

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)

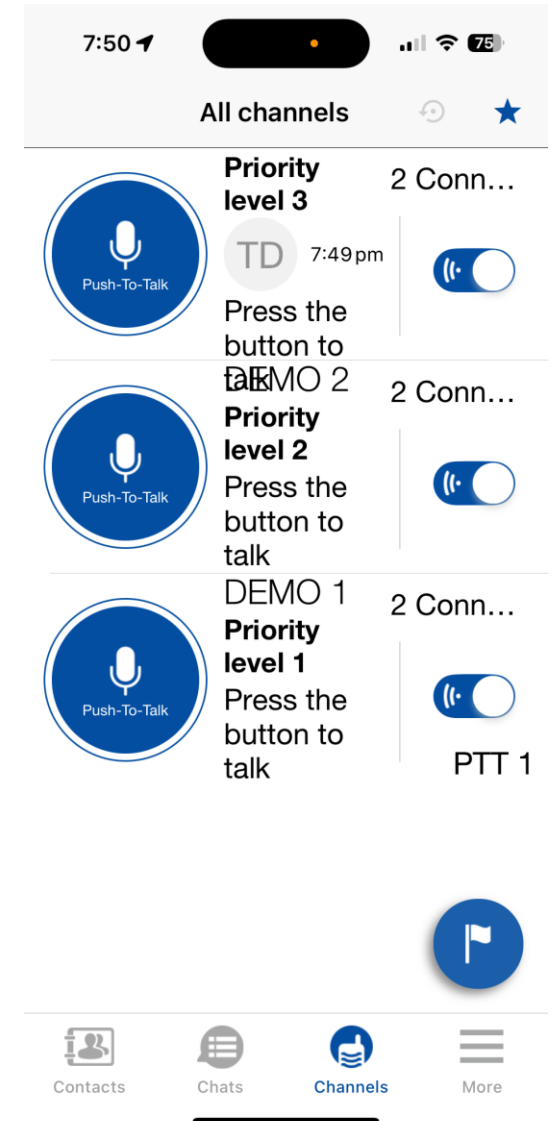
- Existing Radio Networks based on TETRAPOL
- Originally Developed by Airbus Space and Defence in the 90's
- Considered end of life
- Original Budget 700 million Euros, Likely cost 2 Billion euros

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 WhatsApp
 - 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

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



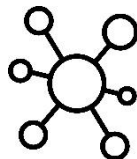
Noise cancelling

Integration of a software solution for noise cancellation



Accessories

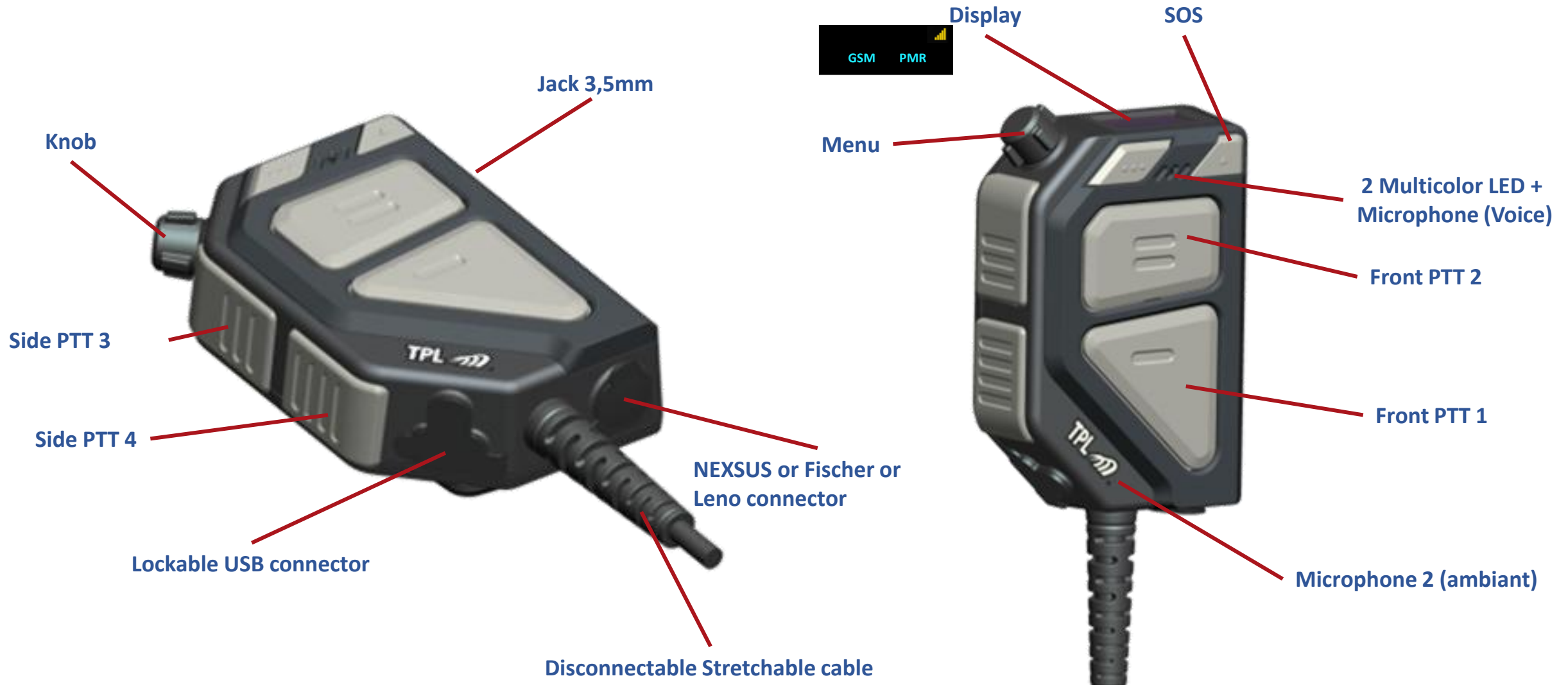
Wired or BT connection. 3.5mm Jack for earphone and Nexus or Leno or Fischer connectors for audio headsets



