

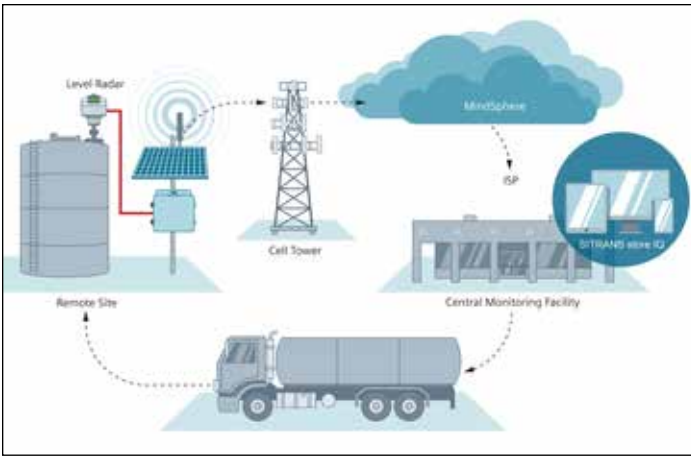


PROCESS INSTRUMENTATION

Improve safety and reduce costs with remote tank monitoring

usa.siemens.com/level

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The challenge

There is growing demand for process instrumentation in the upstream oil and gas sector. Measurement devices such as level instruments, flow meters and temperature sensors are increasingly being employed across a variety of applications ranging from storage tanks, chemical tanks and disposal sites to impoundments and trucks. However, manual measurement remains common in some areas.

This outdated practice can prove unsafe and inaccurate, for example, at certain injection sites where H₂S gas is present, or in produced water tanks also holding crude oil. It is in challenging conditions like these where process instrumentation is especially valuable – not only to measure and manage assets on-site, but also for remote monitoring to provide critical process data regardless of a worker’s location. Advanced remote monitoring technology allows for decision-making from anywhere when it comes to refill, spill prevention, collection and transportation of both disposable and usable assets.

The solution

Intelligent app for remote tank monitoring

Data from monitored assets is made available by SITRANS store IQ, a remote tank monitoring solution from Siemens that serves as a central data hub for multiple tanks networked via a cloud platform. Process data is gathered by and displayed within the store IQ app, and alarms and notifications can be created to alert key personnel of important information about their processes or instruments. The data can also be used to calculate additional key measurements such as tank volume and refill notification points.

The store IQ monitoring app allows users to view instrument status, measurements, diagnostics, alerts and historical trend data from tanks across the network via a web-based platform. This information can be retrieved securely from handheld devices or desktop computers around the clock and from any location.

Communications infrastructure to fit any application

SITRANS IQ connect is custom-designed hardware that provides the vital link between field instrumentation data and the cloud platform. SITRANS IQ connect enables data transfer in remote locations, with flexible options including internet as well as multiple cellular communications standards such as LTE, UMTS and GSM. This extended offering ensures the best signal for data transfer and the most reliable network for installations. Make your industrial networks fit for the future! Siemens products have been specially designed for use in industrial applications. They are designed for use at all network levels in order to offer ultra-efficient and future-proof communication. And for additional peace of mind, all communications solutions are encrypted with firewall protection to defend against unauthorized access and cyber threats.

Robust, reliable process instrumentation

In challenging environments characterized by corrosive chemicals or vapors from hydrocarbons, choosing the right process instrumentation to integrate into a remote monitoring solution plays an integral role in successful process optimization.

For level measurement applications like water basins, plastic containers and crude oil storage tanks, the SITRANS LR100 series of radar level transmitters

from Siemens can be integrated easily with the store IQ app. However, store IQ is not limited to level. It is suitable for any process measurement technology and a wide range of data communication platforms.

The benefits of a well-rounded solution

Besides being time-consuming, manual tank measurements are also inefficient and unreliable. Traveling long distances between sites to verify which actions need to be taken is more costly today than ever before. Furthermore, climbing tanks and opening hatches presents a safety hazard to everyone. These are no longer issues with the SITRANS store IQ remote monitoring app, the SITRANS IQ connect hardware solution and smart instrumentation like the SITRANS LR100 radar level transmitter series. Gone are the manual tank measurements, the need to travel between sites or the need to climb tanks and open hatches. No matter how large or small an application may be, or where it might be located, the path to success starts with dependable level instruments capable of monitoring tank status 24/7.



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