

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 13-6

REBUTTAL TESTIMONY OF
JOSEPH GILLAN
ON BEHALF OF
THE COMPETITIVE INTERVENORS

1 **I. Introduction**

2

3 **Q. Please state your name, business address and occupation.**

4

5 A. My name is Joseph Gillan. My business address is P. O. Box 7498, Daytona
6 Beach, Florida 32116. I am an economist with a consulting practice specializing
7 in telecommunications.

8

9 **Q. Are you the same Joseph Gillan who filed direct testimony on or about**
10 **January 15, 2014?**

11

12 A. Yes.

13

14

**Joseph Gillan Rebuttal Testimony
On Behalf of the Competitive Intervenors**

1 **Q. What is the purpose of your rebuttal testimony?**

2 A. The purpose of my rebuttal testimony is to respond to the panel testimony of
3 Eugene J. Spinelli, Sherri D. Schlabs and Paul B. Vasington on Behalf Of Verizon
4 New England Inc. (“*Verizon Direct*”).

5

6 **Q. How is your rebuttal testimony organized?**

7

8 A. My rebuttal testimony is organized into three sections.

9

10 First, my testimony points out that much of the Verizon testimony supports my
11 conclusion that its agreements with Comcast are Interconnection Agreements (as
12 that term is used to define agreements that must be filed under § 252) because the
13 agreements address ongoing obligations relating to interconnection and/or
14 reciprocal compensation (which is the criterion established by the FCC as
15 addressed in my direct testimony, pages 5-6).

16

17 Second, my rebuttal testimony addresses the various “policy rationales” offered
18 by Verizon to claim that § 252 *should not* apply to the agreements at issue here.
19 (The Verizon testimony does not explain *why* § 252 does not apply). As I
20 explain below, the requirements of § 252 that apply to the filing, approval and
21 (potential) arbitration of Interconnection Agreements by state commissions (in
22 this case, the Department) are not intrusive “inefficiencies” as claimed by Verizon
23 (page 39), but rather are sound protections against discrimination and

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1 unreasonable practices. There is nothing more fundamental to competition – and
2 to the core consumer expectation that all telephone calls are completed, regardless
3 of the provider or technology serving each customer – than interconnection and
4 the reciprocal exchange of traffic.

5
6 Finally, as noted, the Verizon testimony never explains the relationship between
7 the topics discussed in its testimony and its decision to not file these agreements
8 under § 252, even though its failure to file the agreements is the sole issue in this
9 proceeding. Nonetheless, Verizon’s letter to Secretary Williams dated November
10 26, 2013 (p. 1) asserts that Verizon is entitled to offer “evidence showing that
11 VoIP is an information service, for example, . . . that it offers the capability to
12 perform a net protocol conversion.” Accordingly, the final section of my
13 testimony will discuss protocol conversions and explain that, where an IP-to-
14 TDM or TDM-to-IP protocol conversion occurs, such a conversion does not
15 transform a call into an information service.

16
17 **II. The Verizon Direct Testimony Demonstrates that the Agreements are**
18 **Interconnection Agreements**
19

20 **Q. Does the Verizon testimony make clear that VoIP traffic is today exchanged**
21 **in accordance with agreements filed under § 252?**
22

23 A. Yes. Verizon acknowledges that VoIP calls are already being exchanged through
24 existing filed interconnection arrangements (although, at the point of
25 interconnection, TDM formatting is used):

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Although we are not attorneys, it is plain that under the FCC’s decisions, there is no question that carriers must accept IP-originated traffic through existing TDM interconnection arrangements. (*Verizon Direct* at 41)

Companies today successfully exchange VoIP traffic through those existing PSTN interconnection arrangements in TDM format. Thanks to those existing arrangements, VoIP services have flourished, growing at an incredible rate. (*Verizon Direct* at 11)

This admission is telling. It recognizes that VoIP traffic is exchanged under Interconnection Agreements subject to § 252 today and, that under this statutory structure, VoIP services have flourished. This admission begs two obvious questions: (1) if § 252 applies to the traffic today, why does it suddenly not apply to the agreements at issue here; and (2) if § 252 has worked and VoIP has flourished for years, how is it that § 252 will fail in the future?

Q. Does § 251 identify the types of traffic that are to be exchanged through Interconnection Agreements subject to §252?

A. Yes. Section 251(c)(2) states that the purpose of interconnection is to provide for “the transmission and routing of telephone exchange service and exchange access.” Any agreement that provides for the termination of long distance traffic would be addressing “exchange access” as that term (in my experience) is commonly used, while agreements that terminate local traffic would provide for the transmission and routing of telephone exchange service.

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1 **Q. What types of traffic do the un-filed Verizon-Comcast agreements apply to?**

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3 A. According to Verizon, the Traffic Exchange Agreement was developed to
4 address:

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*****Begin Highly Sensitive Confidential*****

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*****End Highly Sensitive Confidential*****

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19 **Q. Does the Verizon testimony also acknowledge that the FCC’s intercarrier**
20 **compensation rules – rules that are based on the reciprocal compensation**
21 **duty of § 251(b)(5) – apply to traffic that is VoIP-PSTN?**
22

23 A. Yes. Just as I explained in my direct testimony (pages 11-13), the Verizon
24 testimony acknowledges that the FCC’s intercarrier compensation rules
25 “explicitly applied to PSTN-VoIP traffic.” (*Verizon Direct* at 17)

26

27

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1 Q. Do Verizon and the FCC define PSTN-VoIP traffic in the same way?

