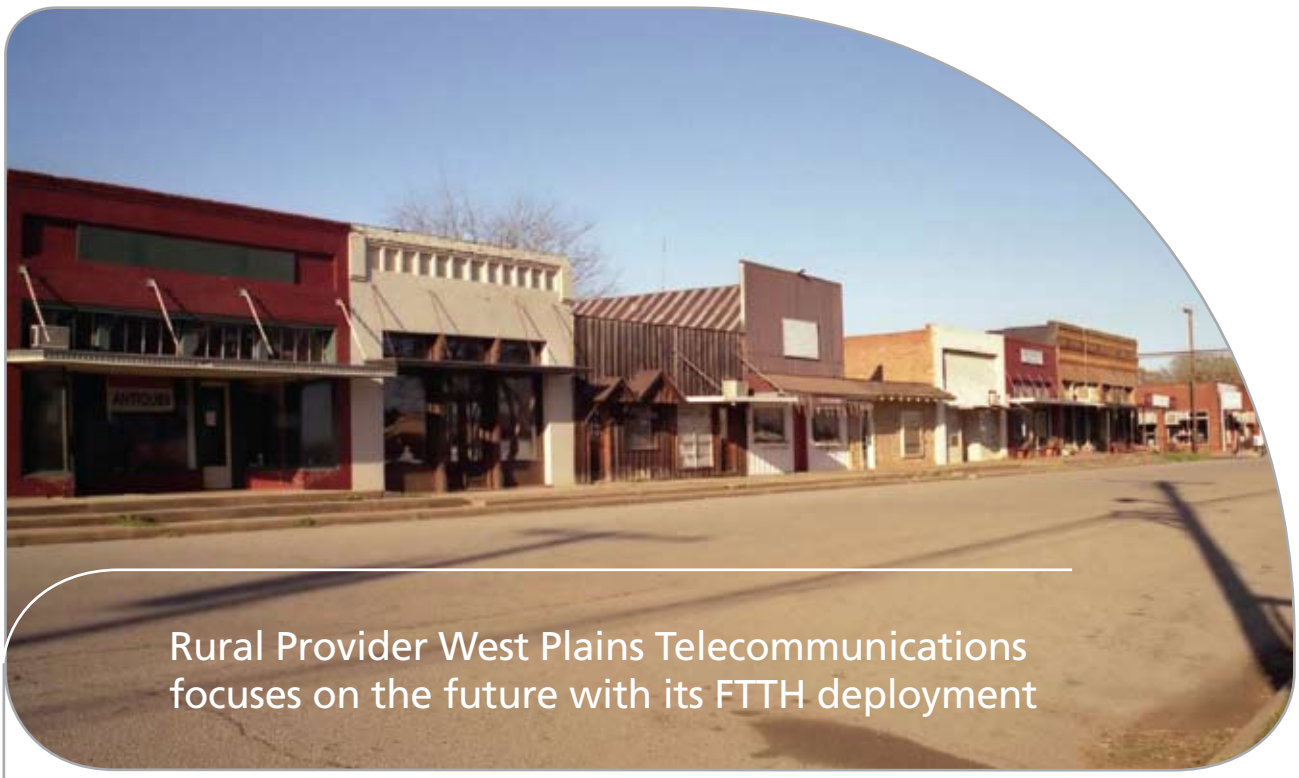


Rural Provider West Plains Telecommunications focuses on the future with its FTTH deployment

CASE STUDY

First, a little history: Five Area Telephone Cooperative, based in Muleshoe, TX, set up West Plains Telecommunications in 1995 as a wholly-owned subsidiary. To establish an operating foundation, the newly-minted independent telco right away bought five exchanges, with about 6,000 access lines, which had been part of the old GTE network. Employees found themselves saddled with technology that was, at the time, more than 50 years old: the central office equipment in all five exchanges consisted of vintage Step-by-Step electromechanical switches.

Next, a little history in the making: within six months, West Plains Telecom had upgraded all its switching gear to digital technology; by 2000-2001, it had begun offering DSL-based broadband access to its customers; and within a decade, by 2005, the telco had mapped out a plan to build an advanced fiber-to-the-home (FTTH) network. By year-end 2008, the first cut-over to the new fiber infrastructure will take place in Muleshoe, West Plains Telecom's biggest exchange. The company's actions in such a short span of time just might be the telecom equivalent of a car going from zero to 100 miles per hour in under 10 seconds.

Located in northwest Texas near the border with New Mexico, West Plains Telecom's operating territory covers 511 square miles spanning four counties. The telco provides basic voice service to about 5,200 business and residential customers and, through an affiliate, offers toll-free Internet access. Through the Five Area Community Telecommunications (FACT) Consortium, West Plains Telecom also partners with six schools in its territory to provide broadband services—high-speed Internet access and interactive video (ITV)—to the students and faculty. Via the ITV service, the consortium enables the schools to offer courses they otherwise could not provide, including advanced high school classes, college courses and in-house teacher training.

Not a Question of Whether to Offer New Services But When

West Plains Telecom has a short but impressive history, yet company leaders prefer to focus on the future, as illustrated by their decision to build an FTTH network. Most independent telcos are putting in fiber networks because of encroaching triple-play competition and customer demand for advanced data and video services. West Plains Telecom so far isn't feeling much pressure from either of those forces, but the company wants to be ready when those pressures inevitably occur. Plant Manager Mark Washington explains that putting in a fiber network now will enable West Plains Telecom to deliver just about any advanced service it may want to deliver, whenever and wherever necessary.

