

Exhibit No.: _____
Issue: Charter-SBC Interconnection
Witness: Mike Cornelius
Type of Exhibit: Direct Testimony
Sponsoring Party: Charter Fiberlink-Missouri, LLC
Case No.: TO-2005-0336
Date Testimony Prepared: May 9, 2005

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of

**Southwestern Bell Telephone, L.P., d/b/a
SBC Missouri's Petition for Compulsory
Arbitration of Unresolved Issues for A
Successor Agreement to the Missouri 271
Agreement ("M2A")**

Case No. TO-2005-0336

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

May 9, 2005

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AFFIDAVIT OF MIKE CORNELIUS

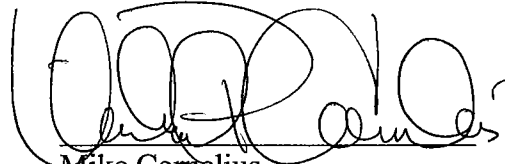
STATE OF WISCONSIN)
) ss
COUNTY OF DANE)

Mike Cornelius, appearing before me, affirms and states:

1. My name is Mike Cornelius. My business address is 8413 Excelsior Drive, Madison, Wisconsin 53717, and I am employed by Charter Communications, Inc. as Director of IP Telephony Engineering.

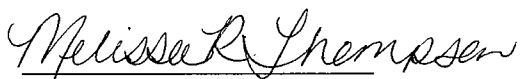
2. Attach hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Charter Fiberlink-Missouri, LLC consisting of multiple pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

3. I have knowledge of the matters set forth therein. I hereby affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.


Mike Cornelius

Dated: May 6, 2005

Sworn to and subscribed before me on this the 6 day of May, 2005.


Notary Public

My Commission Expires 8/28/05

EXECUTIVE SUMMARY

This document contains the testimony of Mike Cornelius on behalf of Charter Fiberlink, Missouri-LLC ("Charter"). Mr. Cornelius testifies on the disputed issues between Charter and SBC-Missouri ("SBC") concerning the means by which the two parties will interconnect their networks for the purpose of exchanging telecommunications traffic.

Specifically, and as detailed in greater length in the testimony itself, Mr. Cornelius testifies on issues related to the establishment of a single Point of Interconnection ("POI") and several issues closely related to the POI issue. In addition, Mr. Cornelius testifies on a number of specific issues concerning the provisioning and deployment of "trunk groups" required for interconnection. A third area covered in this testimony is the disputed issues concerning the method that Charter and SBC will exchange 911 traffic, and the means by which that traffic will be delivered to selective routers on SBC's network. Finally, the testimony covers a range of miscellaneous issues including the role and function of ordering forms used by SBC known as Access Service Requests, or "ASRs;" questions concerning SBC's obligations to provide signaling information; SBC's obligation to provide certain signaling information; and whether to include terms concerning the use of leased facilities for the parties' interconnection.

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1 **I. INTRODUCTION**

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

4 A. My name is Mike Cornelius. I am the Director of IP Telephony Engineering for
5 Charter Communications, Inc. and its affiliate Charter Fiberlink-Missouri, LLC
6 ("Charter"). My business address is 1265 John Q. Hammons Drive, Madison,
7 Wisconsin, 53717. I am filing this testimony on behalf of Charter.

8 **Q. PLEASE REVIEW YOUR EDUCATION AND RELEVANT WORK**
9 **EXPERIENCE.**

10 R. I am currently the Director of IP Telephony Engineering for Charter. In that role
11 my responsibilities include managing the engineering and operations of Charter's
12 Voice over Internet Protocol (VoIP) network in our Great Lakes Division.
13 Various aspects of my responsibilities include overseeing the detailed engineering
14 of the internet protocol (IP) and time division multiplex (TDM) networks that
15 support voice service, negotiating and managing interconnection network
16 arrangements with other carriers and directing the operation of telephony-specific
17 network elements and their supporting infrastructure. I have held this position for
18 five years and have been deeply involved in Charter's efforts toward building a
19 telephony network.

20 In the three years prior to coming to Charter, I held the position of Director of
21 Engineering at TDS TELECOM, a local exchange carrier with telephone and data

1 networks in several states. My responsibilities included overseeing the
2 engineering of voice and data networks for TDS TELECOM's enterprise and
3 commercial networks. Also, I had responsibility for managing the outside plant
4 facility planning for TDS TELECOM's local loop and interoffice copper and fiber
5 optic facilities. My position involved making decisions on various technology
6 alternatives for switching, access and transport elements of voice and data
7 networks. In addition, I have two years of experience as a Switch Engineering
8 Manager for Sprint PCS, during which I was responsible for overseeing the
9 design of switch, transport and interconnection networks associated with cellular
10 service. Prior to Sprint PCS, I was employed by Ameritech for 13 years in a
11 variety of network engineering and operations, sales support and cost analysis
12 positions.

13 I received a Bachelor of Science Degree in Civil Engineering from Marquette
14 University in 1982 and a Masters of Business Administration Degree from the
15 University of Wisconsin – Milwaukee in 1987. I am a registered Professional
16 Engineer in the State of Wisconsin.

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

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

19 A. I have been asked by Charter to testify regarding certain of the issues that remain
20 unresolved between Charter and SBC-Missouri regarding our new interconnection
21 agreement. My responsibilities at Charter have to do with the network itself, so I
22 will address certain issues to provide a network and engineering perspective.

1 Specifically, I address interconnection-related issues in Appendices NIM and
2 ITR, Trunking Issues, 911 Facilities and miscellaneous issues.

3
4 **Q. PLEASE SUMMARIZE YOUR TESTIMONY, INCLUDING YOUR**
5 **CONCLUSIONS AND RECOMMENDATIONS.**

6 A. Charter is a facilities-based competitive LEC that provides telecommunications
7 services primarily to residential customers using the existing network facilities of
8 its affiliated cable company. To be in a position to provide competitive, cost
9 effective services to its customers, Charter must be permitted to interconnect with
10 SBC on reasonable terms, rates and conditions. While Charter is relatively new to
11 competitive telecommunications field, its experience with providing services to
12 residential customers, over its own network facilities, puts Charter in a unique
13 position to propose terms that are both commercially reasonable and technically
14 sound. I note that a number of matters that I understand have been controversial
15 in the industry in recent years, relating to unbundled network elements and resale
16 of an ILEC's services, do not matter very much to Charter. We do not rely on
17 SBC's network to provide our own services. That allows us, in our dealings with
18 SBC, to focus on key matters regarding the exchange of traffic and the physical
19 network interconnection architecture, rather than ways to try to force SBC to
20 make its own facilities available to competitors.

21
22 From that perspective, SBC makes several proposals that reflect an extremely
23 limited and one-sided view of interconnection. The provisions that Charter
24 objects to would cause inefficiencies in our network by, among other things,

1 requiring Charter to build additional facilities and make significant changes to the
2 manner in which Charter proposes to interconnect and exchange traffic with SBC.
3 As a result, SBC's proposals will likely lessen, rather than improve overall
4 network efficiency and quality of service rendered to our respective customers
5 when they communicate with each other. As summarized here and as explained
6 in greater detail below, SBC's one-sided proposals cause problems at several
7 levels.

8
9 First, although the two companies agree that Charter should be allowed to
10 establish a single Point of Interconnection ("POI") per LATA, they disagree on
11 several issues closely related to the POI issue. SBC's proposals appear designed
12 to force Charter to modify its network in a way that would require Charter to
13 mirror or generally reflect the overall architecture of SBC's legacy circuit
14 switched network. This creates a significant problem for Charter because it
15 would require Charter to install redundant and expensive network facilities or
16 possibly pay high prices for transport on the SBC side of the POI. Charter's
17 proposals, on the other hand, represent a more equitable and efficient way for
18 both companies to exchange traffic. A single POI, established using high-
19 capacity fiber optic facilities, is the most efficient interconnection architecture
20 available. It allows for growth in traffic over time, while at the same time permits
21 each party to manage its own facilities on its own side of the POI to the maximum
22 extent possible. One issue on which Charter and SBC disagree is SBC's proposal
23 to limit the types of traffic that can be exchanged by means of the fiber optic

1 facilities the carriers will use to link their networks. Given the large capacity of
2 these facilities the parties should use them for as many different types of traffic as
3 possible. Artificial limits on traffic types to be exchanged using fiber meet point
4 facilities should be rejected.

