BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

Big River Telephone Company, LLC,	)	
	)	
Complainant,	)	
	)	
v.	)	**Case No. TC-2012-0284**
	)	
Southwestern Bell Telephone Company, d/b/a AT&T Missouri,	)	
	)	
Respondent.	)	

BIG RIVER TELEPHONE COMPANY, LLC'S SUPPLEMENTAL BRIEF

COMES NOW Big River Telephone Company, LLC, by and through counsel, and for its Supplemental Brief, states as follows:

INTRODUCTION

The hearing in this matter was held on January 8 and 9, 2013. The parties filed initial post-hearing briefs on January 28, and reply briefs on February 7. On February 8, 2013, the Commission ordered the parties to file supplemental briefs. Specifically, the Commission asked the parties to provide information on how the FCC defines "net protocol conversion" and whether the traffic that Big River delivered to AT&T Missouri meets that definition.

ARGUMENT

The Commission's order stated that the parties' briefs failed to sufficiently analyze the issue of what constitutes "traffic that undergoes a net protocol change, as defined by, the FCC, between the calling and called

parties."[1] The language quoted is taken from Attachment 12, Section 13.3 of the ICA between Big River and AT&T Missouri. That section refers to Voice Over Internet Protocol ("VOIP") traffic and other enhanced services traffic collectively as "IS Traffic".[2] As pointed out in Big River's initial brief, Section 13.3 defines "enhanced traffic" in two ways.[3] The first of which is "traffic that undergoes a net protocol conversion, as defined by the FCC, between the calling and called parties."[4] Big River explained that its traffic undergoes a net protocol conversion because it originates in an IP format[5] on its network and terminates in a Time Division Multiplexed ("TDM") format on AT&T Missouri's network.[6]

Regarding an analysis of the FCC's definition of "net protocol conversion", the Commission needs to look no further than its own previous decision in Case No. TO-2005-0336 and the subsequent appeals. It was that case that resulted in the inclusion of the language of Section 13.3 in the parties' ICA which is the very language at issue in the present case.

Case No. TO-2005-0336 involved the following issues:

CLEC Coalition ITR Issue 5a: What is the proper routing, treatment, and compensation for Switched Access Traffic including, without limitation, any PSTN-IP-PSTN Traffic and IP-PSTN Traffic?

CLEC Coalition IC Issue 15a: Should reciprocal compensation arrangements apply to Information Services traffic, including IP Enabled Services Traffic?

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[1] EFIS No. 174, p. 1.
[2] EFIS No. 66, Joint Stipulation, ¶. 6.
[3] EFIS No. 168, Big River's Brief, pp. 20-21.
[4] Id.
[5] EFIS No. 66, Joint Stipulation, ¶¶ 26 and 30.
[6] EFIS No. 103, Howe Direct, p. 4, l 5-9.

CLEC Coalition IC Issue 15b: What is the proper routing, treatment, and compensation for Switched Access Traffic including, without limitation, any PSTN-IP-PSTN Traffic and IP-PSTN Traffic?[7]

CLECs involved in the arbitration, requested a clarification concerning whether IP-PSTN traffic was subject to access charges.[8] In adopting but clarifying the arbitrator's decision, the Commission distinguished PSTN-IP-PSTN traffic from IP-PSTN traffic.[9] It noted that, pursuant to the FCC's "Phone-to-Phone" Order,[10] PSTN-IP-PSTN traffic is subject to access charges.[11] On the other hand, the Commission held that IP-PSTN traffic "falls squarely within the 'net-protocol change' portion of the FCC's multi-part enhanced service definition."[12] The Commission concluded, therefore, that IP-PSTN traffic should be "charged under the reciprocal compensation regime rather than be subject to access charges."[13]

As Big River's CEO, Gerard Howe, testified, the meaning of the language in Section 13.3 has been fully litigated.[14] The federal district court reviewed and affirmed the Commission's decision in Case No. TO-2005-0336.[15]

In the SBC Decision, the federal court stated that "an 'enhanced service' was defined as 'service in which computer processing applications [were] used

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[7] Southwestern Bell Telephone, L.P., d/b/a SBC Missouri's Petition for Compulsory Arbitration of Unresolved Issues for a Successor Interconnection Agreement to the Missouri 271 Agreement, Case No. TO-2005-0336 Order, p. 34 (July 11, 2005) ("SBC Order").
[8] Id. at 34-36.
[9] Id. at 34-36.
[10] In the Matter of Petition for Declaratory Ruling that AT&T's Phone-to-Phone IP Telephony Services are Exempt from Access Charges, WC Docket No. 02-361, Order (April 21, 2004) ("Phone-to-Phone Order").
[11] SBC Order, p. 35.
[12] Id. at 36.
[13] Id.
[14] EFIS No. 104, Howe Rebuttal, p. 3, l. 8-9.
[15] See SBC v. Mo. Public Serv. Comm'n, 461 F.Supp.2d 1055 (E.D. Mo., 2006) ("SBC Decision").

