

**Before the Massachusetts
Department of Telecommunications and Energy**

In the Matter of

Petition of Charter Fiberlink MA-CCO, LLC
for Arbitration of an Amendment to the
Interconnection Agreement Between Verizon-
Massachusetts, Inc. and Charter Fiberlink MA-
CCO, LLC Pursuant to Section 252 of the
Communications Act of 1934, as Amended

Docket No. 06-56

**DIRECT TESTIMONY OF MIKE CORNELIUS
ON BEHALF OF CHARTER FIBERLINK MA-CCO, LLC**

August 2, 2006

EXECUTIVE SUMMARY

Charter Fiberlink seeks a fiber meet point arrangement from Verizon that is fair, equitable and efficient. Charter Fiberlink's proposed fiber meet terms and conditions do just that. Verizon's proposals, however, attempt to limit Charter Fiberlink's ability to request a fiber meet point arrangement in the first instance and attempt to force Charter Fiberlink to pay for Verizon's costs of building a fiber meet point arrangement. The testimony of Mike Cornelius, a Director of IP Telephony Engineering for Charter Fiberlink, addresses these and other disputed issues in this proceeding.

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1 **I. INTRODUCTION AND SUMMARY**

2 **Q. PLEASE STATE YOUR NAME, POSITION, EMPLOYER, AND BUSINESS**
3 **ADDRESS.**

4
5 A. My name is Mike Cornelius. I am a Director of IP Telephony Engineering for
6 Charter Communications, Inc. and its subsidiaries including Charter Fiberlink,
7 LLC ("Charter Fiberlink"). My business address is 8413 Excelsior Drive,
8 Madison, Wisconsin, 53717. I am filing this testimony on behalf of Charter
9 Fiberlink.

10 **Q. WHAT ARE YOUR DUTIES AS DIRECTOR OF IP TELEPHONY**
11 **ENGINEERING?**

12
13 A. As Director of IP Telephony Engineering for Charter Fiberlink my
14 responsibilities include managing the engineering and operations of Charter
15 Fiberlink's Voice over Internet Protocol (VoIP) network in our Central Division,
16 which includes the states Michigan, Wisconsin, Minnesota, Missouri and
17 Nebraska. I also provide technical support as needed to other Charter divisions,
18 such as the East Division of which Massachusetts is a part. My responsibilities
19 also include overseeing the detailed engineering of the internet protocol (IP) and
20 time division multiplex (TDM) networks that support voice service, negotiating
21 and managing interconnection network arrangements with other carriers and
22 directing the operation of telephone-specific network elements and their supporting
23 infrastructure. I have held this position for six years and have been deeply
24 involved in Charter Fiberlink's efforts in deploying telephone services.

25

1 **Q. PLEASE REVIEW YOUR EDUCATION AND RELEVANT WORK**
2 **EXPERIENCE.**

3
4 A. In the three years prior to coming to Charter Fiberlink, I held the position of
5 Director of Engineering at TDS Telecom, a local exchange carrier with telephone
6 and data networks in several states. My responsibilities included overseeing the
7 engineering of voice and data networks for TDS Telecom's enterprise and
8 commercial networks. Also, I had responsibility for managing the outside plant
9 facility planning for TDS Telecom's local loop and interoffice copper and fiber
10 optic facilities. My position involved making decisions on various technology
11 alternatives for switching, access and transport elements of voice and data
12 networks. In addition, I have two years of experience as a Switch Engineering
13 Manager for Sprint PCS, during which I was responsible for overseeing the design
14 of switch, transport and interconnection networks associated with cellular service.
15 Prior to Sprint PCS, I was employed by Ameritech for 13 years in a variety of
16 network engineering and operations, sales support and cost analysis positions.
17 I received a Bachelor of Science Degree in Civil Engineering from Marquette
18 University in 1982 and a Masters of Business Administration Degree from the
19 University of Wisconsin – Milwaukee in 1987. I am a registered Professional
20 Engineer in the State of Wisconsin.

21

22 **Q. PLEASE EXPLAIN THE NATURE OF THE WORK INVOLVED IN**
23 **DESIGN AND OPERATIONS OF CHARTER'S TELEPHONE SERVICE.**

24
25 A. This work entails overseeing the design of our networks in areas where we build
26 new facilities, the expansion of our existing network in areas where we have

1 previously offered or launched telephone service, focusing on the telephony-
2 specific parts of network, and the operation of those elements. This also includes,
3 on a more granular level, the operation of call routing and call-handling
4 capabilities within the network.

5 **II. STATEMENT OF SCOPE AND SUMMARY**

6 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

7 A. In my testimony I will largely address the technical and operational issues
8 stemming from the disputed issues.

9 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

10 A. My testimony addresses the issues raised by the technical and operational issues
11 in the negotiations with Verizon for a fiber meet amendment. Specifically, I
12 discuss some of the problems and concerns raised by Verizon's proposals to limit
13 Charter's right to request a fiber meet arrangement from Verizon. In my view
14 Verizon's proposals are not only unreasonable they are also unworkable in the
15 sense that they would add significant administrative burdens. In addition, I testify
16 that Verizon's costs shifting proposals are problematic because the shift costs
17 unfairly. Also, my testimony explains why Verizon's proposed limitations on the
18 location of the fiber meet point, the length of fiber, and the traffic carried over the
19 fiber meet point arrangement are problematic. Finally, my testimony responds to
20 some of the additional technical issues raised in Charter and Verizon's
21 supplemental filings in this case.

1 **III. DISCUSSION OF SPECIFIC ISSUES IN THIS PROCEEDING**

2 **III.A. ISSUE 1 - VERIZON'S PROPOSED TRAFFIC THRESHOLD**
3 **LIMITATIONS ON CHARTER'S ABILITY TO REQUEST FIBER MEET**
4 **POINT ARRANGEMENTS**
5

6 **Q. WHAT IS THE ISSUE HERE?**

7 A. The issue here is whether Verizon can impose traffic threshold limitations on when
8 Charter may establish a fiber meet arrangement. The specific situation giving rise
9 to this issue occurs when Charter is entering a new market to provide telephone
10 service in competition with Verizon. In order to provide service to its end users
11 Charter must interconnect with Verizon's network so that it can send and receive
12 calls to and from the public switched telephone network (i.e. Verizon's network in
13 large part).

14 To interconnect with Verizon Charter has three main options: (1) collocation in a
15 Verizon central office; (2) leasing facilities from Verizon to connect the two
16 parties' networks; and (3) a fiber meet point arrangement. This issue relates to
17 option number 3, fiber meet arrangements.

18 **Q. IF CHARTER HAS THREE AVAILABLE METHODS OF**
19 **INTERCONNECTION, WHAT'S THE CONCERN?**
20

21 A. The first option, collocation, is not normally attractive to Charter. Generally,
22 collocation is useful for a competing local exchange carrier ("CLEC") that wants
23 to access an incumbent local exchange carrier's ("ILEC's") unbundled network
24 elements, such as copper loops or interoffice transport capabilities. Charter has its
25 own network, and so has no need for unbundled elements. As a result, it is very
26 difficult to justify incurring the time and expense of collocation.

1 The second option, leasing facilities from Verizon, is relatively easy to implement,
2 but it can be costly. In addition, to the extent that Charter leases essential elements
3 of its network from Verizon, Charter's control over its own business is diminished.
4 While it is difficult to quantify the "cost" of this factor, from an operations
5 perspective Charter prefers to have as much control over its own activities as is
6 feasible.

