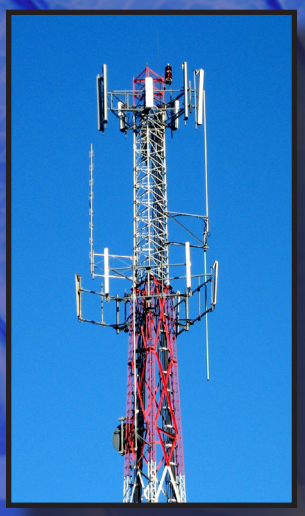
ELAN Technologies Inc.




Sarasota County Utilities

Radio System Completed 10/98

CASE STUDY



- Multi-point to Multi-point
- 300+ Sites
- 3 Masters
- Largest U.S. Wastewater Spread Spectrum Network
- Dynamic Routing

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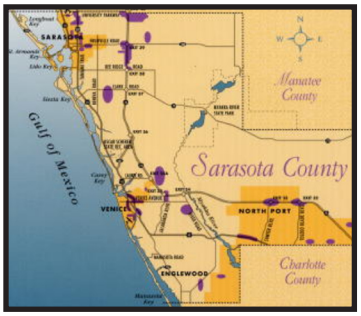
Project Background

Sarasota County Utilities on Florida's Gulf Coast provides water to over 50,000 customers and wastewater collection to over 35,000 county residents. Over the past decade they have centralized wastewater treatment, buying up private wastewater facilities, replacing septic systems and putting other safeguards in place to protect the public and the environment. But monitoring over 300 sewage lift stations spread throughout the county was a problem. County personnel literally had to drive routes to check each of these lift stations on a regular basis, creating potential for numerous problems with service outages.



Sarasota County wanted a radio communication system to transmit pump station status in real time back to the three central wastewater facilities. Unfortunately, the size of the system plus the county's moratorium on antenna structures over 20' in height, coupled with terrain and foliage obstacles, made implementation of a traditional point to multipoint (polling type) radio system impossible. A single master radio on a tower simply could not connect directly to all the various remote sites. The Superintendent had heard of the UtiliNet spread spectrum radio system that had worked on large electric & gas projects. However UtiliNet had never been used on such a large wastewater system nor did Sarasota County or their engineering consultant, Black & Veatch, have experience with UtiliNet.

The county solicited proposals for firms with UtiliNet experience and ELAN Technologies was awarded the contract to design the communication system.

ELAN Solution & Results

ELAN Technologies provided a complete and comprehensive communications design for multi-point to multi-point communications platform utilizing UtiliNet packet switched radio network. The design included selection of all the repeater sites, negotiated agreements with tower site owners including GTE, AT&T and Motorola and even the County Emergency Management Office and County School District for access to towers. ELAN provided detailed construction implementation documents and also provided and programmed all supplied radios to meet the design. The equipment was installed by a contractor per ELAN's design.

In operation, the radios utilize a number of paths to pass data from each of the remote sites to the centralized plants. With the failure of any radio, the other radios use dynamic routing to route around the failure. The system design also insured ample throughput for the 300+ initial sites along with the ability to accommodate an additional 400 future remote sites. The system has worked without fail since it was commissioned in 1998.

Contact ELAN Technologies

ELAN Technologies offers innovative, custom open channel flow monitoring solutions to meet any flow application and regulatory requirement. When you have a tough application, call ELAN. For information on fixed sewer flow monitoring systems, contact ELAN Technologies on the web at www.ELANTechnologies.net