

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Connect America Fund)	WC Dkt. 10-90
)	
A National Broadband Plan for Our Future)	GN Dkt. 09-51
)	
Establishing Just and Reasonable Rates for Local Exchange Carriers)	WC Dkt. 07-135
)	
High-Cost Universal Service Support)	WC Dkt. 05-337
)	
Developing an Unified Intercarrier Compensation Regime)	CC Dkt. 01-92
)	
Federal-State Joint Board on Universal Service)	CC Dkt. 96-45
)	
Lifeline and Link-Up)	WC Dkt. 03-109

COMMENTS OF GOOGLE INC.

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April 18, 2011

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COMMENTS OF GOOGLE INC.

Google Inc. (“Google”) files these comments in response to the Federal Communication Commission’s (“FCC” or “Commission”) Notice of Proposed Rulemaking considering how to modernize the current federal Universal Service Fund (“USF”) and intercarrier compensation (“ICC”) systems.¹

INTRODUCTION AND SUMMARY

This NPRM offers the FCC a seminal opportunity to update America’s communications infrastructure, which will fuel economic growth, innovation and national competitiveness. In these comments, Google explains that the overarching goals of robust broadband deployment and network efficiency should guide the FCC’s actions.

¹ *Connect America Fund, et al., Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking*, WC Dkt. 10-90, *et al.*, FCC 11-13 (rel. Feb. 9, 2011) (“NPRM”).

In particular, we discuss that ICC reform should promote next generation technologies and suggest that today's broadband Internet traffic exchange practices could be a useful model to inform the FCC. The comments also underscore the need for the FCC to affirm that broadband service providers have a fundamental statutory duty to interconnect all traffic.

In addition, we recommend that the USF should be reformed so that explicit and targeted support is provided for deployment of universally available and open broadband networks. Consistent with the FCC's goal of accountability, we agree that subsidy recipients should be required to demonstrate that they meet pro-consumer policies. Finally, we recognize the important role states can play in USF reform.

DISCUSSION

I. Robust Broadband Deployment and Network Efficiency Should Guide Universal Service Fund and Intercarrier Compensation Reform.

The FCC's proposals to modernize USF and ICC are correctly focused on promoting robust and ubiquitous broadband access.² Reviewing results from broadband measurement tools makes clear that more must be done to ensure that all Americans have access to and can fully utilize a basic set of online communications applications and functions.³ The regulatory framework should encourage the transition from narrowband, voice-centric circuit-switched networks to all-broadband networks, with the wealth and diversity of services and applications they deliver. This transition will facilitate

² NPRM at ¶ 1.

³ See, e.g., National Broadband Map, launched February 17, 2011, available at <http://www.broadbandmap.gov>. See also Tiziana Refice and Meredith Whittaker, *Broadband Maps, Brought To You by M-Labs*, Google Public Policy Blog, Mar. 22, 2011, available at <http://googlepublicpolicy.blogspot.com/2011/03/broadband-data-maps-brought-to-you-by-m.html>.

innovation, stimulate growth, and create economic and social opportunity. With appropriate oversight and accountability, this focus will help move us closer to achieving our national broadband goals.⁴

To create optimal traffic exchange, the FCC's framework should be grounded in market-based policies that allow carrier-to-carrier charges appropriately to reflect actual costs and mirror evolving communications traffic flows. This will enhance fiscal responsibility and accelerate the transition to Internet Protocol-based ("IP") networks. In addition, encouraging network providers to maximize efficiency⁵ will increase network utilization and unlock the value of modern broadband infrastructure.⁶ Additionally, the FCC should encourage broadband solutions that do not depend on subsidies, including creative approaches.⁷

This tremendous opportunity for reform is frustrated by the "fundamental inefficiencies [that] riddle both USF and ICC."⁸ The federal USF is roughly \$8 billion,

⁴ NPRM at ¶ 80.

⁵ *Id.* at ¶ 527.

⁶ See Comments of Google Inc. at 3, WC Dkt. 10-90, *et al.* (filed Apr. 1, 2011) ("*Google VoIP Comments*").

