D.T.C 13-6
Exhibit:
Date:
H.O.: M. Scott

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND CABLE

Investigation by the Department on its Own Motion to Determine whether an Agreement entered into by Verizon New England Inc., d/b/a Verizon Massachusetts is an Interconnection Agreement under 47 U.S.C. § 251 Requiring the Agreement to be filed with the Department for Approval in Accordance with 47 U.S.C. § 252	)	DTC Docket No. 13-6

DIRECT TESTIMONY OF JAMES R. BURT

ON BEHALF OF

Sprint Communications Company L.P.
Sprint Spectrum L.P.
Virgin Mobile USA, L.P.

January 15, 2014

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is James R. Burt. My business address is 6450 Sprint Parkway, Overland Park, Kansas 66251.

Q. On whose behalf are you testifying?

A. I am testifying in this proceeding on behalf of Sprint Spectrum L.P., Sprint Communications Company L.P., Nextel Communications of the Mid-Atlantic, Inc., and Virgin Mobile USA, Inc. (collectively "Sprint"). These companies are subsidiaries of Sprint Corporation ("Sprint Corp."). Sprint provides wireless and wireline services in Massachusetts, as well as throughout the United States.

Q. By who are you employed?

A. I am employed by the Sprint Corp. management subsidiary, Sprint United Management Company ("Sprint United").

Q. What is your position with Sprint United?

A. I am Director – Policy, a position I have held since February of 2001.

Q. Please summarize your educational and professional background.

A. I received a Bachelor of Science degree in Electronics Engineering Technology from the University of South Dakota – Springfield in 1980 and a Masters in Business Administration with an emphasis in Finance from Rockhurst College in 1989.

I am responsible for developing state and federal regulatory policy and legislative policy for Sprint Corp., including the coordination of regulatory and legislative policies across the various Sprint Corp. business units, and the advocacy of such policies before regulatory and legislative bodies. In addition, I interpret various orders, rules, or laws for implementation by Sprint Corp.

From 1997 to February of 2001, I was Director-Local Market Planning. I was responsible for policy and regulatory position development and advocacy from a Competitive Local Exchange Carriers ("CLEC") perspective. In addition, I supported Interconnection Agreement ("ICA") negotiations and had responsibility for various other regulatory issues pertaining to Sprint Corp.'s CLEC efforts, which were implemented through Sprint Corp.'s wireline subsidiary, Sprint Communication Company L.P. ("SCCLP").

From 1996 to 1997, I was Local Market Director responsible for SCCLP's CLEC Interconnection Agreement negotiations with BellSouth.

I was Director – Carrier Markets for Sprint Corp.'s former Local Telecom Division ("LTD") from 1994 to 1996. My responsibilities included inter-exchange carrier account management and management of one of LTD's Interexchange Carrier Service Center.

From 1991 to 1994, I was General Manager of United Telephone Long Distance, a long distance subsidiary of the former Sprint/United Telephone Company. I had profit and loss, marketing and operations responsibilities.

From 1989 to 1991, I held the position of Network Sales Manager responsible for sales of business data and network solutions within LTD.

From 1988 to 1989, I functioned as the Product Manager for data and network services also for LTD.

Prior to Sprint Corp. I worked for Ericsson Inc. for eight years with positions in both engineering and marketing.

Q. Have you testified before any regulatory commissions?

A. Yes. I have testified in Arkansas, Florida, Georgia, Illinois, Indiana, Iowa, Louisiana, Maryland, Michigan, Missouri, Nebraska, Nevada, New Mexico, North Carolina, Ohio, Oklahoma, Pennsylvania, South Dakota, Texas and Wisconsin and have supported the development of testimony in many other states.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to discuss Sprint's view of the issues surrounding the fact that Verizon has entered into an IP interconnection agreement with Comcast. These issues include:

- Relevant background information,
- The regulatory status of IP interconnection,
- The importance of the equal quality and nondiscrimination standard being applied to traffic exchange agreements without regard to traffic format, and
- The relevance of the regulatory classification of retail services on interconnection.

II. BACKGROUND

Q. What is the significance of the Department of Telecommunications and Cable's ("Department") decision to determine whether the IP interconnection agreement between Verizon New England Inc. d/b/a Verizon Massachusetts ("Verizon MA") and Comcast is an interconnection agreement pursuant to Section 251 of the Telecommunications Act of 1996 ("the Act")?

A. The decision by the Department to investigate the IP agreement between Verizon MA and Comcast is important to ensuring competitive voice service providers have access to

interconnection consistent with the safeguards intended by Congress when it passed the Act. As I will discuss in more detail later in my testimony, these safeguards are intended to ensure that all competitive providers are afforded competitively neutral interconnection. Section 252 has given primary authority over this issue to state commissions. Sprint applauds the Department for fulfilling its responsibilities to ensure fair competition in Massachusetts by investigating the Verizon MA/Comcast IP interconnection agreement.

Q. Please define interconnection.

A. The formal definition of interconnection states that: "Interconnection is the linking of two networks for the mutual exchange of traffic. This term does not include the transport and termination of traffic."[1]

Q. What is the significance of interconnection with respect to the voice communications market?

A. Of all the obligations found in Section 251(c) of the Act, interconnection is the one most essential to ensuring the continued survival and viability of a competitive voice service provider like Sprint. Competitive providers are hampered without fair resale, unbundling, collocation, good faith negotiations, and other rights, but they may still survive, albeit with higher costs and therefore higher service prices. However, if a competitive provider's customers cannot even talk to a customer of the incumbent because the competitor's network is not connected to the incumbent's the value of its

[1] 47 C. F. R. § 51.5.

service is diminished to the point where customers will not choose the competitor's service at any price.