2

3 A. *****Begin Highly Sensitive Confidential***** [REDACTED]

4 [REDACTED]
5 [REDACTED]
6 [REDACTED]
7 [REDACTED]
8 [REDACTED]
9 [REDACTED]

10 [REDACTED]

11 [REDACTED] *****End Highly**

12 **Sensitive Confidential***** The FCC’s reciprocal compensation rules apply to all
13 traffic exchanged in TDM format “that originates and/or terminates in IP format.”
14 (47 C.F.R. §51.913)

15

16 Q. Does the Verizon testimony make clear that Verizon and Comcast have
17 traditionally exchanged this traffic under an Interconnection Agreement that
18 is on file with the Department pursuant to § 252?
19

20 A. Yes. The *Verizon Direct* explains that the relationship between the rates in the
21 existing Verizon MA – Comcast ICA and the Traffic Exchange Agreement as
22 follows:

23 ***** Begin Highly Sensitive Confidential ***** [REDACTED]
24 [REDACTED]
25 [REDACTED]
26 [REDACTED] *****End Highly Sensitive**

27 **Confidential ***** Verizon MA’s existing interconnection
28 agreement with Comcast Phone of Massachusetts, Inc. provides
29 that the rate for local traffic is \$0. *See* Verizon MA – Comcast
30 ICA, Amendment No.1, Attachment No. 1, 8 produced in
31 discovery as Attachment CC-VERIZON DIRECT 1-3. ***** Begin**

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Highly Sensitive Confidential *** [Redacted]
[Redacted]
*** End Highly Sensitive Confidential
*** (Verizon Direct at 18 Emphasis in original)

There are a number of important points that follow from the above statement. To begin, the discussion makes clear that *** **Begin Highly Sensitive Confidential** *** [Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted] *** End Highly Sensitive Confidential ***

In addition, there is no dispute that the *existing* Verizon MA – Comcast ICA is an Interconnection Agreement that was filed in accordance with § 252. *** **Begin Highly Sensitive Confidential** *** [Redacted]
[Redacted]
[Redacted] *** End Highly Sensitive Confidential *** Despite this clear logic, Verizon offers no explanation as to why it has not filed the Traffic Exchange Agreement as required by § 252.

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1 **Q. How does the VoIP-to-VoIP Agreement between Verizon and Comcast**
2 **compare to the Traffic Exchange Agreement between the parties?**

3
4 **A. *** Begin Highly Sensitive Confidential ***** [REDACTED]
5 [REDACTED]
6 [REDACTED]
7 [REDACTED]
8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED] ***** End Highly Sensitive Confidential *****

12
13 **Q. Do any of these differences mean that the VoIP-to-VoIP Agreement is not an**
14 **Interconnection Agreement that must be filed under § 252?**
15

16 **A. No. *** Begin Highly Sensitive Confidential ***** [REDACTED]
17 [REDACTED]
18 [REDACTED]
19 [REDACTED]
20 [REDACTED]
21 [REDACTED]
22 [REDACTED]
23 [REDACTED]
24 [REDACTED]

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1 [REDACTED] *** End

2 **Highly Sensitive Confidential** *** None of the differences between the VoIP-
3 to-VoIP Agreement and the Traffic Exchange Agreement would cause the VoIP-
4 to-VoIP Agreement to be excused from the § 252 filing requirement.

5

6 **Q. On page 19, Verizon states, *** Begin Highly Sensitive Confidential ***** [REDACTED]
7 [REDACTED] *** End
8 **Highly Sensitive Confidential** *** Are the Comcast CLECs involved in the
9 provision of the Comcast VoIP service that is the subject of the VoIP-to-VoIP
10 agreement?
11
12

13 **A.** Yes. Aside from interconnection, Comcast CLEC affiliates provide other
14 wholesale services to Comcast VoIP affiliates for purposing of providing retail
15 VoIP services to end-user customers in a state.¹ For example, Comcast’s VoIP
16 affiliates do not obtain direct access to telephone numbers for customers seeking
17 to purchase Comcast VoIP service; rather, the Comcast CLEC affiliates perform
18 this function.² It is not possible to correctly route a call to a Comcast VoIP
19 customer without a telephone number. Consequently, the Comcast CLEC
20 affiliates remain central to the activities necessary to provide the Comcast VoIP
21 service that is the subject of the VoIP-to-VoIP Agreement.
22

¹ See, e.g., Comments of Comcast Corporation, Federal Communications Commission, WC Docket No. 08-56, May 19, 2008 at 2, <http://apps.fcc.gov/ecfs/document/view?id=6520010404>

² See, e.g., *id.*

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1 It would be bad policy and precedent to allow Verizon to evade the § 252 filing
2 requirement on the basis that ***** Begin Highly Sensitive Confidential ***** [REDACTED]

3 [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 [REDACTED] ***** End**

8 **Highly Sensitive Confidential ***** and would prevent Massachusetts and other
9 states from policing unreasonable discrimination. It would also preclude opt-in
10 rights, contrary to the intent of § 252.

11

12 **Q. Please summarize the important points that Verizon concedes in its direct**
13 **testimony.**

14

15 A. First, Verizon concedes that the traffic at issue in the these unfiled agreements –
16 *i.e.*, VoIP calls, whether destined to a TDM subscriber or a VoIP subscriber – are
17 *today* being exchanged under an Interconnection Agreement filed under § 252.

18 There is nothing in the un-filed agreements that changes the basic nature of these
19 calls. Moreover, Verizon agrees that VoIP services have flourished, all the while
20 subject to the interconnection and traffic exchange provisions of the federal Act,
21 and that the § 252 filing requirement has not hindered the development of VoIP.

22

23 ***** Begin Highly Sensitive Confidential ***** [REDACTED]

24 [REDACTED]

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1 [REDACTED]

2 [REDACTED]

3 [REDACTED]

4 [REDACTED]

5 [REDACTED] ***** End Highly Sensitive Confidential**

6 ***

7 Third, Verizon concedes that the FCC has unambiguously included VoIP-PSTN
8 traffic (when exchanged in TDM) within its intercarrier compensation rules.

