

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Rules and Regulations Implementing the)	CG Docket No. 02-278
Telephone Consumer Protection Act of 1991)	CC Docket No. 92-90
)	
)	

**REPLY COMMENTS OF
THE INTERNATIONAL SOFTSWITCH CONSORTIUM**

I. Introduction

The International Softswitch Consortium (“ISC”), by and through its attorneys, and pursuant to 47 C.F.R. §§ 1.415(c), 1.419 and the Notice of Proposed Rulemaking in the above-referenced dockets, FCC 02-250 (the “NPRM”), respectfully submits these Reply Comments: (1) to address the suggestion made by Verizon in its Comments that the Commission should mandate voice over Internet protocol (“VoIP”) networks to pass calling party number (“CPN”) information;¹ and (2) to provide the Commission with more detailed technical information on the development of VoIP networks and their ability to pass CPN necessary to offer Caller Identification (“Caller ID”) services.

ISC is a rapidly growing, not-for-profit organization working to advance worldwide adoption of next-generation multimedia communications via networks based on packet technologies. ISC develops open standards, interoperability, and architectures for Internet-based, real-time multimedia and voice applications. Many applications emulate circuit switching in software, hence the name, “Softswitch.”

¹ Verizon Comments at 19.

ISC's member companies, including many of the world's leading communications service providers, equipment vendors and software developers, are at the forefront of a technological and market revolution in the communications service industry.² Internal working groups of ISC members identify standards, requirements, and solution strategies for the global communications industry. For example, together with law enforcement and the Commission, the ISC Legal Intercept Working Group currently is attempting to develop a safe harbor specification for compliance with the Communications Assistance For Law Enforcement Act.³

II. VoIP Networks Generally Can Provide CPN.

ISC wishes to clarify that as a factual and technical matter, emerging VoIP networks can generally pass CPN necessary for Caller ID services. These capabilities exist both in hybrid packet/circuit-switched environments, where calls are originated and terminated by circuit-switched networks, but transported via packet networks, and in pure packet-switched networks. Attachment A to these Reply Comments explains the development of two protocols -- H.323 and Session Initiation Protocol ("SIP") -- that have facilitated the provision of voice and data in Softswitch networks and consequently have spurred packet-switched networks as an emerging alternative to circuit-switched networks. ISC member companies will continue to refine networks and equipment to see that services demanded by consumers, such as Caller ID, are provided in a Softswitch environment.

² See http://www.softswitch.org/memberlist/member_list.asp.

³ See ISC *ex parte* filings in CC Docket No. 97-213, filed May 24, 2001 and August 6, 2001.

III. Notwithstanding the Ability of Softswitch Networks to Pass CPN, the Commission Should Avoid Requiring Caller ID in VOIP Networks So As Not to Stifle a Nascent Technology.

Notwithstanding the emerging capabilities of VoIP networks to pass CPN referenced above and described in Attachment A, the Commission should reject Verizon's implication that Softswitch networks should be required to pass CPN. VoIP networks are still in their relative infancy, and it would be ill-advised to allow regulation of Caller ID to determine the architecture of packet-based networks. Instead, the Commission should permit market demand, not one subpart of its Telephone Consumer Protection Act regulations, to drive provision of Caller ID in Softswitch environments. Those consumers seeking to reduce unwanted telephone solicitation through Caller ID services will demand that their network providers offer such services. Softswitch service providers and vendors have every incentive to ensure that their networks and equipment are designed to enable Caller ID services. The Commission need not substitute its judgment for market forces where such incentives ensure that consumers' interests will be protected.

A Federal mandate to pass CPN in VoIP network environments would contradict the Commission's and Congress's deregulatory approach toward the Internet generally and toward VoIP specifically. Regulatory restraint is widely credited for the growth of the Internet and the emergence of related technologies, such as VoIP.⁴ Indeed, Congress made clear its wish to avoid regulation of the Internet in the 1996 Telecommunications Act, whose stated purpose in part is to "preserve the vibrant and competitive free market

⁴ See, e.g., generally, Jason Oxman, *The FCC and Unregulation of the Internet*, OPP Working Paper No. 31 (July, 1999).

that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation.”⁵

The Commission has consistently heeded this call in resisting regulation of the Internet. For example, the Commission declined to impose universal service contribution requirements on Internet Service Providers (“ISPs”), holding that ISPs did not qualify as telecommunications carriers from whom such contributions are required.⁶ The Commission has also not imposed access charges on ISPs, in part to “avoid[] disrupting the still-evolving information services industry.”⁷ Similarly, the Commission has not attempted to use the authority granted to it in Section 706 to impose burdensome regulation on ISPs.⁸

The Commission has followed this approach both in its rhetoric recognizing the potential value of VoIP to consumers and in its conscious decisions not to regulate VoIP offerings. For instance, in its most recent Section 706 Order, the Commission referenced VoIP services and stated that “voice over Internet protocol has received a lot of attention. . . . As the market continues to develop and these issues are resolved, we anticipate that innovative applications may drive consumer demand and subscription rates.”⁹ Similarly, in its assessment of the status of markets for video competition, the Commission noted the progress of cable companies in providing a competitive alternative to local exchange

⁵ 47 U.S.C. § 230(b)(2).

⁶ *Federal-State Joint Board on Universal Service, Report to Congress*, 13 FCC Rcd 11501, ¶ 73 (1998).

⁷ *Access Charge Reform*, 12 FCC Rcd 15892, ¶¶ 344 *et seq.* (1997).

