**Before the**

**Federal Communications Commission**

**Washington, DC 20554**

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| In the Matter of:  Boulder Regional Emergency Telephone Service Authority Petitions | )  )  )  )  )  )  )  ) | PS Docket 19-254 |

**COMMENTS OF**

**Ryan Poltermann**

The public safety community and those who support it are concerned and becoming frustrated with the lack of transparency that FirstNet evolves in, along with the lack of information available with respect to LMR-LTE interworking. As examples, we are unaware of the 3GPP release adopted for the core infrastructure, how MCPTT will be deployed (i.e. technical roadmap), and what policy restrictions will be in place for those with LMR systems to connect to FirstNet. At its most extreme, it is not possible for FirstNet to tell public safety agencies what the second MCPTT vendor will be. While a document published by FirstNet is advertised as a roadmap, it does not provide traditional roadmap information as to deployment timelines, feature availability, site hardening, operational status of cell sites serving the public safety agencies, and rollout of Band Class 14 to areas that aren’t currently served. These all represent critical information that is not available and are necessary for public safety trust.  
  
Interoperability is a paramount concern, and the ability of LMR field users and consoles to communicate with MCPTT remain unanswered. Questions such as the differences in vocoder used (AMBE+2 versus AMR-WB), whether end-to-end encryption will be supported (AES-CFB 256 bit versus AES-GCM 128 bit), and will rekeying be supported (particularly with LMR consoles) are critical to public safety. LMR and LTE should be capable of using the same user talkgroup, device IDs (Radio IDs and MCPTT IDs) should be shared across systems, and the location of each type of user should be available on both platforms for safety.  
  
While the responsibilities of other carriers is highlighted in the FCC document, we request that FirstNet’s obligations to interoperability be addressed. This reflects the reality that carriers such as Verizon have requested interoperability and that FirstNet has refused. Having multiple cellular carriers available to public safety is beneficial in normal operations and emergency situations: many agencies choose to spread their operation across multiple carriers to achieve their required level of redundancy and resiliency necessary to support their life-saving missions. While AT&T has made efforts to cover as much of the country as possible, public safety demands complete redundancy and thus access to multiple cellular networks.   
  
Interoperability across carriers is being promised by Over-The-Top (OTT) push-to-talk, and this is not directly mission-critical communications. Without native MCPTT cellular carrier interoperability, the risk in MCPTT failing to be adopted increases significantly. Exacerbating this issue is that an OTT solution may be MCPTT on an alternative carrier but may have App Priority on AT&T, which provides not only a confusing picture for public safety agencies but demonstrates that MCPTT on FirstNet alone offers little value for the public safety agency. With OTT solutions, temporary interoperability can easily be established but is unclear how this will be accomplished with MCPTT. We request that FirstNet provide additional information beyond the issues already raised, such as the following:  
  
• What interoperability steps FirstNet is taking with other carriers for MCPTT.  
• What performance differences there are between MCPTT and an OTT PTT solution with FirstNet App Priority.  
• What approaches will FirstNet take to avoid damaging MCPTT through proprietary OTT PTT solutions.  
• What capabilities are in place for MCPTT temporary interoperability.  
• What interoperability there will be between the two FirstNet MCPTT vendors.  
• Will end-to-end encryption be available between LMR and MCPTT.

• Will that solution provide end-to-end encryption when public safety works across multiple carriers.  
• What rekeying capabilities will be supported between LMR and MCPTT.  
• What policy restrictions will FirstNet impose in order to connect an LMR system and/or dispatch consoles to FirstNet.  
  
While issues may be directed to the FirstNet Authority, we respectfully request that formal processes with transparency to all public safety agencies be created to ensure the needs of public safety along with inquiries for information are met. By allowing all public safety agencies to see the issues faced, they may join their voice to other public safety agencies who are facing the same issue. This also provides an opportunity for collaboration and sharing of knowledge between agencies and FirstNet.

Submitted Respectfully,

Ryan Poltermann