Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of	)	
	)	
High-Cost Universal Service Support	)	WC Docket No. 05-337
	)	
Federal-State Joint Board on Universal Service	)	CC Docket No. 96-45
	)	

To: The Commission

COMMENTS OF CTIA–THE WIRELESS ASSOCIATION®

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April 17, 2008

TABLE OF CONTENTS

SUMMARY

There is an urgent need for comprehensive reform of the universal service high-cost support system. The existing mechanisms were designed to subsidize the twentieth century's monopoly wireline voice networks, but the market and technology have undergone fundamental changes. All indicators today demonstrate conclusively that consumers demand mobility and broadband. Voice, meanwhile, has become merely one application that can be offered over broadband and mobile networks. Mobile connections far outstrip wireline access lines in sheer numbers and in value to consumers, and mobile networks provide enormous benefits in convenience and public safety. Both broadband and mobile networks are powerful engines of economic growth. Nevertheless, the existing mechanisms continue to provide about three-quarters of their support to narrowband wireline voice providers, and support broadband only incidentally and inconsistently.

In the current environment, the Congressional mandate of competitive neutrality has become more crucial than ever. The Commission should be wary of proposals that would violate this important principle. Wireless carriers should not, for example, be segregated into a separate fund that is rigged to provide less support than that provided to incumbent local exchange carriers ("ILECs"). Locking in almost three times as much high-cost universal service funding for ILECs than is available to mobile wireless and other competitive eligible telecommunications carriers ("ETCs") cannot be consistent with the competitive- and technology-neutrality requirements of the Act. This is especially true now that there are so many more consumers of mobile wireless services than fixed wireline services and wireless networks still need to built out in some areas. Just like ILECs, wireless ETCs must be able to receive support for the ongoing costs of providing wireless services in high-cost areas. If the Commission decides to eliminate the identical support rule and require wireless carriers to substantiate their costs to receive

support, there should be no artificial ceilings such that wireless carriers always receive less than or equal to the per-line support amounts received by the ILEC. Moreover, any transition to a new support mechanism must recognize wireless carriers' reliance interests to the same extent that the Commission has recognized ILECs' reliance interests in the past.

Because excessive subsidy levels can be as detrimental to universal service goals as too little support, the reformed universal service system also must ensure efficient support levels for all ETCs. To this end, the Commission should adopt specific goals for the program and performance metrics to measure its achievement of those goals. The reformed support mechanism also must reward efficiency. Because mechanisms tied to any ETC's embedded or book costs actually reward inefficiency, they must be rejected for all incumbent and competitive ETCs.

Despite the relatively small share of support that wireless carriers receive, they have had considerable success in deploying wireless networks in rural and high-cost areas – including many areas that previously had no telecommunications service of any kind. Nevertheless, there remain areas in the United States where ubiquitous wireless and broadband networks remain an unfulfilled universal service goal. CTIA has commissioned a detailed analysis of the scope of these areas and the projected cost to complete the initial build-out of a Third Generation ("3G") broadband-capable wireless network, which is attached to these comments. Based on commercially available data, the study revealed that roughly 23.2 million U.S. residents currently lack access to broadband-capable wireless service at their primary place of residence, and that more than 2.5 million miles of roads are not covered by a broadband-capable wireless signal (amounting to 42% of the road miles in the United States). The study estimates the total cost of completing the initial effort to construct a dual-mode 3G (Evolution Data Optimized ("EvDO") and High-Speed Downlink Packet Access ("HSDPA")) broadband-capable network in these

areas in the neighborhood of **$22 billion**. This estimate does not include the substantial costs of operating, maintaining, and upgrading those same networks and CTIA invites parties to share thoughts on how to further refine this initial analysis. While this study is just the first step in identifying the amount of support that will be "sufficient" to achieve national deployment goals, it may suggest, at a minimum, that the Joint Board's estimates of the necessary size of mobility and broadband support are likely inadequate.

CTIA supports the Joint Board's proposal to set aside dedicated funding for the crucial tasks of completing the deployment of mobility and broadband. If, as the Joint Board suggests, reverse auctions or requests for proposal are employed to select providers to receive such support, the plan must recognize the two disparate mobile network technologies deployed in the U.S. Unless both CDMA/EvDO and GSM/HSDPA networks are available in all areas, such areas will remain effectively "unserved" for consumers of one or the other technology. Finally, the definition of "broadband" should not impose rigid speed requirements. A functional definition of broadband will better recognize services that are providing invaluable connectivity to consumers in rural and high-cost areas on both wireless and wireline networks.

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CTIA–The Wireless Association®[1] ("CTIA") files these consolidated comments in response to the three notices of proposed rulemaking released January 29, 2008 seeking comment on proposals for comprehensive reform of the federal universal service mechanisms for rural and high-cost areas.[2] Today, there is an urgent need for wholesale reform of the high-cost support mechanisms. As discussed in more detail below, such reform must recognize and account for consumers' growing interest in mobility and broadband service. The reformed universal service system must be non-discriminatory and should minimize costs.

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[1] CTIA – The Wireless Association® is the international organization of the wireless communications industry for both wireless carriers and manufacturers. Membership in the organization covers Commercial Mobile Radio Service ("CMRS") providers and manufacturers, including cellular, broadband PCS, ESMR, and AWS, as well as providers and manufacturers of wireless data services and products.

[2] *High-Cost Universal Service Support; Federal-State Joint Board on Universal Service,* WC Docket No. 05-337; CC Docket No. 96-45, Notice of Proposed Rulemaking, FCC 08-22 (rel. January 29, 2008) *("RD NPRM"); High-Cost Universal Service Support; Federal-State Joint Board on Universal Service,* WC Docket No. 05-337; CC Docket No. 96-45, Notice of Proposed Rulemaking, FCC 08-5 (rel. January 29, 2008) *("2008 Auctions NPRM"); High-Cost Universal Service Support; Federal-State Joint Board on Universal Service,* WC Docket No. 05-337; CC Docket No. 96-45, Notice of Proposed Rulemaking, FCC 08-4 (rel. January 29, 2008) *("ISR NPRM").*

These comments also include substantial important data, including an analysis of the initial costs of building out a dual-mode Third Generation ("3G") mobile wireless broadband network in areas not yet fully reached by such service (Attachment I).

I. THE HIGH-COST UNIVERSAL SERVICE FUND IS IN NEED OF WHOLESALE REFORM

The existing high-cost universal service programs are throwbacks to an earlier era when a monopoly incumbent wireline provider offered primarily voice service. The market has changed, however, in significant respects. In urban areas of America today (and in many rural areas as well), consumers have access to multiple providers, several of whom are likely to offer the benefits of mobility. Increasingly, too, providers are offering broadband as well as voice service, and over half of consumers now purchase broadband access in their homes. Indeed, voice service is on its way to becoming merely one application that rides over Internet-protocol ("IP") enabled networks.

While these fundamental changes have taken place in the marketplace, the universal service system has remained stuck in the last century. The system was originally designed to support incumbent local exchange carriers' ("ILECs'") wireline voice networks. As a result, it strains to deal with technological and marketplace changes. As discussed in more detail below, the universal service system must be reformed to solve these and many other problems.