⁷ For example, the FCC wisely has promoted the use of white spaces to expand broadband access and endorsed extending/providing service to community anchor institutions. See *Unlicensed Operation in the TV Broadcast Bands, et al.*, Second Memorandum Opinion and Order, 25 FCC Rcd. 18661 (2010). Google's recently announced fiber deployment in Kansas City, Kansas is another example of market-based activity that does not rely on public funds. See Milo Medin, *Ultra High-Speed Broadband is Coming to Kansas City*, Official Google Blog (Mar. 30, 2011), available at <http://googleblog.blogspot.com/2011/03/ultra-high-speed-broadband-is-coming-to.html>. Other nations have experimented more broadly including by deployment of multiple fibers, "homes with tails" and other approaches. See Comments of Google Inc. at 35-42, GN Dkt. 09-51 (filed June 8, 2009).

⁸ NPRM at ¶¶ 6-7.

with high-cost support continuing to grow.⁹ The USF system as currently implemented enables and encourages dependency on subsidies directed at funding legacy circuit-switched voice networks.¹⁰ Some estimate that 59 cents of every high-cost subsidy dollar goes to carriers' administrative expenses rather than to service or network support.¹¹ Yet, the Telecommunications Act of 1996 contemplated the need for an evolving level of service,¹² and there is broad agreement that the time is long overdue to adopt more economical broadband and IP-based technologies.

Carriers may receive USF subsidies even when they do not need them to deploy or operate their networks, including subsidies that are used to compete against unsubsidized competitors. In fact, some of the largest recipients of USF funding enjoy substantial profits year after year.¹³ Likewise, as the NPRM recognizes, carriers may be using their USF support to fund infrastructure for unregulated services, including highly profitable offerings like Internet access and IPTV, with unregulated revenues redounding to the benefit of company shareholders, not the public that pays for USF support.¹⁴ Not only have these inefficiencies resulted in soaring USF contribution obligations – which

⁹ *Id.* at ¶¶ 6, 487. *See also* Universal Service Administrative Company, Annual Report at 5 (Mar. 29, 2011) (“*USAC 2010 Report*”).

¹⁰ NPRM at ¶ 46.

¹¹ Scott Wallston, *The Universal Service Fund: What Do High-Cost Subsidies Subsidize?*, Technology Policy Institute, 3, 15 (Feb. 2011) (“*Wallston*”). *See also* *USAC 2010 Report* at 40.

¹² 47 U.S.C. § 254(c)(1) (“Universal service is an evolving level of telecommunications services.”).

¹³ For instance, AT&T was the largest USF recipient during 2007-2009, receiving over \$1.3 billion during that period. *See* FCC Response to U.S. House of Representatives Committee on Energy and Commerce, Universal Service Fund Data Request (June 15, 2010), Part 1, Top 10 Recipients of High-Cost Support 2007-2009 at 1. AT&T is also a significant recipient of state USF programs. *See, e.g., AT&T, Inc. v. United States*, 2011 U.S. App. LEXIS 76, 2011-1 U.S. Tax Cas. 50, 139 (5th Cir. 2011).

¹⁴ NPRM at ¶ 569.

are borne by all users – they have also skewed market signals and created disincentives for users and developers to deploy and utilize innovative broadband-based services.¹⁵

The ICC regime also distorts carrier and user incentives and decisions regarding investment, demand, and service deployment due to regulatory assumptions about carrier costs and traffic flows in circuit-switched networks.¹⁶ Regulated carrier compensation is increasingly unrelated to costs, and continues to be determined by factors unrelated to how traffic actually moves through the network. As carriers upgrade network infrastructure to facilitate advanced services and leverage broadband capabilities, squeezing modern traffic exchange into voice telephony rate structures and jurisdictional assumptions has become even more complicated.

Finally, despite the express mandate in the Communications Act to make subsidies explicit,¹⁷ ICC charges still reflect substantial implicit subsidies used to support carriers. Indeed, as of 2008, compensation under ICC totaled \$8 billion,¹⁸ amounting to almost half of total revenues for some carriers.¹⁹ As with USF, the result is that carriers have strong motivations to continue the inefficient use and preservation of outdated infrastructure instead of responding to efficient economic and engineering signals.²⁰

¹⁵ *Wallston* at 13.

¹⁶ NPRM at ¶¶ 6-7, 506.

¹⁷ 47 U.S.C. § 254(e).

¹⁸ Letter from Ray Baum, *et al.*, National Association of Regulatory Utility Commissioners, to Kevin Martin, Chairman, FCC, *et al.*, CC Dkt. 01-92, *et al.* (filed Oct. 21, 2008).

