



MW100 Wireless System for Process Flow Integration

Industry: Mineral Processing
Product: Network Solutions
MW100 with Wireless Ethernet

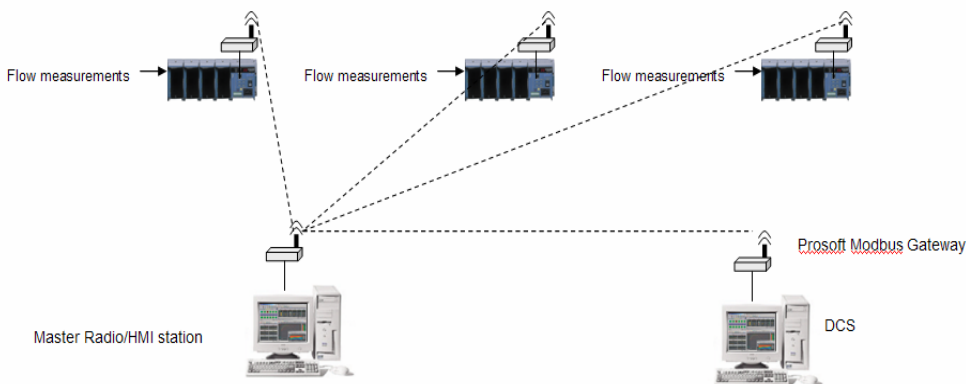
Introduction

A mineral processing company began a project to replace an aging SCADA system that monitors remote process flow data. The existing system is a large, multi-node installation based on standalone RTUs with radio communications to a central processor. Distance between locations is measured in miles.

The data acquisition system would need to interface via Modbus to the plant's DCS system. Yokogawa proposed a solution that included using an MW100 data acquisition system, along with wireless Frequency Hopping Ethernet radios. This data would be communicated back to a central control station that would run Wonderware HMI software to monitor and record the data.

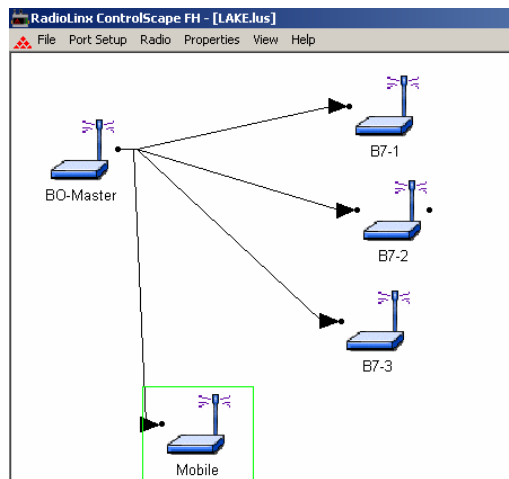
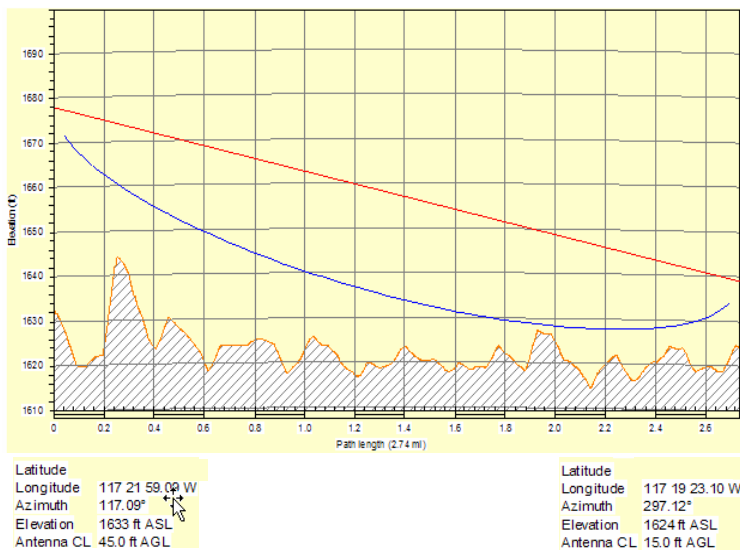
Application

The customer's process involves hundreds of wells where water is pumped into dry lake beds, and then pumped out to extract natural minerals. The customer is measuring flow using Yokogawa's magnetic flowmeters in various remote locations on site. This data is then communicated wirelessly to a SCADA RTU system, and eventually to their DCS. The customer's current system was not supported locally; the program was written in C Language, which made system changes difficult and costly. Also, if communication was lost from the RTU back to the main CPU, there was no way to retrieve the lost data. With changes in process managers coming in the near future, they needed a simple solution that plant technicians could easily maintain.



Solution

A Yokogawa MW100 data acquisition system with wireless Ethernet connectivity was chosen to replace the SCADA system. Yokogawa supplied not only the MW100 data acquisition system, but also the wireless radios, on-site engineering, start-up and training for the customer to deliver a turn key solution. The MW100 also provides redundant, compact flash data storage for the valuable process data. Using a web browser, the customer can now configure changes to the system and view real time trend data from any location. Yokogawa also supplied the hardware and engineering for the Modbus gateway used to interface the customer's DCS to the system. Since this was a multi-phase project, the system architecture allows the customer to add extra MW100 systems without additional engineering.



Radio Configuration - Mobile

Radio Name: Last Date Configured: 1/11/2007 11:06:44 AM

Radio Address: Last S/N Configured: 7143

Device Network:

Ethernet Settings

Select Radio:

IP Address:

Subnet Mask:

Default Gateway:

RF Settings

Local Radio Settings

Transmit Power:

Retry Limit (ms):

Radio Network Settings

Use this radio as a Repeater

Allow radio to Roam

Collision Handling

<AN 04M10B04-05E-A> <05/09/2007>