5
6 Second, the companies disagree on a number of specific issues concerning the
7 provisioning and deployment of “trunk groups” required for interconnection. A
8 “trunk group,” as I use the term (and, as I believe SBC uses it as well) is not the
9 same as a physical interconnection facility. Rather, a “trunk group” is a set of
10 communications paths between our networks that is established *using* the physical
11 facility. Establishing separate trunk groups imposes costs on both parties, in that
12 switching equipment must be configured to isolate the traffic that belongs on a
13 particular outbound trunk group, and switch and fiber optic terminal ports must be
14 dedicated to each trunk group. In addition, as a matter of traffic engineering,
15 larger trunk groups are inherently more efficient than smaller ones. Therefore,
16 while Charter is willing to establish separate trunk groups where necessary, in
17 some cases it appears to Charter that SBC wants to require excessive numbers of
18 trunk groups. This is inefficient and should be rejected by the Commission.

19
20 A third area in which the Parties disagree is over the means by which Charter and
21 SBC will exchange 911 traffic, and the means by which that traffic will be
22 delivered to selective routers on SBC’s network.

1 Finally, I would group the Parties' other disputes as generally falling within the
2 category of miscellaneous issues. Disputes in this area involve questions about
3 the role and function of ordering forms used by SBC known as Access Service
4 Requests, or "ASRs;" questions concerning SBC's obligation to provide certain
5 signaling information; and whether to include terms concerning the use of leased
6 facilities for the parties' interconnection.

7 **Q. TO PROVIDE SOME BACKGROUND, PLEASE GIVE A BRIEF**
8 **OVERVIEW OF THE DIFFERENCE BETWEEN THE SBC CIRCUIT**
9 **BASED NETWORK AND CHARTER'S SOFTSWITCH NETWORK.**

10 A. The SBC network is comprised of circuit switches that are based upon a
11 closed, dedicated system. As the telecommunication network evolved from
12 manual switches to more modern, automated switches, it retained its original
13 focus on just doing one thing well. This focus resulted in the end-to-end
14 dedication of network resources and architecture to complete large volumes of
15 plain old telephone calls.

16 Charter's network, by contrast, uses the capacity of Charter's affiliate's cable
17 system to transmit voice traffic in digital form from end users to our central
18 location, where a modern device known as a "softswitch" converts the digital
19 voice signals into a format that can readily be exchanged with the traditional
20 public switched telephone network (and vice versa).

21 Softswitching technology involves separating the call processing logic from the
22 traffic routing function, which is accomplished on a data network. A softswitch,
23 or call server, provides call routing logic, billing message storage and end point

1 status and administration. A trunk gateway, usually physically separate from the
2 softswitch, provides the interface to the Public Switched Telephone Network
3 (PSTN). At the customer's premise, a network interface unit (NIU) provides the
4 line functions, such as dial tone, ringing and busy tones. This type of network is
5 known as one of a distributed architecture. As such, creating and maintaining
6 many interconnection points with other LECs is both costly and inefficient.

7
8 **III. INTERCONNECTION ISSUES (APPENDIX NIM AND APPENDIX ITR)**

9 In this section I discuss the various issues concerning physical interconnection
10 and trunking between the two parties. These disputed issues relate primarily to
11 contract provisions contained in the Appendix Network Interconnection Methods
12 ("NIM"), and the Appendix Interconnection Trunking Requirements ("ITR").

13 **III.A. APPENDIX NIM ISSUE (1) (A): WHERE CAN CHARTER**
14 **INTERCONNECT WITH SBC?**

15 ➤ Should Charter be required to interconnect with SBC-Missouri within SBC-
16 Missouri's network?¹
17

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

19 A. Generally speaking, Charter agrees that in order to interconnect with SBC
20 interconnection must be within SBC's network. However, the actual issue here is
21 not whether Charter must interconnect "within" SBC's network, the question is
22 how the contract should *define* "SBC's network" (and in turn provide context to
23 what it means to interconnect within the SBC network).

24 **Q. PLEASE EXPLAIN.**

¹ The following paragraphs in the agreement are covered by this issue: Appendix NIM, § 2.1, 2.2.

1 A. SBC's contract language suggests that SBC's "network" is limited to its end
2 office and tandem switches. But that is simply not true. SBC's network, quite
3 obviously, includes the facilities connecting those switches and the facilities
4 extending to other locations that might or might not also have switches in them.
5 Therefore, if it is technically feasible to establish interconnection at some location
6 other than an SBC end office or tandem switch location the contract should
7 specifically allow for that situation.

8 **Q. WHY IS THAT AN IMPORTANT DISTINCTION FOR CHARTER?**

9 A. This is an important distinction for Charter because it is Charter's preference to
10 interconnect with SBC via a fiber meet point arrangement. Under this form of
11 interconnection, the parties physically interconnect their networks at a physical
12 point where both parties bring their own fiber. The fiber is then spliced together
13 and associated electronic equipment is added on either end (if it is not already
14 there). This is the reason that Charter has proposed that the contract state that the
15 technically feasible points of interconnection "include" its switches, as opposed to
16 SBC's proposal that which says that the technically feasible points "*are*" its
17 switches.

18 **Q. DO YOU KNOW WHY SBC OBJECT'S TO CHARTER'S PROPOSAL?**

19 A. No, I don't. In fact, this is a technically feasible form of interconnection that is
20 specifically allowed under federal law and provided for elsewhere in the
21 agreement. As such, it is not clear why SBC objects to Charter's proposal to
22 include contract language which establishes that interconnection can occur not

only at the SBC end office or tandem switch, but also elsewhere on the network as described above.

Q. WHAT IS CHARTER ASKING THIS COMMISSION TO DECIDE ON THIS ISSUE?

A. Charter is asking this Commission to adopt Charter's proposed contract language and rule that Charter may interconnect with SBC at any technically feasible point within SBC's network, and that for purposes of this issue SBC's "network" is not limited to end offices and tandem switches but also includes intermediary points such that Charter may interconnect via a fiber meet point arrangement.

III.B. APPENDIX NIM ISSUE (1) (B) and NIM ISSUE (2): FINANCIAL RESPONSIBILITY FOR FACILITIES ON EACH PARTY'S SIDE FO THE POI

➤ Should each Party be financially responsible for the facilities on its side of the POI?²

Q. WHAT IS CHARTER'S POSITION ON THIS ISSUE?

A. Charter's position is that yes, each Party should be financially responsible for the facilities on its side of the POI. As I understand it, there is proposed language in the agreement (Section 2.5 of Appendix NIM) that the Parties have already agreed upon. The only dispute here seems to be a drafting issue related to whether to characterize the POI as a point "on" SBC's network (which SBC prefers), or a point "within" SBC's network (which Charter prefers). As I understand it, this dispute relates to conforming the language of the contract to the language of the applicable statute. So, as I see it, this question is essentially a dispute of law

² The following paragraph(s) in the agreement are covered by this issue: Appendix NIM, §§ 2.5, 2.7.

1 which Charter's attorneys will address during the briefing stage of this
2 proceeding.

3 **Q. HOW DO CHARTER'S PROPOSALS REFLECT ITS POSITION ON**
4 **THIS ISSUE?**

5 A. Charter has accepted SBC's proposed language which states that both parties are
6 financially responsible for facilities on their side of the POI. In addition, Charter
7 has proposed contract language (to Section 2.7 of Appendix NIM) that
8 specifically establishes that neither party will be obligated to pay the other party
9 for any activities on that party's side of the POI, unless that obligation is
10 specifically described and established in a separate provision of the contract that
11 deals with compensation between the two parties (Appendix Intercarrier
12 Compensation). Charter has also proposed (in Section 2.9 of Appendix NIM) that
13 financial responsibility for certain specified kinds of facilities will be specifically
14 addressed in that part of the contract concerning trunking (Appendix ITR).

