

**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, DC 20554**

tw telecom Petition for Declaratory Ruling  
Regarding Direct IP-to-IP Interconnection  
Pursuant to Section 251(C)(2) of the  
Communications Act

WC Docket No. 11-119

**OPPOSITION OF THE VOICE ON THE NET COALITION**

The Voice on the Net Coalition (“VON Coalition”)<sup>1</sup> hereby submits this opposition to the tw telecom Petition for Declaratory Ruling (“Petition”)<sup>2</sup> asking the Commission to clarify that facilities-based Voice over Internet Protocol (“VoIP”) services are telecommunications services. The Petition also requests that the Commission rule that tw telecom has the right under Section 251(C)(2) of the Act to establish direct IP-to-IP interconnection with incumbent local exchange carriers. Although the Commission has not yet addressed the regulatory classification of VoIP, federal courts have found that replacement VoIP such as Vonage’s Digital Voice service<sup>3</sup> are information services under federal law. Moreover, classification of all “fixed VoIP” services based solely on tw telecom’s service delivery model would result in significant regulatory overreach, potentially affecting IP communications in an entirely different market segment. Therefore, it is unnecessary for the FCC to address the separate issue of the interconnection

---

<sup>1</sup> The VON Coalition works to advance regulatory policies that enable Americans to take advantage of the promise and potential of IP-enabled communications. VON Coalition members are developing and delivering voice and other communications applications used over the Internet. VON Coalition members include AT&T, Broadvox, BT, Google, iBasis, Microsoft, Nextiva, Skype, T-Mobile, Vonage, and Yahoo.

<sup>2</sup> Petition for Declaratory Ruling of TW Telecom, Inc., WC Docket No. 11-119, filed June 30, 2011; Public Notice, DA 11-1198, July 15, 2011.

<sup>3</sup> Although the FCC has asserted jurisdiction over interconnected VoIP services, the FCC’s authority to regulate IP communications is not unbounded. See *Vonage Holdings Corporation Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, WC Docket No. 03-211 at paras. 4-9 (rel. Nov. 12, 2004) (describing the specific type of service over which the FCC has asserted jurisdiction).

rights tw telecom seeks. Finally, many of the issues related to refusals to interconnect have more to do with a broken intercarrier compensation system that rewards terminating carriers with above cost access charges when the transport provider converts the traffic from IP to TDM for traffic exchange. Economically rational carrier compensation reforms should reduce incentives for terminating carriers to refuse IP to IP interconnection. Thus, it is premature for the Commission to act on this particular set of issues at this time.

### **BACKGROUND**

The Petition asks that the FCC clarify the regulatory status of tw telecom’s facilities-based VoIP services, which, according to tw telecom, consist of its Direct Session Internet Protocol (“SIP”) Trunk Service and Converged Voice Services – and are packetized transmission of voice messages using Internet Protocol via a broadband connection that the customer purchases from tw telecom.<sup>4</sup> The Petition states that these services closely resemble traditional, TDM-based services, except that the VoIP services are “more efficient and flexible than TDM-based telephone services.”<sup>5</sup> The Petition further states that tw telecom does not transmit its facilities-based VoIP traffic via the public Internet but instead typically utilizes managed IP networks.<sup>6</sup> The Petition argues that these VoIP services meet the definition of a telecommunications service<sup>7</sup> because they consist of transmissions between or among points specified by the subscriber without change in the form or content of the voice signals.<sup>8</sup>

---

<sup>4</sup> Id. at 3.

<sup>5</sup> Id.

<sup>6</sup> Id. at 8.

<sup>7</sup> The term “telecommunications” means the transmission, between or among points specified by the user, of information of the user’s choosing, without change in the form or content of the information as sent and received. 47. U.S.C. § 153(43). The term “telecommunications service” means the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used. 47. U.S.C. § 153 (46).

<sup>8</sup> Petition at 10.

