



MOTOTRBO™ Network for G8 Summit



“This was the first time that emergency and security services were able to communicate across such a vast network, with significant voice and data traffic. Some of the users had analogue radios, so it was important that the system allowed them to communicate with digital radio users.”

*Cesare Migani,
CEO, Eurocom
Telecomunicazioni*

MOTOTRBO™ Network Provides Secure Wide Area Communications for 2009 G8 Summit

Motorola's MOTOTRBO™ digital two-way radio system formed the backbone for a feature-rich, wide area communications network for Italy's Department of Civil Defence during the 2009 G8 Summit. The network extended throughout the city of l'Aquila and to 30 different sites across central Italy to include the residences and routes of Heads of States, their staff, press groups and accredited authorities.

Key to the success of the network was the establishment of a multifunction operations centre at the Police Station in the nearby town of Coppito, which was equipped by Motorola Application Partner Eurocom Telecomunicazioni Srl.

During the week's events, the network handled over 120 000 radio calls, reaching a peak of 400 within a single hour. Operators at Coppito's control room were able to check and monitor all communications using Eurocom's Communications Management Operator (CMO) application.

Advanced Applications Enhance Power of Digital Platform

Based on client-server architecture, the multi-function CMO solution provides a range of management services encompassing dispatcher functions, GPS-based radio localisation and call recording. The system is capable of converting communications from different radio technologies into VoIP which is streamed across the network. This allowed private and group VoIP calls to be made and received via MOTOTRBO™ radios.

At the heart of the system is the E-COM software suite which collects information about each radio's GPS location, messages, alarms and voice communication. Eighty mobile DM 3601 and over three hundred portable DP 3601 MOTOTRBO™ radios were supplied for the G8 Summit and the radios were enhanced with AVL (automatic locating) to allow their position to be displayed on a vector map for exact pinpointing of users.

Zones were defined on the map to indicate when a radio left or entered a particular area and icons showed the location of IP-based CCTV cameras which could be activated remotely.

Industry name
Government

Solution Features

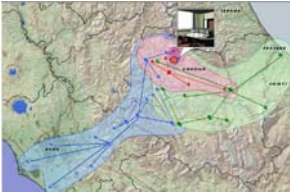
- 301 DP 3601
- 80 DM 3601
- CMO application modules (AVL/GPS, private/group VoIP, call recording, messaging)
- 12 Eurocom's dispatchers "EAD"

Benefits

- Extensive voice and data traffic capacity
- Improved security through intrinsic encryption
- Seamless communication between Fire, Police and Emergency departments
- Quicker team dispatch
- High reliability

“DMR has certainly added the advantages of digital technology to the benefits of traditional networks which we have been using for some time. The technology ensured excellent coverage across wide territories and people in the field found it easy to use.”

Civil Defence Department representative



“The ability to monitor network traffic and locate users across such a vast area played a significant role in the co-ordination of activities throughout the G8 Summit.”

*Cesare Migani,
CEO, Eurocom
Telecomunicazioni*

Using pre-defined routes, the system monitored the progress of VIPs in transit, activating an alarm if the route was deviated, while all communication events were logged and recorded for future analysis.

MOTOTRBO™ intrinsic encryption ensured that communications were kept secure, while its exceptional audio quality enabled messages to be transmitted clearly. The extended battery life also proved invaluable on long work shifts.

Officers at Rome’s Department of Civil Protection were impressed by the efficiency of the new digital radio system and the ability to communicate seamlessly across a wide area.

Increased Channel Capacity Doubles Communications Capability

MOTOTRBO™ use of Time-Division Multiple Access (TDMA) technology doubles the capacity of an existing licensed 12.5 KHz channel by allowing the channel to be split into two time slots that can carry voice and digital communications simultaneously. The network was able to support 10 digital conversations at the same time, instead of the five previously possible with an analogue infrastructure.

The flexibility of the digital radio system enabled rapid reconfiguration of the communications network following a last-minute decision to move the event from La Maddalena to L’Aquila.

At the end of the event, a representative of the Civil Defence Department’s telecommunications division remarked that this was the first time the department had used the new Digital Mobile Radio (DMR) system and it fully met their expectations.

Eurocom’s CMO application is designed to interact with remote devices such as EMO Plus, an industrial computer for use in vehicles. Supporting SMS services, database queries and GPS positioning, EMO Plus is capable of transmitting data across multiple technologies including DMR, TETRA and Wi-Fi.

Eurocom has also developed the EAD audio dispatch solution which enables centralised communication and interconnection of multiple audio accessories, regardless of whether they are on DMR, TETRA or GSM communication platforms. This allows dispatchers to improve the co-ordination of activities across work groups and networks and adapt to changing situations as they occur.



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