



COVERT OPERATIONS EMPOWERED BY MISSION-CRITICAL BROADBAND DEVICES

A special, covert law enforcement division within a major U.S. city that is home to 2.5M residents. Traditional forms of mission-critical communication would not satisfy the unique needs they required to stay connected while remaining inconspicuous. The law enforcement division was outfitted with covert devices with a specialized feature set that enabled them to stay safe and connected in their fight against crime.



CHALLENGES

COMMUNICATE COVERTLY

More than 10,000 of the city's sworn officers rely on P25 APX radios and networks for their mission-critical communications every day. However, the 1,000 members of a special operations divisions within the city's police force possessed unique communication requirements. The vast majority of the activities carried out by this special operations division are done undercover in plain street clothes. It was crucial that the members of special operations division had a device with which they could securely communicate, instantly with one button, while still maintaining their anonymity.

When evaluating their options, they decided that the distinct look of a two-way radio would not meet this need. The next logical alternative was a consumer smartphone device. However, while these devices allowed for officers to blend in with their surroundings, they lacked necessary mission-critical features such as a push-to-talk button, groups calls and durability. In order to communicate with other team members using a consumer smartphone, officers would have to rely on phone calls and soft-key PTT buttons, forcing them to look down at their screen to open the app and press the PTT button on the screen.

The special operations division used specialty smart devices for a time, but the look of the device was not discrete enough for their needs due to large antennas and bulky speakers that made it clear to any onlooker that the device was not a normal smartphone.

COMMUNICATE INSTANTLY AND WITH CONFIDENCE

Although the special operations division could not use APX P25 radios and leverage their city's robust P25 network in their operations, they still required a communications network that they could depend on to carry their mission-critical transmissions. Consumer-grade LTE networks can often become slow or even be rendered useless when inundated with high traffic volumes in situations like large-scale events or emergencies. The consumer-grade LTE networks are sufficient for normal, everyday data and voice transmissions, however for communications between team members in high stakes situations, a more reliable solution was required.

COMMUNICATE WITH A PURPOSE-BUILT, RUGGED DEVICE

The city's special operations division operates in a variety of challenging environments such as driving rains and heavy snow. These types of conditions are no problem when using an APX P25 radio, however with the special operations division unable to use two-way radios, they needed a device that could stand up to the same conditions. The nature of public safety work also often leads to unexpected drops and trauma to communication devices. The special operations division needed a device that they could rely on to function even after repeated rough handling.

COMMUNICATE CLEARLY IN NOISY ENVIRONMENTS

The missions and operations carried out by the city's special operations division frequently place them in large-scale, noisy situations such as sporting events, festivals and undercover stings where it can be challenging to clearly communicate. The special operations division required a communication method that would ensure they could hear and be heard in any environment.



SOLUTION

Motorola Solutions was the clear vendor of choice due to the city's long-standing relationship and trust in the brand. The city relies on the Motorola Solutions P25 two-way radios and network for all of their mission-critical communications and turned to Motorola to find the right devices for their more unique communication needs. The city decided to purchase 1,000+ Motorola Solutions LEX L11 Mission-Critical Broadband Devices and a FirstNet subscription for each device for the special operations division to use in the field. With the inclusion of the Enhanced Push-to-Talk carrier integrated PTT solution, the special operations division was able to reliably connect all team members over LTE and even integrate LTE devices and talkgroups into their existing P25 LMR talkgroups.

BENEFITS

REMAIN COVERT WITHOUT SACRIFICING COMMUNICATION

It is crucial for this major city's special operations division to remain inconspicuous during their operations while always being connected to all members of their team. The special operations division now relies on the LEX L11 to accomplish this.

The LEX L11 has a look and feel of a consumer device but its features and functionalities are far from that. Although the LEX L11 has a broad portfolio of accessories, the special operations division most often uses the device paired with off-the-shelf consumer accessories such as earphones or Bluetooth earpieces to maintain another layer of covertness. The LEX L11's unique ability to use its embedded push-to-talk button to talk without needing to open the PTT app or even 'wake' the device, paired with its compatibility with consumer accessories, enable the members of the special operations division to communicate discreetly without needing to look at their device or even take it out of their pocket.

PARTNERS IN INNOVATION

The special operations division wanted the device to be even more inconspicuous by removing the colored button accents and having the device be entirely black. The Motorola Solutions design and engineering team was able to work with the special operations division to accomplish this and this all-black design is now a staple piece of the Motorola Solutions catalog.



A DEVICE DESIGNED FOR THE MISSION AHEAD

Although the LEX L11 has the look of a consumer LTE device to passerbys, a unique set of features and functionalities place it in a class of its own. The device has built-in hardware keys that enable users to leverage capabilities that consumer-grade LTE devices lack.

The built-in push-to-talk button allows special operations division to key-up their device to communicate without having to be in their PTT application or even 'wake' the device. A built-in emergency button can alert other team members of unfolding situations without having to use a voice transmission. A discrete channel rocker knob at the top of the device allows users to easily change channels without having to be in the app or look at the device. Two programmable buttons on the side of the LEX L11 allows users to customize functionality with one press of a button. In the case of the special operations division, they use one of the buttons to enable an 'all silence' mode to ensure no unwanted noises emit from the device that could compromise their identity or position.

The LEX L11 is also able to maintain its functionality even in the toughest conditions. The device is completely waterproof, shatterproof, and dustproof. Rain, snow, sand or device drops cause no problem for the LEX L11 to maintain top tier functionality. The device also has 3 microphones to allow for superior noise cancellation and echo suppression ensuring members of special operations division can hear and be heard even without the usage of additional accessories.





ALWAYS STAY CONNECTED WITH RELIABLE NETWORKS

This major city's special operations division paired the mission-critical LEX L11 device with a network they could confidently rely on to carry their transmissions and data. The LEX L11 device is FirstNet ready so for each device the city purchased a FirstNet data plan allowing for the special operations division to communicate over LTE without trepidation that a transmission will be lost or delayed due to network inundation.

To enable push-to-talk over LTE capabilities, the special operations division also purchased subscriptions to the Enhanced Push-to-Talk application for each device. This carrier integrated application is the industry leader in the journey to true mission-critical push-to-talk over LTE. Not only does this application allow for users to communicate seamlessly and with confidence between broadband devices, but it also allows for the integration of broadband devices and talkgroups into existing LMR networks. The city has future plans to enable this capability allowing members of the special operations division to communicate using their LEX L11 with other officers anywhere in the city who are using APX radios.

The LEX L11 has a unique capability that allows it to pair with an APX radio using Bluetooth that is inherent in both devices. What this means is that a user can keep an APX radio in a concealed location such a backpack and wirelessly connect it to a LEX L11 allowing for transmissions to be sent and received over the P25 network while using the LEX L11 as a discrete accessory. This capability is planned to be utilized by the special operations division in the near future.



Explore the [LEX L11](#) and see how it [compares](#) to an average smart device.



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