

ANYTHING IN.
ANYTHING OUT.
ANYWHERE.



FLEXEDGE™

Bringing industrial data technology
together to transform operations



KEEPING YOU AT THE CUTTING EDGE OF DIGITAL TRANSFORMATION.

In technology, the edge is where the action is. Where new ideas emerge. Where progress happens first. In today's complex operations, edge technology is revolutionizing the way information is communicated, monitored, and controlled.

FlexEdge™ is a highly scalable IIoT platform that embodies communication technology at its core and layers on powerful automation features like industry-leading protocol conversion, multichannel alerts, visualization, data logging, IIoT cloud connectivity, and advanced networking features.

LINKING YESTERDAY, TODAY, AND TOMORROW

The FlexEdge platform includes capabilities to help ensure that your capital investment will stay relevant and connected for years to come. The FlexEdge platform allows you to connect your equipment's proprietary protocols to modern, open standards like OPC UA for enterprise visibility. Red Lion's protocol driver library adds further value by unlocking the data already available in existing equipment. The drag-and-drop simplicity of protocol conversion in our Crimson® software enables you to quickly respond to new needs without costly redevelopment.

As an IIoT gateway, protocol converter, scalable edge controller, and web-based HMI, FlexEdge is your all-in-one platform for improving productivity at the edge.

SECURE NETWORK COMMUNICATIONS BETWEEN LOCAL AND WIDE AREA NETWORKS

The platform also offers advanced network security features such as a stateful firewall, access control list (ACL), packet filtering, and VPN connections, all designed to help protect against unwanted intrusions.

Additional benefits include:

- Routing between subnets, allowing users to maintain clean separation within a network by defining logical boundaries between different functions
- Reduced traffic which, in turn, helps maximize the efficiency of your bandwidth and network
- Network Address Translation (NAT), enabling engineers to create easily manageable, repeatable programs that can be used across cells or factories without the need for additional costly PLC network interfaces, all while adding another layer of network security

Additionally, the web-based event engine can be customized to trigger I/O or email alerts, allowing personnel to be notified about any critical events.



MANY FEATURES. WORKING IN HARMONY.

FLEXIBLE ARCHITECTURE

Until now, modern industrial applications demanded a variety of products to meet their many different requirements. Red Lion's modular platform enables users to consolidate a variety of devices into one—for simplified deployment and easier maintenance. It also allows for a deployment today, with the possibility to address new requirements without replacing the entire device or losing continuity. With the ability to address up to nine serial ports, multiple Ethernet ports, Wi-Fi, and cellular communications, the modular architecture adapts to past, present, and future technologies.

EASIER, FASTER, AND SMOOTHER SOFTWARE CONFIGURATION

Drag-and-drop configuration, a huge built-in protocol library, and access to critical monitoring and logging features make connecting assets easier and more error-free than ever. With so many features built into Crimson, a user doesn't need any other applications to bridge the communication gap between disparate serial, Ethernet, and fieldbus devices that have been orphaned by incompatible communications standards; develop intuitive interfaces for operators; and connect data to ERP and cloud environments.

ONE PLATFORM TO RULE THEM ALL

Simplifying deployment architectures allows companies to deploy more quickly without learning new software, upgrade applications without replacing equipment, and more easily adapt to changing application requirements. OEMs and system integrators can quickly migrate between Red Lion products without having to fully re-create user interfaces, reenter data tags or re-write application code, and the highly flexible architecture significantly reduces development time.

BROAD RANGE OF CERTIFICATIONS

With UL Class 1, Division 2, and ATEX/IECEX certifications, the FlexEdge platform can be safely deployed in hazardous environments across the globe. With the addition of ABS/DNV, they can also be securely launched in harsh maritime applications.

WIDE OPERATING TEMPERATURE RANGE

The FlexEdge platform is available in two temperature ranges: an industrial grade -10 to 50oC, and a wide-temp range of -40 to 75oC designed for the harshest applications. With one of the widest operating temperature ranges in the industry, no matter where your applications take you, FlexEdge is designed to be there, providing effortless and secure access to your industrial information.

