OIL AND GAS

CONNECT, MONITOR, AND CONTROL DIVERSE REMOTE SITES AND PROCESSES

RL
RED LION™
a spectris company

EXCELLENCE. REDEFINED.

FLOWING TOWARD OPERATIONAL EXCELLENCE

Oil and gas companies are increasingly going to the ends of the Earth—as well as deeper below its surface—to find and extract reserves. Meanwhile, these environments make it harder to maintain safety protocols and keep operations running reliably. Regulatory demands are also creating new challenges, forcing companies to invest in the necessary technologies that will allow them to produce required data and develop new processes that help ensure safety and security.

How can companies effectively manage increasingly challenging environments and operate more safely and reliably in a competitive industry, all while meeting regulatory mandates? Traditional approaches and additional manpower are not practical options, because greater efficiency is also a requirement. The solution is not to do more of the same, but rather to build intelligence and control into operations. There are tremendous benefits to leveraging the power of technology to reliably connect, monitor, or control the diverse equipment and processes spread across remote locations.

The company's customers are doing just that: using our industrial automation and networking products to upgrade and future-proof their systems. Our products support many of the latest industrial drivers while providing backwards compatibility to preserve investments in legacy systems. This flexibility makes Red Lion products easy to deploy, thereby saving time and money during system rollouts and upgrades.

Oil and gas companies worldwide rely on Red Lion to keep their operations running safely and reliably around the clock, regardless of location. Whether located in the desert, ocean, or ice field, Red Lion offers intelligent industrial solutions that provide the connectivity, monitoring, and control required to get the job done across applications. Operations where Red Lion makes a positive difference include:

DRILLING ◣

A drilling platform is a complicated operation, involving many systems and processes, such as mud pumps, air-conditioning systems, blowout preventers, elevators, drilling equipment, power supplies, compressors, fire control equipment, and separators, to name a few. If any of these critical infrastructure elements fail or experience issues, the drilling process will come to a complete standstill, costing valuable time and money. Red Lion can help reduce the amount of downtime with our FlexEdge™ controllers, that interface with sensors and other devices at the wellhead. For example, in hydraulic fracturing operations, the FlexEdge Intelligent Edge Automation Platform can continuously monitor conditions and calculate the optimal chemical mix for injection while recording all materials used and data collected in the process.

WELLHEAD MONITORING ◣

To improve the safety and efficiency of oil production, for both new wellheads or legacy equipment, customers can install a valve system and monitoring devices to oversee the operation of wellheads. Data from sensors, when combined with industrial wireless communications systems, enable effective remote monitoring and control. The FlexEdge Intelligent Automation Platform makes remote monitoring effortless, combining all of these functions into a robust, hazardous-location-certified package that scales as system needs change, and can be set to process input from a variety of sources and automatically adjust operations on the fly.

PUMP MONITORING ◣

By shifting to automated systems, you can overcome the challenges involved with component production, installation, inclement weather, personnel availability, and other scenarios. Furthermore, users can analyze data carefully to anticipate trends and execute strategic responses immediately.

FlexEdge's scalable architecture with modular I/O can also be used to improve the energy efficiency, uptime, and productivity of pumps by optimizing performance based on real-time information. With industrial automation solutions, data regarding stroke-position readings, flow, pressure, and other variables can be collected and used to adjust pump operations automatically without sending a technician on-site. This reduces total cost of ownership while improving performance.

FLOW & PRESSURE MONITORING ◣

Users are able to collect pressure and flow data from pipelines, valves, compressors, and other assets through a wide range of sensors. The FlexEdge platform ensures the information collected is available anywhere by taking advantage of numerous networking and protocol options to automatically provide data to other monitoring, predictive maintenance, and IIoT systems. Create solutions that remotely manage flow, automate block valves and shutdown systems, and adjust compressor air-fuel ratios.

