BellSouth D.C., Inc.
Legal Department
Suite 900
1133 21st Street, N.W.
Washington, D.C. 20036-3351

bennett.ross@bellsouth.com

Bennett L. Ross
General Counsel-D.C.

202 463 4113
Fax 202 463 4195

February 17, 2005

EX PARTE

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: *Level 3 Communications, LLC's Petition for Forbearance Under 47 U.S.C. § 160(c) and Section 1.53 of the Commission's Rules from Enforcement of Section 251(g), Rule 51.701(b)(1), and Rule 69.5(b),* WC Docket No. 03-266

Dear Ms. Dortch:

BellSouth Telecommunications, Inc. ("BellSouth") submits this ex parte to address the legal and practical impediments to granting the relief sought in this proceeding by Level 3 Communications, LLC ("Level 3"). In its petition, Level 3 requests "that the Commission forbear from enforcing its governing statute and rules" that require the payment of interstate or intrastate access charges on Internet Protocol ("IP") to Public Switched Telephone Network ("PSTN") traffic and "on certain PSTN-PSTN traffic that is incidental thereto." At the same time, Level 3 asks the Commission to declare that, if such forbearance is granted, the exchange of IP-PSTN and "incidental" PSTN-PSTN traffic "will simply occur" under Section 251(b)(5) of the Telecommunications Act of 1996 ("Act") and be subject to the payment of reciprocal compensation.[1] Level 3's request is problematic in several respects.

First, the Commission does not have the legal authority to establish new and different inter-carrier compensation rules for IP-PSTN traffic (or so-called "incidental" PSTN-PSTN traffic) under the guise of forbearance. Second, subjecting IP services to the reciprocal compensation regime under Section 251(b)(5), as Level 3 urges, would be unlawful and would jeopardize the Commission's continued authority over IP traffic. Finally, implementing the relief that Level 3 seeks would assign to the industry the exceedingly difficult task of developing and putting into operation procedures to segregate and record IP traffic separately from other interstate traffic – procedures that would still be subject to considerable arbitrage and would be rendered unnecessary if the Commission is to establish a unified inter-carrier compensation

[1] Level 3 Petition at iii & v.

regime. At the same time, the industry would be thrust into a series of legal disputes, both with respect to implementing any order granting forbearance as well as in seeking to collect unpaid access charges for IP-PSTN and incidental PSTN-PSTN traffic exchanged prior to any forbearance being granted. Because there is no legal and policy justification for such an approach, the Commission should deny Level 3's Petition.[2]

A. The Commission's Forbearance Authority Does Not Extend To Establishing A New And Different Compensation Regime For IP Services, As Requested By Level 3.

BellSouth and other parties have previously addressed the fact that Level 3's Petition does not satisfy the three requirements for regulatory forbearance under 47 U.S.C. § 160.[3] Nevertheless, even assuming Level 3 could satisfy these statutory requirements (which is not the case), Level 3 cannot lawfully obtain the relief that it seeks through a forbearance proceeding. Specifically, the Commission has no legal authority to grant Level 3's request to the extent it seeks to have the Commission maintain the pre-Act equal access and nondiscrimination requirements preserved by 47 U.S.C. § 251(g), while forbearing from continued application of the compensation regime applicable to such requirements that Section 251(g) also preserves.

As the Commission has noted, "Section 251(g) expressly preserves *all* pre-existing equal access and nondiscrimination requirements that were established 'under any court order, consent decree, or regulation, order or policy of the Commission' prior to the passage of the 1996 Act until such restrictions are explicitly superceded by the Commission."[4] The United States Court of Appeals for the D.C. Circuit has interpreted Section 251(g) "to provide simply for the 'continued enforcement' of certain pre-Act regulatory 'interconnection restrictions and obligations,' including the ones contained in the consent decree that broke up the Bell system, until they are explicitly superceded by Commission action implementing the Act."[5]

---

[2] Level 3's Petition suffers from other deficiencies not addressed in this ex parte. For example, Level 3 purports to exclude from its Petition carriers subject to the rural exemption under 47 U.S.C. § 251(f)(1), which would mean that those rural carriers, but not rural carriers whose exemption has been lifted, could assess charges for IP-PSTN traffic. However, this proposed carve-out lacks any rational basis and thus is unlawful, even assuming it could be practically implemented, which is not the case. *See* Joint Comments of the Independent Telephone & Telecommunications Alliance, National Exchange Carrier Ass'n, Inc., Organization For the Promotion And Advancement Of Small Telecommunications Companies, and United States Telecom Ass'n, WC Docket 03-266, at 5-6 (March 1, 2004). Likewise, the current access regime from which Level 3 seeks forbearance is set forth in the Commission's *CALLS Order,* which has since been implemented through tariffs. *See* Sixth Report and Order, *Access Charge Reform,* CC Docket No. 96-262, 15 FCC Rcd 12962 (2000). Since the Commission's forbearance authority is limited by 47 U.S.C. § 160(a) to regulations and statutory provisions, no lawful basis exists for the Commission to forbear from the application of current access charges mandated by Commission order or tariff.

