Proscend Dual SIM Industrial Cellular Router M301 for Power Plant in Southeast Asia.

Background

The Internet of Things makes electric, oil, and gas utilities to efficiently run their business, remote management networks and offer real-time added value services to their consumers. The reliability, resilience and security are critical issues to make business more productivity and build trusted relationship with consumers.

Application Requirements

This case study explains how a power plant utilizes Proscend's Industrial Cellular Router M301 in Southeast Asia. Supporting both industrial Ethernet wiring and LTE wireless technology to build network redundancy is required. With wide range of communication interfaces and protocols, the devices are capable of reliable operation and secure management to meet remote monitoring and control for machine-to-machine (M2M) connectivity.

Application Features

● **Failover between ETH-WAN & LTE-WAN**

As a real case, Proscend's M301 is installed in recloser, Load brake switch (LBS) sites and Power Plants. Use LTE-WAN and ETH-WAN at the same time to establish a connection from the site/station to control center. ETH-WAN is as main connection and LTE/WAN is as standby solution.

● **Security- support NAT, Open VPN & IPSec**

While server site get a public IP, use the Open VPN or IPSec for security mechanism, Proscend's M301 establishes a VPN/Internet connection, uses NAT to transfer information between switchgear devices and control center, as well as complies with IEC104 protocol requirement in electric communication.

● **Modbus**

Support Modbus TCP for metering. The server use Virtual-COM read stability and parameter of electric-meter via RS232 or RS485 interface.

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Product Used

Proscend's Dual SIM Industrial Cellular Router M301

- Highly reliable and secure for mission-critical cellular communications
- Provide flexible options to configure LAN/ WAN ports
- Support multi-band connectivity with FDD LTE/ TDD LTE/ WCDMA/ GSM/ LTE Cat4
- Built-in dual SIM for network redundancy
- Integrated dual detachable antenna against radio interference
- LED indicators for connection and data transmission status
- Industrial rated from -20°C to +70°C for use in harsh environments
- Metal Housing with IP40 industrial-grade protection
- IPv6/IPv4 dual stack and all applications are IPv6 ready
- Support various serial communication protocols for M2M connectivity
- Enhance security and encryption for authentication and transmission