Before the
FEDERAL COMMUNICATIONS COMMISSION

In the Matter of	)	
	)	
Connect America Fund	)	WC Docket No. 10-90
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51
	)	
Establishing Just and Reasonable Rates for Local Exchange Carriers	)	WC Docket No. 07-135
	)	
High-Cost Universal Service Support	)	WC Docket No. 05-337
	)	
Developing a Unified Intercarrier Compensation Regime	)	CC Docket No. 01-92
	)	
Federal-State Joint Board on Universal Service	)	CC Docket No. 96-45
	)	
Lifeline and Link-Up	)	WC Docket No. 03-109

COMMENTS OF VONAGE HOLDINGS CORP.

Vonage Holdings Corp. ("Vonage"), through undersigned counsel, hereby submits its comments in response to the Federal Communications Commission's ("Commission" or "FCC") Public Notice[1] seeking further comment on the Universal Service and Intercarrier Compensation ("ICC") reform proposals filed by three different, but equally homogenous, groups of supporters.[2]

I. INTRODUCTION

Vonage urges the Commission not to make the mistake of assuming that any of the so-called consensus proposals offers a viable path for ICC reform. There are too many faults with the proposals to provide detailed comments on every one. By far the biggest fault with these proposals is that they all fail to address two of the Commission's primary goals as outlined in the Notice of

[1] *Further Inquiry into Certain Issues in the Universal Service-Intercarrier Compensation Transformation Proceeding*, Public Notice, DA 11-1348 (rel. Aug. 3, 2011) ("*Public Notice*").
[2] Comments of the State Members of the Federal State Joint Board on Universal Service, WC Docket No. 10-90, *et al.* (filed May 2, 2011)("State Member Comments"); Comments of NECA, NTCA, OPASTCO and WT, WC Docket No. 10-90, *et al.* (filed April 18, 2011)("RLEC Plan"); Letter from Robert W. Quinn, Jr. AT&T, Steve Davis, CenturyLink, Michael T. Skrivan, Fairpoint, Kathleen Q. Abernathy, Frontier, Kathleen Grillo, Verizon, and Michael D. Rhoda, Windstream, to Marlene H. Dortch, FCC, WC Docket No. 10-90, *et al.* (filed July 29, 2011)("ABC Plan").

Proposed Rulemaking – promoting a transition to all Internet Protocol ("IP") networks and increasing broadband deployment. All three of the proposals perpetuate and expand the existing, outdated Time Division Multiplexing ("TDM"), voice-centric regulatory regime and network structure and take ICC a step backward rather than forward.

The Public Notice gives the impression that the Commission has determined that one or the other or a combination of the proposals is the best solution for ICC reform and that the proposals only need minor modifications before adoption. The fact is, each of the proposals is fatally flawed with respect to ICC and will not produce the results promised, let alone the results desired by the Commission. If the Commission adopts the proposal included with the State Member Comments, the Rural Plan or the ABC Plan, the Commission will not be setting ICC on a path to all IP networks and increased broadband deployment. Instead, the technology companies and interconnected Voice over Internet Protocol ("I-VoIP") providers that have spearheaded the development of IP-based offerings will be forced to subsidize the lengthy transition to IP of those carriers that remain mired in an outdated TDM world. As a result, the slowest carriers to implement broadband, IP-based solutions will benefit at the expense of consumers and innovators. Therefore, the Commission must consider other options, such as the Tech Industry Proposal,[3] that will address its policy goals.

II. Comments

A. The Tech Industry Proposal for ICC Meets the Commission's Policy Goals.

Vonage supports the Tech Industry Proposal as the most effective way for the Commission to reach its goal of increasing broadband deployment and transitioning to all IP networks. Like Vonage, the Tech Industry Proposal recognizes that bill-and-keep for VoIP-to-TDM and TDM-to-VoIP traffic is the only equitable, forward-looking mechanism for advancing the Commission's goal of long-term broadband development. As Vonage and others have demonstrated, a bill-and-keep regime for VoIP traffic is consistent with the Commission's long-term goal of transitioning all ICC to

[3] Letter from Ad Hoc Telecommunications Users Committee, Google, Inc., Skype Communications S.A.R.L., Sprint Nextel Corporation and Vonage Holdings Corp., WC Docket No. 10-90, *et al.* (filed Aug. 18, 2011) ("Tech Industry Proposal").

bill-and-keep, it supports a prompt transition to all IP networks, and it is economically efficient and sends appropriate price signals to consumers.