[3] *See, e.g.,* Comments of BellSouth at 13-17; Comments of the Verizon Telephone Companies at 11-18.

[4] Memorandum Opinion and Order, *In re: AT&T Corp. v. Ameritech Corp and Qwest Communications Corp.*, 13 FCC Rcd 21438, File Nos. E-98-41, E-98-42 & E-98-43, ¶ 53 (1998) (emphasis added).

[5] *WorldComm Inc. v. FCC*, 288 F.3d 429, 432 (D.C. Cir. 2002) (quoting Conference Report explanation that "because the [Act] completely eliminates the prospective effect of the AT&T Consent Decree, some provision is

Of course, Level 3 is not seeking Commission forbearance from enforcement of Section 251(g) in its entirety. Instead, Level 3 wants the Commission to forbear only from the "receipt of compensation" language contained in a parenthetical in Section 251(g). However, the statute cannot be parsed in this manner.

The duty to provide equal access and nondiscrimination under the pre-Act regime and the right to receive compensation for fulfilling this duty are inextricably intertwined.[6] There is no authority, and Level 3 cites none, for the notion that the Commission could lawfully forbear from enforcing the switched access compensation arrangements for IP-PSTN traffic under Section 251(g) while continuing to enforce the equal access and nondiscrimination requirements for such traffic set forth in that same provision. This is particularly true when Section 251(g) specifically contemplates that any change to those requirements and arrangements would be accomplished through "*regulations prescribed by the Commission* after such date of enactment."[7] Thus, to the extent any change is to be made to the current switched access regime preserved in Section 251(g), it must be accomplished through rulemaking.[8]

B. Subjecting IP Services To Reciprocal Compensation Under 47 U.S.C. § 251(b)(5) Would Be Unlawful and Would Jeopardize The Commission's Continued Authority Over Such Interstate Services.

Even assuming the Commission had the statutory authority to forbear from the application of access charges to IP-PSTN traffic (which BellSouth submits is not the case), doing so would create a sizeable hole in the inter-carrier compensation rules applicable to such traffic. Level 3 seeks to fill this hole by insisting that "[i]f the Commission grants this petition for forbearance, traffic exchange will simply occur pursuant to Section 251(b)(5) of the Act, the Commission's implementing rules, and state-approved, and in some cases arbitrated,

---

necessary to keep these requirements in place... Accordingly the conference agreement includes a new section 251(g)").

[6] *See Competitive Telecommunications Ass'n v. FCC*, 117 F.3d 1068, 1072 (8th Cir. 1997) (interpreting Section 251(g) to require that local exchange carriers ("LECs") "continue to provide exchange access to IXCs for long-distance service, and continue to receive payment, under the pre-Act regulations and rates").

[7] 47 U.S.C. § 251(g) (emphasis added).

[8] Almost three years ago, the Commission sought comment on whether the Commission should either "adopt new rules to replace the existing section 251(g) requirements," "... state in an order that such requirements are no longer necessary ...," or "forbear from such requirements to the extent that they meeting the requirements of [47 U.S.C. § 160]." *In re: Notice of Inquiry Concerning a Review of the Equal Access and Nondiscrimination Obligations Applicable to Local Exchange Carriers,* CC Docket No. 02-39, 17 FCC Rcd 4015 (2002). However, this Notice of Inquiry was released in February 2002, three months before the D.C. Circuit issued its decision in *WorldComm v. FCC* in May 2002, in which the court of appeals assumed "without deciding that Section 251(g) authorizes the Commission to modify LEC's pre-Act 'restrictions' or 'obligations' pending full implementation of relevant sections of the Act." 288 F.3d at 433. That the D.C. Circuit appeared troubled by the notion that the Commission could lawfully alter the regime preserved in Section 251(g) through means other than the adoption of rules implementing the Act bodes poorly for any effort to change this regime through the exercise of the Commission's forbearance authority, as Level 3 has requested.

interconnection agreements."[9] In other words, under Level 3's view of the world, interstate traffic exchanged pursuant to the access charge regime administered at the federal level would suddenly be subjected to reciprocal compensation arrangements overseen by the states. Level 3's view represents an unjustified leap of faith that misreads Section 251(b)(5) and threatens the Commission's continued oversight of interstate services such as IP.

