Alcatel·Lucent

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7 August 2009

VIA ELECTRONIC FILING
Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: *Notification of Ex Parte Presentation*
WT Docket No. 06-150, PS Docket No. 06-229

Dear Ms. Dortch:

On August 6, 2009, Paul Mankiewich, Alcatel-Lucent Chief Technology Officer, together with Andrew Delaney and the undersigned of Alcatel-Lucent, and Adam Krinsky of Wilkinson Barker Knauer, LLP met with Jeff Cohen, Jeff Goldthorp, Yoon Chang, Behzad Ghaffari, Kurian Jacob, and Jerome Stanshine of the Public Safety and Homeland Security Bureau, Paul D'Ari, Jennifer Salhus and Erik Salovaara of the Wireless Telecommunications Bureau, John Peha of the Office of Strategic Planning and Policy, and Walter Johnston of the Office of Engineering and Technology. During the meeting, the parties discussed technical issues related to public safety broadband deployment in the 700 MHz band and related early deployment issues, as described in the attached presentation.

In accordance with Section 1.1206(b) of the Commission's rules, this letter is being filed electronically with your office. Please contact the undersigned if you have any questions.

Sincerely,

Michael T. McMenamin

cc: Jeff Cohen
Yoon Chang
Kurian Jacob
Jerome Stanshine
Paul D'Ari
Jennifer Salhus
Erik Salovaara
Jon Peha
Walter Johnston
Jeff Goldthorp
Behzad Ghaffari

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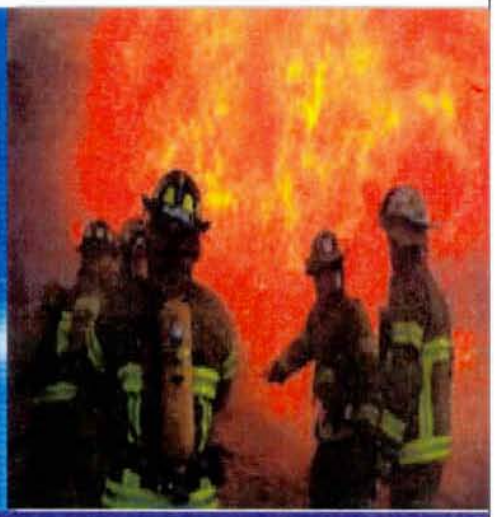
700 MHz Public Safety



Paul Mankiewich - CTO

August, 2009

Agenda

- 4G Technologies
  - LTE and WiMAX - differences between them
- LTE and Public Safety
  - Public Safety support for LTE
  - Benefits of LTE
  - Roaming
- Early Deployments
  - Can roll into a national network
  - 3G versus 4G

4G Technology

- Two Basic 4G technologies - LTE and WiMAX, ALU manufactures both technologies.
  - LTE and WiMAX differences
    - LTE can be deployed in either FDD or TDD
      - The paired spectrum is best supported by LTE because it is the most advanced and spectrally efficient technology for the foreseeable future
    - WiMAX is currently only TDD
      - FDD profiles exist, but they have not been developed
    - LTE spectral efficiency is 40-50% higher than WiMAX today
      - Thus, edge data rates for LTE are expected to be higher
      - Additional standards work could close the gap between the technologies
    - LTE is being deployed by major service providers in 700 MHz
      - And several have proposals for supporting Public Safety deployments
    - For mobile applications, LTE builds on field experience with UMTS & EVDO

LTE for Public Safety

- LTE ALLOWS FOR INTEROPERABLE BROADBAND THAT PUBLIC SAFETY NEEDS
- Public Safety has come out in support of LTE
  - PSST, APCO, NPSTC, and NENA
- All major wireless commercial service providers are deploying LTE in 700 MHz
  - VzW, at&t, US Cellular, MetroPCS and others…
  - Public Safety will benefit from economies of scale with regard to network development
  - Leveraging Commercial Service provider deployment could with assist Public Safety devices
  - Field experience with QoS for real time applications will pave the way for Public Safety applications (voice, push-to-talk, etc.) in the future
  - As Public Safety builds out national coverage, Public Safety users could roam on 700 MHz commercial networks in markets where Public Safety networks have not been built
  - Offers opportunities for either network sharing or operations of the PS network by experienced service providers which can lower cost and provide better service – especially in non-urban areas!

LTE for Public Safety - con't

- LTE will provide the bandwidth to support key Public Safety applications such as:
  - Streaming video - outdoor and indoor
  - High resolution imagery (e.g. building schematics)
  - Optical license plate recognition system
- LTE provides the QoS and/or bandwidth control needed for Public Safety applications
- Standards include better encryption providing higher security than what is available with 3G technologies
- Broadcast/multicast to support very large groups is being worked in 3GPP standards
- LTE is defined by 3GPP standards - which include application interfaces for QoS and traffic management (e.g. user priority)

Early Build-outs

- To date, States, regions, and municipalities have filed 11 waivers at the FCC for use of the Public Safety broadband 700 MHz spectrum
- Deploying with a common technology platform will allow for interoperability once the networks are completed
  - PSST supports waivers that plan to deploy LTE technology, which will allow for interoperability
- Early build-out can be rolled into a national network based on a common technology, LTE
- Users of Public Safety LTE early build networks could roam onto commercial networks in other markets if the user devices are built to support different band classes
- 3G for Early Build-Outs is Not the Optimal Solution
  - Given the commitments by Commercial Service providers to aggressively deploy LTE networks in 700 MHz, LTE will better serve Public Safety's early build-out interests (avoiding the challenge posed by no 3G mobile devices for 700 MHz and the costs associated with evolution/upgrade to LTE)