7 This means that the third option, interconnecting via fiber meet points
8 arrangements, is often the most advantageous form of interconnection for Charter.
9 However, that option is not available to Charter at this time because of Verizon's
10 unwillingness to establish such arrangements. Therefore, practically speaking,
11 Charter is essentially left with only one option: leasing facilities from Verizon in
12 every market in which Charter provides service.

13 **Q. WHY DOESN'T CHARTER SIMPLY CONTINUE TO LEASE**
14 **FACILITIES FROM VERIZON TO ACHIEVE INTERCONNECTION?**

15
16 A. Mr. Shremp discusses this concern from a business perspective. From an
17 operational and engineering perspective, there are two problems with leasing
18 facilities from Verizon, noted above. First is simply cost. As noted above, when
19 Charter leases facilities from Verizon it pays a significant amount of money to
20 Verizon to lease those facilities. Our most recent estimate is that Charter pays
21 Verizon approximately \$25,000 a month in Massachusetts to lease those facilities.
22 If you include the cost of leasing facilities in other states Charter's total liability to
23 Verizon is significantly higher than that figure. Second is control over our own
24 operations. We prefer to rely on Verizon as little as we can in providing our own
25 services. Obviously we have to rely on Verizon to exchange traffic with Verizon's

1 own customers, but beyond that, over the long term, we want to have as much
2 control over our own network and operations as we can. Therefore, simply leasing
3 facilities from Verizon is not a viable long term strategy for interconnection.

4 That is precisely why Charter initiated its request to establish a fiber meet point
5 arrangement with Verizon. If Charter can establish a fiber meet point arrangement
6 when it first enters a particular market, it can begin to develop the arrangement as
7 it establishes its presence in the market. This approach is much more efficient than
8 having to wait until the time where a requisite level of traffic is being exchanged
9 until it can begin the work of establishing a fiber meet point.

10 **Q. WHAT IS CHARTER'S PROPOSAL ON THE QUESTION OF WHEN THE**
11 **PARTIES SHOULD BE ABLE TO MOVE TO A FIBER MEET POINT**
12 **ARRANGEMENT?**

13
14 **A.** Generally speaking, Charter proposes that either Party should be allowed to request
15 a fiber meet arrangement with the other Party after the requesting Party provides a
16 good faith, written forecast to the other showing that the Parties expect to exchange
17 an amount of traffic equal to a utilization level of at least one (1) DS3 within the
18 next twelve (12) months. Section 2.1.1 of Charter's proposed language doesn't
19 make this forecast concept explicit, but Charter is willing to adhere to that policy in
20 the interests of reaching an accommodation with Verizon. Thus, under this
21 arrangement Charter could request a fiber meet point arrangement at the point
22 when it first enters a new market, or after it has already entered a given market and
23 established interconnection arrangements with Verizon, depending on its good
24 faith traffic estimates.

1 I believe the concept of accepting a forecast for planning the timing of a meet point
2 is critical. Although it is possible that Charter will choose to lease in new markets
3 based on the time required to provide leased transport versus a fiber meet point, it
4 would be patently unfair to force Charter to do so in every instance.

5 **Q. WOULDN'T CHARTER'S PROPOSAL ENCOURAGE CHARTER TO**
6 **REQUEST AND ESTABLISH FIBER MEET ARRANGEMENTS WHEN**
7 **THE LEVEL OF TRAFFIC DOES NOT JUSTIFY THEM?**

8
9 A. No. Charter incurs costs in establishing a fiber meet arrangement that are
10 comparable to, if not greater than, those that Verizon incurs. We have no incentive
11 to voluntarily incur those costs if the level of traffic is too low to justify a fiber
12 meet arrangement. When we establish a fiber meet arrangement, we are
13 necessarily "putting our money where our mouth is" with regard to our forecasted
14 traffic levels. In the nature of things, forecasts are not always completely accurate,
15 but we are not asking Verizon to incur the costs of establishing a fiber meet
16 arrangement unless Charter is willing to incur those same, or greater, costs itself.
17 That provides a natural disincentive to over-ordering fiber meet arrangements.

18 **Q. DOES YOUR PROPOSAL CONFLICT WITH VERIZON'S PROPOSAL TO**
19 **LIMIT CHARTER'S RIGHT TO REQUEST A FIBER MEET**
20 **ARRANGEMENT?**

21
22 A. Yes. Verizon wants to limit the situations where Charter can request a fiber meet
23 arrangement from Verizon to those situations where the Parties are already
24 exchanging a DS3's worth of traffic. This DS3 threshold concept is embodied in
25 four specific (and somewhat complicated) proposals that Verizon has made. Each
26 includes a traffic threshold "test" and some obligation for Charter to compensate
27 Verizon for Verizon's fiber meet costs.

1 **Q. WHAT IS VERIZON'S FIRST TRAFFIC THRESHOLD TEST?**

2
3 Under Verizon's first test Charter can request a fiber meet arrangement in a
4 particular LATA at any time where the Parties are already interconnected and
5 already exchanging traffic in an amount equal to a utilization level of at least one
6 DS3. Notably, Verizon does not count all of the traffic that the Parties exchange
7 against this threshold test, but proposes instead that the threshold only apply to
8 what Verizon calls "applicable" traffic. This test is detailed in Section 2.1.1 of
9 Verizon's proposal.

10 **Q. WHAT DOES VERIZON MEAN BY "APPLICABLE" TRAFFIC?**

11 A. Verizon takes the position that only certain types of traffic may be exchanged over
12 the fiber meet point arrangement. Generally, Verizon will agree to exchange local
13 telephone calls, some IntraLATA toll calls, ISP-bound traffic and transit traffic.
14 This is what Verizon deems to be "applicable" traffic.

15 Verizon will **not** agree to exchange other types of traffic over the fiber meet point
16 arrangement unless Charter agrees to pay Verizon tariff charges for the carriage of
17 such traffic. The types of traffic that fall into this category are operator
18 services/directory assistance traffic, 911 traffic and exchange access traffic. The
19 reasonableness of Verizon's proposed tariff charges is addressed more fully below
20 in my testimony below concerning this issue.

21 **Q. WHAT ARE CHARTER'S CONCERNS WITH VERIZON'S FIRST**
22 **TRAFFIC THRESHOLD TEST?**

23
24 A. Charter's primary concern is that it limits Charter's ability to establish a
25 technically feasible method of interconnection with Verizon. Under this test
26 Charter cannot request a fiber meet arrangement with Verizon until it first enters

1 the applicable market, leases facilities from Verizon, and then begins to serve
2 customers in the market and exchange traffic with Verizon. That process can take
3 time, which means that Charter is forced to lease facilities for a period of time until
4 the requisite traffic threshold is satisfied.

5 Another concern is that the distinction Verizon makes with respect to so-called
6 "applicable" traffic is noteworthy because Verizon does not count any of this latter
7 group of traffic against the DS3 traffic threshold requirement. This traffic
8 limitation makes no sense from an engineering perspective. Under this limitation,
9 Charter and Verizon could be exchanging more than a DS3's worth of traffic, but
10 Verizon would still deny Charter the right to establish a fiber meet arrangement
11 because of this arbitrary exclusion of certain types of traffic.