¹⁹ NPRM at ¶ 567, n.845.

²⁰ *Id.* at ¶ 526 (citing *Access Charge Reform, Seventh Report and Order and Further Notice of Proposed Rulemaking*, 16 FCC Rcd. 9923, ¶ 31 (2001)).

II. The ICC Traffic Exchange System Should Promote Efficient Network Use and Next Generation Technology.

A. Broadband Internet Traffic Exchange Can Serve as a Useful Model for ICC Reform.

The Commission adopted its initial ICC rules in 1983 to address the straightforward matter of ensuring local telephone companies, then assumed to be “natural monopolies,” were appropriately compensated by the newly competitive long distance carriers for access to and from the Public Switched Telephone Network (“PSTN”).²¹ At the same time, the precursors to the modern Internet were rapidly developing outside of FCC regulation.²² Today, the Internet and high-speed IP-capable networks dwarf the circuit-switched PSTN, and ICC regulations stand as one of the remaining barriers to full migration of communications networks to IP.

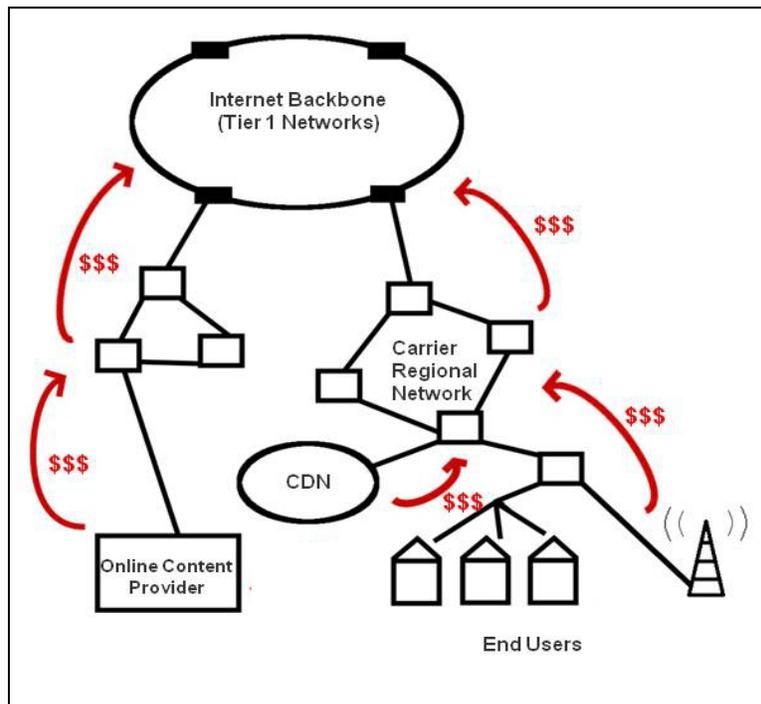
The Internet, which has developed relatively free of regulation in an organic, market-based fashion, can serve as a useful model for the FCC’s ICC reforms. Under the enormously successful Internet charging model, payments are not regulated and generally flow up through the network. Users pay fees to last mile broadband service providers, and last mile providers in turn purchase transport from middle mile providers to an Internet exchange point. Depending upon the arrangement, the last mile provider or

²¹ *MTS and WATS Market Structure, Memorandum Opinion and Order*, 97 FCC 2d 682 (1983) (adopting “access charge” rules).

²² During 1983, ARPANET adopted TCP/IP as its principal protocol, and an outline of the Domain Name System was published. See Barry M. Leiner, et al., *A Brief History of the Internet*, Internet Society, available at <http://www.isoc.org/internet/history/brief.shtml> (last visited Apr. 4, 2011); Paul Mockapetris, *Domain Names – Concepts and Facilities*, RFC 882 (Nov. 1983), available at <http://tools.ietf.org/html/rfc882>; Paul Mockapetris, *Domain Names – Implementation and Specification*, RFC 883 (Nov. 1983), available at <http://tools.ietf.org/html/rfc883>.

middle mile provider will purchase transit from an Internet backbone provider supplying access to the broader Internet, as shown in the diagram below.²³

Unlike with the ICC regime, Internet payments do not generally flow down or horizontally across the network. At each point in the network, transmission providers recover their costs directly from their own customers (whether end users – including individuals, online content and application providers – or other network providers). End users pay to get their data and information onto the network, but once there, they can be assured that it will be delivered without further charges or costs.



