

FCC Field Hearing on Broadband's Role in Improving Public Safety Communications and Emergency Response

Georgetown University - November 12, 2009

Emergency Communications Dual Path Strategy

(An inclusive strategy for tribal, local, state and federal public safety)

Presented by:

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SAFECOM Executive Committee Chair

International Association of Fire Chiefs Communications Committee

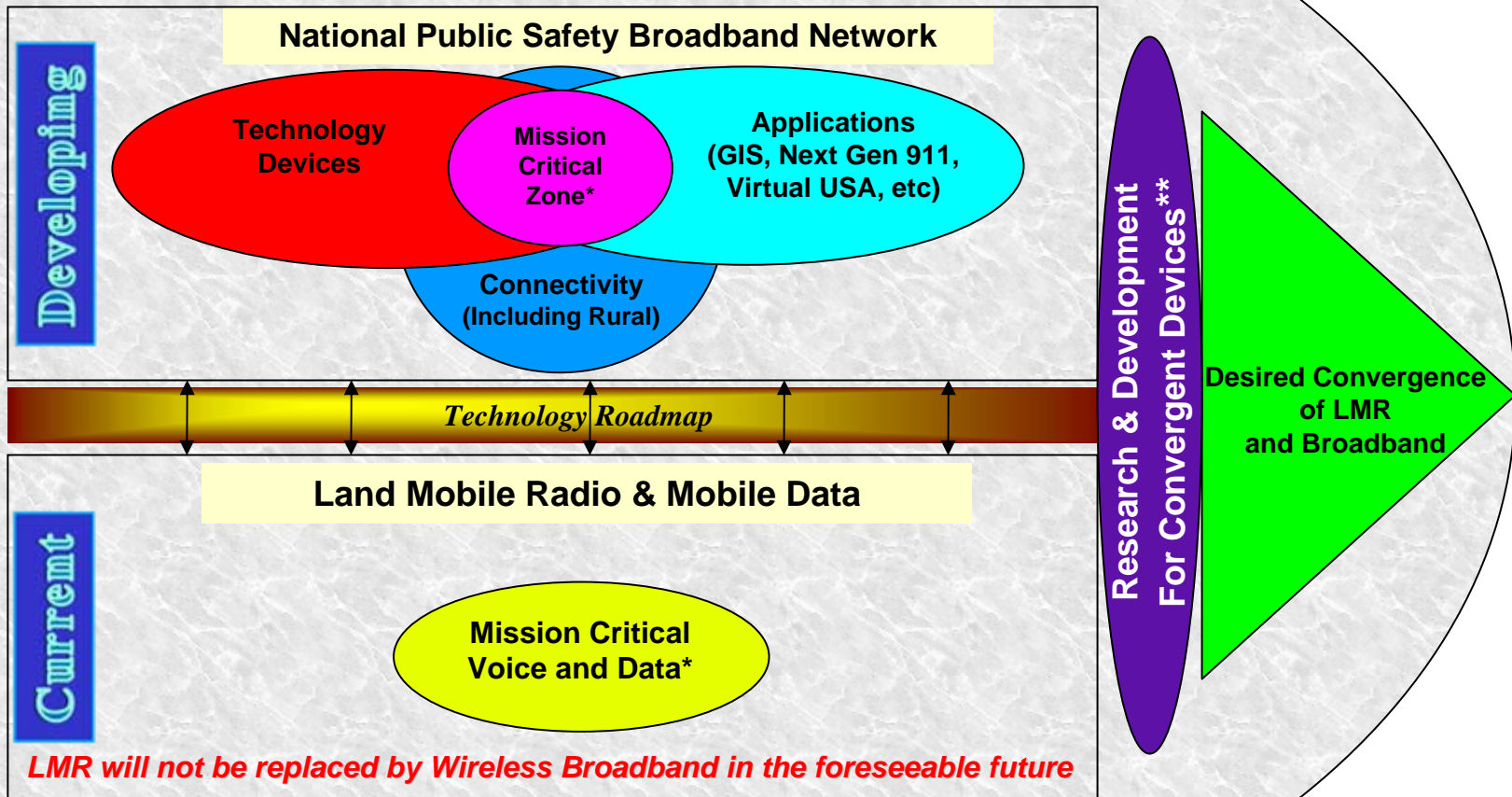
National Public Safety Telecommunications Governing Board

Virginia Fire Chiefs Association 1st Vice President

Emergency Communications Dual Path Strategy

(An inclusive strategy for tribal, local, state and federal public safety)

National Emergency Communications Plan



*Meets public safety requirements for redundancy, reliability, priority access, and security.

**Currently there are no devices capable of device to device communications (TALKAROUND)

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***LMR will not be
replaced by
Wireless
Broadband in
the foreseeable
future***



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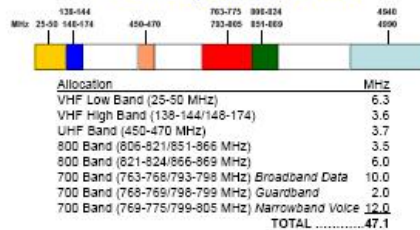
Public Safety Radio Communications WIRELESS BROADBAND IS NOT AN ALTERNATIVE TO LMR MISSION CRITICAL VOICE SYSTEMS

Chief Harlin R. McEwen
Chairman, Communications & Technology Committee
International Association of Chiefs of Police

There is a misconception by some that in 2-3 years wireless broadband will be an alternative to Land Mobile Radio (LMR) mission critical public safety voice systems. The fact is there are currently no broadband standards being developed or even planned that will allow such an alternative. Current and planned broadband standards and technologies depend on a network approach while public safety must also have a non-network capability to communicate in emergencies when a network cannot be reached or is out of service. This paper briefly discusses the history of public safety radio communications, the proposal to begin using wireless broadband for data sharing purposes, and the danger in assuming that wireless broadband will soon offer an alternative to traditional LMR public safety voice systems.

