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**Area Licensing: A Solution for the Public/Commercial
Partnership in the 700 MHz D Block**

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I am Ted Carlson, Chairman of the Board of United States Cellular Corp. Under a reasonable approach to the D Block, U.S. Cellular would be ready, willing and able to provide parts of the next-generation nationwide, interoperable broadband wireless network under a partnership of public safety agencies and commercial operators. The Auction 73 rules were a barrier against bidding on the D Block license for our company and many others. We hope that the rules for re-auction of this spectrum will use area licenses and allow us to play a role in this important and challenging opportunity. This approach will help meet the goals of Congress and the FCC for this partnership with manageable roles for government, public safety agencies and commercial operators.

U.S. Cellular is the sixth largest mobile operator in the U.S., serving over 6.2 million customers in urban, suburban, and rural markets in 26 states. We provide award-winning call quality as recognized in five consecutive J.D. Power awards. U.S. Cellular is proud to satisfy many public safety needs currently -- hundreds of state and local public safety agencies subscribe to our services, we have deployed E911 service to over 1,000 PSAPs, and we participate in the Wireless AMBER Alerts Initiative. Also, U.S. Cellular operates as part of a national, interoperable network of networks -- we offer national service plans through roaming arrangements with other carriers, we coordinate call handoffs with many neighboring carriers, and our engineers participate in industry standards bodies.

We are prepared to play a significant role by operating part of a shared wireless broadband network meeting the needs of public safety for nationwide, interoperable services.

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In conjunction with partners, U.S. Cellular has been an active participant in recent spectrum auctions. Yet, with our own networks covering only about 15 percent of the nation's population, a national license for the D Block in Auction 73 was beyond our reach financially and operationally. In the re-auction of this spectrum, a national license or even one of the six continental REAG licenses would again be a "bridge too far" for us and many other wireless operators. Instead, license areas such as those corresponding to the 55 public safety planning areas, called NPSPAC regions, offer a much better fit to our capabilities and the goals of the D Block. The NPSPAC regions are shown in the attached map.

The FCC's technical framework and the PSST's Network Sharing Agreement will ensure nationwide interoperability. Area licenses will offer several important advantages. First, they will draw the interest of many more operators. As shown in Auction 73, demand for smaller area licenses of the A and B Blocks was far more intense, and involved many diverse bidders, compared to the mega-regions of the C and D Blocks. Greater demand for NPSPAC licenses will result in greater willingness of commercial operators to meet the network and service needs of public safety agencies and will also result in more active bidding. With area licenses, operators already serving part of a license area can build on their existing network infrastructure and operations, making the commercial opportunities more attractive. Existing operators can also build on their current relationships with public safety agencies in such areas, making the partnerships more successful for all parties.

Second, area licensees will be more responsive to the varying needs of public safety agencies. Many NPSPAC regions have been actively coordinating wireless services to their local public safety users for several years. Having licenses correspond to these existing regions

will promote effective uses of the newly available 700 MHz spectrum for the public/commercial partnership.

Third, with multiple operators building area networks, network deployment will be faster and more extensive than under a nationwide or mega-region licensee. More, and more-diverse, areas will be constructed simultaneously as the financial strength of many operators is harnessed to get the job done. Other advantages of area licenses include more innovation in services and operations, less risk from failure of a single operator, and more competition in commercial services.

We believe the area licensing approach is manageable for the FCC, PSST, public safety agencies and commercial operators. Regardless of the license size, a successful auction requires that technology specifications, performance obligations, spectrum lease payments, and additional factors must be disclosed to potential bidders in the form of an executable NSA. The process we envisage for the FCC, the PSST, and potential bidders to work together prior to the reaction to achieve this result is as follows.

The technical specifications must be established before the auction so that potential bidders may assess the opportunity and bid strategies. The FCC should adopt a technical framework addressing issues such as coverage, reliability, public safety preemption, back-up power, and major service features. These rules must be commercially reasonable in order to attract commercial operators to the partnership. In particular, the standards for population coverage and reliability should be achieved over the license term, and the rules should allow reasonable differences in build-out and performance based on the population density of the license areas. We propose that the FCC's rules specify a range for population coverage, permitting the PSST, in consultation with public safety entities and potential bidders, to specify

the requirements for specific areas as part of the NSA put forward pre-auction. The attached table provides an example of how coverage requirements could be tiered to reflect market differences and make every license attractive to some commercial bidders.

