



Industry

- Education
- Healthcare
- Corrections

Daily Use

- Telemedicine
- Distance Learning

Solution

- Extensive Polycom® UC Intelligent Core™ infrastructure powers TTUHSC's telemedicine and distance education programs, which deliver healthcare services and education to rural areas throughout West Texas

Telemedicine Benefits

- Telepresence network brings primary and specialty healthcare to community health centers, schools and corrections facilities
- Community-based consults reach 450 patients a month
- Collaboration with HHSC delivers pediatric sub-specialty care to children in underserved areas
- Delivered 3,600 corrections consults in 2009, saving money and preserving public safety

Distance Learning Benefits

- TTUHSC can offer more classes to students at smaller campuses
- School saves money and resources by offering courses via telepresence
- TTUHSC provided 12,500 hours of classes and video conferences in 2009-2010

Texas Tech Health Sciences Center Reaches the Far Corners of West Texas with Telemedicine and Distance Learning Powered by Polycom

Overview

Texas Tech University Health Sciences Center (TTUHSC), a pioneer of distance learning and telemedicine, operates a comprehensive Polycom telepresence and video conferencing infrastructure that serves 108 counties in West Texas. TTUHSC's telemedicine program brings specialist care to community health centers, schools and other facilities in some of the most remote West Texas towns—care that would only be available in clinics and hospitals located several hours away. The telemedicine program also provides care to inmates in more than a dozen Texas correctional facilities, preserving public safety and efficiently meeting healthcare requirements. Meanwhile, TTUHSC's distance learning program dramatically expands educational opportunities available at the school's seven campuses.

Together, the two programs support TTUHSC's mission to improve the health of people in the communities it serves, no matter how small or rural, through education and care all while delivering cost savings and resource efficiencies at every level.

Bringing Healthcare to Rural Community Health Centers and Schools

In rural areas throughout the United States, access to healthcare is increasingly threatened, as more providers consolidate in large cities or regional medical centers. But few places feel the pinch more than the small towns of West Texas, an area that claims half the Lone Star State's land mass but just 12 percent of its people. Twelve counties lack even a single physician, registered nurse or nurse practitioner, let alone a clinic or emergency room. In some towns, the only healthcare professional is the school nurse.

TTUHSC launched its telemedicine program in 1989 to provide care to underserved areas. Using Polycom® HDX® telepresence systems, the program now serves 23 community-based sites and 15 Texas Department of Corrections facilities. Thirty specialists remotely see 450 patients a month in small Texas towns, such as Alpine and Hart, where healthcare professionals in community health centers and even nurses in local schools rely on video consults with the specialists to help them care for patients of all ages. In addition, TTUHSC is collaborating with the U.S. Health and Human Services Commission to provide pediatric psychology, dermatology, urology, endocrinology, pulmonology and cardiology care.

"We do a lot of pediatric psychology consults, from diagnosing autism to treating ADHD," says Debbie Voyles, director of TTUHSC's telemedicine program. "Rural communities won't have a psychiatrist, let alone a pediatric psychiatrist. But we bring that level of care directly to these kids, often for the first time."

"In telemedicine, you only want equipment that you can count on, and we can count on Polycom. We have some units in correctional facilities that are five years old and are still operating perfectly."

Debbie Voyles, Director, TTUHSC Telemedicine Program

“Polycom Professional Services has been very helpful in identifying the right resources for our needs, and in pinpointing ways to improve audio quality at all our endpoints. And Polycom’s senior support personnel are excellent.”

Warren Dyer, Senior Director, TTUHSC Telecom Services

An Efficient Model for Delivering Care

Telemedicine consults take place with the help of a community-based assistant trained by TTUHSC. The Polycom systems are often connected to examination cameras, otoscopes, stethoscopes and other devices. “The on-site assistant will take direction from the specialist,” says Voyles, who administers the program with a staff of four. “Whether the patient is in the school nurse’s office, a community health center, or a storefront in a local shopping center, it’s as if the doctor is right there.”

TTUHSC specialists also help treat conditions such as obesity and diabetes. “Managing chronic conditions is an ongoing challenge in small communities,” says Voyles. “It requires regular follow-up to be effective, and telemedicine makes follow-up easier.” The network also eases training for local personnel.

In correctional facilities, the approach is similar. Treatment includes psychiatry, dermatology, urology, and orthopedics. In 2009, TTUHSC delivered more than 3,600 consults to inmates.

Leveraging Polycom UC Intelligent Core

The telemedicine program shares the same Polycom® UC Intelligent Core™ solution that powers TTUHSC’s extensive distance learning network. TTUHSC relies on Polycom® HDX® 7000 and 9000 room telepresence systems to connect 50 classrooms, three auditoriums, five teaching studios, and 29 conference rooms.

“It takes a lot of people and brick-and-mortar facilities to support medicine, nursing, allied health and other disciplines,” said Warren Dyer, senior director of telecom services at TTUHSC. “But with distance learning, we can support those courses without incurring the costs of a full faculty and staff at each campus.”

In the 2009-2010 academic year, Dyer’s staff of 38 supported over 12,500 hours of distance education classes, video conferences, and telemedicine consultations. Video network control rooms equipped with Polycom® RMX® conference platforms ensure telepresence calls go smoothly. IT staffers monitor all video calls, and a Polycom® RSS™ 2000 solution enables classes to be recorded, archived, and streamed. TTUHSC also uses a Polycom® Video Border Proxy™ appliance to enable public Internet connections with community sites.

Tapping Polycom Services Expertise

Dyer says TTUHSC has tapped Polycom Professional Services for assistance in network design, deployment and troubleshooting. “Polycom Professional Services has excellent personnel who have been very helpful in identifying the right resources for our needs, and in helping us improve audio quality at all our endpoints. They’ve also been a big help with deploying bridges and features like content capture.”

But calls to Polycom tech support are relatively rare, says Voyles, for one simple reason: “In telemedicine, you only want equipment you can count on, and we can count on Polycom. We have some units in correctional facilities that are five years old and are still operating perfectly.”

Learn More

To find out how Polycom solutions can help your organization, visit us at www.polycom.com or call 1.800.POLYCOM to speak with a Polycom representative.

Product Listing

Real-Time Communication and Collaboration

- 100+ Polycom HDX® room and personal telepresence solutions
- Polycom® RMX® conference management platforms
- Polycom® RSS™ recording and streaming server
- Polycom® Video Border Proxy™ (VBP®) converged network appliance

Polycom Professional Services

- Solution design and consulting
- Network and infrastructure troubleshooting to optimize telepresence experience
- Polycom Premier support

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