12 **Q. WHAT IS VERIZON'S SECOND TRAFFIC THRESHOLD TEST?**

13 A. The second traffic threshold test is very complicated. Broadly speaking, Verizon
14 proposes that Charter can request a fiber meet arrangement in a particular LATA
15 where the Parties are already interconnected but exchanging less than a DS3's
16 worth of traffic. However, in this situation Charter must specifically satisfy three
17 very strict criteria:

18 (1) that seventy (70) percent of the leased facilities are being utilized;

19 (2) that the growth of traffic on these facilities is increasing by eight (8)
20 percent over the previous three (3) months; and

21 (3) Charter submits a written forecast showing that the Parties will
22 consistently exchange an amount of traffic equal to a utilization level of at
23 least one DS3 within the next twelve (12) months.

1 My summary doesn't do justice to the complexity of Verizon's second traffic
2 threshold test, so we took the liberty of reprinting it here in my testimony. This
3 test is detailed in Section 2.1.2 of Verizon's proposed fiber meet, which is copied
4 below (with key language highlighted):

5 Charter may request a fiber meet arrangement by providing written notice
6 thereof to Verizon if (a) in the preceding month the Parties exchanged
7 applicable traffic in the relevant exchange(s) in an amount equal to a
8 utilization level of at least seventy percent (70%) of one (1) DS3; (b) the
9 amount of such traffic exchanged during the preceding three month period
10 increased by at least eight percent (8%); and (c) Charter has submitted a
11 good faith, written forecast to Verizon showing that the Parties will
12 consistently exchange an amount of applicable traffic equal to a utilization
13 level of at least one (1) DS3 within the next twelve (12) months.

14
15 **Requirement (a) in this Section 2.1.2 will be deemed satisfied where the**
16 **Parties have activated at least 20 DS1s on a DS3 used to exchange**
17 **applicable traffic and the amount of applicable traffic exchanged on**
18 **such activated DS1s (excluding those DS1s used solely and exclusively**
19 **for intraLATA toll traffic originated by Verizon's Customers, 911**
20 **traffic, Operator Services/Directory Assistance traffic or Exchange**
21 **Access traffic between Charter's Telephone Exchange Service**
22 **Customers and purchasers of Switched Exchange Access Service via a**
23 **Verizon access Tandem) was, on average, at least 200,000 minutes of**
24 **use per DS1 for the relevant month or at least 600 busy hour Centium**
25 **Call Seconds (BHCCS) of use per DS1 for the relevant month.** If
26 Charter requests and the Parties agree to establish a fiber meet arrangement
27 under this Section 2.1.2, the Parties will work cooperatively and use
28 commercially reasonable efforts to implement such fiber meet arrangement
29 prior to the time the Parties begin exchanging applicable traffic in an
30 amount equal to a utilization level of one (1) DS3.

31
32 If the Parties establish a fiber meet arrangement under this Section 2.1.2,
33 then, **for any month** (except for the first month after the establishment of
34 such fiber meet arrangement) **that Verizon determines that the Parties**
35 **did not exchange applicable traffic over such fiber meet arrangement**
36 **in an amount equal to a utilization level of at least one (1) DS3, Verizon**
37 **may bill (and Charter shall pay) Verizon's short-term (month to**
38 **month) Tariff rates for a DS3 Channel Termination, a DS3/DS1**
39 **Multiplexer and, if applicable, mileage between Verizon wire centers.**
40

41 Verizon Proposal, Section 2.1.2 (emphasis added).

1 **Q: ISN'T TRUE THAT CHARTER'S NEGOTIATORS INTRODUCED SOME**
2 **OF THESE SAME CONCEPTS DURING NEGOTIATIONS?**

3
4 A. It may be true that Charter's negotiators offered some of these concepts during
5 negotiations. Frankly, I don't know if that is relevant at this point though. But it is
6 certainly true that during negotiations, Charter was searching for a workable
7 compromise and attempted on several occasions to revise or reform Verizon's
8 unreasonable demands. But in the end it became clear to Charter that Verizon's
9 constant overreaching, as embodied in these proposals, was unreasonable and, in
10 discussions with counsel, beyond what can be required of CLECs under the federal
11 rules. Moreover, to my knowledge, no other ILEC imposes these burdensome
12 requirements on fiber meet point arrangements – not even Verizon with Charter in
13 Wisconsin.

14 **Q. WHAT ARE CHARTER'S CONCERNS WITH THIS PROPOSAL?**

15 A. Charter has several concerns. First, note that in order to request a fiber meet
16 arrangement under this proposal Charter must meet three criteria. Charter must: 1)
17 be using seventy (70) percent of existing leased DS3 facilities; 2) demonstrate that
18 the amount of traffic over those leased facilities increased by eight (8) percent over
19 the previous three month period; and 3) submit a forecast to Verizon that Charter
20 expects to exchange a DS3's worth of traffic within the next twelve (12) months.

21 So, Charter must meet all three criteria in order to secure a fiber meet arrangement
22 with Verizon.

23 Second, to demonstrate that seventy (70) percent of the leased facilities are being
24 utilized Charter has to satisfy additional criteria. Specifically, the Parties must
25 have:

1 (i) "activated" at least 20 DS1s on a DS3 used to exchange applicable
2 traffic, and
3 (ii) the amount of "applicable traffic" exchanged on such activated DS1s
4 must be, on average, at least 200,000 minutes of use per DS1 for the
5 relevant month or at least 600 busy hour Centium Call Seconds (BHCCS)
6 of use per DS1 for the relevant month.

7
8 And the amount of "applicable traffic" exchanged on such activated DS1s
9 specifically *excludes* those DS1s used solely and exclusively for intraLATA toll
10 traffic originated by Verizon's Customers, 911 traffic, Operator Services/Directory
11 Assistance traffic or Exchange Access traffic between Charter's Telephone
12 Exchange Service Customers and purchasers of Switched Exchange Access
13 Service via a Verizon access Tandem.

14 Verizon's trunk utilization (or traffic measurement proposals) assume that one or
15 both Parties can easily determine how much traffic is exchanged over a particular
16 facility. Unfortunately, that may not be the case. Moreover, Verizon's proposal
17 would, in my view, be very difficult to administer and it raises questions of how
18 each Party (or the Parties collectively) would actually measure this traffic. It is a
19 proposal that on paper may be workable, but which would be much more difficult
20 to actually implement and administer. In this way they would impose a significant
21 administrative burden on both Verizon and Charter's engineering and operations
22 personnel.

23 Moreover, these trunk utilization proposals would not only be burdensome, but
24 they are also unnecessary since all trunk groups are designed for a forecasted
25 demand rather than actual measured traffic. In other words, trunk groups are built
26 on what we expect to happen, not because a particular event in the past (such as
27 calls to American Idol) caused a high call volume.

1 These additional criteria are a concern for several reasons. First, 200,000 minutes
2 of use on a DS1 is a very high utilization level. Indeed, in my experience sound
3 network planning calls for adding more interconnected trunks before the utilization
4 level reaches 200,000 minutes of use on a particular DS1 expanding the size of a
5 “cross-section” between two networks if utilization is much lower than that. So
6 Verizon is essentially saying that we can request a fiber meet arrangement only if
7 we take risks with our interconnection network by allowing them to become too
8 full. Indeed, in my experience most ILECs actually require an interconnected
9 CLEC to establish additional trunking before those utilization levels are met.

10 **Q. ARE THERE OTHER CONCERNS WITH THIS PROPOSAL?**

11 A. Yes. Charter’s other major concern is that part of Verizon’s proposal that Charter
12 pay Verizon short term “(month to month) tariff rates for a DS3 Channel
13 Termination, a DS3/DS1 Multiplexer and, if applicable, mileage between Verizon
14 wire centers.” Note that this liability is triggered when *Verizon determines* that
15 the Parties did not exchange “applicable traffic” –Charter has no say in that
16 determination. My colleague, Ted Schremp, addresses Charter’s objections to
17 these compensation issues in his testimony.

