

Hytera PoC-based System Delivers Multi-tech Solution for Philippines Regional Health Authority



Introduction

The Department of Health for the MIMAROPA region of the Philippines required a cost effective, wide area coverage multimedia communications system capable of integrating a number of different technologies. Hytera supplied its HyTalk Pro PoC solution with a unified communications platform, along with a SmartOne dispatch system and a mix of PoC and dual-mode DMR/LTE handheld terminals. Local health services are now able to feed back information on outbreaks of disease and receive help and advice much more efficiently.

The Background

MIMAROPA, officially the Southwestern Tagalog Region, is an administrative region in the Philippines, including a number of islands such as Palawan and Mindoro. As the population is spread out across various islands there is a decentralized health system. Public health services are mostly provided by local government units (LGUs).

Project Name

Department of Health, MIMAROP, Philippines

Client Name

Department of Health, MIMAROPA
Hytera Partner: Microbiz

Project Start/End Dates

2021

Project Location

MIMAROPA Administrative Region,
Philippines

Industry

Local Government

Products

- Hytera HyTalk Pro PoC Platform
- PNC380 Handheld PoC Terminals
- PDC550 Handheld Dual-Mode (DMR/LTE) Terminals
- SmartOne Dispatch System

The health authorities have a need to collect timely and accurate epidemiologic information from the field in order to identify problems, such as an outbreak of disease. There is also a need to be able to monitor the implementation of health programs and guide health policy making.

This kind of information helps the Department of Health Regional Office (DOH-RHO) in MIMAROPA provide the appropriate technical assistance to LGUs. Local health personnel also need assistance in developing their own epidemiologic expertise, particularly in the areas of public health surveillance and disease prevention and control.

Regional Epidemiology and Surveillance Units (RESUs) provide a crucial link between the central office and devolved health units, as they serve as “information services nodes”. They can be used to build up local epidemiologic expertise in the field.

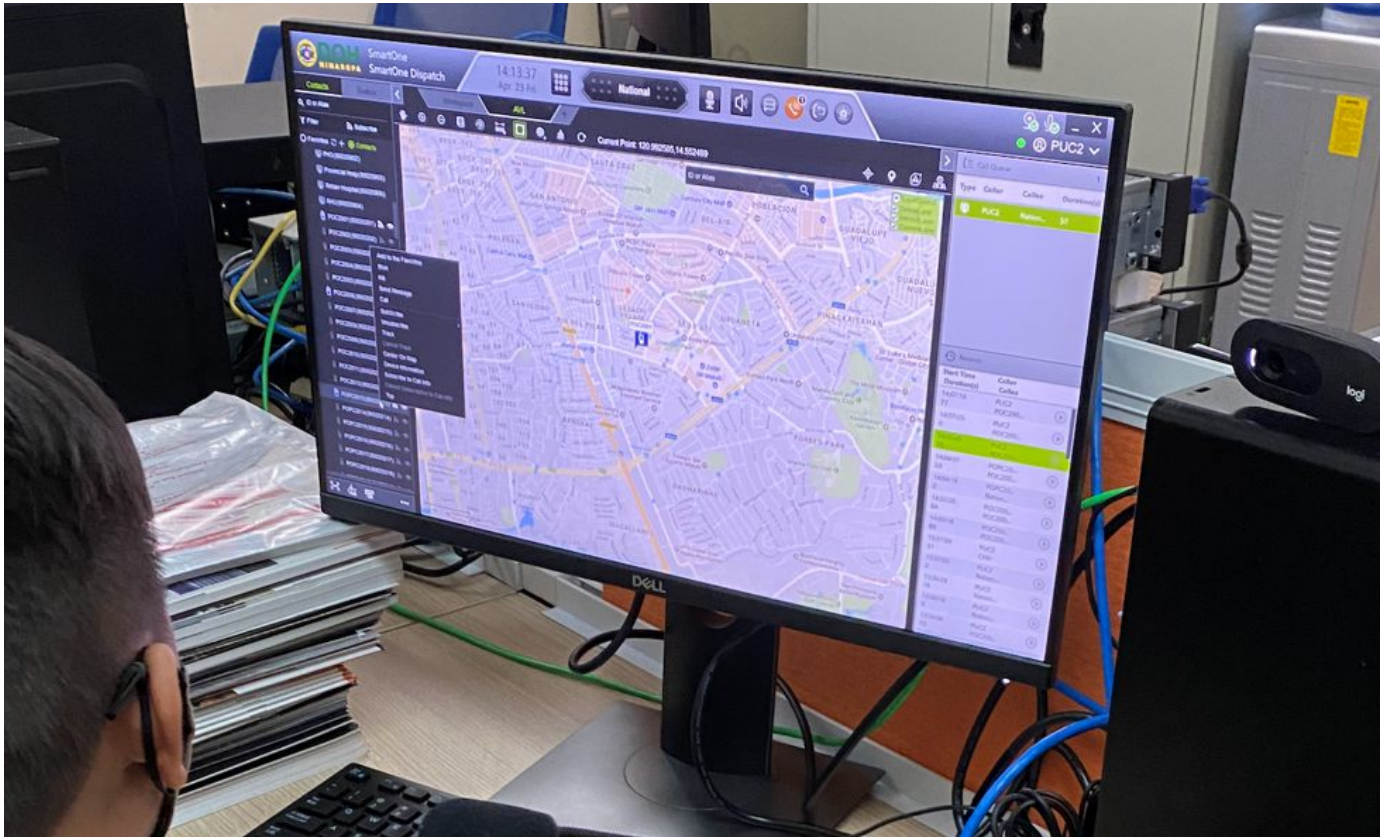
However, to provide the timely information required from the dispersed health units across the region, it was clear that DOH-MIMAROPA needed to modernise and strengthen its communications infrastructure by deploying collaborative multi-media technologies such as Push-to-Talk over Cellular (PoC) communications.



