SNMP-enabled Alarm System for Power Substation
2010-07-08

Ethernet Micro RTU Controller with 6 digital inputs and 6 relay outputs

Introduction

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Both enterprise and industrial automation systems are becoming more and more complex to install and administer. To meet this challenge, industrial users now leverage IT technology to enhance asset management in industrial plants. A maintenance engineer's average workday is filled with a dizzying array of different protocols, custom software, legacy devices, and hardware from many different vendors. In the long term, systems will behave more and more autonomously to lighten this workload. The first step towards that goal is to find the right way to integrate those systems.

A leading provider of power and automation technologies needed to find a solution that could integrate power substation alarm systems with their plant asset management (PAM) solution. This provider employs about 120,000 people worldwide and offers utility and industrial customers in over 100 countries solutions that improve performance while lowering environmental impact.

Their PAM system was part of their wide range of services in power generation, power distribution, and power substation application. PAM systems provide timely information to help maintenance and operational personnel improve asset availability, optimize efficiency, and reduce maintenance downtime. A PAM ensures that important information is conveyed automatically so issues can be addressed before they become a bigger problem. It represents a new trend that combines technology from IT and Industrial Automation (IA), but this combination can sometimes be tricky without the right solutions.

System Requirements

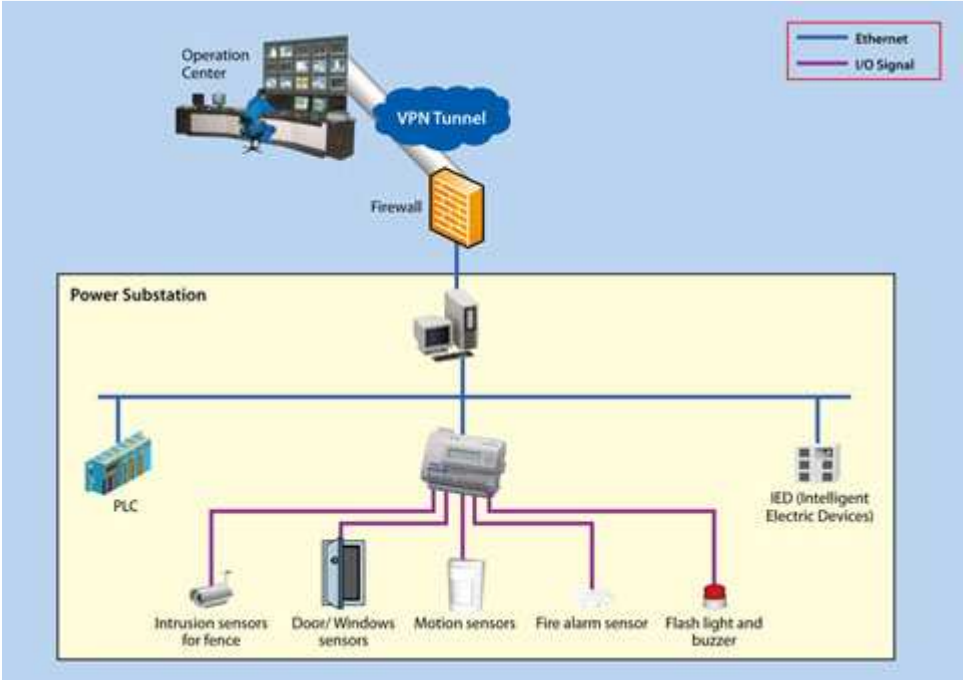
-SNMP protocol for power substation alarm system integration with PAM system
-UL508 industrial certification
-Compact size for deployment in confinedd spaces

Moxa Solution

Both enterprise and industrial automation systems are becoming more and more complex to install and administer. To meet this challenge, industrial users now leverage IT technology to enhance asset management in industrial plants. A maintenance engineer's average workday is filled with a dizzying array of different protocols, custom software, legacy devices, and hardware from many different vendors. In the long term, systems will behave more and more autonomously to lighten this workload. The first step towards that goal is to find the right way to integrate those systems.

SNMP is that step. SNMP support is growing more common in industrial automation systems, including the customer's PAM system. To deploy an alarm system that is compatible with this PAM, they turned to Moxa's ioLogik E2214 active Ethernet I/O. Moxa's expertise in rugged SNMP-to-I/O communications is reflected in the ioLogik E2214, which not only supports SNMP for monitoring and controlling I/O status, but also for internal register and user-definable SNMP trap content. This gives the customer the highest operational flexibility. In addition, the ioLogik E2214 is fit for harsh power substation environments thanks to its compact size and UL508 certification.

System Diagram:



Product Applied:

ioLogik E2214
- SNMP protocol support
-User-defined SNMP trap message content
-6 built-in power relays for isolation

Why Moxa

-Easy to integrate with SNMP
-Compact size to save space in power substations
-Cost effective compared to traditional PLCs