CFE Taps FreeWave for a Smart Grid Project in Mexico

FreeWave Technologies was chosen by Comision Federal de Electricidad (CFE) for wireless data radio applications such as power consumption and substation monitoring, as well as control and monitoring of power networks.

CFE is the only electric power utility company in México. It generates, transmits and distributes power and energy to nearly 100 million customers and is one of the largest utility organizations in the world with approximately 100,000 employees around the country. It currently is using FreeWave's FGR2-PE, FGR115-RC and HTPlus wireless data radios in nine of the 16 divisions throughout Mexico.

"Before implementing FreeWave radios, CFE was experiencing difficulties due to distance and maintaining line of site in its communication networks," said Federico Ibarra Otero, engineer at Ampere, FreeWave's reseller partner in Mexico. "There were some locations where the monitoring devices were remotely located and required repeaters. FreeWave offered a solution that tackled both the distance and line of sight issues and we have achieved more consistent, reliable and modern links since implementation."

FreeWave radios are used for Supervisory Control and Data Acquisition (SCADA) applications to monitor and control switch gears, reclosers and power meters. Some of the networks are installed in heavily populated cities, such as Mexico City, Monterrey and Guadalajara, where the RF noise and line of sight can potentially cause major issues with wireless communications.

However, with FreeWave's excellent network design and flexibility, the radios achieve optimal communication, even with skyscrapers, tree coverage and high RF noise levels. With CFE being the only energy provider of power for the entire country, FreeWave radios also were relied upon for data transmission in a wide range of geographical areas, spanning from the big cities to remote locations in the mountains and desert. Additionally, each FreeWave radio is 100 percent tested for RF performance -- from -40° C to +75° C -- to ensure reliability in a variety of weather conditions.

"We are very satisfied with FreeWave's Ethernet models, the FGR2-PE and HTPlus, as they let us manage serial and Ethernet devices at the same time," said Mario Granados Villareal, engineer at CFE. "This allows us to incorporate all the data coming from the radios to the LAN networks, which not only saves time, but allows our entire communications network to operate seamlessly."

The FGR2-PE offers users a second, switched Ethernet port as well as two serial ports that give customers the ability to transition from serial to Ethernet data

communication without having to replace their wireless communication hardware down the road, as well as operate both serial and Ethernet communication independently and simultaneously on the same platform. The FreeWave HTPlus Ethernet radio is ideal for customers who need an industrial grade high-speed Ethernet radio that operates in harsh environments and noisy RF conditions. It delivers data at a rate of up to 867 Kbps and is an ideal radio for SCADA backhaul networks.

“We are proud to have been chosen by CFE for this significant project. The success with CFE confirms that our wireless solutions are making progress across the globe in the smart grid market,” said Ashish Sharma, chief marketing officer at FreeWave Technologies. “Our industrial radios provide enhanced capabilities for smart grid applications, such as distribution automation (DA), AMI back haul, distribution management (DMS), substation automation (SSA), load management (LM), demand response (DR), supervisory control and data acquisition (SCADA), and energy management (EMS). Our feature rich radio solutions coupled with top-notch customer support will bring new efficiencies to CFE’s network.”

Visit the company’s website at www.freewave.com [1].

Posted by Janine E. Mooney, Editor

December 14, 2011

Source URL (retrieved on *08/28/2014 - 6:19am*):
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