

**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.

Google Inc. (“Google”) files these comments in response to the Notice of Proposed Rulemaking considering how to re-vamp the FCC’s intercarrier compensation (“ICC”) system and bring the benefits of broadband to all Americans.¹

DISCUSSION

I. The FCC Should Promote the Continued Expansion of Innovative Voice Applications

A. VoIP services increase broadband investment, adoption and usage.

In the *National Broadband Plan*, the FCC established an ambitious agenda to focus our nation on delivering broadband access that is ubiquitous, fast and affordable.² The FCC

¹ *Connect America Fund, Developing a Unified Intercarrier Compensation Regime, et al., Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking*, WC Dkt. 10-90, CC Dkt. 01-92, *et al.*, FCC 11-13 (rel. Feb. 9, 2011) (“NPRM”).

² Omnibus Broadband Initiative, *Connecting America: The National Broadband Plan*, at 10, GN Dkt. 09-51 (“*National Broadband Plan*”) (describing the goal of robust broadband to every American home and super-fast broadband speeds of 1 gigabit per second to anchor institutions).

correctly recognized that broadband offers an optimal platform to leapfrog the U.S. in the global economy and to deliver an incredible array of societal benefits. Growth in Internet Protocol (“IP”)-based services and applications that harness the power of broadband, including Voice-over-Internet-Protocol (“VoIP”) services, is central to realizing this vision.³ Voice-related applications and services already have changed and enhanced the ways in which society communicates. Rapid innovation is continuously redefining the breadth and variety of IP-based voice offerings, enriching consumers’ communications.

As users flock to take advantage of the growing range of innovative voice application offerings, they are also driving broadband usage and stimulating investment, which in turn leads to job creation.⁴ FCC data shows that use of just one small subset of VoIP services – interconnected VoIP (“IVoIP”) – increased by over 20 percent between 2009 and 2010, while traditional telephony use was down by close to 10 percent.⁵ The availability of these pioneering IP-based voice services and applications also has brought lower prices and greater competitive options for consumers and businesses. VoIP services are estimated to save consumers \$6 billion from 2007 to 2012, and the competitive pressure VoIP exerts on the market will save billions more.⁶

³ Julius Genachowski, Chairman, FCC, Prepared Remarks on Broadband at The Mobile Future Forum, “The Clock is Ticking,” at 4 (Mar. 16, 2011) (explaining that the apps market is projected to generate \$38 billion in sales in 2015).

⁴ Consumer demand for broadband services and applications such as VoIP fuels “demand for broadband connections and consequently more broadband investment and deployment. . . .” *Telephone Number Requirements for IP-Enabled Services Providers*, Report and Order, 22 FCC Rcd. 19531, ¶ 29 (2007); *see also, e.g., Preserving the Open Internet*, Report and Order, 25 FCC Rcd. 17905, ¶¶ 13-14 (2010) (“*Open Internet Order*”) (discussing the “virtuous circle” of innovation, demand, network upgrades and investment, and even greater improvements).

⁵ *Local Telephone Competition: Status as of June 30, 2010*, FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, at 2 (rel. Mar. 21, 2011).

⁶ Michael D. Pelcovits & Daniel E. Harr, *Consumer Benefits from Cable-Telco Competition*, Microeconomic Consulting & Research Associates, Inc., 14-20 (Nov. 2007).

VoIP services and applications also better utilize broadband, which is critical to boosting productivity and growing our economy.⁷ By exploiting the potential of broadband access, consumers, small businesses, and users throughout the nation have enjoyed new capabilities and creative features that enhance efficiency and opportunity.⁸ While similar to traditional telephony insofar as they enable “voice” communications, VoIP services empower consumers through a multitude of features and functions, including enhanced/personalized communication functionality, integration of data and video, presence detection, and user-driven call-routing and response services.