15 **Q. WHY IS IT NECESSARY TO ADD SPECIFIC LANGUAGE TO THE**
16 **AGREEMENT WHEN THE PARTIES HAVE ALREADY AGREED TO**
17 **THE GENERAL STATEMENT THAT EACH PARTY IS RESPONSIBLE**
18 **FOR FACILITIES ON ITS OWN SIDE OF THE POI?**

19 A. I am not a lawyer, so I won't comment on the legal reasons for drafting the
20 agreement in this way.

21 However, I am an engineer that spends a lot of time working in the field under
22 agreements similar to the one being arbitrated here. The fact is, these contracts
23 are large complex documents which can sometimes be interpreted differently by

1 different parties. As a practical matter, I understand that I am responsible for my
2 network, and that the other party is responsible for their network. Now,
3 obviously, in some cases the parties get to charge each other for their activities.
4 But as a general matter, I want the contract to be very clear that, except where the
5 contract specifically says otherwise, I can't charge SBC for what I do in my
6 network to meet my obligations under the contract and — more important from
7 my perspective — that SBC can't send Charter a bill for what SBC has to do to
8 fulfill *its* obligations under the contract.

9 Therefore, it seems to me to be a very good idea to have specific language in the
10 agreement setting this out. This would reduce the possibility that the Parties will
11 interpret the Agreement differently sometime in the future. Although the general
12 statement as to cost responsibility is beneficial, the additional language proposed
13 by Charter simply reinforces the general proposition by noting those specific
14 instances where payments are contemplated.

15 Also, this is necessary because SBC has, in the past, attempted to require
16 interconnecting CLECs to pay for facilities that are on *SBC's side of the POI*. In
17 fact, I am told that the same issue caused a major dispute between SBC and
18 AT&T in Texas which was ultimately resolved by the U.S. Court of Appeals for
19 the Fifth Circuit. Apparently, SBC had attempted to require AT&T to pay, over
20 AT&T's objections, for facilities on *SBC's side of the POI*. Ultimately, the Fifth
21 Circuit ruled in favor of AT&T and found that SBC's charges were not valid. I
22 am not a lawyer, and am not trying to suggest anything about the legal meaning of
23 the Fifth Circuit's decision. But as a practical business person, the very fact that

1 this matter became a court battle between SBC and another carrier means that I
2 have to worry about it. For that reason it is a good idea to spell out as clearly as
3 possible in the agreement, when and under what circumstances either Party will
4 be required to pay the other for facilities related to interconnection and traffic
5 exchange.

6 **Q. WHAT IS SBC'S OBJECTIONS TO CHARTER'S PROPOSAL?**

7 A. It is not clear exactly why SBC opposes Charter's attempt to make clear, by
8 explicit cross reference, that any payment obligations that might exist for the
9 activities related to interconnection and the exchange of traffic are to be found in
10 the Appendix Reciprocal Compensation. Again from a practical perspective,
11 SBC's resistance to expressly stating that they cannot charge me for what goes on
12 their side of the POI raises some concern that SBC might, in fact, be trying to
13 preserve a right to do so at some point in the future.

14 **Q. WHAT IS CHARTER ASKING THIS COMMISSION TO DECIDE ON**
15 **THIS ISSUE?**

16 A. Charter is asking this Commission to adopt Charter's proposed language on this
17 issue and affirmatively rule that (1) each party is financially responsible for
18 facilities on its side of the POI; (2) that any payment obligations associated with
19 the interconnection and exchange of traffic are those which are expressly stated in
20 the Appendix Reciprocal Compensation; and, (3) that neither party is obligated to
21 make any payment for facilities or services that are NOT expressly stated in the
22 Appendix Reciprocal Compensation.

1 **III.C. APPENDIX NIM ISSUE (1) (C), and APPENDIX ITR ISSUE (3)(A):**
2 **TRAFFIC THRESHOLD (OR TRIGGER) FOR ESTABLISHING**
3 **ADDITIONAL POIs**

4 ➤ When Charter selects a single POI, should this appendix contain language
5 detailing the need for Charter to establish additional POIs when Charter reaches
6 an appropriate threshold of traffic?³

7
8 **Q. WHAT IS CHARTER'S POSITION ON THIS ISSUE?**

9 A. Generally, Charter does not disagree with the idea that if Charter selects a single
10 POI it makes sense to establish additional POIs if the traffic exchanged over that
11 POI reaches an agreed upon threshold. The question is, what is the appropriate
12 threshold or level of traffic that would then trigger the obligation to establish
13 additional POIs?

14 **Q. CAN YOU EXPLAIN HOW THIS ISSUE WOULD ARISE?**

15 A. Yes. It is Charter's intent to use a single POI within each LATA for the purposes
16 of exchanging traffic with SBC. Specifically, Charter will use a fiber meet point
17 arrangement with SBC which would serve as the single POI for that LATA. In
18 other words, (and as explained above) Charter would construct a fiber facility that
19 would be interconnected with an SBC fiber facility, over which the parties would
20 exchange traffic. Given the capacity of optical fiber networks, it is unlikely that
21 the level of traffic between the two networks will ever rise to a point that the fiber
22 facilities are not able to carry such traffic. Even so, at some point prudent
23 network planning suggests that both parties would benefit from establishing an
24 alternative high-capacity connection between the two networks, *i.e.*, another POI.

³ The following paragraph(s) in the agreement are covered by this issue: Appendix NIM, §§ 2.4.1.3, 2.4.1.4; Appendix ITR § 4.2.

1 That additional POI would then carry some of the traffic that was going over the
2 first POI.

3 **Q. WHAT THEN IS CHARTER'S PROPOSAL WITH RESPECT TO THE**
4 **APPROPRIATE TRAFFIC THRESHOLD FOR TRIGGERING AN**
5 **ADDITIONAL POI?**

6 A. Because the POI(s) that Charter will have with SBC will be high-capacity fiber
7 links, with the capacity to carry significant amounts of traffic, the meet point
8 arrangement will be able to handle a significant amount of traffic between SBC
9 and Charter's networks. Those fiber facilities would certainly be able to handle
10 about an OC-12, generally equivalent to 12 DS3s worth of traffic. Charter
11 proposes that the trigger for establishing additional POIs be set at an OC-12 or
12 equivalent capacity. This is in contrast to SBC's proposal to require additional
13 POIs if the traffic reaches a threshold equal to 24 DS1s. 24 DS1s represents a
14 tiny fraction of the capacity of the optical fiber connection between the parties'
15 networks.

16 **Q. WHAT IS SBC'S POSITION IS ON THIS ISSUE?**

17 A. As I understand it, SBC seems to believe that the obligation to establish additional
18 POIs, and the appropriate threshold at which such obligations should occur (the
19 true dispute here) should be governed by this Commission's previous decision on
20 that question. Specifically, SBC has cited the Commission's September 20, 2000
21 decision in Docket No. 21791, as the grounds for demanding that Charter agree to
22 establish additional POIs when traffic to or from SBC exceeds twenty-four (24)
23 DS1s.

1 **Q. WHY IS THIS A SIGNIFICANT ISSUE FOR CHARTER?**

2 A. Charter does not take issue with the Commission's previous decision on its own
3 terms. But, Charter submits, Charter is not the same kind of entity that the
4 Commission probably had in mind four-and-a-half years ago when that decision
5 was issued. Again, as noted above, Charter has its own network, including
6 connections to its own customers' premises. It does not rely on unbundled
7 elements — either loops or switching — to serve its customers. That means that,
8 as compared to more "traditional" CLECs, Charter has little or no reason to
9 establish collocation arrangements in SBC's end offices (which other CLECs
10 need in order to access UNE loops). As a result, unlike other CLECs, Charter has
11 no particular reason to deploy facilities from its network to or from any particular
12 SBC end office(s).

13 As a result, it is quite possible that as other, traditional CLECs' grew their
14 businesses, they would naturally establish a number of collocation arrangements
15 and associated physical transmission facilities to the SBC end offices where they
16 were collocated. With such physical facilities in place it would not likely be
17 terribly burdensome to use those facilities to establish additional POIs. Charter,
18 by contrast, will not normally set up such collocation arrangements. As a true
19 facilities-based competitor it has little need for them. So, the basic assumptions
20 about what is "reasonable" for Charter, as a facilities-based interconnector, are
21 different than what might make sense for traditional CLECs.

