



PUBLIC NOTICE

Federal Communications Commission
445 12th St., S.W.
Washington, D.C. 20554

News Media Information 202 / 418-0500
Fax-On-Demand 202 / 418-2830
TTY 202 / 418-2555
Internet: <http://www.fcc.gov>
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ADDITIONAL COMMENT SOUGHT ON PUBLIC SAFETY, HOMELAND SECURITY, AND CYBERSECURITY ELEMENTS OF NATIONAL BROADBAND PLAN

NBP Public Notice # 8

PLEADING CYCLE ESTABLISHED

GN Docket Nos. 09-47, 09-51, 09-137

PS Docket Nos. 06-229, 07-100, 07-114

WT Docket No. 06-150

CC Docket No. 94-102

WC Docket No. 05-196

Comment Date: November 12, 2009

Broadband offers a variety of potential benefits to emergency responders and other public safety agencies. However, commenters in the record have noted that these networks may not meet specialized public safety requirements. Public safety agencies today typically have only access to broadband services that they obtain from commercial service providers. In particular, public safety agencies generally lack access to mobile wireless broadband service that meets their specialized requirements (e.g., coverage, hardening, reliability, etc.). If such broadband capability were made available to public safety, for example, it could allow firefighters to receive a recent video of a fire scene or perhaps blueprints or understand where hazardous material is located even as they proceed to the fire scene or police officers to receive videos of a crime scene or an accident or even a suspect or evidence. Further, improved broadband services could enhance the public's ability to call for help in emergencies and public safety's ability to provide warnings, alerts, and emergency information to Americans in times of emergency or need. However, achieving these potential public safety benefits also requires consideration of how to implement and maintain a broadband infrastructure that is resilient in the face of cyber attacks and similar threats to network security. Accordingly, we seek additional comment on the following specific issues to help us better understand these issues as we develop a National Broadband Plan.

Comments in response to this Public Notice will also be filed in appropriate pending proceedings.

1. **Public Safety Mobile Wireless Broadband Networks.** One of the issues raised in the Broadband Plan NOI is how to best meet the needs of the public safety community for mobile wireless networks.
 - a. How are public safety agencies making use of broadband networks today?
 - b. We seek specific details on both current and anticipated needs of the public safety community for mobile wireless broadband networks and applications. Specifically, we seek comment on:
 - i. the amount of anticipated peak, average, and cell edge broadband traffic and capacity requirements that public safety broadband use is generating and is expected to generate, and the number of current and anticipated public safety users

- ii. the type of traffic or users' patterns and usages anticipated for broadband services associated with critical, medium and low demand theater operations
 - iii. applications support requirements and associated data rates for both the down link and uplink operations and associated Quality of Service requirements
 - iv. current and anticipated public safety device and applications needs
 - v. the corresponding extent of broadband infrastructure and backhaul that would be required to support public safety applications, and what technologies and solutions do public safety use or anticipate using to meet these requirements
 - vi. specific network features and anticipated architecture that will allow the broadband network to operate seamlessly with disaster recovery capabilities nationwide, and the kind of connectivity needed with legacy and other commercial networks
 - vii. definition and quantification of both mission critical voice and mission critical data
 - viii. specific requirements for hardening of cell sites and other network facilities, and for other requirements of network survivability and disaster recovery
 - ix. any studies or other data demonstrating whether and how the requirements needed for urban, suburban, and rural environments currently differ and how they are expected to differ in the future
- c. We also seek concrete, itemized data on costs and resources necessary to satisfy public safety broadband needs for mobile wireless services.
 - d. We seek information on experiences and lessons learned to date by current public safety use of mobile wireless broadband networks (whether such networks are commercial or public safety-only), including use of such networks at central locations (e.g., emergency operations centers) and by public safety personnel in the field.
 - e. We seek comment on what particular mobile wireless broadband needs could be satisfied by commercial broadband service providers in the short term and over the long term. Are there any assessment studies or field trials that show areas in which next generation mobile networks (4G) meet or do not meet Public Safety requirements?
 - f. Specific to wireless broadband platforms, what is the expected bandwidth usage for anticipated public safety applications in the short and long term?
 - g. What actions must the Commission or other entities take to ensure interoperability among public safety broadband systems?
 - h. We also seek comment on whether public safety users anticipate using a single network for mobile broadband data and voice services in the short or long term, on the obstacles to such convergence, and on how the Commission could help to address these problems or otherwise support efforts at convergence.
2. **Next Generation 911 (NG911).** The Broadband Plan NOI has also been exploring whether the American public could use broadband technologies to better communicate with emergency responders when they make 9-1-1 calls.
- a. What are the broadband infrastructure requirements necessary to support deployment of NG 911 capability?
 - b. Have NG911 technical standards been completely defined? If not, what has been done and what remains outstanding? Where is the associated equipment in the development pipeline?
 - c. To what extent are NG911 and near-NG911 technologies and services being deployed today? What states/regions/municipalities have already deployed these technologies and services or are on a path to doing so in the near-term? What factors have encouraged these deployments?
 - d. Are there regulatory roadblocks that may be restricting more vigorous NG 911 deployment? Which of these are within the Commission's jurisdiction and what actions should the Commission take in this regard?