Neither are charges throughout the Internet calculated on a per-minute basis. Per-minute charges – even low ones – are not appropriate for broadband networks and the IP-based services that ride upon them. As the NPRM correctly notes, services in a packet-

²³ While there is significant vertical integration among these transmission segments, the overall payment flow scheme still generally applies.

switched network, including voice calls, do not exclusively occupy a circuit on the network, leaving no justification for per-minute charges.²⁴ In fact, fiber optic networks and modern digital switching technology have essentially eliminated the marginal costs of end-user access to the network.²⁵ It would also be challenging, if not impossible, to devise a jurisdictionalized, per-minute payment system for broadband Internet traffic given that packet-switched networks do not adhere to a single path for traffic and do not have identifiable facilities and costs.²⁶ Typically, beyond the flat end-user charges, broadband Internet charges today are based either on actual bandwidth consumed or link capacity.

Under the broadband Internet compensation model, revenues have skyrocketed, with last mile broadband access providers generating over \$37 billion in 2009²⁷ and realizing solid profit margins.²⁸ Broadband is one of the strongest growth areas of telecommunications and IP-based services remain one of the brightest sectors of our economy, promising jobs and growth.²⁹

²⁴ NPRM at ¶ 527.

²⁵ *See, e.g.*, Comments of T-Mobile at 10-11, WC Dkt. 10-90, *et al.* (filed Apr. 1, 2011). *See also* Letter to Shareholders, Netflix, 4th Quarter 2010 (Jan. 26, 2011) (noting that the marginal cost for a wireline ISP to deliver a gigabyte of data to an end user is “less than a penny, and falling”), available at <http://ir.netflix.com/common/download/download.cfm?companyid=NFLX&fileid=437075&filekey=925e81c4-3d5d-44b6-ae5e-a70c91251131&filename=Q410%20Letter%20to%20shareholders.pdf>.

²⁶ *See, e.g.*, Comments of Vonage at 3-5, WC Dkt. 10-90, *et al.* (filed Apr. 1, 2011).

²⁷ *See, e.g.*, NPRM at ¶ 506.

²⁸ *See, e.g.*, Comments of Free Press at 42, GN Dkt. 09-137 (filed Sep. 4, 2009) (finding that in the second quarter of 2009, Comcast’s high speed Internet service had a profit margin of nearly 70 percent).

²⁹ *See, e.g.*, Paul Budd, *North American Broadband Trends* (Apr. 4, 2011), available at http://www.circleid.com/posts/20110404_north_american_broadband_trends.

In updating ICC, the FCC should be informed by the proven model for broadband Internet compensation that has supported the widespread adoption of IP networks to date. Specifically, the FCC should complete a transition by 2015 to bill-and-keep for all types of traffic and technologies (voice, data, wireline, wireless, etc.) to reflect better the end-to-end nature of services and traffic flows. To ensure adequate time for carriers to upgrade their networks and for users and providers to adjust, the FCC should establish a glide path to phase out access and other per-minute charges for circuit-switched traffic. As part of the transition, the FCC should clarify that bill-and-keep will serve as the default for IP traffic and that each network provider should seek to recover its costs directly from its users.³⁰

A market-oriented, unified, non-geographic system for all traffic exchange that phases out per-minute charges is administratively simple and will promote a dynamic market for IP applications and services that harnesses the potential of broadband and empowers innovators and users.³¹ As the NPRM recognizes, a unified charging framework better reflects network utilization, where voice is just one of many services, and re-aligns incentives to encourage use of IP-based broadband networks and advanced IP technologies.³² Consistent with the NPRM's goals, bill-and-keep will also eliminate

³⁰ As explained below in Part III, legitimate shortfalls that occur as a result of eliminating implicit subsidies should be addressed through explicit, targeted subsidies.

³¹ See *Google VoIP Comments* at 6-9. See also *Comments of CTIA–The Wireless Association* at 11, *WC Dkt. 10-90, et al.* (filed Apr. 1, 2011); *Comments of MegaPath, Inc. and Covad Communications Company* at 1-2, *WC Dkt. 10-90, et al.* (filed Apr. 1, 2011); *Comments of MetroPCS Communications, Inc.* at 4-5, *WC Dkt. 10-90, et al.* (filed Apr. 1, 2011); *Comments of T-Mobile USA, Inc.* at 2, *WC Dkt. 10-90, et al.* (filed Apr. 1, 2011); *Comments of the VON Coalition* at 3-6, *WC Dkt. 10-90, et al.* (filed Apr. 1, 2011); *Comments of Vonage Holdings Corp.* at 7-9, *WC Dkt. 10-90, et al.* (filed Apr. 1, 2011).

