MOBILE ENTERPRISE
CONNECTING WIRELESS SOLUTIONS TO BUSINESS STRATEGY

## Mobile Service Energy Boost

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**By Brenda Lewis**

As anyone in the utility industry can tell you, the efficiency of a field force's day-to-day activities is key to maintaining not only customer satisfaction but a healthy bottom line. One energy company recently decided that equipping its technicians with new connectivity hardware would help ease their daily tasks while generating savings at the same time. Dallas-based Atmos Energy, the largest pure natural gas distributor in the United States, delivers to more than 3.1 million residential, commercial, industrial and public-authority customers in more than 1,500 communities in 12 states.

Service is mission-critical, and Atmos prides itself on being one of the most efficient natural gas utilities in the industry; it serves 594 customers per employee, versus 512 customers by its competitors, and its operation and maintenance expenses are only $122 per customer, versus competitors' $195. To maintain its service edge, Atmos stays out front as a "quick follower" in technology. In addition to modems in its service vehicles, Atmos uses a radio frequency connection to read remote irrigation meters from crop dusters' planes. This practical approach to wireless began in 1998, the year Atmos installed its first wireless application: mobile data terminals with analog cellular modems in its service vehicles.

This was also the year it installed a new dispatch system, the original MDSI Advantex solution. Unfortunately, dial-up cellular was not very reliable: Carrier coverage just wasn't very good in Paducah, Ky., Muleshoe, Texas, and other rural service areas where the majority of Atmos' customers are located. As Les Duncan, Atmos CIO, relates: "Half of our vehicles were not in real-time connection all the time. They had to drive into a metro area to download work assignments and then proceed to an out-of-coverage customer site. We estimate that those vehicles were out of coverage up to six hours per day." In addition to the coverage issue, the MDSI Advantex system was designed to operate with real-time data—out of range and intermittent cellular conditions meant lost connections, lost orders and time lost to re-boots, a source of major frustration for technicians.

So Atmos decided to perform some equipment upgrades and selected Mobile Base Station modems from Wireless Matrix in conjuction with MDSI's Advantex Workforce Management software. This solution has allowed Atmos Energy to provide its workforce with an always-on connection and to save a minimum of 30 minutes per technician per day. The modems have also provoked strong reactions from Atmos' technicians. Duncan was riding shotgun in one of the new multi-mode modem-equipped vehicles recently when he was told by the driver, "I'll break your arm if you try to take this modem away from me!" And Project Manager Jeff Whiting, a veteran IT manager, reports that this is one of the few times he has ever had users thank him so strongly for an implementation: "I thought one guy was going to jump across the desk and hug me." Throwing the Switch Kentucky—one of Atmos' six divisions—took the lead on the project since its service area is the most rural. Whiting contacted Wireless Matrix in March 2003 and also spoke with Vectren and TXU, customers of Wireless Matrix and MDSI that successfully implemented joint solutions. In the spring of 2003, Atmos committed to a pilot. With large savings involved, the project became enterprise-wide with funding from the corporate budget. The pilot ran about six months, with monthly teleconferences involving the vendors, the project team and Whiting's IT peers at the other five Atmos divisions. Phase one of the rollout began in January 2004, and by September Atmos had installed 160 units across all six divisions. Another 130 trucks with intermittent cellular reception will be equipped in 2005.

The modem has a "keep alive" feature, which solved the lost connections issue suffered under the old system. Double-clicking on the application creates an instant connection to the satellite, replacing multiple handshakes to the carrier, the VPN and the application. The modem has no device limitations—a key benefit, since a mix of WalkAbout slates and Panasonic laptops are in use, with plans to introduce some PDAs down the line. Since Atmos leases its service vehicles, the modem's installation with minimum drill holes was another plus. A "stalk" bolted to the cab floor was designed, and the device connected to the antenna (a dome on the truck roof) down the back of the cab. The modem and software combination allows Atmos to schedule work in a short time window, rather than just morning or afternoon; to schedule same-day service, which it could not do before; to utilize GPS route optimization for its technicians; to optimize work assignments—such as construction, compliance, asset management and service; and to optimize the utilization of assets, such as personnel, vehicles and supplies."

Other benefits include a fixed bill every month achieved by negotiating pooled bytes on the satellite, plus still-to-be-quantified savings in reduced support costs. The units are ruggedized (one unit survived intact after being knocked out of the cab and dragged behind the truck on its cable); only one modem has failed in a year. The satellite network has also been extremely reliable. Whiting remarks, "We were worried about congestion with such narrow bandwidth, but the network has been 'set it and forget it,' with the modem able to select 'best performing network.'" Atmos is now testing Wireless Matrix multi-mode modems, which will allow utilization of 802.11x networks. By keeping the cogs in its ever-rotating wheel of field service well greased, Atmos is finding the power to save.▪ Brenda Lewis is principal of Conn.-based Transactions Marketing.