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**
	)	
Universal Service Reform – Mobility Fund	)	**WT Dkt. 10-208**

COMMENTS OF GOOGLE INC.

Google Inc. ("Google") files these comments in response to Sections XVII.L-R of the Federal Communication Commission's ("FCC" or "Commission") Further Notice of Proposed Rulemaking concerning implementation of bill-and-keep and other reforms of the intercarrier compensation ("ICC") system.[1] As discussed below, Google urges the FCC to continue to promote a swift and orderly transition from outdated regulatory structures and technologies to a system of robust, efficient interconnection and traffic exchange for all-Internet Protocol ("IP") networks.

[1] *Connect America Fund et al.,* Report and Order and Further Notice of Proposed Rulemaking, WC Dkt. 10-90 *et al.*, FCC 11-161 (rel. Nov. 18, 2011) ("Order" and "FNPRM").

INTRODUCTION

Google applauds the FCC's actions adopting bill-and-keep as the end-state pricing methodology for all telecommunications traffic and affirming the duty of local exchange carriers ("LECs") to negotiate in good faith to ensure robust IP-to-IP interconnection. These steps have the potential to accelerate innovation throughout the network and beyond, including by users of all sizes who provide the products and services that help drive our nation's economic growth. Especially as over-the-top ("OTT") IP voice applications and services deliver new and improved functionalities at increasingly lower costs, it is vital that traffic exchange be seamless, reliable and efficient.

As only one of countless users of the network, Google recognizes that the ground rules set by the FCC – and the rates and practices of the telecommunications carriers that carry relevant IP traffic – can have a substantial impact on whether the public will realize the efficiency and innovation benefits that IP technology offers. By establishing a mechanism for local traffic exchange that is economically rational, the FCC can help accelerate the transition to all-IP communications networks throughout the country. The potential benefits to users, and the economy overall, of these seminal steps are precisely why the FCC must be vigilant during the multiyear transition to bill-and-keep to ensure its vision of an economically grounded traffic exchange end state is not undermined by delays or unforeseen practices that could negate the benefits of its approach.

Through measured steps that help foster commercial negotiations, along with adequate industry fora to resolve technical issues and disputes, the FCC will be able to continue the momentum of its initial reforms and move toward an increasingly market-based, deregulatory regime.

I. The FCC should expedite the adoption of bill-and-keep for traffic throughout the network.

The voluminous record the FCC developed in response to the USF/ICC NPRM[2] demonstrated why bill-and-keep is the most economically rational pricing methodology for telecommunications traffic and the best option to provide the greatest benefits to the public.[3] For all the same reasons the FCC delineated why bill-and-keep is beneficial for terminating access, a bill-and-keep default methodology should be expeditiously adopted for related telecommunications services, including originating access, tandem switching, and transport.

While Google and others have previously explained in detail why the nation would be best served by a much shorter path to bill-and-keep than what was adopted for terminating access,[4] at a minimum, the transition away from inflated originating access charges in particular should not exceed the terminating access transition. There are no valid reasons to adopt an asymmetrical approach, including no showing regarding legitimate cost differentials for originating and terminating access. Likewise, to maximize incentives for local carriers to modernize their networks and create a forward-looking system consistent with future communications needs, the FCC should not automatically create an entitlement for existing incumbent carriers to recover revenue losses. Instead, the FCC should continue to encourage all providers to recover their costs from their own users.

---

[2] *Connect America Fund, Developing a Unified Intercarrier Compensation Regime, et al.*, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, 26 FCC Rcd 4554 (2011).

[3] *See, e.g.*, Order at ¶¶ 741-59.

[4] *See, e.g.*, Comments of Google Inc. at 15-18, WC Dkt. 10-90 *et al*. (filed Aug. 24, 2011); Letter from Ad Hoc Telecommunications Users Committee, Google Inc., Skype Communications S.A.R.L., Sprint Nextel Corporation, and Vonage Holdings Corp. to Julius Genachowski, Chairman, FCC *et al*. at 7-9, WC Dkt. 10-90 *et al*. (filed Aug. 18, 2011).

The FCC should also continue to promote a market-oriented approach to transit services.[5] To this end, the FCC should advance its understanding of the evolving marketplace for these services, including how they are being provided today, and be mindful of the potential for disputes to arise. For now, however, the FCC should clarify its authority to address disputes as well as any issues that may arise that could interfere with a well-functioning, competitive marketplace but refrain from imposing regulation that may be counterproductive to overall competitive policy objectives.[6]

II. The obligation for carriers to offer IP-to-IP interconnection should be sufficiently robust to promote the deployment of IP networks and services.

