Industrial IoT Solutions and Applications

Connectivity and embedded solutions to meet the needs of diverse industries

Digi Delivers Industrial Connectivity to the Edge

Data processing and intelligence at the network edge are crucial features of IoT-enabled industrial deployments today. These capabilities improve insights and enable data-intensive applications such as agriculture, oil and gas, water/wastewater and manufacturing automation — a key use case in Industry 4.0.

Digi IoT edge solutions are flexible enough to meet the needs of all these applications — from remote monitoring and actionable insights to predictive maintenance — while fulfilling the unique requirements of each individual organization.

Digi IoT in Industrial Applications

Oil and Gas

Oil and gas companies can collect data from all parts of the value chain with the help of Digi technology. From upstream oil pumps and platform telematics, to midstream pipeline monitoring and metering, to tank farms and downstream point-of-sale (POS) systems, Digi industrial solutions helps companies capture and analyze data from sensors and SCADA systems in near-real time.

Companies can use that data to optimize well, pipeline and facility performance while taking advantage of remote management capabilities to reduce the need for costly truck rolls and maintenance.

Electrical Utilities

Electrical utilities around the world use IoT technology to drive more efficient energy use, improved security, and better customer service.

New technologies are driving the evolution of electrical "smart grids." They enable utility companies to react quickly to spikes in demand, remediate outages and operate more efficiently overall. Smart grid systems are more resilient, cheaper to operate and better for the environment. Digi helps utilities to upgrade their technology with reliable, secure edge computing and cybersecurity technology to improve grid efficiency while meeting critical SLAs.

Construction

The construction industry deploys IoT solutions in a wide range of applications today, where cellular connectivity and embedded systems provide critical insights to support efficiencies, cost savings and workplace safety.

IoT solutions can monitor the performance of heavy machinery, track the location of materials and equipment, and conduct building site surveillance. IoT solutions even perform specialized tasks such as tracking sensor data to monitor the exact temperature of concrete during the curing process.

Today private and hybrid networks provide options for more secure and reliable connectivity.

Water/ Wastewater

Municipalities everywhere face the challenge of keeping water supplies safe and abundant while making sure wastewater is treated in strict compliance with environmental standards.

Digi provides solutions for both sides of the water use cycle. IoT systems monitor wells, reservoirs, lift stations, sewage treatment plants and other components of complex water and wastewater systems. Wireless connectivity from Digi also enables real-time alarm and flow data, so operators can address problems quickly, before they become critical.

Digital Signage

Digital signage, in addition to providing information in retail settings and public spaces, is now supporting a number of industrial use cases. These include traffic advisories for road construction projects, as well as signage in city centers and subway terminals where environmental conditions can vary wildly.

Digi offers a range of purpose-built solutions for digital signage applications where wired connections are impractical, enabling users to update and modify displays remotely and provide secure, reliable connectivity for outdoor environments.

Digi Supports Process Improvement With Your IoT Solution

Operational Efficiencies

- Digi IoT connectivity helps provide precision and efficiency for manufacturing automation, process control and robotics. Constant production line monitoring helps identify quality problems, and predict equipment maintenance issues.
- Reduce or eliminate "truck rolls" and the need for manual intervention with Digi Remote Manager®, the scalable management platform that lets you configure, monitor and manage IoT devices from one central point of control, or from authorized devices in the field.
- Benchmark the performance metrics of machinery and gather real-time sensor data to help maximize uptime and minimize maintenance costs.
- Take advantage of energy-efficient design that extends battery life in remote or hard-to-reach deployments.

Supply Chain Visibility

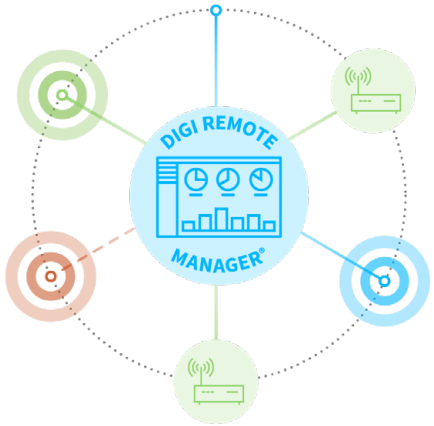
- Integrate Industry 4.0 technologies into manufacturing systems and smart factories for real-time insights, predictive maintenance and automation.
- Provide real-time inventory monitoring to ensure skilled building tradespeople have the materials they need, when they need them.
- Track the logistics of materials, equipment and fleets to ensure accurate routing and on-time delivery.
- Monitor temperature-sensitive food and pharmaceuticals with sensor solutions and automated reporting from SmartSense by Digi.