⁸ *See, generally*, Commission orders in *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable And Timely Fashion, and Possible Steps To Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, CC Docket No. 98-146.

carriers by offering Internet Telephony.¹⁰ In its Report to Congress in 1998, the Commission declined to include revenues from Internet Telephony in its universal service funding calculation.¹¹ Indeed, Commission policy is filled with examples built around deregulation and the encouragement of new technologies,¹² and the Communications Act is infused with the goal of permitting market-oriented approaches to new technologies.¹³

Imposing a requirement that VoIP networks must pass CPN would be inconsistent with this history of regulatory restraint toward Internet-based services and Commission initiatives to encourage new technologies. Further, it would result in the counterproductive goal of regulatory policy driving the architecture of a new technology that holds substantial benefits for consumers.

III. Conclusion

WHEREFORE, ISC requests that the record in this proceeding reflect the emerging capabilities of VoIP networks to provide Caller ID services, but also asks that the Commission allow market forces to dictate when VoIP networks will pass CPN.

⁹ *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable And Timely Fashion, and Possible Steps To Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, 17 FCC Rcd 2844, ¶ 122 (2002).

¹⁰ *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, 17 FCC Rcd 1244 ¶10 (2002).

¹¹ *Streamlined Contributor Reporting Requirements Associated with Administration of Telecommunications Relay Services*, 14 FCC Rcd 16602 ¶ 21 (1999), citing *Federal-State Joint Board on Universal Service, Report to Congress*, FCC 98-67, CC Docket No. 96-45 (rel. Apr. 10, 1998).

¹² See, e.g., *Spectrum Policy Task Force Report*, ET Docket 02-135 (Nov. 2002) (citing goal of “promot[ing] technological innovation by providing a spectrum environment in which to develop new technologies”); *Spectrum Policy Statement*, Report No. ET 99-6 (released Nov. 18, 1999) (espousing principles of flexibility in services and promotion of new technologies).

¹³ See, e.g., 47 U.S.C. § 309(j)(3)(A)-(E) (goals for competitive bidding of auctioned spectrum include “development and rapid deployment of new technologies . . .”).

Respectfully submitted,

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ATTACHMENT A

Caller Identification in Internet Telephony

Internet Telephony has progressed dramatically in the last few years due to the effort of both vendors and service providers seeking to provide business and residential consumers with new services. Many of these services are a combination of the voice and data capabilities only found in a packet network, where the power of voice and data can be combined efficiently. Some services, such as Caller Identification (“Caller ID”), are designed to mirror the user experience of the traditional phone network, making Internet Telephony more attractive to consumers.

In the early years of Internet Telephony, there were a variety of methods by which the communication path was signaled and established for the service. As with much new technology, there was not always compatibility among different vendors’ products. As this technology has matured, two primary protocols by which Internet Telephony is signaled have emerged: H.323 and Session Initiation Protocol (“SIP”). These protocols have been implemented in a wide range of equipment -- from large Softswitch/gateway type products to PC-based software and consumer handsets. This focus on protocol and device compatibility has been the engine driving products and services to make possible the combination of voice and data in Internet Telephony networks.

Created by the International Telecommunication Union (ITU), the H.323 protocol is based on ITU protocol Q.931, which serves as a foundation for many of the Integrated Services Digital Network-based services in circuit-switched networks. While H.323 contains new elements in order to convey information for communication over the packet network, it shares many similar elements with Q.931 such that many of the circuit-switched signaling capabilities can be extended into the voice-over-packet infrastructure. One element common in both protocols is Calling Party Number (“CPN”), which allows the services built around Caller ID to function. Both H.323 and Q.931 allow service providers to bring Caller ID services to their business and residential consumers.

The SIP is a standard controlled by the Internet Engineering Task Force. The foundation of this protocol comes from the usability found in text-based protocols which enable the World Wide Web. While very different in its origin from H.323, the protocol has been extended in the past several years to convey many of the circuit-switched characteristics found in Q.931. Support for addressing E.164-based number identifiers for telephony devices has been a fundamental building block for the SIP telephony services. The base protocol specification for SIP, RFC 3261, supplies the basic fields and parameters by which the caller identification information is communicated. Additional data about the caller including privacy restrictions and allowances on which many Caller Identification services are based are documented in complementary specifications of RFC 3323 and 3325.

Vendors and service providers have implemented H.323 and SIP in a variety of ways in Internet Telephony networks. Today, the most prevalent usage of the standards is for transport of calls via packet networks where the traditional circuit-switched network phones originate and terminate the calls. Thus, these standards are supporting the basic telephony services required even though the usage of the packet network may be largely transparent to the end user. As new products and service offerings for Softswitch networks continue to grow, the customer premises equipment (“CPE”) will be natively interfaced to the packet network. Generally, packet CPE can be deployed as part of the voice infrastructure of the overall public telephony network and provide Caller Identification services in a manner comparable to any circuit-switched phone. With respect to pure packet based networks, consumer demand and the more flexible nature Softswitch networks likely will result in the offering of Caller ID services, given adequate planning, implementation and verification. However, the precise architecture of these networks is still being determined and tested to produce correct provision of services, including Caller ID. In addition, when constructed correctly, packet networks can actually provide superior Caller ID facilities, such as strong end-to-end authentication.

H.323 and SIP protocols not only define a foundation for new services but also provide a bridge back to existing telephony services. Caller ID information is just one aspect of the effort of packet-based network providers and vendors to offer consumers services in both pure packet based telephony environment and where circuit and packet networks are providing services to customers.