

Case Study

Parsec's Chihuahua X (STX Series) Antenna solves 3G to 4G upgrade connectivity issue for CenterPoint Energy, significantly improving reliability.

The Problem

CenterPoint Energy was proactively implementing their 3G to 4G upgrade initiative for thousands of gas monitoring/SCADA stations. The program included replacing Sierra Wireless Raven (3G) modems to the upgraded SW RV50X (4G LTE). CenterPoint tried operating the new LTE modems with a single element LTE antenna as advised by another partner. The result: reliability and performance suffered. Centerpoint experienced intermittent connectivity issues, with many drops in communications. Experiencing as many as 40 dropped sessions in a day and having 50% down time. The existing Honeywell enclosures that were being retrofitted only provided one penetration into the box and diameter was only 7/16 of an inch. After much research, no antenna was available that provided MIMO connectivity through one hole that was only 7/16 inch. That is until Parsec created one.



Solution

To solve this problem, CenterPoint began working with Parsec Technologies, the leader in high-performance and high-speed rugged antennas for mobile, enterprise and public safety. Parsec had an existing MIMO LTE antenna (Parsec's ST Series) that fit the application, but the bolt would be too large for the existing enclosure penetration. Parsec modified the existing design, creating a new antenna to meet the specifications needed for the 4G upgrade while utilizing the existing enclosure. The Chihuahua STX Series was born. The Parsec Chihuahua STX is a small, 4G, rugged MIMO antenna designed for CenterPoint and thousands of Honeywell enclosures taking advantage of the previously drilled 7/16th of an inch diameter mounting hole. Parsec's Chihuahua STX Series is through bolt mounted to the enclosure with a 7/16th diameter bolt. The bolt position was also modified to be off center to accommodate the enclosure door. The Parsec solution has not only



dramatically increased performance at each site, the STX has also greatly reduced the installation cost per site by not requiring a certified technician to drill another hole and add a second antenna.

The Result

The Parsec Chihuahua STX solution saved CenterPoint a tremendous amount of time and money while providing reliable connectivity to critical infrastructure SCADA systems. The solution improved drops in communication from 40 per day to less than 5 per week, while providing around 99% uptime. The potential savings is hard to measure, but would include some of the following: Decreased installation cost with potential problems if additional holes had to be drilled with equipment already in the enclosure. Decreased truck roles to identify potential problems due to loss in connectivity, and possibly having to upgrade the entire enclosure to a two antenna installation which would have been significantly more costly on the upgrade and the installation.

CenterPoint Energy is a Fortune 500 electric and natural gas utility serving several markets in the U.S. states of Arkansas, Louisiana, Minnesota, Mississippi, Oklahoma, and Texas. It was formerly known as Reliant Energy (from which it is now separated), NorAm Energy, Houston Industries, and HL&P. The company is headquartered in the CenterPoint Energy Tower at 1111 Louisiana Street in Downtown Houston.^{[2][3]} Some of its notable subscribers include Retail Electric Providers (REPs), such as NRG Energy, Champion Energy, Eligo Energy, Dynowatt, Ambit Energy, Texas Power, Bounce Energy, MXenergy, Direct Energy, Stream Energy, First Texas Energy Corporation, Gexa Energy, Cirro Energy, and Kona Energy





Parsec Technologies, Inc. is a worldclass antenna manufacturer featuring best in class high performance antennas for mobile, enterprise and IoT applications. Parsec is headquartered in Plano, Texas, USA and has worldwide distribution of antennas, case antennas, and cable kits. Contact sales@parsec-t.com for more information. Or call 972-804-4600 today.