

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Fostering Innovation and Investment in the Wireless Communications Market)	GN Docket No. 09-157
)	
A National Broadband Plan For Our Future)	GN Docket No. 09-51

In the Matter of)	
)	
Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993)	WT Docket No. 09-66
)	
Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless including Commercial Mobile Services)	
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Comments of United States Cellular Corporation

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Comments of United States Cellular Corporation

United States Cellular Corporation ("USCC") hereby files its Comments responding to the Commission's Notices of Inquiry with respect to the factors that encourage innovation and investment in wireless and with respect to the Commission's analysis of competitive conditions.¹

Introduction and Summary

USCC strongly supports the FCC's efforts to promote wireless innovation and competition. In the following comments, which are being filed in both dockets, USCC will discuss the actions we believe the FCC should take to ensure that the US wireless industry will

¹ See, In the Matter of Fostering Innovation the Wireless Communications Market: A National Broadband Plan For Our Future; GN Docket NO. 09-157; GN Docket 09-51, Notice of Inquiry, FCC 09-66, released August 27, 2009 ("*Innovation NOI*"); In the Matter of Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, including Commercial Mobile Services, WT Docket No. 09-66, Notice of Inquiry, FCC 09-67, Released August 27, 2009, ("*Competition NOI*")..

continue to be vibrant and successful and able to meet its public interest responsibilities.

The most important remaining unallocated piece of wireless spectrum remains the 700 MHz "D Block." This spectrum should be used for a nationwide, interoperable, public safety network. The FCC should either adopt the LTE technical standard for the D Block or authorize the PSBL to designate a technical standard for shared network operations on this spectrum. A common standard is essential for a national network, and we believe that the LTE standard best reflects an industry consensus. We also believe that the public-private partnership model for the D Block, based on shared use of the D Block and existing PSBL spectrum, remains the approach most likely to result in a successful deployment of a nationwide public safety network.

The FCC must also take certain other steps to ensure that the wireless industry will remain competitive, which is itself the greatest spur to innovation. The Commission must end handset exclusivity. Through exclusive arrangements for "smart phones," the national carriers have prevented customer access to advanced wireless applications in rural parts of the country, decreased competition for wireless services in all areas, and created a barrier to the growth of broadband services. The largest carriers' exclusivity arrangements often extend to rural areas which the largest carriers do not serve, usually expire after the handset is obsolete, and negatively affect smaller carriers with little or no effect on the largest carriers offerings.

The FCC should also now evaluate the overpriced "special access" facilities upon which many wireless carriers must depend for "backhaul" and how they have become a barrier to wireless network expansion and competition. Put simply, the FCC's deregulatory policies and ineffective regulation of special access services have resulted in higher prices for such services than is justified by ILEC costs. The FCC should open a proceeding to deal with all outstanding special access issues.

The FCC should also consider other means of strengthening the competitive positions of midsized, small and regional wireless carriers. For example, in a wireless world increasingly dominated by a few huge national carriers the right to roam on reasonable terms and conditions

will be critical. Accordingly, USCC recommends that the FCC adopt a right to roam "in market," subject to a reasonable time limit to ensure system buildout, and that the FCC should extend the roaming right to include non-interconnected services and features, including information services, i.e. "data roaming."

USCC also believes the FCC should actively seek to promote wireless network construction, by acting against the regulatory delays which now inhibit the growth of such networks. For example, the FCC should act on CTIA's "shot clock" proposal. An adequate number of antenna towers remains the indispensable prerequisite to the achievement of all wireless public interest objectives.

Another critical aspect of wireless network construction is the continuing need for adequate universal service support. The FCC should modify its current policies, which are driven by misplaced concerns about the growth of the high cost fund, to promote the statutory goals of universal service and competition. The FCC should also not adopt proposals such as reverse auctions, which will restore rural monopolies, and should limit USF fund growth by implementing full portability of support.

Lastly, if wireless competition is to be preserved, let alone enhanced, the FCC must impose limits on spectrum aggregation by individual carriers on a market by market basis. The FCC's existing evaluation "screens" have not prevented and have in fact facilitated the emergence of a wireless industry dominated by a few national carriers. That has not served the public interest and the Commission should, at the least, implement policies which inhibit further market concentration.

Discussion

I. The Commission Has An Important Role to Play In Developing, Promoting, Or Seeking to Find Consensus About Technical Standards Where There Are Overriding Public Interest Needs Such As The Establishment Of A National Interoperable Broadband Network For Public Safety

In its *Innovation NOI* the Commission asks a series of questions about the role of technical standards, among them under what circumstances there should be a role for the Commission in developing, promoting, or seeking to find consensus about technical standards for a particular band or service.²

We support the Commission's policies to promote flexibility in the standards-setting process and in licensee selection of technologies, but we also believe that there are circumstances where the public interest and a compelling policy goal may require exceptions. The foremost example is the Shared Wireless Broadband Network (SWBN) where the primary goal of interoperability is controlling. Here, the Commission should support the decision of public safety stakeholders³ in selecting LTE as the technology of choice for the shared network. The Commission should either adopt the LTE technical standard in its rules for D Block and PSBL spectrum or authorize the PSBL to designate the technical standard for shared network operations on this spectrum.

As stated by Public Safety Spectrum Trust ("PSST") Chairman Harlin McEwen in his recent testimony before the House Subcommittee on Communications, Technology and the Internet, the selection of LTE meets the critical needs of the public safety community to establish the national broadband network they need for public safety interoperability and roaming:

"We ... need a network that uses one common technology standard so the dozens of

² See *Innovation NOI*, Paras. 50 and 60.

