Benefits

- Near-real time approach

- Control equipment securely

- Control failures easily and quickly

831 eWON routers enable remote monitoring at Thames Water sites

Installing eWON industrial Ethernet routers – which provide secure, ADSL and GPRS-based remote control and diagnostics – Thames Water will be able to remotely monitor and control critical assets located at its water pumping stations across the UK.

Jim Grandison, Workstream Lead for the SCADA Delivery Program at Thames Water comments: « We are using eWON Ethernet routers primarily to achieve secure, remote communications to critical monitoring and control equipment, installed in our waste water pumping stations and sewage treatment works. This project is part of our investment programme between 2010 and 2015 to improve our networks, and the systems we use to run them, with the main aim of providing a better service for our customers. »

As Jim Grandison puts it: « The problem with dial-up is that the data you are looking at is historical, perhaps as much as 24 hours out of date. In order to provide up to date, relevant customer service data and to be able to respond more quickly to any operational issues, we need to have access to information about our assets in real time and to be able to respond to that information, without having to send engineers to site, to check what the actual problem is. »

From historical to proactive asset management

«The important thing », says Grandison, « is that our customers require clean, drinkable water, delivered in a short time with minimal interruptions. In water pumping stations, we have traditionally monitored only the outcome of a failure after it has occurred, but not why that asset failed. With the eWON devices, we can immediately gain access to diagnostic information. This real-time remote monitoring approach supports our ongoing five-year Asset Management Programme, which will see our business change from 'historical' to 'proactive' management of assets.»

« The objective is to be able to mobilise the right people with the right tools, in order to go to site to rectify any problems. Previously, we would have to send an engineer or team of engineers to site to investigate the problem first, then decide who and what tools to send in next.»

Customer: Thames Water
Country: United Kingdom
Sector: Waste water treatment
Solution: Remote Networks

We are using eWON Ethernet routers to achieve secure, remote communications to critical monitoring and control equipment

HMS Connecting Devices™

The role of the eWON VPN router is to provide secure, resilient, remote-access through the Internet, to the PLC/RTU devices on site, using a combination of both Broadband ADSL and GPRS/3G.

Reliable, secure connectivity

Dave Hammond, Ethernet Product Manager at M.A.C Solutions comments: « Using their in-built library of PLC protocols, each eWON can monitor process data securely in real-time from the site PLC/RTU. In addition, each eWON continually feeds the site PLC/RTU with real-time data, concerning the health and status of the comms links on the site.»

The objective is to ensure reliable, resilient remote communications, through the eWON to the PLC/RTU on each site, from a master control station at 'Thames HQ'. These links need to be used for multiple purposes simultaneously, such as to gather data, modify process parameters, backup site devices and also perform device maintenance.

VPN connections

« Rather like spokes on a bicycle wheel, each eWON device at the end of a spoke is connected to a VPN concentrator at the centre. Across these secure VPN links, eWON devices will pass live real time data to and from site assets, such as pressures, flows, temperatures, status of equipment and so on », explains Hammond.

« With the ability to switch between ADSL and GPRS modems, the eWON gives us a real advantage, as it guarantees connectivity and visibility of real time information from our most important assets.»

eWON routers provide an easy way to supervice and monitor these waste water pumping and sewage treatment stations