



How Public Safety Agencies Optimised Critical Comms During the Paris Olympics

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Reseau Radio du Futur (RRF)

- Fully implemented by 2027...
- Uses existing commercial Infrastructure- Orange, Bouygues
- Uses 4G, 5G with Radio Capabilities in 700Mhz



Reseau Radio du Futur (RRF)

- Designed to replace existing radio networks from 2025
- Police Radio- ACROPOL
- Gendarmerie Radio RUBIS
- Fire Brigade Radio Antares



Reseau Radio du Futur (RRF)

- Existing Radio Networks based on TETRAPOL
- Originally Developed by Airbus Space and Defence in the 90's
- Considered end of life
- Original Budget 700 million Euros, Likely cost 2 Billion euros



Leading into Paris Olympics

- Police and Gendarmerie directed to utilise RRF
- Combined 30,000 users



Leading into Paris Olympics

- MCX App Teams on a Mission chosen
- Adds extra features including:
 - Live Video access
 - Secure video and voice calls
 - Dynamic grouping
 - Live messaging replacing WhattsApp
 - Live GPS tracking and Geofencing
 - Priority channels
 - Availability





Hurdles to overcome

- Users not confident in MCPTT only network
- Accessing screen locked smart phones problematic
- MCPTT accessories for smart phones limited
- 2 devices = 2 different accessories



Hurdles to overcome

• Limited real estate:



User Wishlist





Smartphone Connexion

*ARCIA

Via Bluetooth or wired, through a lockable USB cable



Radio Terminal Connexion

Connexion via cable or BT. Radio terminal provides battery charging to the MDR



4 PTT

Personalization of PTT assignment (smartphone or radio terminal)



SOS

SOS settings either to the smartphone and/or the radio



Noise cancelling

Integration of a software solution for noise cancellation



Accessories

Wired or BT connection. 3.5mm Jack for earphone and Nexus or Leno or Fischer connectors for audio headsets

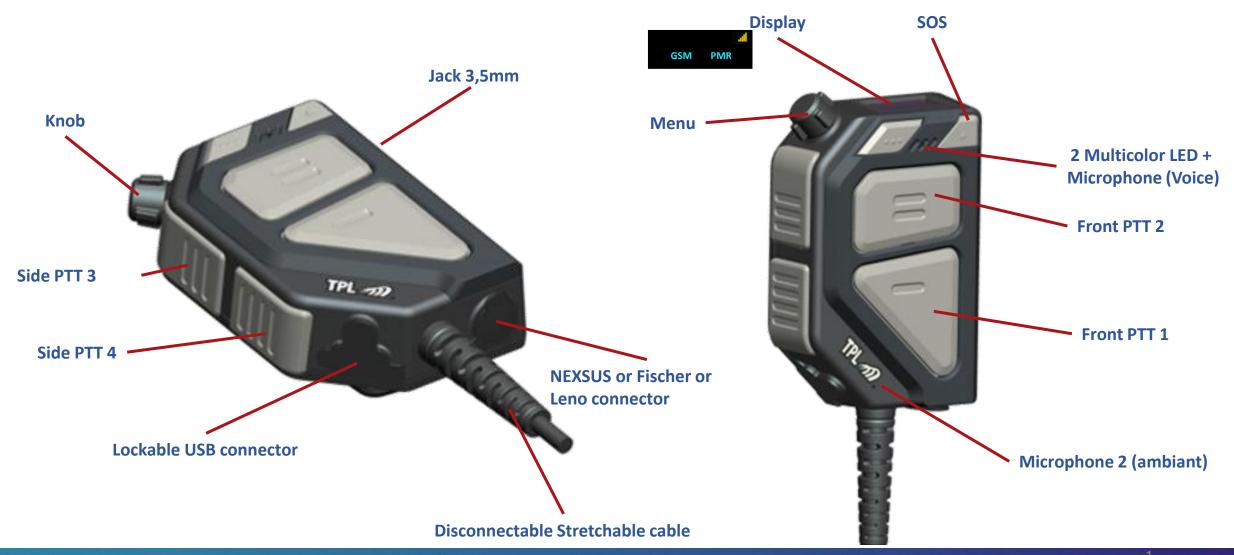


Knob Dual Functions

Volume + group selection



Solution





Gateway Mode

- The gateway mode, developed in the MDR, makes it possible to pair communications coming from the LMR radio to a smartphone group call and vice versa.
- The aim is for example to forward communications coming from the direct mode channel (DMO or Simplex) of the LMR radio to an MCPTT group call of the smartphone.





