

T-Band Executive Briefing

Purpose:

The purpose of this document is to provide a list of high-level talking points to help interested public safety officials present an “elevator speech” to raise awareness of the primary challenges connected with the T-Band relocation issue.

Main Message:

- Public safety users are being required to relocate from the “T-Band”, an important emergency communications spectrum resource for many of the nation’s largest metropolitan areas. This Congressionally mandated auction of T-Band spectrum by 2021 and subsequent move of public safety users from the T-Band by 2023 poses significant challenges to urban public safety communities, and will cost in excess of \$5.9 billion dollars as estimated by the National Public Safety Telecommunications Council (NPSTC). Alternative spectrum has not been identified to facilitate the relocation, and in the largest metropolitan areas there simply is not enough available spectrum to accommodate public safety needs.

Explain the Background:

- Public safety agencies in the nation’s largest metropolitan areas, including Boston, Chicago, Dallas, Houston, Los Angeles, Miami, New York, Philadelphia, Pittsburgh, San Francisco, and Washington, D.C., are allocated spectrum between 470–512 megahertz (MHz) — also known as the “T-Band” — to conduct public safety operations. These metropolitan areas account for nearly 30 percent¹ of the United States population.
- In 2012, the *Middle Class Tax Relief and Job Creation Act* ([Public Law 112-96²](#)) tasked the Federal Communications Commission (FCC) with recovering and auctioning all Public Safety T-Band spectrum for commercial use by February 2021 (Public Safety to vacate by 2023). This Law also requires that proceeds from T-Band auctions go toward T-Band relocation.

Provide Possible Solutions:

- Public safety communications relocation will depend on the development and nationwide deployment of a viable public safety grade voice over long term evolution (LTE) solution with coverage equivalent to that of current public safety T-Band voice radio systems.
- The initial intent was to relocate public safety to the Nationwide Public Safety Broadband Network (NPSBN) prior to the T-Band reallocation. However, LTE technology does not support public safety voice operations with an acceptable level of performance and reliability today. Many feel that public safety should remain on the T-band until the NPSBN can support public safety grade voice operations in the impacted metropolitan areas.

Explain the Challenges of a T-Band Relocation:

Finding Available Spectrum

- In many jurisdictions³, there is simply not enough available (i.e., unlicensed and unused) spectrum in other public safety bands, including the 700 MHz and 800 MHz frequency bands, to accommodate all current T-Band users. Public safety agencies will be forced onto disparate frequencies, thus negatively impacting the operability and interoperability that has taken vast amounts of time and money to build.

Cost of Migration

- Most public safety communications experts agree that solutions to spectrum relocation remain complex and costly for affected local and State public safety entities.

¹ Total population within 50 miles of the eleven affected cities, based on 2010 United States Census data

² See Public Law 112-96 enacted on February 22, 2012: <http://www.gpo.gov/fdsys/pkg/PLAW-112publ96/pdf/PLAW-112publ96.pdf>

³ NPSTC studies show spectrum shortfalls in Boston, Chicago, Los Angeles, New York and Philadelphia

-
-
- Relocating all T-Band systems to 700 and 800 MHz spectrum bands will require above the allocated \$5.9 billion for planning, equipment purchases, and other costs, and the law is silent as to who is ultimately responsible for these expenditures.

Timeline for Migration

- No process for T-Band relocation has been established, and there is no guarantee the T-Band spectrum auctions will raise enough revenue to offset the entire cost.
- There is no established timeline indicating when public safety grade voice over LTE will become available. However, current technology roadmaps indicate it will be at least several years after 2021 before public safety grade voice over LTE will be available for use and be able to provide coverage comparable to current T-Band systems.
- Planning, coordinating, and implementing a successful migration from T-Band to a new public safety communications system is a multi-year (4-5 budget cycle) process and a large commitment of resources – one that cannot be made without more concrete information and guidance on migration schedules, costs and technical capabilities.

Continuity for Interoperable and Operable Communications

- In response to the T-Band legislation, the FCC placed a freeze on public safety T-Band expansions and new T-Band systems.
- Affected regions are awaiting more information and specific guidance while maintaining T-Band systems in an uncertain environment.
- As these systems age, there is an increased risk of disruptions in operable and interoperable communications.
- Changes to T-Band systems will negatively impact region-wide interoperability, which will inevitably affect a demonstrable portion of emergency communications nationwide.