

ALLNEX THAILAND – Enhancing Communication Safety in Chemical Manufacturing



User

Allnex (Thailand) Ltd., Thailand

Market Segment

Chemical Industry

Product

IS440.1 with Streamwide Push-to-Talk
Solution Team on the RunT.Flex

Allnex (Thailand) Ltd. implements i.safe MOBILE devices for seamless industrial communication

Conclusion

Allnex (Thailand) Ltd. selected i.safe MOBILE's IS440.1 intrinsically safe 5G radio to enhance communication safety across their chemical manufacturing facility. The lightweight, robust device paired with Streamwide's Push-to-Talk solution Team on the Run has positively transformed daily communication for Operations, Maintenance, and Safety departments, replacing their previous explosion-proof two-way radio system from another provider with this more versatile and efficient solution.

Allnex is the global market leader in industrial coating resins, adhesives, sealants and specialty coatings. The company's Thai operations, employing 72 staff members, represent a crucial part of Allnex's international manufacturing network, producing basic inorganic chemical products that serve industries worldwide.

The Challenge

Operating in the chemical manufacturing sector requires stringent safety protocols and reliable communication systems. Allnex Thailand's facility encompasses both office environments and hazardous plant process areas where traditional communication devices may pose safety risks. The company previously relied on conventional explosion-proof radios, which were safe but offered limited functionality and flexibility for modern industrial processes.

The need for a comprehensive communication solution that could operate safely across all areas of the

facility – from administrative offices to potentially explosive atmospheres in the production areas – became paramount as the company sought to modernise its operations whilst maintaining the highest safety standards.

Improving overall coverage was also a key priority, as the LMR system had limited reach in certain areas of the facility. The broadband-based solution offered through 5G and Wi-Fi now ensures seamless communication across all operational zones.

The Solution

After careful evaluation, Allnex Thailand selected the i.safe MOBILE IS440.1 intrinsically safe 5G radio, integrating it with Streamwide's Push-to-Talk (PTT) solution Team on the Run available through the pre-installed i.safe MOBILE App World.

This combination provides the reliability and safety certifications required for hazardous area operations whilst offering advanced communication functionality specifically designed for industrial environments.

The IS440.1 features robust construction designed for extreme industrial conditions, with intrinsically safe certification (Class 1 Div 1/Zone 1/21) enabling safe operation in potentially explosive atmospheres. Its lightweight design addresses a key requirement identified by Allnex Thailand, ensuring comfortable all-day use for operators across different departments.

The device offers dedicated PTT functionality with a physical button for instant communication, even when wearing gloves or in challenging environmental conditions. The standard 2400 mAh battery ensures extended runtime, whilst the amplified loudspeaker provides clear communication in noisy industrial environments. If your daily job demands more power, you have the option to equip the device with the extended optional 4800 mAh battery as well.

The Streamwide Team on the Run PTT solution, readily available through the i.safe MOBILE App World that comes pre-installed on all IS440.1 devices, transforms the radio into a sophisticated communication hub. This seamless integration enables instant group communication with enhanced features such as talkgroup selection, emergency SOS functionality, and programmable buttons for various operational requirements.



Implementation and Usage

The deployment of the IS440.1 devices spans across all operational areas within Allnex Thailand's facility. The operations, maintenance, and safety departments utilise the devices as their primary communication tool for daily tasks, ensuring seamless coordination between office-based personnel and those working in the production environment. The intuitive radio-like design and dedicated PTT button ensured a smooth transition from legacy radios, allowing staff to adopt the new system with minimal training or disruption.



The Push-to-Talk functionality serves as the most frequently used feature, providing instant communication capabilities that are essential for maintaining operational efficiency and safety protocols. The familiar radio-style communication method ensured minimal disruption during the transition from the previous system.