³ The following national public safety organizations have reached consensus on the deployment of LTE technologies: the Public Safety Spectrum Trust Corporation (PSST), the National Public Safety Telecommunications Council (NPSTC), the International Association of Chiefs of Police (IACP), the Major Cities Police Chiefs Association (MCC), the National Sheriffs' Association (NSA), the Major County Sheriffs' Association (MCSA), the International Association of Fire Chiefs (IAFC), the Metropolitan Fire Chiefs Association (Metro Chiefs), the Association of Public-Safety Communications Officials-International (APCO) and the National Emergency Management Association (NEMA).

separate groups making up our nation's first responders in any area can communicate with each other. This requires that the public safety community, whether local, regional or national, be on the same frequency, using the same network." ⁴

In its recent report entitled, "700 MHz Public Safety Broadband Task Force Report and Recommendations ("*NPSTC Report*")", The National Public Safety Telecommunications Council ("*NPSTC*") describes how the public safety community has already taken important steps to identify a path forward to meet its needs using LTE standard technologies. ⁵

When coupled with the adoption of appropriate rules and auction timetables, the selection of LTE will motivate wireless vendors' and operators' efforts to dedicate time and resources to the development of the next generation of public safety networks and devices. The widespread offerings of LTE devices by commercial providers in the 700 MHz band will drive demand for handsets and other devices resulting in reduced prices for the LTE handsets and other devices available to public safety users.

Public safety will also benefit from the significant commercial resources which have already been committed to the deployment of LTE network capabilities on 700 MHz spectrum. Commercial operators like AT&T, Verizon, and many other U.S. operators, including USCC, already have plans to deploy LTE technologies in the 700 MHz band. By selecting LTE technologies, public safety makes possible significant economies from shared network use and/or shared infrastructure arrangements under partnerships with such commercial service providers.

Also, the on-going developments and future versions of the LTE standard, driven by commercial as well as public safety needs, will lead to expanded and enhanced interoperability and roaming capabilities for public safety users. Public safety's needs, and the technology available to meet those needs, will not remain static. As described in the *NPSTC Report*, the

⁴ See Written Testimony of Chief Harlin R. McEwen, Chairman, Public Safety Spectrum Trust Corporation, Before the Subcommittee on Communications, technology and the Internet, committee on Energy and Commerce, United States House of Representatives, September 24, 2009, p. 3.

⁵ *NPSTC Report*: Appendix F: Technical WG Working Documents.

features and performance under the LTE standard will continue to expand with each new 3GPP release. In the longer term, LTE also has the advantage of global economies of scale derived from user pools exceeding two billion, of applications development focusing on this vast pool of users and of compatibility with future networks.

By adopting an LTE standard or by providing the PSBL the tools to implement the LTE standard, the Commission will be helping the public safety community to establish a nationwide interoperable broadband capability, to provide for spectrally efficient shared network uses which also meet broadband needs of the general public, to provide for significant cost savings and revenue resources which benefit the operations of all first responders, and to provide for on-going development and upgrading of the network capabilities used to meet the critical mobility needs of first responders.

II. The Public Private Partnership Business Model Developed For The D Block and PSBL Spectrum is an Example of an Innovative Business Model Supporting Spectrum Efficient and Cost Effective Network Sharing Meeting the Broadband Needs of Commercial Subscribers and Public Safety Entities

In its *Innovation NOI*, the Commission asks commenters to identify new business models and solutions being developed to provide service to previously unserved or underserved populations. The NOI also asks commenters how to overcome challenges of economic viability or limitations in access to spectrum or infrastructure and whether such innovative business models can help to serve two or more customer groups that traditionally have been served by separate networks, such as commercial subscribers and public safety entities.⁶

USCC has been a strong advocate for adoption of the public-private partnership model for 700 MHz deployment on D Block and PSBL spectrum. We consider this to be an innovative approach which can effectively overcome the challenges of expeditiously providing national interoperable broadband services for public safety users and expanding competitive broadband

⁶ See *Innovation NOI*, Paras. 61-62.

services for consumers nationwide as contemplated in the American Recovery and Reinvestment Act of 2009.

We believe that an innovative public-private partnership approach based on shared use of the D Block and PSBL spectrum blocks will benefit public safety entities through economies in building and funding network infrastructure and operations, while providing added capacity in emergencies. Competitive operators will efficiently use the D Block as well as excess capacity in the PSBL spectrum. Moreover, future competition in broadband services depends on making this spectrum available for consumers through a variety of commercial operators.

Specifically such shared network operations will provide important economies by avoiding duplication of infrastructure and providing economies of scale for device purchases based on the large commercial customer base. Under a commercial partnership relationship there will also be continuing benefits for public safety because of the availability of hardware and software enhancements, driven by the needs of a huge commercial customer base. As new generations of LTE and successor broadband technologies are implemented, public safety will be offered the benefits of enhanced spectral efficiency, will have access to the latest innovative application software, will be given choices among a wide array of enhanced devices, and will benefit as network architecture and infrastructure improvements expand the network.

The FCC's public-private partnership license model is also an innovative solution to the crucial problem of funding an interoperable, nationwide advanced wireless broadband network for public safety communications. The shared network approach and competitive selection of regional commercial operators should in all or almost all areas finance the network and allow discounted, reasonably-priced services for the public safety community. This approach will minimize the burden on taxpayers of broadband public safety services.

Another important benefit is the contribution which commercial operators under public-private partnership can make in implementing and managing the infrastructure required to

implement nationwide interoperability and roaming for public safety users. While public safety entities, particularly those serving major metropolitan areas, have technical staff and experience in managing their communications needs, many other parts of the country lack resources to develop such capabilities. The operational and other technical experience of commercial operators conducting commercial mobile operations will be an important resource for public safety entities in many areas which may have had little or no experience with advanced network operations.

There are alternative potential paths to this shared network, one requiring legislation based on a proposal by public safety organizations and the other achievable by the Commission through new rules within the existing statutory framework. The legislative proposal made by eight public safety organizations, with appropriate enhancements, would re-allocate the D Block to the PSBL and direct the PSBL to employ an open, fair process to select regional commercial partners for network construction and shared use of the 20 MHz of spectrum. Alternatively, the FCC could use its existing authority to re-auction the D Block under rules which would include regional licenses, clear technical and build-out standards, pricing and capacity terms for public safety uses, and an opportunity for the PSBL to acquire licenses that fail to attract a commercial bidder.

