Community College Uses Video to Improve Quality of Education and Collaboration

Lone Star College System deploys suite of Cisco technologies to capture, transform, and share knowledge.

Executive Summary

Customer Name: Lone Star College System (LSCS)
Industry: Education
Location: Houston, Texas, USA
Number of People Served: 85,000 students and growing

Challenge:
· Drive and support exploding student enrollment
· Deliver quality education to increasingly diverse population
· Earn reputation as best community college in nation

Solution:
· Cisco network as platform for key applications
· Video on multiple endpoints, from Digital Signs, to TelePresence, to WebEx
· Unified Communications applications for streamlined voice communications

Results:
· Rich communication and learning environment for onsite and distance learners
· Improved communications within administration and student body
· Reduced travel expenses by 33 percent

Challenge

Lone Star College System (LSCS) has a bold mission: be recognized as the best community college in the nation. Located in and around Houston, Texas, LSCS is committed to providing affordable, high-quality education to an increasingly diverse community. By all measures, it is succeeding; the school is frequently honored for its innovation and recognized nationally for its academic excellence. LSCS is also the fastest growing college in Texas and probably the nation, growing by approximately 20 percent each year. With five campuses and ten learning centers spread over a service area of 1400 square miles, Lone Star College serves over 85,000 students.

To meet the demands of expanding student enrollment while continuing to raise academic standards, Shah Ardalan, Vice Chancellor and CIO at LSCS, says, "We realized that dependable technology was critically important to achieve our goals."

Lone Star College took a macro view of both its technology and how instructors teach. Link Alander, Associate Vice Chancellor of Technology Services says, "We took a look at every aspect of technology delivery. We used to look at only the needs of the IT system, as opposed to looking at how we can impact the classroom learning."

Technology has fundamentally transformed education; the primary driver of this change is video. Education trends are shifting from book literacy to screen fluency, where video is the new vernacular. LSCS administrators recognized that the current generation of digital-media-consuming students presented an opportunity; an investment in a robust infrastructure and pervasive video can engage students in new ways in a cost-efficient manner. Video brings new teaching resources into the classroom, creates greater student access, and produces a more immersive experience for students, teachers, and administration.

Solution

Lone Star's commitment to pervasive video started with a "rock solid" network, with 5-9 reliability in its mission-critical systems. Link says, "The only way you can run pervasive video is to have that core foundation first. You have to have the capacity. And you absolutely need high availability."

LSCS sought not only a technology company but also a partner to design and build the network. As Link says, "We needed to go beyond looking at product offerings. Lone Star looked at Cisco's mission, and we realized how much they invest in innovation."

Providing pervasive video to Lone Star's students required a network that was entirely rebuilt from the start. Fiber was laid to every one of Lone Star's locations across its 1400-square-mile service area to help ensure high reliability. Although the LSCS WAN is technology neutral, the Lone Star IT department depends on Cisco products throughout the network.

On campus, Lone Star students, faculty, and administration rely heavily on Cisco® Digital Signs. Students depend on the up-to-the minute information, schedules, and real-time communications from the more than 500 monitors installed throughout all campus and learning center locations.

Cisco WebEx® has been enormously popular with both faculty and students since its introduction at Lone Star. WebEx provides a rich educational experience across the boundaries of traditional classroom walls and is a perfect way to increase collaboration between faculty members. With over 25,000 students enrolled in online classes from all 50 states and several overseas countries, WebEx enables instructors to distribute learning through video and the web while bringing learning materials to life in the classroom. School administration officials regularly use WebEx to cut down travel time between LSCS's remote campuses.

Cisco TelePresence® is an ideal collaboration tool for education. With its immersive, in-person meeting experience, instructors are able to bring experts and guest lecturers into the classroom from anywhere. LSCS faculty, administrators, and student leadership regularly use Cisco TelePresence as a means to collaborate and communicate between campuses. Cisco TelePresence has dramatically reduced the amount of time lost by faculty commuting from campus to campus and has reduced associated travel costs.

The Cisco Media Experience Engine (MXE) is a critical component of the Cisco Medianet architecture for video. The MXE optimizes video for viewing anytime, anywhere, and on any device. MXE is linked to Cisco Show and Share, an enterprise video portal, which faculty use extensively for training purposes, allowing instructors to view, download, comment on, and rate content.

The Cisco Unified Communications product suite, including 6,200 IP phones, wireless IP phones, video phones, and messaging supports the voice communication needs of LSCS faculty and staff at their desks and in the classrooms. Using Cisco Unified Communications Manager running in three clusters, LSCS has built a highly robust call management system that also provides one-touch integration with its Cisco TelePresence systems to initiate video conferencing sessions.

The LSCS network also benefits from high wireless density, with students and faculty enjoying anywhere, anytime connectivity. Even with some classes and lecture halls holding up to 100 students, each student can connect and enjoy a high quality of service (QoS).

"Technology empowers our faculty to innovate while enabling affordable access for students; this is at the heart of everything we do at Lone Star College."

Shah Ardalan
Vice Chancellor and CIO
Lone Star College System

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Results

At Lone Star, video does not replace the classroom; it extends the classroom. Instructors have access to the tools that they need to engage their students and use them however and whenever they see fit. LSCS has significantly lowered administrative costs, and has seen a tremendous return on investment (ROI). The adoption of Cisco WebEx and Cisco TelePresence has cut travel time and expenses between campuses by one-third. Link says the cost savings have been significant, "By leveraging WebEx and TelePresence in administrative functions alone, we saved in six months, over $200,000." He adds, "It takes us about four months each year to cover the cost of WebEx for the next year, and then from there on out, we have pure savings."

What separates Lone Star College System from other higher education institutions is that it has leveraged technologies in ways that allow it to grow and meet future demand. For example, the student population grew from 65,000 to over 85,000, while the IT staffing has remained constant. According to Shah, Lone Star has one of the lowest IT administrative costs in the country.

In education, however, it is sometimes difficult to assign a dollar amount to ROI. As Lone Star has shown, delivering a superior, more engaging education through pervasive video has reaped other benefits as well; Lone Star is able to attract a higher quality faculty and administration, and the school has been recognized nationally for its academic excellence. Technology and the efficiency that it delivers are key factors behind the success story of the Lone Star College System.

"The only way you can run pervasive video is to have that core foundation first. You have to have the capacity. And you absolutely need high availability."

Link Alander
Associate Vice Chancellor of
Technology Services
Lone Star College System

For More Information

To find out more about pervasive video go to:

www.cisco.com/go/businessvideo

Product List

Cisco TelePresence
  Multi-purpose
  Personal

Cisco Business Video
  Cisco Cast
  Cisco Digital Media Manager
  Cisco Digital Media Players
  Cisco LCD Professional Series Displays
  Cisco Media Experience Engine
  Cisco Show and Share
  Cisco TelePresence Content Server
  Cisco Video Surveillance Manager

Cisco WebEx Enterprise Edition
  Meeting Center
  Training Center
  Event Center
  Support Center

Cisco WebEx Connect IM

Cisco Unified Communications
  Cisco Unified Communications Manager
  Cisco Unified IP Phones 7900 Series
  Cisco Unified Wireless IP Phones
  Cisco Unity®