22 Given these considerations, an obligation to establish an *additional* POI could
23 well require Charter to bear significant network modifications costs to deploy

1 fiber or other facilities that it does not otherwise need to establish further
2 connections with SBC, that it does not otherwise need. Broadly speaking, in
3 order to establish an additional POI Charter would have to build a second fiber
4 meet point arrangement with SBC which would be expensive and take time to
5 implement. Charter would then have to configure its switching equipment to sort
6 out traffic properly to each of the different POIs. This too takes time and money.
7 Therefore, the obligation to establish additional POIs would represent a
8 significant obligation and create cost burdens on Charter.

9 **Q. WHAT IS CHARTER ASKING THIS COMMISSION TO DECIDE ON**
10 **THIS ISSUE?**

11 A. Charter is asking this Commission to rule that the parties will be required to
12 establish additional POIs if, and only if, traffic exchanged between the two
13 networks over the fiber meet point facilities exceeds the level equivalent to an
14 OC-12, or generally 622 Mbps. In so doing the Commission should recognize
15 that the level of traffic which can be exchanged over fiber facilities is far greater
16 than the level which SBC suggests as the appropriate threshold, 24 (DS1s), and
17 therefore reject SBC's traffic threshold proposal and instead adopt Charter's
18 traffic threshold proposal.

19 **IV. TRUNKING ISSUES (APPENDIX ITR AND APPENDIX NIM)**

20 In this section I address disputed contract provision that govern how the parties
21 utilize trunks involved in the exchange of traffic between their two networks.
22 These disputed issues relate primarily to contract provisions contained in the

Appendix Network Interconnection Methods (“NIM”), and the Appendix
Interconnection Trunking Requirements (“ITR”).

IV.A. APPENDIX ITR ISSUE (2)(A): USE OF ONE-WAY OR TWO-WAY TRUNKS

➤ Should the parties utilize two-way trunking or should CLEC have the right to unilaterally decide whether to use one-way or two-way trunking?⁴

Q. WHAT IS CHARTER’S POSITION ON THIS ISSUE?

A. Charter expects that it will routinely utilize two-way trunks, which are often more efficient for this type of interconnection. However, as I understand it, FCC rules place the selection of one-way versus two-way trunks in the hands of the connecting CLEC, subject to issues of technical feasibility. Charter therefore proposes to include language in the agreement that maintains its federal-law right to select one-way trunks if in some particular situation this is appropriate.

Q. WHAT IS SBC’S POSITION ON THIS ISSUE?

A. SBC simply asserts that two-way trunking is the “appropriate” architecture, and that it is the most efficient method of trunking for “the network” (presumably they are referring to *SBC’s* network) to minimize the impact on tandem and trunk port capacity for both Parties.

Q. DO YOU DISAGREE WITH SBC’S ASSERTIONS ON THIS ISSUE?

A. Not necessarily. Again, I expect that Charter will typically use two-way trunking. But the choice lies with Charter, not SBC.
In cases where technical feasibility is not a concern, the main difference has to do with the level of coordination between the parties and the characteristics of the

⁴ The following paragraph(s) in the agreement are covered by this issue: Appendix ITR §§ 31, 8.1.

1 traffic they will exchange. If the parties use one-way trunks then neither one's
2 outbound traffic will even potentially block the incoming traffic from the other
3 party. As Charter-to-SBC traffic grows, in a one-way trunking environment
4 Charter would simply work with SBC to expand the size of the Charter-to-SBC
5 one-way trunk group, and vice versa. On the other hand, the total number of
6 trunks needed to handle the total volume of traffic in both directions is likely to be
7 smaller with two-way trunks. As noted above, as I understand it, FCC rules give
8 the CLEC the ability to make this assessment on a case-by-case basis.

9 **Q. WHAT IS CHARTER ASKING THIS COMMISSION TO DECIDE ON**
10 **THIS ISSUE?**

11 A. Charter is asking this Commission to adopt Charter's proposed contract language
12 and reaffirm that Charter may, consistent with federal law, elect to deploy either
13 one-way or two-way trunks when interconnecting with SBC.

14 **IV.B. APPENDIX ITR ISSUE (1) and APPENDIX NIM ISSUE (5)(A):**
15 **CHARTER'S OBLIGATION TO ESTABLISH TRUNKS TO EVERY**
16 **LOCAL CALLING AREA**

17 ➤ Should Charter be required to establish local interconnection trunks to every
18 local calling area in which Charter offers service?⁵

19
20 **Q. WHAT IS CHARTER'S POSITION ON THIS ISSUE?**

21 A. Charter opposes SBC's proposal that Charter be forced to establish trunks to
22 every local calling area. First, as a general matter, one does not establish trunks
23 between or to "areas." Trunks are communications paths between switches.
24 Now, one or more switches may be used to serve a particular local calling area,
25 but that relates to how switches serve end users, not directly how switches are

1 linked to each other. Second, it may or may not make sense from a network
2 perspective to establish separate trunking to each SBC switch that serves a
3 separate local calling area. Basically, it depends on the volume of traffic. For
4 relatively low traffic volumes, it will make sense just to send traffic between
5 Charter's network and a particular SBC end office switch on a trunk group that
6 runs to an SBC tandem, not to the particular end office. When the amount of
7 traffic between Charter's network and a particular end office gets big enough, it
8 makes sense to avoid the tandem and establish a direct trunk. Because of this
9 relationship to traffic volume, it does not make sense to flatly require trunking to
10 each switch serving each local calling area.

11 **Q. PLEASE EXPLAIN THIS TYPE OF INEFFICIENCY.**

12 A. For trunking between switches, DS1s (which carry a maximum capacity of 24
13 simultaneous calls) must be used, as that is the transport size that is most typically
14 terminated by switching and transport equipment. For example, if a trunk group
15 needs a total capacity of 30 DS0 trunks, then two DS1s must be used (with a total
16 capacity of 48 calls). If the trunk must be divided to handle two different call
17 types on two different trunk groups, it is likely that the ratio between the two call
18 types is not 50/50. Whenever the trunk requirement is larger than a multiple of 24
19 (even if it is only one member larger – say 25 members) a new DS1 must be
20 provisioned and the associated equipment added to terminate the new DS1.
21 Coupled with the need for additional capacity to maintain the same blocking
22 grade of service, this leads to significant increases in the overall number of DS1s

⁵ The following paragraph(s) in the agreement are covered by this issue: Appendix ITR §§ 5.2,

1 needed for a given traffic volume when the trunk groups must be split. Taking
2 this factor and the blocking factor into account, one trunk group with 48 members
3 cannot be replaced with two trunk groups of 24 members. To get the same
4 blocking grade of service using two trunk groups, both trunk groups would need
5 to have two DS1s. So the number of trunk groups would need to be doubled!

6 **Q. HOW DOES THIS RELATE TO PHYSICAL TRANSMISSION**
7 **FACILITIES?**

8 A. I emphasize that what I are talking about here is *trunking*, not physical facilities.
9 At some point it does make sense to establish direct trunk groups between
10 Charter's network and individual SBC end offices. But it makes no sense at all to
11 even suggest that a CLEC such as Charter should be required to establish or pay
12 for physical facilities from its network to each SBC end office switch. Such a
13 requirement would run directly counter to the notion of establishing an efficient
14 single POI in each LATA.

15 **Q. PLEASE EXPLAIN.**

16 A. It appears that the parties agree that, as I noted above, a trunk is a transmission
17 path between two switching systems. However, SBC is proposing that Charter be
18 required to establish trunks to all "local calling areas" to which Charter provides
19 service. Perhaps SBC is assuming that the Charter switch used to serve
20 subscribers in each local calling area will be physically located in the same local
21 calling area as the subscriber. That is, however, not the case with Charter (and
22 likely not the case with many other CLECs in Missouri). This leads me to believe

5.2.1, 5.2.2, 5.2.4, 5.2.6, 5.2.7, 5.5.4, 8.3.2.1.4, 8.5; Appendix NIM, §§ 4.1.

