

# The Cure for Inefficient Data Collection

*“Reliability was paramount in our selection of networking technology for Acuity, which is used in life-threatening situations. We continually tested the Lantronix Device Servers, trying to break, confuse, or disable them. They have stood up to every test we have thrown at them.”*

**— REZA SHARAFI,  
ACUITY SYSTEM  
DESIGN  
ENGINEER,  
WELCH ALLYN**

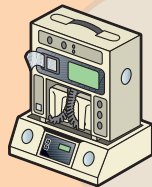


**CHALLENGE** Welch Allyn’s hospital customers needed a way to securely connect bedside monitoring devices to a central patient information repository via a local area network.

**SOLUTION** Device Networking technology from Lantronix provided the standards-based connectivity needed to transmit patient data efficiently and securely.

**BENEFIT** The pairing of technologies from Welch Allyn and Lantronix resulted in a higher level of care for patients and maximized efficiencies among hospital staffs.

**H**OSPITALS ARE INCREASINGLY ADOPTING technology that will help them maximize the efficiency of overworked nursing staffs and to maintain a high quality of patient care. According to a recent American Nurses Association Health and Safety survey, 56 percent of nurse respondents believe their time available for patient care has decreased. Device Networking provides an ideal solution to remedy a portion of this problem by establishing communication from the point-of-care to a hospital’s local area network (LAN).



## Medical/ Healthcare

### **THE SITUATION: A NEED FOR IMPROVING THE ABILITY TO COLLECT AND SHARE INFORMATION**

Welch Allyn, a designer and manufacturer of products and solutions that improve patient care and lower healthcare operating costs, is an innovator in the area of increasing hospital efficiency. Welch Allyn saw an opportunity to develop a central repository of patient information by connecting their patient monitoring devices to a hospital’s LAN. To enable its customers to concentrate on their core competencies – healing patients – Welch Allyn was challenged to create a solution that provided secure networking capabilities

without the need for networking-proficient, technically-savvy end users.

### **The Solution: COMBINED TECHNOLOGY STRENGTHS FOR ADVANCED PATIENT MONITORING**

Welch Allyn’s advanced patient monitoring system, the Acuity® Central Monitoring Station, provides alarm and vital sign information for as many as 60 patients from a single computer workstation. The





supervising clinician can initiate or change monitoring functions from either the Acuity Central Station or from Welch Allyn's Propaq® series bedside patient monitors. The Propaq devices continuously monitor patients' blood pressure, temperature, heart rate, respiration and other vital signs.

To provide the secure transfer of data needed to conform with patient privacy rights, Welch Allyn turned to the networking expertise of Lantronix. The Device Networking solutions developed by Lantronix provided the needed connectivity for the Acuity system. The advanced networking technology establishes a secure, two-way communication between the Propaq bedside patient monitor and the hospital's LAN. Device Servers enable the bedside monitor to transmit data over a shared network or the Internet and permits clinicians to make programming changes to connected devices directly from their control station.

Lantronix Device Servers enable and support several key features of the Acuity system, most notably scalability, cost-effectiveness and reliability. Lantronix Device Servers connect multiple Propaq bedside monitors with a single network connection, expanding to monitor up to 60 patients simultaneously while minimizing installation costs. Meanwhile, hospital staff is freed up to concentrate on the business of healing patients.

### **The Result: MAXIMIZED HOSPITAL EFFICIENCY FOR IMPROVED PATIENT CARE FROM A SECURE, RELIABLE SYSTEM**

The Acuity system enhanced with Lantronix Device Networking technology benefits patients by raising the level of care nurses are able to provide. Instead of walking to each patient's bedside to collect vital information, nurses can collect it in one location and concentrate their efforts on caring for those who need them most.

Due to the critical environment these solutions are used in and to meet strict FDA requirements, high reliability is a key requirement for all devices used in a healthcare setting. Lantronix Device Server technology has proven its strength in this area, supporting Welch Allyn in its goal to elevate the quality of patient care.

## The Lantronix Device Server™ Advantage



- **REDUCED COSTS** – Enables minimal engineering effort to connect multiple bedside monitors to a single network connection, plus Lantronix Device Servers minimized installation costs.
- **HIGHEST SECURITY** – AES encryption for secure communications which satisfy patient privacy requirements.
- **SCALABILITY** – Lantronix Device Servers network-enabled up to 60 devices, allowing monitoring from a single computer workstation.
- **TIME SAVINGS** – To both the system designer as well as the end customer. System designers are able to concentrate on their core competencies. Remote management of devices eliminate the need for nurses to walk from room to room, giving them time to concentrate on those patients who need them most.



# LANTRONIX®

Network anything. Network everything.

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