A. Technology and the Marketplace Have Changed

Over the last decade, the technologies and marketplace of America's communications sector have changed significantly. Mobile voice and broadband networks now deliver the services most valued by consumers. In 1997, the last time the Commission comprehensively revised its universal service rules, there were approximately 50 million wireless telephone

subscribers.[3] By mid-2007, the number of wireless subscribers had risen almost five-fold, to more than 240 million.[4] Meanwhile, wireline switched access lines peaked at 191.5 million in December 2001, and since have fallen precipitously to 163 million in July 2007.[5] Of these, fewer than 135 million were provided by ILECs.[6] Thus, in the U.S. by mid-year 2007 there were fully 178 percent as many wireless lines as ILEC lines.

The growing popularity of wireless services is easy to understand. Mobility brings with it a level of convenience unmatched by fixed-line communications, allowing people to be reached wherever they may be located at any given moment. Like broadband, the availability of mobile services is recognized as a condition for economic growth. Representative Rick Boucher, commenting on Alltel's recent groundbreaking for a tower in a community in his rural Virginia district that currently lacks mobile coverage, noted that "businesses seeking to expand often consider the availability of mobile communications services when choosing new business locations."[7] Recent studies confirm that the mobile phone is "a huge boon to an individual's economic productivity and earning power."[8]

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[3] *Third Annual CMRS Competition Report*, 13 FCC Rcd 19746 (1998), at B-2.

[4] *See Twelfth Annual CMRS Competition Report*, WT Docket No. 07-71, FCC 08-28, (Feb. 4, 2008) ("*Twelfth Report*") at 6. By year-end 2007, CTIA's semi-annual survey had found wireless subscribership had risen to 255,395,599. *CTIA-The Wireless Association® Announces New Wireless Industry Survey Results*, Press Release, *available at* http://www.ctia.org/media/press/body.cfm/prid/1747 (Apr. 1, 2008), tables and graphics appearing at http://files.ctia.org/pdf/CTIA_Survey_Year_End_2007_Graphics.pdf.

[5] *Local Telephone Competition: Status as of June 30, 2007*, FCC Wireline Competition Bureau, Industry Analysis and Technology Division, March 2008, at Table 1.

[6] *Id.*

[7] Alltel Breaks Ground on Cell Tower to Serve Pound Residents, *Kingsport Times-News*, March 11, 2008, at 3B.

[8] New Millennium Research, *Cell Phones Provide Significant Economic Gains for Low-Income American Households: A Review of Literature and Data from Two New Surveys*, Nicholas P.

(continued on next page)

Mobile phones also increase public safety exponentially by allowing people to call for help from virtually any location. In fact, the National Emergency Number Association estimates that about half of all E-911 calls in 2006 were placed from wireless phones.[9] The safety benefit of wireless networks was brought into sharp relief in the wake of Hurricanes Katrina and Rita, when wireless networks were restored long before others, and quickly became the sole means of communications for many first responders, public officials, and displaced individuals. A recent New Millennium Research study concluded the following:

> The [study's] results on the value of a cell phone for safety and emergencies are overwhelmingly uniform, segment by segment, in naming "emergency use" as the primary use of the mobile phone—and in naming the mobile phone as superior in that regard to the landline phone. This carries implications for policy makers. If one of the drivers behind universal service is to insure that people have telephone access in a health or safety emergency, the phone of choice for the vast majority of Americans—young and old, male and female, poor and rich—is a cell phone.[10]

The Commission has recognized the growing importance of wireless communications in Americans' lives. As Chairman Martin said in his remarks during CTIA WIRELESS 2008®:

> It is difficult to envision how the communications landscape will look in 15, 10, or even five years from now. But one thing is certain – our communications will be increasingly mobile…We are seeing unprecedented growth and dramatic innovation…[W]ireless

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Sullivan (April 2008), available at http://newmillenniumresearch.org/archive/Sullivan_Report_032608.pdf ("Sullivan").

[9] NENA homepage, "Cellular and Wireless," www.nena.org/pages/ContentList.asp?CTID=10. The Southern Governors Association has adopted a resolution emphasizing the critical role that mobile broadband offerings can play in this regard. *See* ex parte letter from Diane C. Duff, Executive Director, Southern Governors Association, WT Docket Nos. 06-150, 06-169, and 96-98 (filed May 18, 2007).

[10] Sullivan, *supra* note 8, at 16.

> is no longer seen as a luxury, but as a vital means of everyday communication.[11]

Similarly, in 1997 only a negligible number of residential customers purchased broadband connections,[12] while today that number has risen to over 100 million.[13] Today, broadband connectivity is recognized as an important engine for economic growth and prosperity.[14] At the same time, IP-enabled service providers have begun to offer voice service as an application over broadband connections. Voice over IP ("VoIP") is offered by many providers of broadband connections as an adjunct to broadband service, and also by stand-alone VoIP providers.[15] Thus, voice is becoming one of many applications that can be delivered over broadband networks, rather than the primary purpose for the network itself, as was the case when wireline voice networks were conceived and constructed.

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[11] Remarks of FCC Chairman Kevin J. Martin, CTIA WIRELESS 2008®, Las Vegas, NV (Apr. 1, 2008), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-281259A1.pdf.

[12] By mid-2000, when the Commission began collecting data, only 4 million customers subscribed to high-speed lines, and only 2.5 million subscribed to advanced services lines. *High-Speed Services for Internet Access: Status as of June 30, 2007*, FCC Wireline Competition Bureau, Industry Analysis and Technology Division, March 2008, at Tables 1-2.

[13] The FCC reports that, in June 2007, 100 million customers subscribed to high-speed lines, and 70 million subscribed to advanced services lines. *Id.*

[14] *See, e.g.*, Remarks of Chmn. Kevin J. Martin, Meeting of the American Health Information Community (AHIC), Chicago, Illinois (November 13, 2007) ("Since becoming Chairman, I have made broadband deployment the Commission's top priority. Broadband technology is a key driver of economic growth."); *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, GN Docket No. 07-45, Fifth Report (rel. Mar. 19, 2008), Dissenting Statement of Commissioner Michael J. Copps ("Our economy and our future will be driven by how quickly and completely we deploy broadband.").

[15] *See, e.g.*, http://www.usa.att.com/callvantage/index.jsp (AT&T CallVantage); https://www.comcast.com/Localization/Localize.ashx?Referer=/shop/buyflow/default.ashx&area=6# (Comcast Digital Voice); www.vonage.com (Vonage over-the-top VoIP offerings).

Increasingly, too, wireless carriers are providing *both* mobility and broadband. U.S. wireless providers are offering steadily faster broadband data services,[16] and consumer take rates are rising. In its recent *Wireless Broadband Order*, the Commission emphasized its view that "wireless broadband will play a critical role in ensuring that broadband reaches rural and underserved areas, where it may be the most efficient means of delivering these services."[17] In his separate statement, Chairman Martin noted that "[w]ireless service is becoming increasingly important as another platform to compete with cable and DSL as a provider of broadband."[18]

The Commission's data show that, since 2005, mobile wireless providers have been the fastest-growing providers of both high-speed lines (over 200 kbps in at least one direction) and advanced service lines (over 200 kbps in both directions), with subscriber counts more than doubling in both categories in each of the last five six-month periods.[19] As of June 2007, mobile wireless providers served more than 9 million customers with advanced-service lines – almost half as many as DSL.[20] Data from the Pew Internet & American Life Project reveal that, in December 2007, 58 percent of adults have used mobile devices for non-voice activities, and 41

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[16] *See, e.g., AT&T Plans Major Expansion of 3G Wireless Broadband Service in 2008: Company to Expand 3G Service to More than 80 New Cities, Complete Upload Broadband Speed Enhancements*, AT&T Press Release (Feb. 6, 2008) (available at www.att.com/gen/press-room?pid=4800&cdvn=news&newsatricleid=25146).

