Customer Case Study

Web-Based Meetings Improve Student Access and Collaboration

University of Southern California delivers Master’s in Engineering program online on the Distance Education Network.

Challenge

The Distance Education Network (DEN) at the University of Southern California (USC) delivers online instruction to off-campus graduate students enrolled in the prestigious Viterbi School of Engineering. A pioneer in distance learning since its founding in 1972, DEN enables students to access classrooms, course materials, and other educational resources from locations around the world. DEN operates 12 on-campus classrooms where professors teach over 140 courses available per semester to offsite students, making it possible for the Viterbi School of Engineering to offer more than 30 different Master’s degrees entirely online.

As the director of IT and operations at DEN, Dominic K. Lau understands the unique demands of helping distance students connect to the rich learning resources available at the Viterbi School of Engineering. “We pride ourselves on giving remote students the exact same education they would receive as an on-campus student,” he says.

In 1999, DEN created an instructional delivery system using a variety of audio, video, and computer technologies to move all of its distance education offerings online. However, Lau’s team discovered that a lack of interactivity was one of the biggest obstacles to providing a robust off-campus learning experience. “When we first started, distance students had to do presentation projects entirely by phone,” says Lau. “You couldn’t see the student or interact with their projects in any way.” DEN needed to find one solution that would facilitate academic collaboration between students and professors, as well as support marketing, recruitment, and other business needs.

Results

Since implementing WebEx® solutions in 2004, DEN has enabled off-campus students to fully participate in classes that are highly interactive. “Better connectivity, enhanced accessibility, and increased interactivity are the biggest benefits we’ve seen,” Lau says. Not only can students now give presentations from anywhere in the world, but they can also work with other students, both on and off campus, in groups outside of class. “Using WebEx gives students the real-world experience of working with international colleagues,” he says. “Requests to use WebEx for class projects have gone up 250 percent because the students like the interactive dimension; it adds so much.”

The Cisco WebEx® technology has also made it possible for instructors around the world to teach at the Viterbi School of Engineering without having to travel. “Recently, a senior executive at Chevron gave a guest lecture to our students from his home in Indonesia,” says Lau. “Without WebEx, that just would not have been possible. Now we can offer classes taught by the best instructors no matter where they’re located. The technology is practically transparent to them, so they don’t have to worry about technical issues.”

Summary

Customer Name: The Distance Education Network at the University of Southern California

Industry: Higher education

Headquarters: Los Angeles, CA

Number of Employees: 35

Challenge:
- Increase interactivity to provide rich classroom experience
- Enable classroom accessibility for working professionals
- Implement a single platform for both academic and business collaboration needs

Results:
- Facilitated program completion rate of more than 80 percent
- Increased online collaboration for class projects by 250 percent
- Improved ease of access for local and international offsite students

Solution:
- Web-based application enables remote classroom presentations and group project work
- One platform provides collaboration tools for students and staff
- Hosted model helps ensure network stability and accessibility
Because every DEN class is recorded, students can now access those lectures at any time. “WebEx helps us meet the needs of our busy, professional students who often can’t attend class in real time. They can download lectures after class and even watch them on a mobile device during their commute if they take the bus or train,” Lau says.

It’s not just students who have benefited from the implementation. By making it easier to manage DEN’s daily operations, WebEx has helped Lau and his staff as well. “Since we started using WebEx, there’s been less of a burden on us,” he says. “WebEx is a hosted model from a trusted company, so we know everything will be there, be safe, and be up and running whenever we need it. We’ve hosted other online meeting solutions ourselves and we’ve experienced problems with too much network traffic.”

In addition to providing a better user experience for both students and staff, WebEx has helped DEN increase its competitive advantage in the field of distance learning. “Our students are very successful,” Lau says. “More than 80 percent of our off-campus students complete the program, and in many cases their academic performance is even better than on-site students. WebEx gives us more options that we can offer to attract and retain the top engineering students from around the world.”

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— Dominic K. Lau, director of IT and operations, USC DEN

Solution
In 1999, DEN designed a content delivery system that integrated various audio, video, and computer components. To provide classrooms with interactivity, DEN tried a Macromedia (now Adobe) Flash-based application, but it presented too many obstacles. “Many of our students are professionals in the defense industry, where they can’t install Flash-based applications on their computers,” Lau says. “We explored WebEx as an alternative, and quickly saw that it just works. WebEx is easy for our students to access no matter where they’re located, and it’s practically transparent to our instructors so they don’t have to worry about technical issues. It’s what we rely on to help our students and instructors collaborate with each other.”

Deploying Cisco WebEx solutions turned out to be easier for Lau and his team, too. “Before WebEx, we had to open up firewalls by working with the IT departments at students’ individual companies,” Lau says. “But now, there’s no need to do that. We also have to do less troubleshooting because using WebEx is very intuitive. You just click, log on, and you’re ready to go.”

By implementing WebEx, DEN can now rely on one platform to support both the program’s academic and business needs. “We use WebEx for classes, but we also use it for large online student orientations, information sessions, and other marketing and recruitment events,” Lau says. WebEx has also reduced costs for students, and led to lower program costs overall. “Through WebEx, remote students can access design software that would normally cost them $10,000, so they see an immediate cost savings. We also use WebEx to troubleshoot technical issues for off-site students and provide other important services, which lowers costs even more. With WebEx, we can give students a great experience and run our business more efficiently at the same time.”
Next Steps
In the future, DEN hopes to expand the use of Cisco WebEx solutions, increasing the types of classes that can be offered to offsite students and making WebEx a key component of initiatives to make the USC engineering program even more “green” by reducing waste. “I definitely see more courses utilizing this technology,” he says. “WebEx is really an ideal solution for classes that require a lot of interactivity.”

For More Information
To find out more about Cisco WebEx, go to http://www.cisco.com/web/products/webex/.

Product List
Cisco WebEx