CASE STUDY

Woodmen Hills Metropolitan District

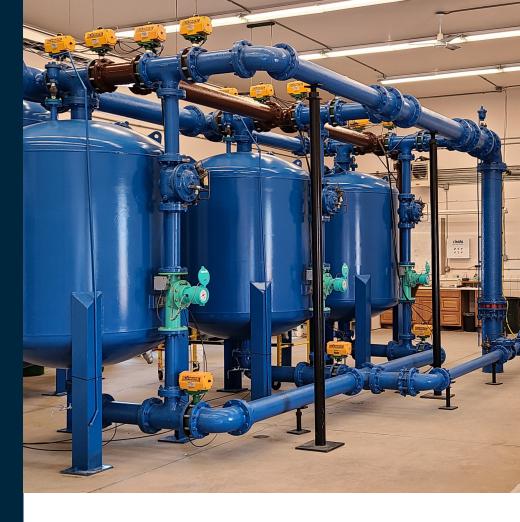


One of the best features of Samsara is the ease at which we can do things on our own. Now I have peace of mind that things are running smoothly no matter where I am."

SEAN DELLADIO

Water Operator

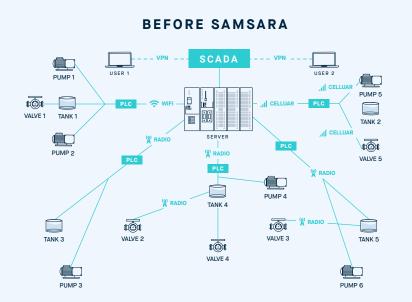


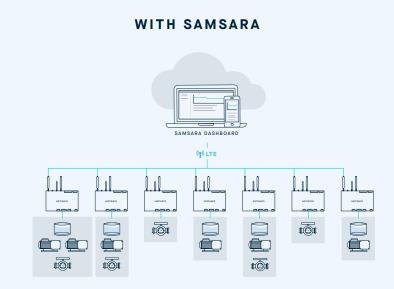


Woodmen Hills partnered with Samsara and Winn-Marion to implement a modern SCADA solution for their water and wastewater systems, giving them the flexibility, ease of use, and peace of mind they were looking for.

Woodmen Hills Metropolitan District is a small municipality that provides drinking water and processes wastewater for thousands of households and businesses surrounding Peyton, Colorado. After experiencing reliability and connectivity issues with their legacy SCADA system, Woodmen Hills turned to Samsara. Using Samsara's software for cloud-based SCADA and Industrial Controllers (IG), Woodmen Hills was able to consolidate their system architecture, decreasing points of failure and easing troubleshooting when water system issues arise. This means that Woodmen Hills is able to provide consistent, reliable service to their customers while improving their operations as the district grows.

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Consolidating the Technology Stack with Samsara

With their legacy SCADA system built on a mix of cellular, WiFi, and radio communications, as well as multiple pieces of software and hardware, maintaining the setup was a major challenge. After dealing with connectivity, reliability, and system usability issues, Woodmen Hills turned to Samsara to help simplify their SCADA system. With preprovisioned cellular service in each Samsara Industrial Controller (IG), connectivity is no longer an issue, and because Samsara's cloud-based software provides unlimited data storage, they were able to eliminate the need for an on-premises server.

Ease of Implementing Next-Gen SCADA

To assist with field services and implementation, Winn-Marion, a turnkey automation provider, was brought into the project. With over 1400 tags across Rockwell PLCs on 17 wells, three filtration plants, and two transfer stations, the project could have easily taken weeks to complete. But given Samsara's ease of use and Winn-Marion's technical expertise, the team was able to bring in all of Woodmen Hills' remote data after only one day of work. As a result, Woodmen Hills can view readings for chlorine levels, flow rates, pump status, water levels, and pressures in real-time.

WOODMEN HILLS METROPOLITAN DISTRICT

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They can also control their pumps and setpoints for chlorine pacing and filtronics, all through the Samsara dashboard. In the future, Winn-Marion plans to replace many of the existing PLCs with Samsara IGs that provide deeper control functionality.



Switching the systems was simple and quick, and didn't interrupt our operations.

The overall experience we've had so far has really exceeded our expectations."

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Water Operator

Reliable Data Accessible Anywhere

Due to a mix of communication methods and the high cost of troubleshooting their legacy SCADA system, access to reliable data was a major challenge for Woodmen Hills. In some cases, sites lacked connectivity for months at a time. In addition, downtime occurred any time IT performed maintenance on their on-premises server creating gaps in their system's data.

By switching to Samsara's software for cloud-based SCADA, they no longer need to worry about server outages causing downtime. Instead, they can rely on secure and uninterrupted access to real-time data from any smartphone or PC, any time and anywhere.

Flexibility to Easiliy Customize Dashboards

Woodmen Hills has each site set up with multiple dashboards, each focused on a specific system. For example, they can look at all of the data on chlorination in their filter plant in one dashboard and control filter modes and backwashes in another dashboard. Because the Samsara dashboards are easy to build and edit, Sean Delladio, the primary water operator at Woodmen Hills, was able to build most of the dashboards himself.

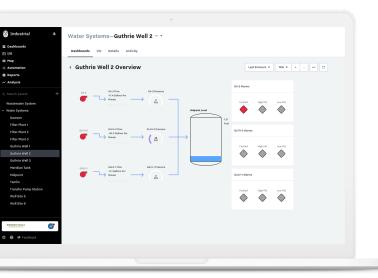
"One of the best features of Samsara is the ease at which we can do things on our own. I was able to set up dashboards for our water and wastewater systems, including many wells, filtration plants, and transfer stations. Now I have peace of mind that things are running smoothly no matter where I am."

Samsara also allows Woodmen Hills to control who has access to each dashboard, so that the person on call that day has the ability to adjust only what they are in charge of. This is important to Woodmen Hills because it can prevent accidental system changes.

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Improving Responsiveness with Real-Time Alerts

Alerts give water operators the ability to catch potential issues before they happen, such as overflows, drops in pressure, or breaks in the system. Woodmen Hills' legacy SCADA system could only be accessed by one operator at a time through a VPN connection, so anytime a new user logged in, the original user was kicked off. This meant that operators couldn't access the data to diagnose the issue and respond to it, resulting in anything from equipment damage to financial losses for the district, or worse, interruptions in safe water service in the community. Today, Samsara gives Woodmen Hills' the ability for unlimited users to access the system from any device at the same time. Now, water operators have peace of mind knowing that their alerts are always real-time, and they can diagnose the issue in their dashboards at any time.





With Samsara I can get answers immediately through mobile dashboards, and I know when something needs my attention when I receive an alert."

SEAN DELLADIO

Water Operator

Managing Growth

Samsara's solution allows Woodmen Hills to operate autonomously, and manage the system as the district grows. Their previous SCADA system prevented them from easily adding new instrumentation, setting up new inputs, or adjusting dashboards and alerts independently. Because Samsara's system is easy to use, Woodmen Hills now has the flexibility to make changes to dashboards and alerts themselves. Working with Winn-Marion, they have the confidence that adding a new site to the system will be easier than ever.

Find out how the Samsara platform can help your water and wastewater operations.

Visit samsara.com/industrial/water

