



The Changing Face of Mission Support Communications

How communities are improving communications,
lowering costs, and increasing productivity with
Broadband PTT and LMR Interoperability

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Introduction

In years gone by, keeping mission support workers connected and productive meant handing them a land mobile radio to use for push-to-talk (PTT) communications with each other as well as dispatchers and first responders, along with a smartphone or tablet on a commercial wireless network to access productivity applications in the field. A growing number of communities are discovering, however, that the combination of carrier-integrated broadband push-to-talk (PTT) and LMR interoperability allows them to move mission support workers off their LMR networks while improving both collaboration and productivity.



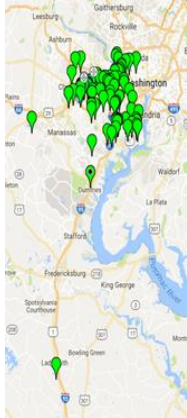
By moving mission support workers to broadband PTT with LMR interoperability, communities can provide those workers with the anywhere, anytime broadband connectivity needed to access data applications in the field, and seamless push-to-talk communications with each other. Dispatchers and first responders benefit as the increased LMR capacity is now focused on critical communications without the cost of adding new frequencies, sites or radios.

The use cases below provide examples of how two communities, at the forefront of changing mission support communications, have each used carrier-integrated broadband PTT and LMR interoperability to increase connectivity, improve productivity and reduce costs.

Extending Coverage with LMR Interoperability

A diverse and thriving urban community on the eastern seaboard of the U.S. was faced with the challenge of how to replace the aging LMR network that provided voice communications for its mission support workers. The community could either follow the traditional path of replacing the existing network and radios with a new LMR solution, or it could take an innovative direction and replace the voice communications provided by the LMR network with a combination of carrier-integrated broadband PTT and LMR interoperability.

Comparing the cost for a new LMR network at ~\$16M to the ~\$500K needed for broadband PTT with LMR interoperability, the community quickly recognized the financial advantages associated with taking this new approach to providing communications for mission support workers. In addition to the capital savings, the cost for device management was reduced because mission support workers could go from carrying two devices, a radio and smartphone, to one device – a smartphone that provides PTT voice communications, access to data applications, and seamless communication with dispatchers and first responders on the community's LMR network.



Implementing broadband PTT and LMR interoperability has extended coverage for push-to-talk communications, making it available wherever users can connect to the carrier's 3G/4G LTE/Wi-Fi networks. Their school system uses broadband PTT and LMR interoperability so that dispatchers can remain in continuous contact with drivers on their routes, even on routes that take them outside the LMR coverage area. Dispatchers also use one-to-one calling to communicate with specific drivers, eliminating the needless hours of noise that came from indiscriminate group communications. Fleet management has also been enhanced with continuous GPS information providing the location of each of the school system's buses, wherever they are traveling.

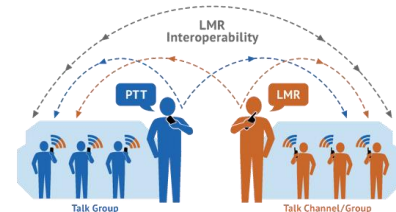
Carrier-integrated broadband PTT and LMR interoperability also has extended coverage for the community's first responders. Ambulance crews use it to remain in contact with dispatchers on the LMR network when transporting patients beyond its coverage area. There's no disruption in communications or in operating procedures for the ambulance crews because their standard talk groups are available on both the LMR network and the broadband PTT solution.

Law enforcement has also benefited from the extended coverage provided by broadband PTT and LMR interoperability. Officers use it to communicate with their precinct via Wi-Fi when responding to incidents at a local shopping mall that doesn't have LMR coverage.

Increasing Capacity with LMR Interoperability

A rapidly growing community in the southwest faced a different challenge. The P25 network providing voice communications for mission support as well as mission critical personnel was running out of capacity. Rather than allocating CAPEX dollars to expand the existing network, the community opted to move its 1,000 mission support workers to a carrier-integrated broadband PTT service with LMR interoperability.

Shifting mission support communications to broadband PTT provided additional capacity on the LMR network for mission critical communications without the cost of network expansion. Moving mission support workers to broadband PTT also made it possible to use the P25 radios previously assigned to them for first responders, saving the community ~\$3M in cost.



With LMR interoperability and broadband PTT, mission support workers now use one device, their smartphone, for field access to work order management and asset management applications, as well as for push-to-talk communications with each other and with dispatchers and first responders on the P25 network.

Because a recent hail storm had taken several antennas on the LMR network out of service and reduced communications, the community has also made carrier-integrated broadband PTT and LMR interoperability available to its first responders to use as a back-up in case the P25 network is damaged again in the future.

Summary

The use cases above are just two examples of how communities across the U.S. are using the combination of carrier-integrated broadband PTT and LMR interoperability to change the face of mission support communications. By moving mission support users to broadband PTT, communities can lower costs and increase LMR capacity without sacrificing inter-departmental communication and collaboration, getting maximum benefit from their communications budget. Employees get the right tools for the job they do, and the connectivity they need to be efficient and productive wherever the job may take them.