Q. Describe the interconnection rights and obligations of the different types of carriers.

A. Section 251 of the Act established a three-tiered system of obligations with each subsequent tier applying additional obligations on a narrowing class of carriers. The first tier includes all telecommunications carriers, the second tier includes all local exchange carriers ("LEC"), and the final tier includes only incumbent local exchange carriers. Section 251(a) applies to all telecommunications carriers, 251(b) applies to all local exchange carriers and 251(c) applies to incumbent local exchange carriers ("ILEC"). ILECs have market power with respect to interconnection and they have both the motivation and ability to exercise this market power over competitors attempting to enter their markets. In an attempt to offset the ILECs' market power and encourage competition, Congress placed more obligations on ILECs than it did on any other type of carrier. While all carriers have an obligation to interconnect, pursuant to Section 251(c) ILECs have the additional obligation to interconnect at any technically feasible point within the carrier's network, equal in quality to that provided by the ILEC to itself, any subsidiary, affiliate or any other party and on rates, terms and conditions that are just, reasonable, and nondiscriminatory.

Q. Is the definition of interconnection intentionally broad?

A. Yes. In my opinion, the definition is intentionally broad so that it can withstand the test of time and the changes that occur within the communications industry. Technology can change at a pace too fast for regulatory policy and rules to keep up. Therefore, definitions for very basic functions such as interconnection are intentionally broad to accommodate market developments such as the Time Division Multiplex ("TDM") to Internet protocol ("IP") change that is taking place. In addition, the fundamental function of interconnecting networks does not change just because a new technology is being used. To be clear, the linking of networks for the exchange of traffic is interconnection regardless of the technology used to facilitate the interconnection.

III. THE REGULATORY STATUS OF IP INTERCONNECTION

Q. Describe IP interconnection.

A. IP interconnection is interconnection as defined in 47 C. F. R. § 51.5. It is the linking of two networks for the mutual exchange of traffic. The protocol used for the exchange of traffic is the IP as opposed to TDM protocol. The function being performed is the same, the exchange of traffic. The only difference is the technology being used.

Q. Does Sprint believe IP interconnection is subject to Sections 251 and 252 of the Telecom Act?

A. Yes. The Act went into effect in 1996, nearly 18 years ago. Put most simply, it was written by Congress for the purpose of enabling competition among voice service

providers because such competition was and remains in the public interest. Section 251 of the Act defined the rights and obligations of all carriers generally in Section 251(a), LECs in Section 251(b) and incumbent local exchange carriers ("ILECs") in Section 251(c). These rights and obligations were not intended to be specific to any particular technology because, had they been, the Act could have been rendered obsolete as the result of a single technological innovation. Given the decades of technological advancements within the communications industry, the reasonable conclusion is that the Act was written to accommodate technological changes or evolution because the intent and purpose of the Act – encouraging competition – does not depend upon or change based on the technology being used to enable voice communications to occur. The intent of the Act is still valid and relevant so it is logical to apply the requirements of the Act to the technology that is in use today. In fact, one can argue that since the intent of the Act is to foster voice competition and IP technology enables competitors to compete, then it stands to reason that the Act applies to IP technology. The IP technology "loophole" Verizon MA and other incumbents are trying to create does not hold water.

Q. Is there language in the Act that supports your technology agnostic argument?

A. Yes. The Act uses the term "technically feasible" in Section 251(c)(2)(B) with respect to points of interconnection and in Section 251(c)(3) with respect to access to unbundled elements. The technically feasible standard is used because the law itself is not intended to deal with the details of the technology, but rather to set the standard by which

incumbent local exchange carriers are to be held. The Act is intentionally and appropriately technology agnostic.

Q. The act required the Federal Communications Commission ("FCC") FCC to establish rules necessary to implement Section 251 of the Act. Are the FCC's rules consistent with the technology agnostic foundation provided by the Act?

A. Yes. The ILEC interconnection obligations of Section 251(c) resulted in rules developed by the FCC in 47 CFR §§ 51.301, 51.303 and 51.305, the heart of which are included in § 51.305. The same "technically feasible" standard is reflected within the FCC's rules. The FCC rules are not limited to any particular technology. In fact, there are two instances within the rules that contemplate other technologies. The first is in 47 CFR § 51.305(a)(2). It states the following:

> § 51.305 Interconnection.
>
> (a) An incumbent LEC shall provide, for the facilities and equipment of any requesting telecommunications carrier, interconnection with the incumbent LEC's network:
> (1) For the transmission and routing of telephone exchange traffic, exchange access traffic, or both;
> (2) At any technically feasible point within the incumbent LEC's network including, at a minimum:
> (i) The line-side of a local switch;
> (ii) The trunk-side of a local switch;
> (iii) The trunk interconnection points for a tandem switch;
> (iv) Central office cross-connect points;
> (v) Out-of-band signaling transfer points necessary to exchange traffic at these points and access call-related databases; and
> (vi) The points of access to unbundled network elements as described in § 51.319; (emphasis added)

I have underlined the phrase "at a minimum." While the FCC identified particular points on the ILEC's network that were considered technically feasible for interconnection at that time, the FCC clearly took into account the fact that networks can change, so there may be additional points of interconnection that would be technically feasible should a technological change occur, e.g. IP interconnection.