to act on the content, code, protocol, and other aspects of the subscriber's information, such as voice and data storage services, as well as protocol conversion (i.e., ability to communicate between networks that employ different datatransmission formats).'"[16] "Net-protocol conversion is a determinative indicator of whether a service is an enhanced or information service."[17] "A net-protocol conversion occurs when 'an end-user [can] send information into a network in one protocol and have it exit the network in a different protocol.'"[18] "That conversion 'transforms' information, and therefore provides an 'enhanced' and an 'information' service."[19]

The court, in the SBC Decision, concluded that IP-PSTN "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."[20] The court based its conclusion on the fact that "[t]he communication originates at the caller's location in IP protocol, undergoes a net change in form and content when it is transformed at the CLEC's switch into the TDM format recognized by conventional PSTN telephones, and ends at the recipient's location in TDM."[21] The court emphasized that "[w]ithout this protocol conversion from IP to TDM, the called

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[16] Id. at 1073 (quoting National Cable & Telecommc'ns Ass'n v. Brand X Internet Servs., 125 S.Ct. 2688, 2697 (2005) ("Brand X").

[17] Id. at 1081 (citing In Re Implementation Of The Non-Accounting Safeguards Of Sections 271 And 272 Of The Communications Act Of 1934, As Amended, 1996 WL 734160, 11 F.C.C.R. 21905, ¶ 104 (1996) ("Non-Accounting Safeguards")..

[18] Id. (quoting Non-Accounting Safeguards, 11 F.C.C.R. 21905, ¶ 104 (1996)).

[19] Id. (quoting Non-Accounting Safeguards, 11 FCC Rcd 21905, ¶¶ 105-06 (1996)).

[20] Id. at 1082, (citing Brand X, at 2697).

[21] Id at 1082, (citing Vonage Holdings Corp. v. Minnesota Pub. Util. Comm'n, 290 F. Supp.2d 993, at 1000 (D. Minn.2003) ("Vonage").

party's traditional telephone could not receive the VoIP call."[22] Mr. Howe made precisely that point in his surrebuttal testimony[23] and during his testimony at the evidentiary hearing.[24]

For the above reasons, the federal court concluded that IP-PSTN traffic is an information service.[25] It further resolved that federal access charges are inapplicable to IP-PSTN traffic because such traffic is an "information service" or an "enhanced service" to which access charges do not apply.[26]

In contrast, the SBC Decision defined PSTN-IP-PSTN as a telecommunications service, citing the FCC's Phone-to-Phone Order.[27] The court explained, "'Telecommunications'" is defined as 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.'"[28] The court observed that PSTN-IP-PSTN involves no net protocol conversion because the call originates and terminates in the same format, i.e. TDM.[29] The district court's decision was affirmed by the Eighth Circuit.[30]

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[22] Id. At 1082, (citing In the Matter of IP-Enabled Services, WC Docket No. 04-36, Notice of Proposed Rulemaking, FCC No. 04-28, 2004 WL 439260, 19 F.C.C.R. 4863, ¶ 8 (F.C.C. Mar 10, 2004) ("IP Rulemaking Notice") (noting that IP transmits data "in a manner fundamentally different than the way in which signals transit a circuit-switched service").

[23] EFIS No. 105, Howe Surrebuttal, p. 6, l. 16-17.

[24] Tr. 60:10-13

[25] SBC v. Mo. Public Serv. Comm'n, 461 F.Supp.2d at 1081.

[26] Id. at 1079.

[27] Id. at 1076 (citing *Petition for Declaratory Ruling that AT & T's Phone-to-Phone IP Telephony Services are Exempt from Access Charges,* 2004 WL 856557, 19 F.C.C.R. 7457, at ¶ 3 (F.C.C. April 21, 2004) ("*AT & T Access Charge Order*").

[28] Id. at 1076 (quoting Brand X, 125 S.Ct. at 2697).

[29] Id. at 1077.

[30] Southwestern Bell Telephone v. Mo. Public Service, 530 F.3d 676 (8th Cir. 2008).

Of course, as explained in Mr. Howe's rebuttal testimony, Big River's traffic is not PSTN-IP-PSTN.[31] As agreed by the parties, the traffic that Big River delivered to AT&T Missouri over the interconnection trunks established pursuant to the parties' ICA originated with Big River telephone service customers using IP-enabled customer premises equipment.[32] Since that traffic was terminated by AT&T Missouri to its customers in a TDM format[33], a net change in protocol has taken place.

