Case Study:

Water Reservoir Control

Customer: City of Port Orchard, WA

Country: USA

Solution: Remote monitoring and complete automation

Benefits

- Data capture in a remote location
- Real-time notification of the need to activate or deactivate pumps remotely
- Complete system automation thanks to permanent remote control of water level in the reservoir

"At first, I didn't really think it would be useful for us because I did not understand what they could do. Now, I'm running multiple Flexy's."

Mike DeLie
Public Works Electrician at Port Orchard)

Complete automation of water reservoir operation through remote monitoring

When it comes to water management, it's essential to ensure that systems function perfectly to guarantee the population's supply. In this respect, the American town of Port Orchard, WA, faced a major challenge: all communication lines to the water reservoir were cut. As a result, it was no longer possible to monitor water levels and ensure automatic activation or deactivation of the pumps.

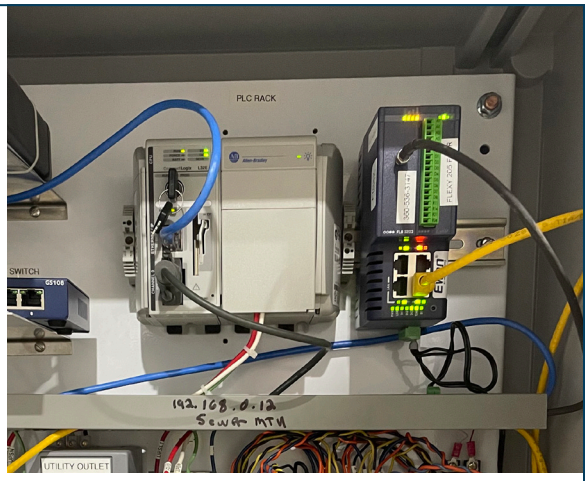
In this emergency situation, technicians had to be dispatched to manually operate the pumps. But after a few months, this constraint quickly became untenable. HMS Networks introduced the Ewon Flexy 205 to remedy the problem.

Skeptical at first, the city of Port Orchard soon realized the benefits of automation and began to think more deeply about the advantages of industrial connectivity.

From emergency management to full automation

Together, HMS Networks and the City of Port Orchard developed a plan to bridge the communcation gap at the reservoir. Initially, the aim was to streamline operations and reduce the number of manual interventions. By extracting tags from the programmable logic controller (PLC) and using Flexy units, the team was able to receive real-time notifications via SMS or email. This information enabled the technicians to remotely activate or deactivate the pumps.

Industrial connectivity ensures that Port Orchard's water supply operates at peak efficiency, and relieves the teams who could no longer carry out their tasks manually when all communication lines were cut.



Initially set up to manage an emergency situation, Ewon Flexy quickly established itself as a strategic tool.

In a second phase, the idea was to achieve full automation of the installation, i.e. to trigger actions without any human intervention. To do this, a second Flexy unit was installed in the pumping station alongside Master Water's PLC controller, which communicated with the SCADA system. This tandem enabled automatic control of the pumps: the main PLC receives water levels data from the reservoir and triggers pumping actions according to predetermined thresholds.

Ewon Flexy delivers better-than-expected results

Thanks to the feedback and experience gained, adjustments were made to optimize the system's functionality. One of these concerned the frequency of communication between Flexy units, the shortest interval being one minute.
And thanks to intercommunication between the tank and the main PLC, the units communicated even faster than this interval when prompted to do so.

Technology for industrial efficiency

Although initially a constraint linked to the resolution of a major problem, the adoption of an industrial connectivity solution by the City of Port Orchard quickly became a strategic issue.

The integration of Ewon Flexy 205 units not only boosted operational efficiency, but also demonstrated the potential of adaptive problem-solving in utility management.

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