Public safety two-way radio communications services have been evolving and constantly changing over the past 50 years. This started with service primarily in the VHF Low Band (30-50 MHz) and then gradually included other spectrum in higher radio bands as public safety personnel needed more radio channels and became more dependent on two-way radio to perform their duties. As a result, the spectrum assigned to public safety in the LMR Service is fragmented and heavily used as there is a limited amount of spectrum available in any one band. Public safety radio services have been limited mostly to voice and low speed data (primarily text messages) that can be delivered on narrowband radio channels. As technology has developed, more and more systems are using digital rather than analog radio equipment. With the advent of digital services public safety has been able to take advantage of new technology and Internet Protocol (IP) applications but digital has also brought new challenges relative to voice clarity and issues related to radio performance in high noise environments.

Public Safety Land Mobile Radio Spectrum Bands



This does not include 470/512 MHz spectrum used in 11 of the largest US Cities

4 GHz Band (4940-4990 GHz) 50.0

Because of its propagation, this spectrum is only practical for local area networks and hot spots - not for wide area or mobile networks

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How will Public
Safety use
broadband?

How much spectrum
does Public Safety
need?

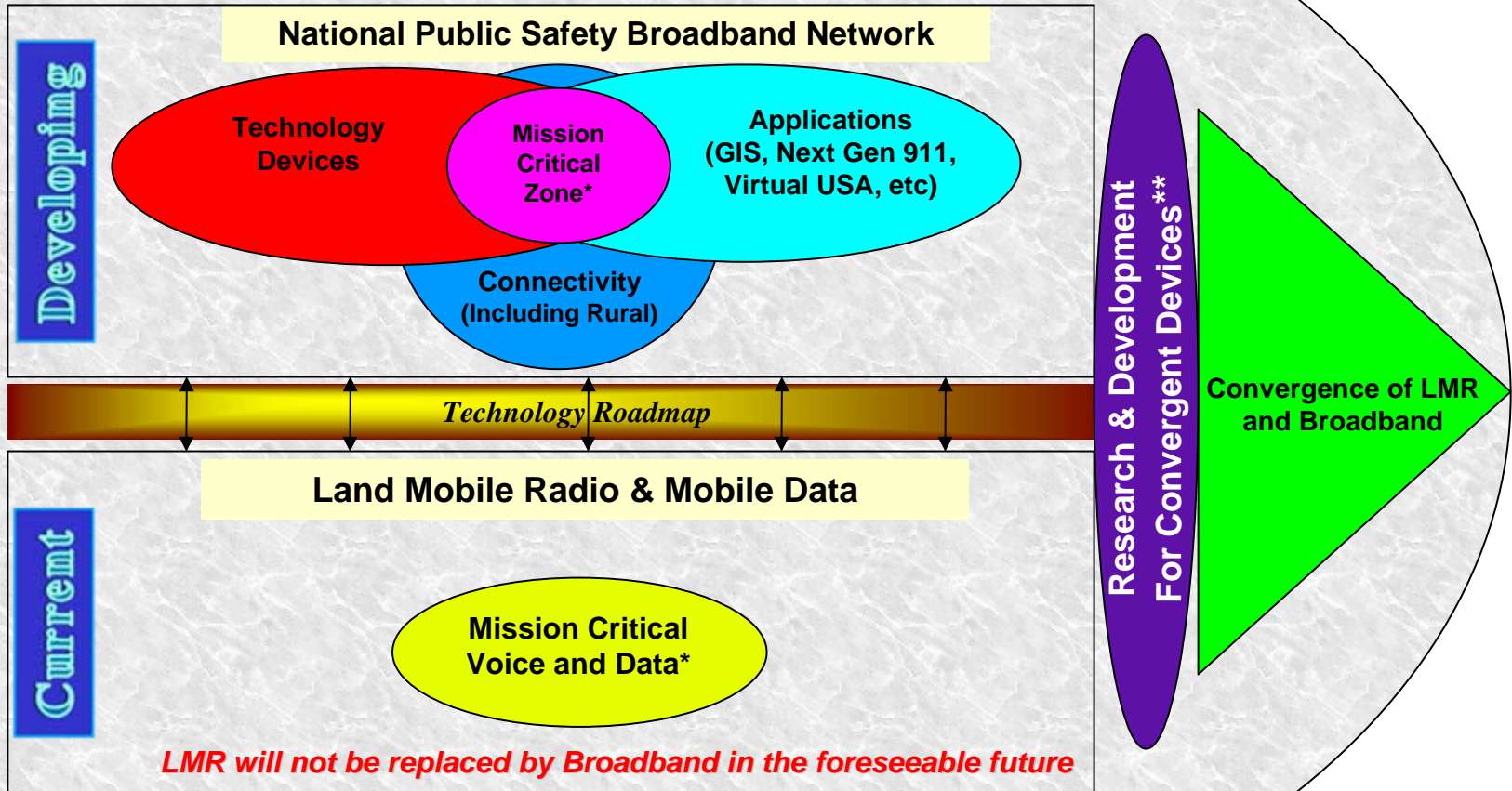
Why Can't Public Safety
use Wireless Broadband
for Mission Critical
Voice?



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