Importantly both paths recognize the benefits inherent in the public-private partnership model. FCC should not wait for legislation, but should instead take a “parallel path” approach. The FCC should promptly issue a further notice of proposed rulemaking with the aim of adopting new rules for a successful auction of D Block licenses. If legislation changes the framework, the process of creating the network would benefit from these efforts and the FCC could readily adapt its rules.

III. Ending Handset Exclusivity Will Promote Wireless Competition, Expand Access to Advanced Applications and Spur Broadband Services

The *Competition NOI* seeks to analyze the wireless device market segments, asks about how and why end user devices and applications differ between rural and urban areas, and more generally inquires about significant barriers to entry and growth.⁷ Smartphones constitute a key wireless device market segment which is shaping wireless competition and applications. Through exclusive arrangements for smartphones, the four largest national wireless carriers, namely Verizon Wireless, AT&T Wireless, Sprint and T-Mobile, have restrained access to advanced applications in rural areas, decreased competition for wireless services in rural as well as urban areas, and erected a barrier to the growth of broadband services.

Access to advanced applications and Internet services is a distinguishing feature for hot-selling smartphone wireless devices. The iPhone (exclusively offered by AT&T) is the poster child with over 60,000 applications available and about 300 new applications released every day.⁸ Other products in this market segment that are supported by application stores include the BlackBerry Storm (exclusively offered by Verizon Wireless), Palm Pre (exclusively offered by Sprint) and T-Mobile G1 (exclusive offering from HTC and Google).

Most of the popular smartphones and smartphone-based applications are unavailable in many rural areas because they are exclusive to a "Big Four" national wireless carrier. Despite their size and huge spectrum holdings, the Big Four carriers have decided not to serve many rural areas. These carriers focus on providing service in densely populated urban areas, and their coverage is much more limited in rural areas, especially away from major highways. The most recent FCC data shows that about 9.1% of the U.S. population (about 25.4 million people) live in census blocks served by three or fewer wireless providers – which means that these people are

⁷ *Competition NOI*, Paras. 16, 34, 30.

⁸ Ahlund, "The 35 Best iPhone Apps of the Year (So Far)" (Aug. 15, 2009) <http://www.washingtonpost.com/wp-dyn/content/article/2009/08/16/AR2009081600099.html>.

most often served by only one, and in most cases, none, of the four largest wireless carriers.⁹ For example, many rural residents of Alaska, Arizona, Colorado, Idaho, Kansas, Maine, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, South Dakota, Utah, West Virginia and Wyoming are not served by AT&T network facilities. Because of AT&T's exclusive on iPhone, these rural residents cannot use the iPhone and its applications.

Without access to popular smartphones and their applications, these rural residents cannot obtain the quality of wireless services available to urban residents. As Senator John D. Rockefeller stated at a hearing in June 2009, "I am extremely concerned for my great state of West Virginia that we have second-class wireless service in too many communities throughout America."¹⁰

Many communities are first obtaining wireless services in 2009 because USCC has deployed new towers to cover previously unserved areas.¹¹ Although this is great news for these rural residents, they still cannot use many wireless applications because a Big Four carrier has an exclusive on the related smartphone. With the tremendous growth in wireless data applications and usage, access to wireless voice services is simply not enough.

The national carriers' exclusives on smartphones erect barriers to entry and growth in at least two ways. First, there is less competition based on wireless network quality and wireless services prices. For example, USCC has won eight consecutive J.D. Power awards for highest call quality in the J.D. Power North Central region. To obtain a popular smartphone application which is subject to a Big Four carrier's exclusive, consumers are forced to forego the smaller carrier's higher network quality. Second, limitations on the availability of smartphones decrease the smaller carriers' revenues; they cannot offer certain high-value applications and attract or

⁹ FCC, Thirteenth Annual CMRS Competition Report 27 (2009).

¹⁰ Statement of John D. Rockefeller, IV at Hearing of the Senate Committee on Commerce, Science & Transportation, "The Consumer Wireless Experience" (June 17, 2009).

¹¹ The communities include: Missouri (Rover, Sunnyview, Wyaconda, Chestnut Ridge, Dove Mountain, Cassville); Nebraska (Grant, Pierce West, Snyder, Spalding, Chambers, Plesanton, Franklin, Eustis, Leigh, Burr Crab Orchard); Oregon (Bonanza, Malin, Hillcrest, Spray, Kings Spring); and Iowa (Leando, Whitmore, Union, Green Bay, Akron, Ocheyedan).

retain certain heavy users. This further reduces their ability to enter, upgrade their networks to support broadband services, and grow.

The national carriers' exclusivity arrangements are clearly overly broad. They extend to rural areas where the carrier does not serve, typically expire after the handset is obsolete, and apply to carriers that have little or no effect on the Big Four carriers' offerings. Verizon Wireless' commitment on July 17, 2009 to limit its exclusive arrangements was, as several leading consumer groups observed, "a small step in the right direction. However, the impact of this action is largely insubstantial and benefits few consumers."¹²

The FCC must promptly act to counter the harms of exclusive arrangements for popular smartphones. Ending handset exclusivity will promote wireless competition, expand access to advanced applications and spur broadband services.

IV. High Special Access Rates are Impeding Wireless Broadband Services and Competition

The *Competition NOI* correctly recognizes that "mobile wireless services depend critically on access to productive inputs such as backhaul facilities...."¹³ The NOI goes on to ask several questions highlighting the importance of reasonably-priced backhaul facilities for wireless services: "How does the structure of the market for backhaul services affect overall competition?" "How do wireless firms make investment decisions?" "What are the most significant barriers to entry and growth?" "What are the build-out and backhaul constraints in rural and rugged areas?" "What are the solutions to these constraints?"¹⁴

For most cell sites, the market for backhaul services does not provide effective competitive alternatives to incumbent local exchange carriers' ("ILECs") special access services. Deregulation and ineffective regulation of special access services have led to high rates and huge profits for ILECs. High special access rates raise wireless carriers' costs and rates, and decrease

¹² Letter from Consumers Union, Free Press and Media Access Project to Rep. Rick Boucher (July 20, 2009) (filed in FCC RM-11497).

