

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

In the Matter of)
Developing a Unified Intercarrier) CC Docket No. 01-92
Compensation Regime)

PETITION FOR INTERIM ORDER

The record in this proceeding shows broad consensus on the need to expand and clarify Commission rules governing the origination and transmission of call signaling information. Comments from numerous parties addressing the “phantom traffic” solutions incorporated in the Missoula Plan¹ expressed wide agreement on this point. As debate continues over larger issues raised in this proceeding, however, NECA member companies are faced with increasing amounts of interstate and intrastate voice calls bearing incomplete, inaccurate or missing signaling data.

Pending completion of more fundamental intercarrier compensation reform, NECA therefore requests the Commission issue an interim order in this proceeding on call signaling requirements. As discussed in detail below, existing provisions of the Commission’s rules generally require carriers to transmit accurate calling party number (CPN) information, but current rules may not adequately cover all voice traffic sent to the Public Switched Telephone Network (PSTN) for termination. The Commission can help resolve these problems on an interim basis by extending existing call signaling requirements to all interconnected voice service

¹ See Comment Sought on Missoula Plan Phantom Traffic Interim Process and Call Detail Records Proposal, CC Docket No. 01-92, Public Notice, 21 FCC Rcd 13179 (2006).

providers and to all types of voice traffic terminating on the public switched telephone network (PSTN), regardless of jurisdiction or the technology used at the point of call origination.²

In addition, consistent with requirements imposed on pre-paid calling card providers in the *2006 Pre-Paid Calling Card Services Order*,³ NECA asks the Commission to clarify that the calling party number transmitted in the signal reflects the true 10-digit telephone number of the individual end-user customer originating the call, and not a number associated with intermediate switches, gateways, or “platforms” used to access the PSTN. Also consistent with this Order, the Commission should clarify that providers may not populate the Charge Number (CN) parameter of the SS7 signal with the number of a platform or gateway.

Finally, in order to address a growing number of disputes over establishing the proper jurisdiction of calls, NECA asks the Commission to clarify that, absent mutual agreement on factors or the provision of information that can be used to determine with reasonable accuracy the actual origination point of a call (*e.g.*, cell site identification data), terminating carriers may use as a default the originating and terminating telephone numbers associated with a call to determine jurisdiction for billing purposes.

Compelling public interest reasons support issuance of the requested order. CPN data provides the basis for virtually all displays of “Caller ID” information. Consumers, interconnected carriers, emergency service providers, and law enforcement officials share a common interest in the accuracy of this data. Action by the Commission in this regard will also

² Existing call signaling rules require common carriers using Signaling System 7 to transmit on interstate calls the Calling Party Number, defined as the subscriber line number or directory number contained in the calling party number parameter of the call set-up message on a Signaling System 7 network. NECA’s petition would extend the requirement to transmit the calling party number to all voice telephony calls originated by devices that utilize or are assigned a 10-digit NANP number.

³ *Regulation of Prepaid Calling Card Services*, WC Docket No. 05-68, Declaratory Ruling and Report and Order, 21 FCC Rcd 7290 (2006), at ¶¶ 33-34 (*2006 Pre-Paid Calling Card Services Order*).

be helpful for carriers attempting to deal with “phantom traffic” and other billing problems caused by missing or inaccurate call signaling information.

Moreover, the time is ripe for action. As noted above, the Commission has obtained extensive comment on various phantom traffic solutions proposed in this proceeding, with general agreement on the need to expand existing call signaling requirements. While improved call signaling requirements will not resolve all intercarrier billing or phantom traffic issues, action by the Commission as described herein would be a positive step in this direction and bring resolution at least to some existing disputes and uncertainty.

I. BACKGROUND

In proposing new Calling Party Telephone Number rules in CC Docket No. 91-281,⁴ the Commission sought to “promote the transmission of the calling party number from the originating carrier to the terminating carrier.”⁵ As adopted, section 64.1601 of the Commission’s rules states “common carriers using Signaling System 7 and offering or subscribing to any service based on Signaling System 7 functionality are required to transmit the calling party number (CPN) associated with an interstate call to interconnecting carriers.”⁶

Although the Commission has found that voice services offered by entities using interconnected VoIP technology are increasingly used to replace analog voice services,⁷ not all

⁴ *Rules and Policies Regarding Calling Number Identification Service – Caller ID*, CC Docket No. 91-281, Report and Order and Further Notice of Proposed Rulemaking, 9 FCC Rcd 1764 (1994), at ¶ 72 (*1994 Caller ID Order*).

⁵ *See Rules and Policies Regarding Calling Number Identification Service – Caller ID*, CC Docket No. 91-281, Memorandum Opinion and Order on Reconsideration, Second Report and Order and Third Notice of Proposed Rulemaking, 10 FCC Rcd 11700 (1995) (*1995 Caller ID Order*).

⁶ 47 C.F.R. § 64.1601. The term “Calling Party Number” as defined in 47 C.F.R. § 64.1600 refers to “the subscriber line number or the directory number contained in the calling party number parameter of the call set-up message associated with an interstate call on a Signaling System 7 network.”

⁷ *E.g., Implementation of the Communications Act of 1996: Telecommunications Carriers’ Use of Customer Proprietary Network Information and Other Customer Information*, CC Docket No. 96-115, *IP-Enabled Services*,

of today's interconnected voice service providers consider themselves "common carriers." Moreover, network technology has evolved substantially since the Caller ID rules were adopted. Many carriers and interconnected voice service providers now use IP-based networks which may or may not employ SS7 signaling. Thus, questions arise as to whether particular entities offering NANP-based voice telephony services are actually subject to existing signaling requirements.

