



THE GENDARMERIA VATICANA UPGRADES TO MOTOTRBO™ CAPACITY MAX WITH WAVE PTX™

FOR CRYSTAL-CLEAR COMMUNICATIONS, GREATER SCALABILITY AND ENHANCED FUNCTIONALITY, IN BOTH THE VATICAN CITY AND EXTRATERRITORIAL SITES



CORPO DELLA GENDARMERIA VATICANA

The Gendarmeria Vaticana is the Police Force of the Vatican City State, responsible for ensuring public order, as well as performing intelligence, judicial police and traffic surveillance functions within both the Vatican City and its extraterritorial locations, such as the Papal Palace of Castel Gandolfo. Along with the Swiss Guards, the force is also responsible for safeguarding the Vatican and protecting the Pope.

CHALLENGE

The Gendarmeria Vaticana first moved from a Motorola Solutions analogue radio system to a 9-site MOTOTRBO IP Site Connect system in 2008. A few years later, a Capacity Plus multisite system, for the management of services such as Health, Traffic Police, Fire Brigade, the Basilica and the Vatican Museums, was added. As network usage grew, most of the services, with the exception of Museums, moved over to a Capacity Max multisite system. However, now, the Gendarmeria Vaticana is looking to incorporate the rest of this Capacity Plus system into Capacity Max, in a drive to increase operational efficiency and safety, as well as reducing maintenance and system management. Capacity

Max also offers some features that are useful to the force, the Inspector Giuseppe Sbei states: "We are really satisfied with the performance and capacity of all our MOTOTRBO systems, but Capacity Max offers even greater capacity and a few extra features that are really useful, such as call queuing, caller priority – which means emergency calls always get through, even if the system is fully loaded – and the greater end-to-end encryption of the calls." The integration will be starting shortly and the police force has also been looking at ways that those travelling with the Pope, or on state business, can stay reliably connected, when beyond the Vatican City and its various extraterritorial locations.

CUSTOMER PROFILE

Organisation:

Corpo della Gendarmeria Vaticana (Vatican Police Force)

Partners:

- LATEL-COM Srl (Partner)
- Aikom Technology (Distributor)

Industry:

Public Safety and Security

Motorola Solutions Products:

- Three radio systems currently coexist, but the Capacity Plus system will soon be integrated into the MOTOTRBO Capacity Max system:
 - A MOTOTRBO IP Site Connect System with 10 SLR 5500 Two-Way Repeaters and approximately 350 DP3441e Portable Radios for the exclusive use of the Gendarmeria Vaticana - separate channels
 - A MOTOTRBO Capacity Plus single site system with 3 SLR 5500 Two-Way Repeaters and 200 DP3441e Portable Radios for exclusive use by the Vatican Museums

CASE STUDY

CORPO DELLA GENDARMERIA VATICANA

“We have worked with Motorola Solutions and LATEL-COM for over 30 years, and our radio systems have evolved together during that time from the original analogue system to MOTOTRBO: from IP Site Connect, to Capacity Plus and a multisite Capacity Max system. We are now going to combine and centralise our Capacity Plus system under Capacity Max and integrate WAVE PTX, to further improve operational and system efficiency. LATEL-COM always ensures we know about any new technology from Motorola Solutions, so it will be interesting to see how our total security solution develops over the coming years.”

Giuseppe Sbei, Inspector, Corpo della Gendarmeria Vaticana



SOLUTION

The current systems, which have all been installed and configured by the LATEL-COM engineers, incorporate 11 sites. These include St Peter's Square in Vatican City, but also other extraterritorial locations in Rome, such as the Papal Basilica of Saint Paul and Saint Mary Major, and those outside of Rome, for example the Papal Palace of Castel Gandolfo and Santa Maria di Galeria; every location is linked via fibre optics with the 24/7 central control room in Vatican City. In total, there are 39 repeaters and over 1,100 portable radios with earpieces, chargers and spare batteries (the Fire Services use ATEX handsets) with emergency buttons, plus some have the Lone Worker and Man Down features activated. There are also some mobile radios, both in the control room and in vehicles, specifically ambulances and fire trucks. The control room uses TRBOnet PLUS software on each system for voice dispatch, call recording, text messaging and GPS tracking of personnel.

The mission-critical systems, which have been deployed with full redundancy and are maintained and supported by LATEL-COM, are used extensively. There are already 20 talk groups currently configured on the Capacity Max system and this will grow to over 40, as groups currently on the Capacity Plus system are moved over. One of the points the Gendarmeria Vaticana engineers, who work hand in hand with LATEL-COM, particularly appreciate is the ability to centrally control, manage and disable radios, via the MOTOTRBO Radio Management software. And, the force has also recently equipped some of its officers who are travelling outside of areas covered by the MOTOTRBO networks, both in Italy and abroad, with TLK 100 WAVE PTX Portable Radios that use broadband networks to connect. Pleased with the coverage, audio quality and functionality of

these radios, LATEL-COM will shortly be deploying the MOTOTRBO WAVE PTX Radio Gateway interface, so these TLK 100 users can be fully connected into the Capacity Max system. This will further boost operational efficiency and enhance incident response.

BENEFIT

Massimo De Lucia, key account manager at LATEL-COM, summarises: “We are honoured to have worked this closely with the Vatican, specifically with the Gendarmeria Vaticana, for so many years. We have helped and watched their systems grow and develop. It's also great that they are open to seeing how new technology from Motorola Solutions could further enhance their operations and safety.” Indeed, the Vatican has been testing the MOTOTRBO R7 Portable Two-Way Radios, the MOTOTRBO ION Smart Portable Radios and the Evolve LTE Handhelds, and LATEL-COM has also presented the Motorola Solutions video security and analytics solutions, and VB400 Body-Worn Cameras, as part of the wider Motorola Solutions Safety Reimagined offering.



Motorola Solutions Products Continued:

- 3 repeater locations, 6 slots, 6 channels
- A MOTOTRBO Capacity Max System with 11 sites, 26 SLR 5500 Two-Way Repeaters and about 600 portable and mobile radios (DP3441e, DP3661e, DP4801e, DP4801 Ex, DM4600e) used by all state services (for example Health Services, Electricians, Fire Brigade, Transport) in all territories of the Vatican City State
- Accessories including multi-way chargers, spare batteries and earpieces with translucent tubes
- MOTOTRBO Radio Management software
- TRBOnet PLUS Control Room Solution
- TLK 100 WAVE PTX Portable Radios
- MOTOTRBO R7 Portable Two-Way Radios
- MOTOTRBO ION Smart Portable Radios
- Evolve LTE Handheld Devices

Benefits:

- The Capacity Max system allows more scalability and flexibility, and having more sites, talk groups and users on the same system will increase operational efficiency and safety, as well as reducing maintenance and system management
- Introducing WAVE PTX will enable police officers to stay reliably connected whilst on papal visits or other Vatican business outside the Vatican City and its extraterritorial sites

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