¹³ *Competition NOI*, Para. 26.

¹⁴ *Id.* at Paras. 26, 29, 30, 35.

their network coverage for voice as well as broadband services. By fixing the "competitive triggers" for deregulation and re-setting special access rates, the FCC would decrease a significant barrier to entry and growth of wireless carriers, spur investment in wireless carriers' networks, expand rural wireless services, and strengthen competition.

Backhaul connections for cell sites are a large component of wireless carriers' operating costs and an important element in their decisions on new cell sites and upgrading cell sites to provide broadband services. In particular, most wireless carriers, especially those serving rural areas, are dependent on special access services from ILECs. For example, Sprint stated publicly in December 2008 that special access expenses account for *one-third* of its total cell site operating expenses.¹⁵ Upgrading a cell site to support 3G services typically requires additional backhaul capacity to handle greater traffic volumes and thus even higher special access expenses for that cell site. And, of course, the evolution to 4G networks will require greatly increased backhaul capacity to deal with the volume of data such networks will transmit. Thus, this problem is growing steadily more acute.

Wireless carriers rely heavily on ILEC special access services because there are no effective competitive alternatives for many cell sites, particularly in rural areas. The capacity required to serve most cell sites and their locations do not support a dedicated fiber or wireless backhaul connection. According to a study by the National Regulatory Research Institute ("NRRI") for the National Association of Regulatory Utility Commissioners ("NARUC"), wireless carriers buy from ILECs hundreds of thousands of special access backhaul circuits to connect their cell sites. A typical single cell site requires one or two DS-1 lines.¹⁶ The NRRI study found that in 2007 ILECs provided *99% of DS-1 channel terminations and 98% of DS-1 transport services* nationally.¹⁷ The NRRI study observed that by exercising their market

¹⁵ National Regulatory Research Institute, Competitive Issues in Special Access Markets at 31 (2009) ("NRRI").

¹⁶ Id. at 6.

¹⁷ Id. at 43-46.

power and charging high special access rates, ILECs decrease the ability of wireless carriers to provide services which compete against the ILECs' switched and Internet access offerings.¹⁸

The FCC's deregulation and ineffective regulation of special access services has resulted in higher prices of critical inputs for wireless services. Even with discounts from ILECs based on a wireless carrier's volume and term commitments, five-year DS-1 prices are often *ten times* higher than corresponding retail rates charged to end users for equivalent services. The 2009 NRRI study concluded: "This pricing evidence shows that market forces are not reducing rates in Phase II areas.... Even after adjustment for separations problems, RBOC earnings on special access are well above the 11.25% rate most recently set by the FCC. In the case of AT&T and Qwest, earnings are about three times that rate."¹⁹ Similarly, a report by the Government Accountability Office in 2006 found that areas under Phase II pricing flexibility (where the FCC found that competitive forces should be greatest) had higher average revenue and list prices for channel terminations and dedicated transport than areas under price caps or Phase I flexibility.²⁰ Along the same lines, an article in 2004 by two FCC economists found that ILECs granted pricing flexibility increased many rates and decreased none, indicating that they exercised market power; the authors criticized the FCC's proxy test used to measure competition for failing to cover the "last mile" to the customer's premises.²¹

High special access rates raise the revenue threshold for an economically viable cell site and impede wireless coverage. Pointing to the FCC's ruling that bars wireless carriers from ordering unbundled network elements (UNEs, which are priced based on total element long-run incremental costs), the NRRI study noted: "There are still rural areas in the country without reliable wireless service. It is easy to postulate a rural area without cell service where the

¹⁸ Id. at 32.

¹⁹ Id. at 68, 80.

²⁰ Government Accountability Office, FCC Needs to Improve Its Ability to Monitor and Determine the Extent of Competition in Dedicated Access Services 27-28 (GAO-07-80, Nov. 2006).

²¹ Uri & Zimmerman, "Market Power and the Deregulation of Special Access by the Federal Communications Commission," 13 Information & Telecommunications Tech. L. 129, 168-70 (2004).

difference between special access rates for a DS-1 circuit and a UNE loop rate could mean the difference between a wireless cell tower and no cell tower."²²

Also, with no effective competitive alternatives, cell sites that are subject to high special access charges are at a disadvantage in the deployment of 3G services for wireless users. USCC is proud that it has upgraded to 3G services about 60% of its cell sites, reaching about 75% of its post-pay customers. Its decisions on which cell sites to prioritize in upgrading depended on several factors, including the operating expenses of supporting the higher traffic volumes of 3G services at those sites. Having to order more over-priced special access lines is a substantial disincentive to upgrading cell sites.

By decreasing special access charges, the FCC would promote more widespread deployment of wireless broadband services and investment in wireless networks. The FCC must revise its deregulation and ineffective regulation of special access services in light of the continuing high concentration for DS-1 channel terminations and transport in all areas; the presence of collocation in ILEC central offices is not a proxy for effective special access competition to cell sites.²³ The FCC should promptly (a) issue a focused data request, (b) fix the pricing flexibility "competitive triggers", (c) lower current special access charges, and (d) address anti-competitive terms and conditions on existing discount plans.

V. The FCC Should Adopt A Right To In Market Roaming

The *Competition NOI* (Para. 22) invites comment "on the proper treatment of roaming services in the broader analytical framework under consideration here," while noting the FCC's pending roaming proceeding.²⁴ USCC has filed comments and reply comments in that

²² NRRJ at 98.

²³ NRRJ at iv.