Section 251(b)(5) is one of five duties applicable to all "local exchange carriers" ("LECs"). By its terms, Section 251(b)(5) covers only traffic that originates on the facilities of one interconnecting LEC and terminates on the facilities of another LEC.[10] Thus, "reciprocal compensation" applies only to "telecommunications" exchanged between LECs (or carriers, like CMRS providers, that the Commission is authorized to treat as LECs), not to traffic that is exchanged between LECs and non-LECs.

As BellSouth has explained previously, the historical background, the legislative history, and the structure of the Act confirm that Section 251(b)(5) is limited to local telecommunications.[11] The Commission reached this precise conclusion, noting in the *Local Competition Order* that Section 251(b)(5) "is intended for a situation in which two carriers collaborate to complete a local call."[12]

The traffic at issue in this proceeding – IP to PSTN traffic – is not governed by Section 251(b)(5), which applies solely to local "telecommunications." Although the Commission has confirmed that voice over Internet protocol ("VoIP") service is interstate in nature, it has left unresolved the "statutory classification" of such traffic.[13] In any event, because Section 251(b)(5) extends only to "local exchange carriers," it would be unworkable and unlawful to

---

[9] *Level 3 Petition* at v.

[10] *See* 47 U.S.C. § 252(d)(2)(A) (providing that "the terms and conditions for reciprocal compensation" must "provide for the mutual and reciprocal recovery by each carrier of costs associated with the transport and termination on each carrier's network facilities of calls that originate on the network facilities of the other carrier," and must "determine such costs on the basis of a reasonable approximation of the additional costs of terminating such calls").

[11] *See* Ex Parte Letter from Ann D. Berkowitz, Verizon, to Marlene Dortch, Secretary, FCC, submitting on behalf of Verizon and BellSouth a white paper entitled "Internet-Bound Traffic Is Not Compensable Under Sections 251(b)(5) and 252(d)(2), Dockets 96-98 & 99-68, at 27-31 (May 17, 2004) (*"ISP White Paper"*); *see also* Supplemental White Paper On ISP Reciprocal Compensation, submitted by Kellogg, Huber, Hansen, Todd & Evans on behalf of Verizon and BellSouth, Dockets 96-98 & 99-68 (July 20, 2004).

[12] *Local Competition Order* ¶ 1034; *see also* 47 C.F.R. §§ 51.701(b)(1), 51.703(a) (1996) (requiring carriers to provide compensation only for the "transport and termination of local telecommunications traffic," defined as traffic that "originates and terminates within a local service area established by the state commission"). Although the Commission subsequently removed the term "local" from its rules, doing so does not alter the fact that the statute specifies that only local traffic exchanged between local exchange carriers is subject to Section 251(b)(5).

[13] *See* Memorandum Opinion and Order, *In re: Vonage Holdings Corp. Petition For Declaratory Ruling Concerning An Order of the Minnesota Public Utilities Comm'n,* WC Docket No. 03-211, ¶ 14, n.46 (2004) (*"Vonage Order"*).

read that provision as applying to IP traffic, which may be exchanged by an IXC or by a third party. Section 251(b)(5) cannot apply to IP traffic that is originated by an end user of an IXC or a third party that is delivered to one LEC, which then passes the traffic to a second LEC for termination, because such traffic is not originated on the network of the first LEC. Likewise, Section 251(b)(5) cannot apply to IP traffic that is originated by one LEC, passed to a second LEC, and then delivered to the end user of a third party because such traffic – although originated by one LEC – is not terminated by the second.[14]

Not only would reading Section 251(b)(5) to embrace IP traffic be legally suspect, it also would be unwise as a policy matter because attempting to shoehorn such interstate traffic into this provision could severely limit the Commission's regulatory authority over inter-carrier compensation generally and IP traffic in particular. Because state commissions establish rates for reciprocal compensation (at least as applied to incumbents) pursuant to the standards of Section 252(d)(2) and the Commission's regulations, reading Section 251(b)(5) to include IP traffic could give states substantial discretion to establish rates for traffic that the Commission has determined to be within its exclusive control. Such lack of uniformity of interstate traffic would be unwise as a policy matter and could not have been within the contemplation of Congress in adopting Section 251(b)(5).[15]

Importantly, the extent to which Section 251(b)(5) can or should be extended to apply to interstate traffic as urged by Level 3 has not yet been decided by this Commission. The issue is currently pending before the Commission in connection with ISP traffic as a result of the D.C. Circuit's decision in *WorldCom v. FCC*. The scope of Section 251(b)(5) is an important question that the Commission has yet to resolve and upon which the parties do not agree.[16]

