EMR
integrated solutions

South Dublin County Council
Wastewater SCADA and Environmental Monitoring System

Introduction

South Dublin County Council (SDCC) is one of the three local authorities covering the greater Dublin area. With a population of 250,000 living within its 225 km^2 area, a major area of activity for SDCC is the provision of waste water collection services. While wastewater treatment is provided by the Ringsend Wastewater Treatment Plant, SDCC operates and maintains an extensive network of pumping stations, interceptors and sewers, which need to be kept running 24/7 together with a capped landfill site which requires continuous environmental monitoring. With ever increasing demands being placed on the network, reliability and equipment performance became critical issues for SDCC.

Web Accessible SCADA

In late 2005 EMR was awarded a €100,000 contract to provide a SCADA system to monitor the operation of the six largest pumping stations within the SDCC network. EMR opted to deploy Motorola Moscad RTUs communicating with the SCADA server via high power radio. The initial success of the system lead quickly to the addition of a further 18 outstations and the upgrading of existing Moscad RTUs to provide full control of the pumping stations. The addition of local HMI screens with real-time process mimics and historical trending allowed field staff change pumping plans, adjust set-points and look at station performance without having to leave the pumping station. The addition of rainfall monitoring and Combined Storm Overflow (CSO) monitors integrated with the data from the Motorola RTUs to provide information on infiltration. The rainfall monitoring provides early warning of significant inundation and allows management deploy staff in advance of serious flooding incidents.

Following the implementation of remote pump control EMR configured the RTUs to perform anti-fouling, pump run-time equalisation and energy monitoring. The recent implementation of redundant Ignition SCADA servers running Inductive Automation's Ignition provides opportunities for further optimisation and ongoing system development ensures that SDCC will continue to achieve operational efficiencies and improved performance for years to come.

Comhairle Contae Átha Cliath Theas
South Dublin County Council

System Components

- Ignition SCADA Servers
- Motorola Moscad RTUs
- Radcom CSOs with GPRS Data Loggers
- Pronamic Rainfall Monitoring
- FloDar Open Channel Flow Recorders

About Ignition

Since its introduction by EMR in 2010, Ignition has become the leading SCADA solution for wide-area SCADA networks within the Irish water industry, providing users with access to realtime and historical information from any web connected PC. Incorporating high levels of performance and industry leading security, Ignition delivers unrivalled performance and an unparalleled level of flexibility through the implementation of open standards. Ignition has been designed to be platform agnostic, allowing clients implement the system on Windows, Unix, Linux etc. and access information from any of the common web browsers. With an extensive library of drivers, Ignition provides clients with the choice of hardware platform and the facility to connect to most PLC, RTUs and IEDs from all leading hardware manufacturers.

About EMR

Established in the early 1980s EMR has grown to become one of the leading system integrators in wireless communications and automation systems in Ireland. With customers including DSPS, ESB, Eircom, Northern Ireland Water and the US Embassy to name but a few, we take pride in delivering the best solutions from the world's leading manufacturers.

"From the initial installation EMR have proved to have a great knowledge and understanding of our requirements and have provided excellent advice and support throughout. The Motorola RTUs have been extremely reliable and the web access SCADA and reporting software are fantastic."

Tom Ryan

South Dublin County Council