²⁴ See, Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers, WT Docket No. 05-265, Report and Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd 15817 (2007) ("Roaming Order" and "Further Notice").

proceeding and reaffirms the positions taken in those filings.²⁵ USCC supports elimination of the "in market" exception to the FCC's roaming requirement set forth in Section 20.12(d) of the FCC's Rules, perhaps with a reasonable time limit to ensure eventual system buildout. USCC supports broadening the automatic roaming obligations to include digital services not interconnected with the public switched telephone network. These actions would both promote wireless competition.

USCC believes that "in market" roaming will promote competition between new wireless licensees, which often are authorized to serve multi-state service areas, but which have not yet had the opportunity to construct their networks, and established national carriers, which have been building out their markets since 1983. It is precisely in those markets, in which AWS and 700 MHz licensees are seeking to establish themselves against established cellular and PCS competitors, that eliminating the in market exception would be most helpful to wireless competition.

Also, with respect to the 700 MHz licenses auctioned after January 2008 and likely for all CMRS licenses to be auctioned in the future, there is no realistic concern that in market roaming will prevent system buildout, as such licensees face draconian four and ten year buildout requirements under the FCC's rules.²⁶ The buildout requirements for AWS networks licensed before 2008 are somewhat more flexible, but it was demonstrated in the roaming docket that wireless carriers would prefer to construct their own systems rather than engage in permanent resale or roaming operations. Such operations have seldom proved successful over the long term. And, as noted above, if the FCC is concerned about the potential impact of roaming on system buildout, it can limit the in market roaming right to a fixed period of time.

Lastly, there is precedent for requiring in market roaming in these circumstances. Between 1983 and 1992, cellular licensees were required to permit their "in market" competitors

²⁵ See, USCC Comments in Docket 05-265, filed October 29, 2007; Reply Comments in Docket 05-265, filed November 28, 2007.

²⁶ See Section 27.14(g) of the FCC's Rules.

to resell their services during their initial five year buildout period, owing to the headstart which wireline licensees, which already had a presence in the relevant market, were believed to enjoy in cellular competition.²⁷ Generally, the actual wireline headstart at that time was usually a few months to a year or so. By contrast, the present headstart of established CMRS carriers is now measured in decades. It would be reasonable and just, as well as highly pro-competitive, to permit new wireless licensees a comparable opportunity to establish themselves in their markets while constructing their systems through in market roaming.

VI. The Commission Should Extend The Roaming Requirement To Non-Interconnected Services And Features, Including Information Services

In its 2007 Roaming Order, the FCC extended the automatic roaming requirement only to services offered by CMRS carriers "that are real-time, two way switched voice or data services that are interconnected with the public switched network, and to push to talk and text messaging."²⁸ In the attached Further Notice, the Commission sought comment on whether the automatic roaming requirement "should be extended to non-interconnected services and features, including information services, and the legal and policy basis for doing so."²⁹ The Further Notice remains pending.

USCC has endorsed the broadest possible inclusion of data in the FCC's roaming mandate and renews that endorsement now.³⁰ The July 18, 2007 Carrier Group Ex Parte, in Docket 05-265, to which USCC is a signatory, succinctly demonstrated how crucial data services will be to the wireless future. It noted the "enormous" growth in the market for "data services," including "photo messaging" and other multimedia messaging services, as well as SMS.³¹ It cited an authoritative report predicting that wireless data services are "projected to generate over \$600

²⁷ See, Petitions For Rulemaking Concerning Proposed Changes to Commission's Cellular Resale Policies, Report and Order, 7 FCC Rcd 4006 (1992).

²⁸ Roaming Order, ¶ 54.

²⁹ Roaming Order, ¶ 77.

³⁰ See, e.g., USCC Comments, filed October 29, 2007, pp. 7-8; See also Carrier Group Joint Letter Ex Parte, filed July 18, 2007, at 1-2. ("Carrier Group Ex Parte").

³¹ Carrier Group Ex Parte, p. 1.

billion in productivity gains for the US over the next decade."³² The Carrier Group Ex Parte noted the bundling of all data services, including those not interconnected with the PSTN, with voice services on the same wireless handsets and describes the combination of information and voice services provided by such devices as BlackBerry and its competitors.³³ These trends have only accelerated since 2007.

The pace of those data service developments makes it even more appropriate for the FCC to act now. USCC, for example, currently offers many wireless data products, through CDMA 1xRTT technology. USCC has also deployed CDMA 1xEV-DO technology in most of its markets. The majority of USCC customers now have phones, wireless modems or PDAs that can download multiple applications, including games, news, sports information, ring tones and stock quotations. Other carriers are developing their own wireless data products. Such products represent a meaningful part of wireless usage and revenues today and the proportion will increase in the future. Thus, it is urgently necessary that carriers, and especially national carriers, be required to facilitate the use of such data applications for roamers. The Commission should make it clear that it believes carriers must work to develop appropriate interfaces to ensure that data roaming can take place alongside voice roaming. And, the adoption of such rules will facilitate the development of the industry standards which will be necessary to promote data roaming. USCC currently has 1 x RTT data roaming arrangements with Verizon Wireless and Sprint and is negotiating EV-DO roaming arrangements with those carriers. The FCC's data roaming rule should apply to each step of future technology evolution. Therefore, we believe that the FCC should now adopt a clear rule in support of data roaming on fair terms.

VII. The FCC Should Consider The Impact of Tower Siting Delays on Competition

The *Competition and Innovation NOIs* do not discuss increasing governmental difficulties encountered by wireless carriers and tower companies in constructing antenna towers, even

³² Ibid.

³³ Ibid., pp 102.

though such regulatory obstacles are also a considerable barrier to both competition and innovation. While it is certainly reasonable for the FCC to consider, for example, how wireless "edge" markets influence consumer choices, the Commission should also review the impact of tower siting, which has a direct impact on wireless competition and actually lies within the FCC's jurisdiction.