³² NPRM at ¶ 679.

many opportunities for regulatory arbitrage by removing distinctions based on the type of traffic (*e.g.*, voice versus video or other data), network platform (*e.g.*, wireline versus wireless), or geography (interstate versus intrastate).³³

As the NPRM suggests, the FCC has ample authority under Section 251(b)(5) of the Communications Act to implement bill-and-keep.³⁴ Congress did not limit the FCC's authority by reference to geographic scope or particular services, instead leaving the agency broad discretion as to how it proceeds.³⁵ Although the FCC should coordinate its efforts with the states to avoid unintended consequences and ensure the transition does not create undue hardships, it should not allow vested interests in the *status quo* to thwart these much needed reforms.

B. The FCC Should Affirm that Broadband Service Providers Have a Fundamental Statutory Duty to Interconnect All Traffic.

As part of its reform, the FCC also should affirm that broadband service providers have a duty pursuant to Section 251(a)(1) of the Communications Act to interconnect with other network providers for the exchange of telecommunications traffic, including local traffic encoded in IP.³⁶ Consistent with FCC precedent, reasonable interconnection between carriers for the exchange of IP traffic furthers the broadband goals of the

³³ Of course, should disputes arise, the FCC would retain its jurisdiction over telecommunications carriers under the Communications Act to ensure that charges and practices are just and reasonable.

³⁴ NPRM at ¶¶ 513-15.

³⁵ The FCC is also expressly authorized under Section 252(d)(2)(B)(i) to adopt bill-and-keep as the methodology for reciprocal compensation. 47 U.S.C. § 252(d)(2)(B)(i).

³⁶ *Id.* § 251(a)(1).

Telecommunications Act of 1996.³⁷ Such a requirement need not be overly-regulatory; indeed, the Commission should rely largely on market forces to determine the precise contours of such arrangements, including the applicable rates, terms, and conditions.³⁸

In practical terms, however, establishing the statutory duty up front means that no broadband service provider should be able simply to refuse to interconnect with another carrier to pass traffic. Ensuring the proper workings of a vibrant, market-based interconnection regime means that users will be able to enjoy the growing array of broadband-based services and applications.³⁹ Thus, clarifying the existence of this interconnection duty also will further the Congressional mandate that there be “efficient, Nation-wide, and world-wide” communications across networks, by enhancing the ability of all end users to communicate.⁴⁰

III. Federal USF Should Support Universally Available, Robust and Open Broadband Networks.

A. Explicit Subsidies Should Be Targeted to Build-out of Broadband Networks.

There is general consensus that the USF regime remains anachronistically focused on voice telephony, resulting in “a 20th century program poorly suited for the challenges

³⁷ See *Time Warner Cable Request for Declaratory Ruling, Memorandum Opinion and Order*, 22 FCC Rcd. 3513, ¶ 13 (2007). See also Kevin Werbach, *Off the Hook*, 95 CORNELL L. REV. 535, 588-92 (2010).

³⁸ The Commission can and should serve as a “regulatory backstop” in those (assumedly rare) circumstances where a carrier either refuses to provide interconnection, or seeks unreasonably onerous terms in exchange for an interconnection arrangement.

³⁹ In effect, the default should be “interconnection and traffic exchange without permission,” so that if a dispute arises, carriers would be required to interconnect even while seeking dispute resolution.

⁴⁰ *Preserving the Open Internet, Report and Order*, 25 FCC Rcd 17905, ¶ 126 (2010) (“*Open Internet Order*”).

of a 21st century world.”⁴¹ To align the USF with the broadband goals identified in the NPRM, the FCC should immediately begin shifting existing USF subsidy flows from voice services, moving at a reasonable but rapid pace, to explicit support for the Connect America Fund (“CAF”), with a definitive path to phase out carrier subsidies for TDM voice services.⁴²

Rather than eliminating universal service support for communications services, this step would improve the effectiveness of that support. As described in the NPRM, “[t]he CAF would provide ongoing support to maintain and advance broadband across the country in areas that are uneconomic to serve absent such support, with voice service ultimately provided as an application over broadband networks.”⁴³ A reasonable and ambitious timeframe, consistent with ICC reform, is to complete this shift by the end of 2015.