However, Level 3's Petition presupposes that the Commission already has decided that interstate services such as IP-PSTN traffic are subject to Section 251(b)(5), which is simply not the case. That the Commission has not resolved whether Section 251(b)(5) can or should be extended to apply to interstate services is yet another reason for the Commission to deny Level 3's Petition. In essence, Level 3's request to have IP-PSTN traffic subject to reciprocal

---

[14] In claiming that access charges do not apply to IP-PSTN traffic, Level 3 argues that "the Commission's rules apply access charges only to interexchange carriers, and not to other entities such as information service providers." *See* Ex Parte Letter from John T. Nakahata, Counsel for Level 3, to Marlene Dortch, Secretary, FCC (February 11, 2005). However, this argument conveniently ignores that reciprocal compensation obligations only apply to "local exchange carriers," not other entities such as information service providers. In any event, Level 3 is certificated in BellSouth's region as both an interexchange carrier and a competing local exchange carrier; it cannot avoid its financial obligations simply by labeling itself as an "information service provider" whenever it is convenient to do so.

[15] This conclusion is further reinforced by Section 251(i), which says that nothing in Section 251 shall be construed to limit or otherwise affect the Commission's authority under Section 201. Extending Section 251(b)(5) to interstate traffic such as IP would be flatly inconsistent with that rule of construction because it would subject that traffic to reciprocal compensation at rates set by the states, not by the Commission, thereby limiting the Commission's prior authority under Section 201 – the very result that Congress barred.

[16] *Compare* Ex Parte Letter from David Lawson, Counsel for AT&T, to Marlene Dortch, Secretary, FCC, Dockets 96-98 & 99-68 (September 8, 2004) *with ISP White Paper.*

compensation under Section 251(b)(5) is tantamount to Level 3 seeking a declaratory ruling by the Commission, not forbearance.[17] Such a request is procedurally improper, and the Commission should not allow the deadline for resolving Level 3's forbearance petition drive the proper interpretation of Section 251(b)(5), particularly when doing so could undermine the Commission's ability to articulate a legally defensible theory for its ISP traffic regime.

C. Implementing The Relief That Level 3 Seeks Would Assign To The Industry An Exceedingly Difficult Task, Would Lead To Increased Arbitrage Opportunities, And Would Result In Protracted Legal Disputes.

BellSouth supports the need for a new inter-carrier compensation regime, which should correct the deficiencies of the current system while addressing the full impact of developing technologies such as IP enabled services. However, the Commission should adopt such a regime in a comprehensive rulemaking rather than on a piecemeal basis, as Level 3's forbearance petition seeks to do. If the piecemeal approach advocated by Level 3 is granted, the industry will suffer significantly by being: (1) forced to incur the time and expense to develop and put into operation procedures to segregate and record IP traffic separately from other interstate traffic, which would be difficult, if not impossible to do; (2) exposed to increased arbitrage opportunities; and (3) embroiled in protracted legal disputes.

1. Difficult implementation efforts

Level 3's Petition presupposes that IP-PSTN traffic (and "incidental" PSTN-PSTN traffic) can be segregated and recorded separately from other interstate traffic. However, this assumption is seriously flawed, as there are no mechanisms in place to do so today. Indeed, industry standards groups are only now beginning to look at technical challenges associated with identifying IP traffic. Not surprisingly, Level 3's Petition barely mentions the significant software and system changes that would be necessary to implement the relief that it seeks.

The Commission itself has recognized the difficulty in identifying IP traffic, which was an important factor in its decision to treat such traffic as interstate. In its *Vonage Order* the Commission discussed the challenges inherent in identifying where an IP communication terminates, which, according to the Commission, was "difficult or impossible to pinpoint":

> This 'impossibility' results from the inherent capability of IP-based services to enable subscribers to utilize multiple service features that access different websites or IP addresses during the same communication session and to perform different types of communications simultaneously, none of which the provider has a means to separately track or record.[18]

---

[17] *See* 47 C.F.R. § 1.2 (noting that the purpose of a declaratory ruling is to "terminat[e] a controversy or remov[e] uncertainty").

[18] *Vonage Order*, ¶ 25.

Consequently, if the Commission grants the relief sought by Level 3, the industry will be faced with what the Commission itself has fairly characterized as being nearly an "impossible" task – i.e., the ability to "separately track or record" IP traffic.