[17] *Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, WT Docket No. 07-53, Declaratory Ruling, 22 FCC Rcd 5901 at ¶ 17 (2007) ("*Wireless Broadband Order*").

[18] *Wireless Broadband Order* at Statement of Chairman Kevin J. Martin.

[19] *High-Speed Services for Internet Access: Status as of June 30, 2007*, FCC Wireline Competition Bureau, Industry Analysis and Technology Division, March 2008, at Tables 1 and 2.

[20] *Id.* at Table 2.

percent of adults have logged onto the Internet wirelessly.[21] The Commission cites to similar percentages of subscribers of major wireless carriers that use mobile data services.[22] The Commission also notes that estimates of mobile data applications vary by age group, "with younger subscribers far more likely to adopt data services than U.S. cellphone users as a whole."[23] The availability of spectrum in the 700 MHz and AWS bands will enable wireless providers to offer even faster broadband services.[24]

As wireless broadband grows, consumers gain the competitive benefit of an additional broadband market participant, as well as the capability to access broadband content on a mobile basis – bringing the benefits of the Internet beyond the home and office to everywhere Americans live, work, and play.

B. The USF Should Reflect These New Technological and Market Realities

While the market and technology have advanced, the universal service system has remained stuck in the last century. The current system is designed primarily to subsidize legacy wireline voice networks, while American consumers have moved on to mobility and broadband.

Current high-cost support is a complex puzzle of seven different support mechanisms, each structured to ensure recovery of some component of the cost of ILECs' wireline voice

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[21] Pew Internet & American Life Project, Data Memo, *Mobile Access to Data and Information* (March 2008) (available at http://www.pewinternet.org/pdfs/PIP_Mobile.Data.Access.pdf) ("Pew Study") at 1.

[22] *Twelfth Report* at ¶ 210 (citing Morgan Stanley estimates of mobile subscribers who use data applications at 54-59% of the two major carriers' customer base).

[23] *Twelfth Report* at ¶ 212.

[24] *See generally Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, et al.*, WT Docket Nos. 06-150 *et al.*, Second Report and Order, 22 FCC Rcd 15289 (2007) *("700 MHz Order").*

networks.[25] While the Commission has designated some wireless carriers and competitive LECs serving rural and high-cost areas as eligible for support, it has yet to determine support amounts in a way that recognizes the services and networks that consumers value today.

Similarly, despite the growing importance of broadband, the Commission has never specifically authorized the use of universal service support to fund broadband deployment.[26] By virtue of their embedded-cost-based support, however, rural ILECs have been able to achieve a very high level of broadband availability in their territories with universal service support,[27] while larger ILECs lack this opportunity[28] – even though larger ILECs serve some territory that is just as rural as that served by smaller companies.[29] By the same token, the current system distributes significantly greater support to wireless carriers and other competitive eligible

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[25] *See generally* USAC, "What is supported?" (available at http://www.usac.org/hc/incumbent-carriers/step01/). For example, the High Cost Loop fund supports rural ILECs' loop costs that exceed 115% of the national average cost per loop. High Cost Model funding supports non-rural carriers' modeled network costs that exceed a national cost benchmark of two standard deviations above the mean national average cost per line. Interstate Access Support and Interstate Common Line support fund reductions in access charges for price-cap and rate-of-return ILECs, respectively – access rates which originally were set based on the carriers' embedded loop costs.

[26] *See Recommended Decision* at ¶¶ 55-56.

[27] *High-Cost Universal Service Support; Federal-State Joint Board on Universal Service,* WC Docket No. 05-337; CC Docket No. 96-45, Recommended Decision, FCC 07J-4 (rel. Nov. 20, 2007) *("Recommended Decision")* at ¶ 30. *See, e.g.,* Ex parte letter of Great Plains Communications, WC Docket No. 05-337 (filed April 16, 2007), "Broadband Analysis of Rural ILECs" (showing rural ILECs in Kansas and Oklahoma have equipped 84% of lines for DSL, and are projecting 95% within 2-3 years). *See also Recommended Decision* at Statement of Commissioner Ray Baum.

[28] Non-rural ILECs receive support based on modeled costs which do not include the cost of deploying broadband. 47 C.F.R. § 54.309. *See also Recommended Decision* at Statement of Commissioner Ray Baum.

[29] *See, e.g.,* Comments of AT&T, WC Docket No. 05-337 (filed May 31, 2007) at 2 ; Comments of Embarq, WC Docket No. 05-337 (filed May 31, 2007) at 7.

telecommunications carriers ("ETCs") that serve small ILECs' territories based on the embedded costs of the small ILECs, even though some other areas are just as rural or difficult to serve.[30]

There is every indication that the wireline voice network is mature, while wireless and broadband networks are still in build-out phases. As noted above, wireless carriers now serve 178 percent as many lines as ILECs, and ILECs have lost more than 40 million lines since 2001 – a decline of about 23 percent.[31] In 1992, when telephone subscribership was virtually all wireline,[32] 94 percent of American households subscribed to telephone service – though the number with telephone service available to them was presumably considerably higher.[33] Today, the subscribership percentage is unchanged at 94 percent[34] – though a significant percentage of those connections are now wireless. Wireless subscribership has skyrocketed from fewer than 9 million in mid-1992 to more than 255 million today – nearly a 28-fold increase in those 16 years. In that time, wireless carriers have invested enormous amounts in their networks, building over 200,000 cell sites.[35] Wireless contributions to the USF have grown considerably as well. Wireless carriers paid fully *one third* of all universal service contributions in 2005, the most

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[30] *Id.*

[31] *See supra* notes 4-6 and associated text.

[32] There were fewer than 9 million wireless phones in service in mid-1992. CTIA Semi-Annual Wireless Industry Survey (available at http://files.ctia.org/pdf/CTIA_Survey_Year_End_2007_Graphics.pdf *("CTIA Survey").*

[33] *Telephone Subscribership in the United States (Data Through November 2007),* FCC Wireline Competition Bureau, Industry Analysis and Technology Division (March 2008) *("Subscribership Report")* at Table 1.

[34] *Id.*

[35] From July 1992 to July 2007, the number of cell cites grew from fewer than 9,000 to over 210,000. *CTIA Survey.* By year-end 2007, the number of cell sites had grown to 213,229. *Id.*

recent year for which Commission data are available,[36] and the Commission has increased required contributions from wireless carriers since then.[37]

Despite the mature nature and declining use of the wireline networks, the rapid growth of wireless networks, and consumers' demonstrated preference for mobility, the vast majority of high-cost universal service support continues to flow to ILECs. In 2007, ILECs were projected to receive $3.154 billion of the total $4.290 billion in high cost support distributed – or 74 percent.[38]

Despite the relatively small amount of universal service support that wireless carriers receive, wireless ETCs have achieved a great deal in a few short years. In many cases, wireless ETCs have used universal service dollars to bring service to customers in rural and insular areas that previously lacked service. For example, on the Pine Ridge Indian Reservation in South Dakota, Alltel has used universal service to increase telephone penetration rates from 27 percent to 92 percent in only five years. Alltel also has used universal service support to extend service in other Indian Reservations, increasing penetration on the Rosebud Indian Reservation in South Dakota from about 40 percent in 2004 to 100 percent today, in the Yankton-Sioux and Lake

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[36] *Universal Service Monitoring Report*, CC Docket No. 98-202 (June 2007) at 1-24 and 1-25 (Table 1.6). This table shows that wireless carriers had $22.685 billion in net universal service contribution base revenues, out of $69.635 billion total for the industry, or 32.6%.