As has been discussed by USCC and other wireless carriers and trade associations in various FCC proceedings,³⁴ wireless carriers now face increased costs and ever-lengthening delays in constructing their antenna towers. The delays result from extended local zoning reviews, and compliance with the environmental requirements set forth in Section 1.1307 of the FCC's Rules, as well as the new procedures required pursuant to the Nationwide Programmatic Agreement on Tower Siting, the Tribal Consultation Notification System, and the Historic Preservation Act. Tower applicants may also soon have to cope with additional environmental requirements regarding the need to protect migratory birds.

USCC takes no position here concerning the legal or policy merits of these regulations, considered either individually or collectively. We would however ask the FCC to consider taking action on various proposals which have been made to streamline those processes, such as the local zoning "shot clock" proposal made by CTIA.³⁵ The FCC might also consider modifications to the Nationwide Programmatic Agreement to implement reasonable time limits on the notification procedures required under the NPA.

Wireless carriers are dealing with unprecedented demands to improve public safety communications, increase broadband penetration and meet the strict buildout requirements for 700 MHz and AWS frequency allocations. USCC supports those objectives, but would note that

³⁴ See, e.g., Public Notice, "Wireless Telecommunications Bureau Seeks Comment on Petition For Declaratory Ruling By CTIA To Clarify Provisions of Section 332(c)(7)(B) To Ensure Timely Siting Reunion And To Preempt Under Section 253 State and Local Ordinances That Classify All Wireless Siting Proposals As Requiring A Variance," WT Docket 08-165, released August 14, 2008; In the Matter of Amendment of Part 1 of the Commission's Rules Regarding Environmental Compliance Procedures For Processing Antenna Auction Registration Applications. WT Docket Nos. 08-61, 03-187.

³⁵ See Footnote 34, supra.

more towers are essential to achieving all of them, and are also essential to promoting more vigorous wireless competition. Wireless carriers cannot hope to fulfill their responsibilities unless they continue to be able to build towers within a reasonable time at reasonable cost. Facilitating tower construction should be an important part of both the *Competition* and *Innovation* proceedings.

VIII. The Mobile Wireless Competition Report Should Examine How Current Universal Service Policies Are Impeding The Competitiveness Of Wireless Carriers In Their Provision Of Broadband And Other Services In Rural Areas

In this section, USCC discusses the relationship between competition and universal service support in rural areas, explains how the current universal service regime contradicts policies established by Congress in the Telecommunications Act of 1996 (“1996 Act”) and also acts as a barrier to entry by wireless carriers in rural areas, and argues that the Commission’s current universal service mechanisms must be revised so that universal service support can be effectively utilized to ensure that the Commission’s National Broadband Plan meets the needs of consumers and businesses in rural America.

A. The Current Universal Service Regime Acts as a Regulatory Barrier to Wireless Carrier Entry and Growth in Rural Areas

The 1996 Act placed an emphasis both on universal service and local competition. The Commission is charged by the statute with fashioning regulatory policies that harmonize these twin statutory goals.³⁶ The Commission has historically embraced these statutory obligations.³⁷

The central mechanism adopted by the Commission to accomplish the dual statutory objectives is the core principle of competitive and technological neutrality. The Commission intends the principle to mean that “universal service support mechanisms and rules neither unfairly advantage nor disadvantage one provider over another, and neither unfairly favor nor

³⁶ See Sections 251-253 of the Act, 47 U.S.C. §§ 251-253. See *Alenco Communications v. FCC*, 201 F.3d 608, 615 (5th Cir. 2000).

³⁷ See, e.g., Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, *First Report and Order*, 11 FCC Rcd 15499, 15505-06 (para. 3) (1996) (emphasis added) (subsequent history omitted).

disfavor one technology over another.”³⁸ A central goal behind the principle is to facilitate the emergence of competition in rural and high-cost areas.

In addition to adopting the core principle of competitive neutrality, the Commission established two other policies for disbursing high-cost funds that reflected the agency’s commitment to both the advancement of universal service in rural areas and to the promotion of competition as a means of working toward universal service goals.

First, in 2001, the Commission embraced the principle that high-cost support disbursed to rural incumbent LECs should be provided on a disaggregated basis when competing carriers enter a market served by an incumbent.³⁹ Second, the Commission decided that high-cost support must be portable: Support is provided to the carrier that serves the customer, and moves with consumer choices. The agency endorsed portability based upon its finding that the presence of a more efficient competitor will require incumbent LECs to increase efficiency or lose customers.⁴⁰

In the early years of the universal service program, the Commission’s policies were generally successful in promoting both universal service and local competition (although problems were created by some basic flaws in the agency’s policies). But, in recent years, the Commission has neglected to pursue universal service reforms that could have corrected policies that were hampering the full realization of benefits to rural consumers derived from competitive entry.

Instead, the Commission, driven by misplaced concerns about the size of the high-cost fund,⁴¹ took actions and began considering policies that have had, and continue to have,

³⁸ Federal-State Joint Board on Universal Service, *Report and Order*, 12 FCC Rcd 8776, 8801 (para. 47) (1997) (“*First Report and Order*”) (subsequent history omitted).

³⁹ See Federal-State Joint Board on Universal Service, Multi-Association Group (MAG) Plan for Regulation of Interstate Services of Non-Price Cap Incumbent Local Exchange Carriers and Interexchange Carriers, *Fourteenth Report and Order, Twenty-Second Order on Reconsideration, and Further Notice of Proposed Rulemaking in CC Docket No. 96-45, and Report and Order in CC Docket No. 00-256*, 16 FCC Rcd 11244, 11302 (para. 145) (2001).

⁴⁰ *First Report and Order*, 12 FCC Rcd at 8933 (para. 289).

⁴¹ The principal example of the Commission’s misplaced concerns about the size of the high-cost fund is its imposition of a cap on high-cost disbursements received by wireless ETCs. See *High-Cost Universal Service Support*, Order, 23 FCC Rcd 8834 (2008), *appeal docketed, RCA v. FCC*, Nos. 08-1284 & 08-1285

substantial adverse effects on the delivery of services in rural and high-cost areas.

