Video Delivers Face-to-Face Interaction for Remote Students

University of Southern California delivers its master of engineering program online on the Distance Education Network.

EXECUTIVE SUMMARY

Customer Name: University of Southern California

Industry: Higher education

Headquarters: Los Angeles, CA

Number of Employees: 22,300

Number of Students: 19,500

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

Solution:
- Cisco WebEx technology enables remote classroom presentations and group project work
- Live high-quality video increases interactivity and class participation
- Hosted model helps ensure network stability and accessibility

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

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 more than 140 courses per semester. As a result, the Viterbi School of Engineering is able to offer more than 30 different master's degrees, all of which students can complete either on campus or remotely by attending classes 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 on-campus students," 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 presentations 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 using live video and other interactive features, as well as support marketing, recruitment, and other business needs.

> "Requests to use WebEx for class projects have gone up 250 percent because students like the interactive dimension; it adds so much."

Dominic K. Lau
Director of IT and Operations
USC DEN

Solution

To provide classrooms with interactivity for its newly integrated content delivery system, DEN first tried a Macromedia (now Adobe) Flash-based application. However, 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 worked. 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."

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 would not have been possible. Now we can offer classes taught by the best instructors no matter where they're located."

And because every DEN class is recorded, students can access those lectures at any time. "WebEx helps us meet the needs of our busy, professional students who often can't attend classes in real time," says Lau. "They can download lectures after class and even watch them on a mobile device during their commute if they take the bus or train." This usage will only increase, says Lau, as DEN continues to explore ways that it can employ WebEx® technology on mobile devices like cell phones and Apple iPads to enhance and extend students' learning experience.

By implementing Cisco® WebEx technology, 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."

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. Says Lau, "Requests to use WebEx for class projects have gone up 250 percent because students like the interactive and live video dimension; it adds so much."

With the recent addition of high-quality video to Cisco WebEx Meeting Center, these benefits have only increased. "Not only is the video quality exceptional, which is extremely helpful for things like presenting engineering models," says Lau, "but the format and layout are much better for providing the face-to-face contact integral to group presentations and panel discussions. For these and other types of meetings, the active talker feature will provide a more personal and natural interactive experience for everyone."

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. Says Lau, "Thanks to WebEx technology, we're able to post our recorded lectures online 10 to 15 minutes after the sessions are complete. In contrast, most competing institutions take 24 to 48 hours to make lectures available online. Obviously, this is a huge advantage for us." Adding to this advantage is the success of its students. "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," says Lau. "WebEx gives us more options for attracting and retaining the top engineering students from around the world."

Next Steps

In the future, DEN hopes to expand its use of Cisco WebEx solutions, increasing the types of classes it offers to offsite students and making WebEx a key component of initiatives to go "green" by reducing waste. The school is also looking at deploying Cisco TelePresence® as part of a global classroom initiative, a venture Lau is particularly excited about. "I definitely see more courses utilizing Cisco technology," he says. "WebEx is an ideal solution for classes that require a lot of interactivity, and telepresence will allow us to provide video at every end point."

For More Information

· To find out more about Cisco WebEx, go to: http://www.cisco.com/go/webex.

· To read other case studies, go to: http://www.cisco.com/go/webexcasestudies.

· To provide feedback or participate in the WebEx customer reference program, email: real.results@webex.com.

Product List

Cisco WebEx Enterprise Edition

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