Since IP-based networks are technically capable of transmitting accurate calling party number data with calls originated by customers with assigned NANP numbers,⁸ there does not appear to be any technological barrier for extending existing call signaling requirements to this traffic, regardless of technology used to originate calls or the regulatory classification of the provider.⁹

Services and service providers in the early 1990's could be neatly divided between local and long-distance, intrastate and interstate. With the expanding number of interconnected service providers offering different versions of voice calling, interexchange calls are now being co-mingled with local calls and sent on non-access local interconnection trunks, which are engineered and intended for local traffic only.¹⁰ While some of these calls arrive with valid

WC Docket 06-36, Report and Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd 6927 (2007), at ¶ 56 (*2007 CPNI Order*).

⁸ Industry standard "RFC 3398" spells out how to map the CPN of a VoIP call (SIP Request-URI) into the ISUP SS7 signal on the PSTN. A SIP-ISUP Gateway can use this standard to forward the CPN onto the PSTN. Also, industry standard T1.678, to which J-STD-025-B refers, supports law enforcement access to call-identifying information on voice over packet services provided over wireline using two call set-up protocols: SIP and H.323-based VoIP services. See <http://www.ietf.org/rfc/rfc3398.txt>.

⁹ The Commission's rules currently provide for certain exemptions from call signaling requirements that were considered necessary to address law enforcement and privacy concerns, as well as certain technical issues present at the time the rules were promulgated. 47 C.F.R. § 64.1601(d).

¹⁰ For example, wholesale carriers may claim to "re-originate" calls by aggregating them, passing them through some type of platform or gateway, and transmitting them on local interconnection trunks. See, e.g., *Petition of AT&T Texas for Post-Interconnection Dispute Resolution with Utex Communications, Corp, Under the FTA Relating to Billing Disputes on Utex's Termination of Traffic and LNP Queries*, Docket No. 33323 (Texas PUC, Oct. 6, 2006) (*AT&T Petition Against Utex*); *Complaint of Grande Communications Networks, Inc. Relating to Blocking of Traffic and Refusal of Facilities by Windstream Sugar Land, Inc.*, Docket No. 34143 (Texas PUC, Apr. 13, 2007); See also *Petition of the Embarq Local Operating Companies for Limited Forbearance Under 47*

CPN, many do not. Entities placing this traffic on local interconnection trunks often make little effort to ensure CPN is transmitted with all calls, and, if the intent is to avoid access charges, there may be concerted efforts to disguise the true CPN.¹¹

For example, some interconnected entities insert the telephone number associated with intermediate switches or “platforms” in the signaling stream. The Commission clarified in its *2006 Pre-Paid Calling Card Order*, however, that prepaid calling card providers may no longer populate the Charge Number (CN) parameter with the number of the calling card platform.¹² Providers of other interconnected services that use platforms or gateways to manage calls, however, continue to mislabel calls in this manner in order to make their calls appear “local” and avoid access charges.¹³ These and other such examples demonstrate the necessity of broader clarification by the Commission as to what constitutes valid CPN information.

Some commenters in this proceeding have expressed concern that CPN data alone cannot be relied upon to determine the applicable intercarrier compensation rate for cellular roaming calls.¹⁴ Under section 51.710(b)(2) of the Commission’s rules, CMRS traffic is typically billed as local or non-local depending on whether it originates and terminates within a particular Metropolitan Trading Area (MTA).¹⁵ In the case of roaming, however, some calls may appear to originate and terminate within the same MTA even though one end of the call may actually take place in a distant city. Likewise, when a roaming CMRS subscriber places a

U.S.C. § 160(c) from Enforcement of Rule 69.5(a), 47 U.S.C. § 251(b), and Commission Orders on the ESP Exemption (Jan. 11, 2008), at 5 (*Embarq Petition*).

¹¹ See, e.g., Letter from Karen Brinkmann, Latham & Watkins (on behalf of ACS of Anchorage), to Marlene H. Dortch, FCC, WC Docket No. 05-276, CC Docket No. 01-92 (Dec. 12, 2005) (*2005 ACS Letter*).

¹² *2006 Pre-Paid Calling Card Services Order* at ¶ 34.

¹³ See *2005 ACS Letter*.

¹⁴ E.g., Sprint Nextel Comments, CC Docket No. 01-92 (Dec. 7, 2006), at 6-7; Verizon Wireless Comments, CC Docket No. 01-92 (Dec. 7, 2006), at 4-5. Concerns have also been expressed about calls to VNXX numbers. See e.g., Qwest Communications Reply Comments, CC Docket No. 01-92 (Feb. 1, 2007), at 17.

¹⁵ 47 C.F.R. § 51.710(b)(2).

call to a nearby number, the call may appear to be from outside the MTA even though it actually originates and terminates in the same MTA.

In the *First Report and Order* in CC Docket No. 96-98,¹⁶ the Commission recognized that CMRS customers may travel from location to location during the course of a single call, and that this would make it difficult to determine the applicable transport and termination rate or access charge.¹⁷ At the time, the Commission concluded that “the location of the initial cell site when a call begins shall be used as the determinant of the geographic location of the mobile customer.”¹⁸ Because CMRS providers utilizing then-current technologies may not have had the ability to determine in real time the cell site where calls originate, however, the Commission allowed parties to calculate overall compensation amounts by extrapolating from traffic studies and samples.¹⁹

Since that time, a variety of alternative means for determining the applicable intercarrier compensation rate have been debated, including the use of the “Jurisdiction Information Parameter” (JIP).²⁰ CMRS carriers have generally objected to requirements to populate the JIP field, arguing this would be burdensome and would not provide reliable

¹⁶ *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, *Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, CC Docket No. 95-185, First Report and Order, 11 FCC Rcd 15499 (1999), at ¶1036 (*First Report and Order*).