The highest priority for the explicit CAF support should be to build out broadband networks for unserved and underserved areas, including funding for identified gaps, such as for building high-speed connections to community anchor institutions. According to the FCC’s *Sixth Broadband Deployment Report*, “approximately 14 to 24 million

⁴¹ Julius Genachowski, Chairman, FCC, Remarks on Modernizing and Streamlining the Universal Service Fund, Information Technology and Innovation Foundation, Washington, D.C. (Feb. 7, 2011).

⁴² As noted, this phase of the USF reform effort does not address the current contribution mechanism. See NPRM, Statement of Commissioner Robert M. McDowell at 283.

⁴³ NPRM at ¶ 30.

Americans remain without broadband access capable of meeting the requirements set forth in section 706,”⁴⁴ underscoring the broadband deployment challenge.

By contrast to today’s USF, the broadband-centric CAF would not be an automatic source of year-upon-year carrier subsidies. Rather, the CAF would primarily be directed to support the initial deployment of robust broadband networks. In most circumstances, USF support would not thereafter be required, as carriers would be able to recover operational costs from their multiple broadband revenue streams. Indeed, robust broadband networks offer carriers the opportunity to earn revenue from more than just POTS (Plain Old Telephone Service), with income generated by broadband Internet access, video and IPTV services, Internet offerings, and other applications, services, and features geared to end users.

These broadband-derived revenue streams should be adequate to wean carriers from reliance on publicly-funded government subsidies.⁴⁵ Additionally, as carriers earn more revenue from offering a variety of broadband-based services, CAF subsidies can and should be shifted over time to address demand-side broadband issues and to support low income broadband programs.⁴⁶ Consistent with the FCC’s goal of following market-driven policies,⁴⁷ this approach will maximize the incentives of carriers to best serve their

⁴⁴ *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, Report*, 25 FCC Rcd. 9556, ¶ 1 (2010) (“*Sixth Broadband Deployment Report*”).

⁴⁵ *Compare* NPRM at ¶ 6 (2009 broadband Internet access revenues of approximately \$36.7 billion) *with* NPRM at ¶ 8 (2009 federal high-cost USF support of approximately \$4.3 billion).

⁴⁶ *See, e.g.*, Omnibus Broadband Initiative, *Connecting America: The National Broadband Plan* at 47, Recommendation 9.1, GN Dkt. 09-51 (2009) (“*National Broadband Plan*”) (“expand Lifeline Assistance (Lifeline) and Link-Up America (Link-Up) to make broadband more affordable for low-income households”).

⁴⁷ NPRM at ¶ 16.

customer base. It should also enable the FCC to control and cap the size of the CAF and USF programs generally so that they do not exceed current levels, and should even facilitate reduction of subsidy levels as broadband objectives are met.⁴⁸

Of course, in instances where ongoing operational support is necessary to ensure broadband access, the system should assist a CAF recipient with recurring costs of broadband operations upon an affirmative showing grounded in verifiable data. In this way, the CAF program can stay on target and on budget to achieve its mission of providing ubiquitous and robust broadband access to all without falling into patterns of misplaced priorities, and even waste, that have weighed upon the current USF programs.

B. The FCC Has Ample Legal Authority to Reform USF.

Section 254 plainly authorizes the FCC to proceed as proposed. Specifically, Section 254(b)(2) directs that “[a]ccess to advanced telecommunications and information services should be provided in all regions of the Nation.”⁴⁹ Section 254(b)(3) also provides that “[c]onsumers in all regions of the Nation. . . should have access to. . . advanced telecommunications and information services. . . .”⁵⁰ These provisions clearly permit, and even command, the FCC to act to promote robust, universally available broadband, consistent with the “evolving” meaning of universal service.⁵¹ Indeed, as the Tenth Circuit pointed out, Section 254(b) “indicates a mandatory duty on the FCC.”⁵² Recognizing the need to adapt to technological and market changes, Congress left the

⁴⁸ *Id.* at ¶ 413.

⁴⁹ 47 U.S.C. § 254(b)(2).