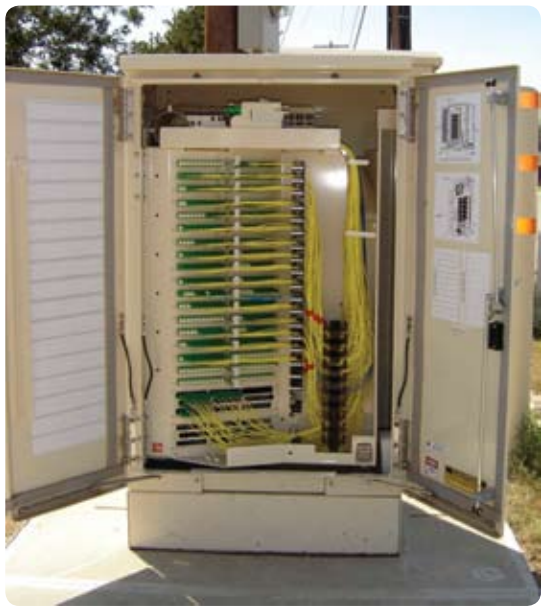
"As the telephone business continues to change, we're going to be basically a fiber provider, and whatever service we want to push, this fiber-optic network is going to allow us to do that over the next 15, 20, 25 years of the life of that plant." He says that West Plains Telecom eventually wants to expand its fiber network into parts of parent Five Area Telephone Cooperative's six-exchange territory. For now, however, West Plains Telecom's five-year fiber buildout focuses on four of its own five exchanges. The remaining exchange, Springlake, consists only of 200 access lines, and Washington says the telco decided to hit the biggest towns first, "to get to the customer base that's easiest to reach."

Using the evolving fiber network, West Plains Telecom wants to expand its DSL capabilities to include Internet access and, like many other small telcos that have yet to take the leap, may offer broadband video at some point in the future. "We have had quite a bit of [customer] interest in whether we're going to provide a video service," Washington explains. "We just have to look at the business case and see when that becomes viable."

As for competition, West Plains Telecom does not have a lot. There is a cable-TV company operating within the telco's territory, but Washington says its cable plant cannot support DSL. Most of West Plain Telecom's customers today obtain video service either from that cable operator or from satellite, but West Plains Telecom, in its role as a Dish satellite dealer, cushions itself from significant competition on that front as well.

Wanted: Equipment that can Handle Texas Weather

In late 2006, Washington and his colleagues selected a gigabit-Ethernet passive optical network (GEPON) architecture for the telco's planned fiber network. They opted for a PON-based network, rather than an active Ethernet infrastructure, because West Plains Telecom would get "a little bit more bandwidth for our fiber," he says. In addition, "everything that's IP-based just works so well over Ethernet," especially high-speed data and IPTV services.



West Plains chose ADC's splitter cabinets in large part because the enclosures provide ample working room for technicians and ease of access from both front and back.

To manage the current and expected volume of fiber, West Plains Telecom wanted both outside plant and central office equipment that gives technicians room to work. In the case of the former, the telco also had to identify equipment that can handle the dry, dusty winds of northwest Texas. After evaluating several vendors' solutions, he and his colleagues chose ADC's OmniReach® Fiber Distribution Hubs 3000 series and Fiber Access Terminals. For the telco's central offices, they selected ADC's Fiber Distribution Frame (FDF) panels and frames and FiberGuide® System. It was not the first time the telco had relied on ADC solutions.

ADC's OmniReach® Fiber Distribution Hubs and Fiber Access Terminals proved rugged enough to handle the dry, dusty winds of northwest Texas.

A few years ago, when doing rehab work on some central office fiber-transport gear, West Plains Telecom used ADC patch panels "of various sizes and flavors," Washington recalls. "Those worked really well for us, so we had a good rapport with our ADC reps—they've actually been out to Muleshoe, Texas, and they know where we're at and what our network looks like."

West Plains relies on ADC's Fiber Distribution Frame (FDF) panels and frames and FiberGuide® System to manage the current and expected volume of fiber in their central offices.

For the new FTTH network, he says he and his colleagues looked at several fiber-management solutions on the market and even traveled to other telcos that had deployed various vendors' PON cabinets. They chose ADC's splitter cabinets in large part because the enclosures provide ample working room for technicians and ease of access from both front and back. The cabinets' design, in terms of parking lots for spare fibers, also appealed to the West Plains Telecom managers.

As mentioned earlier, the company's physical environment presents some maintenance challenges when it comes to outside-plant equipment. Washington says the ADC equipment can handle those challenges. "We feel confident the [ADC] gear, because of the way it's engineered, designed and built, is going to be out in our plant for years to come. We've got a dry dusty climate, the wind blows, dirt blows, and we like the way those cabinets are sealed up."

Benefits for the Long Run

In addition to the design and construction of ADC's equipment, along with its ease of access, Washington says one of the biggest benefits that ADC offers West Plains Telecom is the vendor's track record in the market. "A lot of people come and go in the business, and businesses change hands," he says. "We feel like we have some security with a name like ADC, and we have prior experience with them. Their customer service has been a big play, too, and we have good rapport with their field reps. As I said, they've actually come out here to little-bitty Muleshoe, Texas to see what we're doing. With ADC, we've got somebody that's not just here to sell us something today and then be gone tomorrow."

CASE STUDY

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