



remote site monitoring

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Remote site monitoring enables operators to instantly and thoroughly examine any specific site or issue to control various parameters and make urgent assessments. Its applications for industrial, electro-mechanical, environmental, and security sites are crucial for high performance and efficient maintenance.

Remote site monitoring entails a high degree of automation and control, field instrumentation, and connectivity to ensure optimum operations. Adding the Internet of Things (IoT) to the industrial automation dynamic enhances remote site monitoring solutions to fully integrate them with the various processes involved in the monitoring and maintenance of the equipment and machinery involved.

With pulse by solutions' advanced expertise in industrial automation and its newly developed IoT applications, operators can ensure that the best practices are in place for optimum operations and seamless remote site control.

sectors the system serves

- Telecommunication (infrastructure monitoring, remote distributed communication sites)
- Oil and gas (remote wells)
- Utilities, water (remote water wells) and irrigation
- Manufacturing

system benefits

- Supports safety and security measures
- Helps save time and cut costs during daily operations and maintenance
- Enhances predictive maintenance
- Improves operators' ability to monitor and control various process key performance indicators (KPIs) including basic field data and analytics.

system description

- Distributed architecture: allowing the system to perform supervision and monitoring functions for equipment and assets that are distributed throughout the system
- High monitoring through IIoT gateway

- Prompt notifications in critical and emergency conditions
- Each IIoT gateway is connected to the equipment, instruments, electro-mechanical, environmental, and security elements at each site (e.g. rectifiers, generators, battery management systems, etc.)
- Equipment in a specific zone will send its status to the platform system in the central control room via IIoT Gateway and through 3G/GPRS communication networks
- The system utilizes cutting edge technologies, ubiquitous connectivity, and the massive development of apps available on a flexible and reliable IIoT platform
- It offers fast visibility and control over operators' remote assets
- Features of the IIoT platform:
 1. Certified hardware kits and software libraries that can be used to bring remote assets into the cloud
 2. Device management, data visualization and remote control functionality through the web
 3. Rapid customization of the above through event language rules and customized applications
 4. APIs for extending the existing functionality or interfacing the platform with operators' other IT services such as ERP or CRM systems

added benefits when linking to IIoT

- Protecting customer investment by offering a unified platform for connecting various future devices with different technologies in one system
- Direct cost saving by utilizing cloud-based infrastructure instead of on-premises infrastructure hosting and maintenance
- Cloud solutions guarantee high flexibility scaling (both scaling up and scaling out)
- Integrating data from different verticals generates additional new insights

automatic alerts when connecting system to IIoT platform and gateway

- Alerts for high/low level alarms (temperature, levels, pressure, voltage, etc.)
- Alerts for damaged or malfunctioning equipment
- Alerts for unauthorized access to remote sites