For example, for a VoIP call originated by an IP customer in Washington, D.C. that terminates on the PSTN in Atlanta, Georgia, BellSouth has no way of knowing that the call was IP originated or that the call is anything other than an interstate call for which terminating access should be paid.[19] Although Level 3 has proposed use of the Originating Line Information ("OLI") parameter from SS7 signaling to identify VoIP-originated traffic, it is unclear whether this proposal is even feasible, let alone desirable from the industry's standpoint. As SBC correctly observed, "the industry has only just begun meeting on the feasibility of using the OLI parameter for this purpose, and there is no consensus that it will work."[20]

Indeed, on February 4, 2005, the Automatic Message Accounting Technical Support Group ("AMATSG") sent a letter to the Billing Committee of the Ordering and Billing Forum ("OBF") expressing concerns about the approach proposed by Level 3. A copy of this letter is enclosed. According to AMATSG, using the OLI parameter to identify VoIP-originated traffic would be "problematic" and "deficient." Specifically, the OLI parameter is currently only present for exchange access traffic and is not utilized with respect to intraLATA or local calls. In addition, the OLI parameter is not signaled through transiting nodes in the network and thus would not be available to the terminating carrier in many instances. This problem is particularly pronounced for rural carriers which could not rely upon the OLI parameter to identify IP originated traffic that transits a Bell company's network. Finally, there are value assignment challenges associated with OLI, which, according to AMATSG, are "complicated and confusing." Thus, OLI is not the panacea that Level 3 claims it is.

While there may be other ways to identify IP-originated traffic, there is no consensus among the industry as to the appropriate method to do so. For example, AMATSG has outlined to OBF three options in addition to the OLI approach. However, regardless of which option is selected, according to AMATSG, each would: (1) "involve some type of alteration to call setup signaling in the Signaling System 7 protocol," which would necessitate "the assistance of the standards bodies responsible for standardizing the SS7 protocol"; (2) require "modifications to existing [Time Division Multiplexing] switch generic software"; and (3) require software and system changes so that any newly-generated IP indicator is "detected and processed by service provider billing systems." In short, a technical solution to identify IP-originated traffic is a long way from being a reality.

---

[19] Level 3 readily acknowledges that carriers today are "unable to identify whether traffic is IP-originated or terminated traffic ...." Ex Parte letter from John T. Nakahata, Counsel for Level 3, to Marlene Dortch, Secretary, FCC (September 24, 2004), at p.3.

[20] SBC Memorandum In Opposition to Level 3's Forbearance Petition, WC Docket 03-266, at 20 (filed February 3, 2005).

Of course, identifying IP-originated traffic is only part of the problem. In the case of a call originated on the PSTN by a BellSouth customer in Atlanta to an IP customer in Washington, D.C., BellSouth has no way of knowing that this call will eventually terminate to an IP customer or that the call is anything other than an interstate call for which originating access charges should be paid. Level 3 has not proposed any solution for solving this problem. Nor, to BellSouth's knowledge, are industry standards groups examining how to identify IP-terminated traffic, even assuming it is technically feasible to do so.

Even if the industry could develop and put into operation procedures to separately track and record both IP-originated and IP-terminated traffic, it would be a pointless exercise if the Commission intends to establish a unified inter-carrier compensation regime. Under a unified approach to inter-carrier compensation, there would be no need to treat IP traffic differently from other traffic on the network. No justification exists to require the industry to incur the time and expense of developing such procedures when they are likely to be rendered moot almost as soon as they have been implemented.

2. Increased arbitrage opportunities

As a result of the difficulty inherent in distinguishing IP-PSTN traffic, the opportunities for arbitrage will be exacerbated if the Commission were to order that such traffic should be compensated at reciprocal compensation rates instead of switched access charges. Because reciprocal compensation rates are generally lower than switched access charges, carries will have financial incentive to characterize traffic as IP-PSTN, even when that is not the case.

Other carriers have expressed concern about the arbitrage that is likely to occur if Level 3's Petition is granted.[21] Although WilTel has proposed that such arbitrage can be addressed by the Commission's prohibiting "fraudulent manipulation of call data" and requiring that carriers "certify" the nature of IP traffic, these proposed measures would be wholly insufficient. Prohibiting carriers from engaging in fraud is nothing more than a requirement to obey the law, which adds little, if any, protection from carriers that are intent on violating the law in order to promote their financial self-interest. Furthermore, audits are unlikely to afford any significant degree of protection from arbitrage because, unlike traditional interstate or intrastate traffic, the auditing carrier will not have records of its own to verify whether the call was either an IP-originated or terminated call. Thus, for example, a terminating carrier that terminates an interstate call on the PSTN that the originating carrier claims was initiated by an IP customer would be unable to prove otherwise.

3. Protracted legal disputes

Implementing any order granting Level 3's forbearance petition would create numerous headaches for the industry. The implementation problems and increased arbitrage opportunities

---

[21] *See, e.g.,* WilTel Communications Ex Parte (December 2004), at 13; Ex Parte Letter from James C. Smith, SBC, to Marlene Dortch, Secretary, FCC (February 3, 2005).

associated with the creation of a separate compensation regime for IP-PSTN traffic would be fodder for any number of legal disputes between carriers.