¹⁷ *Id.* at ¶ 1044.

¹⁸ *Id.*

¹⁹ *Id.* Possibly, advances in technology since 1996 may facilitate use of cell site location information for purposes of determining call jurisdiction. NECA understands, for example, that information on cell site location is now being transmitted for wireless E911 calls to assist emergency service providers. 47 C.F.R. § 20.18(d). (d) *Phase I enhanced 911 services*. (1) As of April 1, 1998, or within six months of a request by the designated Public Safety Answering Point as set forth in paragraph (j) of this section, whichever is later, licensees subject to this section must provide the telephone number of the originator of a 911 call and the location of the cell site or base station receiving a 911 call from any mobile handset accessing their systems to the designated Public Safety Answering Point through the use of ANI and Pseudo-ANI.

²⁰ *See e.g.*, Letter from Jeffrey S. Lanning, USTelecom, to Marlene H. Dortch, FCC, CC Docket No. 01-92 (Mar. 30, 2006).

indication of call jurisdiction.²¹ Parties have also argued in this proceeding that carriers should agree to use factors to determine intercarrier compensation for such traffic.²² But NECA member companies often have difficulty convincing CMRS carriers even to negotiate interconnection agreements, let alone agree on reasonable billing factors.²³ Moreover, it is nearly impossible for small companies to audit wireless carriers' traffic records to verify the accuracy of any billing factors once agreed upon.

Recognizing that phantom traffic is a significant concern for rural carriers, a handful of states have attempted to address the problem with legislation or regulatory action, rather than continue to await FCC direction in this area. The South Dakota Legislature, for example, passed a law in 2004 requiring originating carriers to transmit signaling information sufficient for terminating carriers to identify, measure and appropriately charge originating carriers for services provided in terminating traffic.²⁴ The law was challenged by wireless carriers, who argued that it would be infeasible to provide such information.²⁵ On review, the district court determined that the state law was preempted by federal law and regulation as applied to CMRS carriers²⁶ and that the CMRS carrier involved was currently not technically capable of

²¹ *E.g.*, Verizon Wireless Reply Comments, CC Docket No. 01-92 (July 20, 2005), at 4-6; CTIA Comments, CC Docket No. 01-92 (Oct. 25, 2006), at 38; Letter from Paul Garnett, CTIA to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-92 (Apr. 19, 2006); T-Mobile Comments, CC Docket No. 01-92 (Dec. 7, 2006), at 14.

²² *E.g.*, Letter from L. Charles Keller, Wilkinson, Barker, Knauer, LLP (on behalf of Verizon Wireless), to Marlene H. Dortch, FCC, CC Docket No. 01-92 (Sept. 27, 2006), at 2.

²³ One recent example is a North Carolina dispute between several RLECs and CMRS carriers involving extensive disputes over what would be reasonable factors to distinguish interMTA from intraMTA traffic. *See Petitions of Ellerbe Telephone Company, MebTel, Inc., and Randolph Telephone Company for Arbitration with ALLTEL Communications and Cingular*, Docket No. P-21, SUB 71, Recommended Arbitration Order, (NCUC, Dec. 20, 2007), at 31-36 (*NCUC Decision*).

²⁴ SDCL 49-31-110 (2004).

²⁵ *Verizon Wireless, et al. v. Steve Kolbeck, et al*, CIV 04-3014, Complaint for Declaratory and Injunctive Relief, (D.SD, Aug. 6, 2004).

²⁶ *Verizon Wireless, et al. v. Steve Kolbeck, et al*, CIV 04-3014, Decision and Order (D.SD, Dec. 28, 2007), at ¶¶ 72-74, 98-100 (*SD Decision*).

transmitting “accurate and verifiable” information “that would categorize the jurisdiction of the call.”²⁷

FCC clarification of existing rules regarding use of signaling information to bill calls would help resolve the problems described above. Ideally, a method should be found that permits carriers to rely on accurate call location information where available to establish the appropriate intercarrier compensation rate, while providing a reasonable default in circumstances where such information is not available. As discussed in more detail below, Commission clarification that the “telephone numbers rule” applies by default in the absence of actual geographic location data or mutually agreed-upon traffic factors appears to be a reasonable solution.

II. DISCUSSION

A. Broad Industry Consensus Supports Action on Call Signaling.

The Missoula Plan for Intercarrier Compensation Reform, submitted to the Commission by the Joint Board in June 2006, proposed call signaling rules as part of its comprehensive solution to phantom traffic.²⁸ These proposed rules would apply to all voice calls originating on the PSTN, transiting the PSTN, or destined for the PSTN from other networks.²⁹ They would require every originating communications service provider to transmit in its signaling the telephone number assigned to the calling party.³⁰ Every intermediate provider would be required

²⁷ *Id.* at ¶ 50. The South Dakota Court also found that traffic studies from CMRS providers “are not ‘accurate and verifiable’ due to the ‘sheer volumes of records’ which would need to be evaluated.” *Id.* at ¶ 56.

