

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

The Application of Competitive Carriers of the)
South, Inc. for a Declaratory Order Affirming that)
The Interconnection Regimes under KRS 278.530) Case No. 2015-00283
and 47 U.S.C. § 251 are Technology Neutral)

DIRECT TESTIMONY

OF

PAUL B. VASINGTON

ON BEHALF OF VERIZON ACCESS

OCTOBER 26, 2016

Q. PLEASE STATE YOUR NAME, TITLE AND ADDRESS.

A. My name is Paul B. Vasington and my business address is 125 High Street, Oliver Tower, 7th Floor, Boston, MA 02110. I am a Director – State Public Policy for Verizon.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I received a Bachelor of Arts degree in Political Science from Boston College and a Master's degree in Public Policy from Harvard University, Kennedy School of Government.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL BACKGROUND.

A. I joined the Verizon companies in 2005 in my current position. From September 2003 to February 2005, I was a Vice President at Analysis Group, Inc. Prior to that, from May 2002 to August 2003, I was Chairman of the Massachusetts Department of Telecommunications and Energy ("MDTE"). I also served as a Commissioner at the MDTE from March 1998 to May 2002. From August 1996 to March 1998, I was a Senior Analyst at National Economic Research Associates, Inc. Before that, I served in the Telecommunications Division of the Massachusetts Department of Public Utilities, first as a staff analyst from May 1991 to December 1992 and then as division director from December 1992 to July 1996.

Q. WAS YOUR TESTIMONY PREPARED BY YOU OR UNDER YOUR DIRECT SUPERVISION?

A. Yes.

Q. WHAT VERIZON ENTITY ARE YOU REPRESENTING IN THIS PROCEEDING?

A. I am testifying on behalf of MCImetro Access Transmission Services LLC d/b/a Verizon Access Transmission Services (“Verizon Access”), which is Verizon’s competitive local exchange carrier (“CLEC”) operating unit in Kentucky.

Q. WHAT IS THE SCOPE OF YOUR TESTIMONY?

A. My testimony responds to the Testimony of Joseph Gillan that was filed on behalf of Competitive Carriers of the South, Inc. (“CompSouth”). In essence, CompSouth asks the Commission to find that interconnection agreements for the exchange of voice traffic in Internet Protocol (“IP VoIP”) are subject to Sections 251 and 252 of the federal Telecommunications Act and Section 278.530 of the Kentucky Revised Statutes, and that CLECs may request the Commission to arbitrate terms for the exchange of IP VoIP traffic.

Q. DOES YOUR TESTIMONY TOUCH ON WHETHER THE COMMISSION HAS JURISDICTION TO ADDRESS COMPSOUTH’S APPLICATION?

A. I briefly discuss factual matters that may bear on jurisdiction, but do not speak to the legal issues that have been raised. Those issues are addressed in the Response of BellSouth Communications, LLC to Application of Competitive Carriers of the South, Inc., for a Declaratory Order.

I. BACKGROUND

Q. WHAT IS VOICE OVER INTERNET PROTOCOL, OR VOIP?

A. VoIP is an innovative, any-distance, multi-function service that enables real-time, two-way voice communications originating from or terminating to an end user in Internet Protocol format. VoIP also uses a broadband connection at the end user’s location. “Internet

Protocol” or “IP” refers to a set of standards that permit computers and networks to connect, communicate, and transfer data between them. IP networks transmit information in packets of data. “Voice over Internet Protocol” or “VoIP” encodes an analog voice signal into data packets and enables the set-up and transmission of voice calls over IP networks such as the Internet and private IP networks. Unlike the traditional telephone network, an IP network does not need a dedicated physical pathway to carry a call all the way from the caller to the called party. In contrast, Time Division Multiplexing, or TDM, is the traditional protocol in which telephone calls are transmitted between service providers in a circuit-switched network like the Public Switched Telephone Network (“PSTN”). In order to deliver a call to its destination, a circuit-switched network has to create a dedicated pathway that covers the entire distance from the calling party to the called party and must maintain that pathway for the duration of the call.