Indeed, the Commission has yet to define precisely what does and does not constitute an IP service. Although the Commission resolved the jurisdictional nature of IP traffic in its *Vonage Order,* the Commission has yet to adopt rules that specify the requirements that must be met in order for a particular service to qualify as an "IP service."[22] Absent such rules, the parties are likely to become embroiled in legal disputes about whether the particular IP service used to originate or terminate a particular call qualifies as "IP-PSTN" traffic that is subject to the forbearance that Level 3 is seeking.

But the headaches do not end there. Additional legal disputes are almost certain to occur given Level 3's request that the Commission "forbear from the imposition of access charges *without answering the predicate question of whether access charges apply to this traffic today.*"[23] Such an approach ignores the legal basis for the exercise of the Commission's forbearance authority -- that is a "regulation" or statutory "provision" that the Commission may decide to forbear from "applying" or "enforcing" if certain conditions are met.[24] If there is no regulation or statutory provision that applies or is being enforced, there is nothing from which to forbear and hence no Commission forbearance authority under 47 U.S.C. § 160.

In short, Level 3 cannot have it both ways. If access charges are not applicable to IP-PSTN traffic, as Level 3 insists is the case, there would be no legal basis for granting forbearance. If access charges are applicable to IP-PSTN traffic and the Commission finds that the legal requirements of 47 U.S.C. § 160 have been met, Level 3 may be relieved of having to pay such charges on a going-forward basis. However, any decision by the Commission to grant forbearance necessarily will involve the determination that IP-PSTN traffic was subject to the access charge regime at least until such forbearance was granted. This will lead to efforts by carriers to collect unpaid access charges for IP-PSTN traffic exchanged prior to any decision by the Commission to grant forbearance.

---

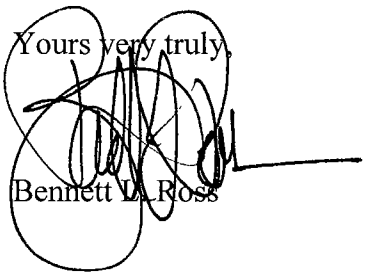
[22] *See Vonage Order,* Concurring Statement of Commissioner Michael J. Copps (advocating the need for a "clear and comprehensive framework" for IP traffic that applies to "all carriers and all services, not a stream of incremental decisions based on the needs of individual companies").

[23] Ex Parte Letter from John T. Nakahata, Counsel to Level 3, to Marlene Dortch, Secretary, FCC (January 24, 2005) (emphasis added).

[24] 47 U.S.C. § 160(a) & (b).

For the foregoing reasons, Level 3's Petition should be denied. Please include a copy of this letter in the record in the above-referenced proceeding. Thank you for your attention to this matter.

Yours very truly,



Bennett L. Ross

BLR:kjw

cc: Bryan Tramont
Christopher Libertelli
Matthew Brill
Daniel Gonzalez
Scott Bergman
Jessica Rosenworcel
Jeff Carlisle
Rob Tanner
Tamara Priess
Steve Morris
Victoria Schlesigner
Austin Schlick
John Stanley
Jeff Dygert
Chris Killion

#568688

AMATSG

AMA Technical Support Group

Date: February 4, 2005

To: Alliance for Telecommunications Industry Solutions
Ordering and Billing Forum
Billing Committee

Subject: OBF Issue 2776: Identification of VoIP-Originated Calls

Billing Committee Members:

This is an open letter to the participants in the Billing Committee of the Ordering and Billing Forum (OBF), written at the direction of the AMA Technical Support Group (AMATSG), regarding OBF Issue 2776: Identification of VoIP-Originated calls. At its last three quarterly meetings, the AMATSG has been tracking the discussions at the OBF on this issue, and the members of the AMATSG feel that now is an appropriate time to contribute the AMATSG's current thinking on this issue.

The AMATSG meets quarterly to discuss matters related to the generation of AMA in stored program control switches. Its members are the recognized AMA subject matter experts in their respective companies. Some of the companies represented at the OBF are also members of the AMATSG, and the AMATSG SMEs are regularly consulted to provide their expertise on matters related to new network capabilities and services.

1. Background

The AMATSG believes that the Billing Committee made the correct decision to accept and work the issue of identifying calls that originate in a VoIP network and ingress to the PSTN via an interface between a VoIP gateway and a traditional TDM (Time Division Multiplexing) switching system. There is no need to reiterate the potential regulatory and technical reasons for acting on this issue; these are already well documented in the OBF record.