18 **Q. WHAT IS VERIZON’S THIRD TRAFFIC THRESHOLD REQUIREMENT?**

19 A. Under this test Charter can request a fiber meet arrangement from Verizon if
20 Charter first attempts to lease facilities from Verizon and no such facilities are
21 available. In addition, this test includes the compensation provision in Verizon’s
22 other tests, which requires that Charter pay Verizon short term “(month to month)
23 tariff rates for a DS3 Channel Termination, a DS3/DS1 Multiplexer and, if

1 applicable, mileage between Verizon wire centers.” Again, note that this liability
2 is triggered when Verizon (and Verizon alone) determines that the Parties did not
3 exchange “applicable traffic.” This proposal is detailed in Section 2.1.3 of
4 Verizon’s proposal.

5 **Q. WHAT IS CHARTER’S CONCERN WITH VERIZON’S THIRD TRAFFIC**
6 **REQUIREMENT?**

7
8 A. The primary concern here is that this test presumes that Charter must first lease
9 facilities from Verizon before seeking a fiber meet arrangement. Only if such
10 facilities are not available would Verizon agree to begin establishing a fiber meet
11 arrangement. This arbitrary limitation on Charter’s right to request a fiber meet
12 arrangement is objectionable. My colleague, Ted Schremp, addresses Charter’s
13 objections to these compensation issues in his testimony.

14 **Q. WHAT IS VERIZON’S FOURTH TRAFFIC THRESHOLD**
15 **REQUIREMENT?**

16
17 A. This test, unlike the others, does not require Charter to meet certain thresholds
18 before it can request a fiber meet arrangement from Verizon. Instead, it allows
19 Charter to request such an arrangement if Charter forecasts that the Parties will
20 exchange an amount of “applicable” traffic equal one (1) DS3 within the next
21 twelve (12) months. Putting aside the limitation to “applicable traffic,” this
22 approach requires that Charter must provide Verizon a letter of credit or cash
23 security deposit “in an amount determined by Verizon based upon Verizon’s
24 anticipated costs (including, without limitation, labor at Verizon’s Tariff rates for
25 the deployment) of facilities.” This proposal is detailed in Section 2.1.4 of
26 Verizon’s proposal.

1 **Q. WHAT ARE CHARTER'S CONCERNS WITH VERIZON'S FOURTH**
2 **TRAFFIC THRESHOLD TEST?**

3
4 A. Charter has no objection to the concept of conditioning a request for a fiber meet
5 arrangement on a written forecast. Indeed, as explained below, that is precisely
6 what Charter proposes as the appropriate trigger. Charter's sole concern with this
7 proposal is the provisions that would require Charter to provide Verizon a letter of
8 credit or security deposit. My colleague, Ted Schremp, addresses Charter's
9 objections to these compensation issues in his testimony.

10 **Q. DID VERIZON MAKE THE SAME DEMANDS BEFORE THE PARTIES'**
11 **ESTABLISHED A FIBER MEET POINT ARRANGEMENT IN**
12 **WISCONSIN?**

13
14 A. No. In fact, the Parties established the fiber meet point arrangement in Wisconsin
15 after Charter provided a forecast to Verizon of a DS3's worth of traffic within
16 twelve months of the forecast. In other words, in Wisconsin we followed the same
17 approach that Charter is proposing to use here in Massachusetts. In addition, I
18 would note that there was no letter of credit, cash security deposit, or assurance of
19 payment associated with the fiber meet point arrangement in Wisconsin.

20 That is not to say that the Parties agreed on every detail of implementation, there
21 were some disagreements on technical issues and the location of the fiber meet
22 point arrangement. But Verizon did not make the types of demands that it is
23 making here in Massachusetts.

24 **Q. HAS VERIZON EVER SUGGESTED THAT THE FIBER MEET POINT**
25 **ARRANGEMENT IN WISCONSIN IS NOT AN EFFICIENT USE OF**
26 **RESOURCES?**
27

1 A. No. As far as I can tell the fiber meet point arrangement in Wisconsin represents a
2 mutually beneficial arrangement; and I am not aware of any Verizon complaints
3 that this arrangement is inefficient or otherwise unfair to Verizon.

4 **Q. VERIZON ARGUES THAT A DS3 THRESHOLD REQUIREMENT IS**
5 **NECESSARY TO ENSURE EFFICIENT USE OF FIBER OPTIC**
6 **EQUIPMENT TO BE DEPLOYED. IS THIS ACCURATE?**
7

8 A. No. Verizon's argument misses the point. Charter is not asking for a fiber meet
9 arrangement in order to exchange *less* than a DS3's worth of traffic volume.
10 Charter recognizes that the most efficient use of these facilities is to transport high
11 volumes of traffic. Indeed, that is precisely why Charter is requesting a fiber meet
12 arrangement: because Charter expects to have a high volume of traffic that it will
13 exchange with Verizon. So both parties agree that you don't want to use a fiber
14 meet arrangement if there is not an appropriate volume of traffic. And, as noted
15 above, establishing a fiber meet point is costly for Charter as well as for Verizon.
16 Charter has no economic incentive to establish a fiber meet point if it does not truly
17 expect traffic volumes to justify this facility.
18 Indeed, as I explained above entities in this industry build facilities to a forecast,
19 not existing traffic, since it is not reasonable to expect a carrier to build a network
20 in real time. I would assume that the same is true of Verizon, that they build their
21 networks based on their own forecasts. Those same forecasts drive engineering
22 decisions on the best type of facilities to handle the anticipated volume of traffic.
23 If Charter is forced to wait until the traffic already exists, it has lost the opportunity
24 to provide those best facilities.

25 **Q. ARE THERE ANY OTHER CONCERNS WITH VERIZON'S PROPOSAL?**

1 A. Yes, the other major concern is one of timing. Verizon's proposals (at least the
2 first two) have the effect of forcing Charter to enter a market, begin leasing
3 facilities from Verizon, and then begin offering service to its end users. That
4 process takes time. This has the effect of acting as an economic "brake" on
5 Charter's ability to expand service in a market. Given the lead times necessary to
6 establish a fiber meet point, in a situation of rapid traffic growth, Charter could
7 well have to lease expensive additional facilities from Verizon while the meet
8 point is being established, only to take those facilities down when it is completed.
9 This is essentially wasted money as far as Charter is concerned (although Verizon
10 presumably, is happy to get paid its tariffed month-to-month rates for any leased
11 facilities). However, there is no reason to subject Charter to these costs.

12 **III.B. ISSUE 2 – ALLOCATION OF THE COSTS OF THE FIBER MEET POINT**
13 **ARRANGEMENT**

14
15 **Q. WHAT IS THIS DISPUTE ABOUT?**

16
17 A. The dispute here is whether Charter should be required to pay for Verizon's fiber
18 meet point arrangement costs if the traffic volume on any fiber meet point
19 arrangement that is requested by Charter does not reach a DS3 utilization level. In
20 other words, if the Parties build a fiber meet point arrangement at Charter's request
21 and the traffic does not reach a DS3 level, should Charter be responsible for
22 Verizon's cost of building the fiber meet point arrangement?

