

# Texas A&M Teams With Verizon Business for Research, Education

## Texas A&M

College Station, Texas

### Business Challenges

- Attract best possible faculty for university goals
- Provide vital learning opportunities to student body
- Provide infrastructure to support a range of remote and on-site instruction
- Reinforce prestige as leading communications technology educational institution

### Network Solution

- ISDN (BRI and PRI)
- Dedicated SONET Ring Services
- DSL
- VoIP
- Video Conferencing

### Business Value

- **Connect.** University locations supported by advanced IP networking
- **Optimize.** WAN supports creative distance learning programs
- **Grow.** New projects help university maintain position as leading communications technology research institution

“We are working with Verizon Business as a strategic partner to make the transition [to converged services], taking advantage of Verizon Business’s top-notch engineers and technicians.”

**Dr. Walt Magnussen**  
Texas A&M

**Texas A&M forms close relationship with Verizon Business to develop the skills and expertise for a world converging on IP-based networking.**

### Background and Industry

Texas A&M is the flagship institution of the Texas A&M University System and one of the largest universities in the United States. The educational institution offers degrees in more than 150 courses of study through 10 colleges, and is home to 18 research institutes, which conduct programs in conjunction with agencies such as NASA, the National Institutes of Health, the National Science Foundation, and the Office of Naval Research.

In addition, Texas A&M is exemplary of the long history of communications technology development in the educational sector, where the Internet found some of its first users and enthusiasts.

### Key Challenges

Today, Texas A&M is at the forefront of communications research. According to Texas A&M’s Dr. Walt Magnussen, a key challenge for the university “is to maintain a position as a higher learning institution with the best opportunities to acquire real-world skills through hands-on interaction with the latest communications technologies.”

This is exemplified in Texas A&M’s \$1.5 million grant from the U.S. Department of Commerce to demonstrate the feasibility of next-generation, IP-enabled 911 service. Texas A&M also seeks to provide the best tools for learning to its undergraduates, graduates, faculty, and staff, and the Center for Distance Learning Research (CDLR) has grown out of this commitment. This research facility was donated by Verizon Business and includes a board of directors with three members from the university and three from Verizon Business.

In addition, the university offers a four-year undergraduate degree in telecommunications.

### The Solution

Verizon Business and Texas A&M have formed a close relationship centered on the development of communications technology as well as the next generation of communications technology leaders. The IP-based technology of Verizon Business’s global network infrastructure and our engineering expertise help facilitate a range of university goals.

For example, both Texas A&M and Verizon Business realize that TDM (time division multiplexing) technology has a limited life and that convergence is critical. “At some point in the future, all services will be going toward converged services,” says Dr. Magnussen. “We are working with Verizon Business as a strategic partner to make the transition, taking advantage of Verizon Business’s top-notch engineers and technicians to answer the question, ‘how do we make it through the convergence process?’”

In addition to its role in a project encompassing a vision of the future of communications technology, Verizon Business has been a strategic asset to Texas A&M. The university was one of the first to establish a large wide area network for applications such as video-based distance learning with its Trans Texas Video Network or TTVN. About 400 video sites have been installed across the state using Verizon Business technicians.

## Case Study

---

### About Verizon Business

- Leading provider of advanced communications solutions for business and government
  - Owns and operates one of the most expansive IP backbone networks in the world
  - Offers services on 6 continents, in 150 countries, and more than 2,800 cities around the globe
  - Offers innovative applications to help simplify, secure, and transform businesses
  - Delivers converged and integrated services that bring communications solutions together
- 

### Why Verizon Business?

Both the business and governmental sectors look to Verizon Business for leadership in convergence-enabling technologies and multi-service edge devices that accelerate the transition to IP. Through technology such as Multi-protocol Label Switching (MPLS), Verizon Business enables a variety of traditional network access and transport methodologies to converge voice and data onto an underlying Internet Protocol that is the most flexible and efficient network protocol available.

Through its contract with Verizon Business, Texas A&M has also entered into mutually beneficial relationships with equipment providers such as Nortel. And with 10 Verizon Business engineers dedicated to Texas A&M, university students and faculty gain an opportunity to work with some of the industry's leading technicians.

### Results and Next Steps

Texas A&M University and Verizon Business have developed the VoIP Internet2 Technology Evaluation Center (ITEC), which is the VoIP test facility for the industry-wide Internet2 project. The VoIP Lab at Texas A&M is "a premier voice over IP facility for higher education," says Magnussen. "Projects include VoIP security, VoIP best practices, VoIP interoperability, wireline to wireless VoIP handoff, and satellite delivery of VoIP."

Also, Texas A&M is able to offer its students and faculty a choice of traditional dial-tone voice service or the benefits of mobility and integration of IP-based voice service in which software interfaces allow users to use a variety of devices for endpoints, forward calls, and view availability status of others, among other functions.

Additionally, in conjunction with Verizon Business and other providers, Texas A&M and other institutions are leading an ambitious project to implement an optical network throughout the state, called the Lonestar Education and Research Network or LEARN. With such an active and dynamic relationship, it's safe to say that both Verizon Business and Texas A&M never stop working for you.

### For More Information

Visit: <http://www.verizonbusiness.com/us/voice/local/index.xml>; <http://www.verizonbusiness.com/us/data/privateline/ring.xml>; <http://www.verizonbusiness.com/us/internet/dsl/>; <http://www.verizonbusiness.com/us/voip/>; <http://www.verizonbusiness.com/us/conferencing/video/Telecom.tamu.edu>; <http://voip-itec.tamu.edu/>; <http://www.cdrlr.tamu.edu>; <http://www.tx-learn.org/>; <http://ttvn.tamu.edu/>