The second instance that shows the FCC's rules are intended to be technology agnostic and designed to accommodate changes in technology is in 47 CFR § 51.305(c). The rule states:

> § 51.305 Interconnection.
>
> (c) Previous successful interconnection at a particular point in a network, using particular facilities, constitutes substantial evidence that interconnection is technically feasible at that point, or at substantially similar points, in networks employing substantially similar facilities. Adherence to the same interface or protocol standards shall constitute evidence of the substantial similarity of network facilities. (emphasis added).

This rule means that if an ILEC has interconnected in a particular manner, then it is considered a technically feasible form of interconnection. The phrase I have underlined "Adherence to the same interface or protocol standards" illustrates that the FCC recognized that there could be multiple protocol standards that are technically feasible. This supports my previous statement that the Act and the FCC's rules are written to support the evolution of network technology. More significantly, Verizon MA has admitted to interconnecting with another carrier using IP, therefore, Section 51.305 dictates that it is technically feasible to interconnect with all carriers in IP.

Q. Is there anything in the Act or the FCC's rules governing interconnection with an ILEC that suggests it is limited to TDM interconnection?

A. No. I have shown how the Act and the FCC's rules support Sprint's position that Section 251/252 interconnection is technology agnostic. So to argue that the Act specifically does not apply to IP interconnection, one would have to find a definitive statement in the Act or the rules. In fact, if the FCC had intended to limit its rules to TDM technology, it could have done so. However, lacking a statement limiting the rules to TDM technology and/or a specific statement denying IP interconnection, the more logical, reasonable and consistent interpretation is to conclude IP interconnection is included, rather than excluded. I used the term "loophole" before because I think it is exactly what Verizon MA and certain other incumbents are attempting to suggest, i.e., that there is some loophole in the Act regarding the use of the internet protocol for interconnection such that IP interconnection is excluded from being subject to the Act – regardless of the overarching and clear inherent intent of the Act to accommodate and foster competition, including through beneficial changes in technology.

Q. Has the FCC stated that ILEC interconnection requirements are technology neutral?

A. Yes. In multiple places in the FCC's Connect America Fund Order (*"CAF Order"*) and FNPRM on IP interconnection the FCC has stated that ILEC interconnection requirements are technology neutral.[2] For example:

[2] In the Matter of: Connect America Fund, WC Docket No. 10-90; A National Broadband Plan for Our Future, GN Docket No. 09-51; Establishing Just and Reasonable Rates for Local Exchange Carriers, WC Docket no. 07-135;

¶ 1011. "... The duty to negotiate in good faith has been a longstanding element of interconnection requirements under the Communications Act and does not depend upon the network technology underlying the interconnection whether TDM, IP, or otherwise ..."

¶ 1335. "As we state in the Order above, The duty to negotiate in good faith has been a longstanding element of interconnection requirements under the Communications Act and does not depend upon the network technology underlying the interconnection whether TDM, IP, or otherwise ..."

¶ 1342. "...In this regard, we observe that section 251 of the Act is one of the key provisions specifying interconnection requirements, and that its interconnection requirements are technology neutral—they do not vary based on whether one or both of the interconnecting providers is using TDM, IP, or another technology in their underlying networks. ..."

¶ 1348. "Building upon our statement in the Order that the duty to negotiate in good faith under the Act does not depend upon the network technology underlying the interconnection, whether TDM, IP, or otherwise ..."

¶ 1381. "We agree with commenters that "nothing in the language of [s]ection 251 limits the applicability of a carrier's statutory interconnection obligations to circuit-switched voice traffic" and that the language is in fact technology neutral. ..."

Q. Has the National Association of Regulatory Utility Commissioners ("NARUC") taken the position that Section 251 interconnection is technology neutral?

A. Yes. NARUC passed a resolution adopting its Federalism Task Force Report: Cooperative Federalism and Telecom In the 21st Century at its 2013 Annual Meeting. In the section of the report titled "4. Interconnection" on page 11, NARUC stated the following:

High-Cost Universal Service Support, WC Docket No. 05-337; Developing a Unified Intercarrier Compensation Regime, CC Docket No. 01-92; Federal-State Joint Board on Universal Service, CC Docket No. 06-45; Lifeline and Link-Up, WC Docket No. 03-109; Universal Service Reform – Mobility Fund, WT Docket No. 10-208.

"Sections 251 and 252 of the Act are technology neutral. The rules for interconnection do not and should not depend on the technology used by the interconnecting providers."[3]

Q. Is there regulatory precedent that supports Sprint's position that IP interconnection is consistent with the Act and subsequent FCC rules?