⁵⁰ *Id.* at § 254(b)(3).

⁵¹ *Id.* at § 254(c)(1).

⁵² *Qwest Corp. v. FCC*, 258 F.3d 1191, 1200 (10th Cir. 2001).

decision of when and how to implement the advanced services goals of Section 254 to the FCC.⁵³

Moreover, because advanced telecommunications capabilities are not now being deployed in a reasonable and timely fashion to all Americans,⁵⁴ Section 706(b) of the Telecommunications Act of 1996 also directs the Commission to “take immediate action to accelerate the deployment of such [advanced telecommunications] capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.”⁵⁵ Properly implemented, the CAF fund would “remov[e] barriers to infrastructure investment” by providing the necessary funding for carriers to build out robust broadband networks.⁵⁶

C. CAF Support Should Be Conditioned on Pro-Consumer Policies.

Universal service subsidies should reflect and promote our national public interest goals for advanced, ubiquitous and open broadband infrastructure. Just as Congress recognized in 2009 when funding broadband deployment, receipt of public funds should be conditioned upon commitments to use the funds consistent with the public interest.⁵⁷ The following conditions of CAF funding will help serve that goal.⁵⁸

⁵³ *Alenco Commc’ns, Inc. v. FCC*, 201 F.3d 608, 615 (5th Cir. 2000) (section 254(b) shows a “congressional intent to delegate difficult policy choices to the Commission’s discretion.”).

⁵⁴ *Sixth Broadband Deployment Report* at ¶ 2.

⁵⁵ 47 U.S.C. § 1302(b).

⁵⁶ It is not necessary for the FCC to determine the appropriate regulatory classification of interconnected VoIP in order to proceed as proposed. NPRM at ¶ 73. If, however, the FCC does classify, such regulatory classification must be firmly rooted in the Communications Act. *See Google VoIP Comments* at 3-7.

⁵⁷ *See, e.g.*, American Recovery and Reinvestment Act of 2009, § 6001(j), Public Law 111–5, 123 Stat. 115 (2009) (“Recovery Act”); Broadband Technology Opportunities Program, Notice of Funds Availability, 74 Fed. Reg. 33,104, 33110-33111 (Jul. 9, 2009) (“*BTOP NOFA*”) (footnote continued on following page)

Robustness. To leverage fully the potential of broadband, the FCC should contemplate and adopt an evolving speed threshold, consistent with the intent of Section 254. While the *National Broadband Plan*'s initial goal of 4 Mbps downstream/1 Mbps upstream is laudable,⁵⁹ practical experience increasingly shows that the need for speed continues to climb. As such, the FCC should mandate these actual speeds as a floor, and also commit to revisit this criterion every three years to ascertain whether a higher actual broadband service speed should be a condition of broadband funding.⁶⁰ In addition, recipients of USF subsidies should be required to use CAF funding to enhance the robustness of broadband access services, and be barred from using such funds to support private or specialized services (such as pay IPTV video services) that are distinct from broadband Internet access.

Openness. There is virtually unanimous agreement that the Internet's openness is critical to our Nation's economic and social fabric and to the future of our country's standing in the global economy.⁶¹ Accordingly, the FCC should mandate that all providers of broadband Internet access, whether fixed or mobile, that receive CAF funding for broadband deployment and/or operational support commit to providing

(footnote continued from previous page)

(conditions grant funding for both Broadband Technologies Opportunity Program ("BTOP") and the Broadband Initiatives Program on obligations regarding nondiscrimination, interconnection, and open Internet).

⁵⁸ The Commission should amplify its proposed rule with these additional public interest obligations. NPRM, Appendix A at 238, proposed rule 47 C.F.R. § 54.1009(a).

⁵⁹ *National Broadband Plan* at 59.

⁶⁰ For this reason, the FCC should adopt metrics and reporting requirements for broadband providers receiving CAF funding, and for recipients to be required to test for compliance with such metrics. Metrics are a critical component to ensuring that specific goals are met and that broadband services delivered are truly robust. NPRM at ¶¶ 103-105, 116.

⁶¹ *Open Internet Order* at ¶ 11.

services over networks that are open, transparent, and not subject to discriminatory acts of the broadband network owner.