The Challenges: Delivering a regionwide, multimedia communications solution to help improve health outcomes

The new communications system needed to meet a number of different requirements. DOH-MIMAROPA wanted a secure platform capable of supporting multi-mode communications between the regional head office and the various provincial offices.

It also wanted to have the ability to continue to be able to communicate in the event that the public telephone system was unavailable due to, for example, a natural disaster or a power failure. Any new communications solution also had to be able to integrate with the existing PABX fixed telephony system. Finally, DOH-MIMAROPA wanted the communications platform to support real-time tracking of vaccines, specimens and hospital beds availability.

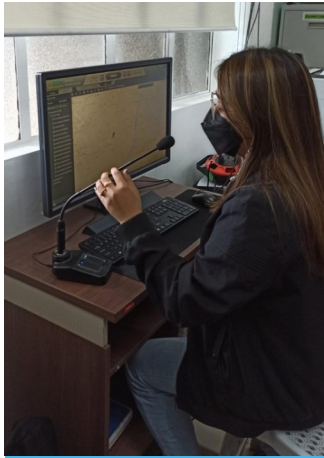


The Solution

DOH-MIMAROPA chose to begin its communications modernisation by implementing a Hytera HyTalk Pro PoC platform supplied by Hytera partner Microbiz, based in Makati, Philippines. The Phase 1 works focused on establishing the PoC platform along with a Hytera SmartOne dispatch system and PNC380 handheld PoC radios and PDC550 dual-mode (DMR/LTE) handheld radios.

The major benefit of the HyTalk Pro unified communications platform is not just that it provides instant PTT voice, video and data services over existing 2G, 3G, 4G and Wi-Fi networks. Just as importantly, it can also accommodate the future upgrades and additions required by DOH-MIMAROPA, such as interconnecting with PABX systems, DMR two-way radio networks, video surveillance cameras and other IP-based communications systems.

A Gigabit switch connects with the IP network supporting the PoC radio terminals and Wi-Fi communications. It will also interconnect the PoC system and network management system (NMS) with DMR radios as and when they are added. It also connects to the existing PABX IP desk phones in the regional head office, so radio users can communicate directly with DOH-RHO staff even though they do not have access to radio. The plan is to add a GSM gateway with eight ports when the PABX system is upgraded.



Products

- Hytera HyTalk Pro PoC Platform
- PNC380 Handheld PoC Terminals
- PDC550 Handheld Dual-Mode (DMR/LTE) Terminals
- SmartOne Dispatch System



The Benefits

Unified Communications

The PoC platform enables the customer to integrate different modes of communications such as GSM, DMR and PABX. This provides flexibility, resilience and redundancy, as well as enabling other IP-based services such as CCTV to be integrated. The future DMR network will provide a fallback communications solution should the GSM mobile phone networks fail.

Wide Area Communications

The PoC system operates over nationwide public mobile phone networks (as well as private LTE and Wi-Fi networks), which provides a cost effective way of delivering radio coverage across the different islands that make up the MIMAROPA region.

Dispatch System

The Hytera SmartOne dispatch system allows voice dispatching, video dispatching, live video streaming, GPS tracking and location, voice and video recording.

Real-time Monitoring

The solution offers greater transparency, as it enables the real-time monitoring of important deliveries from head office to provincial offices, the tracking of vaccines and specimen samples, as well as recording the number of available hospital beds at any one time. The ability to remotely carry out inspections and surveillance helps to reduce costs.

Quality control

The multimedia recording and playback system helps with quality control, as health supervisors can review dispatch conversations for audit purposes.

Video Calling and Streaming

The broadband PoC system enables health staff to conduct video conferences with field personnel, which enables experts to provide telemedicine advice remotely and improves situational awareness, as they can see and talk to health staff and patients.

The Hytera HyTalk Pro PoC platform provides the basis for a modern multimedia communications platform, which is helping to improve the efficiency of healthcare services in the MIMAROPA region of the Philippines. This in turn will help to improve the services DOH-MIMAROPA offers and will produce better patient health outcomes.



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