Application Brief

Customer

Major Hotel Chain

System Integrator

Shanghai Zhuangsheng M&E Engineering Equipment Co., Ltd.
(M&E Engineering)

Location

Shanghai, China

Industry

Building Automation: Machine Room Application

"DSPGT000 is an excellently designed, easy to use, durable and reliable industrial product. In practical application the equipment can make communication stable and support many kinds of interfaces."

- Mr. Bin Zhao
M&E Engineering

Project Scope

A major hotel chain in Shanghai, China was eager to install an automation system for the monitoring and control of numerous intelligent machine room operations such as electric power, air conditioning, ventilation, water, safety equipment and construction quality. In addition to providing a safe, comfortable environment for guests, the hotel chain was looking for a cost-effective system that would provide energy savings and efficiency improvements.

Solution

When installing an automation system, the distinction between many data acquisition and process control products is somewhat confusing. Varying protocol types make connecting field instruments and controllers to building networks a tedious process. Specialized converters tend to be expensive in price, simple in function and cumbersome to collocate.

System Integrator M&E Engineering selected Red Lion's Data Station Plus (DSP) to cost-effectively provide powerful data acquisition, multiple protocol conversion and control. Red Lion's DSP seamlessly

collects Modbus protocols through a built-in RS-485 by simultaneously using the network interface to transform data of Modbus equipment to a NCE25 controller. Seldom used communication protocols such as BACnet are recognized with the built-in communication instruction of the DSP. By connecting standard GSM/GPRS modem equipment through the RS-232 interface, real-time messages and email notifications are sent monitoring alarm systems within the machine room.

Benefits

Offering support for the building automation BACnet protocol as well as EtherNet/IP and Modbus/TCP standards, Red Lion's DSP automatically links all controllers located throughout the hotel network. The DSP also uses Ethernet to provide remote access that enables users to easily monitor machine room operating conditions regardless of location. The end result:

- Monitors and controls numerous machine room operations
- Delivers real-time data acquisition
- Converts multiple protocols simultaneously
- Allows easy data mapping to PLCs, PCs and SCADA systems
- Provides recording, alarms and email or text notifications

Products

Model	Description
DSPGT000	Data Station Plus with multiple protocol converter, data logger, VGA virtual HMI and expansion slot for increased SDRAM

Network Diagram