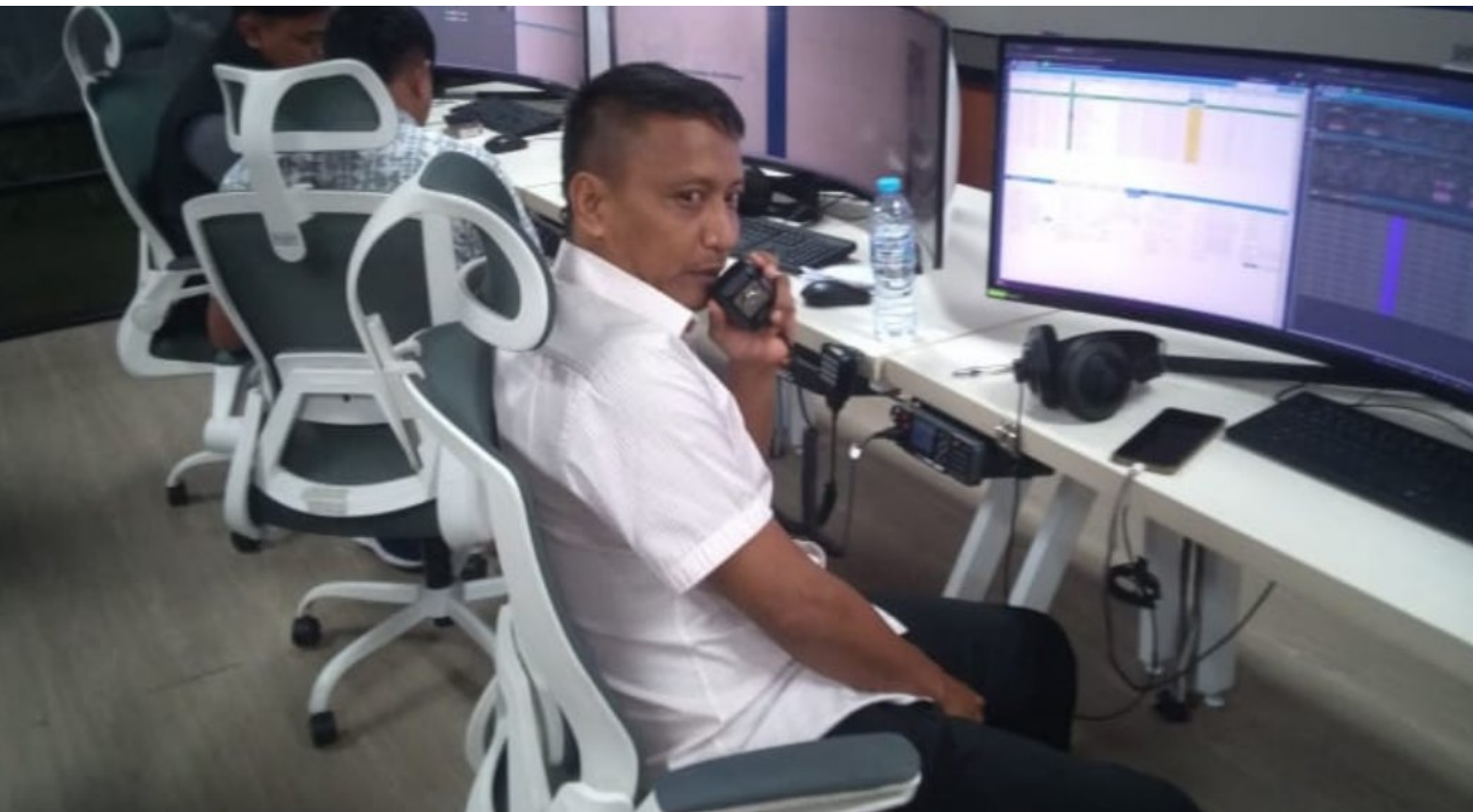


# *Hytera DMR Trunking System Provides Reliable Communications to Help Streamline Operations at Indonesian Ports*



## Introduction

PT Pelabuhan Indonesia (Pelindo), a leading port operator in Indonesia, needed a reliable and robust communication system to provide efficient and safe operations at its many ports around the country. Hytera implemented a DMR Tier III radio trunking system at an initial nine ports, which has overcome the issues of limited coverage, interference and security vulnerabilities. Operational efficiency, security and safety is being enhanced by enabling all the different job roles within the ports to share a single communications network.