More hurdles to overcome

 The French Police and Gendarmerie needed to equip all of their motorcycles with a new communications system, offering the rider the possibility to communicate on the current radio network and the new MCPTT radio network, but using the same modus operandi.

 They want to re-use the same cabling, PTT button, volume selector and audio system in the helmet



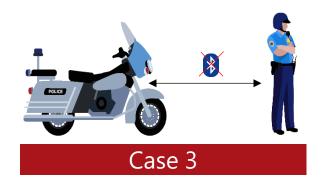




More hurdles to overcome



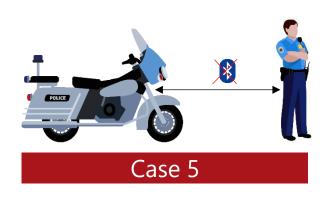






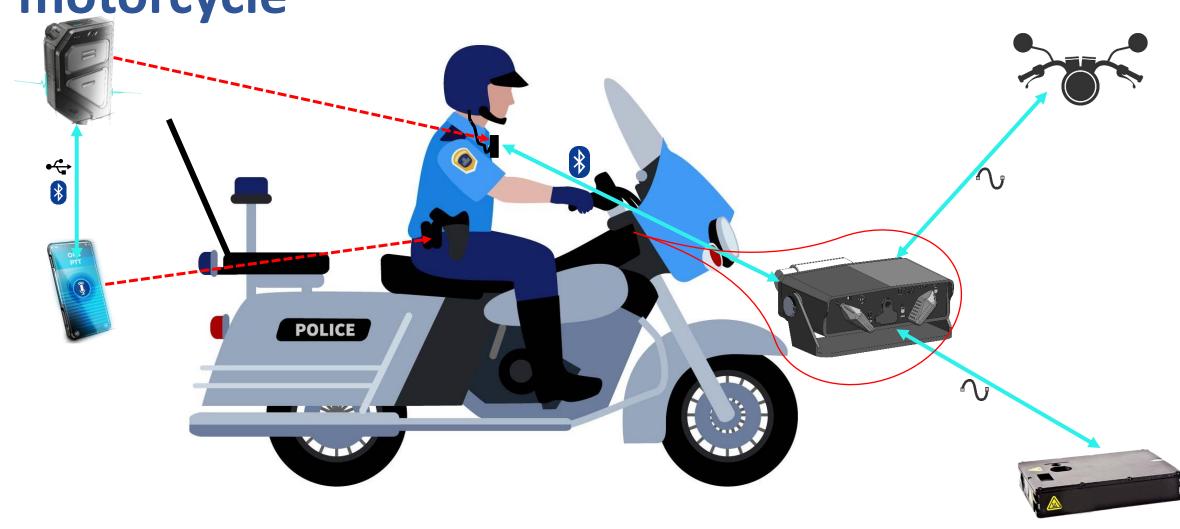








Solution - Pilot with helmet on the motorcycle



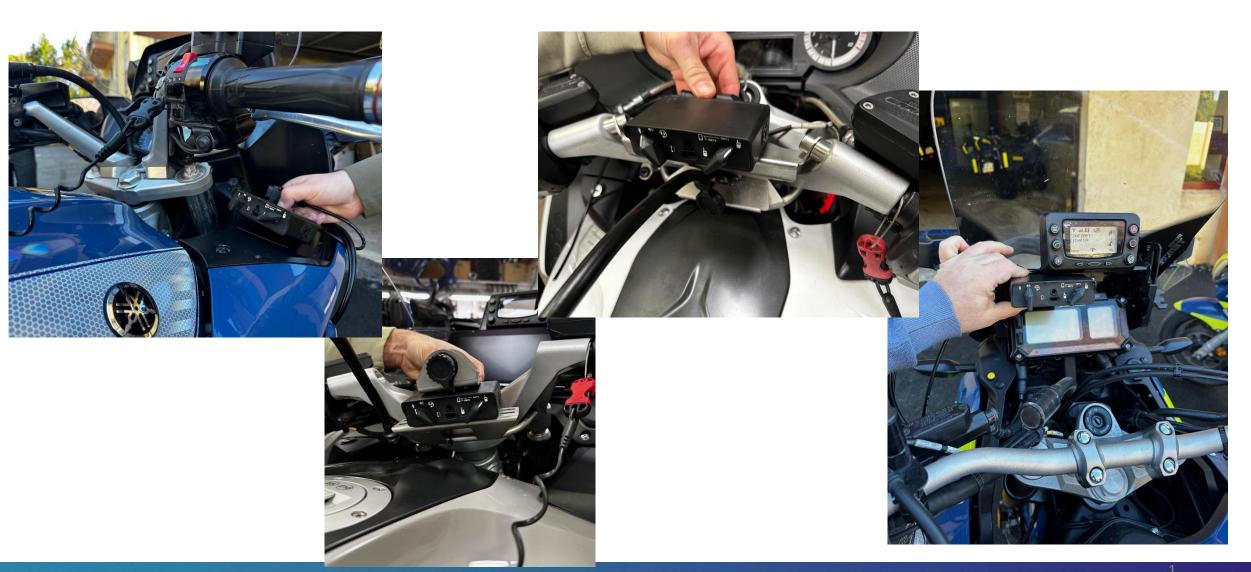


The cable





The installation





More hurdles to overcome

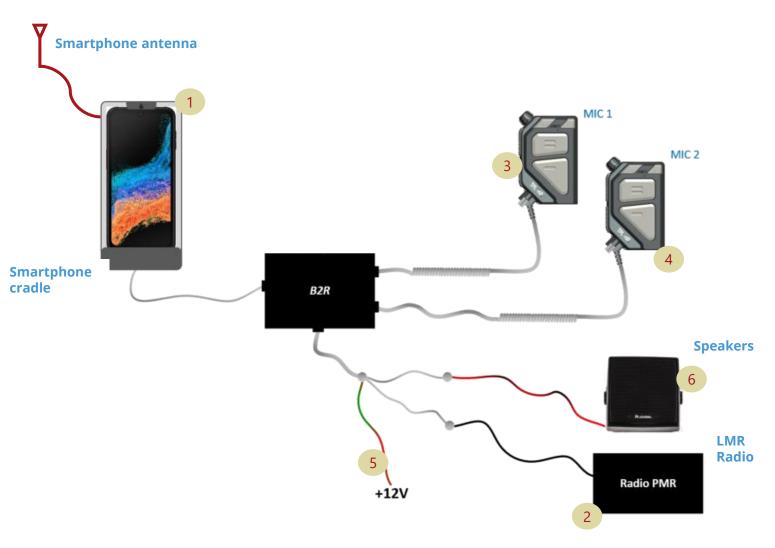
• The French Fire Fighters needed to equip all of their appliances with the new communications system, offering the driver/ Captain the possibility to communicate on the current radio network and the new MCPTT radio network,







Schematic



- 1. Smartphone cradle with USB connection
 - Data + audio + battery charge
 - Connection to an external antena by magnetic coupling
- 2. Connection to the LMR radio
- 3. Speaker MIC 1 Dual PTT + SOS
- 4. Speaker MIC 2 Dual PTT + SOS
- 5. Power supply + 12V
- 6. 2 x Speaker HP 10W







Connexion to the smartphone and radio mobile terminal



Enjoy powerful and clear sound thanks to a high-power speaker



Facilitate use with the connection of speaker-micro that can control both the smartphone and the PMR radio

Possibility to have 2 speaker-mic



Charge the smartphone to benefit from a battery



Improve the reception quality of 4G and 5G networks in the vehicle



Conclusion

- MCPTT is here and growing quickly so agencies need to adapt
- Making the transition easy helps introduce the technology
- Combining the networks offer resilience
- Listening to the customer is key in development of solutions



Merci Beaucoup