A. Yes. The state commissions in Puerto Rico, Ohio and Michigan have ruled on this. I will address them sequentially. First, on September 25, 2012, the Puerto Rico Telecommunications Regulatory Board ("Board") in Docket No. JRT-2012-AR-0001 approved an order in the Section 251 arbitration between Liberty Cablevision of Puerto Rico, LLC ("Liberty") and Puerto Rico Telephone Company, Inc. ("PRTC") in which PRTC argued that the Board cannot enforce IP-to-IP interconnection. On page 14 of its Order, after making several references to the FCC's *CAF Order*, the Board determined that "Liberty's request for a means to drive IP-to-IP Interconnection negotiations to conclusion is consistent with the FCC's perspective." The Board concluded that PRTC's position would leave Liberty without a means to actually implement IP interconnection which was inconsistent with the FCC's endorsement of the transition to all-IP networks. The Board's Order less appendices is attached as Exhibit JRB-1.

Q. What was the Board's reasoning for asserting jurisdiction over IP interconnection in a Section 251/252 arbitration?

[3] http://www.naruc.org/Publications/20131125%20clean%20Hamilton%20addition%20to%20absolutely%20final%20Federalism%20Task%20Force%20Report.pdf (visited January 15, 2014).

A. On page 14 and 15 of its order, the Board reasoned that 1) Congress intended for the states to maintain a role in Section 251 arbitrations, 2) the PRTC could not show that the FCC has precluded state agencies from addressing IP interconnection and 3) PRTC could not show that Liberty's request conflicted with Section 251 or any federal law. In addition, on page 15 the Board concluded by stating, "Liberty's request is reasonable, not prohibited by federal law, consistent with the FCC's guidance regarding promotion of IP broadband networks, and consistent with the Board's duty to promote competition, investment, and interconnection in Puerto Rico."

Q. The Board made reference to the FCC's *CAF Order,* stating that the FCC intended for IP networks to continue to grow, and reasoned that this also meant IP interconnection negotiation should take place and subsequent agreements be reached. Provide examples from the FCC's *CAF Order* that are consistent with the Board's reasoning and Sprint's position on IP interconnection.

A. I do not believe there is any dispute that the FCC is encouraging a transition to IP networks. The FCC's most pointed statements addressing IP interconnection are found in paragraphs 652 and 1011 of the *CAF Order*. The FCC stated:

> ¶ 652 "… We also make clear our expectation that carriers will negotiate in good faith in response to requests for IP-to-IP interconnection for the exchange of voice traffic."

> ¶ 1011.In particular, even while our FNPRM is pending, we expect all carriers to negotiate in good faith in response to requests for IP-to-IP interconnection for the exchange of voice traffic. The duty to negotiate in good faith has been a longstanding element of interconnection requirements under the Communications Act and does not depend upon the network technology underlying the interconnection, whether TDM, IP, or otherwise. Moreover, we expect such good

faith negotiations to result in interconnection arrangements between IP networks for the purpose of exchanging voice traffic. As we evaluate specific elements of the appropriate interconnection policy framework for voice IP-to-IP interconnection in our FNPRM, we will be monitoring marketplace developments, which will inform the Commission's actions in response to the FNPRM. (Emphasis added).

Q. You underlined two sentences in paragraph 1011, please explain why they are significant.

A. The first sentence makes it 100% clear that good-faith negotiations under Section 251 are not limited to TDM technology as suggested by Verizon MA and other incumbents. The FCC's words are clear, "The duty to negotiate in good faith has been a longstanding element of interconnection requirements under the Communications Act and does not depend upon the network technology underlying the interconnection, whether TDM, IP, or otherwise."

The second sentence makes it clear the FCC expects carriers to enter into Section 251 and 252 agreements that enable the exchange of voice traffic via IP interconnection now.[4] This is an important statement because it is made in spite of the FCC's Further Notice of Proposed Rulemaking on IP interconnection issued at the time of the *CAF Order*. It is also important because certain incumbent carriers, such as Verizon MA, argue that IP Interconnection is not presently required because the FCC has issued its Further Notice.

Q. How did the Ohio Commission address IP interconnection?

[4] 47 CFR § 51.301 requires incumbent LECs to negotiate in good faith the terms and conditions of agreements to fulfill the duties established by Sections 251(b) and (c) of the Act.

A. The Public Utilities Commission of Ohio ("PUCO") issued an order on October 31, 2012 in Case No. 12-922-TP-ORD in which it adopted rules indicating that interconnection obligations apply regardless of the technology used for interconnection. In spite of arguments by AT&T, Cincinnati Bell, and the Ohio Telephone Association that the PUCO's staff's proposed rules go beyond the federal statutory authority, the PUCO adopted rules supportive of IP interconnection. I have attached the order as Exhibit JRB-2. The discussion by the PUCO is found on pages 4-6 of the order and the relevant rules are in Chapter 4901:1-7-06 as found on page 9 of Attachment A to the order.

Q. How did the Michigan Public service Commission ("MPSC") resolve the IP interconnection dispute between Sprint and AT&T?

A. The MPSC arbitration order resolved the issue in Sprint's favor and adopted Sprint's proposed language in its entirety.[5] See Exhibit JRB-3 ("*Michigan Decision*").

Q. What was the basis for the MPSC's determination that Sprint's IP interconnection language should be adopted?

A. The MPSC made several findings leading to the adoption of Sprint's IP interconnection language. First, the MPSC determined that the FCC has requested that ILECs negotiate IP interconnection in good faith, and it recognized the FCC's position that section 251 of the Act is technology neutral and that interconnection requirements do not vary based on technology. *Michigan Decision*, pages 4-5.