²⁸ See Letter from Tony Clark, Commissioner and Chair, NARUC Committee on Telecommunications, Ray Baum, Commissioner and Chair, NARUC Task Force, and Larry Landis, Commissioner and Vice-Chair, NARUC Task Force, to Kevin Martin, FCC, CC Docket No. 01-92 (July 24, 2006) (attaching the Missoula Plan at II D(3)).

²⁹ *Id.* at 56.

³⁰ *Id.*

to transmit without alteration the telephone number information contained in the ANI, ANI II, CPN, CN, and the Jurisdiction Information Parameter (JIP) fields that it receives from another provider.³¹

While commenting parties disagreed over other portions of the Missoula Plan's phantom traffic proposal, there was broad industry consensus on the need for enhanced call signaling rules. In comments and *ex partes* filed before the FCC with respect to the Missoula Plan's phantom traffic proposals, AT&T,³² Verizon,³³ Qwest,³⁴ CTIA,³⁵ NCTA,³⁶ USTA,³⁷ Time Warner Telecom,³⁸ the Mid-Sized Carriers,³⁹ wireless carriers,⁴⁰ rural carriers,⁴¹ and others supported Commission action to clarify call signaling rules.

As but one example, Broadview, Grande, Nuvox, One Communications, Talk America and XO stated in joint comments:

the Commission should adopt measures to reduce significantly the problems with 'phantom traffic,' by requiring carriers to transmit appropriate signaling information and articulating clear guidelines applicable to jurisdictionalizing

³¹ *Id.*

³² Comments of the Supporters of the Missoula Plan (AT&T, et al), CC Docket No. 01-92 (Oct. 25, 2006), at 15.

³³ Verizon Comments, CC Docket No. 01-92 (Dec. 7, 2006), at 23-24.

³⁴ Qwest Comments, CC Docket No. 01-92 (Oct. 25, 2006), at 34.

³⁵ CTIA Comments, CC Docket No. 01-92 (Oct. 25, 2006), at 39.

³⁶ "Consequently, it is important that any provider that originates or participates in handling a call transmit CPN, which can be used by the terminating carrier to identify the originating service provider." NCTA Comments, CC Docket No. 01-92 (Oct. 25, 2006), at 27.

³⁷ USTelecom Comments, CC Docket No. 01-92 (Oct. 25, 2006), at 21.

³⁸ "Phantom traffic is clearly an issue that ILECs and CLECs alike face, and a uniform set of carrier-signaling rules would ameliorate this problem even though the incentives for arbitrage remain." Time Warner Telecom Comments, CC Docket No. 01-92 (Oct. 25, 2006), at 21.

³⁹ CenturyTel Comments, CC Docket No. 01-92 (Oct. 25, 2006), at 12.

⁴⁰ T-Mobile Comments, CC Docket No. 01-92 (Dec. 7, 2006), at 3; Sprint Nextel Comments, CC Docket No. 01-92 (Dec. 7, 2006), at 8; US Cellular Comments, CC Docket No. 01-92 (Dec. 7, 2006), at 3.

⁴¹ Participating Wyoming Rural Independents, CC Docket No. 01-92 (Oct. 25, 2006), at 15; Missouri Small Telephone Companies, CC Docket No. 01-92 (Oct. 25, 2006), at 9.

traffic for purposes of intercarrier compensation. The record in this rulemaking proceeding is sufficient to move to a decision on this matter.⁴²

Similarly, the VON Coalition stated its support for

strict Commission enforcement of the requirement that, for traffic that interconnects with the PSTN, all originating and intermediate providers transmit without alteration, calling party number or charge number (“CPN” or “CN”) information for traffic where SS7 signaling is used and the passing of automatic number identification (“ANI”) information when multi-frequency (“MF”) signaling is used.⁴³

Support for Commission action on call signaling rules continues to the present day. In recent *ex partes*, Verizon⁴⁴ and Qwest⁴⁵ both urged the FCC to clarify and amend traffic labeling rules to require signaling of accurate CPN and to clarify the CPN signaled must be the true CPN of the calling party.⁴⁶

A coalition of competitive carriers filed a letter in May 2007 in which they expressed support for “changes to the Commission’s call labeling and signaling rules that would require interconnected common carriers to pass to each other, without alteration, information necessary for billing.”⁴⁷ In June 2007, a group of mid-sized ILECs discussed with the Commission a “best

⁴² Broadview Networks, et al. Comments, CC Docket No. 01-92 (Dec. 7, 2006), at 7-8.

⁴³ VON Coalition Comments, CC Docket No. 01-92 (Dec. 7, 2006), at 6-7.

⁴⁴ See Letter from Donna Epps, Verizon, to Marlene H. Dortch, CC Docket No. 01-92 (Aug. 7, 2007) (*Verizon 08/07/07 ex parte*).

⁴⁵ Letter from Melissa E. Newman, Qwest, to Marlene H. Dortch, FCC, CC Docket No. 01-92 (Sept. 26, 2007), at 2-3.

⁴⁶ Also, “If a carrier signals CN it must be the true calling party’s CN”, and carriers must not modify or delete the CPN or CN in the SS7 stream. *Verizon 08/07/07 ex parte*, attachment, at 8.

