– Professor Kris Rosenberg
   Program Director, Information
   Technology and Cybersecurity
   Oregon Institute of Technology*

Oregon TECH

Creating Tomorrow's Cybersecurity Professionals

Oregon Tech Partners with Fortinet to Educate and Inspire Students

The Oregon Institute of Technology (Oregon Tech) has always adapted to the times; from retraining veterans returning from World War II as tradesmen, to emphasizing hands-on learning to educate today's technology industry professionals, engineers, and healthcare workers. In 2015, Oregon Tech was named the #1 Public University by U.S. News & World Report for the Western region of the U.S. (west of Mississippi).

Real-world Issues Need Real-world Skills

Every year the number of threat actors increases, malware grows more advanced, and the monetary and reputational cost of a breach accelerates. The cybersecurity industry's ability to respond is frequently limited by the number of people with the appropriate hands-on experience and with the communication and problem solving skills needed to lead the field. Oregon Tech has committed to give its students the training necessary to join the cybersecurity battle.

To achieve its goal, the university leveraged the wide expertise of industry veteran Kris Rosenberg by creating the position of Assistant Professor and Program Director for Information Technology and Cybersecurity. Prof. Rosenberg brings to Oregon Tech over 20 years of senior level (CIO, CTO, CSO) IT and Information Security experience. He stated, "I was delighted to have the opportunity to take everything I've learned from my many roles in IT and security and use it as the basis of a rigorous cybersecurity degree program at Oregon Tech."

Into the Oregon Tech Enterprise Technology Lab

To give students real cybersecurity experience, Oregon Tech needed equipment for hands-on training. Rosenberg described, "To teach a leading-edge security class, I needed a lab with

Details

Customer Name: Oregon Institute of Technology (Oregon Tech)
Industry: Education
Location (Primary): Klamath Falls, Oregon (Residential Campus)
Location (Secondary): Wilsonville, Oregon (Metropolitan Campus)
School Type: Public Polytechnic University
Year Founded: 1947
Total 2015 Enrollment: 4,786
Student-to-faculty Ratio: 20 to 1
Accreditation: Northwest Commission on Colleges and Universities

Impact

- Equip students with an excellent platform to become experts in a wide range of disciplines
- Enhance active learning with hands-on exposure to enterprise-grade equipment
- Inspire future security professionals through collaboration and partnership with Fortinet

a security infrastructure that was representative of a 'real-world' environment, equipped with enterprise-level components. On top of this, we needed intuitive appliances that would enable students to quickly gain experience without requiring lengthy additional training on individual proprietary technologies."

The security space is constantly evolving. Rosenberg stressed, "Our degree program teaches students critical-thinking and problem-solving techniques because those skills will never be obsolete. I wanted to match this philosophy by picking solutions that would have commensurate usability and relevance. When comparing security solutions for the lab, I knew I needed to find a company that had a long-term presence in the industry and a proven record of innovation and research."

Rosenberg reported, "While CIO for another health sciences university, I evaluated security solutions from the industry's top vendors before selecting Fortinet for having the best next-generation firewall at the optimal price-performance point. As soon as I had a budget at Oregon Tech for equipping the Enterprise Technology Lab, my very first purchase was a FortiGate firewall appliance. Today, our lab is effectively an enterprise-class data center where the students practice with a wide variety of equipment, including Fortinet products."

Learning by Doing

Students enjoy experiencing a full deployment of intuitive, enterprise-class Fortinet products. Rosenberg recounted, "Last night, I started my advanced networking course with some preconfigured FortiGate appliances. My deliberately succinct instructions were: 'Get these set up and ready to deploy; the passwords are unknown and they need to be reset, and erase any existing configuration details.' I removed the devices' manuals and the class was left to collaborate, experiment and solve the problem—and with equal credit going to my students and the ease-of-use of the FortiGates – they were successful."

He continued, "One of the benefits of using FortiGates as a learning platform is having a broad range of security functions integrated into a single device. This allows students to become familiar with diverse capabilities using a common interface. The FortiOS operating system provides visibility across the entire infrastructure, again exposing students to a much richer environment from which to learn and refine their skills."

Lifetime Skills

Sharing his approach to teaching critical-thinking and problem-solving techniques, Rosenberg revealed, "With the hands-on instruction in my classes, the students gain the fundamental skills needed to identify, analyze, and solve the problems of the future. The entire security landscape will undoubtedly change dramatically but they will intuitively know how to handle whatever gets thrown at them."

Rosenberg found the research-based, forward-thinking partner he wanted in Fortinet. He clarified, "Oregon Tech is excited to work with Fortinet. Some companies' products are built to do one thing and then have newer features bolted-on. Fortinet identifies the functions necessary to protect an environment and condenses them into cohesive, comprehensive, next-generation solutions."

"The broad range of capabilities available in our FortiGates gives students the perfect opportunity to setup, manage, and modify a fully featured enterprise firewall and gain familiarity with functions such as application control, intrusion prevention, advanced threat protection, VPN, and web filtering."

To further inspire its students, Oregon Tech understands the power of exposing its fledgling security professionals to today's cybersecurity leaders and role models. Rosenberg explained, "I recently hosted a cybersecurity panel discussion at the university and Fortinet contributed by sending its vice president of systems engineering. It was priceless for my students to be able to interact with him and hear what he had to say about the next-generation of technology and how it will impact us all."

Rosenberg's program is helping position Oregon Tech as a leader in cybersecurity education, not just in Oregon, but regionally and nationally. Rosenberg commented, "Producing button-pushers has no value. Our goal is to create professionals that can adapt and innovate; leaders that can communicate and collaborate to develop optimal security infrastructures to fill industry's pent-up demand for that expertise."

He concluded, "In Fortinet we have found a partner with the foresight to help us forge the next generation of cybersecurity professionals."

F■RTINET®

March 4, 2016