B. VoIP represents a vast array of services with distinct functionalities and uses.

IP-based voice services and applications today represent a tremendously diverse array of offerings, from services that mirror traditional voice telephony to applications and services that include a voice communications component to a greater or lesser degree, such as advanced/unified messaging, multimedia conferencing, gaming, social networking, ecommerce, and countless other applications. The FCC’s framework for IP-based services, while still evolving for IVoIP, consistently has recognized the distinctions between the various iterations of VoIP and IP services, noting, for example, differences between fixed and nomadic services.⁹

At the same time, FCC rules and precedent, which are grounded in the Communications Act, recognize the difference between the provision of value-added “information services,” which use telecommunications facilities but are outside of the scope of regulation, and offerings

⁷ See, e.g., Mary Meeker, *U.S. Inc. A Basic Summary of America’s Financial Statements*, KPCB, 369-72 (Feb. 2011), available at <http://www.kpcb.com/usainc/>; *Growth and Renewal in the United States: Retooling America’s Economic Engine*, McKinsey & Co., 51-53 (Feb. 2011), available at http://www.mckinsey.com/mgi/publications/growth_and_renewal_in_the_us/index.asp.

⁸ See, e.g., *Time Warner Cable Request for Declaratory Ruling*, Memorandum Opinion and Order, 22 FCC Rcd. 3513, ¶ 13 (2007) (“*Time Warner Cable Declaratory Ruling*”).

⁹ See, e.g., *Open Internet Order*, ¶ 22.

that fall within the FCC's ICC framework and other network carrier regulation.¹⁰ Where online software applications offer "a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing or making available information via telecommunications," they constitute an information service under the Communications Act.¹¹ Moreover, under the FCC's Part 69 access charge regime, providers of information services are treated correctly as end-users of underlying telecommunications networks and capabilities, and thus are not subject to carrier access charge rules.¹² Many VoIP services and applications are squarely information services provided by end users, meaning that while such services are enabled via underlying telecommunications, they remain unquestionably outside of Title II carrier regulation, including the ICC regime.¹³

Similarly, where VoIP offerings alter and interact with user information and other data, combine stored information capabilities with voice features and interaction with other users, and/or engage in net protocol conversion, they are enhanced services under FCC rules.¹⁴ In fact, federal courts already have held that specific non-facilities based voice applications do not meet the Communications Act's definition of "telecommunications service."¹⁵

¹⁰ 47 U.S.C. § 153(20).

¹¹ *Id.*

¹² See *Access Charge Reform, First Report and Order*, 12 FCC Rcd. 15982, ¶ 341 (1997) ("1997 Access Charge Order"). This aspect of the 1997 Access Charge Order was expressly upheld by the Eighth Circuit. *Sw. Bell. Tel. Co. v. FCC*, 153 F.3d 523 (8th Cir. 1998).

¹³ See 47 C.F.R. § 64.702(a).

¹⁴ See, e.g., *Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as Amended, First Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd. 21905, ¶ 104 (1996).

¹⁵ See, e.g., *Vonage v. Nebraska PSC*, 543 F. Supp. 2d 1062 (D. Neb. 2008), *aff'd*, 564 F.3d 900 (8th Cir. 2009); *Vonage v. Minnesota PUC*, 290 F. Supp. 2d 999 (D. Minn. 2003), *aff'd*, 394 F.3d 568 (8th Cir. 2004). Notably, as a network operations matter, many web voice overlay services (e.g., Skype and Google Talk) operate at higher application and content layers of the communications network, rather than at the physical or network layers, the latter of which have been the consistent basis for telecommunications service regulation. See, e.g., *Open Internet Order*, at ¶ 50 (distinguishing between

To be clear, IP is a communications transmission protocol, and is not itself an enhancement that determines the nature of a service for regulatory purposes. As the FCC has found, simply utilizing IP does not transform a service into an information service.¹⁶ Indeed, IP transmission, in itself, is not “magic pixie dust” that somehow creates a regulation-free zone.¹⁷ While the FCC’s IVoIP definition¹⁸ has to date resulted in tailored consumer protection regulations and facilitated numerous public policy goals,¹⁹ it is imperative that the FCC hew closely to the governing Communications Act in defining its regulatory framework, including for ICC purposes. Though the FCC rooted its IVoIP definition by reference to “services that mimic traditional telephony,”²⁰ online software applications provided beyond the network edge clearly fall outside the ambit of offerings that may be retrofitted with Title II carrier requirements. Through this well-founded distinction between networks and their users and uses, innovation and opportunity have flourished.