1 that SBC's position on this issue reflects an unthinking assumption that CLECs
2 will have network configurations similar to SBC's own network. But that is
3 simply not the case.

4 In fact, Charter does not deploy switches in each local calling area that it offers
5 service in. Instead, Charter generally utilizes just one switch to serve the entire
6 State of Missouri, and relies upon its existing IP-enabled network (and leased
7 transport where necessary) to carry calls to its switching facilities and from there
8 to the called party.

9 **Q. WHAT IS THE BASIS FOR SBC'S DEMAND THAT CHARTER**
10 **ESTABLISH TRUNKS TO EVERY LOCAL CALLING AREA?**

11 A. SBC says that "sound network engineering principles" mandate that Charter
12 establish interconnection trunks to each local exchange area in which Charter
13 offers service. This sounds very imposing, but SBC does not cite to any actual
14 authority (either legal or technical) to support its claim. As noted above, "sound
15 engineering principles" support the notion that there is some level of traffic at
16 which it makes sense to migrate traffic to and from a particular switch off of an
17 intermediate tandem and onto a trunk group dedicated to that path.

18 SBC's position on this issue is one of the things that causes me concern about
19 SBC's full commitment to the notion that each party is responsible for the costs
20 involved in handling traffic on its respective side of the POI. The more the
21 agreement talks about things that *Charter* is required to do that relate primarily to
22 matters that are internal to SBC's network, the more concerned I become that

1 SBC might try to interpret the agreement in the future to try to impose SBC's
2 network costs on Charter.

3 Notably, SBC's reliance on "sound network engineering principles" is
4 immediately followed by a statement that I believe reflects the real nature of this
5 dispute. Specifically, SBC claims that if Charter does not trunk to every local
6 exchange area that would unduly strain SBC's network. Now, perhaps all SBC is
7 referring to here is a desire not to use its tandem switches to handle traffic to or
8 from Charter. As a general proposition, however, when it makes sense to stop
9 using a tandem and establish a direct route between two switches is a matter of
10 engineering judgment in individual cases.

11 **Q. WHAT ARE THE PROBLEMS WITH SBC'S PROPOSAL THAT**
12 **CHARTER ESTABLISH TRUNKING TO EVERY LOCAL EXCHANGE**
13 **AREA?**

14 **A.** First, SBC appears here to be confusing several issues. The first is the distinction
15 between physical interconnection facilities and trunking. (Evidence of this
16 apparent confusion is that SBC has posed the "trunking" issue in two different
17 appendices: Appendix ITR which is actually supposed to deal with trunking, and
18 Appendix NIM, which deals with physical interconnection arrangements, not with
19 the specific types of communications paths set up over physical transmission
20 facilities such as fiber meet points.) Thus, it appears that SBC's disputed
21 language in Section 4.1 of Appendix NIM addresses (physical) "Interconnection,"
22 not trunking.

1 Second, physical interconnection may occur at any technically feasible point
2 within SBC's network. Charter agrees that at an appropriate traffic threshold (as
3 discussed above) Charter would establish additional physical POIs in a network.
4 But it does not follow that either the initial or second physical POI will be at or
5 near any particular end office switch. Fiber meet points can be established at any
6 mutually agreeable location where fiber is available. That may or may not be
7 near any particular SBC end office. It is important that the physical
8 interconnection obligations in the agreement properly refer to the physical
9 location where the connection would occur.

10 Moreover, SBC's proposal seems to assume that Charter's switch and network
11 configuration does (or should) mirror SBC's switch and network configuration.
12 The fact is, Charter's switch and network configuration are appropriate and
13 efficient for Charter's operations and there is no reason that it should be forced to
14 mirror SBC's somewhat anachronistic network configuration.

15 **Q. WHAT IS CHARTER ASKING THIS COMMISSION TO DECIDE ON**
16 **THIS ISSUE?**

17 A. Charter is asking this Commission to rule that Charter is not obligated to establish
18 trunks to every local exchange area in which it offers service in Missouri because
19 Charter's switch and network configuration does not (and should not) mirror
20 SBC's network and switch configuration. In so doing, the Commission should
21 adopt Charter's proposed contract language on this issue, which generally
22 establishes that Charter can deliver traffic to SBC via the single POI (that the

1 parties agree is appropriate) such that it does not have additional obligations to
2 establish trunks to each local exchange area.

3 **IV.C. APPENDIX NIM ISSUE (4)(A): TRUNK TYPES OVER THE FIBER**
4 **MEET POINT**

5 ➤ What types of trunks should be allowed over the fiber meet point?⁶
6

7 **Q. WHAT IS CHARTER'S POSITION ON THIS ISSUE?**

8 A. Charter agrees that local and intraLATA toll traffic (the main kinds of traffic
9 carried on Local Interconnection Trunk Groups) can and should be carried over a
10 fiber meet point facility. In addition, Charter believes that the fiber meet point, a
11 high-capacity and reliable physical facility, should be used to carry all other types
12 of traffic that the parties exchange.

13 **Q. WHAT IS SBC'S POSITION ON THIS ISSUE?**

14 A. SBC apparently takes the view that certain types of traffic they will exchange,
15 such as traffic to or from 3rd party IXCs, may not be transmitted via the fiber meet
16 point. This creates a concern from Charter's perspective because it is inefficient.
17 Given that the parties will have a high-capacity fiber interconnection, the logical
18 thing to do is to use that high-capacity connection for all types of traffic they will
19 exchange. Requiring Charter to either build or buy from SBC separate physical
20 connections for separate types of traffic is inefficient. It seems like an effort by
21 SBC to make our operations more costly for no good engineering reason that I can
22 see.

23 **Q. WHAT IS A TRUNK GROUP?**

⁶ The following paragraph(s) in the agreement are covered by this issue: Appendix NIM, §§ 3.4.2, 3.4.5, 3.4.10.

1 A. As noted above, a trunk group is defined by two switches and contains individual
2 trunk members, each of which can carry a phone conversation on the PSTN. You
3 can think of a trunk group as a highway between two cities and the individual
4 trunks as lanes on the highway. The larger the highway, the more lanes it has and
5 the more traffic it can carry. Trunk groups usually come in multiples of DS1
6 transport, which carries 24 separate trunks or channels. A trunk group between
7 two large switches can carry hundreds of simultaneous phone conversations.

8 **Q. WHAT IS CHARTER ASKING THIS COMMISSION TO DECIDE ON**
9 **THIS ISSUE?**

10 A. Charter is asking this Commission to rule that SBC must allow Charter to use
11 single interconnection trunk groups between the carriers instead of multiple trunk
12 groups, using PLU for carrier billing purposes. This will preserve network
13 efficiency, call blocking standards and will minimize the trunking and switching
14 equipment needed for interconnection. The language that Charter is proposing for
15 this issue is fair and balanced and will allow the efficient use of trunks by both
16 companies.

17 **IV.D. APPENDIX NIM ISSUE (3): RESPONSIBILITY FOR MISCELLANEOUS**
18 **TRUNK GROUPS**

19 ➤ Should Charter be responsible for the facilities that carry OS/DA, E911, Mass
20 Calling and Meet Point Trunk groups?⁷

21
22 **Q. WHAT IS CHARTER'S POSITION ON THIS ISSUE?**

23 A. Charter agrees that certain types of traffic (such as OS/DS, 911, mass calling and
24 Meet-Point trunk groups which permit two carriers jointly providing access to
25 separately charge the affected IXC for the use of whatever facilities the individual

1 carrier provides) should be exchanged between the parties on separate trunk
2 groups within the fiber transmission facilities linking the parties' networks. But
3 Charter does not believe that these separate types of trunk groups should be on
4 physically different facilities, or that Charter should be financially responsible for
5 this type of traffic on SBC's side of the POI. To the contrary, the parties should
6 provision these kinds of trunk groups using the same efficient, high-capacity fiber
7 optic facilities that carry the other types of traffic that will flow between the two
8 networks.

9 But Charter's point here is that whatever the rule is regarding financial
10 responsibility for these types of facilities, that responsibility should be specifically
11 set forth in the Appendix ITR.