The AMATSG members would like to address the potential technical solutions that might be available to accomplish identification of VoIP-Originated calls. We understand that there have been some proposals floated at this point, and we would like to address those proposals that we have heard about and propose some of our own. The AMATSG, like the Billing Committee, realizes that the most efficient network-based solution will involve some type of alteration to call setup signaling in the Signaling System 7 protocol. We also realize that neither of our groups can effect a change to this protocol without the assistance of the standards bodies responsible for standardizing the SS7 protocol. Therefore, the goal of this letter is to provide substantive technical input from an AMA and billing perspective to the appropriate standards bodies so that this issue is resolved in an efficient, expeditious manner.

Before going into each of the proposals, the AMATSG would like to note that each of the variations on the call setup signaling solution will likely require modifications to existing TDM switch generic software. Whatever signaling variation is chosen will require some

modification of call processing and AMA generic software in most TDM switching systems. For companies using a Link Monitoring System (LMS) to generate CDRs, the impact of a signaling solution may be considerably less involved. Finally, whether a modified CDR is generated at the switch or the LMS, the newly-generated VoIP indicator will have to be detected and processed by service provider billing systems. That said, the goal of the AMATSG is to minimize the impact of all these software changes.

2. Potential Signaling Solutions

The AMATSG client companies asked the BAF experts at Telcordia Technologies to provide a preliminary analysis of potential SS7 parameters that are already present in call setup signaling that could be used for identification of VoIP-Originated calls. The criteria specified by the AMATSG for parameter selection included the following characteristics/restrictions:

- The parameter:
    1. must be a parameter within the Initial Address Message (IAM)
    2. must be in general use
    3. must be signaled forward as part of normal call transiting
    4. must be sent end-to-end
- The value set in the parameter:
    1. must have an available value within the existing parameter
    2. must minimize interaction with or be independent of existing parameter values (stand-alone)
    3. must be transparent to networks not using the value and yet be signaled forward as part of normal call transiting.

Using these criteria as a guide, two of the parameters that had been mentioned in discussions of Issue 2776, namely the Originating Line Information (OLI) parameter and the Calling Party Number (CPN) parameter, were examined. In addition, two other parameters that the AMATSG believes may meet the above criteria were also investigated. The two additional parameters for consideration are the Forward call Indicator (FCI) and the Nature-of-Connection Indicators (NCI).

Table 1 is a summary representation of how these four parameters meet the criteria.

Table 1: Comparison of Proposed IAM Parameters

	General Use	Transiting	End-to-End	Value Available	Independent (Stand-alone)	Transparent
OLI	No	No	No	Yes	No	No
CPN	Yes	No	No	Yes	Yes	Yes
FCI	Yes	Yes	Yes	Yes	Yes	Yes
NCI	Yes	Yes	Yes	Yes	Yes	Yes

3. Points of Comparison

The following is a brief explanation of the entries in Table 1 for each parameter.

3.1 Originating Line Information (OLI) parameter

Using the Originating Line Information parameter, the AMATSG believes, will be problematic. The first difficulty with using this parameter is that it is in general use only for the Exchange Access version of the SS7 protocol (reference Telcordia GR-394-CORE). Traditional signaling used between local exchange carriers for local and short-haul toll calls does not call for the inclusion of the OLI parameter in the IAM (reference GR-317-CORE). The AMATSG believes that, if the VoIP-Originated indicator comes to be required, it will be required for both Exchange Access calls and local calls. If OLI were to be selected as the parameter, then call processing logic would be required to generate this parameter for local calls where it is not generated today.

The transiting and end-to-end characteristics for OLI are also deficient in the protocol at this time. Transiting nodes would be required to pass this parameter through to the terminating node and while it is true that the standards language states that an unused or unrecognized parameter should be signaled forward, experience has shown that this is not always the case in existing implementations.

The last characteristic that argues against using OLI to identify VoIP-Originated calls is the value assignment question. OLI is currently used to identify originating line characteristics such as cellular calls, toll-free calls, and calls made from coin/coinless stations. Adding a VoIP-Originated component to this mix does not require just one or two additional values, but requires values and/or procedures to convey on the originating end and interpret on the terminating end that VoIP technology was used, which could occur in conjunction with a line characteristic already assigned an OLI value. Therefore, a "multiplier effect" will cause values to need to be assigned representing each of many existing values in conjunction with the new need. This type of analysis and assignment is complicated. The AMATSG believes that resources can be better and more profitably spent using another parameter rather than trying to develop something that will be inherently complicated and confusing.

3.2 Calling Party Number (CPN) parameter

The AMATSG believes that the Calling Party Number (CPN) parameter could be used to convey an indication that a call has originated in a VoIP network. However, there are at least two caveats that must be considered. The first is the indicator itself. The AMATSG believes an independent and stand-alone indicator should be used to avoid interworking and compatibility issues with established values. To accomplish this in the current implementation of the SS7 protocol definition for CPN would require the spare bit in the second octet of the parameter be used to indicate VoIP-Originated. This bit is currently spare and is the only spare bit available. The fact that the only spare bit would be used to identify a VoIP call may cause some concern within the signaling standards community.