[37] *See, e.g., Universal Service Contribution Methodology; Federal-State Joint Board on Universal Service*, WC Docket No. 06-122, CC Docket Nos. 96-45 *et al.*, Report and Order and Notice of Proposed Rulemaking, 21 FCC Rcd 7518 (2006) (increasing wireless safe harbor from 28.5% to 37.1%).

[38] *Universal Service Monitoring Report*, CC Docket No. 98-202 (Dec. 2007) at Table 3.2. *See also* Universal Service Administrative Company 2007 Annual Report at 45, noting unaudited figures of 2007 ILEC High Cost Support totaled $3.108 billion out of a total of $4.287 billion in high cost support, available at http://www.usac.org/_res/documents/about/pdf/usac-annual-report-2007.pdf. Wireless carriers receive smaller percentages of the other universal service support mechanisms: low-income, rural healthcare, and schools and libraries.

Traverse (Sisseton) Indian Reservations in South Dakota by close to 20 percent over the past four years. Similarly, with the help of universal service support, Alltel began offering wireless service to residents of the Spirit Lake (Fort Trotten) Indian Reservation in 2003 and the Turtle Mountain Indian Reservation in 2005. In Spirit Lake, Alltel provided many residents with their first telephone, and today penetration has reached 100 percent. In Turtle Mountain, household penetration has climbed over 20 percent. In March 2008, Alltel broke ground on a cell tower in Pound, Virginia, which will provide this Appalachian community with its first wireless service.

Cellular South serves 380,000 square miles of rural territory in Mississippi and is using high-cost support to significantly expand its network capacity. Centennial Wireless has brought mobile wireless services to communities, such as Shaw and Blackhawk, Louisiana, that previously had no telephone service at all, wireline or wireless. These are areas where the incumbent carrier – the "carrier of last resort" – was unwilling or unable to serve all customers.

The universal service fund must be reformed to reflect today's mobile and broadband world. The Joint Board is to be applauded for recognizing that mobility and broadband should have central roles in the reformed universal service mechanism.[39] In particular, and as discussed in more detail in the remaining sections of these comments, the universal service program must be restructured to eliminate its emphasis on wireline voice networks (and their costs), and focus instead on the mobile and broadband networks that consumers are demanding – and which are still lagging in many rural areas. In light of the economic, social, and safety benefits of mobile

[39] *Recommended Decision* at ¶¶ 4, 11-18. Unfortunately, the Joint Board's recommendation does not address the need to reform archaic support mechanisms. *Id.* at ¶¶ 19-23. It also contains inappropriately discriminatory elements. *See infra* Section II.

and broadband networks, the goal of any reform effort must be to make these networks available to all Americans, including those in rural and high-cost areas.

II. THE ACT REQUIRES A UNIVERSAL SERVICE SYSTEM THAT IS NON-DISCRIMINATORY AND MINIMIZES COSTS

To formulate a successful high-cost support mechanism for the twenty-first century, the Commission must bear in mind certain important principles. First, in today's world of increasing wireless and wireline choices, the support mechanisms must remain consistent with the Congressionally mandated principle of competitive neutrality. Second, to avoid the mistakes of the past, the reformed mechanism must encourage efficiency and target support appropriately to consumers in high-cost areas, thereby reducing the need for subsidies over time.

A. Universal Service Support Must Be Competitively Neutral

Given the evolution of technology and the marketplace, discussed above,[40] competitive and technological neutrality have become even more crucial to universal service reform than they were when the Commission adopted the principle of competitive neutrality in 1997. Intermodal competition, only a dream when the principle was adopted, is now a reality – and still growing rapidly.[41] As a result, in today's competitive environment, proposals that would discriminate against certain classes of carriers will only harm consumers.

Whatever theory of competitive or technology neutrality the Joint Board develops in this proceeding, it should not overlook a significant body of case law demanding nondiscrimination in universal service. As the Rural Task Force noted during the course of its deliberations, "Section 254(b) and 214(e) of the 1996 Act provide the statutory framework for a system that

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[40] *See supra* Section I.A.
[41] *Id.*

encourages competition while preserving and advancing universal service."[42] The FCC noted this statutory mandate in the *First Report and Order*, when it stated that "universal service mechanisms and rules" should "neither unfairly advantage nor disadvantage one provider over another, and neither unfairly favor nor disfavor one technology or another."[43]

In *Alenco Communications, Inc. v. FCC*, the United States Court of Appeals for the Fifth Circuit stated that the universal service "program must treat all market participants equally – for example, subsidies must be portable – so that the market, and not local or federal regulators, determines who shall compete for and deliver services to customers."[44] As the Fifth Circuit noted, non-discriminatory incumbent and competitor access to high-cost support "is made necessary not only by the realities of competitive markets but also by statute."[45] Accordingly, "[t]he FCC must see to it that *both* universal service and local competition are realized; one cannot be sacrificed in favor of the other."[46]

It should be no surprise then that competitive and technological neutrality enjoys nearly universal support as a bedrock legal principle. Representative Edward Markey, Chairman of the House Subcommittee on Telecommunications and the Internet, recently wrote that "the central purpose of the universal service provisions of the 1996 Act is to benefit consumers, not telecommunications carriers. In addition, competition was an overarching goal of the

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[42] Rural Task Force, *White Paper 5: Competition and Universal Service*, at 8 *available at* http://www.wutc.wa.gov/rtf) (hereinafter "White Paper 5") (2000).
[43] *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 8801 para. 47 (1997) (subsequent history omitted).
[44] *Alenco Commun. Inc. v. FCC*, 201 F.3d 608, at 616 (5th Cir. 2001).
[45] *Id.*
[46] *Id.* at 614 (emphasis in original).

legislation."[47] At least ten other Senators and members of Congress, including some of the foremost authorities on telecommunications policy in general and universal service policy in particular, have criticized recent reform proposals that would violate competitive neutrality. Senators Rockefeller, Pryor, Dorgan, Klobuchar, and Gordon Smith all opposed any cap on high-cost support, "especially one imposed only on certain carriers."[48] Senators Sununu, McCain, DeMint, and Ensign "do not support any plan that would cap only one select group of providers but not others," as they believe "such a fix would unfairly skew the marketplace."[49] Significant legislative proposals currently before the House and Senate would add "competitive neutrality" to Section 254(b) as an explicit statutory universal service principle.[50]

Indeed, there is no question that the members of the Commission recognize the ongoing importance of competitively neutral universal service policy. Commissioner Martin's statements supporting a reverse auctions mechanism tout the proposal as a "competitively neutral" alternative.[51] Commissioner McDowell's statement accompanying the three current NPRMs lists "ensur[ing] competitive neutrality" as one of five principles that the Commission "must follow" in considering universal service reform.[52]

There are certain reform proposals in the three NPRMs, however, that raise serious concerns about their consistency with a competitively neutral high-cost support mechanism.

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[47] Letter from Rep. Edward Markey to Chmn. Kevin J. Martin, FCC, dated April 2, 2007, at 1.
[48] Letter from Sens. Rockefeller, Pryor, Dorgan, Klobuchar, and Gordon Smith to Comr. Deborah Taylor Tate and Chmn. Ray Baum (dated March 21, 2007).
[49] Letter from Sens. Sununu, McCain, DeMint, and Ensign to Comr. Deborah Taylor Tate (dated April 13, 2007).
[50] *See* S.101, 110th Cong., § 203 (2007); H.R. 2054, 110th Cong., § 3 (2007).
[51] *See, e.g., 2008 Auctions NPRM* at ¶ 4 (citing Statement of Kevin Martin at 2007 En Banc Hearing on Universal Service Reform).
[52] Statement of Commissioner Robert M. McDowell, *RD NPRM*, *ISR NPRM*, and *2008 Auctions NPRM*.