## The Background

Pelindo is wholly owned by the Ministry of State-Owned Enterprises (SOE) of the Republic of Indonesia. The company was created from the merger of four state-owned regional port operators in 2021, as a strategic initiative of the government to improve national maritime connectivity and provide a stronger logistics network ecosystem. However, Pelindo faced a critical need for robust and reliable communication systems to ensure efficient and safe operations across its network of ports and terminals.

### Customer name

PT Pelabuhan Indonesia (Pelindo)

### Project time

2024

### Industry

Ports: Container Terminals Transport

### Products/Solutions

DS-6250 DMR Tier III Radio Trunking System



## The Challenge

Traditional communication methods within the maritime industry often suffer from problems such as limited signal coverage, interference and poor security. Ports are complex and challenging environments for radio frequency design as the profiles of the container stacks are constantly changing, which alters the topology.

Ports also require a wide range of communication needs across various locations, including onshore, offshore, and mobile environments. In addition, any new radio system had to be able to seamlessly integrate with Pelindo's existing communication systems and IT infrastructure. This is crucial for maintaining operational efficiency, ensuring safety, and facilitating a rapid response to emergencies.

The solution needed to be scalable to accommodate future growth in the user base and evolving communication needs. It also had to be adaptable enough to incorporate emerging technologies and communication standards.

## The Solution

The overall aim of the project is to establish a dedicated, reliable and secure high-capacity communication network. To address these challenges and enhance operational efficiency, Pelindo decided to implement a Digital Mobile Radio (DMR) Tier III trunking system.

The DMR Tier III system will provide seamless voice and data communications across all Pelindo's operational areas including ports, terminals, vessels and remote locations. Phase 1 of the project will see the system rolled out in nine ports, namely: Makassar, Ambon, Ternate, Sorong, Merauke, Banjarmasin, Surabaya, Riau and Kendari.

The DMR Tier III radio trunking system is based on Hytera's DS-6250 base station. It will serve a diverse user base within Persero, including port operations, vessel traffic management, security personnel, maintenance crews and administrative staff.

As well as offering voice, text and data communications, Hytera's DMR Tier III technology supports features such as GPS tracking, real time voice and data recording and over-the-air programming of radio terminals. The technology is specifically designed as a modular solution to make it easy for customers to scale up their networks as and when required.

It is highly adaptable, so it can incorporate emerging technologies and communication standards. For example, it can be interconnected with fixed telephony and cellular mobile phone networks via gateways. It can also support a wide variety of third-party applications, which can be customized to suit the individual customer's needs.

## Products

- DS-6250 DMR Tier III Radio Trunking System



## The Benefits

### Enhanced Operational Efficiency

By providing a unified communication platform, the DMR system will facilitate better collaboration, improve decision-making and ultimately enhance overall operational efficiency and productivity to help Persero gain a competitive advantage in the market.

### Streamlined Workflows

The system can be integrated with other port business systems, helping to streamline workflows and improving overall operational coordination and efficiency to deliver more streamlined logistics.

### Enhanced Safety and Security

Dedicated emergency channels and features like GPS tracking enable a faster response to critical situations such as accidents, natural disasters or security breaches.

### Improved Communication Quality

Digital technology delivers superior audio quality compared with analog systems, ensuring clear and reliable communication even in noisy environments like ports.

### Cost-Effectiveness

DMR Tier III technology utilises available spectrum more efficiently than analog systems, which reduces the costs associated with frequency licensing.

By demonstrating the successful implementation of a modern and reliable Hytera radio communication system, Pelindo can serve as a benchmark for other maritime operators in Indonesia. The project will also contribute to the advancement of Indonesia's maritime sector by fostering innovation and improving operational safety standards.

### Customer Testimonial

*"We started with a small system and gradually expanded as our business grew. The Hytera DMR Tier 3 solution was incredibly flexible and easy to scale. We added new users and features seamlessly, ensuring our communication needs were always met."*



### Hytera Communications Corporation Limited

Stock Code: 002583.SZ

Address: Hytera Tower, Hi-Tech Industrial Park North, 9108# Beihuan Road, Nanshan District, Shenzhen, P.R.C

Tel: +86-755-2697 2999 Fax: +86-755-8613 7139 Post: 518057

Http: //www.hytera.com marketing@hytera.com

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