PRISM Wi-Fi 6 Facilitates Smart Industries

BACKGROUND

Clients: T.M.C. Industrial Public Co., Ltd.
Location: Chon Buri, Thailand
Local Partner: Planet Communications Asia Public Co., Ltd.

Established in 1972, T.M.C. Industrial Public Company Limited has been a leading manufacturer of hydraulic and mechanical press systems in Thailand. With a sprawling 2.1-hectare factory and over 50 years of experience, T.M.C. excels in producing a diverse range of equipment, from hydraulic and mechanical presses to lifts and elevators. Recognized for their continual contributions to the Thai people and industries, they have been awarded The Most Noble Order of the Crown of Thailand (Fifth Class).

In 2023, to streamline production and enhance management, the company initiated the deployment of wireless networks across its entire facility. This strategic investment aims to reduce inefficiencies, leading to larger profit margins as the company, along with the nation, gradually recovers from the pandemic.

TMC sought the expertise of PlanetComm for consultation and solutions, while Prism WiFi Solutions collaborated with them as the original equipment manufacturer. We have been entrusted with the installation, fine-tuning, and maintenance of the wireless network, a valuable addition that is expected to enhance both the company's operational efficiency and the quality of the products they manufacture.

REQUIREMENTS

T.M.C Industrial Public Co., Ltd. seeks to leverage the benefits of Wi-Fi 6 to ensure reliable and efficient connections between Wi-Fi access points and end devices, including devices in offices and industrial equipment throughout the factory.

The access points (APs) must maintain high connection quality even in dense environments with numerous RF

devices. Additionally, they must withstand the harsh conditions of dust and heat prevalent in the factory.

The company requires management and monitoring of the APs by a centralized management system. Through the management system, network administrators will partition the entire network into different VLANs to ensure data security and integrity.

Once the wireless network is up and running, the owner expects it to operate continuously without downtime, to avoid costly delays in production.

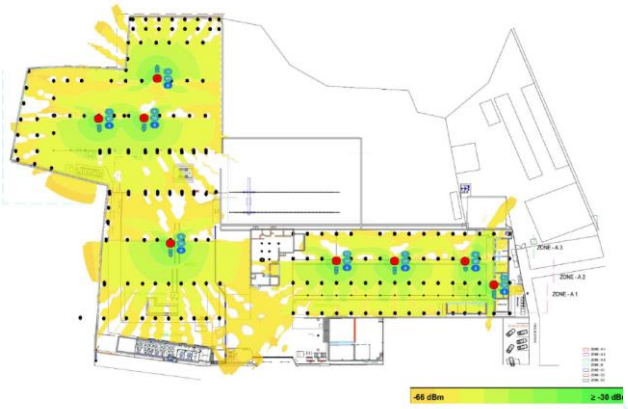
The entire network system is expected to incorporate industrial IoT devices in the future as the company enhances its production methods and improves overall performance.

PRISM SOLUTIONS

- Prism MO10 Wi-Fi 6 Outdoor Tri-radio Mesh Router

- PrismX MX100 Controller Box

The Prism MO10, equipped with three Wi-Fi 6 radio bands, ensures reliable and efficient connections between MO10s and any end devices within the facility. The six external omni-directional antennas provide wide coverage, ensuring a seamless browsing experience for employees moving around the factory with their devices.



The MO10 is also IP68 certified, making it a perfect choice for dusty environments. It is also fully operational even in extreme heat.

In conjunction with the Prism MX100 controller box, network administrators can utilize the site survey function to assess the clarity and interference of a given radio channel.

The entire network is divided into several VLANs using the MX100,

separating vital servers, equipment, and end users with different authentications (MIS, general staff, guest). All monitoring and management are conducted through the PrismX controller system.

The PrismX controller system empowers network administrators with scheduled configuration and update tools, eliminating disruptions to the facility's daily operations. Any configuration changes and updates will be performed during off-peak hours like nights or weekends, ensuring a seamless transition. Even in the rare case of unexpected update failures, all Prism devices automatically activate backup images, minimizing downtime and maintaining network stability.

The company is currently working on the gradual integration of their IIoT devices into the Prism network system.

*The seller is Thai-Dongshun Co., Ltd. Thai-Dongshun Co., Ltd. is PRISM's official distributor in Thailand.

For more details and case studies, visit www.prismwifi.com