

Silex Provides a Solution for Networking Hospital Laboratory Instruments

A large southwestern hospital needed a simple low-cost way to reliably connect laboratory instruments to the hospital's information system. The hospital was using dedicated PCs and 16-port terminal servers for this connectivity, and in some cases, was still employing manual data collection methods. Silex device servers provided a cost-effective and efficient method to automate data collection for all of the hospital's laboratory instruments.

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SITUATION

A major southwestern hospital has a large laboratory with medical instruments that are used for a plethora of patient tests, such as blood and urine analysis. These instruments in many cases had a dedicated personal computer connected to each instrument for data collection, or were connected through an expensive 16 port server. For lab areas with a smaller number of lab instruments, using a multiport server was overly expensive with many unused ports. When the server crashed, it resulted in many lab instruments going offline. In cases where the lab instruments remained as standalone units, test results needed to be physically transported, recorded, copied via manual and relatively labor-intensive processes and intensely managed to ensure patient data accuracy, while still providing fast turnaround for test results urgently required for patient diagnoses.

SOLUTION

Based on the situation, the laboratory's IT managers looked for a cost effective solution to connect the laboratory devices to the network so that the data could be shared through a common network and in real-time. A key decision criterion was to also have a solution that could be integrated into their lab instruments automation system. With that application, once the devices are networked the patient data could be managed in a centralized location, providing streamlined and real-time data processing.

The IT team found that Silex's wired and wireless serial device servers met their lab instrument connectivity needs. Silex's solution was easy to set up with many different ways for managing it. Silex's serial device servers were proven to be fully compatible with their instrument automation system. The Windows utility allowed configuration and management of multiple units at the same time, and the built-in web browser interface allowed for monitoring and configuring the lab equipment from any computer in the building with a standard web browser. It was also reassuring that Silex's solution was backed by a 3-year warranty. Moreover, when the customer had to call Silex technical support to ask a question, they were glad to find that Silex's staff was easy to deal with, and knowledgeable about computers and networks well beyond just their own products.

BENEFITS

The ability to connect the lab instruments to a common network, and automate the collection of test results into a single common database application with linkages to other health care applications has enormous benefits. First, the need for expensive terminals or computers at each lab instrument can be reduced or eliminated. Second, lab results can be accessed more quickly and from remote locations, so patient care is improved. Third, potential sources for human error are reduced. And finally, administrative processes are simplified and made more efficient since lab results are easily integrated into patient records.

Silex's serial device servers provide the required benefits the IT departments look for. They are a cost effective solution at a very competitive price. They work with many of the most widely used lab automation systems deployed. The configuration and management of the units is simple, thereby decreasing the burden of the IT management. The wired Ethernet version of Silex serial device servers can be a cost effective way to connect equipment that are in the vicinity of a LAN drop. For healthcare providers who have deployed secure wireless networks, the Silex Serial device servers with integrated secure 802.11b wireless technology are perfect for those places where running a cable is cumbersome or not feasible. With the highest security available on any wireless serial device server on the market the customers can be assured of compliance to industry standards of privacy such as the HIPAA mandate.