



National 700 MHz Public Safety Wireless Broadband Network Requirements

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NPSTC is a federation of organizations whose mission is to improve public safety communications and interoperability through collaborative leadership.

Representative Uses



- It's all about moving data
 - Medical/EMS: disease database, emergency treatment
 - Fire fighting: blueprints, hazardous material database, etc.
 - Robotics: automated inspection, intelligence gathering
 - Environmental monitoring
 - Collaboration of resources
 - Surveillance
 - Traffic management
 - Law enforcement database access

Operational Requirements



1. Internet access – wired to wireless to wired
2. Connectivity between networks – broadband/private land mobile radio/satellite
3. VPN access to home or other specialized data servers
4. SMS/MMS messaging
5. Location information (mobile)
6. LMR gateway(s)

Operational Requirements, cont.



7. Multiple modes – voice, data, video
8. Broadband dynamic backbone for connectivity
9. Access to Public Switched Telephone Network (PSTN)
10. Dynamic virtual network creation
11. Security/Authentication/Encryption
12. Survivability and Reliability of Network
13. Service in remote areas

Note: Broadband is not a replacement for traditional Private Land Mobile Radio (PLMR) systems

Technical Requirements



1. Wireless devices meet LTE standards
2. Network-wide IP assignments
3. Dynamic bandwidth assignments
4. Equipment authentication across networks
5. Survivability of Network(s)
6. User authentication
7. Handoff between networks
8. Access to applications
 - a. Mapping
 - b. Documents
 - c. Information

Governance Issues



1. Network standards are national
2. Public/Private partnerships permitted
3. Public safety priority access on shared spectrum networks
4. Bandwidth management based on priority of communications

FCC/Congressional Actions – Wireless



- FCC issues rules for national/local/ build-out and issues waivers in the interim
- FCC allows PSBL to sublicense local/regional entities
- Congress/FCC makes D-Block available to public safety
- Congress/FCC allows national and local public/private partnerships
- Congress/FCC allows network access to all responders including critical infrastructure, federal, and others as defined by regional network administrators

FCC/Congressional Actions – General



- Funding
 - Access to Universal Service Fund
 - Grants for broadband development
 - Spectrum auction proceeds
 - Tax benefits for carriers who support public safety
- Resource sharing
 - Access to federal resources
 - Networks
 - Satellites
 - Mobile assets
 - Spectrum