[5] *In the matter of the petition of Sprint Spectrum L.P. for arbitration pursuant to Section 252(b) of the Telecommunications Act of 1996 to establish interconnection agreements with Michigan Bell Telephone Company, d/b/a AT&T Michigan*, Case No. U-17349, Order, December 6, 2013.

A key point made by the MPSC is that even though it believes the FCC has not yet determined that IP interconnection is subject to 251(c) (a position that Sprint disagrees with), the FCC did not disallow state commissions from resolving IP interconnection disputes or even request that they decline to address the issue. In addition, it determined that a state commission is not required to delay its decision until the FCC rules further on the issue so long as it does not violate federal law. In other words, given that the FCC determined that ILECs must negotiate in good faith and that section 251 is technology neutral, a state commission's resolution of IP interconnection is consistent with these FCC determinations and not in violation of any federal law. *Michigan Decision,* page 5.

The MPSC found that it had jurisdiction to determine whether IP interconnection falls under an ILEC's Section 251(c)(2) obligations and it concluded that IP interconnection does. *Michigan Decision,* pages 6-7.

The MPSC rejected AT&T's suggestion that Sprint was not a telecommunications carrier because it was requesting interconnection in IP format as opposed to TDM format. The MPSC determined that an ILEC such as AT&T must provide IP interconnection with the ILEC network pursuant to Section 251(c)(2)(A). *Michigan Decision*, page 7.

An important part of the MPSC decision is its finding that AT&T Michigan and its affiliate operate an "integrated IP-TDM network that provides TDM-based services to

TDM subscribers, IP-based services to U-verse subscribers, as well as the IP-TDM conversion services necessary to enable calls not only to and from U-verse customers, but also between AT&T Michigan's own U-verse and TDM customers." The MPSC agreed with Sprint's arguments that AT&T Michigan has created a situation where it is now unable to provide telephone exchange service between IP-U-verse customers and TDM customers without the use of its affiliate's equipment and softswitch. *Michigan Decision*, page 9.

The MPSC also found that even if it had not determined that AT&T and its affiliate operated an integrated IP-TDM network, it would still conclude that AT&T is required to provide IP interconnection to Sprint. The MPSC reasoned that IP interconnection would still be required because, based on AT&T's testimony, AT&T was discriminating against Sprint by denying it the same IP interconnection AT&T was providing to its affiliate. *Michigan Decision,* page 9.

Q. Has Sprint arbitrated the IP interconnection issue in other states?

A. Yes. Sprint also arbitrated the IP interconnection with AT&T before the Illinois Commerce Commission ("ICC").

Q. Did the ICC resolve the dispute between Sprint and AT&T on IP interconnection?

A. No. The ICC decided to not make a decision regarding the ICC's jurisdiction over IP interconnection, the technical feasibility of Sprint's IP interconnection request or the

effect of AT&T using its affiliate's equipment to provide retail IP-based services until more detailed language was presented upon which the ICC could decide these issues.[6]

Q. What is the current status of the ICC's decision to not decide the IP interconnection decision?

A. Sprint has filed an appeal in Federal District Court taking the position that the ICC failed to fulfill its obligations under Sections 251 and 252 in the dispute between Sprint and AT&T on IP interconnection.

Q. In the FCC's discussion on IP interconnection in the *CAF Order* or its further notice on IP interconnection, did the FCC ever state that state commissions were barred or preempted from addressing the IP interconnection issue?

A. No. This is a significant point used by the MPSC and PRTC in their orders requiring IP interconnection. Under Section 252 the DTC has the responsibility to resolve this IP interconnection dispute. Not once did the FCC bar or preempt state commissions from addressing the issue of IP interconnection under Section 251. The role of the states is clear in the Act, and given the FCC's requirement that good faith IP interconnection negotiations take place, and its expectation that there be agreements as a result of these good faith negotiations, it only stands to reason that state commissions continue fulfilling their responsibilities under Section 252, including the resolution of disputed issues via arbitration or investigations. Moreover, the FCC did not prohibit state commissions from

[6] *See* Illinois Commerce Commission Arbitration Decision Docket No. 12-0550 (June 26, 2013), p. 34.

investigating IP interconnection agreements such as the agreement entered into by Verizon MA and Comcast.

Q. What is the basis for the good faith negotiations obligation placed on ILECs?

A. The good faith negotiations obligations placed on ILECs for IP interconnection in the *CAF Order* comes directly from Section 251(c)(1) of the Act. Section 251 is the only place within the Act that uses the phrase "negotiate in good faith."

Q. Why is it significant that the good faith negotiations obligations arise out of section 251 of the act?

A. The significance of good faith negotiations obligations arising out of Section 251 of the Act is that Section 251 is the same section of the Act under which the FCC required such negotiations with respect to IP interconnection in its *CAF Order*. ILECs generally claim that the FCC has not decided the issue of IP interconnection because the FCC issued a FNPRM on IP interconnection even while announcing its good faith negotiations requirement in the *CAF Order*. The *CAF Order* good faith negotiations obligation is based on the FCC's authority under Section 251, because it is the authority currently recognized by the FCC to impose such an obligation.[7] The fact that the FCC issued a FNPRM does not take away from the fact that the FCC issued an order that requires ILECs to negotiate IP interconnection in good faith and enter into agreements for IP interconnection.

[7] See *CAF Order*, ¶¶ 1352 and 1353.

