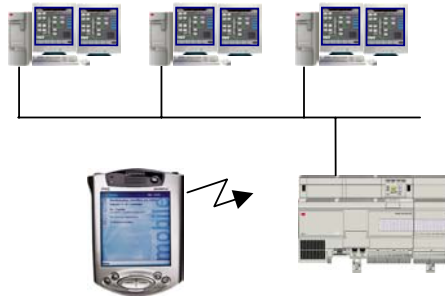


Bluetooth in Oslo pump stations



Key Benefits

- *A single interface provides multiple functions*
- *Cost effective replacement of fixed mounted operator panels*
- *Easy to use wireless access to process and network*

Oslo Municipality is implementing a Bluetooth solution named BWE 800C, as a part of the ABB Industrial IT™ AC 800C control system to provide wireless maintenance and operation of water pump stations. The pump stations control fresh and waste water flow throughout the Norwegian capital. This means that the BWE 800C will be installed in several hundred pump stations.

Key benefits for the Oslo Municipality are

- A single interface that provides multiple functions is saving installation cost
- Replacement of fixed installed operator panels with PDAs for each member in the support staff
- Convenient access to pump station data

Wireless access to the process and the network

The solution will enable Oslo Municipality staff to service machinery as well as reprogram and adjust the operations of each pump station on site using standard laptops or PDAs enabled with Bluetooth. The laptop or PDA will wirelessly connect with the Bluetooth card contained in the control system.

The embedded Ethernet interface connects to the Oslo Municipality WAN, which consists of a number of centrally located Scada systems.

The BWE 800C will simplify the current process by enabling reprogramming on site via a laptop enabled with Bluetooth, where new software adjustments can be monitored immediately as they occur.

Cost saving replacement of panels

The initial solution consisted of costly operating panels installed in each pump station, which now has been replaced by the BWE 800C interface. Staff will use the PDA's standard Internet browser to wirelessly adjust the pump station equipment by accessing data and the customized WEB pages stored on the built-in WEB server.

In addition, the BWE800C card features an Ethernet interface connecting the AC800C to the Oslo Municipality WAN (Wide Area Network) that will allow staff on site at a pump station to simultaneously maintain

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a connection with the WAN. Software changes made at a pump station will automatically be stored on the WAN server, negating the need for staff to return to the central control room and download program adjustments before moving on to another pump station.

Customized WEB pages with Java Script for process graphics

The customized WEB pages displays all necessary process data and is used to control and change parameters from a handheld PDA. Process pictures have been developed using Java Applets to create advanced graphics and fast update of dynamic process values. WEB pages for alarms management are also part of delivery enabling the user to display and acknowledge alarms in the pump station.

User access management

To prevent unauthorized access to WEB pages, user access management is built into the BWE 800C.

Enhancements

As an enhancement the BWE 800C card might manage physical access control to the pump stations. The BWE 800C card will identify any of the staff members via his Bluetooth device (PDA or mobile phone) and allow access to the site as well as deactivate alarms.

Multifunctional interface

The BWE 800C interface combines a number of features and provides

- Ethernet interface to the AC 800C
- Built-in web server accessible from Bluetooth and Ethernet
- Access to process data via customized WEB pages
- Wireless access to the Local Area Network (Ethernet)
- Local logger of dynamic information