Edge Intelligence and IT Operations

- Perform environmental monitoring using networked sensors to quickly detect leaks or fire hazards and alert personnel — for worker safety as well as compliance with OSHA and other regulations.
- Ensure business continuity with out-of-band management capabilities through a secure VPN tunnel and serial ports on Digi devices.
- Integrate intelligence and processing at the network edge with smart modems and other Digi edge computing solutions.
- Gather real-time data with Digi IoT devices to enable end-user analytics of historic trends and variables that affect performance.

Worksite Safety and Security

- Ensure compliance with OSHA and other regulations by monitoring environmental conditions using networked sensors that quickly alert users to leaks or other hazardous situations.
- Enhance worker safety with innovations such as "smart hardhats" that monitor exposure to UV rays, noise and temperature extremes, and smart wearables that detect unsafe movements.
- Monitor access to building sites with video surveillance data transmitted via Digi routers.
- Integrate image recognition and machine vision into next-generation employee access and site monitoring systems.



Digi Remote Manager for Industrial IoT

Digi Remote Manager® (Digi RM) is an indispensable part of any industrial IoT deployment. Accessing your IoT edge devices through Digi RM enables you to monitor, manage and troubleshoot your network remotely, without the need for a "truck roll" to physically access a device. Digi RM also provides a performance dashboard for troubleshooting devices across multiple locations — with alarms and reports to keep you a step ahead of any problems.

Proven Durability, Long-Term Reliability

Digi networking and infrastructure management solutions and embedded solutions are designed and built for a long service life. Digi industrial-grade products deliver robust, flexible connectivity with specifications to support applications in a range of challenging conditions and temperatures. Digi networking products are complete solutions that include devices, remote management, device warranty, and 24/7/365 customer care, via Digi 360 or Digi LifeCycle Assurance.

Digi IX10 provides reliable, cost-effective connectivity for many industrial applications. It enables remote access to utility meters for gas and electricity, flow meters for pumps and pipelines, and more.

Digi IX20 is ruggedized and flexible for monitoring and managing industrial infrastructure, digital signage, retail kiosks, service terminals and other critical assets. Digi CORE® plug-in LTE modems can be swapped out of Digi IX20 routers for seamless connectivity upgrades.

Digi IX30 is a flexible router designed for critical infrastructure applications, including in hazardous locations. It connects RTUs, PLCs and HMI devices in harsh, remote environments and is optimized for DIN rail or shelf mounting.

Digi IX40 is a 5G edge computing industrial IoT cellular router solution, purpose-built for Industry 4.0 and other applications requiring rapid processing, analysis, and integration of industrial asset data.

Digi Connect® Sensor XRT-M offers cost-effective remote monitoring and diagnostic capabilities for wirelessly reporting data pertaining to fluid levels, flow rates, pH and other environmental metrics.

Digi AnywhereUSB® Plus delivers secure, flexible and scalable USB 3.1 multiport connectivity for USB devices connected from remote or virtualized hosts.

Digi Connect® EZ is a versatile, plug-and-play serial server that enables fast, reliable, and secure machine-to-machine connectivity for seamless network integration with virtually any device.

25 MILLION+ Digi XBees sold

The Digi XBee® family of wireless modules and developer tools offers embedded connectivity for an enormous range of IoT devices and edge intelligence needs in the field — from machinery and equipment monitoring to hardhats with built-in sensors, to agricultural use cases such as feed bin, silo, equipment and irrigation system monitoring.

DIGI ConnectCore

The Digi ConnectCore® family of secure, industrial-rated system-on-modules (SOMs) provides OEMs with a full suite of tools and value-added services for rapid time-to-market, as well as robust performance, reliability, and security for a wide range of industrial applications.

Connect with Confidence

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