Q. Please summarize your understanding of the *CAF Order* relative to IP interconnection.

A. First, the FCC does not issue orders unless it believes it has the authority to do so. Since interconnection and good faith negotiations are section 251 obligations, the only conclusion that can be reached is that the FCC used its Section 251(c)(1) authority as the basis for its IP interconnection and good faith negotiation requirements in the *CAF Order*. This conclusion is supported by the FCC's statement in the *CAF Order* at paragraph 1011 where it says,

> "The duty to negotiate in good faith has been a longstanding element of interconnection requirements under the Communications Act and does not depend upon the network technology underlying the interconnection, whether TDM, IP, or otherwise."

The FCC repeats this in the FNPRM at paragraph 1342 where it says,

> "We also seek comment on proposals to require IP-to-IP interconnection in particular circumstances under different policy frameworks. In this regard, we observe that section 251 of the Act is one of the key provisions specifying interconnection requirements, and that its interconnection requirements are technology neutral – they do not vary based on whether one or both of the interconnecting providers is using TDM, IP, or another technology in their underlying networks." (Emphasis added).

The order includes at paragraph 1011 this phrase with respect to the FNPRM,

> "In particular, even while our FNPRM is pending, we expect all carriers to negotiate in good faith in response to request for IP-to-IP interconnection for the exchange of voice traffic."

Finally, the FCC refers to the fact that it issued an order on IP interconnection multiple times in the FNPRM in paragraphs 1335, 1340, 1341, and 1348.

In my opinion, and contrary to the opinion of those opposed to IP interconnection obligations, the FCC's authority is based on the interconnection obligations of Section 251 which, coupled with Section 252, gives the Department the responsibility to resolve matters regarding IP interconnection, including ensuring IP interconnection agreements entered into by ILECs such as Verizon MA are made available to other competitors on a non-discriminatory basis.

Q. Even though the FCC recognized that requesting carriers are entitled to IP interconnection, can you explain why it also issued the FNPRM on IP interconnection?

A. I believe that the FCC issued the FNPRM to continue to build the record on IP interconnection so that it can (1) identify additional sources of authority other than 251(c)(1), and (2) determine how it can use its existing and any additional authority to further encourage efficient IP Interconnection.[8] The FCC may be seeking additional sources of authority beyond Section 251 to address the rights and obligations of all carriers or voice service providers as opposed to the rights and obligations currently applicable to the ILECs and requesting carriers that have historically entered into interconnection agreements. While the FCC asks questions in the FNPRM regarding additional statutory sources for the good faith negotiation requirement that applies to IP interconnection, the actual ordering paragraph on IP interconnection cannot be ignored as the FCC expects "such good faith negotiations to result in interconnection arrangements

[8] *CAF Order*, ¶ 1335.

between IP networks for the purpose of exchanging voice traffic."[9] It is the nature of FCC Notices of Proposed Rulemaking to contain volumes of questions – some of which might call into questions aspects of previous orders. That said, an agency's notice that it proposes to make a rule in the future, and any inquiry by the agency in that regard, does not trump or alter an existing order and the binding obligations thereunder, such as the IP interconnection ordering paragraphs of the *CAF Order*.

Q. Are you surprised when ILECs claim the *CAF Order* doesn't speak for itself and that the FNPRM on IP interconnection supplants the *CAF Order*?

A. No. Incumbents have a natural incentive to avoid interconnection obligations. Making the argument that the *CAF Order* doesn't really require IP interconnection is no surprise because incumbents are financially motivated to dictate whether and how they will permit competitors to interconnect rather than cooperating in interconnection with competitors subject to just, reasonable, and nondiscriminatory governing standards. Certain incumbents attempt to create the appearance of uncertainty by questioning what the *CAF Order* actually said. It is indisputable that IP interconnection is more efficient and less costly than TDM interconnection. So, given the fact that the ILECs will collect more from their competitors for TDM interconnection than for IP interconnection they naturally want to delay the conversion to IP interconnection as long as possible. ILECs even agree that IP interconnection will eventually occur. However, they want it on their own terms, not on just, reasonable, nondiscriminatory terms, and they want it to be beyond the jurisdiction of state commissions. In addition, ILECs tend to advertise the

[9] *CAF Order*, ¶ 1011.

fact that their networks are migrating to IP. I suspect that part of their intent is to delay it or have it implemented in a manner that preserves all or some of the financial benefits derived from current TDM interconnection revenues. I understand their motives, but their motives do not align with the public interest.

Q. What is your main point regarding the fact that the FCC recognized that requesting carriers are entitled to IP interconnection and issued a FNPRM at the same time?

A. My main point is that FNPRM should not be interpreted or viewed in a manner that ignores or sidesteps the fact that the FCC recognized that interconnection is technology-neutral, that IP interconnection is available to requesting carriers and that ILECs have a duty to negotiate in good faith IP interconnection under Section 251(c)(1).

Q. Do you agree that given the regulatory status of IP interconnection that the Department has the authority and the responsibility to determine whether the Verizon MA IP interconnection agreement is a Section 251 agreement?

A. Yes. The Department is the appropriate regulatory agency to oversee and decide issues regarding interconnection agreements entered into by ILECs operating in the Commonwealth of Massachusetts. This authority is clear pursuant to Section 252 of the Act.