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.
- This mode is activated via the configuration menu and the user always has the possibility to speak on one or the other communication.



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



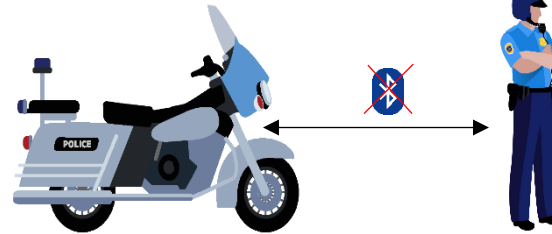
More hurdles to overcome



Case 1



Case 2



Case 3



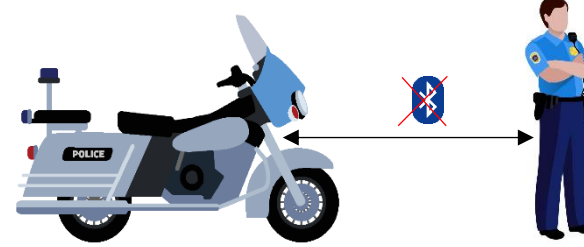
Case 4



Case 5

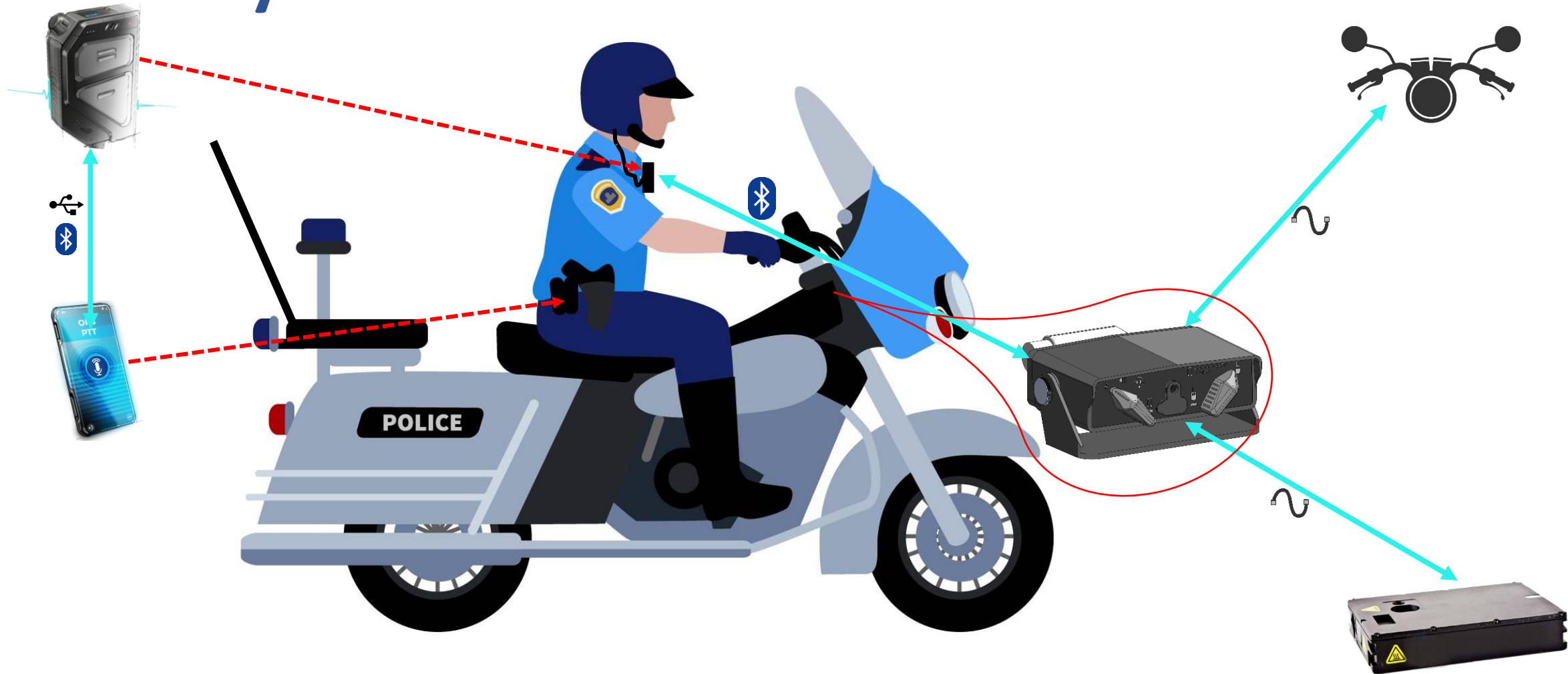


Case 6

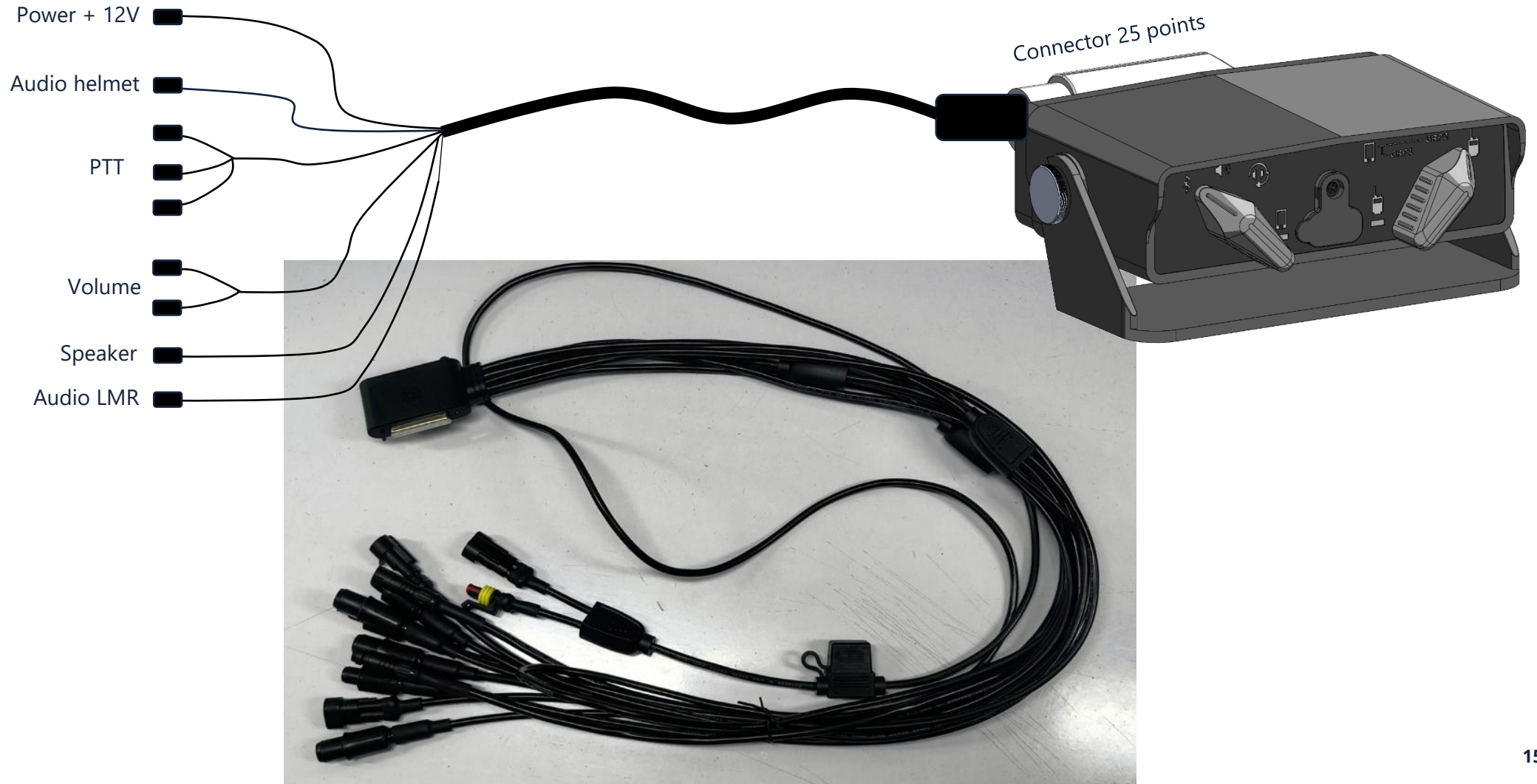


Case 5

Solution - Pilot with helmet on the motorcycle



The cable



The installation

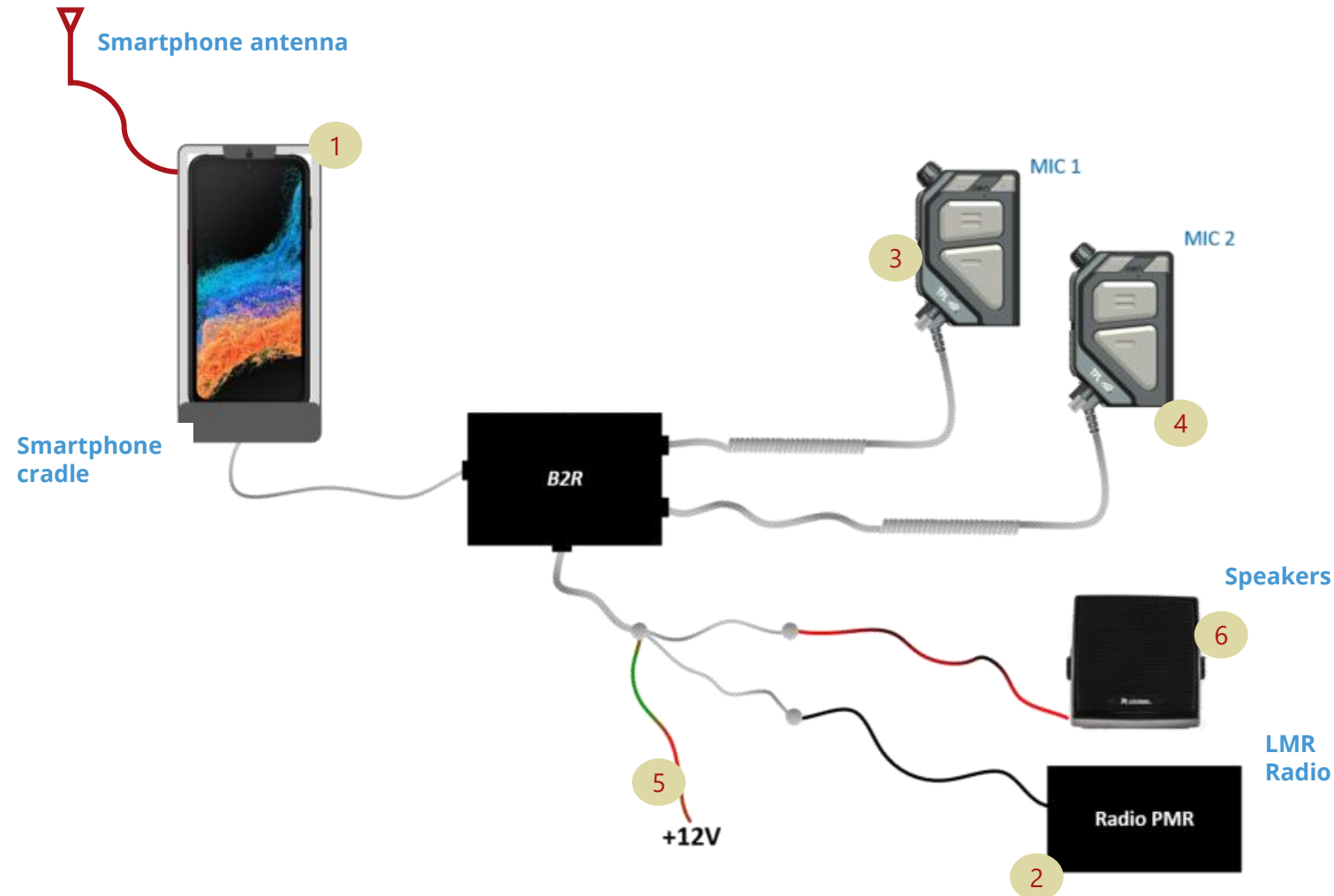


More hurdles to overcome

- 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, but using the same *modus operandi*.



Schematic



1. Smartphone cradle with USB connection
 - Data + audio + battery charge
 - Connection to an external antenna 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

Solution



Connexion to the smartphone and radio mobile terminal

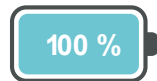


Enjoy powerful and clear sound thanks to a high-power speaker



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