9 Importantly, the FCC adopted its intercarrier compensation rules by first finding
10 that the transport and termination of VoIP-PSTN traffic was included within the §
11 251(b)(5) reciprocal compensation duty (*ICC Reform Order* ¶ 943). (The
12 Verizon testimony is silent on this latter point).

13

14 ***** Begin Highly Sensitive Confidential ***** [REDACTED]

15 [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED]

19 [REDACTED] ***** End Highly Sensitive Confidential *****

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1 As to this final point, the FCC has certainly made clear that exchanging traffic in
2 IP format is not a defining event in the *AT&T IP-in-the-Middle Decision*,³ where
3 the FCC concluded that IP transport could be provided by one or more providers
4 (which would require an exchange of traffic). The *IP-in-Middle Decision*
5 addressed traffic that originated and terminated in TDM format, whereas the
6 traffic in this proceeding is limited to traffic that has IP on at least one end of the
7 call. Its significance to this proceeding, however, is that with the *ICC Reform*
8 *Order* making clear that the end-point of the call – whether it is PSTN-VoIP, or
9 VoIP-to-VoIP – does not exempt a call from the Act, the only remaining “network
10 event” is that the traffic is exchanged in IP format, and *the IP-in-the-Middle*
11 *Order* rejects that logic (at least when the end-points are TDM). With virtually
12 every combination of end-point and format-at-the-exchange-point already subject
13 to the Act, it is hard to contrive a logic that would exempt a call that combined
14 VoIP end-points with IP traffic exchange.

15
16 **III. Verizon’s Policy Arguments Do Not Justify Its Position that § 252 Does Not**
17 **Apply**
18

19 **Q. You indicated that the Verizon testimony does not explain *why* these**
20 **agreements are not required to be filed under § 252, but it does argue that it**
21 **would be bad *policy* to apply the law to agreements that exchange traffic in**
22 **IP format. (*Verizon Direct* at 41) How do you respond to Verizon’s policy**
23 **arguments?**
24

³ Order, *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, FCC 04-97, (2004)(“*IP-in-the-Middle Order*”)

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1 A. I address specific arguments raised by Verizon below. Verizon’s overall
2 argument, however, is that applying the statute would “impede the transition that
3 customers are driving from older circuit-switched Time Division Multiplexing
4 (“TDM”)-based services to newer IP-based services like VoIP.” (*Verizon Direct*
5 at 3)

6

7 **Q. Why is Verizon wrong in its claim that IP Interconnection will impede the**
8 **transition?**
9

10 A. To begin, the above claim is directly contradicted by Verizon’s clear statement
11 that, under the existing situation (in which traffic is exchanged pursuant to
12 Interconnection Agreements filed in accordance with § 252), “VoIP services have
13 flourished, growing at an incredible rate.” (*Verizon Direct* at 11)

14

15 But the observed – and *acknowledged* – success of exchanging VoIP traffic in
16 accordance with § 252 Interconnection Agreements is only half the story. The
17 requirements of § 252 not only prevent discrimination and the imposition of
18 unreasonable terms, they provide transparency and opt-in rights that dramatically
19 lower the transactional costs of negotiation. Moreover, as Verizon itself admits,
20 the greatest deployment of VoIP technology has been by new entrants, not large
21 incumbents. It is these entrants and their customers that would most benefit from
22 a rapid – and discrimination free – move to VoIP-to-VoIP interconnection
23 through the ability to opt-in. Making clear that the Traffic Exchange and VoIP-

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1 to-VoIP Agreements are subject to § 252 would accelerate – not impede – the IP
2 transition.

3

4 **Q. What is the basis of Verizon’s claim that applying the Act would impede**
5 **VoIP-to-VoIP interconnection?**

6

7 A. Verizon’s reasoning stems from two claims, both false. First, Verizon claims that
8 § 252 will prevent the establishment of efficient IP interconnection through a
9 process of negotiation. (See *Verizon Direct* at 4 and 37) Second, Verizon argues
10 that state commissions (such as the Department) are systematically incapable of
11 resolving disputes in a consistent manner, and that the consequence of state
12 commission involvement would be a “patchwork quilt” of regulatory
13 requirements. (*Verizon Direct* at 5 and 38)

14

15 **Q. Does § 252 filing and review prevent commercial negotiation?**

16

17 A. No, not at all. To the contrary, as the FCC said in the *ICC Reform Order* (§ 964),
18 sections 251 and 252 of the Act reflect a preference for negotiation. What the Act
19 creates, however, is a process of *balanced* negotiation by granting a few basic
20 rights – such as the right for reciprocal compensation and the ability to opt-into
21 approved agreements – combined with an approval process that requires
22 transparency, nondiscrimination, and consistency with the public interest.
23 Finally, § 252 provides for arbitration before a state commission when issues
24 cannot be resolved.

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1 **Q. How is Verizon’s model inconsistent with that framework?**

2

3 A. It is against these provisions that Verizon’s vision of “commercial negotiations”
4 should be compared. Under the Verizon model, successful negotiations must be
5 kept secret. If the negotiation is a success and the terms reasonable and mutually
6 beneficial, why shouldn’t other carriers have the opportunity to adopt the same
7 terms?

8

9 Under Verizon’s vision of a commercial negotiation (without rights or regulatory
10 review), all disputes would be unilaterally resolved by Verizon. The point of §
11 252 is to provide for an impartial arbiter (the Department) to evaluate the relative
12 merits of competing carriers’ claims when the parties are unable to agree and to
13 render a decision based on that analysis. It is this process of *deliberation* that the
14 Verizon proposal avoids. This is not about creating regulations, it is about
15 providing a forum and process to address the imbalance in negotiating power
16 between Verizon and its rivals, most of whom are dramatically smaller.