Further, though tw telecom recognizes that VoIP services are “more efficient, scalable, and flexible” than TDM services, it argues that the core functionality – the ability to make and receive telephone calls -- is the same.<sup>9</sup> tw telecom concedes that these VoIP calls undergo a net protocol conversion during transmission. The Commission has found that these types of offerings which include a net protocol conversion are information services.<sup>10</sup> The Petition claims, however, that net protocol conversions that are part of a network transition are not information services.<sup>11</sup>

In addition to seeking classification of facilities-based VoIP as a telecommunications service, the Petition also asks for a declaration that tw telecom has the right to direct IP-to-IP interconnection under Section 251(C)(2) of the Act for the purpose of transmitting and routing VoIP traffic. tw telecom argues that this traffic is telephone exchange services or exchange access, as those terms are defined in the Act, thus conferring upon it an interconnection right under 251(c).<sup>12</sup> The Petition suggests that IP-to-IP interconnection should be deemed technically feasible and that such interconnection is necessary to high quality end-to-end VoIP service.<sup>13</sup> This would include the duty to preserve, transmit, and accept SIP signaling and other necessary information, which larger ILECs now do for themselves.<sup>14</sup>

## **DISCUSSION**

### **I. VoIP IS AN INFORMATION SERVICE**

The underlying premise of the tw telecom Petition is simply wrong. VoIP is an information service, whether it is facilities-based or an over-the-top service that relies on the

---

<sup>9</sup> Id. at 11.

<sup>10</sup> Id. at 12.

<sup>11</sup> Id. at 13.

<sup>12</sup> Id. at 15.

<sup>13</sup> Id. at 20.

<sup>14</sup> Id. at 21-23.

public Internet. The Telecommunications Act of 1996 (“1996 Act”) creates a distinction between “telecommunications services” and “information services.” The first consists of pure transmission services offered to end users without change in form or content, and subject to common-carrier regulations.<sup>15</sup> The second, in contrast, offers the ability, for example, to store, retrieve, utilize, and/or manipulate “information.”<sup>16</sup> VoIP takes full advantage of the flexibility and efficiency of IP-based transmission by enabling the user to manipulate, generate, store, transform, and make information services available to others.<sup>17</sup>

The FCC has further explained that the statutory definitions of telecommunications service and information service do not “rest[] on the particular types of facilities used.”<sup>18</sup> Each rests instead “on the function that is made available.”<sup>19</sup> To the extent they do not fall outside of the FCC’s jurisdiction, IP-enabled services that originate or terminate in IP are intrinsically information services when traffic is exchanged between an IP network and the PSTN because the traffic must, of necessity, undergo a net protocol conversion from circuit-switched format to IP (or vice versa). The FCC has held that “both protocol conversion and protocol processing services are information services under the 1996 Act.”<sup>20</sup> tw telecom’s petition essentially asks the Commission to repudiate its long-standing net protocol conversion standard. There simply is no compelling basis to do so.<sup>21</sup>

---

<sup>15</sup> 47 U.S.C. § 153(43) (2006).

<sup>16</sup> *Id.* § 153(20).

<sup>17</sup> The 1996 Act defines an “information service” as “the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications...” *Id.*

<sup>18</sup> *In re Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facilities; Internet over Cable Declaratory Ruling; Appropriate Regulatory Treatment for Broadband Access to the Internet over Cable Facilities*, GN Docket No. 00-185; CS Docket No. 02-52, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd 4798, ¶ 35 (2002).

<sup>19</sup> *Id.*

<sup>20</sup> *In re Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended*, CC Docket No. 96-149, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 21905, ¶ 104 (1996).

<sup>21</sup> tw telecom’s argument that VoIP falls outside the scope of the Commission’s net protocol conversion test because VoIP is merely the introduction of a “new basic network technology (Petition at 13) also is unavailing. VoIP is not

In addition, the FCC has held that a service will be treated as a single, integrated information service, rather than as an information service with a separate telecommunications service component, when the telecommunications features are not “separated from the data-processing capabilities of the service” but are instead “part and parcel of the [the overall information] service and... integral to its other capabilities.”<sup>22</sup> VoIP services are integrated, IP-enabled services, providing multiple capabilities that combine information provision and processing, and computer interactivity along with voice-calling capabilities, which renders such services as single “integrated offerings.” VoIP users can “utilize multiple service features that access different websites or IP addresses during the same communication session and perform different types of communications simultaneously.”<sup>23</sup> These features and functions are inseparable from the voice application that may appear to be most similar to a telephone service. The fact that VoIP allows voice communications, and that telecommunications services also allow voice communications, does not ipso facto, render VoIP a telecommunications service.<sup>24</sup> tw telecom’s VoIP users control their information, setting up the features and functionalities of

---

simply the piecemeal upgrading of the PSTN with new technology or standards, such as the evolution of analog to digital switching. VoIP is based on a fundamentally different means of transmission, and thus allows for capabilities and features well beyond those afforded by traditional circuit-switched services.

<sup>22</sup> *Id.* ¶¶ 36, 38.