23 **Q. WHAT IS CHARTER'S PROPOSAL ON THIS ISSUE?**

24 A. Charter's proposal is simple: each Party should pay its own costs of building and
25 operating the fiber meet point arrangement. My colleague, Ted Schremp,

1 discusses this issue in greater detail in his testimony. As Mr. Schremp explains,
2 Charter's proposal is preferable because it represents a fair allocation of costs
3 (each side assumes their own costs); because it is significantly easier to administer
4 (because neither Party will have to determine the other Party's costs); and because
5 it eliminates any opportunity for one Party to unfairly or inappropriately "game the
6 system" by overstating its costs.

7 **Q. WHAT IS VERIZON'S PROPOSAL ON THIS ISSUE?**

8 A. Verizon has several proposals on this question, depending on the circumstances
9 surrounding how and when the fiber meet point arrangement is built. Generally
10 speaking, Verizon's proposals fall into two categories. Under both of Verizon's
11 proposals Charter will have to compensate Verizon for Verizon's costs of building
12 and operating its portion of the fiber meet point arrangement if the volume of
13 traffic does not exceed a DS3. Verizon's proposed methods of compensation differ
14 depending on the circumstances of the establishment of the fiber meet point
15 arrangement. Under one proposal Charter would have to pay Verizon tariff rates
16 for certain optical equipment and fiber as a surrogate for determining Verizon's
17 actual costs. Under the second proposal Charter would have to pay Verizon by
18 providing a letter of credit or cash security deposit that Verizon could then draw
19 form at its discretion.

20 **Q. VERIZON SAYS THESE COMPENSATION PROPOSALS (WHAT IT**
21 **CALLS "ASSURANCES") ARE NECESSARY TO ENSURE THAT**
22 **CHARTER DOES NOT REQUEST A FIBER MEET POINT**
23 **ARRANGEMENT WHEN IT IS NOT EFFICIENT TO DO SO. IS**
24 **VERIZON CORRECT?**
25

1 A. No. As my colleague, Ted Schremp, explains, Verizon's argument is flawed
2 because it assumes that Charter does not have any economic incentive to ensure
3 that Charter only requests a fiber meet point arrangement when it expects the
4 volume of traffic to be sufficiently high to justify the expense of building and
5 operating a fiber meet point arrangement. Mr. Schremp testifies further about the
6 flawed assumptions in Verizon's proposal; I will only speak to my experience
7 building and operating these meet point arrangements.

8 **Q ARE YOU AWARE OF ANY INSTANCE WHERE CHARTER HAS BUILT**
9 **A FIBER MEET POINT ARRANGEMENT THAT IS NOT, OR WAS NOT,**
10 **UTILIZED EFFICIENTLY?**

11
12 A. No. Charter has established four fiber meet point arrangements in Wisconsin;
13 three with AT&T (then SBC) and one with Verizon. In addition Charter has
14 established fiber meet arrangements with different ILECs in other states across the
15 country. I am not aware of any fiber meet point arrangement that Charter has built
16 that is currently underutilized based on the current and planned usage.

17 **Q. FROM AN ENGINEERING PERSPECTIVE, WOULD CHARTER WANT**
18 **TO BUILD A FIBER MEET POINT ARRANGEMENT THAT WAS NOT**
19 **FULLY UTILIZED?**
20

21 A. No, that is contrary to the return on investment business principles we follow when
22 building these types of arrangements and other network facilities. Fiber, or optical,
23 transport systems allow bandwidth to grow much more easily and economically
24 than copper T1 facilities. With SONET terminals now routinely built to
25 accommodate OC-48 signals, transport facilities can be expanded, if necessary, to
26 handle 48 DS3s worth of traffic. Conversely, this would require 1344 individual
27 T1s to provide the equivalent bandwidth. At relatively low traffic volumes, T1

1 facilities are more economical, since optical transport systems generally do not
2 provide bandwidth below a DS3. The breakeven point of T1s versus a DS3 facility
3 depend on the individual circumstances, but Charter would agree that it would not
4 be economical to build an optical transport system (i.e. fiber meet) for less than
5 seven or eight T1s worth of traffic.

6 **Q. VERIZON SUGGESTS THAT IT COULD BE LEFT WITH STRANDED**
7 **PLANT OR INVESTMENT IF A FIBER MEET POINT IS NOT FULLY**
8 **UTILIZED. WHAT IS CHARTER'S RESPONSE?**
9

10 A. That may be theoretically true, but it is equally true for Charter. If Charter incurs
11 the costs of establishing a fiber meet point and then does not have enough traffic to
12 justify it, Charter will have wasted its own money – something that, like any
13 business, we are motivated to avoid. As noted above, I am not aware of any
14 situation where Charter has built a fiber meet point arrangement that is
15 underutilized. So I don't know of any situation where an ILEC has been left with
16 so-called stranded plant or investment. If that situation did come to pass, though, I
17 would note that the equipment used in these meet point arrangements is, for the
18 most, part highly fungible. Fiber optic terminals, multiplexers, and other similar
19 equipment can be moved to another location if it is not needed in its existing
20 location. That is, it can be relocated and utilized at other places in the network.
21 For that reason, if the situation did arise where a fiber meet point was not fully
22 utilized, and was later turned down, Verizon could presumably use the fiber,
23 network interface devices and optical equipment in other areas of its network.
24 In addition, although I do not know the details of Verizon's fiber network in
25 Massachusetts, it would not surprise me to learn that Verizon has already deployed

1 fiber optic terminals and similar equipment in many of its central offices.
2 Normally this equipment can handle the termination of a number of different fiber
3 strands. So it is not accurate to suggest that establishing a fiber meet point entails
4 Verizon buying new equipment that is specific to the fiber meet with Charter. To
5 the contrary, I suspect that in many cases Verizon will already have the equipment
6 in place. Obviously, in the long run, it is important that any network's equipment
7 be efficiently utilized; but the idea that low traffic levels on a particular individual
8 fiber route will lead to "stranded" fiber optic equipment is overstated. One could
9 also argue that because we are, in large part, taking customers of theirs, that they
10 are simply reallocating the transport from entirely within their network to between
11 their network and ours.

12 **Q. SINCE THIS ISSUE CONCERNS COSTS, DO YOU KNOW WHAT**
13 **VERIZON'S COSTS OF BUILDING AND OPERATING A FIBER MEET**
14 **POINT ARRANGEMENT WOULD BE?**

15
16 **A.** No. As far as I know, Verizon has never provided Charter with any detailed
17 estimate of its costs. I understand that Charter's negotiators requested those
18 estimates on several occasions prior to this arbitration, but Verizon never provided
19 them. I do know that in two filings made to the D.T.E. Verizon has suggested that
20 their costs of building and operating a fiber meet point arrangement would at most
21 fall in the range of \$60,000 to \$90,000.

22 **Q. HAS CHARTER ESTIMATED ITS COST OF BUILDING A FIBER MEET**
23 **POINT IN MASSACHUSETTS?**

24
25 **A.** Yes. In LATA 128 Charter has estimated that its cost of building a fiber meet
26 point arrangement would be approximately \$76,000. This estimate includes the
27 cost of an estimated length of fiber to be deployed from Charter's facilities to the

1 meet point, as well as necessary SONET equipment costs and OC3 cards. In
2 LATA 126 Charter has estimated that the costs of building a fiber meet point
3 arrangement would be approximately \$25,000. Notably, these estimates are of the
4 cost of facilities only, they do not include any labor, engineering and other
5 administrative costs.