17

18 **Q. Is there any reason to simply presume (as does Verizon) that state**
19 **commissions will adopt a patchwork quilt of inconsistent state regulation?**
20

21 A. No. Verizon has already acknowledged that the *existing* application of § 252 to
22 the negotiation, state commission approval and, in some instances, arbitration of
23 Interconnection Agreements over the past eighteen years “ha[s] not hindered the
24 growth in VoIP in the least.” (*Verizon Direct* at 37) In light of this fact, there is

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1 no *a priori* reason to believe that reasonable consistency among state commission
2 decisions cannot be achieved in the future. Verizon’s testimony presupposes
3 inconsistency, without ever identifying *any* incentive or reason for state regulators
4 to create a patchwork quilt of inconsistent decisions. This claim is particularly
5 premature here, where the sole issue is whether § 252 applies to the Verizon-
6 Comcast Traffic Exchange and VoIP-to-VoIP Agreements, which have already
7 been negotiated, and where a ruling requiring filing and review could ultimately
8 afford other providers the opportunity to opt-into the same agreements as
9 Comcast. There is no way that enabling other providers the opportunity to adopt
10 the *same* agreements as Comcast can create inconsistency. Just the opposite is
11 true – opting-in *promotes* consistency.

12

13 **Q. Verizon also suggests that the Department should wait for the FCC to adopt**
14 **national rules. (Verizon Direct at 38) Should the Department await FCC**
15 **guidance?**
16

17 A. No. First, it is important to keep this proceeding in context. There are no detailed
18 issues or disputes to resolve in this proceeding other than whether the Verizon-
19 Comcast agreements are Interconnection Agreements that must be filed as
20 required by § 252. As explained in my direct testimony (page 6), this is a
21 question that the FCC explicitly decided that the states should address, and
22 encouraged “state commissions to take action to provide further clarity to
23 incumbent LECs and requesting carriers concerning which agreements should be

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1 filed for their approval.”⁴ It makes no sense to “wait for national rules,” when the
2 FCC has already made clear that the question at hand is properly one that the
3 Department should address.

4

5 **Q. Has the FCC advised that state commissions defer decision making until**
6 **national rules for IP interconnection are promulgated?**

7

8 A. No. Verizon’s desire to see any national rules ignores the important role that state
9 commission decisions played in *developing* the interconnection rules ultimately
10 adopted by the FCC in 1997. As the FCC noted when it adopted its *Local*
11 *Competition Order* and its accompanying rules:

12 Virtually every decision in this Report and Order borrows from
13 decisions reached at the state level, and we expect this close
14 association with and reliance on the states to continue in the future.
15 We therefore encourage states to continue to pursue their own
16 procompetitive policies. Indeed, we hope and expect that this
17 Report and Order will foster an interactive process by which a
18 number of policies consistent with the 1996 Act are generated by
19 states.⁵

20

21 Suggesting that the Department should wait until the FCC adopts national rules
22 governing IP interconnection – particularly in a proceeding which is narrowly
23 focused on simply whether the agreements at issue must be filed for approval – is
24 nothing more than a poorly-cloaked effort at further delay.

25

⁴ *Qwest Declaratory Ruling* at ¶ 10

⁵ *In re Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Dockets 96-98 and 95-185, First Report and Order, FCC 95-325, ¶ 53 (Rel. August 8, 1996) (“*Local Competition Order*”)

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1 **Q. Verizon also claims that it “cannot be considered to be an ‘incumbent’ or to**
 2 **wield market power for VoIP services.” (Verizon Direct at 33-34) Does it make**
 3 **any sense to separately look at the number of lines Verizon serves using VoIP**
 4 **technology when evaluating its market position?**
 5

6 A. No. It does not matter that Verizon “was not the first company to offer VoIP in
 7 Massachusetts, and it is far from the largest provider.” (Verizon Direct at 32) VoIP
 8 is just a different way to provide local exchange and exchange access service, it is
 9 not a *separate* product market. Even AT&T admits in a letter to Congress that its
 10 own market research shows that in many cases consumers who use VoIP do not
 11 even realize that they are using a VoIP service (as compared to plain old
 12 telephone service over traditional technology):

13 In other cases, it [the new service] will be a voice-over-internet
 14 protocol (VOIP) service that runs over the same wires (whether
 15 telephone or cable) that have served homes in the past. This is the
 16 voice service that typically serves AT&T’s UVerse customers and
 17 Verizon’s FIOS customers. It is also typically the service that
 18 serves cable customers who have opted for their provider’s triple
 19 play (voice, data and video) package. Our market research has
 20 shown that, in many cases, customers may not even realize that
 21 they no longer have the plain old telephone service (POTS) that
 22 was so common during the last century.
 23

24 A copy of a letter from Keith K. Krom, AT&T, to Charlotte Savercool,
 25 Committee on Energy and Commerce, transmitting Mr. James Cicconi’s
 26 Responses to the Questions for the Record, at 3 (Jan. 16, 2014), is attached as
 27 Exhibit JPG-3. The mere fact that Verizon has fewer VoIP customers than other
 28 carriers says little about each carrier’s need to interconnect with it and Verizon’s
 29 relative negotiating leverage.
 30

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1 **Q. Verizon claims that competitors now serve more lines in Massachusetts than**
2 **Verizon. (*Verizon Direct* at 32) How do you respond?**
3

4 A. The Verizon comparison is misleading because it compares Verizon to the entire
5 competitive industry as though the “competitive industry” was a single entity.
6 The FCC’s Local Competition Report (which is the basis for the Verizon claim)
7 demonstrates that Verizon’s market share is effectively consolidated in a *single*
8 provider,⁶ while the CLEC share is spread among 133 competitors.⁷ It is the
9 disparity in relative size between Verizon and each *individual* competitor that
10 creates the conditions for discrimination that § 252 is intended to prevent.