The obligation adopted in the Order requiring carriers to negotiate agreements in good faith for IP-to-IP interconnection will help to unlock the full potential of IP networks and will encourage their continued deployment. IP-to-IP interconnection will also likely assist carriers in linking together smart IP networks that are today isolated from one another, helping to create a next generation platform for the exchange and delivery of telecommunications traffic.[7]

FCC Legal Authority over IP-to-IP Interconnection

There is little doubt that the FCC has ample statutory authority over IP-to-IP interconnection. At a minimum, FCC authority derives not only from Sections 251(a)

[5] *See* FNPRM at ¶ 1313.

[6] *Id.*

[7] *See, e.g.*, Letter from Karen Reidy, COMPTEL to Marlene H. Dortch, Secretary, FCC, WC Dkt. 10-90 *et al*. (filed Aug. 11, 2011), attach. Joseph Gillan, *Next Step for Next Generation Technology: Interconnecting Managed Packet Networks to Preserve Voice Service Quality and Competition* at 5.

and 256 of the Communications Act of 1934, as amended ("Act"),[8] as Google has explained previously, but also from the broad authority afforded pursuant to Sections 201 and 332 of the Act.[9] It is not necessary, for this purpose, to determine the regulatory classification of the services provided to the ultimate end users.[10] Interconnection involves the transport layer of communications and traffic exchange, and the Act provides express authority over telecommunications carrier services.[11] The FCC should use its explicit statutory authority to retain jurisdiction as telecommunications carrier networks evolve, rather than needlessly strain the Act by relying upon uncertain and inapt Title I jurisdiction.[12]

In fact, the FCC should heed the limited authority Congress delegated to it with respect to information services. Carrier regulation is appropriate *only* for telecommunications carriers offering basic transmission services, and Congress has directed the FCC to keep information services unregulated (including many voice over IP ("VoIP") services that are properly classified as information services).[13]

Good Faith Negotiations/Enforcement

The FCC has wisely opted thus far to avoid an overly prescriptive approach to IP-to-IP interconnection and should continue on this course, allowing the marketplace and

[8] 47 U.S.C. §§ 251(a), 256.

[9] 47 U.S.C. §§ 201, 332.

[10] *See Petition of CRC Communications of Maine, Inc. and Time Warner Cable Inc. for Preemption Pursuant to Section 253 of the Communications act, as Amended*, Declaratory Ruling, 26 FCC Rcd. 8259, ¶ 27 n.96 (2011) ("*TWC Declaratory Ruling*").

[11] *See, e.g.*, 47 U.S.C. §§ 201, 251(a).

[12] *Cf.* FNPRM at ¶ 1397.

[13] *See, e.g., Petition for Declaratory Ruling that pulver.com's Free World Dialup is Neither Telecommunications Nor a Telecommunications Service*, Memorandum Opinion and Order, 19 FCC Rcd. 3307, ¶ 18 (2004).

industry standards to develop. At the same time, the record shows there may well be situations where proffered rates, terms and conditions are not reasonable, or where there may be a lack of competitive alternatives for IP-to-IP interconnection.[14] In these situations, a backstop mechanism, rather than sole reliance upon voluntary commercial agreements, is the most logical approach to promoting seamless interconnection. Additionally, certain technical issues, such as the locations of interconnection points, are likely to give rise to disputes and can be addressed proactively.

While the FCC possesses the legal authority to serve as a backstop for resolving disputes, Google believes it is in the best interests of all for an industry-led body to take a leading role, at least initially. Collaborative multi-stakeholder groups that span a full cross section of interested players can provide targeted and timely input and direction on technical issues. For example, the Broadband Internet Technical Advisory Group ("BITAG") brings together diverse stakeholders to develop a consensus on technical and other issues affecting the Internet.[15] In a similar manner, utilization of an industry advisory body, such as the FCC's Technical Advisory Committee ("TAC"), as noted in the FNPRM,[16] could offer a cooperative, market-oriented means to further develop IP-to-IP interconnection standards and requirements.

Scope of the IP-to-IP Interconnection Obligation

The IP-to-IP interconnection obligation should apply, at a minimum, to LECs, consistent with previous FCC decisions.[17] Since the IP interconnection disputes

[14] *See, e.g.*, Order at ¶ 1009 n.2139.

[15] *See* BITAG – Broadband Internet Technical Advisory Group at http://www.bitag.org.

[16] FNPRM at ¶ 1372.

[17] *See, e.g.*, *TWC Declaratory Ruling* at ¶ 2.

documented in the record of this and related proceedings to date have generally centered on such carriers, this is the most logical starting point for scrutiny.

All IP voice traffic (regardless of whether it is OTT or facilities-based traffic) carried by LECs should be covered by the good faith negotiation obligation. There is no reasonable justification for limiting the obligation to traffic originated by or bound for "managed" or facilities-based VoIP services.[18] There are no obvious technical or other benefits to restricting the obligation to managed or facilities-based VoIP traffic. Rather, to create seamless and efficient traffic flows and minimize opportunities for carriers to evade the interconnection obligation, the FCC should reiterate the obligation for local carriers to negotiate in good faith for all IP voice traffic.