12 **Q. WHAT IS CHARTER ASKING THIS COMMISSION TO DECIDE ON**
13 **THIS ISSUE?**

14 A. Charter is asking the Commission to remove SBC's language stating that Charter
15 is responsible for arranging for these separate types of trunks. This language
16 implies that Charter has financial obligations with respect to these trunks that do
17 not exist with respect to other types of trunks used to carry other types of traffic. I
18 certainly do not understand why SBC should be able to require Charter to bear the
19 costs of these trunks.

20
21
22 **V. 911 INTERCONNECTION AND TRUNKING ISSUES**

⁷ The following paragraph(s) in the agreement are covered by this issue: Appendix NIM § 2.9.

1 In this section I address disputed contract terms governing the exchange of 911
2 traffic between the two parties. These disputed issues relate primarily to contract
3 provisions contained in the Appendix 911.

4 **V.A. APPENDIX ITR ISSUE (6): RESPONSIBILITY FOR 911 TRUNKS**

5 ➤ Should Charter be required to trunk to every 911 Tandem in each local
6 exchange area in which it offers service?⁸

7
8 **Q. WHAT IS CHARTER'S POSITION ON THIS ISSUE?**

9 A. Charter and SBC do not disagree that Charter will need to provide its end users
10 with E911 service. In addition, the parties agree that to do this trunk groups must
11 be established to each PSAP that provides service to the areas where Charter
12 provides service. That said, SBC's language seems technically wrong.

13 **Q. PLEASE EXPLAIN.**

14 A. Charter would like to combine as much traffic on any particular trunk group as is
15 technically feasible in light of the obligation to provide reliable E911 service. To
16 the extent that SBC is referring to situations in which an NPA overlay has resulted
17 in customers in the same area being served by numbers with different NPAs,
18 Charter will certainly establish trunking as needed to meet the limitations of the
19 E911 system with which it is connecting. If this correctly describes the concern
20 SBC is addressing, Charter's attorneys have suggested adding language which
21 would seem to resolve the dispute, and which (if SBC accepts) would also be
22 acceptable from Charter's perspective.

23 **Q. WHAT IS CHARTER ASKING THIS COMMISSION TO DECIDE ON**
24 **THIS ISSUE?**

⁸ The following paragraph(s) in the agreement are covered by this issue: Appendix NIM § 2.9.

1 **A.** The Commission should direct the parties to include Charter's proposed language
2 on this topic in the Parties' final interconnection agreement.

3
4 **V.B. APPENDIX 911 ISSUE (1): LIMITATIONS ON CHARTER'S ACCESS TO**
5 **SBC'S SELECTIVE ROUTER AND DMBS**

6 ➤ Should Charter's access to the E911 selective router and DMBS be limited to
7 those areas in which Charter is authorized to provide telephone service?⁹

8
9 **Q. WHAT IS CHARTER'S POSITION ON THIS ISSUE?**

10 **A.** Charter does not expect there to be any situation in which it is providing
11 telephone service but is not authorized to do so. That said, as technology and the
12 law evolve (quickly it seems) it is not impossible to imagine that there may some
13 circumstances in which there might be a dispute about the scope of Charter's
14 authorization. If that situation arose, it would be problematic if SBC's proposed
15 provision somehow eliminated Charter's access to these important E911 resources
16 in a manner that impaired the safety of Missouri subscribers. If Charter is
17 providing service to Missouri subscribers, then it expects to be able to provide
18 them with access to E911 capabilities in all foreseeable circumstances.

19 **Q. IS IT POSSIBLE THAT SBC'S PROPOSAL COULD LEAD TO**
20 **PROBLEMS IN THE FUTURE?**

21 **A.** Yes. Suppose that there were some dispute between SBC and Charter regarding
22 the scope of authorization Charter holds in Missouri. Under certain
23 circumstances, under SBC's proposal it could block or impair Charter's access to
24 the selective router and DMBS such that Charter's ability to provide effective 911

⁹ The following paragraph(s) in the agreement are covered by this portion of my testimony:
Appendix 911, § 3.1.

1 service could be affected. If that happened, then it would not be Charter who is
2 put at risk, but ultimately it would be Missouri residents that would be exposed to
3 potential problems (no access to 911 service) that could have catastrophic results.
4 Given that it is essential that Missouri subscribers continue to have complete
5 access to E911 features and functionalities it is hard to conceive of why SBC
6 would want to impair or eliminate Charter's ability to provide such access. This
7 is especially true given that if there were a dispute about the scope of Charter's
8 authorizations, there are specific provisions in the agreement that allow the parties
9 to resolve those disputes.

10 **Q. WHAT IS CHARTER ASKING THIS COMMISSION TO DECIDE ON**
11 **THIS ISSUE?**

12 A. Charter asks the Commission to approve its proposed contract language on this
13 issue and affirmatively rule that Charter's access to these important public safety
14 resources should not be impaired for any reason.

15 **V.C. APPENDIX 911 ISSUE (2)(A): DISTINCTIONS BETWEEN 911 TRUNKS**
16 **AND FACILITIES**

17 ➤ Should Charter use the terms facilities and trunking as if they were
18 synonymous?¹⁰
19

20 **Q. WHAT IS CHARTER'S POSITION ON THIS ISSUE?**

21 A. This seems to be one of those disputes about contract drafting that is better left for
22 the attorneys to argue in the briefs. For that reason I will offer only a brief
23 comment at this time.

¹⁰ The following paragraph(s) in the agreement are covered by this portion of my testimony:
Appendix 911, § 4.1.1.

1 As I understand the situation, Charter has proposed alternative language that
2 establishes that Charter will either use its own facilities and/or trunking, or SBC's
3 facilities and/or trunking to transport 911 calls from each POI to the SBC
4 selective routing office of the 911 system. I am not a lawyer, but it seems that
5 Charter's proposal makes clear that it does not intend to use the terms as though
6 they were synonymous. Clearly, Charter contemplates the use of one or both of
7 those facilities and arrangements to transport 911 traffic. I do not understand why
8 SBC objects to this approach.

9 **Q. WHAT IS CHARTER ASKING THIS COMMISSION TO DECIDE ON**
10 **THIS ISSUE?**

11 A. Charter asks the Commission to adopt its contract language, which makes clear
12 that the parties do not intend to use the terms "facilities" and: trunking" as if they
13 were synonymous.

14 **V.D. APPENDIX 911 ISSUE (2)(B): CHARTER RESPONSIBILITY FOR**
15 **PROVIDING 911 TRUNKS FROM THE POI TO SBC's SELECTIVE**
16 **ROUTER**

17 ➤ Is Charter responsible for providing adequate 911 trunking from its POI to the
18 SBC E911 Selective Router?¹¹

19
20 **Q. WHAT IS CHARTER'S POSITION ON THIS ISSUE?**

21 A. Yes, as described above Charter accepts its responsibility for providing 911
22 trunking. That seems to be clear from the language that Charter proposed. Of
23 course, in so doing Charter might lease facilities or obtain trunking from SBC, or
24 a third party, and the terms and conditions for such trunking will be established
25 pursuant to the Appendix ITR.

1 **Q. WHAT IS SBC'S POSITION ON THIS ISSUE?**

2 A. SBC has indicated that it will not provide the trunks on behalf of the CLEC
3 from the POI to SBC's E911 Selective Router. However, SBC does indicate
4 that it provides the facilities if the facilities are ordered out of the *access tariff*,
5 not pursuant to the interconnection agreement. Thus, SBC takes the position
6 that it has no obligation to provide trunks to Charter from the POI to the
7 selective router under the interconnection agreement (and by extension under
8 Section 251 of the Act). Instead, it believes that it can force Charter, and other
9 CLECs, to very high "special access" rates for such facilities even though the
10 parties already have entered into an interconnection agreement for the
11 exchange of telecommunications traffic between their respective networks. It
12 is not clear why SBC refuses to provide access to such facilities pursuant to the
13 terms of the interconnection agreement.

14 **Q. WHAT IS CHARTER ASKING THIS COMMISSION TO DECIDE ON**
15 **THIS ISSUE?**

16 A. Charter asks the Commission to adopt its contract language, and also rule that
17 SBC is obligated to provide necessary trunks and facilities to Charter under the
18 terms of the interconnection agreement (Appendix ITR specifically) rather than
19 the terms of SBC's access tariff.

