



Serial over ETHERNET Solution for Healthcare

Project

Monitoring and maintenance of the patients' medical record and data, available at a central network in distributed architecture

The City District Hospital was looking a solution to implement central but distributed architecture for patient's medical record and data with the option to be accessed via internet. Currently, all departments process the information individually and forwards to Medical Record Department to maintain the record.

The real time data acquisition from medical equipment attached to critical patients, in Intensive Care Unit, Operation Theater and Emergency areas, was also the requirement.

Requirements

Until now the patients' data was recorded manually at each department and forwarded to Medical Record for compiling. Real time data acquisition was not possible. The network was used to do some limited operations. For medical care providers, access to timely and accurate information advances the ability to provide the highest quality of patient care. Decision support is not limited to the bedside though, and the quality of care is often dependent on the ability to share vital patient data with clinicians outside the care facility in real time. Accessing the real time, and/or recorded electronic information within the hospital LAN and over internet for consultation from Medical Specialists on vacation or residing in other city or country was the goal in effort to provide best possible healthcare services to the community.

Solution

By implementing Multi-port Serial Cards, it is ensures that the patients' data collected by different monitoring and testing serial devices more widely available in real time. The Managed Redundant Switches are used to keep the network running without any failures of data. The ELITE Ring function offers network recovery in less than 10ms in case of any node failure, thus providing permanent connectivity.

Now, staff at hospital is feeding this data to proprietary clinical applications and databases electronically, thus eliminating manual data entry.

Why SUNIX

- **Extended serial to ETHERNET solutions range**
- **Serial port isolation provides extended electrical safety to the patient and staff**
- **Meeting and exceeding the worldwide medical equipment safety requirements**
- **Long operational system life with performance reliability**

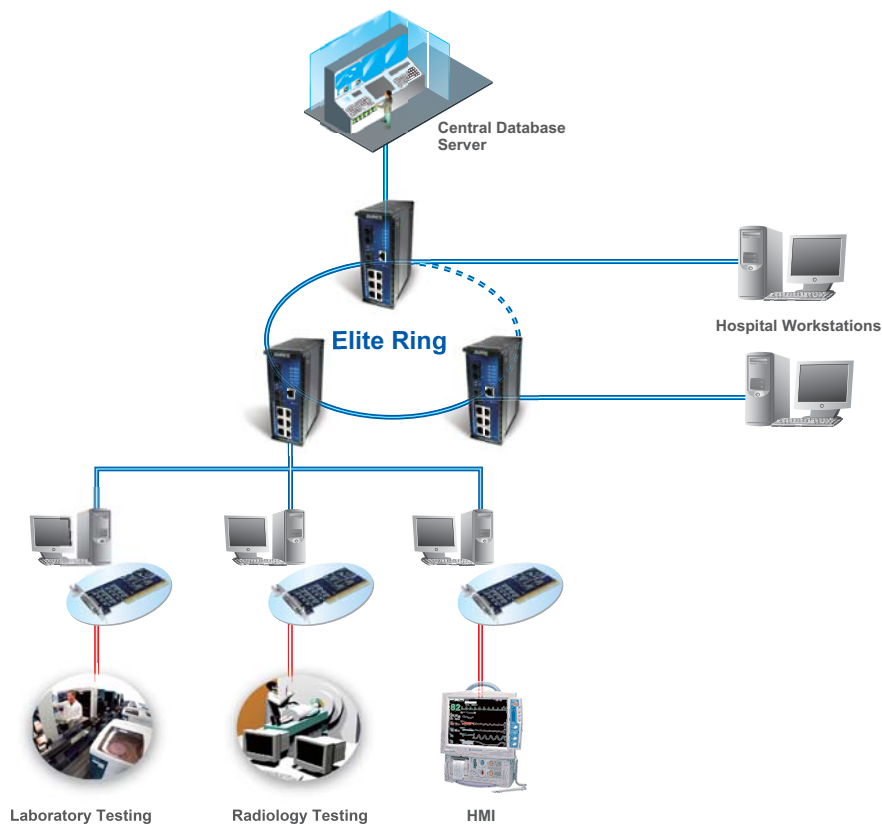
Comments

SUNIX developed the UART Chip that is use in Multi-port Serial Cards, which provides Auto Detect & Switching, and AHDC/CS™ technology that provides the freedom from any hardware (jumper) or software settings. It means lesser CPU usage and higher performance.

Reliability was something that required when planned to improving healthcare services by the use of Ethernet. Obviously, it will not only help to provide the best available care while sharing the real-time information over Ethernet / Internet to the group of physicians and/or surgeons, but also eliminate the need of manual record keeping thus patients are getting more attention from the medical staff.

“We are totally satisfied with the stability of SUNIX Industrial Ethernet equipment. It is user friendly and easy to deploy, operate and maintain, which is most attractive part for me”, Manager MIS claims.

Application Topology



Key Products

Multi-port Serial Cards (2 & 4 ports)
ESW-8062-MM Managed Switches