

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Increasing Public Safety Interoperability	)	PS Docket No. 10-168
by Promoting Competition for Public	)	
Safety Communications Technologies	)	
	)	

**COMMENTS OF CELLULAR SOUTH, INC.**

Cellular South, Inc. (“Cellular South”), the nation’s largest privately-held wireless carrier – serving over 850,000 customers in primarily rural areas – submits these Comments in response to an August 19, 2010, Public Notice (DA 10-1556) seeking input on the potential for increasing public safety interoperability by promoting competition for public safety communications technologies (the “Public Notice”). More specifically, Cellular South provides the following Comments in response to Item 5 of the Public Notice, which asks:

*5. As the Commission considers requirements for the 700 MHz broadband public safety network, are there any requirements on public safety equipment or network operators that would increase competition in the provision of public safety equipment? How can the Commission’s work on requirements for the 700MHz broadband public safety network be leveraged to promote interoperability between narrowband and broadband networks?*

## **Summary**

The Commission should follow the National Broadband Plan's recommendations for the deployment and operation of a national public safety network through leveraging the efficiencies and innovations of private enterprise. Public safety personnel will benefit from network redundancy, lower costs and better technology where many equipment manufacturers and service providers are competing to provide the best services at the lowest cost. But to achieve this end, the Commission must put in place a regulatory scheme that requires interoperability of equipment and devices operating on compatible technologies – including LTE technologies on the verge of deployment in the 700 MHz spectrum.

## **Discussion**

### *The National Broadband Plan's Public Safety Blueprint Should be Followed.*

There are three foundational components to the successful deployment and operation of any high-speed mobile data network. First, a service provider needs spectrum with the appropriate characteristics and capacity, such as 700 MHz spectrum. Next, a service provider must have sufficient funding to construct a network with ample coverage and capacity to make it useful for users. Last, and most important, a service provider must have access to interoperable equipment, and devices must be available so that users can access other networks that utilize the same technology.

In the National Broadband Plan (“NBP”) the Federal Communications Commission (“FCC”) accurately identified these three critical elements. Cellular South supports the NBP's Public Safety recommendations.

The NBP recognizes the importance of broadband services to public safety personnel. Noting that “the United States has not yet realized the potential of broadband to enhance public safety,”<sup>1</sup> the NBP recites a number of recommendations necessary to improve public safety through broadband availability. Recommendation 16.1 is the cornerstone: “Create a public safety broadband network.”

To accomplish this, the NBP suggests licensing of the 700 MHz Upper D-block for commercial use with options for a public safety partnership. By permitting the Upper D-block to be auctioned for combined commercial and public-safety uses, the FCC would, through leveraging private enterprise, foster the creation of a nation-wide “back-up” public safety network. There is, however, one significant technological hurdle to the success of the FCC’s plan: “it is critical to develop commercial devices that can operate across the 3GPP Band 14...,” which includes both the D-block and the public safety broadband spectrum.<sup>2</sup>

*Interoperability Leads to Greater Roaming Ability and Lower Device Costs*

In order for public safety personnel to have access to needed spectrum, the NBP provides that “the FCC should explore other ways to encourage the deployment of public safety devices that transmit across the entire broadband portion of the 700 MHz band (*i.e.*, Band 12, Band 13, Band 14 and Band 17).”<sup>3</sup> Such devices would permit the user to access 700 MHz Lower Blocks A, B and C (*i.e.*, Band 12), 700 MHz Upper Block C (*i.e.*, Band 13), the 700 MHz Upper Block D and the Public Safety Band (*i.e.*, Band 14) and

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<sup>1</sup> NBP, Chapter 16, p. 313.

<sup>2</sup> *Id.* at 316.

<sup>3</sup> *Id.*

Lower Blocks B and C (*i.e.*, Band 17 which is a subset of the frequency blocks in Band 12).<sup>4</sup>

Cellular South strongly supports the concept that public safety personnel be able to make use of devices with full “across the bands” capability. The Commission should require that any device capable of two-way operation in the Lower and Upper 700 MHz Bands, for public safety and commercial users alike, have full “across the bands” capability, with only public safety personnel having priority access to the commercial spectrum in the 700 MHz bands and the ability to make use of the dedicated Public Safety spectrum.

FCC action requiring interoperability across the 700 MHz spectrum would yield two key benefits: (1) greater geographic and inter-network roaming ability and (2) a more competitive market in the next generation of wireless devices for public safety personnel (and all consumers).

Increased Roaming Ability: An interoperability requirement would enable needed redundancy and greater geographic reach for our nation’s public safety personnel. Interoperability of equipment and devices would ensure that first responders from one part of the country could utilize their wireless communications and data devices when deploying to an emergency situation in another part of the country. Additionally, public safety personnel would be able to immediately utilize any redundant commercial network in the event of a catastrophic loss of the dedicated public safety network in a given area.<sup>5</sup>

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<sup>4</sup> The questionable necessity of AT&T’s and its LTE business partners’ “Band 17” is the subject of another FCC proceeding (No. 11592).

<sup>5</sup> See, Roberson, D., *Technical Analysis of the Proposed 700 MHz D-block Action* (August 23, 2010), § 3.3.

Lower Cost, Increased Innovation: An interoperability requirement would decrease the cost of devices to end-users and would incentivize manufacturers and providers to innovate in order to attract public safety (and all other) customers. Without interoperability, only a very limited number of manufacturers will be economically able to manufacture a small subset of Public Safety spectrum compatible devices. This will prevent the downward cost pressures that accompany mass production (i.e., less competition and smaller scale production yields higher retail prices) and chill innovation within the market (i.e., there's no need to introduce smaller, faster, or better devices and network capabilities when there's less competition). In short, without an interoperability requirement there will be cost inefficiencies and less innovation in the public safety wireless market. Not all public safety personnel (in particular volunteer and rural agencies) will be able to afford to be sufficiently equipped to respond with needed flexibility in emergency situations.<sup>6</sup>

The solution, then, is for the FCC to fully leverage the economies of scale available by requiring interoperability of all two-way 700 MHz devices across the entire spectrum. This “across the bands” approach will foster competition and yield the most expansive, efficient and innovative mobile broadband network and device marketplace for the nation’s public safety personnel and all consumers.

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<sup>6</sup> See, e.g., L. Moore, “Public Safety Communications and Spectrum Resources: Policy Issues for Congress,” Congressional Research Service Doc. No. R40859 (September 1, 2010) (“The participation of commercial carriers in developing and deploying, for example, a common radio interface, is expected to put the costs of public safety radios in the same price range as commercial high-end devices (\$500). By contrast, interoperable radios for the narrowband networks at 700 MHz cost \$3000 and up, each.”)

## **Conclusion**

With regard to public safety wireless broadband, Cellular South's position is consistent with the one articulated by the FCC in the National Broadband Plan. Our nation's public safety personnel will benefit from network redundancy, lower costs and better technology where competitive forces are fully engaged to drive private enterprise to deploy the best services at the lowest cost. To enable this robust competition, the Commission should implement a regulatory scheme requiring interoperability of equipment and devices operating on compatible technologies in the 700 MHz spectrum.

Respectfully submitted,

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