POWERFUL INTEGRATED FEATURES FOR EFFICIENCY AND PRODUCTIVITY

- Ethernet, USB, serial ports and optional Wi-Fi make communication simple
- Built-in data, event, and security logging with cryptographic signature support enhances troubleshooting and helps meet regulatory requirements
- Advanced web server provides remote visualization and control, reducing costly site visits

TRANSFORM YOUR OPERATION

All-in-One Configuration, Programming, and Visualization Software

With Crimson, simple applications can be set up quickly using a step-by-step process to configure communications protocols and define data tags. An extensive menu of built-in, point-and-click serial and Ethernet drivers map data from virtually anything—in seconds.

Delivering a powerful and intuitive set of drag-and-drop configuration, display, and data logging tools, Crimson was designed specifically to take full advantage of Red Lion's product architecture.

CRIMSON® FEATURES

- All-in-one environment that eliminates need to switch between or manage version control for multiple software packages
- An extensive library of point-and-click device drivers to quickly establish communications between virtually any equipment
- Built-in gateway and protocol converter to Ethernet-enable any connected device
- Multilingual capability allowing OEMs to use a single database for global markets
- Complete library of over 5,000 industrial graphics in over 60 different categories, with the ability to add custom images specific to your application

ONE DEVICE. ENDLESS CAPABILITIES.

PROTOCOL CONVERTER

In legacy environments, widely differing suppliers and vendors make connecting disparate assets and collecting data from them a costly and time-consuming challenge. FlexEdge includes all the protocols you need to quickly easily connect, monitor, and control your systems.

ADVANCED WEB SERVER

The advanced web server with JavaScript, Bootstrap, CSS and HTML5 support delivers operations visibility anywhere, while the virtual HMI enables an operator to interact with a deployed gateway as if they were standing in front of it.

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 cellular communication sled, add robustness to cellular communication and ensure connectivity where you need it, while the ease of field installation provides peace of mind that a deployment is future-proof as new communication standards emerge.

POINT-AND-CLICK CLOUD 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 are predefined protocols already within our products, connecting assets to IIoT clouds is simple and straightforward.



MORE THAN A PLATFORM. AN ANSWER.

Here's how FlexEdge solves the three most common digital transformation challenges.

THE CHALLENGE:

It takes a variety of products to meet modern application requirements. Often, this demands multiple devices (for example, protocol converter + visualization + cellular gateway + micro PLC).

THE FLEXEDGE™ SOLUTION:

As a highly scalable IIoT platform with communication technology at its core and powerful automation features like industry-leading protocol conversion, visualization, and IIoT cloud connectivity, FlexEdge makes deployment, management, and upgrading simple and straightforward.



THE CHALLENGE:

Modern plant and factory operations are highly complex, with a wide variety of installed technologies—each supporting a different application and posing unique requirements. As new technologies emerge (e.g., 5G), previously installed investments are left behind or must be scrapped.

THE FLEXEDGE SOLUTION:

The scalability of the platform extends to provide a customized solution for each application. FlexEdge enables customization to the application with varying communication sleds combined with scalable, hot-swappable I/O. The scalability enables future technology trends to be easily incorporated and/or upgraded.

THE CHALLENGE:

To boost efficiency and improve productivity, organizations need to gather and analyze more data, but much of it is stranded in existing, already-installed assets and cannot be accessed without interfering with existing production processes.