As noted, the Tech Industry Proposal promotes the efficient transition to all IP networks and broadband deployment. The carrier-supported "consensus" proposals do not. Each proposal suggests imposing legacy TDM pricing and a voice-centric regulatory regime on I-VoIP, either as an initial reform step, as part of an overall transition to lower rates, or both. These legacy pricing and regulatory regimes, like per-minute, above cost ICC charges, are inconsistent with the efficient operation of an all IP network. In fact, the current TDM-based regulatory regime is already inefficient and delaying broadband deployment and the transition to all IP Networks.[4]

The appropriate response to this impediment to the development of IP networks and solutions is to reduce the amount of traffic and number of providers subject to the broken ICC system, not expanding the broken system to a new class of providers and new traffic. Bill-and-keep, as advocated by Vonage and the Tech Industry Proposal, provides an incentive for carriers to transition to IP networks. In contrast, the carrier proposals, which contemplate expanding an outdated, above-cost ICC regime to VoIP, encourage carriers to retain TDM networks and delay IP deployment. This is an inefficient result that ultimately increases the cost of innovative IP services to consumers.

The Tech Industry Proposal, as supported by the Commission's own cost data, and the record,[5] shows that bill-and-keep is an appropriate compensation regime for VoIP. Specifically, the

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[4] *In the Matter of In the Matter of Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing a Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up*, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, WC Docket Nos. 07-135, 10-90, 05-337 and 03-109, GN Docket No. 09-51, and CC Docket Nos. 01-92 and 96-45, 26 FCC Rcd. 4554, at ¶¶ 40-41 (rel. Feb. 9, 2011) ("*NPRM*").

[5] Comments of T-Mobile USA, Inc., WC Docket Nos. 10-90, *et al.*, at 10-11 (filed April 1, 2011); Comments of Vonage Holdings Corp., WC Docket Nos. 10-90, *et al.*, at 3-4 (filed April 1, 2011) ("Vonage Comments"); Comments of Google Inc., WC Docket Nos. 10-90, *et al.*, at 8-9 (filed April 1, 2011); Comments of Global Crossing North America, Inc., WC Docket Nos. 10-90, *et al.*, at 5-7 (filed April 18, 2011). *See also* Comments of Voice on the Net Coalition (VON Coalition), WC Docket

proposal notes the Commission's finding in 2008 that the incremental cost of delivering voice over an IP network is approximately $0.0000001, or roughly 1/100,000th of a penny.[6] Thus, as carriers move to IP networks, the cost of providing voice services over those networks decreases dramatically. In this environment, anything above this "vanishingly small" cost is overly compensatory and provides a disincentive for transitioning to IP networks. Further, as numerous parties have demonstrated, IP-to-IP traffic is exchanged at market rates based upon capacity or port usage.[7] Per-minute rates have no place in an all IP world. If the Commission's goal is the development of all IP networks and primarily IP-to-IP traffic exchange/interconnection, the most effective way to achieve it is not to impose excessive per-minute charges to IP traffic.

In this regard, it is important to note that the ABC Plan participants' data shows that a near zero ICC rate would produce a cost savings to consumers of nearly $9 billion per year.[8] Given that the ABC Plan proposes a final ICC rate of $0.0007 after a five-year transition,[9] it is reasonable to assume that an ICC rate below $0.0007 adopted immediately, such as bill-and-keep at $0.00, would produce even greater benefits to consumers. Regardless of the specific amount of consumer benefits above $9 billion per year for bill-and-keep, it is clear that where carrier costs for voice traffic are declining to near zero, and a near zero ICC rate will produce billions of dollars in consumer benefits, imposing anything other than bill-and-keep to VoIP traffic is inappropriate.

Nos. 10-90, *et al.*, at 2-3; Comments of CTIA, WC Docket Nos. 10-90, *et al.*, at 34-39 (filed April 18, 2011); Comments of CTIA, WC Docket Nos. 10-90, *et al.*, at 11-13 (filed April 1, 2011).

[6] Tech Industry Proposal at 8 (citing *In the Matter of High-Cost Universal Service Support*, Order on Remand and Report and Order and Further Notice of Proposed Rulemaking, 24 FCC Rcd. 6475, at ¶ 261 (2008), *aff'd Core Communications, Inc. v. FCC*, 592 F.3d 139 (D.C. Cir. 2010), *cert. denied*, 131 S. Ct. 597, 626 (2010)).