⁴⁷ Letter from Alltel Communications, Inc., Cavalier Communications, COMPTTEL, General Communication, Inc. (GCI), iBasis, McLeodUSA, Telecommunications Services, Inc., National Cable & Telecommunications Association, New Global Telecom, NuVox Communications, One Communications Corp., Pac-West Telecomm, Inc., RCN Telecom Services, Inc., The Voice on the Net (VON) Coalition, Time Warner Telecom, T-Mobile U.S.A., Inc., USA Datanet, Verizon, XO Communications, LLC, to Marlene H. Dortch, FCC, CC Docket No. 01-92 (May 8, 2007).

in class” compromise phantom traffic proposal.⁴⁸ These carriers indicated that “one clear area” where all parties agree is the need for better call signaling rules. In April 2007, a group of wireless carriers expressed support for the “industry consensus proposal” set forth in USTelecom’s February 2006 *ex parte*,⁴⁹ which included support for better call signaling rules.⁵⁰

Concerns about inaccurate CPN data have recently led both the House and Senate to pass bills that would make it illegal to transmit misleading or inaccurate caller identification information in connection with any telecommunications service or IP-enabled voice service.⁵¹ Kris Monteith, Chief of the FCC’s Enforcement Bureau, testified before the Senate Committee that the use of Internet technology has made Caller ID spoofing easier and the FCC is concerned “about how this practice may affect consumers as well as public safety and law enforcement communities.”⁵² Ron Jones, Director of Tennessee Regulatory Authority and Chair of NARUC’s Consumer Affairs Committee, testified that NARUC had adopted a Resolution in Summer 2006 supporting legislation on caller ID spoofing that would prohibit the intentional falsification of the name or number that appears on a customer’s caller identification (ID) display. The resolution

⁴⁸ Letter from Karen Brinkmann, Latham & Watkins (on behalf of CenturyTel), to Marlene H. Dortch, FCC, CC Docket No. 01-92 (June 27, 2007).

⁴⁹ Letter from Jeffrey S. Lanning, USTelecom, to Marlene H. Dortch, FCC, CC Docket No. 01-92 (Feb. 17, 2006).

⁵⁰ Letter from Paul Garnett, CTIA, to Marlene H. Dortch, FCC, CC Docket No. 01-92 (Apr. 3, 2007).

⁵¹ *E.g.*, Truth in Caller ID Act of 2007, H.R. 251, 110th Cong.; Truth in Caller ID Act of 2007, S. 704, 110th Cong. The Senate bill defines caller identification information to include the telephone number of, or other information regarding the origination of, a call made using a telecommunications service or IP-enabled voice service, and defines ‘IP-enabled voice service’ as the provision of real-time 2-way voice communications offered to the public transmitted through customer premises equipment using TCP/IP protocol for a fee (whether part of a bundle of services or separately) with interconnection capability such that the service can originate traffic to, or terminate traffic from, the public switched telephone network.

⁵² Written Statement of Kris Anne Monteith, Chief, Enforcement Bureau, FCC, on Caller ID Spoofing, Before the Committee on Commerce, Science, and Transportation, U.S. Senate (June 21, 2007), <http://www.fcc.gov/eb/speeches/kris070621.pdf>.

was adopted in response to growing consumer complaints at state PUCs concerning the practice of caller ID spoofing.⁵³

NECA recognizes that Commission action on call signaling rules will not resolve all phantom traffic issues. Action will still be required to address service providers that terminate voice calls on the PSTN and refuse to pay access bills, missing call detail records, inaccurate routing of calls, and carrier refusals to participate in interconnection negotiations or conclude interconnection agreements. These issues, among others, are causing rural ILECs to lose substantial amounts of intercarrier compensation revenue. Estimates of annual losses range from \$600 million for rural carriers⁵⁴ to \$2 billion for the industry overall.⁵⁵ Whatever the actual amount, access avoidance and arbitrage is straining the Commission's intercarrier compensation system and putting at risk rural carriers' ability to provide service to rural communities.⁵⁶ Even partial action by the Commission, such as the interim actions requested herein, would be a helpful step towards resolution of these issues.⁵⁷

⁵³ Testimony of the Honorable Ron Jones, Commissioner, Tennessee Regulatory Authority, on Caller ID Spoofing, Before the Committee on Commerce, Science, and Transportation, U.S. Senate (June 21, 2007), http://commerce.senate.gov/public/index.cfm?FuseAction=Hearings.Testimony&Hearing_ID=1878&Witness_ID=6656.

⁵⁴ See Letter from Karen Brinkmann, Latham & Watkins, to Marlene H. Dortch, FCC, CC Docket No. 01-92 (July 1, 2005), attaching presentation entitled "Phantom Traffic: Problem and Solutions", Balhoff & Rowe, May 2005.

⁵⁵ Frank G. Louthan IV, *Phantom Traffic Update*, Raymond James & Associates, Inc. (Feb. 2, 2007).

⁵⁶ *Embarq Petition* at 22.

⁵⁷ NECA also recognizes that some entities are beginning to provide interconnected IP-based services that do not utilize or assign NANP numbers. At the present time, however, the vast majority of calls sent to NECA member companies for termination on the PSTN are in fact originated by devices that have been assigned NANP numbers, and are associated with services offered as direct substitutes for traditional local and long-distance telephony services. The call signaling requirements proposed herein continue to make sense for these services. Resolving signaling issues associated with services as they are provided in today's marketplace will permit regulators and the industry to focus attention on more complex issues associated with the IP-enabled services of tomorrow.

B. The Commission Should Act Promptly to Extend Call Signaling Requirements to All Interconnected Voice Service Providers.