These proposals must be rejected or modified to formulate a successful high-cost support mechanism.

1. The System May Not Prescribe *a Priori* Less Support for Wireless ETCs

First, the *Recommended Decision* proposes to segregate wireless ETCs into a separate Mobility Fund that would be structured specifically to provide less support.[53] The Joint Board proposes capping the Mobility Fund at $1 billion, while the Provider of Last Resort ("POLR") fund for ILECs would be capped at over $3 billion.[54] Setting aside almost three times as much high-cost funding for ILECs than is available to wireless carriers simply cannot, by any measure of commonsense, be consistent with competitive- and technology-neutrality mandates of the Act. This type of prescribed disparity in funding levels could not be justified on legal or public policy grounds under any circumstances, but is particularly indefensible in light of consumer demand shifting to mobile wireless services and the relative maturity of wireline and wireless networks.[55] Importantly, such a disparity does not make sense to consumers, who are the only intended beneficiaries of universal service.[56]

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[53] *See, e.g., Recommended Decision* at ¶¶ 11, 16-18.

[54] *Recommended Decision* at ¶ 32 & n.31 (proposing to cap POLR funding at current levels for the five high-cost support mechanisms); *Universal Service Monitoring Report,* CC Docket No. 98-202 (Dec. 2007) at Table 3.2 (2007 ILEC support levels $3.154 billion). The Joint Board also contemplates providing ILECs with additional support when the FCC responds to the *Qwest II* remand. *Recommended Decision* at ¶ 42 (citing *Qwest Corp. v. FCC,* 398 F.3d 1222 (10th Cir. 2005) *("Qwest II")).*

[55] *See supra* Section I.

[56] According to a March 2008 national survey of consumers, a clear majority **(60%)** supports using a greater portion of the universal service fund to help wireless phone companies improve the quality of wireless phone service in rural and high-cost areas. Less than one-quarter **(25%)** opposes it. *See* http://www.mywireless.org/nationalsurvey/.

2. All ETCs Must Receive Support for the Ongoing Provision and Maintenance of Universal Service

The Joint Board's proposed Mobility Fund (and Broadband Fund) – unlike the POLR Fund designed for ILECs – would be limited primarily to initial construction costs.[57] Like ILECs, however, wireless ETCs have significant costs for the "provision and maintenance" of the supported service in rural and high-cost areas.[58] In many cases, the sparse population (and resulting low usage) in these areas makes it uneconomic for wireless carriers to continue to provide service after initial construction is complete. Moreover, the statute mandates support for the "upgrading" of service in rural and high-cost areas,[59] and the courts have found that the statute requires the Commission to "advance," and not just "preserve," universal service.[60]

3. Discriminatory and Illogical Linkages to Wireline Networks Cannot Be Justified

In the *ISR NPRM*, the Commission proposes to eliminate the identical *support* rule *except* when calculating a wireless ETC's *support*. The Commission proposes to require wireless ETCs to prove up their costs using arcane regulatory bookkeeping akin to that currently employed by rural and rate-of-return ILECs in order to receive universal service support, but would impose a ceiling on wireless ETCs' support at the per-line level of support that the ILEC receives, even if the wireless carrier's actual costs are higher[61] – and might even set the ceiling below the total level of universal service support that the ILEC receives.[62] In other words, the Commission

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[57] *Recommended Decision* at ¶ 36.
[58] *See* 47 U.S.C. § 254(e).
[59] 47 U.S.C. § 254(e).
[60] *Qwest II*, 398 F.3d at 1236-37.
[61] *See infra* note 89.
[62] *ISR NPRM* at ¶ 25. The notice proposes limiting wireless ETC support to the level the ILEC receives from only loop-related (or perhaps loop- and switch-related) support mechanisms. *Id.*

proposes to sever the relationship between support received by ILECs and their ETC competitors *except* when competitive ETC costs justify higher support amounts than the ILEC is entitled to. If the Commission were to eliminate the identical support rule and conclude that ETCs' embedded or book costs are a reasonable basis for support, despite the obvious market distortions and incentives for inefficiency this system creates,[63] there is no basis to restrict wireless carriers' support levels based on the ILECs' costs.[64]

If the Commission decides to eliminate the identical support rule and pursue an embedded-cost mechanism for determining wireless ETCs' support levels,[65] it may not include any discriminatory linkages to ILEC support. Thus, under such a mechanism, wireless ETCs' support should be based on benchmarks tied to *wireless* – not wireline – costs.[66] There also cannot be any arbitrary exclusions of wireless costs, such as spectrum costs,[67] and wireless ETCs should be entitled to include in their cost calculations all of the same types of costs that can be included by rural ILECs, including marketing and other day-to-day operations costs.[68]

4. "Access Replacement" Support Must Be Available to All ETCs, or Eliminated in its Entirety

For many of the same reasons, if the identical support rule is retained, it would be legally indefensible to deny Interstate Access Support ("IAS"), Interstate Common Line Support

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[63] *See infra* Section II.B.2.

[64] It is inevitable that, in some instances, wireless costs will be higher. *See infra* note 89 and associated text.

[65] *See* Comments of CTIA, WC Docket No. 05-337 (filed May 31, 2007) at 9-10. *See infra* Section II.B.

[66] *See ISR NPRM* at ¶ 20. Thus, proposals to use benchmarks based on HCPM or NECA-generated costs, *id.*, are squarely inappropriate.

[67] *Id.* at ¶ 17.

[68] *See id.* at ¶ 15 (suggesting that only the costs of "network components" akin to ILECs' loop, switching, and transport would be included).

("ICLS"), or other forms of support to wireless carriers on the grounds that these mechanisms are "access replacement," rather than universal service, and that wireless carriers never collected access charges (apparently disregarding the fact the wireless carriers – unlike local exchange carriers – have never been empowered by regulation to recover access charges and instead have been forced to recover the costs of access almost entirely from their end-user customers).[69] Access replacement is universal service support by another name and must be available to all carriers on a competitively neutral basis. For example, ICLS was created in the *MAG Order* "to replace implicit support in the interstate access" rate structure.[70] Similarly, the $650 million IAS fund was created in the *CALLS Order* to "replac[e] the subsidies" implicit in interstate access charges "with explicit . . . universal service support."[71]

Conversely, if the funds that formerly flowed through access charges are not necessary for universal service, then they are being collected illegally. Aside from the universal service provisions of Section 254 of the Act, the Commission has no authority to assess carriers to raise subsidies. Thus, if IAS and ICLS are merely "access replacement" and not universal service, then no carrier or consumer can be required to contribute to them.