[7] *See* Tech Industry Proposal at 9; Comments of Google Inc., WC Docket Nos. 10-90, *et al.*, at 8-9 (filed April 1, 2011); Comments of Global Crossing North America, Inc., WC Docket Nos. 10-90, *et al.*, at 6 (filed April 18, 2011); Comments of Google Inc., WC Docket Nos. 10-90, *et al.*, at 6-8 (filed April 18, 2011); Comments of MetroPCS Communications, Inc., WC Docket Nos. 10-90, *et al.*, at 13-14 (filed April 18, 2011)..

[8] ABC Plan, Attachment 4, Consumer Benefits of Low Intercarrier Compensation Rates, Professor Jerry Hausman, MIT, at 1.

[9] ABC Plan, Attachment 1 at 10.

As the Commission recognized,[10] the record includes several options for identifying VoIP traffic to address the concern of some parties, including consensus proposal participants, if VoIP traffic is subject to a different ICC regime, carriers will falsely identify their traffic as VoIP. Specifically, Vonage[11] and XO Communications LLC ("XO")[12] each offered a proposed solution that would require carriers to provide an appropriate indicator in the Calling Party Category ("CPC") or Jurisdictional Parameter Indicator ("JIP") designating a call as VoIP. Likewise, ZipDX suggests defining a special value range for the "Charge Number" field that is included in signaling.[13] Finally, as suggested in the Public Notice, a "safe harbor" percentage may be a good basis to estimate the amount of VoIP traffic exchanged between providers. These types of factors, like percentage of interstate usage or percentage of local usage, are common proxies in the industry for identifying types of traffic where specific data is not available.[14] These alternatives, combined with the possibility of enforcement action for violating Commission rules and a requirement for IP-to-IP interconnection where requested under Section 251, will reduce or eliminate both the opportunity and incentive for mislabeling traffic as VoIP.

B. Opposition to Consensus Proposals

The ABC Plan, the RLEC Plan and the State Member Comments all favor carriers, primarily incumbent carriers, and all rely on the admittedly broken existing ICC system for some period of the transition to reformed ICC rates. All three proposals postpone indefinitely the transition to bill-and-keep set out as the FCC's goal by, at best, establishing a long glide path to a $0.0007 rate or a gradual step down to an unspecified unified rate. Notably, not one of the plans proposes bill-and-keep as the final phase of ICC reform. The ABC Plan is the only plan that proposes specific rates, albeit at the end of a five-year transition period, as the RLEC Plan and State Member Comments

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[10] *Public Notice*,at 17.
[11] Vonage Comments at 13-14.
[12] Comments of XO Communications LLC, WC Docket Nos. 10-90, *et al.* at 33 (filed April 1, 2011).
[13] Comments of ZipDX, WC Docket Nos. 10-90, *et al.*, at 2 (filed April 1, 2011).
[14] *See In the Matter of Regulation of Prepaid Calling Card Services*, Declaratory Ruling, WC Docket No. 05-68, 21 FCC Rcd. 7290 at ¶ 32 (2006) ("The Commission has long endorsed the use of PIUs to determine the jurisdictional nature of traffic for access charge purposes.").

propose carrier-specific or state-specific rates to be determined in later phases of ICC reform. In short, the principal short-term goal of each of these plans is to pull VoIP traffic into the arbitrage and dispute-fraught realm of the existing dysfunctional TDM-based ICC regime.

These so-called reform proposals, rather than providing an incentive for carriers and other service providers to transition to IP networks, instead provide an incentive to be one of the last TDM carriers left standing. As the industry moves to IP networks and begins to exchange IP traffic at near zero per-minute rates or rates that are based upon capacity or port usage, those few TDM holdouts will continue to see an increasing amount of access revenue. In fact, if the end point of the Commission's ICC reform is a rate of $0.0007, which as noted above is 7000 times the estimated cost of providing voice over an IP network, those few carriers that cling to TDM infrastructure will have a significant incentive not to take the last step and convert to IP. If the cost of IP voice is 1/100,000th of a penny per minute and declining, and a terminating carrier can force the originating provider to pay $0.0007 per minute in access charges, there is substantial room for profit at the expense of consumers and those companies that convert to IP first (or have always been all IP). This significant differential is precisely the reason that imposing any ICC rate other than zero on VoIP will actually have the opposite effect desired by the FCC. It will cause many carriers to delay a transition to IP networks in order to continue to extract above-cost rates from those entities that have complied.