A key factor in ensuring user acceptance was the IS440.1's rotary channel selector, which works seamlessly with Streamwide Team on the Run's capability to configure multiple talkgroups. This combination delivers an intuitive experience that closely replicates the functionality of their former LMR system. Users can quickly switch between communication groups using the physical dial, mirroring the familiar workflows of traditional two-way radios while benefiting from the added flexibility and scalability of a modern IP-based solution.

The decision to choose i.safe MOBILE was driven by two primary factors: proven performance in industrial environments and trust in the brand's reputation for reliable, safety-certified devices. This confidence in the technology has enabled Allnex Thailand to maintain operational continuity whilst upgrading their communication infrastructure.

Results and Future Plans

The implementation has delivered the expected improvements in communication efficiency and device versatility. The lightweight nature of the IS440.1, compared to traditional explosion-proof radios, has been particularly appreciated by users who carry the devices throughout their shifts. Users typically attach the device using the belt clip to their coveralls, ensuring secure and convenient carrying during daily operations. Feedback from teams has highlighted not only the comfort of the lightweight design, but also the enhanced audio clarity and extended battery life that support long operational shifts in demanding environments.

Building on the success of the initial deployment, Allnex Thailand is planning to expand their i.safe

MOBILE ecosystem. Future procurement plans include the IS-DC440.1 Desktop Charger Set to ensure optimal device management and charging infrastructure. The company is also exploring the addition of protective leather cases to further enhance device longevity in their demanding industrial environment.

With the transition from narrowband to broadband communication through the IS440.1's 5G capabilities, Allnex Thailand is also evaluating advanced multimedia functionalities such as Streamwide's Push-to-Video functionality within Team on the Run. This feature would enable teams in Operations, Maintenance, and Safety to share live video feeds instantly, enhancing situational awareness and

decision-making in critical scenarios. The integration of Push-to-Video complements the current Push-to-Talk use, providing a richer communication toolset that supports faster incident response and more effective remote collaboration across both office and hazardous plant environments.

In parallel, the company also plans to further leverage the IS440.1's capabilities in combination with Streamwide's features within Team on the Run. From an application perspective, they are currently using PTT and dispatcher functionalities, including GPS tracking (without geofencing at this stage), to enhance personnel monitoring and support lone worker safety protocols, especially in critical zones of the chemical plant.

The positive experience with i.safe MOBILE devices and the seamless integration of the Streamwide Team on the Run PTT solution has positioned the company for continued expansion of their mobile communication capabilities as operational requirements evolve.

Allnex Thailand appreciates the scalability of the Streamwide Team on the Run platform, which they can install on BYOD smartphones used outside hazardous zones. This ensures that personnel not carrying the IS440.1 can still participate in the same communication ecosystem, allowing for seamless coordination across departments regardless of device or location.



About the IS440.1 and Streamwide Team on the Run Integration

The IS440.1 represents i.safe MOBILE's commitment to delivering purpose-built 5G radio communication for hazardous industrial environments. Certified for Class 1 Div 1/Zone 1/21 areas, the device is specifically engineered for explosive atmospheres commonly found in chemical manufacturing facilities.

Key features of the IS440.1 include a high-performance Qualcomm chipset supporting 4G/5G connectivity for both public and private networks,

Wi-Fi capability, and a dedicated ergonomic PTT button designed for instant communication. The device incorporates programmable buttons (including red key for SOS/lone worker protection and side keys for PTT functions), an 8-pin ISM interface for optional audio accessories, and a functional fixing clip for secure carrying.

The pre-installed i.safe MOBILE App World provides access to selected, compatible applications inclu-

ding professional PTT solutions and mobile device management (MDM) platforms. Streamwide's Team on the Run Push-to-Talk solution, available through this App World, leverages the device's industrial-grade capabilities to deliver enterprise communication features including group calling, talkgroup selection, emergency alerts, and interoperability with existing radio technologies through gateway integration.

This integration ensures that users benefit from both the intrinsic safety certifications essential for hazardous area operations and the advanced communication features required in modern chemical manufacturing environments, all whilst maintaining the familiar radio-style operation that industrial users expect.