6 **III.C. ISSUE 3 - VERIZON'S PROPOSED PHYSICAL LIMITATIONS ON THE**
7 **LOCATION OF THE FIBER MEET POINT ARRANGEMENT**
8

9 **Q. WHAT IS THE ISSUE HERE?**

10 A. The dispute here is whether or not Verizon can unilaterally narrow the scope and
11 location of the fiber meet point by (1) limiting the geographic areas where Verizon
12 will establish a fiber meet arrangement with Charter, and (2) by limiting the
13 amount of fiber Verizon will agree to deploy to build the fiber meet point
14 arrangement.

15 **Q. WHAT IS VERIZON'S PROPOSAL?**

16 A. On the question concerning the limits of the location of the fiber meet point from
17 the Verizon central office ("CO"), Verizon proposes that any fiber meet point
18 arrangement can be no further than three (3) miles from any Verizon. With
19 respect to the limitations regarding the amount of fiber deployed by Verizon,
20 Verizon proposes that it will not deploy more than five hundred (500) feet of fiber
21 for any single fiber meet point arrangement.

22 **Q. WHAT IS CHARTER'S PROPOSAL?**

23 A. Charter proposes that the location of the fiber meet arrangement should be
24 established by mutual agreement, rather than limited by the distance from

1 Verizon's CO. In addition, Verizon's obligations to deploy necessary fiber should
2 only be limited to areas within its serving territory and should be based upon the
3 amount of fiber necessary to complete a fiber meet point arrangement that is
4 established at a mutually agreed location.

5 **Q. WHY IS CHARTER'S PROPOSAL PREFERABLE?**

6 A. Charter's proposal is preferable because it is equitable: it ensures that the Parties
7 share equally in the overall cost of deploying fiber and facilities. Moreover, it does
8 not contain any arbitrary limits on the location of fiber meet point arrangement or
9 the length of fiber that any one party will deploy.

10 **Q. WHAT ARE CHARTER'S CONCERNS WITH VERIZON'S PROPOSAL?**

11 A. Verizon's proposed limitations do not appear to be based upon any discernible
12 engineering or economic criteria, but instead seem to be arbitrary limitations
13 designed to limit Verizon's potential costs, while at the same time increasing
14 Charter's potential costs.

15 Under Verizon's proposed limitations, any future fiber meet point arrangement
16 would not be established at a mutually agreed - upon location, but would instead be
17 established very close to a Verizon central office. This would occur regardless of
18 the location of the Charter switch, or other facility, in the LATA from which
19 Charter's fiber would need to be deployed. As a consequence, Charter would be
20 required to deploy potentially greater amounts of fiber than Verizon, thereby
21 incurring additional costs on its side of the fiber meet arrangement. That result is
22 inequitable and inefficient. It is also inconsistent with the principle that parties to a
23 fiber meet point arrangement should equitably bear the costs of establishing such

1 an arrangement.

2 **Q. IS IT POSSIBLE THAT THERE ARE TECHNICAL REASONS BEHIND**
3 **VERIZON'S PROPOSED LIMITATIONS?**

4
5 A. Anything is possible, but if there is any technical reasoning behind Verizon's
6 proposed limitations, Verizon has never articulated them, and I don't know what
7 they are. From my experience with these issues, the three (3) mile limitation
8 appears to be totally arbitrary. Signals on optical fiber using standard technology
9 can be transmitted for roughly 60 miles without the need for regeneration
10 equipment. So assuming that the Verizon CO is where the signal is generated, any
11 signals transmitted within that distance (60 miles) should not be affected. For that
12 reason, there would there not seem to be any technical reason to limit the distance
13 of the fiber meet point arrangement from Verizon's CO. Nor would there be any
14 technical basis for limiting the amount of fiber deployed from that CO.

15 In addition, the limitation on the length of fiber Verizon will deploy also seems
16 arbitrarily short considering that Charter may well have to deploy significantly
17 more fiber from its location. A more equitable approach would be to establish that
18 Verizon would not have to deploy a materially greater amount of fiber than Charter
19 must deploy.

20 **Q. ARE YOU SUGGESTING THAT VERIZON SHOULD BE REQUIRED TO**
21 **PLACE 60 MILES OF FIBER IN ESTABLISHING A FIBER MEET**
22 **POINT?**

23
24 A. No. First, I find it hard to imagine a situation where Charter would not have its
25 own fiber facilities much closer to a Verizon central office. In fact, I wouldn't be
26 surprised if Verizon's fiber facilities were already deployed throughout its serving
27 areas in Massachusetts. Similarly, I recognize that at some point the cost of

1 establishing a fiber meet arrangement might be so large as to make the
2 arrangement impractical. Mr. Shremp addresses these issues in more detail. My
3 point here is simply that there is no *technical* basis for Verizon's proposed
4 limitations.

5 **Q. ARE YOU AWARE OF OTHER INSTANCES WHERE ONE PARTY TO A**
6 **FIBER MEET POINT ARRANGEMENT UNILATERALLY, AND**
7 **ARBITRATRILY, LIMITS THE LOCATION OF THE MEET POINT**
8 **ARRANGEMENT?**

9
10 A. No.

11 **III.D. ISSUE 4 - VERIZON'S PROPOSED LIMITATIONS ON THE TYPES OF**
12 **TRAFFIC TO BE EXCHANGED OVER THE FIBER MEET POINT**
13 **ARRANGEMENT**
14

15 **Q. WHAT IS THE ISSUE HERE?**

16 A. This issue raises the question of what types of traffic will be exchanged over the
17 fiber meet point arrangement.

18 **Q. WHAT IS CHARTER'S PROPOSAL ON THIS ISSUE?**

19 A. Charter proposes that the Parties exchange all forms of traffic over the fiber meet
20 point arrangement, without regard to its jurisdictional status (i.e. local or toll
21 traffic) or other classifications that may be used for billing or other purposes.

22 **Q. WHAT IS VERIZON'S PROPOSAL?**

23 A. Verizon proposes that the amendment specifically limit the traffic to be exchanged
24 over the fiber meet arrangement to certain types of traffic. Further, Verizon also
25 proposes that if additional types of traffic are exchanged over the fiber meet
26 arrangement then such traffic may be exchanged "subject to applicable Verizon
27 Tariff rates and charges."

1 **Q. WHY IS CHARTER'S PROPOSAL PREFERRED?**

2 A. There is no technical reason to segregate certain types of traffic from the fiber meet
3 point arrangement and, indeed, it is costly to do so. Therefore, because the fiber
4 meet point arrangement is a high-capacity, reliable physical facility it should be
5 fully utilized by the Parties and should be used to carry all other types of traffic
6 that the Parties exchange.

7 **Q. WHAT ARE YOUR CONCERNS WITH VERIZON'S PROPOSAL?**

8 A. Charter's concern is that Verizon's proposal creates inefficiencies for the exchange
9 of traffic between the two Parties. Given that the Parties will have a high-capacity
10 fiber interconnection, the logical thing to do is to use that high-capacity connection
11 for all types of traffic they will exchange. Requiring Charter to either build or buy
12 from Verizon a separate physical connection for separate types of traffic is
13 inefficient. It seems like an effort by Verizon to make our operations more costly
14 for no good engineering reason that I can see.

15 Moreover, Verizon's proposal is contrary to its earlier claims that it is concerned
16 that the fiber meet point arrangements would not be fully utilized. One way to
17 ensure that the arrangement is fully utilized is to allow the Parties to exchange all
18 the traffic between their networks on that high capacity interconnection facility.
19 That would seem to go a long way to ensuring more efficient utilization of each
20 Parties' facilities.