If the Commission has determined that funding such as IAS and ICLS is necessary for the provision, maintenance, and upgrading of the supported services in a given geographic area, it

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[69] *Id.* at ¶ 23.
[70] *MAG Order*, 16 FCC Rcd at 19617.
[71] *Access Charge Reform*, 15 FCC Rcd 12962, 12975 (2000) ("*CALLS Order*"), rev'd and remanded in part on other grounds, *Texas Office of Public Utility Counsel v. FCC*, 265 F.3d 313 (5th Cir. 2001), Order on Remand, 18 FCC Rcd 14976 (2003).

must be made available to all ETCs on a neutral basis under Sections 214(e) and 254(e) of the Act.[72]

5. Transitional Measures Must Be Equitable

In the event the reform effort results in the need for any transition provisions,[73] these too should be non-discriminatory, and just as respectful of wireless carriers' reliance interests as the Commission historically has been of the ILECs'. Like ILECs before them, wireless ETCs have now invested billions of dollars to deploy wireless facilities in rural and high-cost areas with the expectation that high-cost support will be available to help defray both the initial deployment and ongoing maintenance and operations costs of these networks. In the wireline context, the Commission has provided long transition periods for any significant changes in high-cost support amounts. For example, the Commission determined to transition non-rural ILECs to support based on forward-looking costs in 1997, but did not implement a new mechanism until 2000.[74] In addition, the Commission established an "interim hold harmless" mechanism that initially ensured that the transition to forward-looking support would not reduce support to any carrier and, later, phased support down to forward-looking levels at a rate of one dollar per line per year.[75] Wireless ETCs, too, should be held harmless for a period of years in the event the

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[72] *See Alenco*, 201 F.3d at 616; 47 U.S.C. §§ 214(e), 254(e).

[73] *See, e.g., Recommended Decision* at ¶¶ 27-28

[74] *Federal-State Joint Board on Universal Service; Forward-Looking Mechanism for High Cost Support for Non-Rural LECs*, CC Docket Nos. 96-45 and 97-160, Tenth Report and Order, 14 FCC Rcd 36, 39 ¶ 2 (1999), *aff'd Qwest I*, 258 F.3d at 1207.

[75] *Federal-State Joint Board on Universal Service,* Thirteenth Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 96-45, 15 FCC 24422 (2000). Specifically, the Commission determined that interim hold-harmless support, excluding long term support, would be phased down beginning January 1, 2001, through annual $1.00 reductions in each carrier's average monthly per-line support until that support is eliminated. *See id.* at 24426, 24428, ¶¶ 9, 12.

Commission reduces the support available to wireless carriers generally or any wireless carrier in particular. To this end, CTIA supports a five-year period during which carriers are transitioned off of the existing support mechanisms and onto any successor mechanisms.[76]

B. The Reformed Mechanism Must Provide for Efficient Support Levels

The Commission has a clear responsibility to serve as a responsible steward of the universal service fund. As the courts have observed, excessive subsidization, too, can be detrimental to universal service goals.[77] By all objective accounts, the Commission's efforts in this regard have fallen short. The Commission must ensure that the revised support mechanisms provide accountability and transparency to confirm that these consumer dollars are truly serving consumers.

1. Clear Program Goals and Performance Metrics Must Be Established

As the Commission is well aware, it has been criticized by the White House's Office of Management and Budget ("OMB") for the lack of clear objectives and performance measures in OMB's periodic Program Assessment Rating Tool ("PART") process, which currently rates the universal service high-cost program as "NOT PERFORMING" and finds that the program's "RESULTS [ARE] NOT DEMONSTRATED."[78] Specifically, OMB rates the high-cost universal service program as follows:[79]

Program Purpose and Design	60%
Strategic Planning	33%

[76] *See Recommended Decision* at ¶ 27.
[77] *Qwest I*, 258 F.3d at 1200; *Qwest II*, 398 F.3d at 1234; *Alenco*, 201 F.3d 620.
[78] OMB ExpectMore.gov Program Assessment: Universal Service Fund High Cost (available at www.whitehouse.gov/omb/expectmore/summary/10004451.2005.html).
[79] OMB ExpectMore.gov Detailed Information on the Universal Service Fund High Cost Assessment (available at www.whitehouse.gov/omb/expectmore/detail/1000451.2005.html).

Program Management	38%
Program Results/Accountability	0%

These low scores resulted in part from "NO" answers to two fundamental questions: (1) "Is the program design effectively targeted so that resources will address the program's purpose directly and will reach intended beneficiaries?" and (2) "Does the program have a limited number of specific long-term performance measures that focus on outcomes and meaningfully reflect the purpose of the program?"[80] The Commission must definitively address these threshold questions to design a successful universal service support program.

The Tenth Circuit Court of Appeals also has faulted the Commission's efforts to lay out the program's purpose, finding that the Commission has failed to define the fundamental statutory terms "sufficient" and "reasonably comparable."[81] Though that issue was remanded to the Commission in 2005, it has yet to be resolved.[82]

Just as important as properly defining the goals, however, is the establishment of performance metrics and accountability standards to ensure that the program meets the goals selected. While performance metrics analyzing the administration and efficiency of the program are certainly important, the most urgent need at this juncture is for "output" metrics that look at whether the public interest goals of the high-cost program are actually being met.[83] In other words, the Commission must find ways to quantify and measure the outcomes articulated in the

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[80] *Id.*

[81] *Qwest II*, *supra* note 54.

[82] The Commission sought comment on the remand, but went no further. *Federal-State Joint Board on Universal Service; High-Cost Universal Service Support*, CC Docket No. 96-45, WC Docket No. 05-337, Notice of Proposed Rulemaking, 20 FCC Rcd 19731 (2005) *("Tenth Circuit Remand NPRM").*

[83] *See* Comments of Mercatus Center, WC Docket No. 05-195 (filed Oct. 17, 2005) at 4-10.

high-cost program's explicit goals. Support should be targeted specifically to achieve these goals.

By the same token, support that is not necessary for the achievement of the goals should be eliminated. This is one of the most serious shortcomings of the existing support mechanisms: There is no way to know whether the support is advancing universal service – not only because the Commission has never defined what it means to "advance universal service," but also because – except for competitive ETCs, which have generally been required to demonstrate how support received will be and has been used to support or expand service in the designated ETC service areas – there has never been an effort to correlate the payments made to carriers under the program and the specific outcomes produced.[84] If support were reduced to any given funding recipient, would any rural or high-cost customers lose access to the supported services? Would the carrier be able to recover its costs and earn a reasonable return by selling the supported services (and other services that can be provided on the same network) at market-based rates, without support? If so, would such rates still be affordable? Alternatively, if the carrier could not recover its costs and earn a reasonable return absent support, could rural and high-cost customers obtain the supported services from another provider at an affordable rate?

Although over $4 billion flows annually through the high-cost support mechanisms, no one has any idea whether this sum is too much or too little to accomplish the program's goals. Questions such as these have been debated in the Commission's universal service proceedings,

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[84] 47 C.F.R. §§ 54.202(a), (c); 54.209. The CETC reporting rules require wireless ETCs designated by the FCC to submit detailed 5-year service improvement plans describing how support will be used in the designated area, as well as annual reports on progress under the plans. *Id.* The rules also require such CETCs to report on unfulfilled service requests, outages, and other issues. *Id.*

but only in the abstract. No concrete effort has been made to determine how much support is necessary to achieve universal service goals in rural and high-cost areas, or how support should be deployed in order to do so.[85] Thus, once the goals of universal service have been determined, the Commission must proceed without delay to set up support mechanisms that *target* support in a *quantifiable* way to achieve the established goals.