20 **VI. MISCELLANEOUS INTERCONNECTION ISSUES**

21 In this section I address certain miscellaneous disputed contract terms between the
22 parties within my area of expertise.

¹¹ The following paragraph(s) in the agreement are covered by this portion of my testimony:

1 **VI.A. APPENDIX ITR ISSUE (2)(B): USE OF ASRs DOES NOT CREATE**
2 **PAYMENT OBLIGATIONS UNDER THE AGREEMENT**

3 > Should the Agreement clearly establish that either party's use of the Access
4 Service Request ("ASR") form does not, in and of itself, constitute an "order" or
5 request for services or facilities?¹²
6

7 **Q. WHAT IS CHARTER'S POSITION ON THIS ISSUE?**

8 A. SBC requires Charter (and, I believe, all CLECs) to utilize a form known as an
9 Access Service Requests ("ASR") when Charter needs to inform SBC of the need
10 to establish a physical facility necessary to interconnect the Parties' networks, or
11 perform some other function to facilitate the interconnection and exchange of
12 traffic between Charter and SBC. Charter does not object to the use of such
13 forms, but simply wants to add language to the agreement indicating that the use
14 of an ASR does not in and of itself mean that Charter is "ordering" a facility or
15 service from SBC. Because ASRs are routinely used to convey information, or
16 request action, from one party to another they do not always represent a formal
17 request for services. As such, the agreement should include language that makes
18 clear that it is the express terms of the agreement, and not the submission of an
19 ASR, that establish liability or payment obligations.

20 **Q. WHAT IS SBC'S POSITION ON THIS ISSUE?**

21 A. SBC objects to Charter's proposal on the grounds that this is a compensation issue
22 and not appropriate for a trunking appendix. SBC asserts that Charter's proposed
23 inclusion of clarifying language is an attempt to "confuse the issue of intercarrier
24 compensation with charges incurred for establishing interconnection."

Appendix 911, § 4.1.1.

¹² The following paragraph(s) in the agreement are covered by this issue: Appendix ITR, §§ 3.1, 8.1.

1 **Q. IS CHARTER TRYING TO CONFUSE OR CLARIFY THE PARTIES’**
2 **RESPECTIVE OBLIGATIONS UNDER THE AGREEMENT?**

3 A. Not at all. In fact, Charter is trying to clear something up here. As discussed in
4 previous sections of my testimony, one of Charter’s goals is to establish an
5 agreement that *clearly* reflects when and where the parties have obligations to pay
6 each other for facilities or traffic transport. Unfortunately, since the inception of
7 the 1996 Act there have been disputes when an agreement might not always
8 clearly identify such obligations. That is why Charter wants to include specific
9 language in the agreement that clearly establishes that the terms of the contract
10 itself establish liability, not the issuance of an ASR form that may be construed as
11 an “order” for facilities or services.

12 **Q. WHY IS CHARTER’S PROPOSAL NECESSARY?**

13 A. This is necessary because some incumbent carriers have treated the submission of
14 an ASR by a CLEC an “order” for services or facilities. The incumbent carrier
15 then begins to charge the CLEC for such “order,” even though there may be
16 nothing in the agreement that establishes that the CLEC will be liable for such
17 services or facilities. In other words, the ASR is an appropriate mechanism to
18 facilitate communications between the two companies, but it should not be used
19 by SBC to try to charge or bill Charter for facilities or services related to the ASR.

20 **Q. WHAT IS CHARTER ASKING THE COMMISSION TO DECIDE ON**
21 **THIS ISSUE?**

22 A. Charter requests that the Commission adopt Charter’s proposed language on this
23 issue and formally rule that: (1) the use of an ASR form does not constitute an

1 “order” for facilities or services such that liability for payments is required; and,
2 (2) any liability for payment for such facilities or services would be limited to that
3 which is clearly set forth in the agreement (and nothing else).

4
5 **VI.B. APPENDIX ITR ISSUE (5)(A): USE OF ASRs FOR MEET POINT TRUNK**
6 **GROUPS**

7 ➤ Should CLEC be responsible to issue ASRs for Meet Point Trunk Groups?¹³
8

9 **Q. WHAT IS CHARTER’S POSITION ON THIS ISSUE?**

10 A. I understand that this issue may be resolved, assuming that SBC accepts Charter’s
11 language with respect to ITR Issue 2(b), above. Therefore, I will not offer
12 testimony at this time.
13

14 **VI.C. APPENDIX ITR ISSUE (7): SBC’S OBLIGATION TO PROCESS AND**
15 **RESPOND TO ASRs FROM CHARTER**

16 ➤ When a Joint Planning Discussion is necessary, should SBC be required to
17 process ASRs prior to such discussion?¹⁴
18

19 **Q. WHAT IS CHARTER’S POSITION ON THIS ISSUE?**

20 A. Charter expects most trunk service requests to be handled as routine matters.
21 Charter, however, does not believe that SBC should have the authority to
22 unilaterally determine whether Charter’s orders are “reasonable” and hold up
23 processing those orders on that basis. This is particularly the case because
24 “major projects” are already subject to a special procedure. If SBC believes a
25 Joint Network Planning meeting is necessary, based upon the nature of Charter’s
26 ASR requests, then Charter would agree to participate in such meetings. But that

¹³ The following paragraph(s) in the agreement are covered by this issue: Appendix ITR §§ 5.4.1, 5.4.2, 5.4.3, 5.4.8.

¹⁴ The following paragraph(s) in the agreement are covered by this issue: Appendix ITR § 8.8.1.

1 should not be use by SBC as a means to delay, or stop, its otherwise affirmative
2 obligations to respond to Charter's ASRs on a timely basis.

3 It is conceivable that a clerical-type error could result in an erroneously large
4 order (hypothetically, ordering 1,000 DS0 trunks between two switches when in
5 fact the need is for 100). Charter's proposed language provides for catching
6 these kind of errors, and requires only that any applicable "review or inquiry" not
7 "result in a commercially unreasonable delay."

8 **Q. WHAT IS SBC'S POSITION ON THIS ISSUE?**

9 A. SBC's characterization of this issue does not accurately reflect what SBC is
10 proposing. SBC's proposal, clearly laid out in Section 8.8.1 of Appendix ITR, is
11 that SBC will be able to *unilaterally* place a Charter ASR request in "hold status"
12 if "the nature and necessity of an order requires determination."

13 As I understand SBC's proposal, they want the ability to unilaterally place a hold
14 on any ASR requests that Charter sends to SBC if SBC's engineering personnel
15 believe it is not "reasonable." This means that SBC can essentially decide to stop
16 any action on a Charter ASR request at SBC's own discretion. That is not a
17 reasonable proposal, and could result in serious problems for Charter if invoked.
18 Therefore, SBC should be required to continue accepting and processing
19 Charter's ASR requests.

1 **Q. WHAT IS CHARTER ASKING THE COMMISSION TO DECIDE ON**
2 **THIS ISSUE?**

3 A. Charter asks the Commission to adopt its proposed contract language and rule that
4 SBC is not allowed to unilaterally determine whether Charter's orders are
5 "reasonable" and hold up processing those orders on that basis.

6
7 **VI.D. APPENDIX ITR ISSUE (5)(B): SS7 SIGNALING OBLIGATIONS**
8 ➤ Should both Parties be obligated to provide SS7 signaling information?¹⁵
9

10 **Q. WHAT IS CHARTER'S POSITION ON THIS ISSUE?**

11 A. Charter calls on both Charter and SBC to exchange traffic using SS7 signaling.
12 Charter believes that the obligation to provide such signaling should be mutual.
13 Accordingly, both parties should be required to send along SS7 signaling with all
14 calls (where appropriate) exchanged between the Parties. It is not clear why SBC
15 believes Charter should send such information to SBC, but on the other hand,
16 SBC should not be obliged to send that information to Charter.