11
12 **Q. Verizon complains that the Act’s interconnection provisions impose heavier**
13 **burdens on incumbent LECs. (*Verizon Direct* at 34) Do you have a**
14 **comment?**
15

16 A. Verizon’s statement is irrelevant. This proceeding is about whether the
17 interconnection provisions of the Act – provisions that the FCC recognized in its
18 ICC Reform Order (¶ 1011) do “not depend upon the network technology
19 underlying the interconnection, whether TDM, IP, or otherwise – should be
20 ignored merely because IP technology is involved, to one degree or another, in the
21 transmission of a voice call. While Verizon would like to make the proceeding a
22 referendum on the Act, that is clearly not its purpose.

⁶ Although there are four other ILECs in Massachusetts, each serves fewer than 2,000 lines. *Verizon Direct*, n. 5 at 32.

⁷ FCC, “Local Telephone Competition: Status as of December 31, 2012,” (released November 2013), at Table 17.
http://transition.fcc.gov/Daily_Releases/Daily_Business/2013/db1126/DOC-324413A1.pdf

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If Verizon’s testimony were relevant on this point, however, my response would be that Verizon exaggerates the disparity between it and other providers. For instance, section 251(a) imposes on all telecommunication carriers—not only incumbents—a general duty to interconnect, and section 251(b)(5)’s duty to establish reciprocal compensation arrangements for the transport and termination of telecommunications applies to all local exchange carriers (again, not only incumbents). In addition, while incumbents have certain responsibilities under the Act, they also have benefits that other LECs do not share, such as the opportunity to request interconnection with CMRS providers and invoke the arbitration procedures of section 252. (*ICC Reform Order* at ¶839). Finally, it is useful to note that the smallest incumbent local exchange carriers support requiring VoIP-to-VoIP interconnection to be subject to these same provisions that Verizon finds objectionable,⁸ thereby providing additional evidence that the “heavier burden” placed on incumbents is not a reason to excuse the filing and review of the agreements at issue here.

⁸ Comments of the National Exchange Carrier Association Inc. (NECA), National Telecommunications Cooperative Association (NTCA), The Organization for the Promotion and Advancement of Small Telecommunications Companies (OPASTCO), and the Western Telecommunications Alliance (WTA)(“NECA *et al*”), Federal Communications Commission WC Docket WC 10-90 (et al), February 24, 2012 at 38 (“The Commission should clarify that Sections 251 and 252 of the Act govern all interconnection arrangements, including IP-to-IP Interconnection for the purposes of exchanging traffic between carriers.”), <http://apps.fcc.gov/ecfs/document/view?id=7021864523>

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1 **III. Protocol Conversion**

2

3 **Q. Has Verizon explained why the agreements at issue in this proceeding are not**
4 **interconnection agreements subject to § 252?**

5

6 A. No, not directly. In its testimony (p. 27), Verizon discusses which calls that it and
7 Comcast exchange in IP format are converted from TDM protocol and which are
8 not. Apparently, this is the evidence that Verizon claimed in its letter to Secretary
9 Williams dated November 26, 2013 that it was entitled to offer “showing that
10 VoIP is an information service,” possibly because it “offers the capability to
11 perform a net protocol conversion.”

12

13 **Q. To begin, does it necessarily matter whether (or not) the retail VoIP service is**
14 **an information service to decide whether these agreements are subject to §**
15 **252?**

16

17 A. No. The purpose of interconnection is to provide for the transport of termination
18 of telecommunications (notably, not telecommunications services) to another
19 carrier, either local or long distance. When transport and termination is provided
20 to a long distance carrier, it is referred to as exchange access. This would indicate
21 that the relevant service(s) to be considered are not the retail services offered to
22 end-users, but the underlying transport and termination service offered in the
23 Traffic Exchange and VoIP-to-VoIP Agreements.

24

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On Behalf of the Competitive Intervenors**

1 The FCC has made clear that all voice calls (at least if exchanged in TDM format,
2 whether they are VoIP or not) are covered by § 251(b)(5). As such, any call
3 exchanged in TDM format, including VoIP-to-VoIP calls, is a traffic exchange
4 subject to § 252, which indicates that the regulatory classification of the retail
5 VoIP service is immaterial to whether § 252 applies. After all, the nature of the
6 retail VoIP service does not materially change when the format of the traffic
7 exchange changes from TDM to IP (a point that Verizon effectively concedes
8 when it points out VoIP has flourished in an environment of TDM traffic
9 exchange).

10

11 **Q. Does Verizon state that it would offer a VoIP-to-VoIP Agreement to carriers**
12 **whose retail service is not an information service?**
13

14 A. Yes. In response to discovery (CC-VZ 1-11, attached as Exhibit JPG-4), Verizon
15 stated its willingness to negotiate a VoIP-to-VoIP agreement is “not contingent
16 upon how the other provider characterizes its retail services.” This answer further
17 underscores the fact that IP transmission simply does not transform a service into
18 an information service, given Verizon’s willingness to interconnect and provide
19 transport and termination in IP format to carriers that do not even offer an
20 information service. This is certainly consistent with FCC decisions that have
21 explicitly concluded that “the fact that Internet Protocol is used exclusively as

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1 transport for the traffic has no bearing on whether these voice and data services
2 are appropriately considered telecommunications service.”⁹

3

4 **Q. Does a protocol conversion make a service an information service?**

5

6 A. No. The FCC has long understood that not all protocol conversions transform a
7 telecommunications service into an information service. After all, telephone
8 networks (for many years) have been little more than geographically distributed
9 computing systems, containing equipment and facilities that need to interoperate.
10 In 1997, consistent with its decisions prior to the passage of the federal
11 Telecommunications Act, the FCC exempted the following three categories of
12 protocol processing from being deemed information services:

13

- 14 1) involving communications between an end user and the
15 network itself (e.g., for initiation, routing, and termination of
16 calls) rather than between or among users;
17
- 18 2) in connection with the introduction of a new basic network
19 technology (which requires protocol conversion to maintain
20 compatibility with existing CPE); and
21
- 22 3) involving internetworking (conversions taking place solely
23 with the carrier’s network to facilitate provision of a basic

⁹ *In the Matter of Compass Global, Inc. Apparent Liability for Forfeiture*, Notice Of Apparent Liability For Forfeiture, FCC 08-97, File No. EB-06-IH-3060, NAL/Acct. No. 200832080083, FRN No. 0009690256, (rel. April 9, 2008), ¶¶ 17 and 18. Emphasis added.