While it is reasonable now for the FCC to address the IP-to-IP interconnection obligation only for IP voice traffic, the FCC should also be alert to discriminatory or unreasonable practices that may arise for other types of non-Internet-based traffic that may be carried on carrier managed IP networks (*e.g.*, video chat, HD voice). The FCC's reforms in this proceeding to date have been largely backwards-focused: how to transition the industry away from regulatory structures that are relics of a bygone era. But, the policies now being adopted will lay the groundwork for a transition to next generation networks and the services that ride over them. Through this transition, broadband networks, and the services offered by carriers and others over them, will continue to evolve and to grow in scope and complexity beyond mere replacement of traditional Plain Old Telephone Service ("POTS"). It will be incumbent upon the FCC to confront both the opportunities and challenges of next generation network architecture

[18] *See* FNPRM at ¶ 1346.

and to ensure that carriers, particularly those operating local facilities, maximize interconnection and robust traffic flows.

III. The FCC should weigh the regulatory costs of expanding call signaling rules.

The FCC should not expand further its new call signaling rules, especially since it lacks a full understanding of current technical impediments to compliance with existing rules and the potential likelihood for these obligations to impact innovation.[19] One-way VoIP services are almost always innovative applications and information services developed by non-carriers and offered to consumers for free or at very low rates.[20] The success of these new products is particularly vulnerable to excessive regulation and they should not be regulated barring a compelling and clear need. The FCC has already imposed new charges on one-way VoIP.[21] Further regulation means yet additional costs for IP service providers, which can have innovation-killing consequences. Given that the FCC has not studied or evaluated these offerings in any meaningful sense, let alone assessed how additional regulation could harm innovation and the economic benefits it drives, it would be premature and unwise for the FCC to increase regulation of one-way VoIP.

Recent carrier waiver requests, including those filed by AT&T, CenturyLink, and Verizon already demonstrate that compliance with the new call signaling rules is not technically feasible without costly and time consuming network upgrades, even for

[19] FNPRM at ¶¶ 1399-1402 (seeking comment how one-way VoIP providers could acquire numbers, where signaling would originate, and whether alternate (non-NANP) numbers could be used).

[20] *See, e.g.*, Letter from Richard S. Whitt, Google Inc. to Marlene H. Dortch, Secretary, FCC at 2, WC Dkt. 10-90 *et al*. (filed Oct. 18, 2011).

[21] *See* Order at ¶ 944.

services now encompassed by the rules.[22] These filings underscore the costs and obstacles that can result from new regulation. These challenges will likely only be amplified if the FCC attempts to jam the square peg of one-way VoIP into the round hole of call signaling rules designed for two-way PSTN traffic. Recent comments from Level 3 highlight the complexity of the issues that would arise from application of the call signaling rules to one-way VoIP.[23] In fact, as suggested, by the time all of the technical and implementation issues are resolved, the transition to bill-and-keep may well render these requirements largely obsolete.[24]

[22] *See* Petition for Limited Waiver of Verizon, WC Dkt. 10-90 *et al*. (filed Feb. 2, 2012); CenturyLink Inc. Petition for Limited Waiver, WC Dkt. 10-90 *et al.* (filed Jan. 23, 2012); AT&T Inc. Petition for Limited Waiver, WC Dkt. 10-90 *et al.* (filed Dec. 29, 2011).

[23] *See, e.g.*, Opposition of Level 3 Communications LLC to Petitions for Reconsideration by the National Exchange Carrier Association *et al*. at 2-3, WC Dkt. 10-90 *et al*. (filed Feb. 9, 2012) (explaining that no guidelines exist for assigning E.164 numbers to one-way VoIP services and that the FCC has never addressed the impact of such a requirement on number exhaust).

[24] *Id.* at 3.

CONCLUSION

The FCC's Order took important first steps towards modernizing telecommunications traffic exchange and promoting next generation, all-IP telecommunications networks. As discussed above, the FCC should continue to pursue these objectives while moving to toward an increasingly market-based, deregulatory regime.

Respectfully submitted,

Richard S. Whitt, Esq.
Director & Managing Counsel,
Federal Public Policy

Adrienne T. Biddings, Esq.
Telecom Policy Counsel

GOOGLE INC.
Public Policy Department
1101 New York Avenue NW
Second Floor
Washington, DC 20005

Donna N. Lampert
Jennifer P. Bagg
Joseph A. Bissonnette

LAMPERT, O'CONNOR & JOHNSTON, P.C.
1776 K Street NW, Suite 700
Washington, DC 20006
(202) 887-6230 tel
(202) 887-6231 fax

Counsel for Google Inc.

February 24, 2012