17 **Q. WHAT IS SBC'S POSITION ON THIS ISSUE?**

18 A. SBC's position is that SS7 signaling information is only used for the origination
19 of IXC carried calls routed to a Local/Access or Access Tandem Switch over the
20 Meet Point Trunk Group. SBC asserts that it should not have an obligation to
21 send this same information to Charter Fiberlink because SBC will not be
22 originating IXC carried calls over this Meet Point Trunk Group. SBC will only
23 be sending terminating IXC carried calls to Charter on the Meet Point Trunk
24 Group only.

1 **Q. WHAT IS CHARTER ASKING THE COMMISSION TO DECIDE ON**
2 **THIS ISSUE?**

3 A. Charter requests that the Commission adopt its proposed contract language and
4 rule that both parties are obligated to provide SS7 signaling information, where
5 appropriate.

6
7 **VLE. APPENDIX NIM ISSUE (5)(B): OBLIGATIONS CONCERNING THE**
8 **PROVISION OF INFORMATION TO THE OTHER PARTY**

9 ➤ Should CLEC provide information needed to establish interconnection for the
10 mutual exchange of traffic?¹⁶

11
12 **Q. WHAT IS CHARTER'S POSITION ON THIS ISSUE?**

13 A. Charter agrees that it should provide information to SBC in order to facilitate the
14 mutual exchange of traffic. However, Charter is concerned with two possible
15 situations that might arise under this provision. First, in providing data to SBC
16 concerning the exchange of traffic Charter should not be responsible for providing
17 any information about SBC's network. The reason is obvious: SBC is in the
18 better position to maintain and retrieve that information, and there is no reason to
19 create liability for Charter in such circumstance. Second, Charter views its own
20 network architecture and facilities to be competitively sensitive information. As
21 such, Charter is willing to agree to provide information that is necessary to
22 establish interconnection between the two parties, but its obligations should not
23 go beyond that point.

¹⁵ The following paragraph(s) in the agreement are covered by this issue: Appendix ITR §§ 5.4.1, 5.4.2, 5.4.3, 5.4.8.

¹⁶ The following paragraph(s) in the agreement are covered by this issue: Appendix NIM § 5.1.

1 **Q. WHAT IS SBC'S POSITION ON THIS ISSUE?**

2 A. SBC's position is that Charter should be required to provide all information about
3 Charter's network to SBC that is "reasonably required" to establish
4 Interconnection.

5 As to SBC's comments on the specific language that Charter proposed, SBC says
6 the following: "Given the parties' agreement upon Charter's obligation to provide
7 information necessary to facilitate interconnection, the last sentence is
8 problematic. The intent of this sentence is unclear and, given the agreed-upon
9 language occurring immediately above it, appears as unnecessary. Charter has
10 not revealed any reason as to why such a sentence is necessary--or in what
11 circumstances (if any) it may apply. The proposed sentence should be stricken as
12 ambiguous, unnecessary and inconsistent with the general purpose of Section
13 4.1."

14 It is not clear to me, based on this statement, precisely why SBC objects to
15 Charter's proposal. Moreover, SBC has given no indication exactly how its
16 proposal is "ambiguous, unnecessary and inconsistent."

17
18 **Q. IS SBC CORRECT THAT CHARTER HAS NOT REVEALED WHY THE**
19 **SENTENCE IS NECESSARY?**

20 A. No. As I explained above, the reason that Charter proposed additional language is
21 twofold: first, to make clear that Charter views its own network information as
22 proprietary and confidential, and second to establish that Charter should not be
23 required to provide information about *SBC's* network.

24 **Q. WHAT IS CHARTER ASKING THE COMMISSION TO DECIDE ON**

1 **THIS ISSUE?**

2 A. Charter is asking the Commission to adopt Charter's proposed contract language
3 and rule that Charter is not responsible for providing information about SBC's
4 network, nor should Charter be required to provide information about its own
5 network that is not required for purposes of interconnecting the parties' two
6 networks.

7
8 **VI.F. APPENDIX NIM ISSUE (6): INCLUSION OF LEASED FACILITIES**
9 **TERMS IN THE AGREEMENT**

10 ➤ Should a non-section 251/252 service such as Leased Facilities be arbitrated in
11 this section 251/252 proceeding?¹⁷

12
13 **Q. WHAT IS CHARTER'S POSITION ON THIS ISSUE?**

14 A. The agreement should specifically include language that permits the use of SBC
15 tariffed facilities (most likely special access circuits) to connect from Charter's
16 location to SBC's location if Charter chooses to use such facilities. This language
17 does not include an affirmative obligation that SBC be *required* to offer such
18 facilities under tariff; it merely clarifies that *if* SBC does so, then it is okay for
19 Charter to buy them and use them for interconnection.

20 Charter's proposal also makes clear that *if* the parties can agree on terms under
21 which SBC will provide non-tariffed "leased" facilities to Charter, then such
22 facilities can be used for purposes of Interconnection. It is not Charter's intent to
23 impose on SBC an obligation to reach agreement with respect to such facilities or
24 to impose any particular pricing regime with respect to them.

¹⁷ The following paragraph(s) in the agreement are covered by this issue: Appendix NIM §§ 3, 33.1, 5, 5.1, 5.2, 5.3.

1 In both cases, Charter's proposal simply clarifies that in either situation — a
2 tariffed SBC offering or an independent agreement for SBC to provide non-
3 tariffed facilities — it shall be acceptable to use such facilities for purposes of
4 interconnection.

5 **Q. WHAT IS SBC'S POSITION ON THIS ISSUE?**

6 A. SBC asserts that this issue is not "arbitrable" (i.e. subject to arbitration) because
7 neither Section 251, nor any other provision of the Act requires SBC to provide
8 interconnection facilities on the CLEC's side of the POI. Further, SBC asserts
9 that interconnection is defined as the linking of two networks and that nothing in
10 the Act or FCC Orders speaks to facilities from CLEC's switch or Point of
11 Presence to the POI.

12 **Q. IS SBC CORRECT, THAT THIS ISSUE IS NOT ARBITRABLE, OR**
13 **SUBJECT TO ARBITRATION?**

14 A. That is a legal question, which the attorneys will address at briefing. However, it
15 seems to me that Charter's proposed language is a proposed "term" or "condition"
16 of "interconnection" which would be subject to Section 251(c)(2).

17 **Q. DO YOU HAVE ANY OTHER COMMENTS ABOUT THIS ISSUE?**

18 A. Yes. Interconnection agreements can and should include language that references
19 facilities that are used to interconnect the parties' networks, even if those facilities
20 may not be specifically required under Sections 251/252 of the Act. In this
21 instance, SBC seems to object to inclusion of language that would allow Charter
22 to lease an entrance facility, or other similar facility, to carry traffic between the
23 parties' networks. I don't understand exactly why SBC objects to this point given

1 that it is a routine practice for interconnection agreements to incorporate special
2 access facilities that are priced pursuant to one party's state or federal tariff,
3 wholly separate from the facilities that are priced under the interconnection
4 agreement.

5 Moreover, Charter's proposal seems fair and reasonable: it allows the parties to
6 use tariffed facilities (probably special access circuits) to connect the two parties'
7 networks. It is instructive to note that Charter's proposal does not establish an
8 affirmative obligation to make such facilities available, but simply states that if
9 SBC does make them available Charter may lease such facilities. Given that this
10 is a common practice, I don't understand SBC's objections on this point.

11 **Q. WHAT IS CHARTER ASKING THE COMMISSION TO DECIDE ON**
12 **THIS ISSUE?**

13 A. Charter asks the Commission to adopt Charter's proposed language on this issue
14 and rule that it is appropriate for the parties to include provisions in the agreement
15 that set forth the terms and conditions by which Charter will lease facilities from
16 SBC.

17 **VII. CONCLUSIONS.**

18 **Q. HAVE YOU REVIEWED THE CONTRACT LANGUAGE PROPOSED BY**
19 **CHARTER AND SBC IN THIS CASE?**

20 A. Yes, I have.

1 **Q. FOR THE ISSUES YOU HAVE ADDRESSED, WHICH LANGUAGE IS**
2 **MORE CONSISTENT WITH THE POINTS YOU HAVE MADE IN THIS**
3 **TESTIMONY?**

4 A. Charter's language is reasonable and balanced from a technical and engineering
5 standpoint and is consistent with the FCC's orders from an engineering point of
6 view.

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

8 A. Yes.