For example, in its universal service reform rulemaking last year, Chairman Martin proposed to use single-winner reverse auctions to select high-cost support recipients. Such an auction mechanism would be a classic “regulatory barrier to entry and growth”⁴² because it would create regulatory monopolies in rural service areas, thus foreclosing competitive entry in these areas, contrary to the goals of the 1996 Act. Such an approach would rob consumers of the benefits of competitive markets, instead using regulatory fiat to pick “winners” that essentially would have an exclusive franchise in their service areas. It would also be particularly ineffective as a means of promoting broadband deployment, because installing a monopoly provider seldom has resulted in the efficient deployment of innovative and reasonably-priced services.

In addition to the ill-considered single-winner reverse auction proposal, the Commission also considered a number of other proposals in its fruitless effort last year to adopt universal service reform. For example, former Chairman Martin at various times criticized the fact that a portion of high-cost funding “is now devoted to supporting multiple competitors to serve areas in which costs are prohibitively expensive for even one carrier.”⁴³ The point of this concern seems to be that high-cost support should not be used to fund competitive entry because it results in providing inflated amounts of support to new entrants. But the fact is that a competitive ETC only receives support when it wins a customer, and competitive ETCs lose high-cost support when they lose customers. Thus, high-cost funding is *fully portable* among competitive ETCs.

(D.C. Cir. Aug. 29, 2008). The Commission misinterpreted the causes of historical growth in the size of the high-cost fund, made unsupported projections about future fund growth, overstated the threat to the universal service program posed by growth in the high-cost funding mechanism, ignored the fact that high-cost fund growth had only a minimal effect on the level of universal service contributions made by end user customers, and then violated its own core principle of competitive neutrality by imposing a unilateral cap on wireless carriers. *See* Rural Cellular Association (“RCA”), “Cut the Cap: The Commission Should Repeal the Interim Cap on High-Cost Universal Service Support Received by Wireless Carriers,” Position Paper (May 1, 2009) (“RCA Position Paper”), accessed at <http://www.rca-usa.org/displaycommon.cfm?an=1&subarticlenbr=227>.

⁴² *Notice of Inquiry* at para. 28.

⁴³ High-Cost Universal Service Support, Federal-State Joint Board On Universal Service, *Notice of Proposed Rulemaking*, 23 FCC Rcd 1495, 1524 (2008) (Statement of Chairman Martin).

This funding portability avoids any “overfunding” as a result of multiple competitive ETCs receiving support in the same service area.

In addition to the misguided policy formulations discussed above, the Commission in recent years has also avoided coming to grips with fundamental problems in the current universal service regime that would threaten to impair any efforts by the Commission to advance its broadband goals through the use of universal service mechanisms.

The issue of disaggregation provides an example. The advantage of accurate and sufficient geographical disaggregation, for purposes of the provision of high-cost support, is that it ensures that funding is directed to the areas where the support is actually needed, while at the same time avoiding “cream skimming” whereby an incumbent or a new entrant is able to receive high-cost support for areas where the costs associated with providing support are relatively low. Unfortunately, however, the Commission has not adopted mandatory disaggregation rules applicable to areas served by rural incumbent LECs. This failure to require disaggregation upon competitive entry has artificially increased overall levels of high-cost support.

In addition, the Commission has failed during the last twelve years to require full portability of support in rural service areas, which is surprising in light of the agency’s own endorsement of portability as an important tool in promoting the efficient use of high-cost support. The absence of full portability has caused a situation in which incentives to reduce operational costs are imposed only on competitors, and in which support does not efficiently flow with choices made by consumers.

B. Achievement of the Commission’s Broadband Goals Requires an Overhaul of Existing Universal Service Policies.

The Commission currently faces the challenge of developing a National Broadband Plan that lives up to the statutory commitment made 75 years ago to ensure that “communication by wire and radio [is] available . . . to all the people of the United States”⁴⁴

⁴⁴ Section 1 of the Act, 47 U.S.C. § 151.

The Commission's universal service mechanisms provide the agency with an important tool to meet this challenge. A key component of the National Broadband Plan must be to devise effective means of bringing broadband to rural America. The Nation's economy, as well as its educational institutions, health care facilities, public safety agencies, governmental organizations, and cultural centers, will be the beneficiaries if the Commission is successful in crafting a plan that accomplishes the wide-scale deployment of high-speed broadband.

USCC believes there are three key components to the employment of universal service mechanisms for the promotion of broadband deployment.

First, these mechanisms must be adapted to the broadband world. The Commission must begin the process of transitioning its universal service program away from a copper wire, voice-centric telecommunications infrastructure, and toward a broadband, IP-based network, while at the same time taking into account the fact that mobile broadband deserves emphasis because an increasing number of consumers are "cutting the cord" and dropping wireline service in favor of wireless,⁴⁵ and also recognizing Commissioner Copps' concern that "[r]ural communities have long been unserved or underserved by broadband technology, but the full implication of this divide has only emerged as the Internet has become less and less a novelty, and more and more a necessity."⁴⁶

Second, the Commission must clear the legal hurdles necessary to treat broadband as a supported service for universal service purposes. USCC believes that it is critical for the agency to designate broadband as a supported service because the universal service support mechanisms represent one of the most effective means for providing the funding necessary to bring broadband to rural and high-cost areas. Such a designation could be made either by declaring that broadband Internet access is a supported telecommunications service if it is offered on a common carrier

⁴⁵ See Stephen J. Blumberg & Julian V. Luke, National Center for Health Statistics, CDC, *Wireless Substitution: Early Release Estimates from the National Health Interview Survey, July-December 2008*, at 1 (May 5, 2009).