21 **Q. VERIZON SUGGESTS THAT THE PARTIES CAN EXCHANGE THIS**
22 **TRAFFIC OVER THE FIBER MEET ARRANGEMENT AS LONG AS**
23 **CHARTER PAYS VERIZON TARIFF RATES FOR CARRYING THIS**
24 **TRAFFIC. DOES THAT SOUND REASONABLE TO YOU?**
25

1 A. No. It is important to distinguish between fiber transport *facilities* and *trunk*
2 *groups* carried on those facilities. A common analogy to illustrate this distinction
3 is that the facility – here, optical fiber and associated equipment – is like a concrete
4 road running between two cities. Trunk groups, by contrast, are like specific lanes
5 painted onto the road.

6 Charter agrees that certain types of traffic (such as OS/DA, 911, and Meet-Point
7 trunk groups - which permit two carriers jointly providing access to separately
8 charge the affected Interexchange Carrier for the use of whatever facilities the
9 individual carrier provides) should be exchanged between the parties on separate
10 trunk groups. That will allow this traffic to be properly routed and handled within
11 each party's network. But there is no reason that I can see for these separate trunk
12 groups to be carried on physically different facilities, or that Charter should be
13 financially responsible for the transport of this type of traffic on Verizon's side of
14 the POI. To the contrary, the parties should provision these kinds of trunk groups
15 using the same efficient, high-capacity fiber optic facilities that carry the other
16 types of traffic that will flow between the two networks. For these reasons, I don't
17 know of any technical or operational basis for Verizon's attempt to force Charter to
18 pay tariff charges for carrying this traffic.

19 I would note that if Verizon's proposed tariff charges are approved, it would only
20 seem fair that Charter should have the same right to impose similar charges on
21 Verizon for the carriage of this traffic on Charter's side of the meet point
22 arrangement (which will be designated as the point of interconnection).

23

1 **III.E. ISSUE 5 – MISCELLANEOUS TECHNICAL ISSUES**

2
3 **Issue 5(a) – Use of a SONET Terminal or Add/Drop Multiplexer**

4 **Q. WHAT IS THE ISSUE HERE?**

5 A. The question here is whether the Parties should use a SONET terminal or add/drop
6 multiplexer within their respective fiber meet facilities.

7 **Q. WHAT IS CHARTER'S PROPOSAL?**

8 A. Charter proposes that each Party will, at its own cost, obtain and install at its own
9 premise SONET terminals rather than add/drop multiplexers.

10 **Q. WHAT IS VERIZON'S PROPOSAL?**

11 A. Verizon's proposal is that each Party will, at its own cost, obtain and install at its
12 own premises an add/drop multiplexer instead of a SONET terminal.

13 **Q. PLEASE EXPLAIN THE DIFFERENCES BETWEEN EACH PARTY'S**
14 **POSITION.**

15
16 A. The basic dispute here is whether the Parties will use a "SONET terminal" or an
17 "Add/Drop multiplexer" at their respective premises where the fiber optic facilities
18 terminate. Charter proposes the use of a SONET terminal while Verizon proposes
19 the use of an Add/Drop multiplexer. This issue may be simply a question of
20 semantics given that the Parties seem to contemplate the same functionality, but
21 have different labels for the equipment that provides that functionality. Charter
22 proposes to use the term "SONET" since, pursuant to section 3.2 of Exhibit A to
23 the draft fiber meet amendment, the parties will interface at a SONET rate and
24 optical interface standard. The add/drop capabilities of each Parties' respective
25 multiplexers address how each Party will disaggregate the SONET signal into
26 smaller, or tributary, signals. But, because the add/drop capabilities of the

1 multiplexers, and the specifics of such, have no effect on the interface while the
2 specific SONET optical interface standard does, SONET seems to be the more
3 appropriate term.

4 **Issue 5(b) – Use of Multiple Terminals in a Ring Configuration**

5 **Q. WHAT IS THE ISSUE HERE?**

6 A. This issue raises the question of whether multiple terminals may be used in the
7 anticipated ring configuration the Parties will utilize when building the fiber meet
8 point arrangement.

9 **Q. WHAT IS CHARTER'S POSITION?**

10 A. Charter has proposed that the use of a ring configuration should not preclude either
11 Charter or Verizon from using multiple terminals in that ring.

12 **Q. WHAT IS VERIZON'S POSITION?**

13 A. Verizon's proposed language is silent on this issue. It is not clear whether Verizon
14 objects to Charter's position or not.

15 **Q. WHY IS CHARTER'S POSITION REASONABLE?**

16 A. The draft language contemplates that the fiber meet arrangement will be built as a
17 ring configuration. Charter does not object to the use of a ring configuration but
18 wishes to clarify that the use of a ring configuration does not preclude either
19 Charter or Verizon from using multiple terminals in that ring. If Verizon desires a
20 ring configuration, then Charter should have the ability to connect one of its
21 terminals to Leg A and another terminal to Leg B, thereby creating a three node
22 ring (Charter's two terminals and Verizon's one). Charter would not object to
23 Verizon doing the same as well, or the Parties could build a four node ring.

1 **Issue 5(c) – Required Notice of Upgrade or Changes to Fiber Meet Equipment**

2 **Q. WHAT IS THE ISSUE HERE?**

3 A. This raises the question of the amount of notice each Party must provide the other
4 when one Party upgrades or changes its firmware.

5 **Q. WHAT IS CHARTER'S POSITION?**

6 A. Charter proposes that the Parties should provide written notice to one another of
7 any upgrade or change to its firmware at least seven (7) days in advance of the
8 scheduled event.

9 **Q. WHAT IS VERIZON'S POSITION?**

10 A. Verizon proposes that the Parties should provide written notice to one another of
11 any upgrade or change to its firmware at least fourteen (14) days in advance of the
12 scheduled event.

13 **Q. WHAT ARE THE REASONS BEHIND CHARTER'S PROPOSALS?**

14 A. The Parties both agree that they should provide to one another appropriate advance
15 written notice of any upgrade or change to its firmware. However, the Parties
16 disagree as to the appropriate length of that notice; Verizon advocates notice of
17 fourteen (14) days, while Charter advocates notice of seven (7) days. In addition,
18 Verizon proposes that each Party's notice "describes the upgrade or change to its
19 firmware." Charter does not believe that the notice needs to actually describe the
20 upgrade or change in any significant detail. Instead, the notice should simply
21 provide sufficient information to the other Party of the scheduled event. Charter's
22 proposal is preferred because it provides sufficient notice without burdening either
23 side with the obligation to provide excessive details or descriptions of planned

1 network changes, including changes to the firmware. Of course, either Party can
2 always ask for additional information—nothing in the agreement precludes the
3 exchange of such additional information.

4 **Issue 5(d) – Compensation for Construction and/or Implementation Expenses**
5 **Generated by a Move or Change to the Fiber Meet Point Arrangement**
6

7 **Q. WHAT IS THE ISSUE HERE?**

8 A. This issue raises the question of who should pay for the costs that arise when one
9 Party to the fiber meet arrangement moves or changes its equipment.

10 **Q. WHAT IS CHARTER'S POSITION?**

11 A. Charter's position is that where either Party is required to move or change portions
12 of the fiber meet arrangement due to an order, directive or other decree of a
13 municipality, county, zoning board or other governmental or quasi-governmental
14 authority - for example to relocate out of a public right-of-way or move from aerial
15 facilities to underground - then the Party that is subject to the order or directive
16 will not have to compensate the other Party for any costs incurred by the other
17 Party due to any move or change to the fiber meet arrangement.