Q. WHAT DO YOU MEAN BY IP VOIP?

A. By IP VoIP, I mean VoIP traffic exchanged between carriers in IP format. The alternative is for one of the carriers to convert the VoIP traffic to TDM, which is necessary when a VoIP customer calls a customer with traditional TDM service. Two such conversions (from IP to TDM and back again) are necessary for VoIP-to-VoIP traffic when the carriers have not arranged for IP VoIP interconnection.

Q. CAN VOIP CALLS BE COMPLETED WITHOUT IP VOIP INTERCONNECTION?

A. Yes. Historically, because the PSTN is circuit-switched, companies interconnected and exchanged traffic with one another in TDM format. As just discussed, when one party to a call has VoIP service and the other has traditional, TDM service, the companies exchange

the call through those existing PSTN interconnection arrangements in TDM format. If the call originates from the VoIP customer, it is converted to TDM before the exchange; if the call originates from the TDM customer, it is converted to IP after the exchange. If a call is made by a VoIP customer to another VoIP customer, the call still can be exchanged in TDM, with protocol conversions before and after the traffic is exchanged. These protocol conversions are commonplace in the industry.

Q. WHAT ADVICE HAS STAFF PROVIDED CONCERNING IP VOIP?

A. In 2013, Staff advised that KRS 278.530 is “technology neutral,” but only applies where interconnection does not already exist and does not provide a procedure or standard that must be applied to determine interconnection terms.¹ With respect to 47 U.S.C. §§ 251 and 252, Staff concluded that a carrier may seek interconnection regardless of the underlying technology, but that whether IP VoIP interconnection would be required in a particular case would depend on the factual circumstances.² Staff noted that the Federal Communications Commission (“FCC”) has an ongoing proceeding to address IP VoIP and could preempt Commission action.³

Q. WHY HAVE THREE CARRIERS, THROUGH COMPSOUTH, REQUESTED A DECLARATORY ORDER RATHER THAN FILING THEIR OWN SECTION 252 ARBITRATION PETITIONS?

A. That is not clear. As AT&T has noted, it already has interconnection agreements with those three members – Birch Communications, Inc.; Level 3 Communications, LLC and

¹ PSC Staff Opinion 2013-015, at 4 (Oct. 24, 2013), attached hereto as Exhibit 1.

² *Id.* at 5.

³ *Id.*

Windstream Communications, Inc.⁴ None of those members have asked AT&T for IP VoIP interconnection,⁵ so there does not appear to be an immediate problem that needs to be resolved by the Commission.

Q. DO THESE COMPSOUTH MEMBERS HAVE OTHER IP VOIP AGREEMENTS?

A.

See CompSouth

Responses to Verizon Data Requests VZ 1-1, 1-2.

Q. DO THE OPERATING COMPANIES OF THOSE COMPSOUTH MEMBERS HAVE TRADITIONAL TDM CUSTOMERS?

A.

⁴ Response of BellSouth Communications, LLC to Application of Competitive Carriers of the South, Inc., for a Declaratory Order, at 3 (Oct. 12, 2015), attached hereto as Exhibit 2

⁵ *Id.*

II. THE COMMISSION SHOULD NOT GRANT THE REQUESTED RELIEF

Q. WHAT IS VERIZON'S POSITION IN THIS CASE?

A. The Commission should not grant the relief CompSouth requests, for several reasons. First, the IP VoIP issue is before the FCC in a pending docket. Second, as a matter of policy, IP VoIP interconnection should be handled through commercial agreements rather than regulatory proceedings. Third, subjecting IP VoIP interconnection to Section 252 arbitrations in multiple states would be harmful, in part because carriers would be subject to potentially conflicting rulings. Fourth, the relief CompSouth requests would conflict with applicable law. I will address the first three points in my testimony. The fourth point will be addressed in Verizon Access' brief.