2. The Revised Support Mechanism Should Reward Efficiency

CTIA continues to support structuring the high-cost support mechanisms in a way that encourages and rewards those funding recipients that are the most efficient. In this regard, CTIA agrees that a reverse auctions mechanism, if properly structured consistent with competitive neutrality and other statutory principles, could aid in determining the efficient cost of providing service in rural and high-cost areas.[86]

In any event, however, the Commission must ensure that the reformed support mechanisms do not perpetuate or expand the incentives for inefficiency that exist in the current system. As CTIA has discussed in this proceeding in the past, the existing support mechanisms for rural ILECs, based on the rural ILECs' embedded costs, actually create disincentives for efficiency by rewarding ILECs with higher costs with greater support.[87]

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[85] The Tenth Circuit, for example, hoped the FCC would return with data supporting the program's success in achieving rate comparability following the first remand, but the FCC did not do so. *Qwest II*, 398 F.3d at 1237. Significantly, however, even if better data on the comparability of rates between rural and urban areas could be presented, it does not appear that any data exist to quantify the role that the high-cost mechanisms played in influencing rural rates one way or the other.

[86] *See generally* Reply Comments of CTIA, WC Docket No. 05-337 (filed Nov. 8, 2006) at Attachment (CostQuest Associates paper, "Controlling Universal Service Funding and Promoting Competition Through Reverse Auctions").

[87] *See, e.g.*, Comments of CTIA, WC Docket No. 05-337 (filed June 6, 2007) at 5-6.

As many commenters have noted in earlier stages of this proceeding, it therefore would be ill-advised to import the inefficiencies of the current rural ILEC support mechanism into the support mechanism for wireless ETCs, as proposed in the *ISR NPRM*.[88] First, although wireless technology is generally a highly efficient means of serving customers in rural and high-cost areas, it is not always cheaper to deploy wireless facilities than wireline. For example, in a Florida interconnection proceeding, Sprint presented an economic cost study that demonstrated that its cost of service ($0.066 per minute of use) was about twenty times the ILEC's cost-based reciprocal compensation rate ($0.0038).[89] Thus, it is difficult to predict what impact a "cost-based" universal service system for wireless ETCs would have on the fund.[90]

Moreover, specific proposals to require wireless ETCs to maintain and report their costs in a manner akin to the Part 32 Uniform System Accounts currently applicable to ILECs, such as GVNW's "WiCAC" proposal,[91] seriously underestimate the difficulties of this approach.[92] As

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[88] *See, e.g.,* CTIA Comments, WC Docket No. 05-337 (filed May 31, 2007) at 9-10; AT&T ex parte letter, WC Docket No. 05-337 (filed Oct. 5, 2007), at attachment; Alltel Reply Comments, WC Docket No. 05-337 (filed July 2, 2007) at 3. Tellingly, the calls for "reforming" competitive ETCs' support mechanisms to more closely resemble current rural ILEC support mechanisms come almost exclusively from the rural ILECs themselves – the carriers with the greatest vested interest in the retention of their own existing support levels from the current antiquated mechanisms.

[89] Petition by Sprint PCS for Arbitration of Certain Terms and Conditions of a Proposed Agreement with BellSouth Pursuant to Section 252 of the Communications Act, Docket No. 000761-TP (Fl. PSC filed June 23, 2000). The parties settled the dispute before the commission ruled on the issue. *Petition of Sprint Communications Company LP for Arbitration of Certain Unresolved Terms and Conditions of a Proposed Renewal of a Current Interconnection Agreement With BellSouth Telecommunications, Inc., et al.*, Docket Nos. 000828-TP and 000761-TP, Order No. PSC-02-0076-FOF-TP (Fl. PSC Jan. 11, 2002).

[90] Discriminatory caps on wireless ETCs' support at wireline levels would not be a defensible response to this issue. *See supra* Section II.A.3.

[91] *See ISR NPRM* at ¶ 13 & n.40, *passim.*

AT&T has pointed out, a transition to a wireless cost approach would be lengthy and burdensome.[93] Unlike wireline costs, wireless costs are driven at least as much by minutes of use as by the number of customers served. Moreover, because of the way wireless networks are licensed and constructed, wireless carriers do not keep financial records on a study area basis – or often even on a statewide basis. WiCAC also would require wireless carriers to allocate costs like salaries and rents to functional categories such as switching or cable and wire facilities – an allocation which is largely artificial, and which wireless carriers do not generally perform today.

The impulse to provide support for wireless ETCs based on their "own costs" rests on the false assumption that ILECs receive support on that basis. In fact, it is simply incorrect that all ILECs receive high-cost universal service support based on their actual costs. We conservatively estimate that about $1.3 billion or about 40 percent of annual ILEC high-cost universal service support is not based on the ILECs' actual or embedded costs.[94] This estimate includes interstate access support, model-based support, local switching support, high-cost loop support for average schedule ILECs, and transferred section 54.305 support.

To provide wireless ETCs with support based on their "own costs" would represent a step backwards into an oppressively regulatory environment that is inconsistent with a competitive marketplace, and would only exacerbate the inefficiencies in the existing system. Instead, the

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[92] AT&T ex parte letter, WC Docket No. 05-337 (filed Oct. 5, 2007), at attachment (citing the 18-month transition from Part 31 to Part 32 accounting which cost between $600 million and $1.6 billion in 1986 dollars.

[93] *Id.*

[94] This is based on an analysis of Universal Service Administrative Company quarterly filings with the FCC. Moreover, as CTIA previously pointed out, ILECs that receive support based on their "embedded costs" also receive a guaranteed universal service rate of return of 11.25% percent. That guaranteed universal service profit would need to be included in any calculation of "embedded cost" support for competitors. *Id.*

Commission should pursue other, objective means of deriving support amounts for all ETCs, wireless and wireline alike. These could include, for example, competitively neutral reverse auctions, requests for proposal, wireless "average schedules," or measures of population density.

Efforts to promote efficiency in the universal service system should extend to any interim or transitional support mechanism as well. Pending the implementation of a revised universal service support system, the Commission should implement important reforms to rein in unnecessary and inefficient fund growth.[95] ILECs with multiple study areas in a given state should be required to combine those study areas before support is calculated. ILECs with more than 50,000 access lines in a state (irrespective of how many study areas they currently comprise) should be treated as "non-rural" and transitioned quickly to the high-cost model-based support mechanism. The per-line amount of support that is available to *all* ETCs in a given study area – wireless and wireline alike – should be frozen upon designation of a second ETC in the area. These measures will bring important efficiencies into the system pending more comprehensive reform.

III. UBIQUITOUS MOBILITY IS AN IMPORTANT UNIVERSAL SERVICE GOAL

Although the wireless industry has invested billions of dollars to extend the reach of wireless networks into more remote areas, there remain areas of the country where, as a result of low population density, high costs of service, or both, wireless service is either unavailable or insufficient. In these areas, the construction of adequate wireless networks cannot be justified from an economic perspective. In a subset of these areas, even the ongoing maintenance and

[95] *See* CTIA Joint Board Comments, CC Docket No. 96-45 (filed Sept. 30, 2005).

operation of wireless networks cannot be justified economically. In either situation, subsidies for wireless networks are necessary to ensure that statutory universal service goals are met.

To quantify the extent to which such areas exist in the United States, CTIA commissioned CostQuest Associates ("CostQuest"), a business and economic consulting firm, to analyze commercially available data about 3G wireless broadband coverage. This data could be used by the Commission as part of its broadband review. CostQuest's report is attached as Exhibit 1 to these comments.

The first step in CostQuest's analysis was to compile information on the extent of current wireless coverage in the United States. Using coverage data from American Roamer (the same source upon which the Commission relied for the most recent CMRS Competition Report), CostQuest determined that about **23.2 million U.S. residents** live in areas where 3G wireless broadband service has not yet been deployed. The study also revealed that there are also more than **2.5 million miles of roads** that lack such coverage.

