# **Leading Utility company Commissions communication System**



# **Main Objective:**

This project was to provide communication between two water towers and the main water treatment plant. The main objective of the system is to provide water tower level along with two inputs for the tower door being open and a heartbeat signal to verify the RF communication is operational. We also had to provide several analog and discrete inputs from each tower.

### **Customer Results:**

OTI provided all necessary documentation and software per the project schedule. The customer was completely satisfied with the final solution and we have not had to make a warranty visit to the site.

## **Overview:**

To implement the RF communication and I/O requirements we used a GE Transphere Wireless I/O solution. The Transphere equipment has a wireless range up to 20 miles and has two analog inputs, two analog outputs, two discrete inputs and two discrete outputs on each wireless I/O module. At the water plant we installed a Transphere wireless I/O base unit that would communicate with both water towers at the same time using a Modbus protocol.

- The Modbus protocol was implemented for ease of configuration in the SCADA software. We installed the KepserverEX Modbus OPC driver and communication to each of the towers was very simple to implement.
- The control panel at each tower had the Transphere module, a thermostat-controlled heater, several standard relays, a timer relay for the heartbeat signal and the connection to the yagi antenna installed at the top of the water tower. Battery backed power was run from the electrical panel on the floor level up to the catwalk where the control panel was installed.
- ❖ At the main water plant we configured the Modbus addressing and provided Iconics screens for the SCADA system monitoring.

Every owner, manager, and key decision maker is an engineer. They have all been through the ranks and learned this business before they were given the responsibility to manage it. Diversity is also a key to our success. From a technical standpoint specific areas of expertise include: High Temperature applications, Automotive Paint Finishing, Pharmaceutical Automation, Web Handling Applications, Custom Software Solutions, and Safety. As a Systems Integrator, we are a 50/50 split between Continuous Process and Discrete Automation expertise.

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