

LANTRONIX®

INDUSTRY:

Industrial Automation

Upgrading Networking to maintain leadership



Success Highlights

- Delivered world-class performance
- Provided Ethernet/IP connectivity
- Enabled ease of integration and optimal security
- Reduced total cost of development
- Reduced speed to market

Case Study Overview

Rockwell Automation is a leading global provider of industrial automation power, control and information solutions. One of the company's leading brands is Allen-Bradley®, a manufacturer of automation controls and provider of engineering services. Allen-Bradley control solutions have set a high standard in industrial automation, helping the industry apply programmable logic controller (PLC) technology for more than 30 years.

Virtually all of Rockwell Automation's customers have widely dispersed and disparate network environments with a mix of 10Mb and 100Mb Ethernet devices. Having connectivity that would seamlessly accommodate either Ethernet standard became a necessity. Rockwell needed to maintain its industrial automation market leadership by seamlessly upgrading its networking capabilities from 10Mb Ethernet to 100Mb Ethernet.

“Lantronix's XPort dramatically cut our internal development cycle for adding 100Mb Ethernet networking capabilities from several months to a few weeks.”

– Jim Wuethrich, Marketing Manager, Rockwell Automation

CHALLENGE: Provide Enhanced Networking for Microcontroller Products

Two significant challenges faced the Rockwell design team. First, the small footprint of the ENI packaging made the task of finding a networking solution that would fit into the product design daunting. In addition, time-to-market was a driving factor. In a highly competitive market, Rockwell Automation needed to deliver its network-enabled controller products as quickly as possible and could not afford long development cycles to integrate networking capabilities.



The XPort Advantage

No Networking Expertise Required

Eliminates the complexity of creating a networked environment by providing a complete, integrated solution.

Highly Secure

256-bit AES encryption assures secure communications.

Expanded Business Opportunities

By providing faster network throughput at a lower cost, XPort expanded the available market by allowing more aggressive pricing and penetration into new market segments.

Accelerated Time-to-Market

As a complete network-enabling solution, XPort reduced an expected development cycle of several months to several weeks, allowing faster product introduction.

Compact Size

A compact RJ-45 form factor allowed XPort to be seamlessly integrated into a “small footprint” product.

SOLUTION: Lantronix XPort Device Server

To address the need to enhance the existing solution to 100Mb Ethernet auto-switching, Rockwell Automation selected Lantronix's XPort embedded Device Server. XPort is a complete network-enabling solution enclosed within a ruggedized RJ-45 package. It eliminates the complexity of creating a networked environment by providing a complete, integrated solution.

Features include:

- A 10Base-T /100Base-TX Ethernet connection
- Reliability and proven operating system
- An embedded web server
- Flexible firmware
- A full TCP/IP protocol stack
- E-mail alerts
- Optional 256-bit standards-based (AES) encryption

Selecting XPort to provide Ethernet/IP connectivity enables Rockwell Automation's ENI interface to perform key tasks such as uploading/downloading programs, communicating between controllers, generating e-mail alerts via Simple Mail Transport Protocol (SMTP) and more. XPort's optional 256-bit standards-based encryption assures optimal security for communications.

A significant advantage was its compact size and the ease with which it was integrated into the ENI interface.

In addition, because XPort virtually "dropped" into the product design, the product engineers did not have to significantly modify the product to add network connectivity. Another significant factor was that XPort provided much faster performance than the previous network connectivity solution the company had been using.



Designing Your Next Solution?

Try XPort Edge, the next generation of wired Ethernet gateways and device servers

XPort EDGE is a network communications engine for secure IoT connectivity and remote management that fits within a standard Ethernet connector.

Requiring minimal engineering effort, the XPort EDGE allows device manufacturers to add fully integrated, secure Ethernet connectivity and control to their products in a few weeks.

“ The time and cost savings made possible by XPort enabled us to bring the solution to market faster than expected and allowed us to more effectively meet customer requirements. ”

– Jim Wuethrich, Marketing Manager, Rockwell Automation

RESULTS: Fast, Affordable Time-to-Market

By using the XPort embedded Device Server to add 100Mb Ethernet connectivity to the ENI interface, Rockwell Automation reduced their development costs and accelerated their time-to-market.

Furthermore, adding Lantronix's enhanced networking performance capabilities to the ENI interface has allowed Rockwell Automation to expand new business opportunities. Both Rockwell Automation and Lantronix remain leading global providers by continuing to develop new ways to enhance product lines that will ensure customers' investments today will provide maximum return tomorrow.

About Lantronix

Lantronix Inc. is a global provider of secure turnkey solutions for the Internet of Things (IoT) and Remote Environment Management (REM), offering Software as a Service (SaaS), connectivity services, engineering services and intelligent hardware. Lantronix enables its customers to provide reliable and secure solutions while accelerating their time to market. Lantronix's products and services dramatically simplify operations through the creation, development, deployment and management of customer projects at scale while providing quality, reliability and security.

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