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1 network service, that result in no net conversion to the end-
2 user).¹⁰
3

4 **Q. Are differing protocols commonly used to manage telecommunications**
5 **networks?**
6

7 A. Yes. There is nothing remarkable about a (so-called) net protocol conversion,
8 particularly if the conversion is occurring between networks that use different
9 technologies (such as a wireless to wireline call, or between a digital and an
10 analog network, or between a network using IP technology and a circuit-switched
11 network).

12
13 **Q. Are IP-to-TDM (or TDM-to-IP) conversions exempt protocol conversions?**
14

15 A. Yes. These types of internetworking protocol conversions have to do with
16 assuring end-to-end interoperability of telephone service between an IP
17 architecture and traditional network, they do not provide a new capability in the
18 hands of the customer.

19
20 **Q. Does Verizon concede that the protocol conversion between IP and TDM is**
21 **unavoidable as the industry introduces this new technology?**
22

23 A. Yes. The Verizon testimony (pages 40-41) recognizes:

¹⁰ See *Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended*, Order on Reconsideration, Federal Communications Commission CC Docket No. 96-149, 12 *FCC Rcd* 2297; 1997 *FCC LEXIS* 1602 (FCC 97-52) (rel. Feb. 19, 1997), at ¶ 2.

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1 [F]or a call between a VoIP customer and a POTS customer, there
2 is no way to avoid the conversion. Incumbent LECs aren't
3 requiring a conversion. The different protocols being used to serve
4 the two customers involved in the call require a conversion. Until
5 all customers are served by VoIP and POTS is eliminated, those
6 conversions will continue to be necessary.
7

8 The conversion between TDM and IP is an internetworking conversion (and/or
9 occurs to maintain compatibility with existing CPE). It does not transform a call
10 into an information service.
11

12 **Q. If IP-TDM conversion was considered an information service, would that**
13 **logic produce absurd results?**
14

15 A. Yes. If Verizon claims that a VoIP call to a traditional TDM-based telephone
16 subscriber is an information service because of the protocol conversion, then that
17 exact same protocol conversion would occur any time a traditional TDM
18 customer calls a VoIP customer, albeit in reverse (that is, the call would start in
19 TDM and terminate at an IP end-point). This would mean that every traditional
20 TDM customer who places a call to a VoIP customer is suddenly subscribing to
21 an information service, even though none of the customer's service features have
22 changed, and the customer has no way to know anything about the technology
23 being used to serve the called number.
24

**Joseph Gillan Rebuttal Testimony
On Behalf of the Competitive Intervenors**

1 **IV. Summary**

2

3 **Q. Please summarize your rebuttal testimony.**

4

5 A. The principal issue of this proceeding is whether Verizon is required to file, in
6 accordance with § 252, a set of traffic exchange agreements it has reached with
7 Comcast because such agreements are properly considered Interconnection
8 Agreements. Despite being the central issue of the proceeding, Verizon’s direct
9 testimony never explains why these agreements are materially different from its
10 existing filed Interconnection Agreement with Comcast in a way that would
11 excuse the agreements from § 252.

12

13 To the contrary, my testimony links the common elements of these agreements
14 and responds to the various “policy reasons” Verizon offers as a reason to ignore
15 the federal Act. Obviously, the core legal arguments will be provided in
16 subsequent briefing, but my testimony provides the factual linkage between the
17 agreements for the Department to clearly appreciate that the Traffic Exchange and
18 VoIP-to-VoIP agreements are little different than the existing filed

19 Interconnection Agreement in terms of the *** **Begin Highly Sensitive**

20 **Confidential ***** [REDACTED] ***** End Highly**

21 **Sensitive Confidential *****

22

23

**Joseph Gillan Rebuttal Testimony
On Behalf of the Competitive Intervenors**

1 **Q. Does this conclude your rebuttal testimony?**

2

3 **A. Yes.**



Keith K. Krom
Vice President and General Counsel - Washington
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Exhibit JPG-3

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January 16, 2014

Ms. Charlotte Savercool
Legislative Clerk
Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515

**Re: Questions for the Record – “The Evolution of Wired
Communications Networks” – October 23, 2013**

Dear Ms. Savercool:

Pursuant to the December 20, 2013 letter from Chairman Walden, enclosed please find the responses of James Cicconi to the Questions for the Record.

Thank you in advance for your attention to this matter. Please do not hesitate to contact me with any questions or concerns.

Sincerely,

Attachment

EAST #1097650

RESPONSES TO QUESTIONS FROM THE HONORABLE BILLY LONG

Q. Can you elaborate on the types of telemedicine and mobile health applications that would be available to my constituents in the best congressional district in the United States if they did have the IP services?

A. As you noted during the hearing, residents in rural areas may have limited access to the latest medical technologies and limited numbers of available health-care providers. In several different respects, mobile-health and telehealth technologies hold great promise for extending quality, affordable healthcare into remote and previously underserved areas. The healthcare opportunities presented by the IP transition fall into several different categories.