The second consideration is the industry's experience overall with signaling forward CPN from an originating network through transiting networks and on to the terminating

network. The instances where transiting and terminating networks do not receive the CPN parameter are still numerous enough to warrant caution in using this parameter for a needed piece of information. The AMATSG members believe that the industry should be wary of relying on the presence of the CPN parameter for yet another potentially significant financial and fiduciary function. The AMATSG believes that using the CPN parameter for VoIP identification is not a viable solution.

3.3 Forward Call Indicator (FCI)

The most recent industry-wide requirement for sending an indicator from the originating switch to the terminating switch was accomplished using a bit in the FCI parameter. The application was Number Portability (NP), and FCI was used to indicate that a NP query was or was not performed. This indicator was essential for network efficiency and was a critical piece of information that each network node needed to know as call setup signaling was passed through to the terminating network. The terminating network used the 'M' bit in the FCI to trigger whether or not to swap out the telephone number in the generic address parameter (GAP) with the called party number in order to terminate the call properly.

It can be argued that the VoIP-Originated indicator is the next industry-wide critical indicator that must be passed end-to-end in the network. The AMATSG members believe that the indicator for VoIP-Originated may have applications beyond the initial regulatory/accounting purpose that is now its focus. The implication to the AMATSG is that the indicator will be required beyond the point of initial interface between the VoIP network and the ingress TDM network. This means that the indicator must be available end-to-end for call setup and, like the 'M' used in NP, must also be stand-alone and not be burdened with complicated interworking scenarios. As its use for NP demonstrates, the FCI indicators are stand-alone bits, and as part of the essential information for call setup, are passed from node to node essentially unaltered.

This parameter meets all of the criteria listed in Table 1; however, the AMATSG members acknowledge that the available bits in the FCI parameter are limited. Currently, there are three bits that remain unassigned ('L', 'O', and 'P'). The 'L' bit is spare and the latter two are reserved for 'National Use'. The AMATSG recommends that the FCI parameter be considered a reasonable candidate for use as an indicator for VoIP-Originated calls.

3.4 Nature-of-Connection Indicators (NCI)

The last parameter examined by the AMATSG is the Nature-of-Connection Indicators (NCI). Like FCI, the NCI indicator meets all of the criteria listed in Table 1 in that it is in general use, is signaled forward as part of normal call transiting, and is sent end-to-end. The value could be set in the parameter by a '0' or '1' in an available bit, which would be stand-alone and would eliminate interactions with existing parameter values. NCI would be signaled forward as part of call setup, yet it would be transparent to networks not using the value. The NCI also has three unassigned bits available ('F', 'G', and 'H'). As far as the title of the parameter to be used, "Nature of Connection" is appropriate for an indication of the technology used to originate the call. The AMATSG recommends that the NCI parameter also be considered a reasonable candidate for use as an indicator for VoIP-Originated calls.

4. Conclusion

The AMATSG members, after considerable research and thought on this issue, would like to recommend that the OBF consider our arguments for using either the NCI parameter or the FCI parameter to identify VoIP-Originated calls. Conversely, we would ask that the OBF avoid any recommendation for using either the OLI parameter or the CPN parameter for this purpose.

The AMATSG hopes that the Billing Committee of the OBF will find this letter useful in focusing your discussions in the committee and invites the Billing Committee to avail itself of any and all of the information contained in this letter when interacting with the signaling standards and network interoperability groups.

Thank you for your time and attention. If you have any questions on the technical content of this letter, please contact either Sara Knapp (732) 699-6080 or Bill Krall (732) 699-6052 at Telcordia Technologies.

Carla Worland
Chair – AMA Technical Support Group
(205) 321-3171

Jackie Rymill
Vice Chair – AMA Technical Support Group
(402) 422-3767

Copy to: AMATSG Members
Tom Buhler – Qwest
Lourdes Coronado – SBC
Fran Fischbach – Qwest
Mel Kennedy – Verizon
Cindy Kontz – Verizon
Sandy Lauterbach – Verizon
Doug Mabie – Verizon
Deborah May – BellSouth
Robbie McCarty – Verizon
Bob McHugh – SBC
Linda Mudd – SBC
Jackie Rymill - Qwest
Al Todd – SBC
Dave Whitney – BellSouth
Carla Worland – BellSouth
Sara Knapp – Telcordia Technologies
Bill Krall – Telcordia Technologies
Loren Lewin – Telcordia Technologies