HALCYON HEALTH NETWORK, INC. – ROCHE DIAGNOSTIC EQUIPMENT NETWORK INTEGRATION

USING MOXA NPORT 5210A

APPLICATION: Remote Diagnostic Equipment Access

INDUSTRY: Healthcare

REGION: Philippines

SYSTEM REQUIREMENTS

- Seamless Network Integration: Convert serial communication from Roche analyzers to Ethernet for modern IT infrastructure compatibility.

- Remote Access: Enable healthcare staff to monitor and control diagnostic equipment from multiple locations.

- Real-Time Data Transmission: Ensure timely results and streamlined data integration with the hospital information system (HIS) and laboratory information management system (LIMS).

- Secure and Reliable Connectivity: Ensure stable and secure access over the network without compromising data integrity or equipment performance.

INTRODUCTION

Halcyon Health Network, Inc. is a healthcare provider utilizing advanced diagnostic tools from Roche for its laboratories. In order to enhance operational efficiency and ensure real-time access to diagnostic data, Halcyon implemented the Moxa NPort 5210A to integrate its Roche diagnostic equipment, such as the cobas e 411 analyzer, into the hospital's IT network. This case study explores how the NPort 5210A improved the accessibility and monitoring of Roche's devices.

MOXA SOLUTION:

The Moxa NPort 5210A was selected to facilitate the integration of Roche analyzers into the network. This device allows the conversion of serial-based communication to Ethernet, enabling real-time data access and remote control.

NPort 5210A: This serial-to-Ethernet device server converts the serial communication from the Roche diagnostic equipment into Ethernet, allowing the analyzer to be accessed via the hospital's local network (LAN). It supports up to 2 serial ports, ensuring multiple devices can be connected simultaneously.

The device supports TCP/IP and UDP communication protocols, providing flexibility in data routing and ensuring robust communication between field devices and network applications.

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WHY MOXA?

- Simple Network Integration: The NPort 5210A easily converts the serial communication of legacy Roche analyzers to Ethernet, allowing for seamless integration with Halcyon's IT systems.

- Remote Access: Staff can remotely access diagnostic equipment, ensuring that real-time monitoring and maintenance can be performed from any location within the network.

- Reliable Performance: Built for continuous operation, the NPort 5210A provides stable network access, ensuring that critical diagnostic operations are uninterrupted.

- Ease of Configuration: The NPort 5210A has a user-friendly setup interface, making the configuration of network access simple and efficient, reducing system downtime during deployment.

Benefits:

- Improved Operational Efficiency: By integrating the Roche analyzer into the network, Halcyon Health Network can now monitor diagnostic tests in real-time, improving response times and patient outcomes.

- Scalability: With the ability to support additional serial devices, the NPort 5210A provides Halcyon the option to expand its diagnostic equipment without major changes to the network infrastructure.

- Cost-Effective: This solution allowed Halcyon to modernize their existing equipment without replacing it, saving on the costs of purchasing new network-ready devices.

- Enhanced Workflow: Automatic data transmission between Roche analyzers and the hospital's LIMS/HIS ensures accurate and timely results, optimizing diagnostic workflows.

Cobas e411 Software   Moxa NPort 5210 using RealCom Mode   Cobas e 411 Hormone Test

Legend:
→ Ethernet
→ Serial RS232