Because, as discussed above, consumers currently demand mobility and broadband,[96] CTIA asked CostQuest to focus on the cost of completing the build-out of a broadband-capable mobile network. The study analyzes the cost of expanding service to serve residential population distribution as well as most roads and highways.[97] CostQuest's study estimates only up-front construction costs (*i.e.*, only the cost of "upgrading" the wireless network to extend coverage to unserved and underserved areas[98]), and does not attempt to estimate the ongoing costs for the

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[96] *See supra* Sections I.A.-B.

[97] The study considers road networks as well as population locations because to exclude road coverage would discount the public safety and convenience benefits of mobile networks, which is precisely what makes them most valuable to consumers.

[98] 47 U.S.C. § 254(e).

"provision" or "maintenance" of service in these or other areas.[99] It also does not attempt to estimate the cost of the spectrum needed to provide wireless service – which would need to be included in any universal service cost estimate.

CostQuest's study also takes into account the presence of two predominant and competing technology platforms for mobile voice and broadband in the United States. Currently, wireless voice is provided on both *CDMA* (*e.g.*, Verizon Wireless, Sprint, Alltel, US Cellular, MetroPCS, Leap Wireless, Centennial) and *GSM* (*e.g.*, AT&T Mobility, T-Mobile USA, Inc., Cincinnati Bell Wireless, Guam Cell Communications, Union Cellular) networks. CDMA carriers generally provide broadband access over *EvDO* networks, while GSM carriers provide broadband access over *HSDPA* networks.[100] The overwhelming majority of wireless devices work on only one network grouping (*i.e.*, either CDMA/EvDO or GSM/HSDPA), but not both. As a result, both technology platforms must be present in all areas to achieve ubiquitous coverage for most mobile customers. The study thus assumes the cost of building a network that shares tower resources and is capable of providing service using both technology platforms.

CostQuest's study is not intended to be a precise estimate of the final costs of this build-out effort, or a blueprint for achieving it. Of necessity, it is based on simplifying assumptions about issues such as the locations and coverage areas of transmission towers in unserved areas. Rather, it is intended as a broad estimate to frame the scope of the issue. CTIA invites parties to assist in further refinements to this analysis.

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[99] *Id.*

[100] The FCC provides a good description of these network technologies and their evolution in the *Twelfth CMRS Competition Report* at ¶¶ 128-131. Sprint also provides service using the iDEN platform on the legacy Nextel network. *Id.*

Within that framework, however, CostQuest conservatively estimates that completing this considerable wireless broadband build-out project will cost approximately **$22 billion**.[101]

This estimate has a number of significant implications for the universal service policy debate. First, it suggests that the Joint Board's proposal to cap the Mobility Fund at $1 billion, and the broadband fund at $300 million, would be woefully inadequate for the task at hand.[102] It also presents an interesting point of cost comparison, in light of calls for elimination of the identical support rule.[103] For example, NECA estimated almost a decade ago that the cost of deploying broadband to all customers for the participants of its common line pool – arguably among the most rural and highest-cost ILECs in the country – would be $10.9 billion.[104] Presumably, much of this work has been accomplished over the past eight years – most of it funded by a portion of the over $23 billion in high-cost universal service support received by ILECs over that period.[105] It now appears that the country faces a project approximately twice as large. The Commission must approach this challenge consistent with its obligation to ensure "sufficient" universal service support.[106]

While this estimate of the initial build-out cost of broadband-capable wireless networks will help frame the debate regarding wireless costs at this stage of the proceeding, it is CTIA's hope that the Commission and other interested parties will continue to advance the effort to

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[101] *See* Attachment 1.
[102] *Recommended Decision* at ¶¶ 28-29.
[103] *See generally ISR NPRM.*
[104] *NECA Rural Broadband Cost Study: Summary of Results* (NECA June 21, 2000) at 2 (available at www.neca.org/media/broadban.pdf).
[105] *See, e.g.,* Opening Remarks of Chmn. Kevin J. Martin, Federal-State Joint Board on Universal Service En Banc Meeting (February 20, 2007), slides at 1 (available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-271011A2.pdf) (citing USAC data and projections).
[106] 47 U.S.C. §§ 254(b)(5), 254(e).

quantify, in an objective and efficient way, the costs of providing universal service in rural and high-cost areas.

IV. CTIA SUPPORTS THE JOINT BOARD'S PROPOSAL TO SET ASIDE FUNDING FOR MOBILITY AND BROADBAND BUILD-OUT

The Joint Board's most recent recommendation astutely recognizes that mobility and broadband must be the centerpieces of today's universal service reform effort.[107] It may be possible, consistent with the Joint Board's recommendation, to use "reverse auctions or requests for proposal" to distribute support for mobility and broadband build-out efforts in areas that are not currently served by these technologies.[108] There is broad consensus, even among opponents of reverse auctions, that competitive bidding is most effective for distributing universal service funding in unserved areas.[109]

The existence of two prevailing network technology platforms combined with the mobility of wireless service, presents a unique challenge for build-out in unserved and underserved areas. If a single provider is selected through a reverse auction or request for proposal process to build out service in a given area, customers that use the other technology, including those that may be roaming into the area, will continue to find the area to be "unserved" for all intents and purposes – their mobile devices will not work there. Such consumers would

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[107] *Recommended Decision* at ¶¶ 4, 11-18; *see also supra* Section I. Unfortunately, the Joint Board's recommendation does not address the need to reform archaic support mechanisms. *Recommended Decision* at ¶¶ 19-23. It also contains inappropriately discriminatory elements. *See supra* Section IV.

[108] *Recommended Decision* at ¶¶ 15, 18.

[109] *See, e.g.,* Reply Comments of NTCA, WC Docket No. 05-337 (filed Nov. 8, 2006), Appendix A (Statement of Dale E. Lehman) at 3 (examples of success of reverse auctions "all apply to green-field developments where there was no infrastructure in place. Attempts to use reverse auctions where there was existing infrastructure (e.g., India, Australia) have not been successful").

not even be able to make 911 calls from an area that was exclusively covered by the other technology.

Thus, in the event that the Commission adopts a plan to award support for mobility build-out in unserved and underserved areas, it must select at least one provider from each network platform technology to ensure truly ubiquitous service.

The Commission also must ensure that any broadband build-out fund is technology neutral. For example, the Commission should not choose speed criteria that would disqualify any particular technologies, such as first-generation wireless and wireline broadband, that deliver immense benefits for consumers. As an alternative to strict speed limits,[110] the Commission could rely on a "functional" definition of broadband. That is, the Commission could recognize and support technologies that consumers are selecting in the marketplace for broadband access.

In the creation of new funding mechanisms focused on mobility and broadband, any new funding should be directed first to ensure deployment in states that receive little support under the current mechanisms.[111] As at least one Joint Board member has pointed out, the current distribution of support among the states appears sometimes arbitrary, with equally rural states receiving widely disparate amounts of support because of quirks in the current rules.[112] The revised mechanism should address these disparities by providing any new or additional funding for mobility or broadband first to rural and high-cost states that receive relatively little support today.

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[110] *See Recommended Decision* at ¶ 72.
[111] The Joint Board did not propose a mechanism for allocating funds among the several states. *Recommended Decision* at ¶ 70.
[112] *See, e.g., Recommended Decision,* Separate Statement of Comr. Ray Baum at 2.

CONCLUSION

The Commission should move expeditiously to adopt comprehensive reforms for the high-cost universal service mechanisms, consistent with these comments.

Respectfully submitted,

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April 17, 2008

ATTACHMENT 1
[COSTQUEST REPORT ON INITIAL BUILD-OUT COSTS]