

DigiSWAN

Surface wireless acquisition network

APPLICATIONS

- Wireless digital surface data acquisition for reservoir testing
- Real-time wellsite monitoring and continuous process supervision
- Land and offshore well testing, cleanup, commissioning, and production testing

BENEFITS

- Increased flexibility through system adaptability to fit any wellsite configuration
- Rig-time savings with easily deployable onsite network
- Enhanced safety with fewer tripping hazards
- Greater data accuracy through acquisition of remote or isolated measurement points

FEATURES

- Measurement of temperature from -4 to 302 degF [-20 to 150 degC], differential pressure to 75 psi [$.52$ MPa], and pressure to $10,000$ psi [68.9 MPa]
- Measurement of liquid rates from 10 to $27,500$ bbl/d [1.6 to $4,372.2$ m³/d]
- Measurement of gas rates with orifice plate meters
- Data transmission enabled by WirelessHART® open communication protocol
- Transmission up to 120 m in line of sight or longer using repeaters in redundant meshed network
- Encrypted and password-protected data
- Long-duration lithium batteries last longer than 1 year at continuous 1 -sec scanning rate
- Compliant with ATEX† Zone 1 Exia IIB T4 and NACE MR0175
- Optional IECEx‡ or FM certification
- Compatible with DART* well testing data acquisition, reporting, and real-time transmission service

The DigiSWAN surface wireless acquisition network continuously monitors flow and process information during well testing operations. Pressure, temperature, and flow rate measurements are wirelessly transmitted in real time to a receiver, which is located in the data acquisition cabin. All parameters are digitally displayed and analyzed to improve operational efficiency and safety.

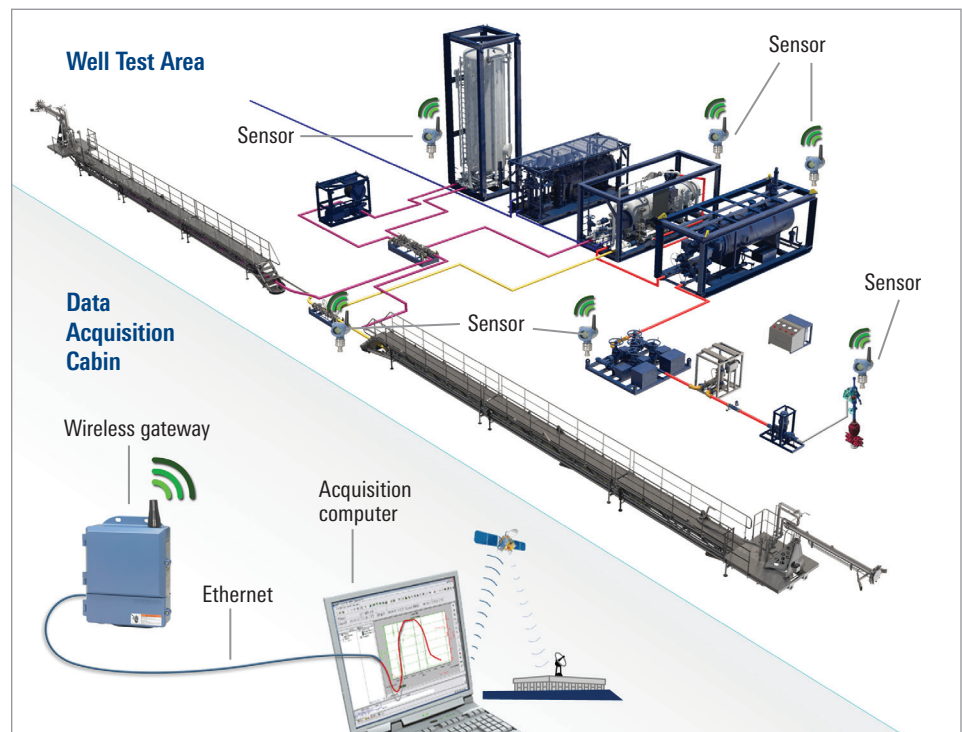
Flexibility and adaptability

The network is highly flexible, adapting to any wellsite configuration. Additional sensors can be inserted within the acquisition network across the well test area to record lubricator pressure, burner temperature, injected diesel flow rates, rig manifold pressure, and gas injection flow rate.

Because the DigiSWAN network uses the industry-standard WirelessHART open protocol, it can acquire several types of measurements, including tank level, valve position, pH, and vibration. The network can comprise up to 100 sensors, which can be displaced while operations occur without interrupting data acquisition. Isolated and remote parameters can easily be acquired without deploying any cable.

Enhanced safety and efficiency

With wireless sensors, the duration of rig-up and rig-down is significantly reduced because no cables need to be managed. The reduction of manual tasks enhances safety and improves overall operational efficiency. Additionally, tripping hazards are greatly reduced in the well test area. Data acquisition becomes more reliable because cables (the typical weak point in wired acquisition systems) are eliminated.



The DigiSWAN network wirelessly acquires surface reservoir testing data in real time via sensors placed throughout the well test area.

*Mark of Schlumberger. †Equipment and Protective Systems for Potentially Explosive Atmospheres ‡International Electrotechnical Commission System for Certification to Standards Relating to Equipment for Use in Explosive Atmospheres. Other company, product, and service names are the properties of their respective owners. Copyright © 2014 Schlumberger. All rights reserved. 14-TS-0132