The first enables a patient to consult, in real time and over a secure video link, with doctors in a major medical center in Missouri or even across the country. AT&T's telehealth solution, known as AT&T Virtual Care, combines our most sophisticated, high-resolution, IP-based video-conferencing service with numerous medical peripherals to enable face-to-face medical consultations over AT&T's highly secure network. AT&T Virtual Care also provides two-way connectivity for doctor-patient consultations that is cost-effective and easily portable. In addition to the real-time, secure video link, these solutions allow the measurement, transmission and display of various vital signs and biometric information; they also include a separate, hand-held, high-resolution camera, permitting close-up examination of skin conditions and the like. These solutions offer individuals in remote regions access to the nation's best medical specialists, over an IP network, without leaving their home-town clinic or community health center.

Mobile health solutions also hold great promise for rural and underserved populations. An almost endless variety of mobile health applications is now available for smart and data-enabled phones, allowing people to track numerous indicators, from daily exercise and calorie intake to blood glucose levels for diabetics. These applications run on today's ubiquitous mobile, hand-held devices and give users the ability to conveniently and regularly track the health information that matters most to them, and to receive coaching and support along the way. In addition to the coaching and support available through these applications, the IP network allows these technologies to feed a regular stream of health-status information into a patient's electronic medical record. This enables doctors to regularly monitor their chronic disease patients and prioritize additional outreach to those experiencing the most difficulty in managing their conditions.

Remote patient monitoring technologies, which will increasingly depend on a ubiquitous, all-IP network, facilitate monitoring of all patients, urban and rural alike, for serious medical conditions in the comfort of their own home, instead of requiring a costly and inconvenient, extended hospital stay. Small, body-worn wireless sensors and other wireless-enabled, in-home devices monitor indicators associated with a wide range of medical conditions, including chronic heart failure and chronic obstructive pulmonary disorder. These monitors transmit information to a hub device in the patient's home,

from where it travels securely over the IP network to a healthcare provider for analysis. AT&T's remote patient monitoring solution includes a locked-down tablet, with embedded secure video-on-demand, pre-paired with medical peripherals that allow clinicians to continuously track their patients' health status after discharge from the hospital. These technologies allow patients to receive at home the monitoring and follow-up care that would previously have required a longer hospital stay and cumbersome, wired sensors and avoiding the high cost of additional hospital time and the inconvenience and isolation of extended separation from family.

Finally, electronic medical records (EMRs) and health information exchanges also rely on IP technology and hold the potential for better, more cost-effective medical care for all citizens, regardless of where they live. EMRs, already adopted by many physicians, are replacing paper files with digital health-care records, much as numerous other segments of our economy long ago moved to digital records. As noted above, EMRs can receive health and biometric data from mobile-health applications and remote patient monitoring devices and display it in an accessible, user-friendly manner for a patient's health-care practitioner. The greater promise of these digital records, however, comes when they are woven together through a health information exchange, so any doctor treating a patient has convenient, immediate and secure access to the records, observations and recommended treatments from all of the other practitioners who have seen that patient, as well as prescription records and radiological images. As with the other exciting capabilities discussed above, this too can only be effectively accomplished over an all-IP network.

RESPONSES TO QUESTIONS FROM THE HONORABLE ANNA ESHOO

- Q. I understand that AT&T ultimately proposes moving some of its customers away from both wired voice and broadband service. My concern is that consumers could incur steep charges for applications like streaming video and music if your substitute wireless service is subject to similar usage-based pricing to what we see today with 4G LTE. How do you respond to this concern?**
- A. At this point, the precise details of the services to which TDM customers would likely be migrated and the projected cost for those services have not yet been established. AT&T has sought FCC approval for narrowly limited, geographic trials for a transition away from the legacy, TDM network. We are optimistic that, in the relatively near future, the FCC will take the first step toward such approval, accepting providers' IP-transition plans for filing. When AT&T files its plan with the agency, it will contain more detail about replacement products that will be available to customers. Currently, all I can say is that pricing is continually under review, with the intent to satisfy customers' needs in a competitive environment.

Q. AT&T has frequently cited the findings of a CDC survey showing that the number of customers who have cut the cord is large and increasing. But that survey asks only about voice service. Do you have evidence to suggest that those cutting the cord for voice service are also moving away from a wired broadband connection?

A. Several Commentators and analysts have noted the growing trend of wireless broadband substitution (in place of fixed broadband services). For example, the 2013 Pew Institute Smartphone Usage and Adoption Study found that 8% of Americans access broadband via a Smartphone and have no home broadband connection whatsoever. Other commentators and analysts have noted this same trend and concluded that the growth of 4G LTE technologies will spur those numbers even higher. See, *Growth In Wireless-Only Subscribers Heralds Changes for Internet Access* By Mari Sibley, SmartPlanet, March 13, 2013 (<http://www.smartplanet.com/blog/the-report/growth-in-wireless-only-subscribers-heralds-changes-for-internet-access>); *LTE Is Going To Accelerate Fixed to Mobile Broadband Substitution*, Gary Kim, Mobility Techzone (November 26, 2012) (<http://www.mobilitytechzone.com/topics/4g-wirelessevolution/articles/2012/11/26/317066-lte-going-accelerate-fixed-mobile-broadband-substitution>).

AT&T, however, references the CDC survey to demonstrate a trend that highlights the fact that more and more customers are moving away from *time-division multiplex (TDM) service* – the old style of switched telephone service that relies on a continuous circuit between the two end-points of a call. This is the 20th-century technology that the market is increasingly rejecting in favor of other, more efficient network technologies. (And it is the old technology that it is becoming increasingly difficult and expensive for companies like AT&T to maintain because the parts and qualified personnel simply are not available. To paraphrase one of our senior executives, no one graduates from Stanford or MIT planning to become a TDM engineer these days.) In some cases, the new technology will be the wireless phone that seems to have become the sole communication device for everyone under 30. In some cases, the replacement service will be an over-the-top internet service like Skype. In other cases, it will be a voice-over-internet-protocol (VOIP) service that runs over the same wires (whether telephone or cable) that have served homes in the past. This is the voice service that typically serves AT&T's U-Verse customers and Verizon's FIOS customers. It is also typically the service that serves cable customers who have opted for their provider's triple play (voice, data and video) package. Our market research has shown that, in many cases, customers may not even realize that they no longer have the plain old telephone service (POTS) that was so common during the last century. In the IP transition we do not necessarily aim to take customers off of our wired broadband network. Quite the contrary. We just want to move them off of last century's technology and onto the IP-enabled voice service of the 21st century.

