

CASE STUDY Plant Asset Management

TH LINK: Ease of Use and Reliability – The Attributes of a Winning Solution

The Littleton/Englewood Wastewater Treatment (L/E WWTP)

plant is the third largest Publicly Owned Treatment Works (POTW) in the state of Colorado. The plant serves the cities of Englewood and Littleton as well as seventeen other connector districts, processing twenty-three million gallons of wastewater each day. This award-winning facility houses a state-of-the-art automation system that is comprised of many different network components and performs a large number of highly complex processes.



“We really liked the self-diagnostic features of the set up.”

Joe Morrissette, SCADA Specialist, Littleton/Englewood Wastewater Treatment

Joe Morrissette is the SCADA Specialist in charge of the Process Control System for the L/E WWTP. In this role, he is responsible for the management of the entire process control system, including all associated instruments and process networks. In addition to the pressures of keeping the plant operational for service and efficiency reasons, he also bears the responsibility of ensuring all compliance-related SCADA systems and instrumentation are working properly to ensure permit compliance and safety. When something goes wrong, multiple stakeholders rely on Joe to resolve the issue quickly and efficiently.

Challenge: Intermittent gateway failures jeopardize plant operations and safety.

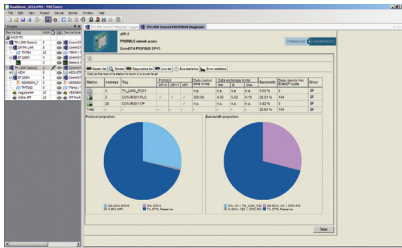
The L/E WWTP uses approximately thirty-five gateway access points to monitor and troubleshoot all the instruments and processes within the Profibus network. These gateways collect and aggregate a wide variety of in-depth, real-time data from any Profibus network on the plant floor. Unfortunately, there were some sporadic issues with the existing network management, which put process control at a very high risk. The gateway product Joe was using at the time was running into some performance and reliability issues for which there was no simple solution. Though Joe ran through all the scenarios he knew of while troubleshooting the system, in the end the problem became too time consuming and it was no longer practical to continue pursuing a solution.

Strategy and Tactics: Putting the products to the real world test.

Joe began to research competitive products from other industry leaders. With an eye for finding something to replace the units that were currently putting the plant at risk, he reviewed a number of options and finally settled on Trebing + Himstedt's TH LINK. Joe contacted Trebing + Himstedt and the lead of their U.S. division made arrangements to visit the Colorado plant and discuss options.

After that first meeting, the TH LINK units appeared to be an attractive, cost effective answer to the problem. Simultaneously, the provider of the existing gateway units announced that they were discontinuing the model that had been in use, and invited Joe to test drive the new version. Joe agreed, and the single-product pilot became a side-by-side road test.

“I have only one performance metric that really matters, it just needs to work when I need it.”



“I was actually able to address and resolve a network issue even though I was miles away on a family vacation.”

TH LINK immediately impressed both Joe and his network integrator with its simple and efficient implementation. Joe explained, “Usually if one of your set-up parameters is wrong, the system just says, ‘failed to go online with bus’. With TH LINK, the system actually tells you exactly which parameter needs to be adjusted and how. For instance, it might tell you, ‘You need to adjust your target rotation time to be between x and y.’ This level of detail makes the set-up process go much more quickly and efficiently, even if the technician doing the set-up is less advanced.”

Joe also appreciated the space economies afforded by the compact design of the TH LINK unit, “The space limitations of our control cabinets can become a problem with larger units, but the streamlined design and smaller physical footprint of the TH LINK model made that a non-issue.”

Once both units were integrated and up and running, Joe also observed that the TH LINK unit was more consistently reliable than any other solution he’d worked with to-date. “The problem I had before,” he explained, “was trying to work with a gateway unit that was routinely inaccessible. Sometimes it would take four or five attempts before I could connect at all.” In addition, even when he was able to connect to the network, Joe sometimes experienced a “dropped” connection – like a call on a mobile network. “It was like the gateway just forgot who it was.” These problems caused inconvenient interruptions to a variety of critical tasks and posed a real risk to plant operations.

Performance Results: Consistent. Reliable. There when you need it.

The L/E WWTP systems that Joe manages are obviously process-critical systems that require close monitoring and fast problem resolution if anything goes wrong. “It is extremely important that we’re able to communicate with each system and instrument each and every time we need to,” Joe said. “The consequences of an issue going undetected or undiagnosed are not just financial. There are serious safety and environmental repercussions as well. In the same way that you don’t want to wonder if the fire truck is going to start when the alarm goes off, I don’t want to have to wonder if my gateway is going to connect when I need to check an issue.”

In one memorable instance, Joe was actually able to address and resolve a network issue even though he was miles away on a family vacation. The mobile access provided via TH LINK made it possible for him to remotely access the Profibus network through the gateway, go online with the instrument having problems, and get everything taken care of without even leaving his hotel room.

After a year’s worth of experience using TH LINK, Joe continues to confidently rely on TH LINK’s consistent, reliable performance. “I wasn’t expecting either product to outperform the other, but I’m glad I opted to test them both,” he said. “The test made it clear which product was the best fit for my needs, and now we have a system that is more secure, more responsive, and easier to manage.”

About Trebing + Himstedt

Trebing + Himstedt Inc., is a wholly owned subsidiary of German-based Trebing & Himstedt Process automation GmbH & Co. KG. We bring twenty years of experience to bear on our clients’ industrial networks across North America. Designed to monitor process and factory automation, our products integrate with your systems to ensure the availability of your PROFIBUS, PROFINET, Ethernet/IP, Modbus/TCP, or Industrial Ethernet networks. We deliver reliability, simplicity, and proven value to some of the world’s leading companies across a wide range of industries including automotive, pharmaceutical, and manufacturing.

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