

# Keeping Product Development Cycles on the Fast Track

*"XPort dramatically cut our internal development cycle for adding 100Mb Ethernet networking capabilities from several months to a few weeks. The time and cost savings made possible by XPort allowed us to bring the solution to market faster than expected and allowed us to more effectively meet customer requirements."*

—JIM

WUETHRICH,

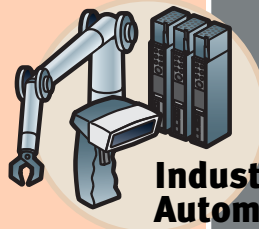
MARKETING

MANGER,

ROCKWELL

AUTOMATION

**B**Y NETWORK-ENABLING INDUSTRIAL automation equipment, important tasks such as uploading/downloading programs, communicating between controllers, and generating e-mail alerts become possible. Unfortunately, the resources needed to design a solution that can seamlessly tie together a wide diversity of network environments that are widely dispersed, plus rapidly deploy that solution, can present a costly challenge to many equipment manufacturers.



**Industrial Automation**

## **THE SITUATION: ROCKWELL NEEDED TO PROVIDE ENHANCED NETWORKING CAPABILITIES ON MICROCONTROLLER PRODUCTS**

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 nearly 30 years.

Virtually all of Rockwell Automation's customers have widely dispersed and disparate network environments

**CHALLENGE** Rockwell Automation needed to maintain their industrial automation market leadership by upgrading their networking capabilities from 10Mb Ethernet to 100Mb Ethernet.

**SOLUTION** To reduce development costs and engineering resources in adding the needed networking technology, Rockwell relied on the expertise of Lantronix. Integrating the Lantronix XPort® Device Server™ with its ENI interface resulted in secure Ethernet/IP connectivity.

**BENEFIT** XPort enabled Rockwell Automation to reduce its development costs and hasten their time-to-market giving them a competitive advantage.

with a mix of 10Mb and 100Mb Ethernet devices. Having connectivity that would seamlessly accommodate either Ethernet standard became a necessity. Therefore, the company determined that a 10/100Mb Ethernet auto switching capability was required for the ENI interface.

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 very daunting. In

**Rockwell  
Automation**

In addition, time-to-market was a driving factor. In a highly competitive market, Rockwell Automation needed to deliver their network enabled controller products as quickly as possible, and could not afford long development cycles to integrate networking capabilities.

### **The Solution: LANTRONIX XPORT DEVICE SERVER**

To address the need to enhance the existing solution to 100Mb Ethernet auto-switching, Rockwell Automation ultimately selected the Lantronix 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. Everything designers need to add network connectivity is incorporated into XPort's compact design, including:

- 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 SMTP (Simple Mail Transport Protocol), 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. Using XPort, the product designers and engineers at Rockwell Automation did not need to spend upwards of 48 months of labor and hundreds of thousands of dollars in development time becoming experts on Ethernet and writing an IP stack. They simply purchased an integrated solution from Lantronix.

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 the need for higher speed 100Mb data transmission. XPort provided much faster performance than the previous network connectivity solution the company had been using.

### **The Result: 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.

Finally, 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.

# LANTRONIX®

Network anything. Network everything.

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## The XPort Advantage



- **NO NETWORKING EXPERTISE REQUIRED/MINIMAL ENGINEERING EFFORT** – 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.