FCC rules would address other aspects of the process of developing the NSA, such as mandatory roaming and a range of fees for the commercial operators' use of the public safety 700 MHz spectrum. These fees could be a fixed percentage of the winning bid amount, and remitted to the PSST on an annual basis. These lease payments would cover PSST's operating expenses and could also be used, under FCC supervision, to support the costs of service in low density or economically challenged areas.

These rules would guide the PSST's development of the NSA before the auction. The NSA would address technical and rate issues for all area licensees. For example, the PSST must select a common over-the-air interface to be used by all D Block licensees; U.S. Cellular believes that the fourth-generation technology called LTE has the greatest support in the national and global wireless industry, resulting in economies for both infrastructure equipment and handsets. The NSA would also specify service level requirements, security, billing procedures, and other operating parameters. Whenever possible, existing standards should be leveraged to bring into play broader economies of scale.

The NSA would allow slight variations in terms and rates by license area, with the aim of making each license commercially viable for potential commercial bidders. Without sacrificing any nationwide interoperability, these variations in terms and rates could help offset the higher costs of serving low-density areas. U.S. Cellular believes that each area license can be successfully auctioned. The A and B Blocks in Auction 73 attracted vigorous bidding, including

for low-density areas, and there are carriers with existing networks and operations in each area which would be attracted to bid.

After the auction, each licensee would sign the NSA. In any given area, the area's public safety agencies and operator could discuss and agree on area-specific modifications to the NSA consistent with the national technical and service specifications. These modifications could reflect local priorities, operating conditions and service needs. Under no circumstances would modifications be allowed that would undermine nationwide interoperability.

A committee of all area licensees would elect a few national officers to work directly with the FCC and PSST in monitoring and, if needed, updating the NSA. This single point-of-contact for the licensees with the FCC and PSST would facilitate maintenance of state-of-the-art standards for the network and services. As a condition of the NSA, every licensee would be required to participate in and be governed by the decisions of the committee of licensees.

U.S. Cellular believes that this approach to re-auctioning the D Block is more likely to succeed than either a national license or an RFP model. An RFP model would entail delays by requiring legislation. RFPs would involve open-ended, hugely complex and detailed submissions and time-consuming evaluations, and invite challenges to FCC decisions in the courts. Many potential operators would be deterred by the costs, uncertainty, and low transparency of an RFP model. The FCC's spectrum auctions have been widely praised as a huge advance over the comparative hearings of the first round of cellular licenses. The FCC should seek to improve on how it auctions the D Block, by area licenses and carefully thought through pre-auction technical specifications. The FCC should build on the clarity and speed of auctions and not return to the morass of RFPs and comparative hearings.

In conclusion, U.S. Cellular has advocated a solution to address many of the goals and issues of the public/commercial partnership for the 700 MHz D Block. Area licenses, ideally based on existing NPSPAC regions, will help achieve a nationwide, interoperable network of networks that is sensitive to the needs of public safety. The technical issues are manageable for the FCC, the PSST and commercial carriers. Terms and rates can be established in the FCC's technical framework and the PSST's NSA, which will likely lead to a successful auction for licenses in all areas, followed by rapid deployment of a strong, interoperable shared wireless broadband network.

Thank you.

**Example of Coverage Requirements
Tiered to Reflect Market Differences, Designed to
Make Every License Attractive to Some Commercial Bidders**

<u>Population Density</u>	<u>Coverage Requirement¹</u>
< 10 pops per square mile ²	86%
≥10 and <100 pops per square mile ³	90%
≥100 and <500 pops per square mile ⁴	94%
≥500 pops per square mile ⁵	98%

¹ Commercially reasonable coverage requirements depend on the technical standards for coverage. U.S. Cellular supports Alcatel-Lucent's recommended standards -- minimum cell edge data rate of 256 kbps on the forward link (base to mobile), 128 kbps on the reverse link (mobile to base), and with 95% area coverage reliability corresponding to 90% edge contour reliability. The standards in this table reflect analysis based on the typical link budget requirements of commercially deployed CDMA voice wireless networks.

² Estimated to include 7% of the NPSPAC regions.

³ Estimated to include 47% of the NPSPAC regions.

⁴ Estimated to include 40% of the NPSPAC regions.

⁵ Estimated to include 6% of the NPSPAC regions.