Competition. USF support also should promote service competition.⁶² To deliver the competitive benefits of lower prices, better services, and increased innovation, the FCC should condition the availability of CAF support upon the offering of wholesale access to broadband networks on reasonable terms, analogous to the obligations imposed on Recovery Act broadband grantees. This condition will grow increasingly important since there will likely be, at most, only one USF-subsidized provider in each geographic area⁶³ and last-mile broadband competition at higher speeds appears increasingly unlikely for much of the U.S.⁶⁴ Without wholesale open network requirements, CAF support may have the perverse result of foreclosing market-based competition in the high-cost areas that are most in need of it.

User Choice. Likewise, CAF recipients should be required to offer broadband service on a standalone basis, and not bundled with other offerings that some consumers may not want or be able to afford, including circuit-switched voice. This will help ensure that CAF recipients encourage users to transition timely from analog voice to broadband-based IP services and will also maximize broadband adoption, especially for middle- and lower-income consumers.

⁶² As the National Broadband Plan notes, “well functioning wholesale markets can help foster retail competition.” *National Broadband Plan* at 47. Similarly, the Recovery Act’s BTOP program provides incentives for systems that give consumers a choice of provider. *BTOP NOFA* at 33119.

⁶³ *National Broadband Plan* at 145; NPRM at ¶¶ 281, 402.

⁶⁴ *Open Internet Order* at ¶ 32.

Universal Coverage. USF funding recipients should be obligated to provide broadband access services throughout their designated areas rather than “cherry-pick” where broadband infrastructure and broadband access services are deployed. In this way, all Americans, not just those who might have higher disposable incomes or are otherwise more attractive to a carrier, will benefit from the universal availability of broadband.

D. USF Reform Should Recognize the Important Role of the States.

As the NPRM recognizes, there is a longstanding federal-state partnership for universal service.⁶⁵ USF reform should leverage the unique contributions that states can offer. The states are likely the best source of data about the status and deployment of broadband infrastructure.⁶⁶ The FCC should utilize this data and mapping information to identify areas that are in need of USF broadband funding and consider incorporating a requirement whereby state agencies review and certify whether CAF recipients are in compliance with the relevant requirements.⁶⁷ This role for state agencies is consistent with their statutory role under Section 214(e) of the Communications Act to designate eligible telecommunications carriers for USF funding,⁶⁸ and helps ensure efficiency

⁶⁵ NPRM at ¶84.

⁶⁶ For example, the State Broadband Data and Development Program administered by the NTIA provides a wealth of broadband deployment data specific to the communities of each state. *See* BroadbandUSA, Connecting America’s Communities, State Broadband Data & Development Program, *available at* <http://www2.ntia.doc.gov/SBDD>.

⁶⁷ NPRM at ¶ 315 (seeking comment on the role of states in monitoring public interest requirements of CAF recipients).

⁶⁸ 47 U.S.C. §§ 214(e)(2), (4).

because these entities often have the best understanding of and experience with broadband services available to users in a given state.⁶⁹

Similarly, and as suggested by the NPRM,⁷⁰ the Commission should encourage states to use their authority under Section 254(f) to establish complementary – and possibly more far-reaching – state broadband programs to promote build-out of IP networks.⁷¹ The states are well-positioned to identify areas where broadband is lacking or there are specific needs, and to take action to encourage build-out in ways that the FCC could not, including such methods as tax incentives and credits, and favorable terms for right-of-way privileges on public lands and to public facilities. Further, the FCC should encourage states to consider matching funding for broadband deployment projects that receive CAF support. Such programs will yield much-needed jobs and bring financial stability to a region, which will ultimately benefit the state’s fiscal situation.

⁶⁹ *See, e.g.*, Comments of the Missouri Public Service Commission, WC Dkt. 10-90, *et al.*, at 10-11 (filed Apr. 6, 2011) (arguing that states should “be given the option to fulfill” the role of monitoring and enforcing broadband deployment requirements within the state).

⁷⁰ NPRM at ¶¶ 84-87.

⁷¹ 47 U.S.C. § 254(f) (“A State may adopt regulations not inconsistent with the Commission’s rules to preserve and advance universal service.”).

CONCLUSION

The FCC's proposals to reform USF and ICC to facilitate a transition to advanced broadband, all-IP networks present an enormous opportunity to advance broadband deployment and to support the efficient use of the network for innovative new services and applications. For this reason, the FCC should act expeditiously on these reforms.

Respectfully submitted,



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April 18, 2011