IV. THE IMPORTANCE OF THE EQUAL IN QUALITY AND NONDISCRIMINATION STANDARD THAT APPLIES TO TRAFFIC EXCHANGE AGREEMENTS

Q. Where within Section 251 does the ILEC's non-discrimination obligation originate?

A. Section 251(c)(2) states the following:

> Interconnection – The duty to provide, for the facilities and equipment of any requesting telecommunications carrier, interconnection with the local exchange carrier's network-
>
> (A) for the transmission and routing of telephone exchange service and exchange access;
>
> (B) at any technically feasible point within the carrier's network;
>
> (C) that is at least equal in quality to that provided by the local exchange carrier to itself or to any subsidiary, affiliate, or any other party to which the carrier provides interconnection; and
>
> (D) on rates, terms, and conditions that are just, reasonable, and nondiscriminatory, in accordance with the terms and conditions of the agreement and the requirements of this section and section 252.

Q. What is the foundational principal or standard behind Section 251(c)(2)(C), interconnection that is equal in quality to that provided by the ILEC itself to any subsidiary, affiliate or any other party?

A. The equal in quality standard of Section 251(c)(2)(C) emanates from the idea that ILECs have the ability and motivation to provide a form or type of interconnection to itself, a subsidiary, an affiliate, or any other party that is better, more efficient, or superior to the

interconnection it may offer a competing carrier requesting interconnection. The carrier receiving the inferior service may be disadvantaged in the marketplace relative to the ILEC or the entity to which the ILEC offered a better service. The differences may be subtle or extreme, but the standard that has been established forbids an ILEC from offering an inferior form of interconnection regardless of degree.

Q. How could a requesting carrier be disadvantaged relative to Verizon MA and any other competitive voice provider to which it provided a superior form of interconnection?

A. A requesting carrier that does not receive interconnection from Verizon MA that is at least equal in quality may incur higher costs for interconnection. For example, Verizon MA and Comcast have entered into an IP interconnection agreement that, if implemented in the manner one would expect, would result in lower cost interconnection than that incurred by other market participants, including Sprint. It is generally understood that IP interconnection is more efficient from a trunking perspective. IP interconnection utilizes packet switching which "fills" up any given trunk capacity more efficiently by breaking up voice conversations into smaller pieces (packets) and efficiently placing them on the underlying trunks. TDM, in contrast, requires a dedicated end-to-end connection for the duration of a conversation even if there is silence. In addition, it is generally understood that fewer points of interconnection ("POI") are required with IP interconnection compared to TDM interconnection. Both of these examples would place a carrier not having access to IP interconnection with Verizon MA at a competitive

disadvantage relative to Verizon MA and any other affiliated or unaffiliated voice provider with which Verizon MA interconnects in IP.

Q. Is there another example of how a requesting carrier such as Sprint could be disadvantaged relative to another voice provider with which Verizon MA has entered into an IP agreement for the exchange of traffic in IP as opposed to TDM?

A. Yes. Verizon MA and Comcast may be able to provide features to their respective customers that require IP interconnection that others are not able to provide without IP interconnection. An example is High Definition ("HD") voice. The range of the human voice extends from 80 Hz to 14 kHz but traditional narrowband telephone calls limit audio frequencies to the range of 300 Hz to 3.4 kHz. HD voice extends the audio frequency range to 50 Hz to 7 kHz. Voice providers competing against Verizon MA and Comcast, in this case, would be at a clear competitive disadvantage if not able to provide the same features and functionality.

Q. What is the foundational principal behind Section 251(c)(2)(D), interconnection that is just, reasonable and nondiscriminatory?

A. The principal of nondiscrimination recognizes that ILECs such as Verizon MA have bargaining power and the incentive to, if left unchecked, enter into interconnection agreements with itself, affiliates or other parties that it would not provide to all requesting carriers. The standard recognizes that requesting carriers are dependent solely on the ILEC for interconnection and that discriminatory treatment on the part of the ILEC is

detrimental to competition. Section 251(c)(2)(D) nondiscrimination applies to any rate term or condition of interconnection and certainly includes the technology used to exchange traffic, IP versus TDM.

Q. Do you believe that an ILEC can decide for itself whether any particular interconnection agreement it has entered into is a Section 251 agreement?

A. No. It would be contrary to the equal in quality and nondiscrimination standards required by Congress to allow an ILEC to decide for itself whether any particular interconnection agreement it has entered into is a Section 251 agreement. To do so would be like letting the fox watch the chicken coop. It is appropriate for the Department to make such a determination in this proceeding.

Interconnection, as I previously stated is broadly defined, and entails the linking of two networks for the mutual exchange of traffic. An ILEC does not have the right to decide what is or is not Section 251 interconnection.[10] As appears to be the case here, an ILEC is motivated to attempt to discriminate against some competitors by unilaterally offering terms to one competitor that it seeks not to reveal or make available to other competitors via the process delineated in the Act.

[10] *See*, Order Opening an Investigation, Declining to Issue an Advisory Ruling, and Denying Verizon MA's Motion to Dismiss or Stay in the Proceeding, D.T.C. 13-6 at 10-12 (May 13, 2013).

Q. Do you believe the IP interconnection agreement between Verizon MA and Comcast, if not available to other carriers, is contrary to the equal in quality and nondiscriminatory standards Congress believed were essential to competition?