Q. IS THE IP VOIP ISSUE CURRENTLY BEFORE THE FCC?

A. Yes. The FCC announced in 2011 that it expected all providers to negotiate IP VoIP interconnection in good faith while it considered whether any provision of the federal Communications Act requires IP VoIP interconnection, or whether the Act instead is best interpreted to continue to "leave IP-to-IP interconnection to unregulated commercial agreements."⁶ Just last year, the FCC twice re-affirmed that the issue is squarely before it. In a brief to the DC Circuit Court of Appeals, the FCC stated: "It is unsettled whether VoIP providers themselves have a right to interconnection under Section 251 of the Communications Act."⁷ In June 2015, the FCC "decline[d] to mandate [IP VoIP

⁶ *ICC Reform Order* at ¶¶ 1011, 1341, 1343, attached hereto as Exhibit 3

⁷ FCC Brief for Respondents, *AT&T v. FCC*, Case No. 15-1059 (DC Cir Oct. 5, 2015), attached hereto as Exhibit 4.

interconnection] arrangements, as the Commission is currently considering the appropriate policy framework for VoIP interconnection in pending proceedings.” See Report and Order, In the Matter of Numbering Policies for Modern Communications, 30 FCC Rcd. 6839, 6863 ¶ 50 (2015).

CompSouth’s petition amounts to a request for this Commission to override the FCC. Apart from the questionable legality of such a ruling, a Commission requirement that IP VoIP agreements be subject to arbitration could harm VoIP providers. For example, if the FCC subsequently rules that IP VoIP interconnection agreements are not subject to Section 252 and should be addressed through commercial agreements, the Commission may have harmed VoIP providers by publishing their confidential agreements; chilling negotiations for additional IP VoIP interconnection negotiations; and potentially wasting resources if parties requested, and were permitted to proceed with, Section 252 arbitrations for IP VoIP interconnection agreements.

Q. HAS VERIZON COMPLIED WITH THE FCC’S DIRECTIVE TO NEGOTIATE IN GOOD FAITH?

A. Yes. Verizon complied with the FCC’s directive by negotiating 11 commercial agreements between its incumbent local exchange carrier (“ILEC”) business units other providers and by remaining open and willing to negotiate commercial agreements with any interested entity.

In 2012, Verizon and Comcast entered into a commercial agreement for the exchange of VoIP traffic. The parties spent about a year negotiating detailed technical issues. Building off of the lessons learned implementing that agreement, Verizon began sending letters to providers that it thought might be interested in IP VoIP interconnection

in June 2013. By 2014, Verizon had completed a commercial agreement with Vonage, which touted its "groundbreaking IP interconnection agreement" with Verizon as one that "will allow both Verizon and Vonage customers to enjoy the quality of service and cost benefits that come from the IP exchange of traffic, including the potential to offer subscribers services that rely on end-to-end IP networks."⁸ In addition to Comcast and Vonage, Verizon has since reached commercial agreements with other companies of differing sizes and types, such as Bandwidth.com, Millicorp, Intermetro, Broadvox, BrightLink, Sprint, and 365 Wireless.

Q. MR. GILLAN NOTES THAT SOME OF VERIZON'S IP VOIP INTERCONNECTION AGREEMENTS HAVE NOT YET BEEN IMPLEMENTED. IS THAT SIGNIFICANT?

A. No. The key point is that Verizon has affirmatively sought to enter into commercial agreements for IP VoIP interconnection, is willing to negotiate and execute such agreements, and is prepared to implement those agreements as requested by the counterparties. When the counterparties choose to implement the commercial agreements is under their control and says nothing about whether it is consistent with law, necessary or appropriate to subject commercial agreements to the requirements of Sections 251 and 252 of the federal act. What the number of agreements demonstrates is that Verizon has business incentives to pursue IP interconnection for VoIP traffic, and that its actions confirm those incentives. It makes business sense for Verizon to pursue these arrangements because it is more efficient, especially for voice traffic that is IP on both ends and does not require a protocol conversion for end users to communicate.

⁸ Comments of Vonage Holdings Corp., Numbering Policies for Modern Communications, WC Docket 13-97; et al., at 2-3 (FCC Mar. 4, 2014), attached hereto as Exhibit 5.