Interconnected voice service providers are increasingly offering local and long-distance voice services in direct competition with traditional local and long-distance telephone services and using the PSTN to terminate their services to LEC customers. In some cases, these providers may be finding ways to “game” the intercarrier compensation system by transmitting inaccurate call signaling information.⁵⁸

The Commission has repeatedly used its authority under Title I of the 1996 Act, as well as more specific grants of statutory authority, to apply common carrier type obligations to interconnected VoIP providers. These include requirements of the Communications Assistance for Law Enforcement Act (CALEA), E911, Universal Service Fund (USF) contributions, protection of Customer Proprietary Network Information (CPNI), federal regulatory fee obligations, and most recently, local number portability (LNP) rules.⁵⁹

⁵⁸ See, e.g., *AT&T Petition Against Utex; Cox California Telecom v. GlobalNAPS California*, Case 06-04-026, Opinion Granting Complainant’s Motion for Summary Judgment (Cal. PUC, Jan. 11, 2007); *Southern New England Telephone Company v. GlobalNAPS, Inc.*, Ruling on Plaintiff’s Motion for Partial Summary Judgment, Defendant’s Motion for Partial Summary Judgment, and Defendant’s Motion to Supplement Summary Judgment Record, Civil Action No. 3:04-cv-2075 (D. Conn. Mar. 26, 2007); *Global NAPS Inc. v. Verizon New England*, Memorandum of Decision, Civil Action Nos. -2-12489, 05-10079 (D. Mass., Sept. 11, 2006); *Global NAPS North Carolina, et al., v. Bellsouth Communications*, No.5:04-CV-96-BO(l), Order, (E.D.N.C., Sept. 20, 2007). See also *2005 ACS Letter*; NECA Comments, CC Docket No. 01-92 (Dec. 7, 2006), at 8; USTelecom Comments, CC Docket No. 01-92 (Dec. 7, 2006), at 2.

⁵⁹ See *Universal Service Contribution Methodology, Federal State Joint Board on Universal Service, 1998 Biennial Regulatory Review – Streamlined Contributor Reporting Requirements Associated with Administration of Telecommunications Relay Service, North American Numbering Plan, Local Number Portability, and Universal Service Support Mechanisms Telecommunications Services for Individuals with Hearing and Speech Disabilities, and the Americans with Disabilities Act of 1990, Administration of the North American Numbering Plan and North American Numbering Plan Cost Recovery Contribution Factor, and Fund Size Number Resource Optimization Telephone Number Portability Truth-in-Billing and Billing Format*, CC Docket Nos. 04-36, 06-122, 90-571, 92-237, 95-116, 96-45, 98-170, 98-171, 99-200, Report and Order and Further Notice of Proposed Rulemaking, 21 FCC Rcd 7518 (2006) (*Interim USF Order*); *Communications Assistance for Law Enforcement Act and Broadband Access Services*, ET Docket No. 04-296, RM-10865, First Report and Order and Further Notice of Proposed Rulemaking, 20 FCC Rcd 14989 (2005) (*2005 CALEA-VoIP Order*); *IP-Enabled Services, E911 Requirements for IP-Enabled Service Providers*, WC Docket Nos. 04-36 and 05-196, First Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 10245 (2005) (*VoIP E911 Order*); *Assessment and Collection of Regulatory Fees for Fiscal Year 2007*, MD No. 07-81, Report and Order and Further Notice of Proposed Rulemaking, FCC 07-140 (Aug. 6, 2007) (*2007 Regulatory Fees Order*); *Implementation of the*

The Commission’s exercise of this authority has been based on findings that interconnected VoIP service “is increasingly used to replace analog voice service”⁶⁰ and that interconnected VoIP calls are virtually indistinguishable from ordinary telephone calls from the customer’s perspective.⁶¹ In applying E911 requirements to interconnected VoIP providers,⁶² the Commission concluded “that consumers expect that VoIP services that are interconnected with the PSTN will function in some ways like a “regular telephone” service.⁶³ Accordingly, the Commission required interconnected VoIP providers to transmit all 911 calls with a call back number (CPN) and the caller’s “Registered Location.”⁶⁴

The same logic supports application of call signaling requirements to address concerns about consumers receiving incomplete or false Caller ID information on non-emergency calls and to allow accurate intercarrier billing. Extending call signaling requirements to all interconnected voice service providers recognizes that an increasing number of consumers regard interconnected VoIP services as direct substitutes for traditional common carriage voice services.

Telecommunications Act of 1996: Telecommunications Carriers’ Use of Customer Proprietary Network Information and Other Customer Information, CC Docket No. 96-115, *IP-Enabled Services*, WC Docket No. 04-36, Report and Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd 6927 (2007) (*2007 CPNI Order*); *Telephone Number Requirements for IP-Enabled Services Providers*, WC Docket No. 07-243, *Local Number Portability Porting Interval and Validation Requirements*, WC Docket No. 07-244, *IP-Enabled Services*, WC Docket No. 04-36, *Telephone Number Portability*, CC Docket No. 95-116, *CTIA Petitions for Declaratory Ruling on Wireline-Wireless Porting Issues, Final Regulatory Flexibility Analysis, Numbering Resource Optimization*, CC Docket No. 99-200, Report and Order, Declaratory Ruling, Order on Remand, and Notice of Proposed Rulemaking, FCC 07-188 (rel. Nov. 8, 2007) (*2007 LNP-VoIP Order*).

⁶⁰ *Interim USF Order* at ¶48; *2005 CALEA-VoIP Order* at ¶42; *2007 CPNI Order* at ¶56; and *2007 LNP-VoIP Order* at ¶18.

⁶¹ *2007 CPNI Order* at ¶56. See also *2007 Regulatory Fees Order* at ¶18.

⁶² *VoIP E911 Order* at ¶¶ 48, 73; see also 47 C.F.R. § 9.5(e).