A. Yes. While I have not seen the IP interconnection agreement due to the restrictions in the Protective Order, above I identified two ways --efficiency of interconnection and feature availability-- in which the IP interconnection agreement between Verizon MA and Comcast could result in a competitive disadvantage to competitors. I would add that the degree of competitive disadvantage is not relevant. The mere presence of the disadvantage or potential for disadvantage, no matter how small, is what Congress intended to avoid by establishing the equal in quality and nondiscriminatory standards.

Q. What topics would you expect to be included in a Section 251 interconnection agreement filed with a state commission?

A. With respect to interconnection, I would expect to see terms that describe general terms and conditions, definitions, scope of traffic, a description of the manner in which the parties connect their networks, points of interconnection, service quality parameters, pricing, etc. The same or similar topics Verizon outlined in its recent *ex parte* with the FCC. See Exhibit JRB-4.

Q. Do the topics covered by an agreement alone determine whether it is a Section 251 interconnection agreement?

A. No. While the contents of the Verizon MA agreement with Comcast may be telling, as I stated earlier, the key to whether any particular agreement is a Section 251 agreement or subject to Section 251 is based on what the agreement accomplishes. If the agreement creates an ongoing obligation to link two networks for the mutual exchange of traffic, it is an interconnection agreement.

V. THE RELEVANCE OF THE REGULATORY CLASSIFICATION OF RETAIL SERVICES ON INTERCONNECTION

Q. Does the regulatory classification of the service being exchanged via interconnection have a bearing on whether interconnection, as defined by the FCC, is occurring?

A. No. The regulatory classification of the service being exchanged via interconnection has no bearing on whether interconnection, as defined by the FCC, is occurring. As I stated previously, the function of interconnection is simply the connecting of networks for the purpose of exchanging traffic. It does not matter whether the traffic being exchanged is TDM voice or VoIP.

Q. Has the FCC determined the regulatory classification of VoIP?

A. No. The FCC has not determined how to classify VoIP traffic other than to determine that providers of interconnected VoIP service are providers of interstate telecommunications.[11]

[11] *In the Matter of Universal Service Contribution Methodology*, Report and Order, WC Docket No. 06-122, FCC 06-94, Released June 27, 2006, paragraph 35.

Q. Is there any correlation between IP interconnection and the retail regulation of IP-enabled services such as VoIP?

A. No. In contrast to the regulation of retail services provided to end users, IP interconnection is a technical issue related to how two voice service providers physically connect their networks together and exchange voice traffic. Interconnection is a necessary function that, in turn, enables both parties to efficiently and economically provide their end users with voice services. Any retail regulation of IP-enabled services provided to retail customers is a separate issue from inter-carrier interconnection issues addressed in the parties' ICA.

Q. Has the FCC addressed the distinctions between interconnection and the retail classification of services?

A. Yes. The FCC has stated that the regulatory classification of the retail service being provided has no bearing on whether interconnection is afforded under Section 251.

> "… the statutory classification of a third-party provider's VoIP service as an information service or a telecommunications service is irrelevant to the issue of whether a wholesale provider of telecommunications may seek interconnection under section 251(a) and (b)." [12]

[12] *In the Matter of Time Warner Cable Request for Declaratory Ruling that Competitive Local Exchange Carriers May Obtain Interconnection Under Section 251 of the Communications Act of 1934, as Amended, to Provide Wholesale Telecommunications to VoIP Providers*, WC Docket No. 06-55, DA 07-709, March 1, 2007, paragraph 15.

Section 251 outlines the rights, duties and obligation among carriers for the purpose of enabling competition. They do not change based on the regulatory classification of retail services.

Q. Does IP interconnection change the regulatory status of a retail voice service?

A. No. IP interconnection does not change the regulatory status of any retail voice service. Such a suggestion is contrary to a 2004 FCC order regarding Phone-to-Phone IP Telephony Service.[13] In that order, the FCC determined that use of the IP protocol in the middle of the call path does not make the service on the end an information service.

Q. Parties opposed to IP interconnection obligations often attempt to confuse the issue by suggesting that regulation of IP interconnection is akin to regulating the Internet or somehow impacts the Internet, is that true?

A. No. Enforcing ILEC obligations to interconnect via IP rather than TDM has nothing to do with regulation of the Internet and has no impact whatsoever on the Internet. Such "scare tactics" are nothing more than red herring arguments intended to create a distraction from the real issues. IP interconnection, as Sprint is proposing, is only for exchanging the same voice traffic the parties are currently exchanging via TDM. It is an updating of the technology used by the parties to exchange traffic that recognizes the natural evolution of technology within the industry generally and by both parties in particular.[14] The voice

[13] *In the Matter of Petition for Declaratory Ruling that AT&T's Phone-to-Phone IP Telephony Services are Exempt from Access Charges*, Order, WC Docket No. 02-361, FCC 04-97, April 21, 2004.

[14] While converting from TDM interconnection to IP interconnection is considered to be a migration or updating of interconnection technology, the Internet protocol is certainly not new. The Internet protocol came to some level of

traffic traveling over an IP interconnection trunk is not commingled in any way with public Internet data traffic and will not utilize the trunks the parties use for public Internet traffic. IP interconnection is not regulation of the Internet.

Q. Does this conclude your Direct Testimony?

A. Yes.

maturity in the early 1980s and some might successfully argue it was introduced in the 1970s. Therefore, IP is not new; it is actually a quite mature and evolving protocol that network engineers are extremely comfortable utilizing.