Accordingly, the FCC’s focus in this proceeding should be to accurately reflect market and technology signals, by establishing a framework that encourages the growth and

edge provider activities such as applications and content and network-based control); *see also* Scott Jordan, *A Layered Network Approach to Net Neutrality*, INT’L J. OF COMMC’N 427, 432–33 (2007) (describing the OSI layers model and the actions of routers at and below the network layer) *attached to* Letter from Scott Jordan, Professor, University of California–Irvine, to Office of the Secretary, FCC, GN Dkt. 09-191 (filed Mar. 22, 2010).

¹⁶ *Petition for Declaratory Ruling that AT&T’s Phone-to-Phone IP Telephony Services are Exempt from Access Charges*, Order, 19 FCC Rcd. 7457, ¶ 24 (2004) (“AT&T IP-in-the-Middle”); *IDCMA Petition for Declaratory Ruling that AT&T’s InterSpan Frame Relay Service Is a Basic Service*, Memorandum Opinion and Order, 10 FCC Rcd. 13717, ¶ 40 (1995).

¹⁷ *See, e.g., AT&T IP-in-the-Middle* at ¶ 24.

¹⁸ 47 C.F.R. § 9.3.

¹⁹ These requirements include E911 obligations (47 C.F.R. § 9.5), federal Universal Service Fund contribution (47 C.F.R. § 54.706), local number portability (47 C.F.R. §§ 52.34, 52.35), CALEA obligations (47 U.S.C. § 1002(a)), CPNI obligations (47 C.F.R. §§ 64.2001-64.2011), disability access (47 C.F.R. §§ 6.1(d), 6.5(b), 64.603), and discontinuance notices (47 C.F.R. § 63.71).

²⁰ *See Vonage Holdings Corp. Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, Memorandum Opinion and Order, 19 FCC Rcd. 22404, n. 9 (2004).

development of services that optimize broadband capabilities, including IP-based voice services. Without forward-thinking policies, as the *National Broadband Plan* recognized, legacy regulation can burden rapidly evolving next generation technologies and “become a drag on the transition to a more modern and efficient use of resources.”²¹

II. Application of Traditional Telephone Charges to Voice Applications is Inconsistent with National Broadband Policy and Would Interfere with the Development of IP-based Services

Beyond the plain definitions in the Communications Act and relevant FCC legal precedent, as a policy matter the imposition of legacy voice traffic compensation rules (especially per-minute access or similar charges) on emerging voice applications and services conflicts with our clear national directive to keep Internet services free of heavy-handed government regulation. The FCC, consistent with its statutory mandate, deliberately has declined to burden Internet services with traditional telephony-style rules, and repeatedly has underscored the benefits of fostering the domestic broadband marketplace, including software and applications, the devices they spawn, and the jobs that come with them.²²

Section 230 of the Communications Act identifies a clear national interest in avoiding government regulated charges for Internet services, including voice-based online applications. There, Congress announced “the policy of the United States” to “promote the continued development of the Internet and other interactive computer services” and to “preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation.”²³ However well the intricate access charge

²¹ *National Broadband Plan* at 59.

²² *See, e.g., id.*

²³ 47 U.S.C. § 230(b).

regulatory regime may have worked for circuit-switched analog telephony, it should not be extended to fetter evolving technologies and cutting edge services.