Big River was a party to the prior arbitration and subsequent litigation of the language in Section 13.3.[34] Big River's traffic originates in IP format but is converted at Big River's media gateway to TDM so that it can be delivered to AT&T Missouri's network.[35] As such, Big River's traffic is IP-PSTN. AT&T Missouri's witness, Mark Neinast, acknowledged that fact.[36] The parties also filed a stipulation to that effect.[37]

It is instructive to distinguish the FCC's Phone-to-Phone decision. There, AT&T received calls from the PSTN, routed them through a gateway where they were converted to IP format, and then transported over AT&T's Internet backbone.[38] The FCC determined that this was the only portion of a call that differed "in any technical way from a traditional circuit-switched interexchange

[31] EFIS No. 104, Howe Rebuttal, p. 13, l. 11-13.
[32] EFIS No. 66, Joint Stipulation, ¶ 26.
[33] EFIS No 105, Howe Surrebuttal, p. 6, l. 6-10.
[34] Id., p. 5, l. 8-13.
[35] EFIS No. 103, Howe Direct, p. 4, l. 1-9.
[36] EFIS No. 125, Neinast Surrebuttal, p. 2, l. 12-17.
[37] EFIS No. 66, ¶ 24.
[38] Phone-to-Phone Order, ¶ 11.

call, which AT&T would route over its circuit-switched long distance network."[39] To deliver such calls to the called parties' LEC, AT&T would convert the traffic back from the IP format.[40]

The FCC concluded that AT&T's service was a telecommunications service "because it provides '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.'"[41] AT&T's end-users did not "place or receive call any differently than they do through AT&T's traditional circuit-switched long distance service."[42] "To the extent that protocol conversions associated with AT&T's specific service take place within its network, they appear to be 'internetworking' conversions,' which are telecommunications services."[43] AT&T's service did not meet the definition of an information service because it did not involve "a net protocol conversion."[44]

The FCC's Non-Accounting Safeguards Order is also illustrative in defining "net protocol conversion."[45] There, the FCC relied upon the Common Carrier Bureau's definition of "protocol processing" and "protocol conversion."[46] Those terms were defined as follows:

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[39] Id.
[40] Id.
[41] Id. at ¶ 12 (quoting 47 U.S.C. § 153(43)).
[42] Id.
[43] Id.
[44] Id. at ¶ 13.
[45] Non-Accounting Safeguards, 11 FCC Rcd 21905 (1996).
[46] Id. at 21954.

> "Protocol" refers to the ensemble of operating disciplines and technical parameters that must be observed and agreed upon by subscribers and carriers in order to permit the exchange of information among terminals connected to a particular telecommunications network. A subscriber's digital transmission necessarily consists of two components: information-bearing symbols and protocol-related symbols.... "Protocol processing" is a generic term, which subsumes "protocol conversion" and refers to the use of computers to interpret and react to the protocol symbols as the information contained in a subscriber's message is routed to its destination. "Protocol conversion" is the specific form of protocol processing that is necessary to permit communications between disparate terminals or networks.[47]

The FCC concluded that "an end-to-end protocol conversion service that enables an end-user to send information into a network in one protocol and have it exit the network in a different protocol clearly 'transforms' user information."[48]

Accordingly, Big River's service transforms user information because it "enables an end-user to send information into a network in one protocol and have it exit the network in a different protocol." That conversion permits communication between the disparate networks of Big River and AT&T Missouri. As explained above, without it, the end-users on AT&T Missouri's traditional PSTN network could not receive calls from end-users of Big River's VOIP Network.

Bottom line, as explained by Mr. Howe in his direct testimony, all of the traffic that is sent from Big River's network to AT&T Missouri's network is converted from the IP protocol that is used on Big River's network to the Time

[47] Id. (quoting IDCMA Petition for a Declaratory Ruling That AT&T's Interspan Frame Relay Service is a Basic Service, Memorandum Opinion & Order, 10 FCC Rcd 13,717, 13,717-18 n.5 (Com. Carrier Bur. 1995).
[48] Id. at 21956

Division Multplexed protocol that is in a Pulse Code Modulation ("PCM) format which is used on AT&T Missouri's network.[49] The conversions explained by Mr. Howe in his testimony were unrefuted by either AT&T Missouri or Staff. The conversions, as explained by Mr. Howe, are made to all traffic[50] exchanged with AT&T Missouri and result in a fundamental change in the information carried across the two networks. Those conversions, or transformations, in the data exchanged between the parties are made by the digital signal processors that are embedded in Big River's media gateways[51] which serve as the interface between Big River and AT&T's networks.[52] The unrefuted evidence is clear that all of the traffic exchanged between the parties pursuant to the Interconnection Agreement undergoes significant transformation such that the information on Big River's network is different in protocol and content than the information on AT&T Missouri's network and that without the processing performed on Big River's network, parties from one network would be unable to communicate with parties on the other network.

CONCLUSION

Based on the foregoing, Big River respectfully requests that the Commission find that the traffic Big River delivers to AT&T Missouri is IP-PSTN traffic and, therefore, not subject to access charges.

[49] EFIS No. 103, Howe Direct Testimony, p. 4, l. 2-9.
[50] Id., p. 5, l. 13.
[51] Id., p. 5, l. 14 – 16.
[52] Id., p. 4, l. 1-5.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing document were served to the below-referenced parties by e-mail on February 20, 2013.

s/Brian C. Howe

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