

ThingWorx Platform Solutions for Oil & Gas Production

Summary

With the new reality of low-priced oil, you need to maximize productivity and efficiency and reduce downtime by improving operational insight. You also need to better manage assets while improving employee safety, minimizing environmental impact, and satisfying ever more stringent compliance requirements.

To accomplish these goals, you need a unified solution that provides situational awareness, enables informed decision-making, and supports ongoing development.

You need an IoT platform.

Oil & Gas Challenges and Opportunities

You want to take advantage of new advances in technology to increase connectivity, improve analytics, and optimize asset uptime in oil and gas production. Yet, you face three major challenges:

- **Asset management:** you can't afford downtime of expensive, geographically distributed, and often mature assets, but getting timely, useful information about them is a challenge.
- **Safety, environment, and compliance:** increasing regulation and documentation requirements demand finer-grained tracking of assets, employees, and products.
- **Loss of talent and experience:** experienced workers are leaving and taking their knowledge with them.

You need complete situational awareness of your assets and the ability to accurately report on productivity.



ThingWorx Offering for Oil & Gas

The ThingWorx platform provides oil and gas extraction operations with:

- Industrial connectivity that enables linking to both legacy and new devices and systems, no matter what their protocols
- Improved data management capabilities, incorporating both the growing amount of wellhead data and external weather, asset location, and situational data
- Computing capability for edge data collection and analytics that improves security, minimizes network bandwidth, and deals smoothly with inevitable lapses of communication
- Multilevel security from device to application, with support for identity and access management
- Advanced analytic capabilities, including anomaly detection, machine learning, and predictive analytics
- Enhanced user experience and intuitive situational awareness via Augmented Reality (AR)

ThingWorx Platform Capabilities

The ThingWorx platform handles the specificities of devices, connectivity, and data collection, and supports you in developing applications that enable you to:

- Have unified situational awareness of all field assets, no matter how disparate the underlying legacy systems—both centrally and in the field
- See ahead via predictive analytics to know when assets will require maintenance, operational modifications, or replacement – before they break down, causing expensive downtime and repair
- Eliminate data chokepoints, incompatibilities, and the need for expensive custom solutions
- Anticipate and minimize safety, environment, and regulatory risks while satisfying compliance requirements through full and detailed reporting
- Amplify the skills and knowledge of existing staff and speed the onboarding and training of new workers
- Scale while maintaining reliability, adding new device types, new networks, and new users as needed
- Know that all data and communications are secure
- Accurately report on productivity to justify projects, plan budgets, and support company valuation

The Power of the Platform

The demand to build new solutions is at an unprecedented high. Development teams are being stretched thin and are asked to learn IoT technology as quickly as possible in order to deploy IoT-enabled products, applications, and systems. The ThingWorx platform is purpose-built for the development of scalable and secure solutions that are simple to create, accelerate the time-to-market, and makes end-user experiences more compelling.



In the fast-changing world of the Industrial IoT, it's critical that we continue to offer our customers the latest capabilities for them to maintain a competitive advantage and recognize business value. As planned, layering the ThingWorx platform over the PI System Data Infrastructure would extend the value that our customers can realize from the PI System. The powerful capabilities, market reach, and Industrial IoT leadership position of PTC make it an ideal partner for OSIsoft in the Industrial IoT landscape."

Martin Otterson,
Senior Vice President of Customer Success at OSIsoft, LLC
A ThingWorx partner dedicated to helping people transform their world through data

With ThingWorx, and an ecosystem of partners, you can easily:

- Create, test, and deploy IoT solutions faster than ever with a platform suite of tools
- Build more feature-rich solutions that are scalable, secure, and industrial-ready
- Access the broadest IoT-focused partner ecosystem in the market, and the industry's premiere IoT Marketplace for off-the-shelf extensions

For more information, visit: [Thingworx.com/oil-gas](https://thingworx.com/oil-gas)

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