DISTRIBUTION ◣

The sense-and-respond capabilities that intelligent industrial automation and networking solutions provide are ideal for managing distribution at maximum efficiency. The FlexEdge Intelligent Edge Automation Platform can process input from external sensors and other sources to continuously monitor pressure, flow, temperature, and other conditions throughout the pipeline and make adjustments as required. Adding a cellular sled that can be updated as carriers sunset older networks and new communications standards emerge gives off-site personnel real-time visibility into operations and provides the means to remotely act on the information, while its modular design ensures future-proof connectivity for years to come.

FLEXEDGE'S SCALABLE ARCHITECTURE WITH MODULAR I/O CAN ALSO HELP IMPROVE THE ENERGY EFFICIENCY, UPTIME, AND PRODUCTIVITY OF PUMPS BY OPTIMIZING PERFORMANCE USING REAL-TIME INFORMATION.

CONNECTIVITY ◢

Connectivity is at the heart of what Red Lion does. By providing wireless connectivity between remote transducers and the sensors at wellheads that are monitoring wellhead tubing and casing pressure, Red Lion can help you make your operations more efficient.

Use Wi-Fi to access and view production pad data and status, and to transfer data from remote gateways for optimal connectivity to remote sensors, transducers, and I/O signals—and much more. From our industry-leading line of networking products to the extensive protocol support and connectivity options that are built into our FlexEdge automation platform, you'll find secure reliable communications choices that provide visibility into remote operations, collect performance data from critical assets, and enable remote maintenance and troubleshooting.

LEAK DETECTION & ENVIRONMENTAL REPORTING ◢

FlexEdge is an intelligent control solution that not only detects a leak, but also sends email and text alerts while automatically activating a shutdown valve. The platform then records all activity on a digitally signed data logger for download. This allows the data to be used in compliance analysis, and makes insights available anywhere. Through an advanced web server, this information sends the data to many of the industry's most popular IIoT platforms for further business analysis. Red Lion can help turn your sensors into a responsive system that reduces risk, minimizes losses, and protects uptime.

These and other advanced applications don't require you to replace your entire infrastructure. Our industrial automation and networking products protect your investments by providing backwards compatibility with legacy systems, while introducing powerful new technologies to increase intelligence and control throughout operations.

Red Lion will put you on the path to improved productivity and reliability with industrial solutions that give you the ability to seamlessly connect, monitor, and control your operations.

CONTROL COSTS ◤

The versatility of Red Lion's FlexEdge platform reduces capital equipment costs in a number of key ways:

Using our extensive suite of industrial drivers, get the most out of legacy and orphaned assets by connecting them to advanced, optimized processes

As your digital transformation progresses, cloud platform needs may similarly evolve. Change where your data goes without complexity: Red Lion's point-and-click connectivity to the industry's most popular cloud platforms ensures your investment stays relevant and connected for years to come

Field-installable sleds provide peace of mind that an installation is future-proof as new communication standards emerge and older technologies are sunsetted

CONTROL INFORMATION ◤

FlexEdge devices enable real-time monitoring and control through connectivity with your key assets, including pump and compressor stations, production pads, and block valve sites.

Aggregate and monitor vast amounts of data to minimize environmental impacts and improve operational efficiencies

Deliver actionable wellhead and production pad data to enterprise control centers

Create real time alerts for operations personnel, regardless of data type: from tubing and casing pressure monitors, gas wellheads, dynamometers, pump-off controllers, production tank levels

Using our advanced web server, create easy-to understand dashboards that deliver insights anywhere

DELIVER RESULTS ◢

Accurate, real-time data is imperative to succeeding in the oil and gas industry. Engineers and management need operational data from the field to calibrate equipment, schedule maintenance activities, and coordinate with third-party logistics to keep the operations going and product flowing.

Red Lion solutions make it easy to monitor multiple devices whether you are at the point of activity or thousands of miles away. Get a true picture of performance by using the native drivers that are built into our products to get data and status information from equipment, all without having to add cost and complexity.