Q. AS A MATTER OF POLICY ARE COMMERCIAL AGREEMENTS PREFERABLE TO AGREEMENTS REACHED UNDER SECTIONS 251 AND 252?

A. Yes. Negotiated commercial agreements are the most effective way to ensure efficient interconnection arrangements for VoIP traffic. They allow providers to negotiate network configurations that best accommodate their underlying networks. And both parties to IP VoIP interconnection arrangements obtain enormous efficiencies and can provide significant benefits to their consumers. It is more efficient for two VoIP providers to exchange traffic in IP format because it allows the providers to exchange traffic at a small number of mutually agreed upon points of interconnection for the entire country.

However, IP interconnection is not always more efficient for all traffic. For traffic between two IP end points that is exchanged over a legacy TDM interconnection arrangement, IP interconnection can be more efficient by eliminating the two IP/TDM conversions that occur today. However, for traffic between an IP end point and a TDM end point, there is no way to avoid a conversion from one protocol to the other to complete a call. For this traffic, IP interconnection will not eliminate the necessary IP/TDM conversions. In order to best capture the efficiencies of IP interconnection, service providers need to coordinate the migration of traffic from TDM interconnection to IP interconnection with the conversion of legacy TDM end user services to IP end user services. Such coordination can best be accomplished through individual commercial negotiations.

Q. WOULD IT BE HARMFUL TO SUBJECT IP VOIP TO SECTION 252 ARBITRATION?

A. Yes. It would be bad policy to try to fit the interconnection of new technologies into the legal framework that was developed for a different time, different market, and different technologies. That framework would not make sense for the technical characteristics of IP VoIP interconnection.

Q. PLEASE EXPLAIN WHY THAT IS THE CASE.

A. There are significant differences between interconnection of circuit-switched networks and interconnection of IP networks. For example, the FCC's legacy TDM interconnection rules require interconnection at one point per LATA. However, with just a single IP interconnection arrangement and as few as two geographically diverse interconnection points, VoIP service providers can exchange all domestic traffic between their respective customers across the country. There is no need for separate interconnection arrangements within LATAs or intermediate carriers for traffic between LATAs.

Consider what would happen if AT&T were to establish a VoIP interconnection point in Atlanta to handle traffic throughout the South, and each state where AT&T is an ILEC were to arbitrate interconnection agreements dealing with VoIP traffic exchange at an interconnection point in that state. CLECs might request additional interconnection points in other states, or might request varying IP VoIP interconnection terms that would impose inconsistent obligations. It is hard to imagine that every AT&T ILEC state would reach the same conclusions in separate arbitrations, so that multiple interconnection points could be required or a given interconnection point could be subject to many different technical and pricing requirements. At a minimum, such inconsistent rulings would create

inefficiencies and undue costs, and at worst they could prove unworkable. Even with nearly two decades of experience applying § 251(c)(2) and the FCC' s rules to TDM interconnection, state commissions continue to reach different results when arbitrating disputes about the terms of interconnection agreements. The concept of a local exchange carrier selling wholesale interconnection services within local exchange areas does not fit at all with the IP interconnection model.

Q. YOU STATED EARLIER THAT THE SECTIONS 251 AND 252 INTERCONNECTION REQUIREMENTS WERE DEVELOPED FOR A DIFFERENT TIME AND DIFFERENT MARKET. PLEASE EXPLAIN WHAT YOU MEAN.

A. The Section 252 process for creating interconnection agreements was enacted twenty years ago for a communications market that looked very different than today's robustly competitive and intermodal market. In 1996, ILECs offering PSTN service were the predominant providers of local telephone service; CLECs were brand new entrants; cable telephony and VoIP did not exist; wireless service was still in its infancy; and a host of new IP-based communications options – such as Twitter, Snapchat, and Facebook – were still over the horizon. Today, ILECs are just one of many players in the communications marketplace, with no special historical advantages in the provision of VoIP services. Indeed, the latest FCC Voice Telephone Services Report shows that ILECs served only 18 percent of the total interconnected VoIP subscribers in Kentucky.⁹

Q. DOES THIS CONCLUDE YOUR INITIAL TESTIMONY?

A. Yes

⁹ <https://www.fcc.gov/wireline-competition/voice-telephone-services-report>