⁴⁶ Michael J. Copps, Acting Chairman, FCC, BRINGING BROADBAND TO RURAL AMERICA, REPORT ON A RURAL BROADBAND STRATEGY, at para. 15 (rel. May 22, 2009).

basis, or by concluding that Congress did not intend to exclude information services from such a classification.⁴⁷

Third, the Commission must rid its universal service mechanisms of their current deficiencies, so that these mechanisms can be brought to bear as effectively as possible in aiding broadband deployment. USCC believes that the agency must adopt policies that should have been adopted long ago because they will be effective in advancing both universal service and competitive goals in a broadband world. For example, the Commission should correct its previous failure to sufficiently disaggregate the areas in which support is disbursed, in order to ensure that support is targeted for use in the highest cost areas, and should now finally take action to make high-cost support fully portable, because portability ensures that support is provided to carriers efficiently and to those that consumers choose.

In addition, the Commission should revise its rules for the universal service contribution base in order to ensure to the extent possible that the requirement to contribute to the fund does not apply disproportionately to interstate providers or to any particular class of service providers.

IX. The FCC Should Restrict Spectrum Holdings in Order to Promote Competition

The *Competition NOI*, at Paragraph 25, asks the following questions:

"with respect to spectrum utilization, how should we assess the ways in which spectrum holdings affect market structure, conduct and performance: How do wireless carriers currently use their licensed spectrum? Are certain frequencies used heavily while other lie fallow? How does this vary across different types of geographic areas?"

Questions about spectrum usage are both competitively sensitive and difficult for one carrier to answer concerning other carriers. As a general matter the spectrum used most intensively is that which has been licensed for the longest time, i.e. cellular and PCS spectrum. However, that presumably will alter over time, as 700 MHz and AWS markets are built out.

⁴⁷ While USCC has previously expressed concerns about whether designating an information service as a supported service would be permissible under Section 254, it also believes that a strong case can be made that doing so would be consistent with congressional intent. The FCC should strongly considering seeking the adoption of clarifying language from Congress to avoid unnecessary litigation over this issue.

USCC believes that the public interest will be best served by permitting carriers the type of flexibility with respect to spectrum usage which they have enjoyed since the beginning of the cellular service in the early eighties. Once carriers acquire spectrum by auction or purchase, they should be able to use it in accordance with their own commercial judgment.

However, where the FCC can make a real contribution to the preservation of competition through spectrum policy would be by imposing limits on spectrum aggregation on a market by market basis. As USCC has previously discussed,⁴⁸ the FCC's existing procedure, pursuant to which wireless spectrum acquisitions are evaluated in accordance with its variously applicable spectrum "screens,"⁴⁹ has not prevented and in fact has facilitated the emergence of a wireless industry in which there are two increasingly dominant carriers, namely Verizon Wireless and AT&T Mobility.

USCC, in response to the market concentration data assembled by the Rural Telecommunications Group ("RTG") in Docket RM-11498, concluded there should be some type of limitation on wireless spectrum holdings on a market by market basis, while noting that there is relatively little newly allocated wireless spectrum below 3 GHz remaining to be auctioned.⁵⁰ Thus, proposed transactions involving new acquisitions of spectrum by the largest wireless carriers should be subjected to meaningful scrutiny to ensure that no carrier has excessive market power in a given service area.

In our Comments, USCC also argued that the very different wireless spectrum bands now lumped together within the Commission's spectrum screens should not be treated the same as they are under the "screens." At present, for example, the existence of unpaired, higher frequency, and hence less valuable Broadband Service ("BRS") spectrum in a given market can now serve as a "shield" for a carrier's acquisition of more valuable cellular, PCS, AWS-1, or 700 MHz

⁴⁸ See USCC Comments in RM No. 11498, filed December 22, 2008.

⁴⁹ See, e.g., In the Matter of Sprint Nextel Corporation and Clearwire Corporation, Applications for Consent to Transfer of Central of Licenses, Leases, and Authorizations, WT Docket No. 08-94, Memorandum Opinion and Order, FCC 08-259 (released November 7, 2008).

⁵⁰ USCC Comments in RM Docket 11498, p. 8.

spectrum.⁵¹ This facilitates the control by the dominant carriers of the most valuable spectrum. Other small and mid-sized carriers in that docket also demonstrated, for example, that large carriers have used their market power to force rural carriers to accept unfair roaming agreements and to stockpile spectrum, preventing other carriers from acquiring it.⁵²

Other commenters also called attention to the FCC's responsibilities under Section 309(j)(3)(B) of the Communications Act to adopt policies that "avoid excessive concentration of licenses" and to disseminate license among a wide variety of applicants,⁵³ a responsibility the FCC has not carried out in recent years.

Lastly, USCC and other commenters have noted the success of earlier wireless spectrum caps in promoting competition and pointed to a prior instance, in 2002, where the FCC undertook a searching inquiry regarding proposed merger, taking into account such factors as spectrum efficiency, spectrum policy, and licensee diversity, as well as the benefits and harms of the proposed transaction in light of the relevant antitrust precedent.⁵⁴ Reply comments were filed in that rulemaking proceeding in December 2008, yet the FCC has taken no steps to initiate a Notice of Proposed Rulemaking as requested by RTG, USCC, and other commenters.

The *Competition and Innovation NOIs*, while welcome, are also NOIs and not Notices of Proposed Rulemaking. There is now a full complement of the FCC Commissioners. We submit that the time is ripe for the FCC to act to protect wireless competition by limiting carrier spectrum holdings. Failure to do so will mean that the existing trend toward duopoly will continue, whatever else the FCC may do to promote wireless competition.

⁵¹ USCC Reply Comments in RM Docket 11498, p. 2.

⁵² *Ibid.*, pp. 2-3.

⁵³ *Ibid.*, p. 4.

⁵⁴ *Ibid.*, pp. 4-6.

Conclusion

USCC supports the FCC's actions in issuing the *Competition and Innovation NOIs*. We ask that the FCC now move forward to implement the proposals discussed in these comments, which are necessary to protect competition and thus promote innovation, both of which will serve the public interest.

Respectfully submitted,

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