- e. What technologies are available or under development in the NG911 environment to facilitate automatic location identification? How can this data be made useful to Public Safety Answering Points (PSAPs)?
 - f. What does the public safety community, including PSAPs, need to do to enable emerging internet applications that reliably deliver voice, video and data information to PSAPs? What is the best architecture and means to accomplish this?
3. **Cyber security.** Another important issue the Broadband Plan NOI has been examining the survivability of broadband networks and cyber security.
- a. What type of computer-based attacks against government or commercial computer systems or networks (i.e. cyber attacks) are occurring or are anticipated to occur, and what are other federal agencies, commercial, and other entities doing to prevent, detect and respond to cyber attacks?
 - b. How are other federal agencies of the United States and other governments collaborating with the communications segment to prevent, detect, and respond to cyber attacks?
 - c. What market incentives exist for commercial communications providers, large and small, to invest in secure infrastructure? (i.e., how do we avoid externalities?)
 - d. Do end-users have sufficient independent information to make good decisions between communications providers that may differ in the extent to which they implement cyber security measures?
 - e. How widely are cyber security best practices implemented by communications providers and what are these best practices?
 - f. What are the specific wireless network features and handset features and capabilities necessary to combat such attacks?
4. **Alerting.**
- a. To what extent are broadband technologies currently being used as part of public emergency alert and warning systems? Please provide specific descriptions of their use as part of these systems, including system capabilities and limitations and examples of jurisdictions where such systems are currently in use.
 - b. How can broadband technologies improve the effectiveness of emergency alerts for all Americans, including people with disabilities, people living in rural areas and people who do not speak English? Comments should include information on improvements to message content, geographic targeting, system security, and speed of message transmission from the alert initiating government agency to the public.

This matter shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission’s *ex parte* rules. See 47 C.F.R. §§ 1.1200, 1.1206. Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentations must contain summaries of the substance of the presentations and not merely a listing of the subjects discussed. More than a one- or two-sentence description of the views and arguments presented generally is required. See 47 C.F.R. § 1.1206(b). Other rules pertaining to oral and written *ex parte* presentations in permit-but-disclose proceedings are set forth in section 1.1206(b) of the Commission’s rules, 47 C.F.R. § 1.1206(b).

All comments should refer to GN Docket Nos. 09-47, 09-51, and 09-137. Comments in response to this Public Notice will also be filed in appropriate pending proceedings. Please title comments responsive to this Notice as “Comments—NBP Public Notice # 8.” Further, we strongly encourage parties to develop responses to this Notice that adhere to the organization and structure of the questions in this Notice.

Comments may be filed using (1) the Commission's Electronic Comment Filing System (ECFS), (2) the Federal Government's eRulemaking Portal, or (3) by filing paper copies.¹ Comments filed through the ECFS can be sent as an electronic file via the Internet to <http://www.fcc.gov/cgb/ecfs/> or the Federal eRulemaking Portal: <http://www.regulations.gov>.² Generally, only one copy of an electronic submission must be filed. In completing the transmittal screen, commenters should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message, "get form." A sample form and directions will be sent in reply. Parties who choose to file by paper must file an original and four copies of each filing.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- The Commission's contractor will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, N.E., Suite 110, Washington, D.C. 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class mail, Express Mail, and Priority Mail should be addressed to 445 12th Street, S.W., Washington, D.C. 20554.

People with Disabilities: To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer and Governmental Affairs Bureau at (202) 418-0530, (202) 418-0432 (TTY).

For further information about this Public Notice, please contact Jennifer A. Manner at (202) 418-3619.

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¹ See Electronic Filing of Documents in Rulemaking Proceedings, 63 Fed. Reg. 24121 (1998).

² Filers should follow the instructions provided on the Federal eRulemaking Portal Web site for submitting comments.