

Hytera Innovative TETRA and Dual-mode Solution Empowers National Water Company in Saudi Arabia



Introduction

National Water Company (NWC) is a state-owned entity in Saudi Arabia responsible for nationwide water management, water supply, and wastewater treatment. Its operations extend across Saudi Arabia, addressing the needs of both urban and rural areas through an integrated water distribution and sewage management network. That's why a reliable communication tool is crucial for them. Hytera provided an innovative TETRA and dual-mode solution to achieve this goal, which addressed both the voice communication and multimedia needs of the NWC.

The Background

Saudi Arabia's National Water Company (NWC) uses TETRA handheld radios as a vital tool for coordinating its widespread operations in water supply and wastewater management. Operating in remote locations where cellular networks can be unreliable, NWC relies on handheld radios for real-time communication between field teams and central control, enhancing both efficiency and safety.

Customer Name

National Water Company, Saudi Arabia

Project Time

2022- 2024

Industry

Utility

Products/Solutions

PT580H Plus TETRA Handheld Radio
PTC760 Dual-mode Handheld Radio

They are essential for managing infrastructure maintenance, quickly reporting issues, and coordinating emergency responses. TETRA handheld radios also allow NWC to maintain continuous water services and manage urgent situations like leaks or equipment failures with minimal downtime, making them crucial to NWC's mission of delivering reliable water services across Saudi Arabia's vast landscape.



The Challenge

- **Efficient Communication Across Locations:** With operations spanning remote and urban areas, NWC needs a robust and reliable communication network to facilitate real-time monitoring, management, and decision-making.
- **Rapid Issue Reporting and Response:** Water supply disruptions or infrastructure failures require immediate attention. NWC must have a communication system that allows rapid reporting from various locations to central management to address and resolve issues swiftly.
- **Data Security and Compliance:** Given the critical nature of its services, secure communication channels are necessary to protect sensitive operational data and comply with national security standards.
- **Customer Service Interaction:** NWC needs efficient communication with consumers to address service inquiries, provide timely updates, and receive feedback.

The Solution

Hytera provided the National Water Company (NWC) with TETRA handheld radios, specifically the PT580H Plus, and TETRA-LTE dual-mode handheld radios, namely the PTC760, to enhance their communication capabilities across various operational scenarios. These radios are particularly valuable



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for field personnel, including maintenance crews, water quality inspectors, and emergency response teams, who often work in remote locations where traditional communication systems may be unreliable or non-existent.

In practical use, the PT580H Plus radios facilitate seamless communication among maintenance crews as they perform routine inspections of water treatment facilities and pipelines. For instance, when a technician identifies a potential leak, they can quickly relay this information to their supervisor using the clear voice communication provided by the radios. The immediate feedback enables rapid decision-making and mobilization of resources, significantly minimizing downtime and service disruption.

On the other hand, the PTC760 dual-mode radios are utilized by teams needing both secure local communication and broader connectivity. For example, during emergency situations, such as significant infrastructure failures, the emergency response team can leverage the LTE capabilities to access real-time data from IoT sensors and relay critical information back to the central operations hub, ensuring an effective and coordinated response.

Hytera's installation process involves a comprehensive assessment of NWC's communication needs, followed by a tailored deployment plan. The installation team configures the radios with the necessary settings, including channel programming and encryption protocols to secure communications. Training sessions are conducted to familiarize NWC staff with the functionalities of the devices, ensuring they are adept at using features like GPS tracking and data transfer.

Upon completion of the installation, the radios are delivered to various departments within NWC, with specific emphasis on teams that require immediate access to reliable communication tools. This strategic deployment ensures that field personnel are well-equipped to handle daily operations and any unforeseen challenges efficiently.

Products

- PT580H Plus TETRA Handheld Radio
- PTC760 Dual-mode Handheld Radio



The Benefits

Hytera's PT580H Plus and PTC760 radios provide robust solutions to address the National Water Company's unique communication challenges:

1. Remote and Reliable Communication:

PT580H Plus offers excellent voice clarity and a stable connection, crucial for remote areas where traditional networks fall short. This allows field teams in distant locations to maintain reliable contact with central operations, improving operational efficiency and coordination in routine maintenance or emergencies.

2. Seamless Connectivity with Extended Range:

The PTC760 enables a seamless transition between TETRA (for short-range, secure communication) and LTE (for wide-area, broadband access), ensuring consistent communication across varying terrains. This dual capability is especially useful for NWC, where operations span both urban and remote, sparsely covered areas.

3. Real-Time Data and Alerts:

PTC760 supports data transfer over LTE, which means NWC field staff can receive real-time updates, IoT sensor alerts, and SCADA data directly on the device. This feature is essential for quickly addressing infrastructure issues like leaks or equipment malfunctions.

4. Enhanced Security and Privacy:

Both PT580H Plus and PTC760 employ end-to-end encryption, ensuring that communications are secure and compliant with NWC's operational confidentiality requirements, especially when dealing with sensitive water management information.

5. GPS Location Tracking:

These radios have built-in GPS tracking, allowing NWC's central operations to monitor the exact location of field teams, enhancing safety, particularly in emergency situations or hazardous areas.

Hytera's PT580H Plus and PTC760 radios provide a comprehensive, flexible, and secure communication solution that directly addresses NWC's communication needs across diverse and challenging environments.



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