



Web-to-wireless remote control.

Case Study on Telemetric Corporation

“Touching Base”

Kansas City Power & Light (KCP&L) provides regulated energy products to a metro-wide service area encompassing homes, businesses, industries and suburban municipalities. A few years ago the company was searching for a way to expand its capacitor bank automation program. Capacitor banks are employed by utilities to correct power factor, and improve voltage regulation. KCP&L wanted to communicate with the banks remotely, along with all the switches, reclosers and substations within its service territory.

“Say for example a tree falls on a power line in the suburbs,” says Scott Schoenherr, CEO, Telemetric Corp, a developer of wireless communications for the utilities industry, based in Boise Idaho. “When that happens you’ll get a fault which will automatically open a circuit breaker. The utility needs to know the exact time and location of the fault so that it can repair the problem, close the breaker and restore power. The same situation would apply if you had an unoccupied vacation property out in the woods, and the area suffered a power outage during a cold spell. In that situation the water heater could cease to function, and the pipes would burst. Utilities must keep on top of such situations in order to provide good service. If they have no way to ‘talk’ to their equipment, both the utilities, and their customers are in trouble.”

KCP&L had two options. It could continue its program of on-site patrols or build a remote communications network through the use of satellites, phone lines or some other traditional medium. Both choices turned out to be losers as they were extremely cost-prohibitive labor and time-wise. Telemetric offered the company a third option – remote monitoring via its Distributed Network Protocol Remote Telemetry Module (DNP-RTM).

A plug-and-play device specifically designed for utilities, DNP-RTM is a two-way communications system that makes remote monitoring of capacitor banks and other equipment in distant service areas possible. The system "touches base" with the utility via the Aeris MicroBurst device, which sends virtually instantaneous messaging over underutilized channels of the cellular network. With this powerful advantage a utility can close a fault and turn power on and off from a distance, nipping potential disasters in the bud.

Utilities earn ROI very quickly using Telemetric's wireless solution. One utility came out at just under a year, another just over. ROI in this case has two forms. One is revenue enhancement. The system keeps the power on, and the meter spinning. The other is reduced operating cost. KCP&L, for example, has hundreds of capacitor banks in its system. The banks have to be regularly monitored for blown fuses, and that means a crew must be dispatched to check them out.

"It's a big problem," Schoenherr says. "In the past it was not common to find blown fuses on nearly 30% of the capacitors. Because it alerts remotely, Telemetric's solution significantly reduces the need for on-site monitoring. As a result, KCP&L has saved on both manpower and capital expenditure. The system offers utilities another type of payback as well. A capacitor bank is essentially a big battery, and every now and then during switching one of them blows up. The ability to switch these banks remotely eliminates this potentially deadly issue. Not only does it save money, time and labor. It can actually save lives."