RESPONSES TO QUESTIONS FROM THE HONORABLE HENRY WAXMAN

Q. At the hearing you stated that the rules of the Telecom Act are not technology neutral, and cited the different titles of the Act that apply to wireline, wireless and cable service. Do you believe that within Title II of the Act, there is a distinction between TDM voice services or IP delivered voice or are the rules for voice service technology neutral?

A. Title II of the Act does not distinguish between wireline telecommunications services (such as traditional, circuit switched voice services) based on a technology. But, whether and how a service (including a voice service) is regulated under Title II depends on how that service is classified. The Act distinguishes between telecommunications services and information services (which are mutually exclusive categories in that a service is one or the other, but not both), and, for the most part, limits regulation under Title II to telecommunications services. Under the Act, telecommunications services are defined as the offering of “telecommunications” for a fee directly to the public. 47 U.S.C. § 153(46). In turn, 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.” *Id.* at § 153(43). Traditional, circuit-switched voice services are classified as “telecommunications services” because they are limited to transmitting information (*i.e.*, voice traffic) with no net change in the form or content of that information as sent and received. In contrast, most, if not all, VoIP services are properly classified as information services because the voice component of those services is tightly integrated with other functionalities that allow end users to “generat[e], acquir[e], stor[e], transform[], process[], receiv[e], utilize[e], or mak[e] available information via telecommunications,” 47 U.S.C. § 153(24), and also because they involve a net protocol conversion.

Q. During the hearing, you referenced a chart showing a decline in ILEC Switched Landline service as a share of U.S. household primary line service. Mr. Iannuzzi pointed to slower adoption of wireless and IP voice alternatives by business. How would you characterize the differences between residential and business customer’s reliance on TDM voice services? How should policy makers consider these differences in the context of the IP transition?

A. Although many business customers already have made the transition to IP-based services, their adoption of such services has been somewhat slower than residential customers. It appears that is so for several reasons. First, the largest facilities-based providers of VoIP

services are cable operators, which originally focused on marketing to residential customers, and did not focus on business customers and services until several years later. Now that cable operators have begun to focus on business customers and expanded their business service offerings, it seems likely that the number of business customers switching to IP-based services offered by cable will rapidly increase, replicating cable's experience in the residential market. Likewise, telephone companies initially focused their VoIP marketing and service offerings on residential customers, and only recently have begun to focus on business customers and services. Thus, any differences between residential and business customers' adoption of IP voice alternatives to TDM voice services is likely to diminish rapidly in the near future. Second, business customers are more likely than residential customers to sign up for long term service contracts, and to utilize more expensive customer premises equipment (CPE). As a consequence, business customers may delay adoption of IP voice alternatives until their existing TDM service contracts expire, or their CPE becomes obsolete or fully-depreciated. Third, many residential customers have switched to over-the-top VoIP services, which may not provide the same quality of service and service guarantees as those provided by facilities-based VoIP service providers. Thus, it should come as no surprise that business customers (which generally have greater demand for reliable, high quality services than residential customers) have adopted VoIP alternatives at a slower rate than residential customers.

These differences between residential and business customers should not alter policy makers' analysis in the context of the IP transition. In both cases, policy makers should consider whether wireless and IP-based voice services are a reasonable alternative to traditional, circuit-switched voice services. Specifically, they should determine, *inter alia*, whether such alternatives support essential features and functions, and offer adequate service quality and reliability. That does not mean that IP-based alternatives will necessarily replicate every feature and function offered by existing TDM voice services, nor should it. But, as the IP transition progresses, all affected parties (consumers, industry and policy makers) will have the opportunity to engage in an open, frank, and informed dialogue concerning any potential gap in technology, services and policy, and whether, how, and by whom such gap should be filled. In some cases, providers may need to modify or upgrade their IP-based services to provide essential features and functions. In others, policymakers and other stakeholders may conclude that particular features and functions no longer are necessary or make sense in an all-IP world. Or they may find that entities that historically relied on TDM technology and services will have to adapt their own products and services to be compatible with next generation wireless and IP-based services. But, regardless of which solution is adopted, policymakers should ensure that all parties affected by the transition receive adequate notice of the need to adapt, and have the time and opportunity to do so.

**Verizon New England Inc.
d/b/a Verizon**

Commonwealth of Massachusetts

D.T.C. Docket No. 13-6

Respondent: Counsel/Sherri D. Schlabs
Title: Acting Director – Global
Wholesale Interconnection
Services

REQUEST: Competitive Carriers to Verizon, Set #1

DATED: December 20, 2013

ITEM: CC-VZ 1-11

Is the Agreement, or any model agreement based on the Agreement, available only to providers that claim that their retail service is an information service, or is it available to providers of telecommunications services as well?

Reply: Objection: The request seeks information that is neither relevant to the subject matter of this proceeding nor reasonably calculated to lead to the discovery of admissible evidence, to the extent that it seeks information regarding “any model agreement.” Verizon MA further objects to this request on the ground that the term “available” is unclear. Verizon presumes that the request is asking whether Verizon MA would be willing to enter into an agreement based on the alleged “model” agreement. In addition, the term “Agreement” is vague, for the reasons stated in the objections to request CC-VZ 1-1.

Subject to the above objection, Verizon MA would be willing to negotiate an agreement based on the model agreement referenced in Request CC-VZ 1-6. Such negotiations are not contingent upon how the other provider characterizes its retail services.