THE FLEXEDGE SOLUTION:

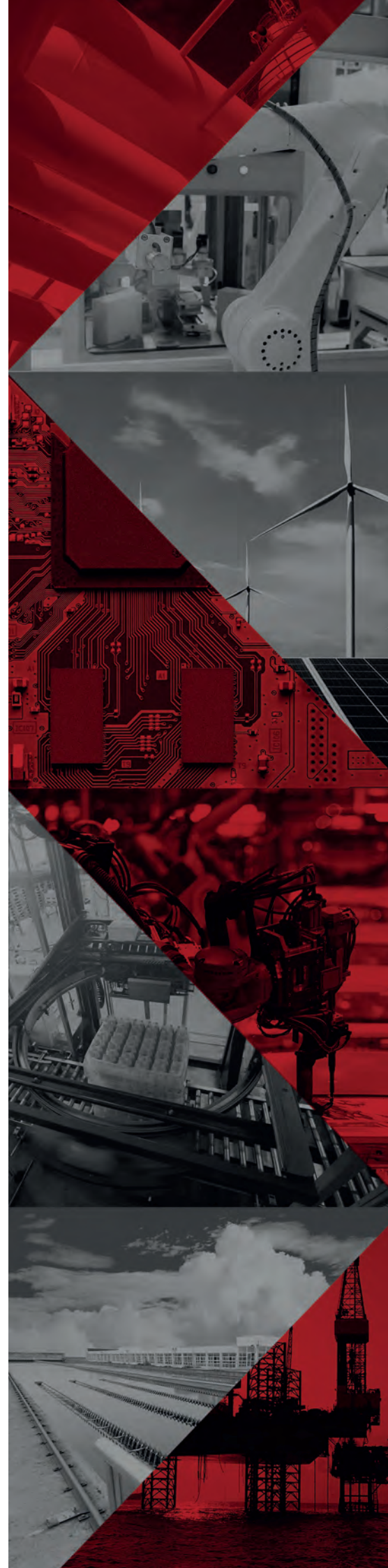
To help users collect more data, and enable visualization, monitoring, and integration into higher-level systems (private or public clouds, ERPs, etc.) without interfering with ongoing operations, the FlexEdge platform is designed to seamlessly integrate within existing automation infrastructures. FlexEdge's scalability enables customization to the application with varying communication sleds combined with scalable, hot-swappable I/O, and also allows future technology trends to be easily incorporated and/or upgraded.

INDUSTRIES SERVED

- MANUFACTURING
- OIL & GAS
- WATER/WASTEWATER
- PACKAGING
- AUTOMOTIVE
- MACHINE BUILDER/OEM
- FACTORY AUTOMATION
- RENEWABLE ENERGY/SMART GRID

ENERGY

- GENERAL/ELECTRONICS
- INTELLIGENT TRAFFIC SYSTEMS



BENEFITS AT A GLANCE.