Moreover, all three proposals would require technology companies, I-VoIP providers and their customers to bear a disproportionate share of the cost of transition by first subjecting them to the admittedly broken ICC regime, then gradually bringing them back down to bill-and-keep or low per-minute rates at which IP traffic is being exchanged today. This ploy is effectively a 3-5 year revenue-generating mechanism for local exchange carriers, at the expense of VoIP and technology companies. In other words, the consensus proposals would have providers of IP-based services and other innovative, forward-thinking service providers take a giant step backwards so that their

competitors can catch up and pass them. This approach does not level the playing field; it injects a heavy hand to tip the field in the carriers' favor.

Finally, all three proposals would require VoIP and other technology companies to maintain or deploy additional TDM infrastructure for at least another five years, when the FCC's goal is to eliminate TDM infrastructure and TDM traffic as soon as possible to facilitate increased broadband deployment. Many IP providers have deployed TDM infrastructure solely to enable them to exchange traffic with local exchange carriers and others that have not completed a transition to IP or will not provide IP-to-IP interconnection. Instead of addressing this uneconomic situation by providing incentives for carriers to transition to all IP networks, the carrier-supported reform proposals would further increase the cost of service of their competitors by imposing the existing TDM-based ICC structure on VoIP providers. Because VoIP providers cannot themselves receive ICC, these proposals would force VoIP providers to maintain outdated, costly TDM infrastructure for the sole purpose of enabling carriers to extract inflated ICC charges from them. This scenario is obviously not optimal for increasing broadband deployment and realizing the significant consumer benefits broadband provides.

The ABC Plan proposes to reduce certain switching rates, while taking a more limited approach to transport elements and originating access. This plan also includes different treatment of termination at the end office or within a tandem serving area depending upon whether the termination carrier owns the serving tandem switch.[15] This proposal creates the same opportunities for arbitrage that exist today and creates others. Any ICC regime that affords different treatment to traffic based upon where the traffic is handed off to the terminating carrier or establishing different rates for certain rate elements, invites carriers to bill based upon the most expensive configuration. The Commission has determined that the cost of delivering voice traffic on an IP network is roughly $0.0000001 per minute and declining to zero. Where the cost of terminating this traffic is "vanishingly small," there is no legitimate basis for distinguishing between the incrementally smaller

[15] ABC Plan, Attachment 1 at 11.

costs of each component of the service. Likewise, establishing different rates or pricing structures for originating access than for terminating access, invites carriers to develop ways in which to treat certain types of traffic as originating access rather than terminating access to take advantage of the differing rates. If the Commission's goal is uniform ICC rates and elimination of arbitrage opportunities, any ICC reform should treat all traffic in the same manner.

C. The Commission Must Address Intrastate ICC Reform.

Vonage agrees with the ABC Plan supporters that, whatever the structure of the final ICC reform, the Commission should set intrastate ICC rates rather than leaving that task to states. In order for ICC reform to work, it must be applied consistently and on the same timeline. Given that intrastate access rates are, in most cases, substantially higher than interstate access rates, the potential impact of changes to the ICC regime is greater at the intrastate level. For this reason, there is also a greater need for uniformity in structure, rates and timelines at the state level. Even if the Commission establishes a path and deadlines for state implementation of ICC reform, the states will develop different structures, different rates and different timelines for implementation.

In addition, in an all IP world, geographical distinctions like intrastate and interstate will be irrelevant. IP traffic, including VoIP traffic, is routed based upon the numerical label, the IP address, assigned to the destination device. Even if the IP address is associated with a specific E.164 telephone number, that telephone number may no longer have any relevance to the physical location of the called device and could very well be in different locations at different times. An ICC structure that looks to the geographic location of the parties on a call is misplaced in this environment. A forward-looking ICC regime should not be constrained or defined by such distinctions.

III. CONCLUSION

For the reasons discussed above, Vonage respectfully requests that the Commission reject the ICC reform proposals of each of the carrier-supported plans and instead adopt bill-and-keep for

any traffic that originates or terminates on an IP network as outlined in the Tech Industry Proposal.

Respectfully submitted,

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