Our simple to use Crimson® software, when combined with our powerful FlexEdge platform, means you can take advantage of seamless, real-time data to create new applications that optimize performance and uptime. Red Lion's comprehensive support and flexibility reduce the time involved in installation and integration and add new capabilities to existing equipment.

ONE DEVICE
ENDLESS CAPABILITIES

PROTOCOL CONVERTER ◤

Connecting to disparate assets can be challenging in legacy environments, as often a variety of vendors are used within an application, making connecting to and collecting data from these devices problematic. Red Lion's products include all the protocols you need to easily connect, monitor, and control multigeneration and multi-vendor systems. Out-of-box connectivity to over 300 industrial drivers and built-in OPC UA server and client means you can connect to virtually any equipment in your deployment, regardless of age or vendor, as you implement your digital transformation strategy.

ADVANCED WEB SERVER ◤

By enabling operators to interact with a deployed gateway as if they are front of a touchscreen HMI, they can see real-time visualizations of and control any connected process without having to be there in person. In addition, the advanced web server with JavaScript, Bootstrap, CSS and HMTL5 support delivers operations visibility, anywhere.

CELLULAR GATEWAY ◤

Cellular communication is an easy and secure method to connect to deployed assets to collect data and monitor productivity. Whether on the factory floor or 1,000 miles away, FlexEdge enables you to collect data, visualize information, and manage operations effectively. Dual SIM slots, available standard on the FlexEdge platform, add robustness to cellular communication and ensure connectivity where you need it, while field-installable sleds provide peace of mind that an installation is future-proof as new communication standards emerge.

POINT-AND-CLICK CONNECTIVITY ◤

Connecting asset data to an IIoT cloud enables businesses to easily monitor and control systems and processes without having to own and manage the server architecture. Because our cloud connectors have predefined protocols within our products, connecting assets to IIoT clouds is easy and secure.

RED LION IS HERE FOR YOU

Industrial solutions, reliable performance, and unwavering support are the hallmarks of our company. As global experts in communication, monitoring, and control for industrial automation and networking, Red Lion has been delivering innovative solutions for over forty years.

Our automation, Ethernet, and cellular IIoT technology enables companies worldwide to gain real-time data visibility that drives productivity. Product brands include Red Lion, N-Tron, and Sixnet. With headquarters in York, Pennsylvania, the company has offices across the Americas, Asia-Pacific, and Europe. Red Lion is part of Spectris plc, the productivity-enhancing instrumentation and controls company.

For more information about Red Lion Oil and Gas Solutions, please visit www.redlion.net/solutions/oil-and-gas.

PRODUCT HIGHLIGHTS ▶

Wide operating temperature range (-40°C to 75°C)

Rugged design with global hazardous location ratings (UL Class 1, Division 2, and ATEX/IECEx)

Ease of connecting data to IIoT clouds

5G Ready Offers many communication options, including Ethernet, serial, USB, Wi-Fi, and cellular

World-class manufacturer of extremely reliable and robust products

Consolidation of multiple device functionality into one product reduces complexity, cost, and time to implement

AMERICAS
sales@redlion.net

ASIA-PACIFIC
asia@redlion.net

**EUROPE, AFRICA,
MIDDLE EAST**
europe@redlion.net

RL

Red Lion™

a spectris company

Excellence. Redefined.

www.redlion.net | +1 (717) 767-6511

As global experts in communication, monitoring and control
for industrial automation and networking, Red Lion has been
delivering innovative solutions for over forty years. Our automation,
Ethernet and cellular M2M technology enables companies worldwide
to gain real-time date visibility that drives productivity. Product brands
include Red Lion, N-Tron and Sixnet. With headquarters in York,
Pennsylvania, the company has offices across the Americas, Asia-Pacific
and Europe. Red Lion is part of Spectris plc, the productivity-enhancing
instrumentation and controls company. For more information, please visit
www.redlion.net.