⁶³ *Id.* at ¶ 23. “Thus, we believe that a service that enables a customer to do everything (or nearly everything) the customer could do using an analog telephone, and more, can at least reasonably be expected and required to route 911 calls to the appropriate destination.”

⁶⁴ “We require that, within 120 days of the effective date of this Order, an interconnected VoIP provider must transmit all 911 calls, as well as a call back number and the caller’s “Registered Location” for each call, to the PSAP, designated statewide default answering point, or appropriate local emergency authority that serves the caller’s Registered Location and that has been designated for telecommunications carriers under section 64.3001 of the Commission’s rules.” *Id.* at ¶37.

It also recognizes the interconnected nature of communications networks whereby interconnected VoIP service providers are using PSTN networks to originate, transit and/or terminate voice calls. Pending confirmation that interconnected VoIP providers are themselves offering telecommunications services,⁶⁵ the Commission should promptly issue an order extending existing call signaling requirements to all interconnected voice service providers.

C. The Commission Should Clarify the Application of Existing Call Signaling Rules for All Interconnected Service Providers

In its *2006 Pre-Paid Calling Card Services Order*,⁶⁶ the Commission clarified that pre-paid calling card service providers and their underlying carriers must transmit the number of the telephone used by the cardholder (CPN) in the SS7 signal and not replace that number with the number associated with an intermediate calling card “platform.” Pre-paid calling card providers and their underlying carriers were further prohibited from passing the telephone number associated with the calling card platform in the charge number (CN) parameter of the SS7 stream.

Similar clarification should be provided with respect to call signaling data transmitted by other types of interconnected voice service providers. Specifically, in addition to requiring all originating carriers and interconnected voice service providers to transmit the calling party number information as described above, the Commission should declare that for all calls:

- The Calling Party Number (CPN or ANI, or IP equivalent⁶⁷) shall be the (10 digit) NANP subscriber line number or directory number associated with the telephone (or similar device) used by the individual originating the call.

⁶⁵ *IP-Enabled Services*, WC Docket No. 04-36, Notice of Proposed Rulemaking, 19 FCC Rcd 4863 (2004)

⁶⁶ *2006 Pre-Paid Calling Card Services Order* at ¶¶ 33-34.

⁶⁷ *I.e.*, the originating end-user’s NANP number in the IP-equivalent parameter (e.g., SIP Request URI).

- If the service provider or carrier signals the Charge Number (CN), the CN must be the true calling party's CN.
- Consistent with the Commission's Prepaid Calling Card Services Order, all interconnected voice service providers who utilize a "platform" or gateway to manage calls may not pass the number associated with the platform or gateway in the CPN, CN (or ANI), JIP, or any other parameter.
- Intermediate carriers and/or providers shall transmit all signaling data without alteration, except as otherwise provided by Commission rules and industry standards.

Commensurately, the Commission must clarify that call signaling rules apply to all calls, regardless of jurisdiction. Whereas in the past access traffic and local traffic were transmitted separately, on access and local trunk groups respectively, today local and interexchange calls (both interstate and intrastate) are being co-mingled on both local and access trunks. This trend points to the necessity of clarifying that call signaling rules apply both to inter- and intrastate calls.

The Commission has already found that Caller ID services are jurisdictionally mixed.⁶⁸ Inasmuch as the interstate and intrastate components of call signaling services are largely inseparable, the Commission clearly has authority to apply call signaling rules to all carriers and interconnected voice service providers regardless of the technology used to provide the service and regardless of the jurisdiction of the call.

D. Absent Availability of Data Indicating the Actual Originating Point of Calls, the Commission Should Clarify that Carriers May Apply the "Telephone Numbers Rule" for Billing Purposes.

As discussed above, some carriers are experiencing difficulty arriving at reasonable ways to determine jurisdiction of voice calls for billing purposes. The use of a cell site location indicator within call signaling streams may well be the best method for determining

⁶⁸ 1995 Caller ID Order at ¶¶ 62, 64.

the applicable intercarrier compensation rate for CMRS calls where it is technically feasible for originating carriers to provide such data, and technically and economically feasible for terminating carriers to process it. This approach would be consistent with the Commission's long-standing "entry-exit surrogate" method for determining call jurisdiction.⁶⁹

In lieu of a cell site location indicator,⁷⁰ or a mutually agreed-upon traffic factor, however, NECA believes the best default method for determining the applicable intercarrier compensation rate is reliance on the "telephone numbers rule" as described in the Missoula Plan.⁷¹ Under this approach, jurisdictional determinations for CMRS calls would simply be based on the originating and terminating telephone numbers. That is, when cell site location information is not available, CMRS-to-LEC traffic would be designated as *reciprocal compensation traffic* when the calling telephone number of the wireless subscriber and the called telephone number of the wireline subscriber are associated with rate centers within the same MTA. CMRS-to-LEC traffic would be designated as *access traffic* and subject to applicable interstate or intrastate terminating access charges when the calling telephone number of the wireless subscriber and the called telephone number of the wireline subscriber are associated with rate centers located in different MTAs.⁷² Though using the telephone

