Rapidly Deploy Mission-Critical Video Surveillance for Utility Operations and Asset Monitoring

Powered by M.gear US AP400

Cost-effective, reliable delivery of electrical power is crucial both people's daily lives and corporate growth. Addressing the need while accelerating its grid modernization program, a Taiwanese electrical power utility is integrating distributed energy renewable sources, transmission and distribution system automation, remote monitoring and advanced digital capabilities into its grid.

Enhanced security is a critical part in its grid modernization program. To address this, the power utility needed real-time, high resolution video surveillance for situational awareness across its grid operations, especially in difficult to reach, remote and rural areas of its service territory.

Installing hundreds of IP cameras connected with fiber-optic or other wired broadband network access at each location would cause delays and drive higher costs.

The power utility operator decided to deploy a secure, cellular, broadband network to enable mission-critical, video surveillance using M.gear's 4G LTE AP400 Industrial Router and GearTrack IoT Management System. The AP400 is well suited for video surveillance as it enables cost-effective, cellular broadband access within a ruggedized form factor that can be co-deployed with wireless cameras throughout the utility's service territory areas.

Customer Scenario
Cost-effectively, enable video security monitoring across a utility grid service territory area

Solution
M.gear 4G LTE AP400 IoT Router and IoT Management with WAN/LAN2 port , LAN1 port and integrated Wi-Fi, and IoT management features for device monitoring, real-time alarms and network reporting.

Customer Benefits
Low-cost wireless broadband access for real-time, video monitoring of personnel and assets.
Local area situational awareness via high-resolution video surveillance.
Reduced truck-rolls and need for dispatching utility personnel to grid operations in remote areas.

Performance-driven and enterprise-ready, the AP400 integrates Wi-Fi connectivity, MQTT with QoS to ensure network resilience and energy efficiency, and built-in VPN support for enhanced network security and for real-time video monitoring of personnel activities.

To enable real-time, reliable monitoring and management for its mission-critical video surveillance network, the AP400 also offers one configurable 100 Mbps Ethernet WAN or LAN port, as well as one 100 Mbps dedicated LAN port.

The AP400's GearTrack IoT Management System enables the power utility operator to remotely monitor and proactively manage the cellular routers to ensure all connected wireless surveillance cameras are fully-functional 24x7.

The power utility operator is continually expanding its wireless video surveillance network with 4G AP400s and as 5G cellular networks expand across Taiwan, is considering deployment of M.Gear's next generation 5G AP500 Routers with dual SIM capabilities for private 5G and network failover to ensure resiliency and reliability.

At M.gear US we are ready to work with you to address your wireless connectivity needs and ensure M.gear US products can take your business to the next level. Please contact our team of experts at Mgearus.com today!

M.gear AP400 Specifications for Power and Energy Security Needs

- FDD/TDD 4G LTE 150 x 50 Mbps
- 802.11 b/g/n 2.4GHz Wi-Fi
- One Configurable WAN/LAN Port
- One dedicated LAN Port
- IOT Management Portal
- VPN, Firewall, TR069, SNMP Trap Support
- Industrial Rated -30 to +70°C

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