



**EVERCOR®**

Integrated LTE 400 PMR solution

In collaboration with:

Alcatel·Lucent 

 **CASSIDIAN**

## Broadband experience for professional users

**Faced with the challenges of crime, global terrorism, natural disasters and the need to protect critical national resources, authorities are looking for the edge that will help them beat these threats and protect the public.**

**High-speed data communications can bring them that edge: high definition video and images from the scene of an incident, real-time access to surveillance cameras, identification of people based on their biometrics. Operatives in the field can have these and many more sophisticated applications. Thanks to high-speed data, they can have the same connected experience that consumers enjoy.**

**Long Term Evolution (LTE) is the major standard of broadband, and Cassidian and Alcatel-Lucent, have joined forces to provide an integrated LTE-based mobile broadband solution for Professional Mobile Radio (PMR), designed for the 400 MHz band, called Evercor.**

### **True wireless broadband**

Evercor provides true broadband wireless capabilities for users in public safety networks, armed forces as well as industrial sectors such as transportation and energy.

As the global 4G (4th Generation) standard, LTE is the perfect technology for mission critical wireless applications in the future. It provides high throughput (up to 170 Mbps), low latency (10 ms) and more importantly is able to manage the QoS (Quality of Service) very precisely per application, per user and/or per device. Because LTE is based on IP, integrating video, data, and voice applications is also straightforward.

### **More capable data services**

Every day, PMR users depend on reliable and highly available voice services delivered by their networks. Now there is an opportunity to enhance these services with the addition of easy-to-use data services.

Evercor addresses this opportunity by offering high data-rate capabilities for PMR networks, ensuring both current and future applications will have all the bandwidth they need to operate effectively.

As the world's first commercial LTE PMR offer at 400 MHz, the solution can also be integrated into existing TETRA and TETRAPOL networks.



### Coverage at lower cost

Using the 400 MHz band offers the opportunity to re-use existing sites already operating on the same frequency for TETRA networks. This usually gives the same coverage, meaning a minimum investment is needed to bring additional capabilities and allowing a significant reduction in total cost of ownership.

Evercor is also based on commercial off-the-shelf LTE technology that has already been deployed successfully in many large commercial networks, allowing the same types of antennas, masts and radio planning to be used, again cutting costs.

In many parts of the world, 400 MHz is already a band in use for commercial systems, providing a ready-made ecosystem for device.

### Better indoor coverage

Many professional users need excellent radio coverage even when operating indoors or in dense city environments where there is a risk of signals being blocked by buildings and other structures.

The 400 MHz band offers superior propagation characteristics, especially in areas such as basements and stairwells. The solution also includes a high power mobile router for extended coverage, meaning that mobile broadband services can be made available over the same network coverage area offered by TETRA voice services on the 400 MHz band.



### Future proof evolution

From using narrowband solutions today, professional users want a technology that will give them a smooth evolution path to the broadband solutions of tomorrow. Evercor provides exactly what they need to achieve this.

LTE and TETRA are 'best of breed' technologies, so combining them into a single, integrated solution means that mission critical voice communications continue to work reliably and securely, while also offering multimedia applications for use over broadband.



## Support today and tomorrow's business challenges

Part of the development of the LTE 400 MHz solution is supporting the refarming process of the 380-470 MHz band, but this is far from the end of the process. The refarmed bands may be further complemented by other frequency bands for broadband PMR services, including 700 MHz, 380 MHz or below, as well as any frequency band defined by the 3GPP specifications (3rd Generation Partnership Project, a collaboration between groups of telecommunications associations).

Cassidian and Alcatel-Lucent are already active in these frequencies, developing solutions such as vehicular routers, micro PCA cards and mission critical applications such as push-to-talk over LTE.

All these will be available in the new 400 MHz solution. The ultimate aim of the partnership is to develop a 3GPP-standard solution that can be re-used anywhere and which forms part of a global eco-system that allows PMR operators to benefit from all the advantages of today's competitive environment.

However PMR users' mobile broadband needs change in the future, the partnership of Cassidian and Alcatel-Lucent will be there to support them.

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