

ELAN

Technologies

Inc.



Indiana American Water

Radio System Completed 10/98

CASE STUDY



- Weekly Downloads
- Lower Cost
- Less Maintenance
- No Contracted Data service
- Improved performance

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Project Background

Indiana-American's Gary facility (formerly Northwest Indiana Water Co – (NIWC)) is located in Gary, IN, serving 65,000 people in Lake and Porter counties including Gary, Hobart, Chesterton, Merrillville, Burns Harbor and others. NIWC operates two (2) water plants; the Borman Park facility in Gary is the Master Site and the Ogden Dunes Water Plant located (8) miles east serves as a Remote, both with identical SCADA capability.

The original phone line telemetry system was serviced via multiple carriers due to the wide service area and phone outages in other states could shut down their communication. When NIWC decided to switch to radio communication between their plants and remote booster stations, towers, etc., they outlined the following requirements:

- All data from 31 remote sites had to report to Borman Park within 30 seconds
- Upon System Failure at Borman Park WTP, all remote sites had to dynamically switch communication to the Ogden Dunes WTP
- Each remote site had to have more than one repeater site in its node list, so if one site crashed it would still have dynamic routing capability

After reviewing a number of options, NIWC chose ELAN Technologies to take complete responsibility (design, supply and installation) for a spread spectrum packet switching radio system employing asynchronous radio transmission with peer-to-peer capability, report by exception, and license free operation.

ELAN Solution & System Performance

ELAN implemented a number of scenarios to meet NIWC requirements including multiple head end radios at Borman Park and Ogden Dunes, report-by-exception scenario, an 80-ft self supporting antenna tower at Ogden Dunes, and a dynamic radio routing scenario.

The system was completed in 1998 and tested on 9/30/98, with all possible failure modes tested including a complete SCADA shut down at Borman Park resulting in the radio network switching over to the new "Master" within two minutes. The average reporting time for data round trip and Operator Control from any workstation also met their requirements.

The radio system has performed flawlessly for over four years, handling severe blizzards, lightning and thunderstorms, and record-breaking heat and humidity. And the system eliminated inefficient and slow to respond phone line carriers.

Contact ELAN Technologies

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