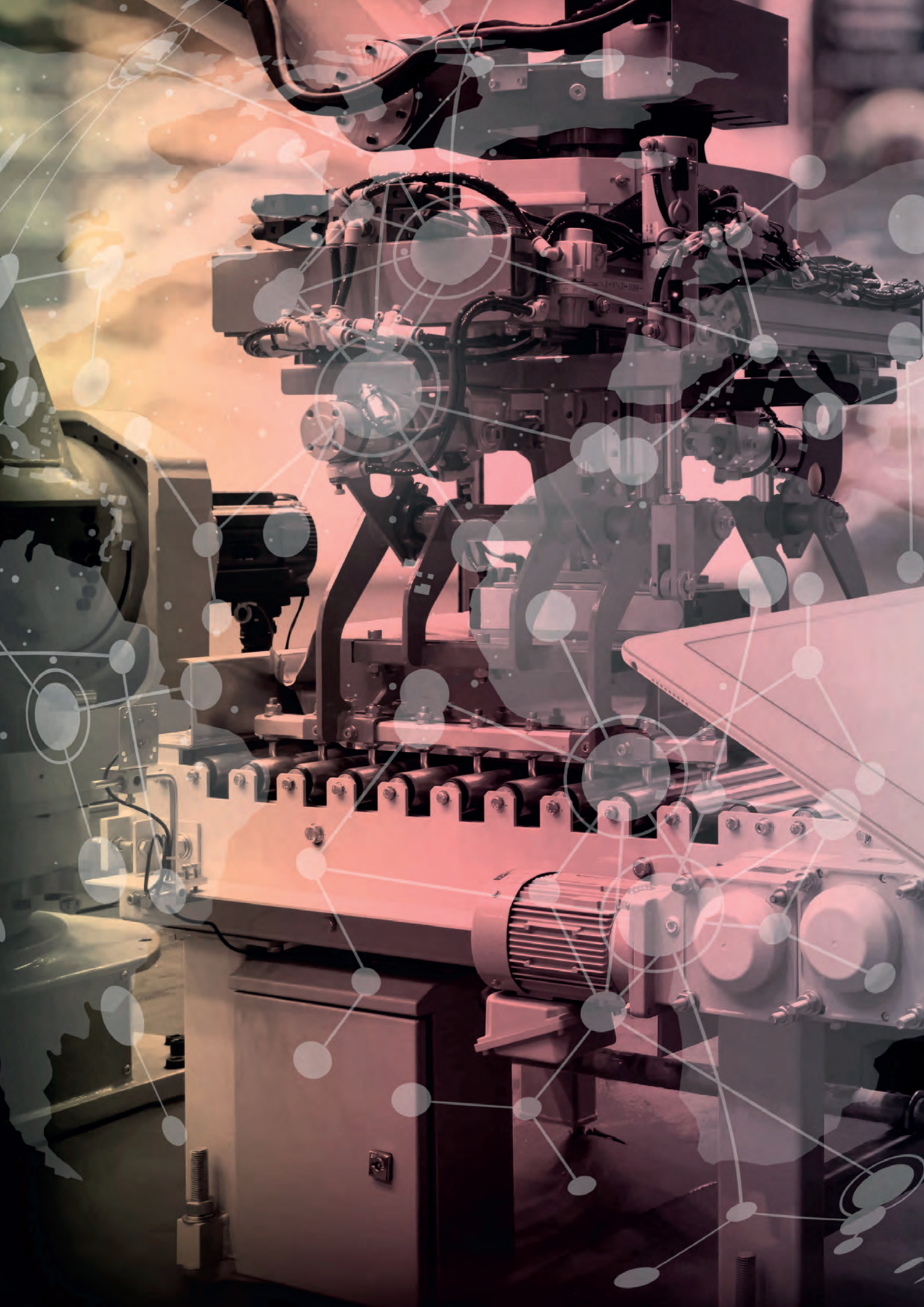
- A single controller packing many features into a compact package, providing the flexibility needed to solve nearly any networking or automation challenge.
- Ability to convert multiple industrial protocols simultaneously with the same device.
- Rugged construction, a built-in web server and Red Lion's Crimson software provides a single, dependable solution for control, networking and data visualization in even the harshest environments.
- Field-installable sleds mean your organization can instantly leverage new communication technologies as they become available.
- Effortlessly stack up to 10 I/O and PID modules thanks to a form factor that adapts to your needs and application.
- A multitude of communication options: Ethernet, Wi-Fi, serial, USB, and cellular.
- Runs on a robust software platform that can power even the most intense industry 4.0 applications, from predictive maintenance to machine learning and beyond.



“WE NEED TO MOVE FROM A ‘RUN UNTIL BREAK’ MENTALITY TO A MORE PLANNED MAINTENANCE STRATEGY WITH REAL-TIME REMOTE MONITORING. I NEED BETTER ACCESS TO DATA IN OUR EQUIPMENT SO I CAN USE IT TO IDENTIFY TRENDS AND ISSUES.”



“WE NEED TO DELIVER MEANINGFUL BUSINESS OUTCOMES—LIKE BETTER QUALITY, THROUGHOUT AND YIELD PREDICTABILITY—AND CONNECTING OPERATIONS DATA TO OUR ERP SYSTEM IS A KEY TO THAT STRATEGY. WE ALSO NEED TO EXECUTE RAPIDLY — TIME IS MONEY.”



INDUSTRIAL SOLUTIONS, RELIABLE PERFORMANCE, AND UNWAVERING SUPPORT

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 solutions, 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 Industrial Solutions, please visit flexedge.net

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EXCELLENCE. REDEFINED.

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