⁶⁹ See, e.g., *MCI Telecommunications Corporation, Determination of Interstate and Intrastate Usage of Feature Group A and Feature Group B Access Service*, Memorandum Opinion and Order, 57 Rad. Reg. 2d (P & F) 1573 (1985); recon. denied, Memorandum Opinion and Order, 59 Rad. Reg. 2d (P & F) 631 (1985); *Determination of Interstate and Intrastate Usage of Feature Group A and Feature Group B Access Service*, CC Docket No. 85-124, Memorandum Opinion and Order, 4 FCC Rcd 8448, 8450 n.5 (1989); *Amendments of Part 69 of the Commission's Rules Relating to the Creation of Access Charge Subelements for Open Network Architecture Policy and Rules Concerning Rates for Dominant Carriers*, CC Docket Nos. 89-79 and 87-313, Report and Order and Order on Further Reconsideration and Supplemental Notice of Proposed Rulemaking, 6 FCC Rcd 4524 (1991); *Thrifty Call, Inc. Petition for Declaratory Ruling Concerning BellSouth Telecommunications, Inc. Tariff F.C.C. No. 1*, CCB/CPD File No. 01-17, Declaratory Ruling, 19 FCC Rcd 22240 (2004).

⁷⁰ Or actual customer location in the case of nomadic VoIP.

⁷¹ *Missoula Plan* at IID(3)(b).

⁷² *Id.* at IID(3)(b)(i). Consistent with the Missoula Plan, similar treatment would be applied for ILEC-to-CMRS calls. See *Missoula Plan*, section IID(3)(b)(ii).

numbers-based methodology would not give carriers the ability to identify a subscriber's exact location during the course of a call, a telephone numbers-based approach remains a good proxy in relation to the current directive. Wireless subscribers traveling and calling from an MTA different from that in which their numbers are associated should average-out geographically.⁷³

Such a ruling will also permit CMRS providers and LECs to avoid lengthy disputes regarding the appropriate intercarrier compensation rate of calls when originating cell site information does not exist or is incomplete, and will assist state commissions in resolving disputes regarding proper jurisdiction of traffic.⁷⁴

As discussed above,⁷⁵ many states and courts are struggling with issues of determining jurisdiction for wireless calls. Some states, such as South Dakota and Montana, have adopted laws requiring the transmission of signaling information to enable proper intercarrier billing of calls, but disputes continue over how to use the call signaling information to establish the applicable intercarrier compensation rate for wireless calls. Action by the FCC to establish a default mechanism could significantly help small companies in achieving reasonable resolutions of these issues and reduce controversy and uncertainty at the state level.⁷⁶

⁷³ *E.g.*, Comments of Broadview Networks, et al., CC Docket No. 01-92 (Dec. 7, 2006), at 15 (suggesting “the expense of determining the geographic location of VoIP and CMRS calls, in those instances where the number is not reflective of the actual location of the subscriber, outweighs any perceived potential harm arising from the administratively simple and inexpensive method of determining jurisdiction based upon a comparison of CPN with the called party number.” Time Warner Telecom, CBeyond, and Xspedius also expressed support for applying a numbers-based proxy for determining call jurisdiction for VoIP calls. Comments of Time Warner Telecom, et al., (Oct. 26, 2006), at 20-21. *See also* Reply Comments of AT&T, CC Docket No. 01-92 (Feb. 1, 2007), at 24. (“But telephone numbers are certainly a *reasonable* proxy for the Commission to adopt, given the absence of any feasible alternative means of resolving today’s intractable disputes about the proper regulatory classification of individual CMRS, VoIP, and VFX calls.”).

⁷⁴ *See e.g.*, *NCUC Decision, SD Decision*; and *BPS Telephone Company, et al. v. Voicestream Wireless Corporation*, Case No. TC-2002-1077, Report and Order (Miss. PSC, Feb. 6, 2005).

⁷⁵ *Supra* p.7.

⁷⁶ States are also struggling with disputes over the appropriate intercarrier compensation for calls to telephone numbers that are ported outside their original rate centers (VNXX calls). Where the actual geographic end points of calls are known, however, there would not appear to be a need to rely on the telephone numbers rule as a default mechanism.

Accordingly, NECA respectfully requests that, in addition to the actions described above, the Commission clarify that where it is not possible to provide accurate information regarding the actual origination point of a call, or where providers cannot mutually agree on verifiable traffic factors, telephone companies may use the originating and terminating telephone numbers provided in call signaling data to determine the applicable intercarrier compensation rate for billing purposes.

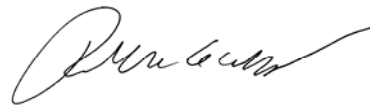
III. CONCLUSION

There is strong industry consensus and an extensive public record on the need for the Commission to extend its call signaling rules to all carriers and interconnected voice service providers and to clarify the application of these rules as described above. Such action is supported by compelling public interest concerns as well. The Commission should accordingly issue an interim order in this proceeding directing all carriers and interconnected voice service providers originating, transiting, or terminating voice traffic on the PSTN to provide and transmit accurate call signaling data for all traffic, regardless of jurisdiction and without regard to technology used to originate or transmit the call. The Commission should also clarify that calling party number data provided must be the 10-digit NANP number associated with the telephone (or similar device) of the individual end-user originating the call, not an intermediate switch, platform, or gateway. Finally, NECA requests the Commission to declare that, in the absence of data on the actual geographic origination point of calls or absent mutual agreement on verifiable traffic factors, carriers are entitled to determine the applicable intercarrier compensation rate based on the calling and called telephone

numbers for all calls. These actions, taken together, will provide a positive first step toward solving problems identified in this proceeding associated with mislabeled or unlabelled calls.

Respectfully submitted,

NATIONAL EXCHANGE
CARRIER ASSOCIATION, Inc.

A handwritten signature in black ink, appearing to read "Richard A. Askoff", written in a cursive style.

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