

Enterprise Integration with Ethernet in the Industrial Automation Marketplace

In today's industrial environment, the quest for greater efficiency, productivity, quality control and inventory management is practically universal. As a result, the need for more efficient control of equipment such as programmable logic controllers (PLCs), robots, process control equipment, temperature monitoring systems, barcode scanners, scales and mixing stations is increasing dramatically.



With its obvious advantages, including speed, ability to support multiple fieldbus protocols simultaneously, and the ability to leverage existing equipment and IT tools, Ethernet is rapidly gaining momentum in industrial automation. Lantronix® device networking solutions take full advantage of Ethernet, enabling manufacturers to remotely monitor, manage and control equipment over the network or Internet. This improves efficiency on the factory floor by providing real-time access and control of all types of industrial automation equipment. Each machine can be controlled over a network or the Internet from anywhere, any time.

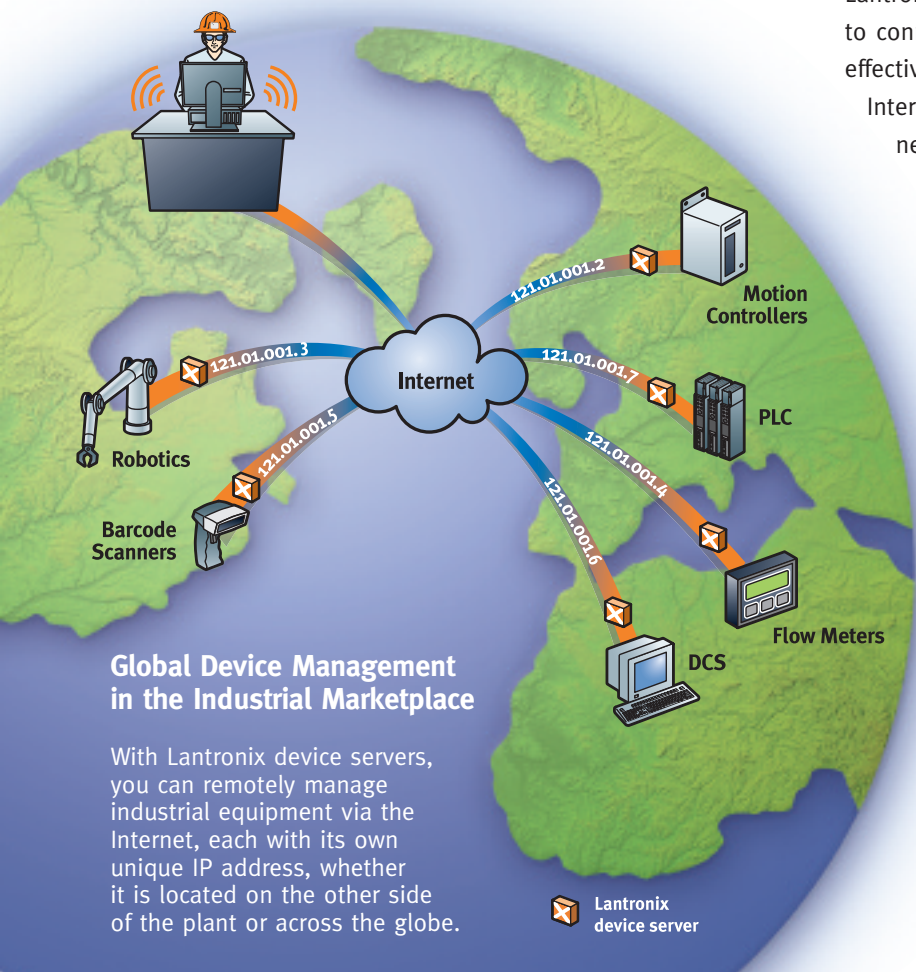
Device networking offers many benefits:

- Improved management and decision making through real-time access to information from the factory floor.
- More accurate, consistent system performance, leading to better product quality.
- Automated quality control.
- The ability to leverage existing Ethernet wiring and corporate IP networks.
- Reduced need for numerous costly PCs.
- Minimized downtime and maintenance through remote monitoring and troubleshooting of production equipment.

Lantronix device servers allow virtually any electronic device to connect to Ethernet or wireless networks quickly and cost-effectively. With remote management over the network or Internet you're able to easily and inexpensively add a whole new level of communication, functionality and intelligence to your entire organization while maximizing your investment in your existing production equipment.

With unparalleled ease of integration, Lantronix external device servers and network-enable virtually any piece of equipment with a serial port in a matter of minutes. With an embedded (module or board level) device server, network connectivity can be built directly into a product in just a few weeks. And these amazing products include all of the elements needed for device networking – a processor, real-time operating system (RTOS), a robust TCP/IP stack, web server and a network connection to provide a bridge to your serial devices.

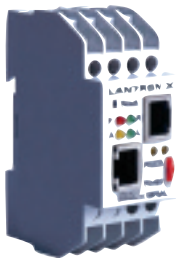
By using Lantronix products to network-enable their automation control devices, corporations like Rockwell Automation (Allen-Bradley), and





Texas Instruments, create new business opportunities and achieve greater manufacturing efficiency. Rockwell designed the Lantronix XPort™ embedded device server into its programmable micro-controller products to give them 10/100Base-T Ethernet networking capabilities. XPort dramatically cut the internal development cycle for adding Ethernet networking capabilities from several months to a few weeks. The time and cost savings enabled the Rockwell to bring the solution to market faster than expected and better meet their customer requirements.

Prior to implementing Lantronix's device servers, the water purification quality assurance process in Texas Instruments' fabrication center environment was a complicated process which involved transferring a signal from a water analyzer to a programmable logic controller to an HMI (human/machine interface). When reading this information, the opportunity for error increased as the signal passed through each separate device, and the measurements are so small that any degree of error can be detrimental. Using device servers, Texas Instruments now measures contaminants directly at the source of the water sample. The device server communicates directly with the HMI, reducing the risk for errors and providing information on the process in real time.



XPress DR-IAP



UDS100-IAP



CoBox-FL-IAP

INDUSTRIAL STRENGTH SOLUTIONS

For demanding factory applications, Lantronix offers a full complement of industrial-strength external device servers. They are designed for use with manufacturing or assembly equipment such as motion controllers, barcode scanners, power monitoring equipment and programmable logic controllers (PLCs) at manufacturing sites, automated distribution centers, power plants and refineries.

Our XPress line comes equipped with isolated serial and Ethernet ports, ruggedized casings,

DIN rail mounting, Modbus protocol support, and is FM-approved for hazardous locations Class 1, Div 2.

Our UDS, XPress and Cobox industrial device servers lines include:

- The ability to connect enterprise systems to factory floor devices without disturbing existing control networks or requiring separate dedicated wiring.
- Support for Modbus ASCII/RTU, Modbus TCP.
- Software-selectable RS-232, RS-422 or RS-485.
- Embedded web page for configuration.
- Broad 9-30 VDC through 9-24 VAC input power range to accommodate varying industrial requirements.
- DIN rail mounting (XPress line).
- 24 VDC input power for easy integration with new/existing systems.
- Convenient terminal block connections for communications and power.



Example Applications:

- Programmable Controllers (PLCs)
- Process Controllers
- Motor Drive Controllers
- Power Monitoring Equipment
- Human-machine Interfaces
- Robots
- Flow meters
- Temperature Monitoring Equipment
- Scales
- Mixing Stations
- Gas Detection Devices