<sup>23</sup> *Vonage Preemption Order*, 19 FCC Rcd 22404, 22420 at ¶25 (2004). VoIP provides customers with integrated calling and messaging features and capabilities that allow them to manage their communications preferences and functions using their phone, computer, or television, thereby capitalizing upon the information service capabilities. In addition, VoIP makes extensive use of information stored in various electronic databases – such as the databases that associate IP addresses with 10-digit telephone numbers, permitting the “translation” of telephone numbers into IP addresses in order to route calls and the off-network SS7 databases that house the Caller ID information used to show customers who is calling them. Such ability to access, retrieve, and use the information housed in such databases constitutes the “capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications” that defines an information service under federal law. Indeed, in *National Cable & Telecomms. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967 (2005), the United States Supreme Court upheld the FCC’s conclusion that the similar use of the Domain Name System (“DNS”) database – which “matches the Web page addresses that end users type into their browsers (or ‘click’ on) with the Internet Protocol addresses of the servers containing the Web page the users wish to access” – renders the broadband Internet service that Comcast and other cable companies provide an information service. *Id.* at 987, 990-91, 998-1000 (footnote omitted).

<sup>24</sup> *Vonage Holdings Corp. v. Minn. Pub. Utils. Comm’n*, 290 F. Supp. 2d 993, 1002 (D. Minn. 2003).

the service, including call forwarding, call screening, incoming or outgoing call logs, and voice mail. These features go well beyond those available with a traditional, circuit-switched telephone service. Thus, tw telecom's VoIP offering falls squarely within the definition of an information service.

Further, multiple federal courts have found that VoIP offerings such as tw telecom's products are information services.<sup>25</sup> A federal district court in Missouri held that existing laws mandate that states must classify VoIP services similar to tw telecom's offering that perform IP to TDM conversions as information services. The Missouri District Court recognized that IP-PSTN traffic is an information service because it offers the "capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications."<sup>26</sup> The court further noted that IP-PSTN traffic "alters the form and content of the information sent and received because it involves a net protocol conversion from the digitized packets of the IP-protocol to the TDM technology used on the PSTN."<sup>27</sup>

## **II. IP-to-IP INTERCONNECTION**

The Commission at this time need not address the question of whether tw telecom has the right under Section 251(C)(2) to establish direct IP-to-IP interconnection. The regulatory classification of the "payload" application or service offering (in this case, VoIP) does not and should not affect the legal classification of the underlying IP-based networks. In our view, tw telecom is mixing up two important but separate questions.

---

<sup>25</sup> See e.g., *Vonage Holdings Corp. Southwestern Bell Telephone L.P. v. Missouri Public Service Board*, 461 F. Supp. 2d 1055, 1082-1083 (E.D. Mo. 2006) (classifying services as information services when it transforms or processes "information," even if the content is the same); *PAETEC Communications, Inc. v. CommPartners, LLC*, Civ. A. No. 08-0397(JR), 2010 WL 1767193, \*2 (D.D.C. Feb. 18, 2010).

<sup>26</sup> See *Southwestern Bell Telephone L.P. v. Missouri Public Service Board*, 461 F. Supp. 2d 1055, 1082-83 (E.D. Mo. 2006) (citing § 153(20)).

<sup>27</sup> *Id.*

That said, the Commission need not reach the IP interconnection question at this juncture. The VON Coalition expects that as broadband networks become more ubiquitous, SIP trunking becomes more prevalent, and inter-carrier compensation reform moves access charges and reciprocal compensation rates closer to zero, ILECs, cable companies, and competitive local exchange carriers, including tw telecom, will have the proper economic incentives to exchange all traffic in IP. At that point, the inefficiencies inherent in the current infrastructure of the public switched telephone network – which rewards transport providers for converting IP traffic to TDM – should have dissipated. The VON Coalition would hope that negotiated commercial arrangements rather than regulatory fiat will provide the framework for the future exchange of IP communications. If actual documented behavior suggests otherwise, the Commission can revisit the issue at that time.

## CONCLUSION

For the foregoing reasons, the VON Coalition respectfully requests that the Commission deny the tw telecom Petition for Declaratory Ruling.

Respectfully submitted,

VOICE ON THE NET COALITION

/s/

---

Glenn S. Richards  
Executive Director  
2300 N Street NW  
Washington D.C. 20037  
(202) 663-8215  
glenn.richards@pillsburylaw.com

August 15, 2011