

ADVANCED REMOTE WATER MONITORING FOR TREATMENT PLANT

DELPHIN PROVIDES RELIABLE DATA OF EQUIPMENT'S PERFORMANCE



The customer is a leading manufacturer of water treatment equipment for treating cooling water, boiler water, process water, and pure water. Their equipment used for process water treatment is often installed in trailers or in containers and is then rented out for temporary watertreatment assignments. For these non-stationary applications, the customer requires an advanced remote water monitoring system equipped with remote access to read both live data and stored data.

The customer's objective here is to gain convenient, live access to the remote treatment system and to closely monitor the equipment's performance. Additionally, as a form of insurance, while renting out equipment, the customer needs to receive instant alarm notifications whenever system performance is degrading.

INSTALLATION

The customer installed a [Delphin ProfiMessage data acquisition system](#) with a MoRoS [UMTS](#) router, placing both inside a protective industrial enclosure in the rental trailer. With the ProfiMessage system connected by Ethernet to the UMTS router, the customer can access the remotely located truck at any time. Additionally, the customer connected the systems to a local

control PC to provide local monitoring of the process water treatment operation as well as functions for archiving and analysis. This PC was equipped with [ProfiSignal Basic software](#) which allows the creation of turnkey applications which include custom dashboards and charts.

USAGE

The ProfiMessage is a modular device that has 2 slots which allow it to be configured with a variety of analog and digital I/O cards. The analog cards provide inputs for RTD sensors, thermocouples, voltage or 4-20mA signals for acquiring any physical measurements. Digital cards handle common discrete I/O like 24 volt process signals from switches, relays and solenoids. In this case, the system uses one ADVT analog input card to measure pressure, flow, temperature within the water treatment process and one DIOT to capture the state of various relays and control valves in the system.



The ProfiMessage has up to 16 GB of local internal memory allowing storage of millions of points of historical data within the unit itself. This data can be easily retrieved locally via USB or Ethernet or remotely through the modem. A key part of the remote monitoring operation of the ProfiMessage data logger is the use of internal alarm and event channels for alerting. In the case of a fault, an immediate alarm notification is sent to the central head office via the cellular UMTS wireless bridge when threshold levels are violated.

BENEFITS

The installation of the Delphin ProfiMessage remote water monitoring system gave the customer instant online access to the operational information on the water treatment operation using their local control PC. Additionally, the customer has the alarm notification they need in case of problems and abnormal process status. Using the UMTS cellular modem, the plant's owner now also has remote access to live data from the process water treatment unit for on-line process supervision and maintenance.

For more information on the [Delphin ProfiMessage Data Logging System](#), remote water monitoring or to find the ideal solution for your application-specific needs, contact a CAS DataLogger Application Specialist at **(800) 956-4437** or www.DataLoggerInc.com.