Critically, there is no evidence that the telephone compensation regime and per-minute charges – even low ones – reflect the actual costs of IP-based voice traffic. As the NPRM acknowledges, unlike circuit-switched analog telephone calls, IP-based voice traffic does not exclusively occupy a circuit and is essentially one low-bandwidth application among many.²⁴ Thus, cost causation and economic efficiency – key goals of the ICC reform effort – mean that the FCC should reject any charges for IP traffic that are calculated on a per-minute basis.

III. The FCC Should Acknowledge the Appropriate Compensation Framework for Online Voice Applications in Order to Stimulate Continued Innovation and Market Investment

As the NPRM notes, service providers, carriers and others expend significant resources on disputes and litigation over the appropriate treatment of online voice offerings, especially IVoIP, that deflect capital and energy from investment and innovation.²⁵ For this reason, the FCC should immediately clarify the treatment of such offerings.

First, as noted, many VoIP services fall within the definitions of information and enhanced services. Such services are inherently interstate in nature,²⁶ and the FCC should reiterate that they remain free from both State and Federal regulation. Certainly, telecommunications carrier charges, including carrier access charges, are wholly inapplicable as explained above.

²⁴ NPRM at ¶ 527.

²⁵ *Id.* at ¶ 39.

²⁶ Applying the traditional end-to-end analysis, these services allow users to traverse many distinct areas of the Internet in different states in a single session and transcend state boundaries. *Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, Declaratory Ruling and Notice of Proposed Rulemaking*, 17 FCC Rcd. 4798, ¶ 59 (2002).

Second, to the extent the FCC determines that at least some IVoIP services should be deemed telecommunications services within the statutory definition, the FCC also should clarify that per-minute access charges that were devised for telecom carriers operating legacy telephone networks do not apply. Instead, consistent with the NPRM,²⁷ the FCC should immediately establish a default “bill and keep” compensation system that treats relevant IVoIP traffic uniformly on a non-geographic basis. Under such a framework, in the event providers are unable to reach private commercial arrangements for traffic exchange, the default bill and keep system would apply.

Bill and keep is the most appropriate regime for several reasons. Such a system is administratively simple and avoids the need for complex billing and traffic reporting between carriers. Bill and keep also reduces the need for government intervention on issues between carriers, including rates, proper regulatory classification, or jurisdiction of traffic. The system is also fair, as it better reflects the reciprocal nature of today’s traffic whereby IVoIP providers typically terminate calls that originate on the public switched telephone network without collecting access charges. Further, bill and keep re-aligns the incentives of carriers consistent with national broadband policy, by eliminating the false economic signals that lead carriers to seek compensation from sources other than their customers. In doing so, bill and keep encourages upgrades to IP-based broadband networks and advanced IP technologies with their cost-saving efficiencies.

Current charging arrangements for broadband traffic – which are mostly market-based and have generally been viewed as working – offer a useful guide. Today in the broadband space, each user of the network pays for his or her share of the network costs (*i.e.*, use of the

²⁷ NPRM at ¶ 615.

network). End-users pay broadband service providers for broadband access and the payments flow up, with network providers and users paying for the costs of their transport. Under this approach, broadband has rapidly evolved and is one of the fastest growing segments of the communications sector.

The FCC has ample authority to institute such a system pursuant to Section 251(b)(5). As the NPRM notes, the language of Section 251(b)(5) is not limited in geographic scope or confined to particular types of traffic, but includes all “telecommunications” that is exchanged by a local exchange carrier.²⁸ Congress could have limited the FCC’s reach under Section 251(b)(5) – instead the Telecommunications Act granted the FCC the broadest of authority by using the most comprehensive term, “telecommunications,” for the transport and termination of all traffic, interstate and intrastate. Thus, it is within the Commission’s authority to declare that bill and keep is the reciprocal compensation arrangement under Section 251(b)(5) for all “telecommunications” that is originated by or to be terminated to a covered IVoIP provider.

²⁸ NPRM at ¶ 513.

CONCLUSION

For these reasons, the FCC should modernize its ICC framework to encourage innovative IP-based voice services and applications that capitalize on the power of emerging broadband networks.

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