18 **Q. WHAT IS VERIZON'S POSITION?**

19 A. Verizon's position is that in all instances, regardless of the circumstances
20 necessitating the move or change, the Party requesting the move or change will
21 compensate the other Party for that Party's reasonable actual incurred construction
22 and/or implementation expenses.

23 **Q. WHY SHOULD THE DEPARTMENT ADOPT CHARTER'S POSITION?**

24 A. This issue raises the question of who is required to pay for potential costs of
25 moving or changing the fiber meet arrangement in the future. Although both

1 Parties agree that they will compensate the other party for changes to the meet
2 point after it has been designed, Verizon's proposal is silent on the question of who
3 must pay for the changes if they arise due to the order or directive of a local or
4 municipal government, or other related authority, with jurisdiction over the public
5 rights-of-way. For example, a municipality that regulates the terms and conditions
6 of access to a public right-of-way may require one Party to relocate or move fiber
7 in the right-of-way, possibly from aerial to underground, or in some other similar
8 manner. In such instances Charter believes it is equitable and fair for both Parties
9 to assume the cost of any such moves or changes to the fiber meet arrangement.
10 This differs from Verizon's proposal which requires the requesting Party to pay the
11 other Party the "reasonable actual incurred construction and/or implementation
12 expenses" associated with the move under all circumstances (regardless of the
13 reason for the move or change).

14 **III. F VERIZON'S ADDITIONAL ISSUES**

15
16 **ISSUE 6 (VERIZON ISSUE 1) – SHOULD THE DEPLOYMENT**
17 **INTERVALS BE SUBJECT TO CHARTER'S COMPLETION OF**
18 **CERTAIN MILESTONES?**

19
20
21 **Q. WHAT IS THE ISSUE HERE?**

22
23 **A.** This issue concerns the timeframes governing the implementation of the fiber meet
24 point arrangement. Specifically, although the Parties apparently agree that the
25 overall time frame for implementation of the fiber meet point arrangement should
26 be 120 days, Verizon is proposing that Charter should be held to internal deadlines
27 within the 120 day framework.

28 **Q. WHAT IS VERIZON'S SPECIFIC PROPOSAL?**

1 A. Verizon wants to make the completion of the fiber meet point arrangement within
2 120 days of the initial implementation meeting contingent on Charter's ability to
3 meet its construction milestones on time.

4 **Q. WHAT IS CHARTER'S RESPONSE TO THIS PROPOSAL?**

5 A. In concept Charter doesn't oppose the idea of building in internal timeframes that
6 will impact the final implementation time of the fiber meet point arrangement.
7 That said, it would seem to make sense for the Parties agree to develop these
8 internal deadlines at the initial implementation meeting. In that way, both Parties
9 engineers and other operations personnel can decided for themselves when these
10 internal deadlines should be established.

11 **Q. ARE THERE OTHER ELEMENTS OF VERIZON'S PROPOSAL THAT**
12 **YOU WISH TO ADDRESS?**

13
14 A. Yes, Verizon also proposes to limit the number of facilities or trunks that would be
15 subject to the 60 day implementation timeframe (that the Parties apparently agree
16 upon). Specifically, Verizon proposes to limit the number of facilities to no more
17 than 10 new trunk groups or 1440 switched trunks.

18 **Q. WHAT IS CHARTER'S RESPONSE TO THIS PROPOSAL?**

19 A. Verizon's proposal seems to assume there will be no facilities or trunks in place
20 already. However, that may not always be the case. If there are facilities or trunks
21 in place then Charter believes that the Parties should agree that within 30 calendar
22 days of turn-up of the fiber meet point arrangement the Parties will work together
23 to establish an agreeable time frame for rolling over all existing DS3's that are in
24 place between the Parties. Any other specific trunk or facilities limitations should
25 be established by the Parties at the initial implementation meeting.

**ISSUE 7 (VERIZON ISSUE 2) – SHOULD THE PARTIES BE ABLE TO
NEGOTIATE MODIFICATIONS TO DEPLOYMENT INTERVALS?**

Q. WHAT IS THE ISSUE HERE?

A. This issue raises the question of whether the Parties should be able to negotiate modifications to the deployment intervals discussed above. Charter proposes that any modifications to the implementation intervals should be subject to review and approval by the Department. Verizon suggests that the Parties be allowed to negotiate such changes without first seeking Department approval.

Q. WHAT IS CHARTER'S RESPONSE TO VERIZON'S PROPOSAL?

A. Generally speaking, Charter recognizes that it is often better to allow for Parties to negotiate any changes to this type of arrangement (i.e. the implementation intervals for an interconnection facility). In that sense, Verizon's proposal is not unreasonable. However, Charter is concerned that this negotiation requirement could be used by one Party to introduce endless delays into the implementation schedule. Notably Verizon does not offer any proposed timeframe, or other parameters, for such negotiations. It is therefore possible that any such negotiations could evolve in to a never ending back and forth between the Parties about the implementation schedule. For that reason it would make sense to put some limits on the negotiation concept proposed by Verizon. For example, it may be appropriate to specifically define the negotiation period to a certain amount of days. Or, it may also be appropriate to define the scope of relief that can be obtained through negotiations. As it stands right now, Verizon's open-ended proposal could introduce further delays.

**ISSUE 8 (VERIZON ISSUE 3) – SHOULD THE CONTRACT LANGUAGE
IN THE AMENDMENT BE CONSISTENT WITH THE LANGUAGE IN
THE PARTIES’ UNDERLYING INTERCONNECTION AGREEMENT?**

Q. WHAT IS THE ISSUE HERE?

A. Verizon raises several concerns with specific contract language proposed by Charter’s negotiators, and whether that language conflicts with other language in the Parties underlying interconnection agreement.

Q. WHAT IS CHARTER’S RESPONSE TO VERIZON’S CONCERNS?

A. I won’t testify on the propriety of the specific contract language that Verizon is concerned with. It seems to me that there will be a time and place following this arbitration proceeding for each Parties’ attorneys to work together to implement final contract language. Assuming that is so, it doesn’t seem to make much sense quibbling about contract language at this time.

However, I will take this opportunity to speak to the specific concepts and principles raised by the contract language that Verizon is concerned with.

First, Verizon expresses concern with the title of the document the Parties use to set forth technical and implementation issues. Verizon is concerned that Charter’s proposed contract language may identify this document in two different ways.

Whatever the title of the document, Charter believes that the Parties should establish such a document and that it should be established at the implementation meeting.

Second, Verizon suggests that Charter offers conflicting language concerning what charges will apply, beyond the normal intercarrier compensation charges. I think that through my testimony, and that of my colleague Ted Schremp, we have made

1 clear that Charter does not expect to pay for Verizon's fiber meet point
2 arrangement. That should not preclude the Parties' from imposing intercarrier
3 compensation charges on one another.

4 Third, Verizon expresses concern with conflicting language concerning
5 interference and impairment. Although the underlying interconnection agreement
6 may already include similar concepts, we believe it is important that these
7 principles are clearly established in the amendment.

8 Fourth, again Verizon has concerned with allegedly conflicting language
9 concerning maintaining reliable networks. Again, although the underlying
10 interconnection agreement may already include similar concepts, we believe it is
11 important that these principles are clearly established in the amendment.

12 Fifth, Charter has the same response to Verizon's similar concerns with respect to
13 language on network management. Again, whatever form the final language takes,
14 it should include the important principles set forth in Charter's proposed language.

15 **VII. CONCLUSION**

16 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

17 **A. Yes.**